



Improvement Options Report

Wheatsheaf Junction, Maidstone

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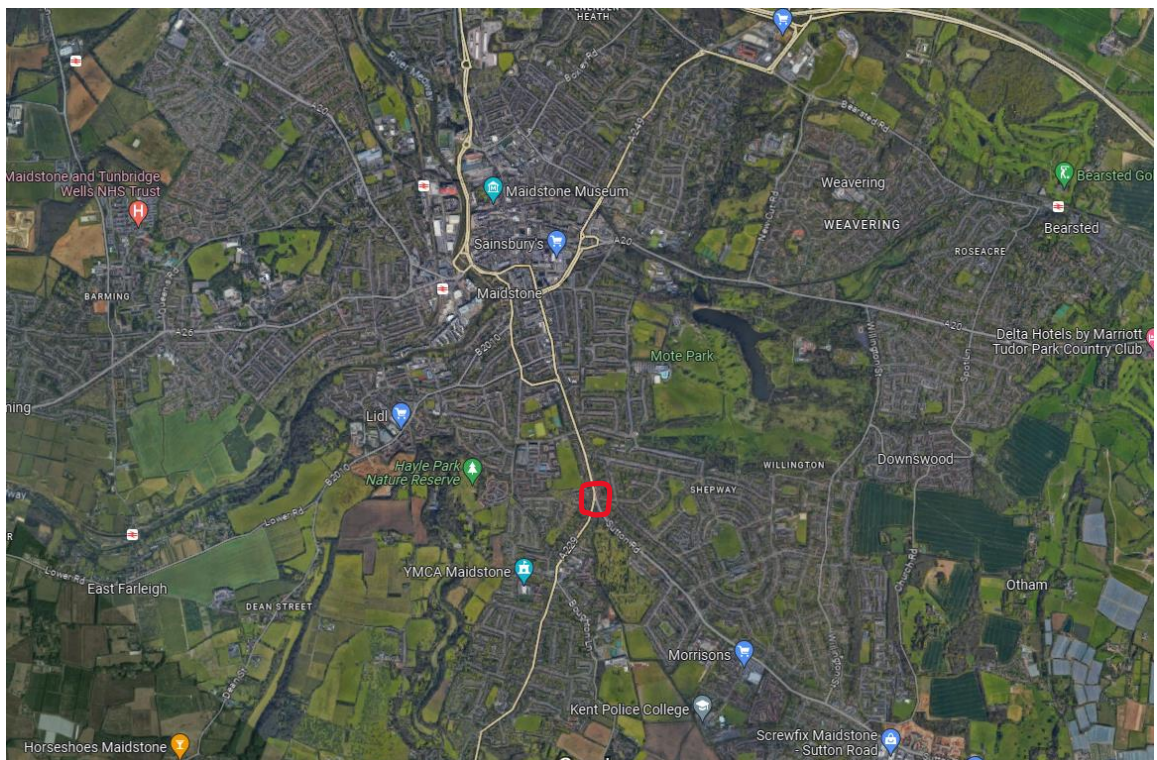
1 Introduction

1.1 Background

1.1.1 Charles & Associates Consulting Engineers Ltd (C&A) have been instructed by Kent County Council to provide a technical review and summary of the potential options for the junction of the A229 Loose Rd/A274 Sutton Rd/Cranborne Ave (Wheatsheaf Junction) in Maidstone.

1.1.2 The junction is located approximately 2km south of Maidstone town centre, as shown in the figure below, and is a key strategic junction for the town as the A229 represents the main radial route into the town from the south. A former pub (the Wheatsheaf) building is present immediately to the south of the junction between the A274 Sutton Road and A229 Loose Rd (S) arms of the junction.

Figure 1.1: Junction Location



1.1.3 The junction is currently a four-arm traffic signal-controlled junction, however, following the implementation of an Experimental Traffic Regulation Order (TRO) in March 2022, the Cranborne Avenue arm of the junction has been closed to vehicular traffic.

1.2 Scheme History

- 1.2.1 The Wheatsheaf junction has been identified as a longstanding area of constraint on the local highway network within Maidstone. The junction is located at the convergence of the main routes to/from the southeast and southwest of Maidstone.
- 1.2.2 The highway network in Maidstone is operating at or over capacity during peak periods. Delays are prone to rapid escalation when problems arise at hotspots and from any other interruption to traffic flow. This is exacerbated by incidents on the M20; the impact from which rapidly affects the whole town. Traffic searches out alternative routes in such cases, often using inappropriate roads.
- 1.2.3 The road network to the south of Maidstone town centre, in particular, currently observes severe peak hour congestion and delay which is anticipated to be exacerbated by planned growth in the area as part of the adopted Local Plan up to 2031. The traffic problems in this area were recognised within the Examination of the adopted Local Plan following which the Inspector recommended an early review of the Plan to allow further investigation of potential transport mitigation in this area.
- 1.2.4 Largely as a result of the traffic congestion issues in the town, the entire urban conurbation of Maidstone is covered by an Air Quality Management Area (AQMA), which incorporates the Wheatsheaf junction. The AQMA was declared in 2008 following a review of air quality in the town which identified that the A229 Loose Rd/A274 Sutton Rd (Wheatsheaf) junction specifically had 9 of 37 exceedances of the nitrogen dioxide (NO₂) and particulates (PM₁₀) annual mean objectives due to emissions from road traffic.
- 1.2.5 An improvement at the junction has been proposed in different guises over many years having been identified in the Maidstone Integrated Transport Strategy (MITP) 2011-2031 which accompanies the currently adopted Local Plan.
- 1.2.6 Furthermore, Local Growth Fund (LGF) monies have been secured from SELEP through the submission of a business case for an improvement of the junction as part of a wider programme of works called the Maidstone Integrated Transport Package (MITP). The objectives of the MITP were identified as the following:
- Objective 1: Reduced travel time along A229 corridor
 - Objective 2: Improved journey time reliability
 - Objective 3: Non-worsening of current air quality issues

