

Avery Healthcare Group (Avery)

**The Former Ascot Arms,
Central Avenue, Gravesend,
DA12 5AW**

Transport Statement

January 2021
(Revised June 2022)



**BANCROFT
CONSULTING**

bancroftconsulting.co.uk

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1.0 INTRODUCTION AND BACKGROUND INFORMATION

- 1.1 Bancroft Consulting were appointed by Avery Healthcare Group (Avery) to provide highways and transportation advice in respect of proposals on the site of the former Ascot Arms, Central Avenue, Gravesend, for demolition of the existing structures and redevelopment to provide a new 62-bedroom care home (use class C2) together with associated access, car and cycle parking, structural landscaping and amenity space provision. **Appendix A** contains the latest site masterplan, whilst **Figures 1** and **2** show the site location in context with the local surroundings.
- 1.2 The objective of this Transport Statement is to demonstrate whether the proposed development could be served by a suitable access layout and that the change in traffic conditions would not generate a severe residual cumulative impact on the surrounding highway network. This report has been prepared to support a planning application to Gravesham Borough Council.
- 1.3 This Highway Impact Statement takes into account current Government policy contained within the National Planning Policy Framework [NPPF] (MHCLG, Revised July 2021). In respect of highways and transportation issues, Paragraph 110 of the NPPF sets out the following requirements:

“In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- b) safe and suitable access to the site can be achieved for all users;*
- c) the design of streets, parking areas, other transport elements and the content of associated standards reflect current national guidance, including the National Design Guide and the National Model Design; and*
- d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.”*

1.4 In terms of highway impact, Paragraph 111 of the NPPF states:

“Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.”

1.5 As well as the NPPF, due regard is given to current best practice and highway design guidance contained in the document ‘Manual for Streets’ [MfS] (DfT, 2007) and its companion document ‘Manual for Streets 2 – Wider Application of the Principles’ [MfS2] (CIHT, September 2010). Furthermore, it gives consideration to the Kent Design Guide (the Kent Design Initiative), which has been adopted by Kent County Council, as the Highway Authority.

1.6 To inform this assessment, a site visit and speed survey were undertaken on 19 January 2021, when the weather conditions were fine and dry. During the visit, observations were made of the local highway network and opportunities to travel using non-car modes.

2.0 EXISTING CONDITIONS

2.1 Site Details

2.1.1 **Figure 2** shows that the site comprises a parcel of land with an area of approximately 0.38 hectares to the south of Ascot Road in Gravesend, Kent. It is currently occupied by the former Ascot Arms Public House and associated parking. The site is bound by Ascot Road to the north, Central Avenue to the east, Aintree Close to the west and a recreational area to the south.

2.1.2 The land use in the vicinity of the site is mainly residential.

2.1.3 There is currently a single point of access to the site from Ascot Road to the north. The access comprises a bellmouth junction with a carriageway width of approximately 8.5 metres and 4 metres kerb radii.

2.2 Highway Layout

2.2.1 Ascot Road is a single carriageway road that extends in an east to west direction past the northern boundary of the site, which is subject to a 30-mph speed limit. In the vicinity of the proposed site access, the carriageway has a width of approximately 7.5 metres and is bound by footways along both edges of the carriageway. There are no parking restrictions present on Ascot Road.

2.2.2 At its western end, Ascot Road forms a priority T junction with Singlewell Road, approximately 220 metres west of the existing site access. Singlewell Road is a single carriageway road which provides links to Gravesend town centre to the north and to the A2 to the south, which in turn provides transport links to the rest of Kent. Footways and street lighting are present on both sides of the carriageway.

2.2.3 At its eastern end, Ascot Road forms a priority T junction with Central Avenue, approximately 20 metres to the east of the existing site access. Central Avenue is a single carriageway local distributor road which has a carriageway width of approximately 7.1 metres. To the north, Central Avenue provides a link to Gravesend town centre. To the south, Central Avenue provides a link to the

southern outskirts of Gravesend. Traffic calming measures are in place within the carriageway in the vicinity of the junction with Ascot Road.

2.3 Highway Safety

2.3.1 Paragraph 15 of the PPG – ‘Overarching Principle on Travel Plans, Transport Assessments and Statements’ (MHCLG, 2014) document states as a starting point with regards to highway safety:

“An analysis of the injury accidents records on the public highway in the vicinity of the site access for the most recent 3-year period, or 5-year period if the proposed site has been identified as within a high accident area.”

2.3.2 An assessment of recent Personal Injury Accident records on Ascot Road and the surrounding highway network was carried out to determine whether there are any existing highway safety issues that could potentially be exacerbated by an increase in movements from a 62-bed residential care home.

2.3.3 To establish the extent of accidents that have occurred in the vicinity of the site, Kent County Council was contacted to obtain any available accident data. The area assessed is indicated in **Figure 3**. KCC has indicated that no accidents took place in the vicinity of the site within the last 5 years. Correspondence with KCC confirming this is included in **Appendix B**.

2.3.4 As a result of this, it has been concluded that there are no safety issues in the vicinity of the site and so no further investigation has been undertaken.

2.4 Sustainable Travel

Pedestrian Travel

2.4.1 **Figure 4** indicates the 2-kilometre pedestrian isodistance from the location of the site, this being the threshold distance for pedestrians commuting, as set out in the IHT document ‘Guidelines for Providing for Journeys on Foot’. The surrounding areas including Gravesend, Shears Green, Windmill Hill, Westcourt, Parrock

Farm, Christian Fields and Whitehill are within a reasonable walking distance of the site. Ascot Road provides footways along both sides of the carriageway. This infrastructure connects to footways along the western edge of Central Avenue both to the north and south, and the eastern edge of Singlewell Road to the north and south. Both Central Avenue and Singlewell Road connect the site to the above settlements.

Cycle Travel

2.4.2 **Figure 5** shows that the site is within 5 kilometres of destinations such as Gravesend town centre, Milton, Denton, Windmill Hill, Perry Street, Northfleet, Ebbsfleet, Chalk, Shears Green, Westcourt, Parrock Farm, Christian Fields, Riverview Park, Singlewell and Instead Rise, which would be a reasonable cycling distance for residents, visitors and members of staff. The majority of streets in Gravesend provide frequent street lighting and adequate carriageway widths to accommodate cyclists.

2.4.3 There are no designated cycle routes along Ascot Road, Central Avenue or Singlewell Road in the vicinity of the site and cyclists are accommodated within the carriageway. National Cycle Network (NCN) Route Number 1 runs in an east-west direction along the Thames and Medway Canal and the River Thames passing the site at a point approximately 2 kilometres north of the site. In addition, NCN Route Number 177 runs in an east-west direction along Hever Court Road and Roman Road, passing the site at a point approximately 1.6 kilometres south of the site location. These, and other local cycle routes in the area, are illustrated in **Figure 6**.

Bus Travel

2.4.4 Page 117 of Kent Design 'Creating the Design' states that:

"- bus stops should be within a convenient walking distance."

2.4.5 **Figure 7** illustrates the bus stops that are located within 400 metres and 800 metres walk from the development site. 3 stops are located within 400 metres of

the site, while a total of 29 stops are located within 800 metres of the site. The closest stops are served by Route Numbers 111, 483 and G1.

2.4.6 Route Numbers 111 and G1 are school bus services which run with a frequency of 1 service per day in each direction. Route Number 483 is operated by Arriva Kent Thameside and runs at a frequency of 2 buses per hour in each direction from Monday to Sunday between Bluewater, Northfleet and Gravesend.

2.4.7 The frequencies of these and other bus routes are set out in **Table 1**.

Rail Travel

2.4.8 The nearest railway station to the site is Gravesend Railway Station, located approximately 1.7 kilometres north of the site off Rathmore Road. This station is served by Govia Thameslink Railway and South East Trains.

2.4.9 This station accommodates services to London, Maidstone, Faversham, Ramsgate, Ashford, Folkestone, Dover, Deal, Canterbury, Margate, Chatham, Gillingham, Higham and Strood. A total of 22 services per hour in each direction operate from the station.

3.0 DEVELOPMENT PROPOSALS

- 3.1 **Appendix A** contains a copy of the latest site masterplan. The proposed development comprises the demolition of the former Ascot Arms Public House and the erection of a 62-bed care home. The care home would have an overall gross internal floor area of 3404 sqm over 3 floors.
- 3.2 The site would have a reconfigured vehicular access point located at the position of the existing access from Ascot Road to the north of the site. This access would serve a car park of 20 spaces, 2 of which would be designated disabled spaces. The access would serve all activity associated with the proposed development including cars, delivery vehicles and ambulances.
- 3.3 Refuse collections would be made from a refuse collection area accessed from Aintree Close, a residential cul de sac which runs south from Ascot Road, passing the western edge of the site.
- 3.4 Further details regarding access, servicing and refuse collection are included in Section 4.

4.0 TRANSPORT CONSIDERATIONS

4.1 Change in Traffic Conditions

4.1.1 The proposed development comprises the demolition of the former Ascot Arms Public House and the erection of a 62-bed care home. As such, the traffic generation from the public house can be deducted from the traffic generation from the proposed care home to determine the net change in conditions, which this report will establish.

Former public house

4.1.2 The TRICS database was interrogated to determine suitable trip rates for the former public house. The category 'Hotel, Food & Drink – Pub/Restaurant' was searched, with any sites located in the Greater London, Ireland or Scotland regions and Town Centre and Edge of Town Centre locations being removed. The search included any sites with a gross floor area between 250 and 1000sqm that were surveyed on a weekday. The results generated a total of 11 surveys from 11 sites and after a thorough analysis, a public house in Gateshead, Tyne & Wear (TRICS ref: TW-06-C-01) was chosen as a suitable comparator. **Appendix C** includes the TRICS output data.

4.1.3 The site was considered representative, as the Ascot Arms was a similar type of public house to the comparator site. The following trip rates (per 100sqm) were therefore considered applicable to the former public house (it should be noted that the TRICS site opened at 1000 hours and hence no morning peak hour trip rates were obtained):

- | | | |
|-------------------------------------|---------------|---------------|
| • evening peak (1700 to 1800 hours) | 3.250 arrive | 3.250 depart |
| • daily (1000 to 2400 hours) | 28.750 arrive | 27.500 depart |

4.1.4 The former public house has a total gross floor area of 1044sqm, comprising 522sqm on the ground floor and first floor. However, the public house operations only took place on the ground floor and therefore, based on the above trip rates, the former public house, with a gross floor area of 522sqm, would generate the following peak hour and daily movements:

- evening peak 17 arrive 17 depart 34 total
- daily 150 arrive 144 depart 294 total

Table 2 contains the full daily traffic generation calculations.