1.3 Policy Context

KCC Local Transport Plan 4

- 1.3.2 Local Transport Plan 4 (LTP4): Delivering Growth without Gridlock 2016-2031 – highlights that there is increasing congestion in town centres (including Maidstone) and ‘growth across the county will be constrained unless we invest in increasing capacity or can reduce demand on the network.’
- 1.3.3 The overarching ambition of LTP4 is: *“To deliver safe and effective transport, ensuring that all Kent’s communities and businesses benefit, the environment is enhanced, and economic growth is supported.”*
- 1.3.4 This ambition will be realised through five overarching policies:
- Outcome 1: Economic growth and minimised congestion
Policy: Deliver resilient transport infrastructure and schemes that reduce congestion and improve journey time reliability to enable economic growth and appropriate development, meeting demand from a growing population.
 - Outcome 2: Affordable and accessible door-to-door journeys
Policy: Promote affordable, accessible, and connected transport to enable access for all to jobs, education, health, and other services.
 - Outcome 3: Safer travel
Policy: Provide a safer road, footway, and cycleway network to reduce the likelihood of casualties and encourage other transport providers to improve safety on their networks.
 - Outcome 4: Enhanced environment
Policy: Deliver schemes to reduce the environmental footprint of transport and enhance the historic and natural environment.
 - Outcome 5: Better health and wellbeing
Policy: Provide and promote active travel choices for all members of the community to encourage good health and wellbeing and implement measures to improve local air quality.
- 1.3.5 The A229/A274 corridor capacity improvements are specifically identified in LTP4 as transport priorities for Maidstone.

Maidstone Borough Local Plan, 2017

- 1.3.6 Policy SP23 of the adopted plan states that the Council, working together with partners, will:
“Improve highway network capacity and function at key locations and junctions across the borough; Improve highway network capacity and function at key locations and junctions across the borough”.
- 1.3.7 Furthermore, para 4.159 of the plan specifically identifies the junction as a strategic location requiring capacity improvement.

2 Impact of Temporary Cranbourne Avenue Closure

2.1 Traffic Survey Data Comparison

2.1.1 As noted above, the Cranbourne Avenue arm of the junction has been closed since March 2022 following the implementation of an Experimental Traffic Regulation Order (TRO).

2.1.2 In order to assess the impact of the road closure, comparative traffic surveys were undertaken before and after the closure in September 2021 and June 2022 respectively. In addition, these surveys were supplemented by three sets of recorded site observations on Plains Avenue and Marion Crescent between March and May 2022 to capture any 'knock-on' impacts from the closure. The below sets out a comparison of the datasets to identify the key impacts of the closure on the surrounding network.

Turning Count Surveys

Wheatsheaf Junction

2.1.3 Turning count surveys, which show the total traffic throughput at the junction and on each individual approach, were captured for the weekday AM (0700-1000) and PM (1600-1900) peak periods. The peak hour within each peak period was established and are compared in the table below. The raw survey data is provided in **Appendix A**.

Table 2.1: Turning Count Comparison

		AM Peak		PM Peak	
From	To	2021 Survey	2022 Survey	2021 Survey	2022 Survey
A229 Loose Rd (N)	Cranborne Ave	13	-	22	-
	A274 Sutton Rd	604	580	686	668
	A229 Loose Rd (S)	555	651	663	742
Cranborne Ave	A274 Sutton Rd	15	Closed	18	Closed
	A229 Loose Rd (S)	58		84	
	A229 loose Rd (N)	30		24	
A274 Sutton Rd	A229 Loose Rd (S)	101	150	93	118
	A229 loose Rd (N)	568	522	488	565
	Cranborne Ave	6	-	6	-
A229 Loose Rd (S)	A229 Loose Rd (N)	627	741	628	636
	Cranborne Ave	44	-	57	-
	A274 Sutton Rd	121	105	115	120
Total Movements		2742	2749	2884	2849

2.1.4 The data above indicates that the total traffic throughput at the junction during weekday peak periods was almost identical in both 2021 and 2022. This highlights that the two datasets are valid and broadly comparable. Also, it indicates that despite the closure of one of the arms of the junction during the 2022 surveys, the junction operated with a similar level of overall capacity – effectively reallocating the capacity from the Cranbourne Avenue arm to the busier A229 and A274 approaches.