Proposed Care Home

4.1.5 The TRICS database was examined to determine suitable trip rates for the proposed care home. The category 'Health – Care Home (Elderly Residential)' was searched, removing any sites located in the Greater London, Ireland or Scotland regions and also any sites within Town Centre and Edge of Town Centre locations. The search included any sites with between 30 and 180 bedrooms that were surveyed on a weekday. The results generated a total of 11 surveys from 11 sites and after a thorough analysis, a care home in Leamington Spa (TRICS ref: WK-05-F-01) was chosen as a suitable comparator. **Appendix D** includes the TRICS output data.

4.1.6 The site was considered representative as it is located within a suburban area close to a town. It was also the highest-ranking site during the morning and evening peak hours and second when ranked across the day, which shows robustness in the trip rates. The following trip rates (per bedroom) were therefore considered applicable to the proposed care home:

- morning peak (0800 to 0900 hours) 0.094 arrive 0.219 depart
- evening peak (1700 to 1800 hours) 0.125 arrive 0.188 depart
- daily (0700 to 2400 hours) 1.719 arrive 1.908 depart

4.1.7 Based on the above trip rates, the proposed 62-bed care home would generate the following peak hour and daily movements:

- morning peak 6 arrive 14 depart 20 total
- evening peak 8 arrive 12 depart 20 total
- daily 107 arrive 118 depart 225 total

Table 3 contains the full daily traffic generation calculations.

Net Change

4.1.8 Based on the above calculations, the net change in traffic conditions at the site would be as follows:

- | | | | |
|----------------|------------|------------|-----------|
| • morning peak | +6 arrive | +14 depart | +20 total |
| • evening peak | -9 arrive | -5 depart | -14 total |
| • daily | -43 arrive | -26 depart | -69 total |

Table 4 contains the net change in daily traffic generation.

4.1.9 The above calculations confirm that there would be a significant reduction in traffic from the former public house to the proposed care home during the evening peak hour (-14 movements) and across the day (-69 movements). In the morning peak hour, there would be a slight increase of 20 two-way movements, which was due to the fact that the Ascot Arms would not have been open during this time and hence no traffic has been offset.

4.1.10 The Ascot Arms Public House did not serve breakfast. The TRICS database does not contain any pub/restaurants with surveys that include the 0800 to 0900 time period and therefore this cannot be considered. However, if the former public house had opened for breakfast, it is considered that the overall change in conditions during the morning peak hour would be negligible.

4.1.11 Overall, given that the proposed care home would result in a significant net reduction in trips across the day, it is considered that it would not have a “*severe residual cumulative impact*” and meets the requirements of Paragraph 111 of the NPPF.

4.2 Highway Safety

4.2.1 Section 2 of this report highlights that there have been no incidents at the site access point, or within the highway in the vicinity of the site within the last 5 years. Hence, there should be no existing highway safety issues at the site access that would be exacerbated by the proposed development.

4.3 Vehicular Site Access

- 4.3.1 The proposed development would be served by a newly configured access located at the position of the existing site access point at Ascot Drive, as illustrated on the Masterplan included in **Appendix A**. Section 2.3.1 of Kent Design ‘Creating the Design’ of the Warwickshire Guide to Road Design sets out the optimum carriageway widths for accesses serving different types and scales of development. The guidance does not contain specific standards for care home developments but does contain standards for residential and mixed-use developments. It recommends that a 5.5 metres wide carriageway is provided to serve a development of approximately 50 dwellings.
- 4.3.2 The proposed site access comprises a bellmouth junction with a 6 metres wide carriageway and 6 metres kerb radii. A care home development of 62-bedrooms would likely generate a lower volume of trips compared to a development of 50 privately-owned dwellings and hence the existing access should continue to be suitable. In addition, refuse collection would take place from Aintree Close and the largest vehicle the access would potentially serve would be a 7.5 tonnes box van or ambulance (further details on servicing are provided later in the report).
- 4.3.3 In addition, the existing access has historically served the public house, which generates a larger volume of trips compared to the proposed care home. On this basis, it is considered that the existing site access should continue to be “*safe and suitable*” in line with Paragraph 110 of the NPPF.
- 4.3.4 To determine the appropriate visibility splays for the access, a speed survey was carried out at the location of the site access. The results of this survey are included in **Appendix D** along with the calculations used to obtain the appropriate visibility splays as set out in Manual for Streets 2. These indicate that a visibility splay of 2.4 by 33 metres is appropriate for west of the access, while a visibility splay of 2.4 by 16 metres is appropriate for east of the access. These visibility splays are illustrated on **Drawing Number F20176/01 Revision B**.

4.4 Parking

- 4.4.1 Car parking standards for new developments within Kent can be found in the Kent and Medway Structure Plan Supplementary Guidance SPG 4 - Kent Vehicle Parking Standards. These standards indicate that for Nursing/Residential Care Homes, a minimum of 1 space should be provided for an ambulance. With regard to car parking, 1 space should be provided for each member of residential staff, with 1 space for 2 members of non-residential staff. For visitors, 1 space should be provided for every 6 beds/residents. At the present time, the staff numbers for the proposed care home are not definitively known, but it is estimated that the care home would employ between 30 and 40 full time and part-time members of staff. When considering visitor parking, for a 62 - bed care home (with 62 residents), 10 spaces should be provided, 1 of which should be allocated as a disabled parking space.
- 4.4.2 With regard to the ambulance, swept path analyses have been carried out using a standard ambulance (overall length 5.461 metres, overall width 2.02 metres), Although a parking bay has not been designated for use by ambulances only, these tracking exercises indicate that an ambulance can drive into the site, park safely and manoeuvre out again without impediment. This exercise would also apply to any service vehicles such as deliveries that would enter the site. The results of this exercise are outlined in **Drawing Number F20176/02 Revision B**.
- 4.4.3 Swept path analyses have also been carried out which indicate that 2 large cars, 1 entering and 1 leaving, can pass each other without impediment. These exercises are illustrated on **Drawing Number F20176/03 Revision B**.
- 4.4.4 Notwithstanding the above, the Kent and Medway Structure Plan is somewhat outdated. Paragraph 008 of the Planning Practice Guidance, which is the Government's overarching policy guidance states:
- "Maximum parking standards can lead to poor quality development and congested streets; local planning authorities should seek to ensure parking provision is appropriate to the needs of the development and not reduced below a level that could be considered reasonable."*

4.4.5 To calculate the suitable provision of parking that is based on likely parking demand, the TRICS data has been used. **Table 3** contains the proposed development daily traffic generation profile. Using the hourly arrival and departure profile a parking accumulation has also been calculated. On a proportional basis using the chosen TRICS site, the proposed development would have an initial occupancy of 17 vehicles at 0700 hours which is also the maximum demand for vehicles.

4.4.6 **Appendix A** contains the latest site masterplan, which shows how a total of 20 spaces would be provided across the site (with two disabled parking spaces, equating to 10% of the total provision). This level of provision is in excess of the expected demand and should therefore be suitable for accommodating the level of activity that could be generated by the proposed development and limit the risk of overspill occurring onto the surrounding roads. Each space would comprise dimensions of 2.5 x 5 metres, with the disabled parking space comprising dimensions of 3.6 x 6.2 metres, in accordance with KCC's requirements.

4.4.7 In terms of cycle parking, SPG 14 states that a minimum of "*1 space per 10 beds*" should be provided. Since 62 beds are proposed, this would result in 7 cycle parking spaces being required. **Appendix A** shows how a cycle storage area would be provided which would accommodate the required number of cycle stands.

4.5 Servicing

4.5.1 **Appendix A** shows how a bin storage area would be provided immediately to the east of Aintree Close, located immediately west of the site. This location would be within 10 metres of Aintree Close, which means that refuse collection could take place off-site and hence there would be no requirement for a refuse vehicle to enter the site.

4.5.2 It is likely that the proposed care home would be serviced by a private commercial refuse collection company and therefore the size of the vehicle is unknown at this stage. When considering the dimensions of such a vehicle, a Phoenix 2 Duo

vehicle with an overall length of 11.2 metres and an overall width of 2.53 metres has been used. **Drawing Number F20176/02 Revision B** shows how this vehicle type could satisfactorily reverse into Aintree Close, stop at the location of the refuse store, and drive back onto Ascot Road without impediment. This confirms that the layout of the existing network is suitable in accommodating a large refuse collection vehicle.

5.0 SUMMARY AND CONCLUSIONS

- 5.1 Bancroft Consulting were appointed by Avery Healthcare Group (Avery) to provide highways and transportation advice in respect of proposals on the site of the former Ascot Arms, Central Avenue, Gravesend, for demolition of the existing structures and redevelopment to provide a new 62-bedroom care home (use class C2) together with associated access, car and cycle parking, structural landscaping and amenity space provision. **Appendix A** contains the latest site masterplan, whilst **Figures 1** and **2** show the site location in context with the local surroundings.
- 5.2 The proposed development would result in a significant net reduction in traffic compared to the former public house. In addition, the proposed care home should generate similar vehicle types to the public house, in that the largest vehicle would be a 7.5 tonnes box van. Overall, it is considered that the proposed development would improve traffic conditions in the local area.
- 5.3 The proposed development would be served via the reconfigured existing access point on Ascot Road. The access comprises a 6 metres wide carriageway with 6 metres kerb radii, which is considered suitable. In addition, given the access satisfactorily serves the former public house and there would be a significant net reduction in trips, it is considered that it should continue to be suitable.
- 5.4 The proposed development would provide a total of 20 car parking spaces, including 2 designated disabled parking spaces. This is in excess of the expected demand and should ensure that the risk of overspill onto the local roads is reduced. In addition, the site would be serviced (refuse collection) from Aintree Close with a bin storage location provided adjacent to the access. **Drawing Number F20178/02 Revision B** shows how a large refuse collection vehicle could satisfactorily manoeuvre within the local roads.
- 5.5 In conclusion, having due regard to Paragraphs 110 and 111 of the NPPF, this Transport Statement demonstrates how the proposed development would generate a significant reduction in trips compared to the former public house and how safe and suitable access could continue to be achieved. It also shows how an ample provision of parking could be provided and how a suitable servicing

strategy could be achieved. It is therefore considered that the site is suitable for a care home development and should receive the support of the Highway Authority.

Gravesend Borough Council

Route No.	Operator	Details	Frequency				
			Weekdays			Saturday	Sunday
			AM peak period (0730-0930)	PM peak period (1600-1800)	off peak frequency		
111 (Schooldays only)	Merlin Coaches	Shorne - Higham - Gravesend - Northfleet St George's School	1 school service	0 services	0 services	No service	No service
		Northfleet St George's School - Gravesend - Higham - Shorne	0 services	0 services	1 school service	No service	No service
483	Arriva Kent Thameside	Bluewater Bus Station - Northfleet - Gravesend	4 services	4 services	Every 30 mins	Every 30 mins during day	Every 30 mins during day
		Gravesend - Northfleet - Bluewater Bus Station	4 services	4 services	Every 30 mins	Every 30 mins during day	Every 30 mins during day
G1 (Schooldays only)	Brian Jones Coaches	Singlewell - Gravesend - Meopham - Longfield Academy	1 school service	0 services	0 services	No service	No service
		Longfield Academy - Meopham - Gravesend - Singlewell	0 services	0 services	1 school service	No service	No service

TABLE 1: SUMMARY OF LOCAL BUS SERVICES (TAKEN FROM BUSTIMES.ORG)

Time Period	Trip Rates (per 100sqm GFA)		Traffic Generation (522sqm GFA)		
	Arrive	Depart	Arrive	Depart	Total
10:00-11:00	0.75	1.00	4	5	9
11:00-12:00	0.75	0.75	4	4	8
12:00-13:00	1.50	0.50	8	3	10
13:00-14:00	2.25	1.75	12	9	21
14:00-15:00	1.25	1.75	7	9	16
15:00-16:00	2.00	1.00	10	5	16
16:00-17:00	3.75	2.50	20	13	33
17:00-18:00	3.25	3.25	17	17	34
18:00-19:00	3.75	2.25	20	12	31
19:00-20:00	3.00	4.00	16	21	37
20:00-21:00	1.25	3.25	7	17	23
21:00-22:00	2.50	1.50	13	8	21
22:00-23:00	2.00	2.25	10	12	22
23:00-24:00	0.75	1.75	4	9	13
Daily:	28.75	27.50	150	144	294

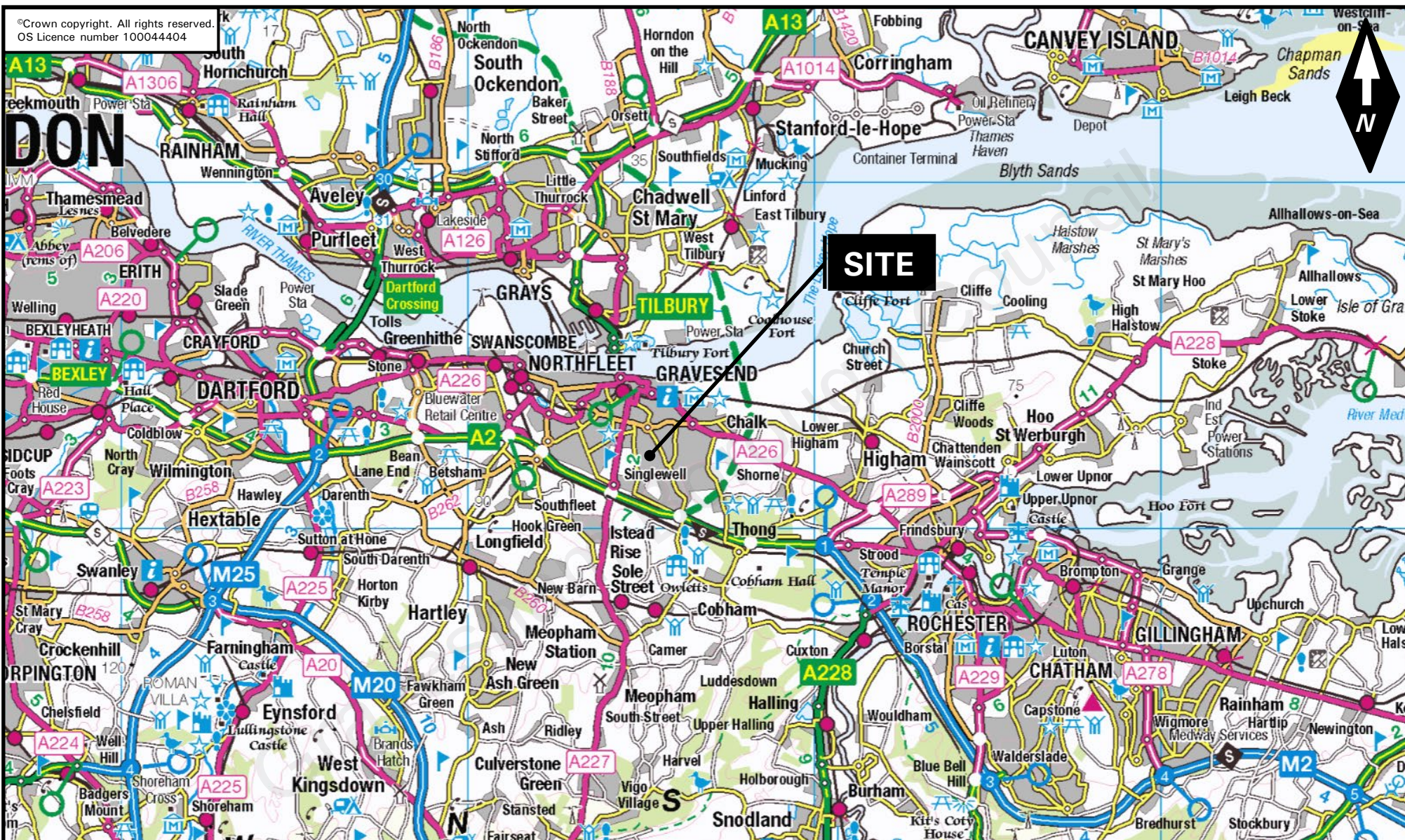
**TABLE 2: FORMER PUB/RESTAURANT DAILY TRAFFIC GENERATION PROFILE
(WEEKDAY)**

Time Period	Trip Rates (per bed)		Traffic Generation (62 beds)			Parking Accumulation
	Arrive	Depart	Arrive	Depart	Total	
07:00-08:00	0.063	0.156	4	10	14	12
08:00-09:00	0.094	0.219	6	14	20	4
09:00-10:00	0.156	0.000	10	0	10	13
10:00-11:00	0.125	0.313	8	19	27	2
11:00-12:00	0.125	0.156	8	10	18	0
12:00-13:00	0.125	0.125	8	8	16	0
13:00-14:00	0.281	0.094	17	6	23	11
14:00-15:00	0.156	0.156	10	10	20	11
15:00-16:00	0.125	0.094	8	6	14	13
16:00-17:00	0.125	0.094	8	6	14	14
17:00-18:00	0.125	0.188	8	12	20	10
18:00-19:00	0.156	0.219	10	14	24	6
19:00-20:00	0.063	0.094	4	6	10	4
20:00-21:00	0.000	0.000	0	0	0	4
Daily:	1.719	1.908	107	118	225	

**TABLE 3: PROPOSED RESIDENTIAL CARE HOME DAILY TRAFFIC GENERATION PROFILE
(WEEKDAY)**

Time Period	Traffic Generation (Former Public House)			Traffic Generation (Proposed Care Home)			Difference (Care Home - Public House)		
	Arrive	Depart	Total	Arrive	Depart	Total	Arrive	Depart	Total
07:00-08:00				4	10	14	4	10	14
08:00-09:00				6	14	20	6	14	20
09:00-10:00				10	0	10	10	0	10
10:00-11:00	4	5	9	8	19	27	4	14	18
11:00-12:00	4	4	8	8	10	18	4	6	10
12:00-13:00	8	3	10	8	8	16	0	5	6
13:00-14:00	12	9	21	17	6	23	5	-3	2
14:00-15:00	7	9	16	10	10	20	3	1	4
15:00-16:00	10	5	16	8	6	14	-2	1	-2
16:00-17:00	20	13	33	8	6	14	-12	-7	-19
17:00-18:00	17	17	34	8	12	20	-9	-5	-14
18:00-19:00	20	12	31	10	14	24	-10	2	-7
19:00-20:00	16	21	37	4	6	10	-12	-15	-27
20:00-21:00	7	17	23				-7	-17	-23
21:00-22:00	13	8	21				-13	-8	-21
22:00-23:00	10	12	22				-10	-12	-22
23:00-24:00	4	9	13				-4	-9	-13
Daily:	150	144	294	107	118	225	-43	-26	-69

**TABLE 4: NET CHANGE IN TRAFFIC GENERATION
(WEEKDAY)**



SCALE: **Do Not Scale**

DATE: **06.01.21**

DRAWN: **CAB**

CLIENT:
AVERY HEALTHCARE GROUP (AVERY)

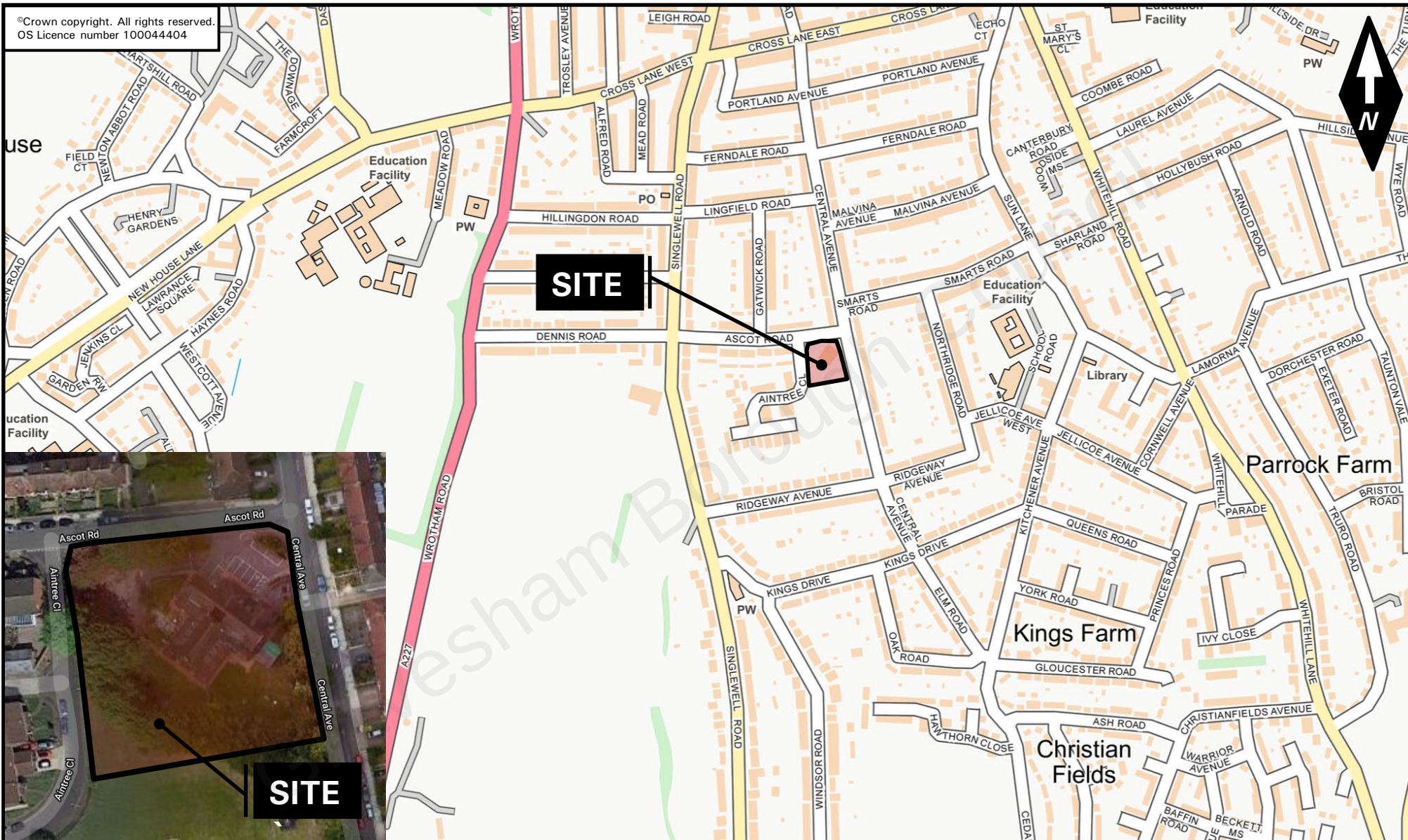
TITLE:
GENERAL SITE LOCATION PLAN

JOB TITLE:
**THE FORMER ASCOT ARMS, CENTRAL
AVENUE, GRAVESEND. DA12 5AW**

bc **BANCROFT
CONSULTING**

JOB NUMBER:
F20176

FIGURE:
1



SCALE: **Do Not Scale**

DATE: **06.01.21**

DRAWN: **CAB**

CLIENT:
AVERY HEALTHCARE GROUP (AVERY)