A229/Plains Avenue Junction

2.1.5 Turning count surveys, were also captured for the weekday AM (0700-1000) and PM (1600-1900) peak periods at the A229 Loose Rd/Plains Avenue junction. The peak hour within each peak period was established and are compared in the table below. The raw survey data is provided in **Appendix A**.

Table 2.2: A229/Plains Avenue - Turning Count Comparison

From	To	AM Peak		PM Peak	
		2021 Survey	2022 Survey	2021 Survey	2022 Survey
A229 Loose Rd (N)	Plains Avenue	50	26	88	78
	A229 Loose Road S	1127	1165	1387	1381
Plains Avenue	A229 Loose Road S	11	63	16	50
	A229 loose Road N	20	58	48	36
A229 Loose Rd (S)	A229 loose Road N	1226	1230	1097	1160
	Plains Avenue	19	33	27	48
Total Movements		2453	2575	2663	2753

2.1.6 The data above indicates that there has been a slight increase of circa 3-5% in traffic throughput at the junction during the weekday peak periods following the closure of Cranborne Avenue. These increases typically occur on the movements to/from Plains Avenue.

Queue Length Surveys

Wheatsheaf Junction

2.1.7 Queue length surveys undertaken during the same periods as the turning count surveys outlined above. The average queue length was recorded on each arm of the junction for each 30-minute interval. The queue length data is summarised in the table below and the raw queue length data is provided in **Appendix B**.

Table 2.3: Wheatsheaf Junction - Average Queue Length (m) Comparison

Time	2021 Survey					2022 Survey				
	A229 Loose Rd N	Cranborne Ave	A274 Sutton Rd	A229 Loose Rd S	Total	A229 Loose Rd N	Cranborne Ave	A274 Sutton Rd	A229 Loose Rd S	Total
AM Peak										
0700-0730	400	4	168	24	596	144	Closed	54	13	211
0730-0800	412	4	176	16	608	260		80	16	355
0800-0830	311	5	184	35	535	141		49	21	210
0830-0900	310	2	135	36	482	39		50	18	106
0900-0930	267	2	80	39	388	189		120	22	331
0930-1000	130	0	103	42	274	75		56	18	148
Arm Total	1829	17	845	191		846			408	106
PM Peak										
1600-1630	104	0	184	36	323	70	Closed	88	23	180
1630-1700	106	0	204	37	347	111		56	23	190
1700-1730	87	0	177	39	303	103		69	17	189
1730-1800	70	2	189	31	292	156		49	17	222
1800-1830	80	0	190	40	310	136		52	17	205
1830-1900	139	0	172	42	353	57		46	23	125
Arm Total	585	2	1115	225		633			358	119

2.1.8 The table above indicates that there has been a significant decrease in average queue lengths at the junction following the closure of Cranborne Avenue. During the AM peak period (0700-1000) there has been a reduction in total queue lengths of 1522 metres (53%) and 817 metres (42%) in the PM peak (1600-1900).

2.1.9 In particular, the A229 and A274 arms of the junction have seen the most significant decreases in queue. During the AM peak the A229 Loose Rd (N) observed a reduction in queue on of 983 (54%) whilst in the PM peak the A274 Sutton Rd arm has observed a reduction in queue on of 757 (68%).

A229 Loose Road/Plains Avenue

2.1.10 Queue length surveys undertaken during the same periods as the turning count surveys outlined above. The average queue length was recorded on each arm of the junction for each 30-minute interval. The queue length data is summarised in the table below and the raw queue length data is provided in **Appendix B**.

Table 2.4: A229/Plains Avenue - Average Queue Length (m)

Time	2021 Survey				2022 Survey			
	A229 Loose Rd N	Plains Ave	A229 Loose Rd S	Time Segment total Queue	A229 Loose Rd N	Plains Ave	A229 Loose Rd S	Time Segment total Queue
AM Peak								
0700-0730	N/A	10	1	11	N/A	4	0	4
0730-0800	N/A	18	1	19	N/A	8	0	8
0800-0830	N/A	24	7	31	N/A	3	1	4
0830-0900	N/A	9	3	12	N/A	6	3	9
0900-0930	N/A	6	3	9	N/A	3	0	3
0930-1000	N/A	5	4	9	N/A	2	1	3
Arm Total	0	72	19		0	26	5	
PM Peak								
1600-1630	N/A	10	5	15	N/A	2	1	3
1630-1700	N/A	15	4.5	20	N/A	4	0	4
1700-1730	N/A	12	8	20	N/A	5.5	3	9
1730-1800	N/A	11	7	18	N/A	4	2	6
1800-1830	N/A	12	2	14	N/A	4	0	4
1830-1900	N/A	9	7.2	16	N/A	2.4	0	2
Arm Total	0	69	34		0	22	6	

- 2.1.11 The table above indicates that, despite a slight increase in total traffic movements, there has been a decrease in average queue lengths at the junction following the closure of Cranborne Avenue. As such it can be inferred that there has not been a detrimental impact in capacity terms at the junction as a result of the closure.
- 2.1.12 In addition to the above, site observations were undertaken by KCC staff on three separate occasions between March and May 2022 to record traffic movements and queue lengths on these roads during the closure period of Cranbourne Avenue. The observed data is provided at **Appendix C** for reference.
- 2.1.13 In summary the observations indicate that the level of queueing on Plains Avenue was minimal during the observations with a maximum queue length of 7 vehicles, which generally accords with the recorded queue length data above. Furthermore, only minimal queues were observed for vehicles turning right into Plains Avenue from the A229.