TITLE:
DETAILED SITE LOCATION PLAN

JOB TITLE:
THE FORMER ASCOT ARMS, CENTRAL AVENUE, GRAVESEND. DA12 5AW

bc **BANCROFT CONSULTING**

JOB NUMBER:
F20176

FIGURE:
2

PIA Data Request – Gravesend (DA12 5AW)



SCALE: **Do Not Scale**

DATE: **06.01.21**

DRAWN: **CAB**

CLIENT:
AVERY HEALTHCARE GROUP (AVERY)

TITLE:
PERSONAL INJURY ACCIDENT STUDY AREA

JOB TITLE:
THE FORMER ASCOT ARMS, CENTRAL AVENUE, GRAVESEND, DA12 5AW

bc **BANCROFT**
CONSULTING

JOB NUMBER:
F20176

FIGURE:
3

Mapping taken from iso4app.net

SITE

Gravesend

Northfleet

Shears Green

Westcourt

Whitehill

Parrock Farm

Christian Fields

Riverview Park

Singlewell

Thames

High Speed 1

A226

A227

A2

B261

B2175

London Road

North Kent Line

Wrotham Road

Walling Street

Station Road

Waterloo Connection

Deale Road

Hook Green Road

Hook Green

Redstreet

Northfleet Green

Hazells

Cyclopark

Tollgate

Hever Court Road

Valley Drive

Old Road East

Windmill Hill

Polham Road

Overcliffe

Crete Hall Road

Crete Hall

Northfleet

North Kent Line

Thames Way

Doyce Road

Vale Road

Hall Road

Pepper Hill

Springhead

Watling Street

Gravesend Road

Lower Higham Road

Chalk Road

Rochester Road

Chalk

Denton

Milton

Bowley Bay

Thurrock

East of England

Kent

South East

Grav

Gravesham

Shorne Hill

Upper Ifield

Randall Wood

Thong

Northfleet

North Kent Line

Thames

High Speed 1

A226

A227

A2

B261

B2175

London Road

North Kent Line

Wrotham Road

Walling Street

Station Road

Waterloo Connection

Deale Road

Hook Green Road

Hook Green

Redstreet

Northfleet Green

Hazells

Cyclopark

Tollgate

Hever Court Road

Valley Drive

Old Road East

Windmill Hill

Polham Road

Overcliffe

Crete Hall Road

Crete Hall

Northfleet

North Kent Line

Thames Way

Doyce Road

Vale Road

Hall Road

Pepper Hill

Springhead

Watling Street

Gravesend Road

Lower Higham Road

Chalk Road

Rochester Road

Chalk

Denton

Milton

Bowley Bay

Thurrock

East of England

Kent

South East

Grav

Gravesham

Shorne Hill

Upper Ifield

Randall Wood

Thong

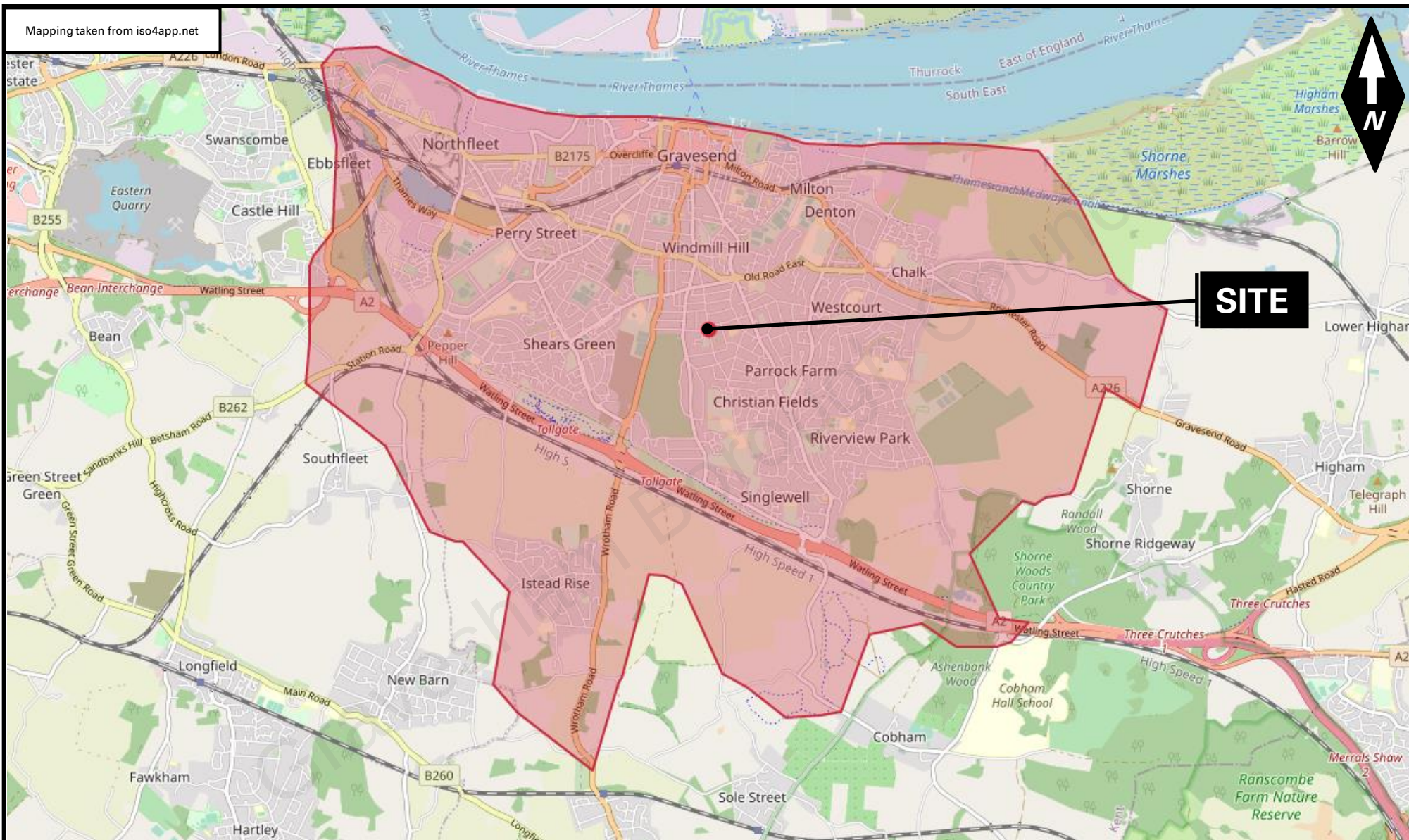


BANCROFT
CONSULTING

FIGURE:
4

DRAWN: CAB

Mapping taken from iso4app.net



SCALE: **Do Not Scale**

DATE: **06.01.21**

DRAWN: **CAB**

CLIENT:
AVERY HEALTHCARE GROUP (AVERY)

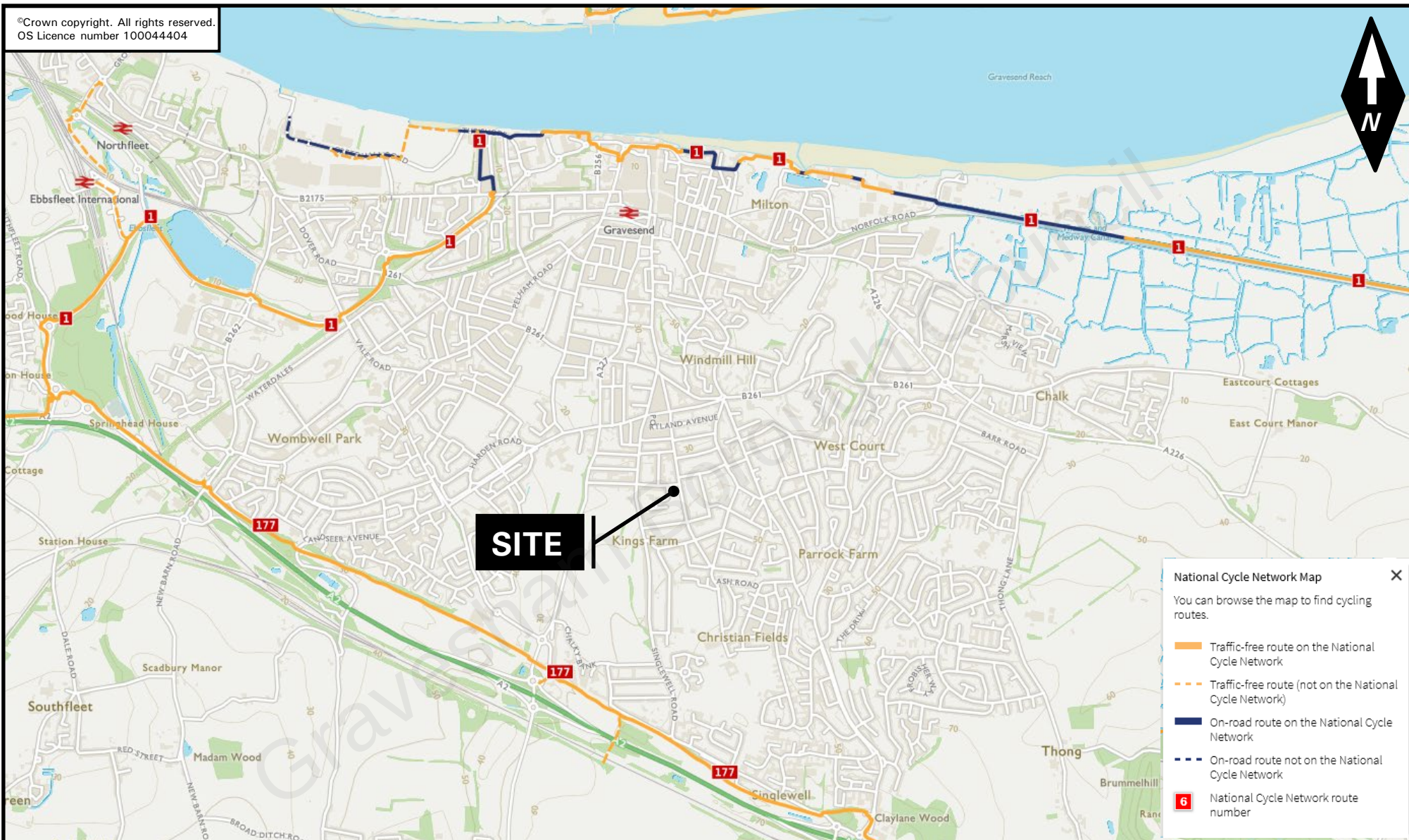
TITLE:
5 KM CYCLIST CATCHMENT AREA (TAKEN FROM ISO4APP.NET)

JOB TITLE:
THE FORMER ASCOT ARMS, CENTRAL AVENUE, GRAVESEND, DA12 5AW

bc **BANCROFT**
CONSULTING

JOB NUMBER:
F20176

FIGURE:
5



SCALE: **Do Not Scale**

DATE: **06.01.21**

DRAWN: **CAB**

CLIENT:
AVERY HEALTHCARE GROUP (AVERY)

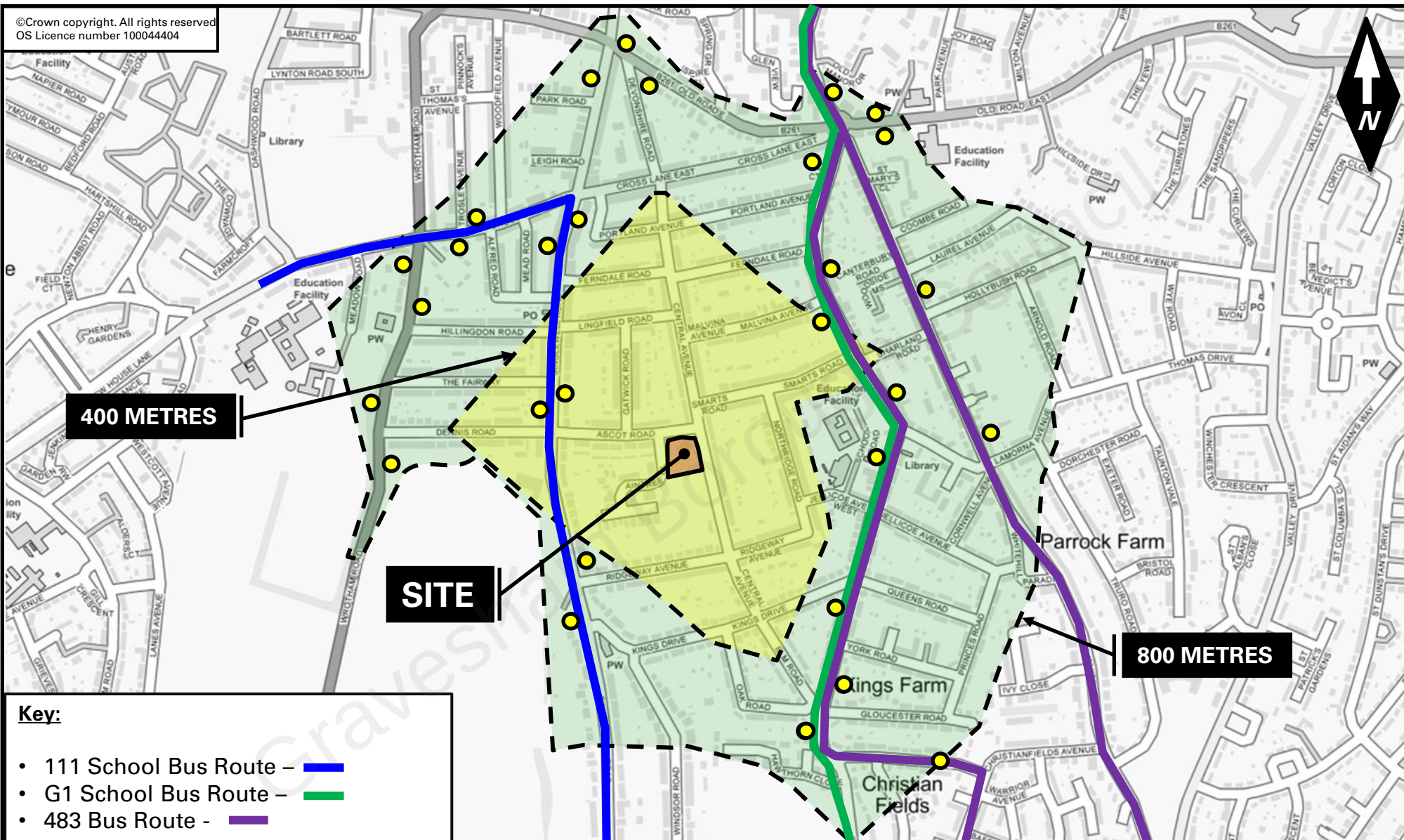
TITLE:
LOCAL CYCLE ROUTES (EXTRACTED FROM SUSTRANS.ORG.UK)

JOB TITLE:
THE FORMER ASCOT ARMS, CENTRAL AVENUE, GRAVESEND. DA12 5AW

bc BANCROFT CONSULTING

JOB NUMBER:
F20176

FIGURE:
6



SCALE: **Do Not Scale**

DATE: **06.06.22**

DRAWN: **CAB**

CLIENT:
AVERY HEALTHCARE GROUP (AVERY)

TITLE:
LOCAL BUS ROUTES (400 AND 800 METRES)

JOB TITLE:
THE FORMER ASCOT ARMS, CENTRAL AVENUE, GRAVESEND. DA12 5AW

bc BANCROFT CONSULTING

JOB NUMBER:
F20176

FIGURE:
7



B	25.03.21	REVISED WITH UPDATED SITE LAYOUT	WM	CJB
A	22.02.21	REVISED WITH UPDATED CLIENT DETAILS	WM	JON
REV.	DATE	DESCRIPTION	REV	CHK'D

AVERY HEALTHCARE GROUP
(AVERY)

35 CONTRACT

THE FORMER ASCOT ARMS,
CENTRAL AVENUE, GRAVESEND

TITLE	VISIBILITY ASSESSMENT
-------	-----------------------

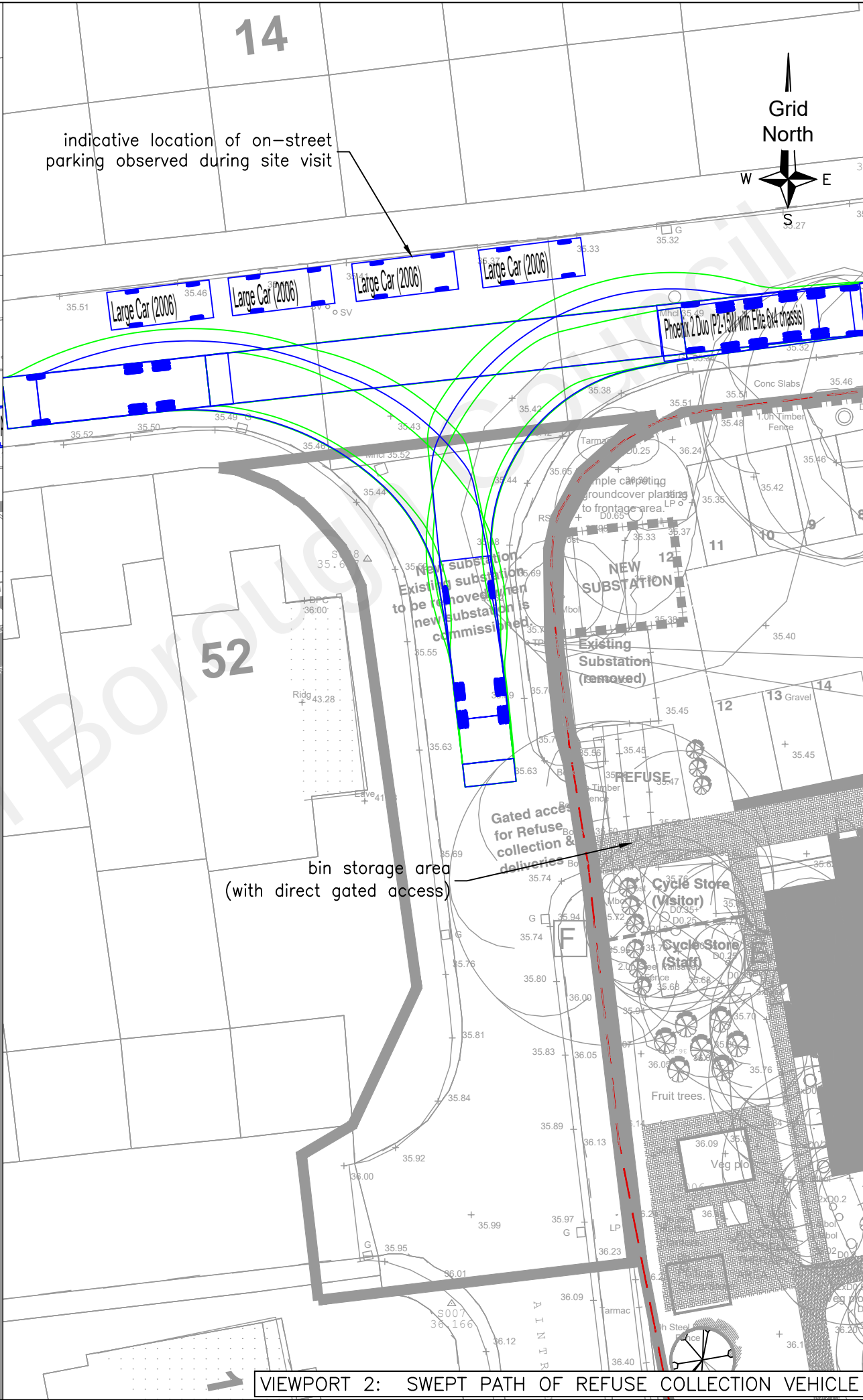
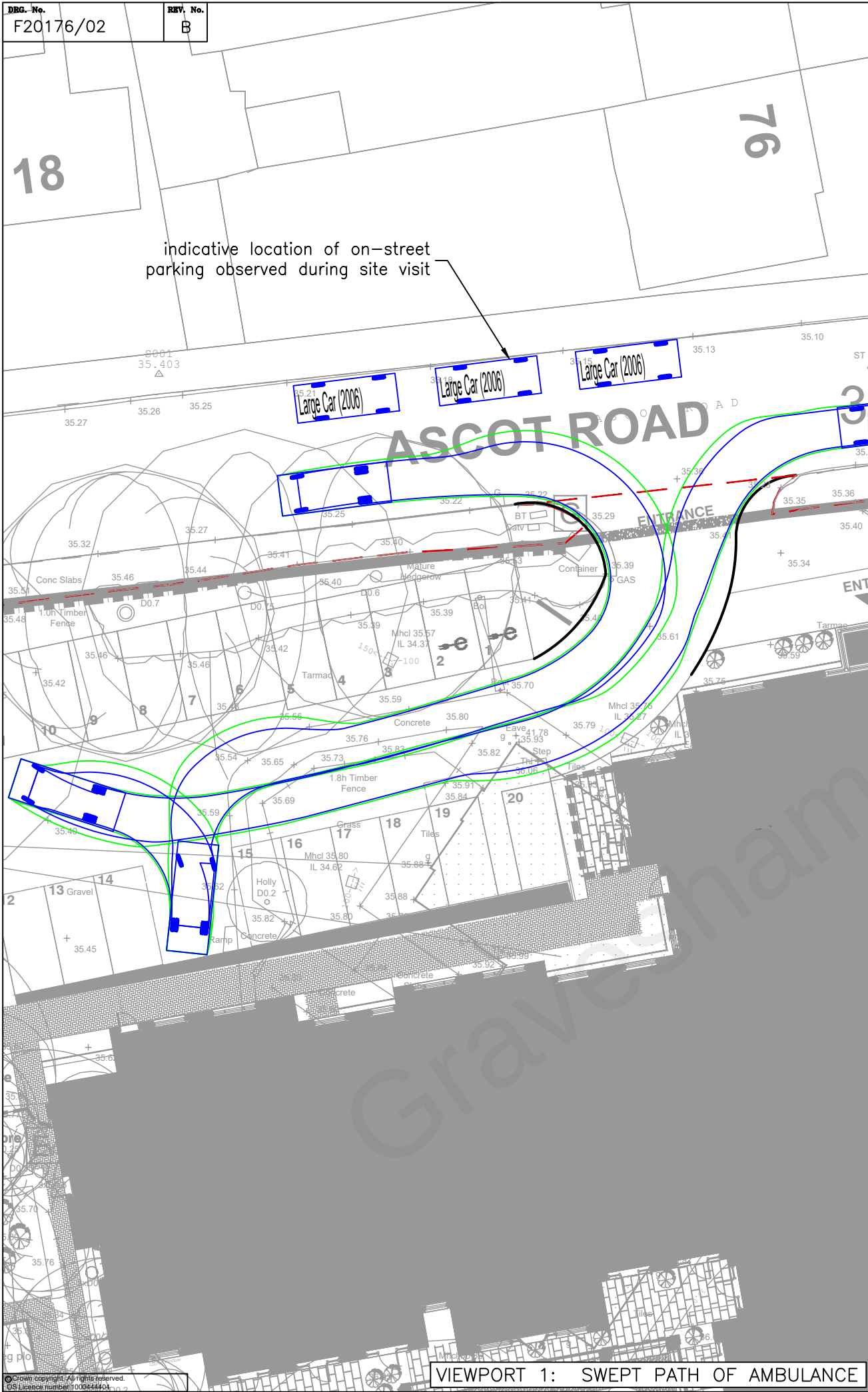