Summary

- 2.1.14 The observed traffic data collected before and after the closure of Cranbourne Avenue strongly indicates that the closure has had a largely positive impact on the operation of the junction without having a significant detrimental impact elsewhere on the network.

- 2.1.15 In particular, the A229 and A274 approaches to the junction have observed significant reductions in queues which would in turn reduce driver delay and improve journey time reliability on the corridor. Furthermore, a reduction in queueing vehicles would also help to reduce air quality impacts in this area of the network.
- 2.1.16 Whilst the A229 and A274 arms of the junction have observed a clear benefit from the closure of the Cranbourne Avenue, it is apparent that there are other locations on the network which could have observed increased levels of traffic as vehicles previously routing via Cranbourne Avenue reassign to other routes. The most apparent location on the surrounding network where this could occur was identified as Plains Avenue and its junction with A229.
- 2.1.17 The traffic data analysis for the A229 Loose Road/Plains Avenue junction indicates that the closure of Cranbourne Avenue has not had a detrimental impact in terms of additional queues and delays.

2.2 Road Safety Impacts

- 2.2.1 It is noted that a number of consultation responses in relation to the closure of Cranbourne Avenue identify a potential highway safety concern at the junction of the A229/Plains Avenue junction as a result of increased traffic flows at the junction. Consequently, a review of personal injury collision records from the five years until March 31, 2023, has been undertaken to determine any trends in road safety conditions before and after the temporary closure of Cranbourne Avenue.
- 2.2.2 The collision data analysis is summarised below, and the raw collision data is provided in **Appendix D** for reference.

Wheatsheaf Junction

- 2.2.3 In total, there were 11 accidents recorded during the 5-year period. Among them, one was categorised as a Fatal accident, four as Serious, and the remaining six were classified as Slight. The collision locations are presented in **Figure 2.1**, and a summary is provided in **Table 2.5**.
- 2.2.4 The data indicates that the majority of the collisions occurred in the period prior to the Cranbourne Avenue arm of the junction. Three collisions have been recorded following the closure, however, there are no apparent trends that can be established which would suggest the collisions were in any way caused by the Cranbourne Avenue arm of the junction being closed.