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CONSULTING

Bancroft Consulting Ltd
Jarodale House
7 Gregory Boulevard
Nottingham
NG7 6LB

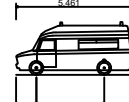
t 0115 9602919
f 0115 9648201
e office@bancroftconsulting.co.uk

		DRAWN BY	
NAME (PRINT)		DATE	
WM		28.01.21	
CHECKED BY			
NAME (PRINT)		DATE	
JON		28.01.21	
SCALE	1:200@A3	STATUS	PRELIMINARY
DRG. NO.			REV
F20167/01			B

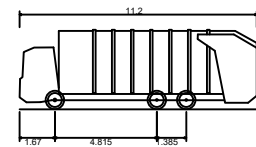


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NOTES:

 5.461m
3.2m

Ambulance
Overall Length 5.461m
Overall Width 2.020m
Overall Body Height 2.498m
Min Body Ground Clearance 0.225m
Track Width 1.860m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 6.500m

 11.2m
4.815m
1.385m

Phoenix 2 Duo (P2-15W with Elite 6x4 chassis)
Overall Length 11.200m
Overall Width 2.530m
Overall Body Height 3.751m
Min Body Ground Clearance 0.304m
Track Width 2.500m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 9.500m

REV.	DATE	DESCRIPTION	BY	CHK'D
B	25.03.21	REVISED WITH UPDATED SITE LAYOUT	WM	CJB
A	22.02.21	REVISED WITH UPDATED CLIENT DETAILS	WM	JON

CLIENT
AVERY HEALTHCARE GROUP (AVERY)

CONTRACT
THE FORMER ASCOT ARMS, CENTRAL AVENUE, GRAVESEND

TITLE
SWEPT PATH ASSESSMENT (REFUSE VEHICLE & AMBULANCE)

 **BANCROFT CONSULTING**

Bancroft Consulting Ltd
Jarodale House
7 Gregory Boulevard
Nottingham
NG7 6LB

t 0115 9602919
f 0115 9648201
e office@bancroftconsulting.co.uk

DRAWN BY	
NAME (PRINT)	DATE
WM	28.01.21

CHECKED BY	
NAME (PRINT)	DATE
JON	28.01.21

SCALE	STATUS
1:250@A3	PRELIMINARY

DRG. NO. F20176/02
REV B

APPENDIX A – SITE MASTERPLAN



Notes

Do not scale, use figured dimensions only.

All dimensions to be verified on site prior to the commencement of any work or the production of any shop drawing. All discrepancies to be reported to the Architect.

This drawing is to be read in conjunction with all related Architect's and Engineer's drawings and any other relevant information.

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REV	DATE	REVISION	INITIALS	CHECK
A	06.01.21	Clients comments applied.	GF	SEL
B	22.01.2021	Proposal revised following review with Design South East Panel.	RMJB	SEL
C	12.02.2021	Proposal revised following clients comments	RMJB	SEL
D	22.02.2021	Site Plan updated to reflect Landscaping plan.	GF	SEL
E	12.03.2021	New proposed Substation added and existing to be replaced.	GF	SEL

DRAWING STATUS

AS-RECORDED	☐
AS-BUILT	☐
FOR-CONSTRUCTION	☐
FOR COORDINATION	☐
FOR PLANNING	☒
FOR DISCUSSION	☐

TDC ARCH DESIGN
The Design Collective Architects

2nd Fl. | 13 Museum St.
York | YO1 7JT
info@tdc-arch.design

www.tdc-arch.design

Client

Avery

Project
Proposed Care Home,
Central Avenue, Gravesend

Drawing Title
Proposed Site Plan

Scale
1:200 @ A1

Date
Dec 2020

Drawn by
RMJB

Checked by
SEL

Job No.
A202043

Drawing No.
AL(9)901

Rev.
E

**APPENDIX B – CORRESPONDENCE WITH KCC
REGARDING PERSONAL INJURY ACCIDENTS**

From: [Christine Bancroft](#)
To: crashdata@kent.gov.uk
Cc: [Christine Bancroft](#)
Subject: Personal Injury Accident Data - Gravesend, Kent DA12 5AW
Date: 07 January 2021 14:55:13
Attachments: [PIA Request - F20176.pdf](#)

Good afternoon,

I would be grateful if you could provide me with a formal quotation to obtain full details of all Personal Injury Accidents that have occurred within an area of Gravesend, Kent over the past five years, up to the most recent data available. The location of the required area is shown within the attached PDF document.

Could you please confirm the cost to obtain this information, if this will include VAT, how payment is to be made and how long it will take to provide the information.

I trust this is satisfactory for your purposes and look forward to hearing from you. If you have any questions or require any further information then just let me know.

Many thanks

Christine

Christine Bancroft
Bancroft Consulting Ltd
christine@bancroftconsulting.co.uk
07747750654

From: crashdata@kent.gov.uk
To: [Christine Bancroft](#)
Subject: FW: BANCROFT CONSULTING LTD £261.60 Our Ref EXT 002 21 RE: Personal Injury Accident Data - Gravesend, Kent DA12 5AW
Date: 12 January 2021 11:06:15
Attachments: [image002.png](#)
[image004.png](#)
[Central Avenue, Gravesend 5yr PIC Plot.pdf](#)

Dear Christine,

Thank you for your e-mail requesting crash statistics for the above location. I am pleased to enclose a plot of personal injury crashes supplied to us by Kent Police for the 5 year period up to 30.06.2020. *Please note there were zero crashes.* There is a charge for this data of £261.60 inclusive of VAT, a credit card payment for which we have received with thanks. A VAT receipt will be emailed to you in due course.

The information shown on the attached D-print Crash Report originates from data collected by the Police when an injury road collision is reported to them. Please note that this information is susceptible to change whilst the Police carry out further investigations and should not be taken as an indicator of the cause of a crash.

For your information, the County is served by three Highway Authorities: Kent County Council (KCC); Highways England and Medway Council. Kent Police collects over 60 pieces of statistical data for each injury crash for the whole county. Crashes are categorised by severity:

Fatal - a crash resulting in a death

Serious - detention in hospital, includes paralysis, fractures and severe lacerations

Slight - includes whiplash, sprains and minor lacerations

Human error is a factor in 95% of road crashes. Based on the Department for Transport's (DfT) figures the cost to the community of a fatal crash is around £1.9 million, a serious crash costs in the region of £216,000 and a slight crash costs £23,000. For more information about crash and casualty figures please visit our website at www.kent.gov.uk/roads-and-travel/road-safety/crash-and-casualty-data.

KCC Highways, Transportation and Waste welcome feedback from our customers and we have designed our fault reporting tool so that you can quickly and easily let us know about any problems on the roads and footways or about any of our equipment such as streetlights that may not be working. You can do this by visiting www.kent.gov.uk/highwayfaults. From here you can see all known issues, view any planned works, report multiple issues, upload photos as well as track any existing enquiries.

I trust the information is satisfactory and should you have any further queries please do not hesitate to contact me.

Yours sincerely,

Anna

Anna Herrin | Transport Intelligence Officer | Kent County Council | **I am working from home but can be emailed anytime or called on this number Tues -Thurs** Phone: 03000 411647 | www.kent.gov.uk

 Please consider the environment before printing this email

From: Crash Data Team - GT
Sent: 07 January 2021 15:52
To: 'Christine Bancroft' <christine@bancroftconsulting.co.uk>
Cc: KCC Remittance Advices - ST <kccremit@kent.gov.uk>
Subject: BANCROFT CONSULTING LTD £261.60 Our Ref EXT 002 21 RE: Personal Injury Accident Data - Gravesend, Kent DA12 5AW

Dear Christine,

Thank you for your e-mail requesting crash statistics. I can confirm that the cost of supplying 5 years personal injury crashes supplied to us by Kent Police up to 30.06.2020 is £261.60 (this includes VAT). We require payment first via credit card, this will need to be made via our Finance team, they can be called on 03000 416336. . *Please let them know your company name and quote our EXT ref.* We will send out the data within 10 days of us receiving the payment. Please advise when payment has been made. Your VAT receipt will be emailed to you in due course.

Thank you

KCC Cashiers please note :

To go against Project No: : **P 7HK 61134 949 000 0000 00**

Our Ref: EXT/002

Please email crashdata@kent.gov.uk with the CS closure notification once payment in with the amount paid/date

Many thanks

Anna

Anna Herrin | Transport Intelligence Officer | Kent County Council | **I am working from home but can be emailed anytime or called on this number Tues -Thurs** Phone: 03000 411647 | www.kent.gov.uk



Please consider the environment before printing this email

From: Christine Bancroft <christine@bancroftconsulting.co.uk>

Sent: 07 January 2021 14:55

To: Crash Data Team - GT <crashdata@kent.gov.uk>

Cc: Christine Bancroft <christine@bancroftconsulting.co.uk>

Subject: Personal Injury Accident Data - Gravesend, Kent DA12 5AW

Good afternoon,

I would be grateful if you could provide me with a formal quotation to obtain full details of all Personal Injury Accidents that have occurred within an area of Gravesend, Kent over the past five years, up to the most recent data available. The location of the required area is shown within the attached PDF document.

Could you please confirm the cost to obtain this information, if this will include VAT, how payment is to be made and how long it will take to provide the information.

I trust this is satisfactory for your purposes and look forward to hearing from you. If you have any questions or require any further information then just let me know.

Many thanks

Christine

Christine Bancroft

Bancroft Consulting Ltd

christine@bancroftconsulting.co.uk

07747750654

Christine Bancroft

Bancroft Consulting Limited



a: Jarodale House, 7 Gregory Boulevard, Nottingham, NG7 6LB
w: www.bancroftconsulting.co.uk **e:** office@bancroftconsulting.co.uk



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Gravesham Borough Council

Crash Severity

●

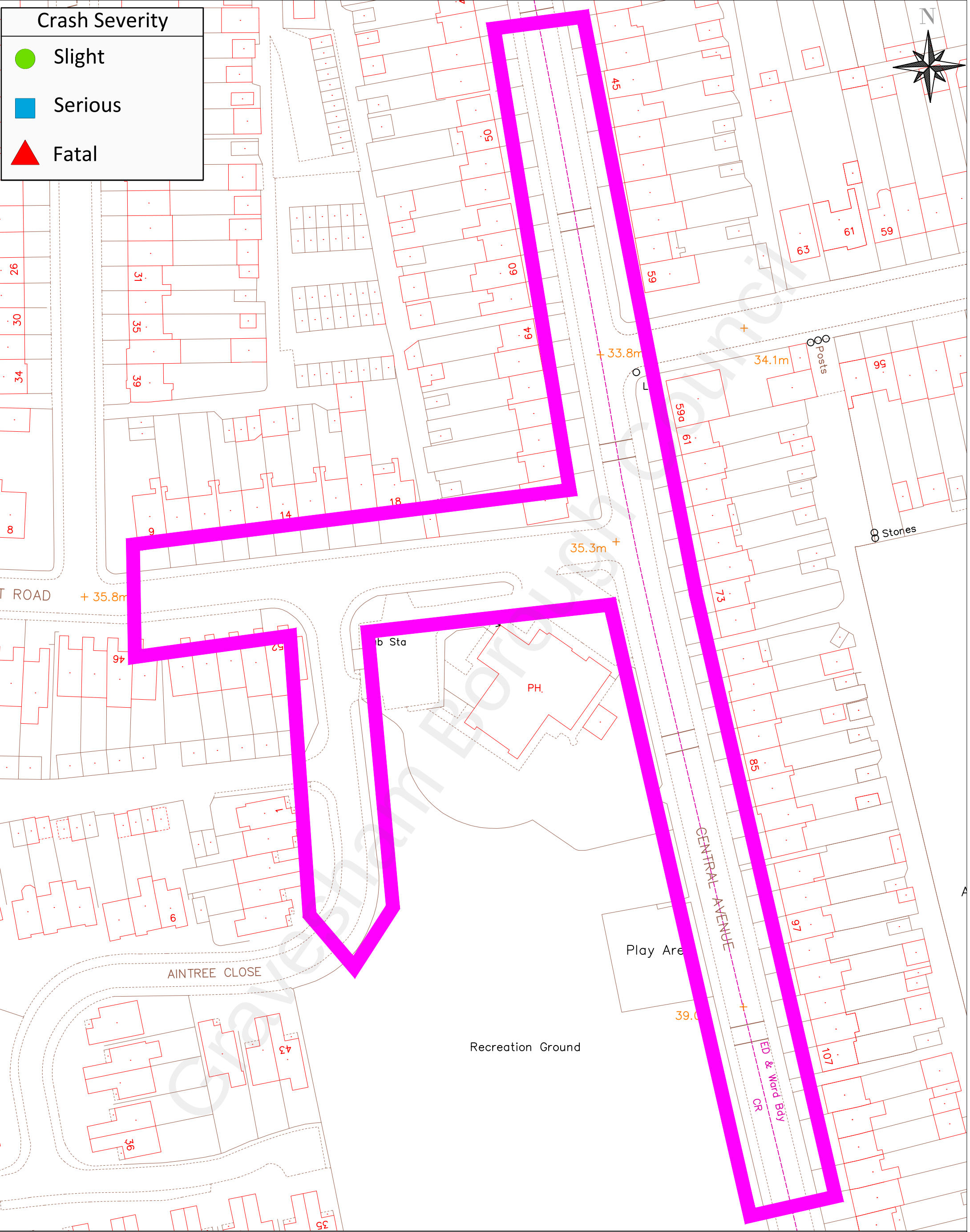
Slight

■

Serious

▲

Fatal



Location: Central Avenue, Gravesend

5 years personal injury crash data up to 30/06/2020- Zero Crashes

KCC Ref number: EXT/002/21

This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. 100019238 (2015)



**APPENDIX C – TRICS OUTPUT
DATA (FORMER PUBLIC HOUSE)**

Calculation Reference: AUDIT-539501-210120-0139

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : C - PUB/RESTAURANT
TOTAL VEHICLES

Selected regions and areas:

09 NORTH
TW TYNE & WEAR 1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 400 to 400 (units: sqm)
Range Selected by User: 250 to 1000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 11/06/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Friday 1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count 1 days
Directional ATC Count 0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Edge of Town 1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone 1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

AA 1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

15,001 to 20,000 1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

250,001 to 500,000 1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0 1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No 1 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present 1 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1

TW-06-C-01

PUB/RESTAURANT

WHICKHAM HIGHWAY

GATESHEAD

TYNE & WEAR

Edge of Town

Residential Zone

Total Gross floor area: 400 sqm

Survey date: FRIDAY 04/10/13

Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
ES-06-C-02	-
EX-06-C-02	-
GM-06-C-04	-
NT-06-C-03	-
ST-06-C-01	-

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/C - PUB/RESTAURANT

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	1	400	0.750	1	400	1.000	1	400	1.750
11:00 - 12:00	1	400	0.750	1	400	0.750	1	400	1.500
12:00 - 13:00	1	400	1.500	1	400	0.500	1	400	2.000
13:00 - 14:00	1	400	2.250	1	400	1.750	1	400	4.000
14:00 - 15:00	1	400	1.250	1	400	1.750	1	400	3.000
15:00 - 16:00	1	400	2.000	1	400	1.000	1	400	3.000
16:00 - 17:00	1	400	3.750	1	400	2.500	1	400	6.250
17:00 - 18:00	1	400	3.250	1	400	3.250	1	400	6.500
18:00 - 19:00	1	400	3.750	1	400	2.250	1	400	6.000
19:00 - 20:00	1	400	3.000	1	400	4.000	1	400	7.000
20:00 - 21:00	1	400	1.250	1	400	3.250	1	400	4.500
21:00 - 22:00	1	400	2.500	1	400	1.500	1	400	4.000
22:00 - 23:00	1	400	2.000	1	400	2.250	1	400	4.250
23:00 - 24:00	1	400	0.750	1	400	1.750	1	400	2.500
Total Rates:			28.750			27.500			56.250

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected: 400 - 400 (units: sqm)
 Survey date range: 01/01/12 - 11/06/19
 Number of weekdays (Monday-Friday): 1
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 5

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

**APPENDIX D – TRICS OUTPUT
DATA (PROPOSED CARE HOME)**

Calculation Reference: AUDIT-539501-210121-0126

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 05 - HEALTH
 Category : F - CARE HOME (ELDERLY RESIDENTIAL)
 TOTAL VEHICLES

Selected regions and areas:

06 WEST MIDLANDS
 WK WARWICKSHIRE 1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of residents
 Actual Range: 32 to 32 (units:)
 Range Selected by User: 30 to 180 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 02/05/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Thursday 1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count 1 days
 Directional ATC Count 0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre) 1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone 1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C2 1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000 1 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*Population within 5 miles:

75,001 to 100,000 1 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*Car ownership within 5 miles:

0.6 to 1.0 1 days

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*Travel Plan:

No 1 days

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*PTAL Rating:

No PTAL Present 1 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 WK-05-F-01 NURSING HOME WARWICKSHIRE
CLARENDON SQUARE
LEAMINGTON SPA

Suburban Area (PPS6 Out of Centre)
Residential Zone

Total Number of residents: 32

Survey date: THURSDAY

25/10/12

Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
DS-05-F-01	-
ES-05-F-02	-
GM-05-F-03	-
HC-05-F-01	-
LC-05-F-02	-
NT-05-F-02	-
NY-05-F-05	-
SW-05-F-01	-
TW-05-F-03	-
WG-05-F-01	-

TRIP RATE for Land Use 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)

TOTAL VEHICLES

Calculation factor: 1 RESIDE

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	1	32	0.063	1	32	0.156	1	32	0.218
08:00 - 09:00	1	32	0.094	1	32	0.219	1	32	0.313
09:00 - 10:00	1	32	0.156	1	32	0.000	1	32	0.156
10:00 - 11:00	1	32	0.125	1	32	0.313	1	32	0.437
11:00 - 12:00	1	32	0.125	1	32	0.156	1	32	0.281
12:00 - 13:00	1	32	0.125	1	32	0.125	1	32	0.250
13:00 - 14:00	1	32	0.281	1	32	0.094	1	32	0.375
14:00 - 15:00	1	32	0.156	1	32	0.156	1	32	0.312
15:00 - 16:00	1	32	0.125	1	32	0.094	1	32	0.219
16:00 - 17:00	1	32	0.125	1	32	0.094	1	32	0.219
17:00 - 18:00	1	32	0.125	1	32	0.188	1	32	0.313
18:00 - 19:00	1	32	0.156	1	32	0.219	1	32	0.375
19:00 - 20:00	1	32	0.063	1	32	0.094	1	32	0.156
20:00 - 21:00	1	32	0.000	1	32	0.000	1	32	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.717			1.907			3.624