Figure 2.1: Collision Locations at Wheatsheaf Junction

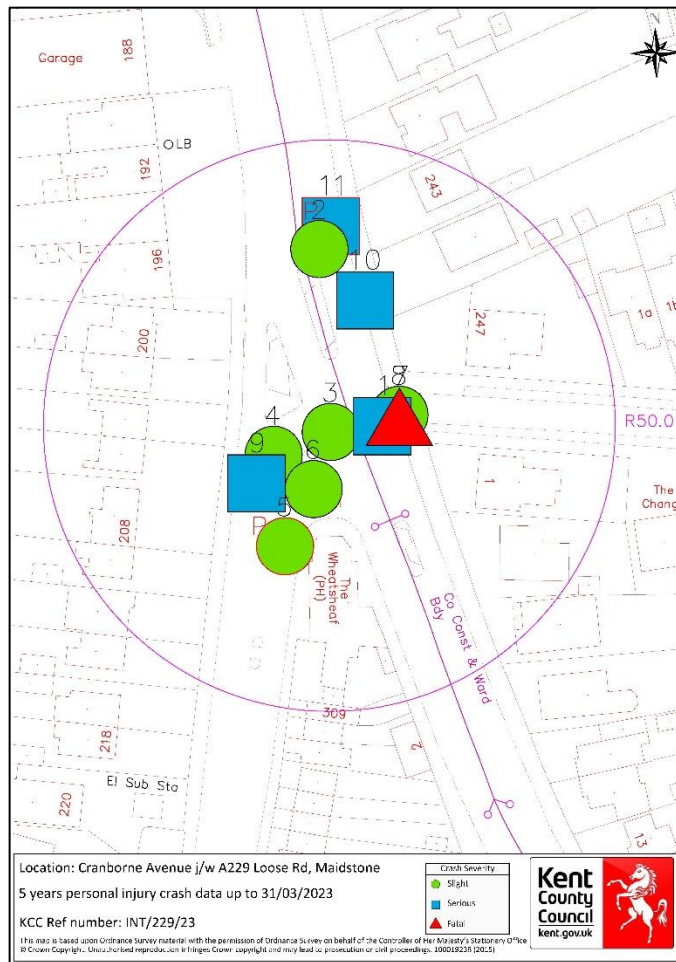


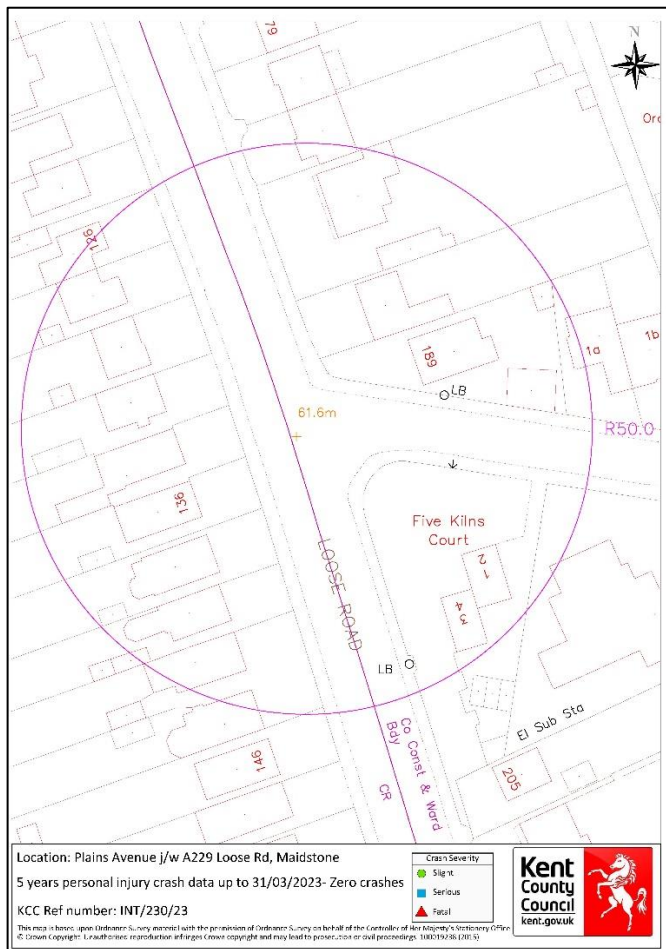
Table 2.5: Collisions Summary at Wheatsheaf Junction

Year	Severity	Grid Ref (E, N)	Road Surface	Weather	Lighting	Description
2018	Serious	576729,153967	Dry	Fine	Dark/Street lights	Car pulled into the path of motorbike causing collision.
2019	Slight	576718,153998	Dry	Fine	Daylight	A rear end collision between two cars.
2019	Slight	576720, 53966	Dry	Fine	Dark/Street lights	Motorbike collided with the rear offside of a car while turning right.
2019	Slight	576710,153962	Wet	Fine	Daylight	A rear end collision between three cars.
2019	Slight	576712,153946	Dry	Fine	Daylight	A front nearside collision between two cars.
2020	Slight	576717,153956	Dry	Fine	Dark/Street lights	Head-on collision between two cars.
2021	Fatal	576732,153967	Wet	Rain	Dark/Street lights	A collision between a pedal cycle and a car.
2022	Slight	576732,153969	Dry	Fine	Daylight	Head-on collision between two cars
2022	Serious	576707,153957	Dry	Fine	Dark/Street lights	A collision between a pedal cycle and a car.
2022	Serious	576726,153989	Dry	Fine	Daylight	A collision between a pedal cycle and a car.
2023	Serious	576720,154002	Dry	Fine	Daylight	A goods vehicle hit a pedestrian as pedestrian was at the nearside blind spot.

A229 Loose Road/Plains

2.2.5 The permanent closure of Cranbourne Avenue is expected to increase the traffic through A229 Loose Road/Plains Avenue junction, particularly on the Plains Avenue arm. STATS19 collision records indicate that no collisions have been recorded over the past five years at this junction.

Figure 2.2: Collisions at A229/Plains Avenue Junction



2.2.6 From the above analysis, it can be concluded that there are no safety issues that have been identified and could worsen due to the proposed permanent closure of Cranborne Avenue.

3 Junction Improvement Options

3.1 Overview

3.1.1 KCC have identified three potential options for the junction going forward as follows:

1. **Do Nothing** – allow re-opening of Cranbourne Avenue at expiry of the Experimental TRO at end Sept 2023.
2. **Do Minimum** – implement permanent closure of Cranbourne Avenue, minor enabling civils works and traffic signal upgrades.
3. **Do Maximum** - implement permanent closure of Cranbourne Avenue alongside more comprehensive junction upgrade including removal of pub building and traffic signal upgrades.

Do Nothing Scheme

3.1.2 As identified above the junction in this scenario would revert back to its current arrangement following the expiry of the temporary TRO. There would be minimal works required to implement this option and accordingly there would be negligible costs associated with it.

Do Minimum Scheme

3.1.3 The proposed do minimum scheme would require a permanent TRO to be implemented to close Cranbourne Avenue and minor enabling works to facilitate the change in operation at the junction. A proposed scheme drawing shown in **Appendix E** for reference.