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected: 32 - 32 (units:)
 Survey date range: 01/01/12 - 02/05/19
 Number of weekdays (Monday-Friday): 1
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 10

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

APPENDIX E – SPEED SURVEY DATA

observed speed mph	no. of readings		
	n	n×x	n×x ²
10	0	0	0
11	0	0	0
12	18	216	2592
13	13	169	2197
14	9	126	1764
15	3	45	675
16	1	16	256
17	0	0	0
18	1	18	324
19	0	0	0
20	0	0	0
21	0	0	0
22	0	0	0
23	0	0	0
24	0	0	0
25	0	0	0
26	0	0	0
27	0	0	0
28	0	0	0
29	0	0	0
30	0	0	0
31	0	0	0
32	0	0	0
33	0	0	0
34	0	0	0
35	0	0	0
36	0	0	0
37	0	0	0
38	0	0	0
39	0	0	0
40	0	0	0
41	0	0	0
42	0	0	0
43	0	0	0
44	0	0	0
45	0	0	0
46	0	0	0
47	0	0	0
48	0	0	0
49	0	0	0
50	0	0	0
51	0	0	0
52	0	0	0
53	0	0	0
54	0	0	0
55	0	0	0
56	0	0	0
57	0	0	0
58	0	0	0
59	0	0	0
60	0	0	0
61	0	0	0
62	0	0	0
63	0	0	0
64	0	0	0
65	0	0	0
66	0	0	0
67	0	0	0
68	0	0	0
69	0	0	0
70	0	0	0
71	0	0	0
72	0	0	0
73	0	0	0
74	0	0	0
75	0	0	0
76	0	0	0
77	0	0	0
78	0	0	0
79	0	0	0
80	0	0	0
	n =	Σv =	Σv ² =
Total Σ	45	590	7808

SPEED READINGS FOR SINGLE CARRIAGEWAYS

location: **Ascot Road, Gravesend**
direction: **Westbound**
day: **Tuesday**
date: **19.01.21**
time: **0945 to 1215**

SUMMARY

mean 13.11 mph 21.1 kph
85%ile 13.89 mph 22.4 kph

Step 1:
Mean speed

$$m = \frac{\sum v}{n} \quad m = 13.11 \text{ mph}$$

Step 2:
Finding Value Σ

$$\sum (v-m)^2 = \sum v^2 - \frac{(\sum v)^2}{n} \quad \sum (v-m)^2 = 72.44$$

Step 3:
Standard deviation

$$s = \sqrt{\frac{\sum (v-m)^2}{n-1}} \quad s = 0.78 \text{ mph}$$

Step 4:
85 percentile dry weather spot speed

$$p85 = m + s \quad p = 13.89$$

checks: 85%ile/mean = 1.06
should be 1.1 to 1.25

S.D./mean = 0.06
should be approx 1/6 (0.17)

ASCOT ROAD, GRAVESEND - WESTBOUND SPEED SURVEY RESULTS

observed speed mph	no. of readings n	 n×x	 n×x ²
10	0	0	0
11	0	0	0
12	0	0	0
13	0	0	0
14	0	0	0
15	0	0	0
16	1	16	256
17	0	0	0
18	3	54	972
19	4	76	1444
20	7	140	2800
21	3	63	1323
22	5	110	2420
23	7	161	3703
24	2	48	1152
25	2	50	1250
26	6	156	4056
27	0	0	0
28	1	28	784
29	0	0	0
30	0	0	0
31	0	0	0
32	0	0	0
33	0	0	0
34	0	0	0
35	0	0	0
36	0	0	0
37	0	0	0
38	0	0	0
39	0	0	0
40	0	0	0
41	0	0	0
42	0	0	0
43	0	0	0
44	0	0	0
45	0	0	0
46	0	0	0
47	0	0	0
48	0	0	0
49	0	0	0
50	0	0	0
51	0	0	0
52	0	0	0
53	0	0	0
54	0	0	0
55	0	0	0
56	0	0	0
57	0	0	0
58	0	0	0
59	0	0	0
60	0	0	0
61	0	0	0
62	0	0	0
63	0	0	0
64	0	0	0
65	0	0	0
66	0	0	0
67	0	0	0
68	0	0	0
69	0	0	0
70	0	0	0
71	0	0	0
72	0	0	0
73	0	0	0
74	0	0	0
75	0	0	0
76	0	0	0
77	0	0	0
78	0	0	0
79	0	0	0
80	0	0	0
Total Σ	n = 41	Σv = 902	Σv ² = 20160

SPEED READINGS FOR SINGLE CARRIAGEWAYS

location: **Ascot Road, Gravesend**
direction: **Eastbound**
day: **Tuesday**
date: **19.01.21**
time: **0945 to 1215**

SUMMARY

mean 22.00 mph 35.4 kph
85%ile 24.59 mph 39.6 kph

Step 1:
Mean speed

$$m = \frac{\sum v}{n} \quad m = 22.00 \text{ mph}$$

Step 2:
Finding Value Σ

$$\sum (v-m)^2 = \sum v^2 - \frac{(\sum v)^2}{n} \quad \sum (v-m)^2 = 316.00$$

Step 3:
Standard deviation

$$s = \sqrt{\frac{\sum (v-m)^2}{n-1}} \quad s = 2.59 \text{ mph}$$

Step 4:
85 percentile dry weather spot speed

$$p85 = m + s \quad p = 24.59$$

checks: 85%ile/mean = 1.12
should be 1.1 to 1.25

S.D./mean = 0.12
should be approx 1/6 (0.17)

ASCOT ROAD, GRAVESEND - EASTBOUND SPEED SURVEY RESULTS

Vehicle speeds	24.59 mph 39.57 kph 10.99 v (m/s) 120.79 v ²	Formula: $SSD = vt + v^2/2(d+0.1a)$	<table border="1"> <tr> <th colspan="2">Manual for Streets 2</th> <th colspan="2">DMRB</th> </tr> <tr> <td>Light Vehicles (less than 5% HGVs)</td> <td>HGVs/Buses (over 5% of total vehicles)</td> <td>All traffic (Maximum decel.)</td> <td>All traffic (Desirable decel.)</td> </tr> <tr> <td>1.5s</td> <td>1.5s</td> <td>2s</td> <td>2s</td> </tr> <tr> <td>0.45g</td> <td>0.375g</td> <td>0.375g</td> <td>0.25g</td> </tr> </table>				Manual for Streets 2		DMRB		Light Vehicles (less than 5% HGVs)	HGVs/Buses (over 5% of total vehicles)	All traffic (Maximum decel.)	All traffic (Desirable decel.)	1.5s	1.5s	2s	2s	0.45g	0.375g	0.375g	0.25g
Manual for Streets 2			DMRB																			
Light Vehicles (less than 5% HGVs)	HGVs/Buses (over 5% of total vehicles)	All traffic (Maximum decel.)	All traffic (Desirable decel.)																			
1.5s	1.5s	2s	2s																			
0.45g	0.375g	0.375g	0.25g																			
Driver Perception-Reaction time	1.5 t (s) 16.49 v x t	<table border="1"> <tr> <td>Perception-Reaction Time (t)</td> <td></td> </tr> <tr> <td>Deceleration Rate (g = 9.81m/s²)</td> <td></td> </tr> </table>	Perception-Reaction Time (t)		Deceleration Rate (g = 9.81m/s ²)																	
Perception-Reaction Time (t)																						
Deceleration Rate (g = 9.81m/s ²)																						
Deceleration Rate	0.45 g 4.41 d (m/s) 8.83 2d	Enter gradient as positive for uphill towards junction and negative for downhill towards junction																				
Gradient	0.00 a* 4.41 d+0.1a 8.829 2(d+0.1a)																					
Stopping Sight Distance (SSD) =	v t + v ² / 2(d+0.1a) 16.49 + 13.68	=	SSD																			
SSD Bonnet Adjusted (SSD+2.4)**	32.57	=	30.17																			

* for simplicity, gradient will be given as zero where details of levels are unavailable and observed gradients are deemed to be insignificant in terms of the effect on vehicle braking

** 2.4 metres added to splay to allow for bonnet length of approaching vehicles

VISIBILITY SPLAY CALCULATOR: ASCOT ROAD, GRAVESEND - EASTBOUND

Vehicle speeds	13.89 mph 22.35 kph 6.21 v (m/s) 38.54 v ²	Formula: $SSD = vt + v^2 / 2(d + 0.1a)$	<table border="1"> <thead> <tr> <th colspan="2">Manual for Streets 2</th> <th colspan="2">DMRB</th> </tr> <tr> <th>Light Vehicles (less than 5% HGVs)</th> <th>HGVs/Buses (over 5% of total vehicles)</th> <th>All traffic (Maximum decel.)</th> <th>All traffic (Desirable decel.)</th> </tr> </thead> <tbody> <tr> <td>1.5s</td> <td>1.5s</td> <td>2s</td> <td>2s</td> </tr> <tr> <td>0.45g</td> <td>0.375g</td> <td>0.375g</td> <td>0.25g</td> </tr> </tbody> </table>				Manual for Streets 2		DMRB		Light Vehicles (less than 5% HGVs)	HGVs/Buses (over 5% of total vehicles)	All traffic (Maximum decel.)	All traffic (Desirable decel.)	1.5s	1.5s	2s	2s	0.45g	0.375g	0.375g	0.25g
Manual for Streets 2			DMRB																			
Light Vehicles (less than 5% HGVs)	HGVs/Buses (over 5% of total vehicles)	All traffic (Maximum decel.)	All traffic (Desirable decel.)																			
1.5s	1.5s	2s	2s																			
0.45g	0.375g	0.375g	0.25g																			
Driver Perception-Reaction time	1.5 t (s) 9.31 v x t	<table border="1"> <tr> <td>Perception-Reaction Time (t)</td> <td></td> </tr> <tr> <td>Deceleration Rate (g = 9.81m/s²)</td> <td></td> </tr> </table>	Perception-Reaction Time (t)		Deceleration Rate (g = 9.81m/s ²)																	
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Gradient	0.00 a* 4.41 d+0.1a 8.829 2(d+0.1a)																					
Stopping Sight Distance (SSD) =	v t + v ² / 2(d+0.1a) 9.31 + 4.37	=	SSD																			
SSD Bonnet Adjusted (SSD+2.4)**	16.08	=	13.68																			

* for simplicity, gradient will be given as zero where details of levels are unavailable and observed gradients are deemed to be insignificant in terms of the effect on vehicle braking

** 2.4 metres added to splay to allow for bonnet length of approaching vehicles

VISIBILITY SPLAY CALCULATOR: ASCOT ROAD, GRAVESEND - WESTBOUND

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