3.1.4 New traffic signal technology will be provided at the junction. These include improved pedestrian crossing facilities, widened to 3.2m from 2.8m in width and being provided with kerbside and on-crossing detection. The new near sided puffin technology will cancel any spurious pedestrian demands and improve junction efficiency. In addition, the technology will improve co-ordination between the Wheatsheaf junction and the A229/Armstrong Rd signal operation.

3.1.5 The closure of Cranbourne Avenue will also improve pedestrian and cyclist movements at the junction through the removal of a side road crossing on the eastern side of the junction.

Do Maximum Scheme

3.1.6 The proposed do maximum scheme comprises a more comprehensive amendment to the junction involving the removal of the Wheatsheaf pub building and reconfiguration of the A229 Loose Rd (S) and A274 Sutton Rd approaches in addition to the improvements proposed within the 'Do Minimum' scheme. A proposed scheme drawing shown in **Appendix F** for reference.

3.2 Options Assessment

- 3.2.1 Consultants WSP undertook comparative network capacity assessments of each of the above options on behalf of KCC. The assessments were undertaken in the industry standard software platform LinSig which is typically used to assess individual or small groups of traffic signal-controlled junctions.
- 3.2.2 The key output LinSig assessments is the ‘Degree of Saturation’ (DoS). A junction is operating at full capacity when the DoS on one or more arms is 100% or greater. A DoS value of 85% or less is a generally preferred level and indicates that the approach in question is operating within theoretical capacity and has some practical reserve to account for normal fluctuations in traffic conditions. LinSig also provides an overall network performance metric known as ‘practical reserve capacity’ (PRC), which is also expressed as a percentage.
- 3.2.3 The assessments undertaken by WSP comprise of a small network of 3 junctions including the A229/Armstrong Rd, A229/Plains Avenue and Wheatsheaf junctions. The LinSig assessment outputs are summarised in the table below for the Wheatsheaf junction and overall network performance (PRC).

Table 3.1: Options Assessment Summary

Arm	Do Nothing		Do Minimum		Do Maximum	
	Max DoS	Queue	Max DoS	Queue	Max DoS	Queue
AM Peak						
A229 Loose Rd (N)	96%	20.8	47%	7.0	79.6%	18.8
Cranbourne Ave	71%	3.9	Closure			
A274 Sutton Rd	89%	14.6	82.0%	11.1	76.3%	10.2
A229 Loose Rd (S)	84.5%	18.3	80.3%	15.5	70.3%	13.6
Network PRC	-8.7%		9.7%		11.3%	
PM Peak						
A229 Loose Rd (N)	95%	22.9	52%	8.2	83.6%	21.1
Cranbourne Ave	72%	3.9	Closure			
A274 Sutton Rd	81.6%	12.4	79.0%	11.0	83.7%	11.2
A229 Loose Rd (S)	76.5%	13.3	75.8%	13.2	76.5%	9.8
Network PRC	-8.9%		12.4%		6.8%	

- 3.2.4 The assessment outputs above indicate that the Do Minimum and Do Maximum scenarios would operate significantly better than the Do Nothing scenario, with the network PRC values increasing by between 15-20%.

- 3.2.5 A comparison of the Do Minimum and Do Maximum scenarios indicates that the difference in operation of the junction and wider network between the two scenarios is negligible. Of particular note, however, is the forecast operation of the A229 Loose Rd (N) arm is significantly improved in the Do Minimum scenario with maximum queues of 7-8 vehicles compared with queues of 19-21 in the Do Maximum Scenario.

4 Summary and Recommendation

4.1 Summary

- 4.1.1 This report is intended to provide a review of potential options to improve the operation of the A229 Loose Rd/A274 Sutton Rd (Wheatsheaf) junction.
- 4.1.2 The junction is formed of a four-arm traffic signal-controlled junction, however, following the implementation of an Experimental Traffic Regulation Order (TRO) in March 2022, the Cranborne Avenue arm of the junction has been closed to vehicular traffic.
- 4.1.3 The review of the junction and potential improvements has been based upon observed traffic survey data captured before and after the closure of Cranbourne Avenue, and a comparison of forecast junction capacity assessments representing each of the proposed junction options.
- 4.1.4 The comparison of traffic data at the junction pre and post closure of Cranbourne Avenue indicates that the closure has significantly reduced queues on the A229 (N) and A274 arms of the junction whilst not having a noticeable detrimental impact elsewhere on the network.
- 4.1.5 Furthermore, a review of historic personal injury collision data indicates that there has been no worsening of highway safety conditions at either the Wheatsheaf or A229/Plains Avenue junctions since the closure of Cranbourne Avenue.
- 4.1.6 Three alternative improvement options have been identified by KCC as follows:
1. **Do Nothing** – allow re-opening of Cranbourne Avenue at expiry of temporary TRO at end Sept 2023.
 2. **Do Minimum** – implement permanent closure of Cranbourne Avenue, minor enabling civils works and traffic signal upgrades.
 3. **Do Maximum** - implement permanent closure of Cranbourne Avenue alongside more comprehensive junction upgrade including removal of pub building and traffic signal upgrades.
- 4.1.7 Forecast junction assessment modelling indicates that the Do Minimum (Cranbourne Ave Closure) and Do Maximum (Wider improvement + Cranbourne Ave Closure) options would derive significant benefits compared with the Do Nothing (Cranbourne Ave open) option.
- 4.1.8 The modelling also indicates that there would be a negligible difference in the operation of the junction between the Do Minimum and Do Maximum options.

4.2 Recommendation

4.2.1 Based upon the analysis of the surveyed traffic data it is recommended that the closure of Cranbourne Avenue is made permanent in one form or another as this derives significant benefits compared with having Cranbourne Avenue open at the junction.

4.2.2 Reviewing the two available options which incorporate the closure of Cranbourne Avenue, it is recommended that the Do Minimum option is implemented as this derives similar, if not increased, levels of benefit compared with the Do Maximum option; and therefore, represents the best value for money approach given the likely difference in relative costs of both options.

Appendix A Traffic Count Raw Data



Intelligent Data Collection Limited Loose Road Corridor

Client: WSP
Project Number: ID05935
Junction Number: Site 3
Date of Survey: 16.09.2021
Junction Name: A229 Loose Road / Cranborne Avenue / Sutton Road
Junction Type: Crossroads

Quality Assurance and Issue Record



Quality Assurance

Revision	Rev A			
Date	23.09.2021			
Prepared by	Gabriel Adelowo			
Signature				
Checked by	Luke Martin			
Signature				
Project Director	Paul O'Neill			
Signature				
Project Number	ID05935			
File Ref	ID05935 Loose Road Corridor - MCC Site 3 - 16.09.2021			

Issue Record

Issued to	Date			
	24.09.2021			
Simon Bourne	E-mail			



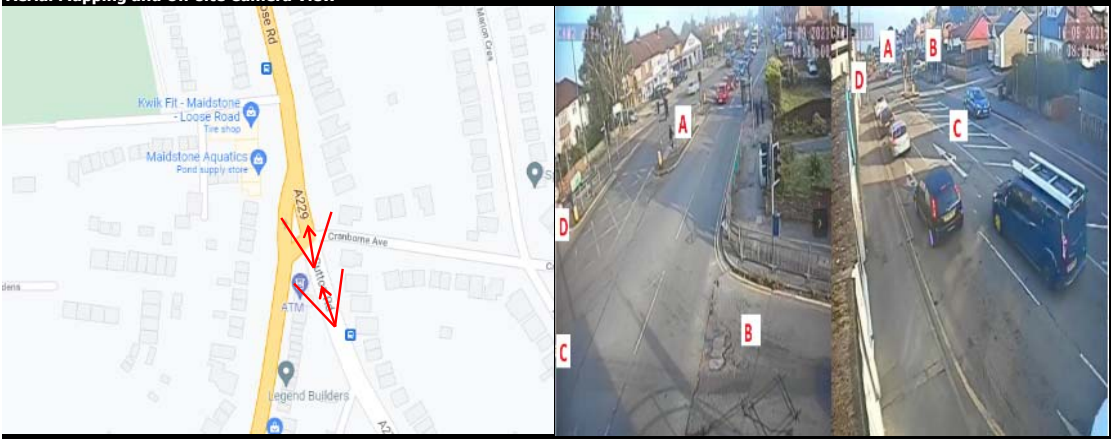
Client: WSP **Date of Survey:** 16.09.2021
Project Number: ID05935 **Junction Name:** A229 Loose Road / Cranborne Avenue / Sutton Road
Junction Number: Site 3 **Junction Type:** Crossroads

X Coordinate	Y Coordinate	Google Maps Link
51.257519	0.531210	Click Here
AM Peak Conditions	Inter Peak Conditions	PM Peak Conditions
Sunny Intervals	Sunny Intervals	Sunny Intervals

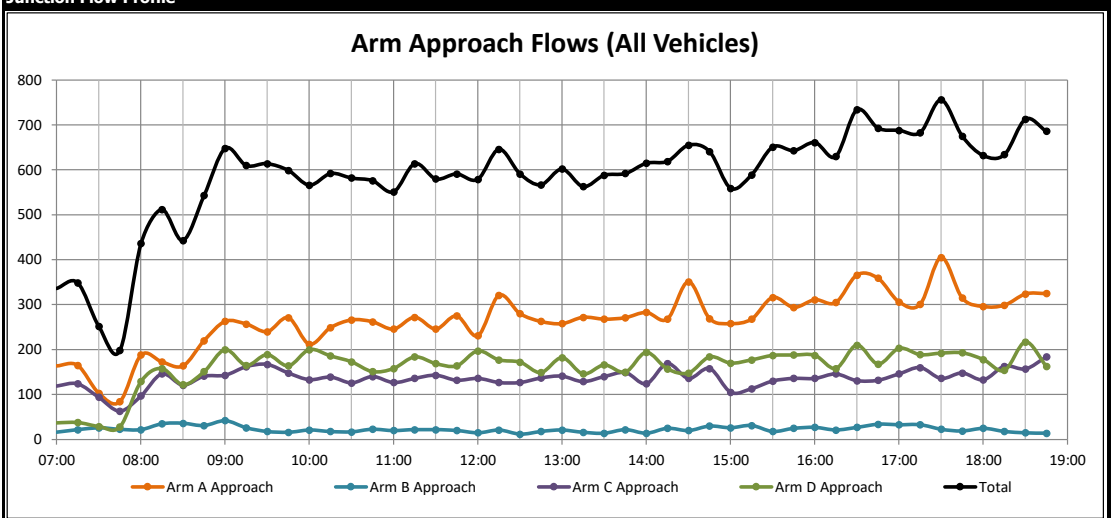
Junction Layout



Aerial Mapping and On site Camera View



Junction Flow Profile



Additional Notes (Factors which may impact on survey results such as accidents, roadworks, special events):

There is severe blocking on Arm D between 07:00 and 08:00. The reason is not clear from the camera view.



Intelligent Data Collection Limited



Client: WSP Date of Survey: 16.09.2021
 Project Number: ID05935 Junction Name: A229 Loose Road / Cranborne Avenue / Sutton Road
 Junction Number: Site 3 Junction Type: Crossroads

Arm A: A229 Loose Road (N)
 Arm B: Cranborne Avenue (E)
 Arm C: Sutton Road (SE)
 Arm D: A229 Loose Road (S)

Time	D to A							Total
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	
07:00	15	2	1	0	0	0	1	19
07:15	13	3	0	0	0	1	0	17
07:30	13	2	0	0	0	0	1	16
07:45	11	4	0	0	0	1	1	17
08:00	84	16	0	9	6	1	2	118
08:15	105	17	2	4	0	0	0	128
08:30	74	12	1	1	1	0	5	94
08:45	97	13	1	2	2	0	0	115
09:00	123	19	2	6	0	0	0	150
09:15	92	28	0	6	1	0	0	127
09:30	105	27	3	7	2	2	0	146
09:45	107	17	1	10	2	0	0	137
10:00	112	27	8	10	3	0	0	160
10:15	111	15	5	16	0	1	0	148
10:30	100	15	9	14	1	2	0	141
10:45	87	17	4	11	2	1	0	122
11:00	91	21	4	9	0	0	0	125
11:15	119	21	5	6	1	0	0	152
11:30	98	21	9	11	2	1	0	142
11:45	84	24	6	5	1	0	0	120
12:00	109	21	2	8	1	3	0	144
12:15	99	28	5	8	0	1	0	141
12:30	97	25	7	5	1	0	0	135
12:45	85	16	4	9	0	2	0	116
13:00	110	17	2	12	0	2	0	143
13:15	92	14	5	5	1	0	0	117
13:30	89	21	5	13	2	1	0	131
13:45	78	21	8	7	1	2	0	117
14:00	105	30	7	11	0	0	0	153
14:15	95	17	1	7	1	1	0	131
14:30	89	21	5	14	1	0	1	131
14:45	114	19	5	9	2	1	0	150
15:00	97	23	2	2	0	0	1	125
15:15	106	27	1	5	4	1	1	144
15:30	113	13	0	7	0	2	1	136
15:45	113	21	1	5	6	1	0	146
16:00	115	22	0	4	1	1	0	143
16:15	85	36	1	1	0	0	0	123
16:30	125	21	4	8	1	1	0	160
16:45	107	23	0	1	1	4	0	136
17:00	125	27	1	1	2	3	0	159
17:15	127	15	3	0	0	2	0	147
17:30	120	14	2	0	2	2	1	141
17:45	119	24	1	0	3	1	1	149
18:00	113	13	0	2	1	0	0	129
18:15	101	11	2	0	1	3	0	118
18:30	144	18	2	9	0	1	0	174
18:45	115	9	0	4	3	1	0	132
Start Time	Rolling Hour							Total
07:00	52	11	1	0	0	2	3	69
07:15	121	25	0	9	6	3	4	168
07:30	213	39	2	13	6	2	4	279
07:45	274	49	3	14	7	2	8	357
08:00	360	58	4	16	9	1	7	455
08:15	399	61	6	13	3	0	5	487
08:30	386	72	4	15	4	0	5	486
08:45	417	87	6	21	5	2	0	538
09:00	427	91	6	29	5	2	0	560
09:15	416	99	12	33	8	2	0	570
09:30	435	86	17	43	7	3	0	591
09:45	430	74	23	50	6	3	0	586
10:00	410	74	26	51	6	4	0	571
10:15	389	68	22	50	3	4	0	536
10:30	397	74	22	40	4	3	0	540
10:45	395	80	22	37	5	2	0	541
11:00	392	87	24	21	4	1	0	539
11:15	410	87	22	30	5	4	0	558
11:30	390	94	22	32	4	5	0	547
11:45	389	98	20	26	3	4	0	540
12:00	390	90	18	30	2	6	0	536
12:15	391	86	18	34	1	5	0	535
12:30	384	72	18	31	2	4	0	511
12:45	376	68	16	39	3	5	0	507
13:00	369	73	20	37	4	5	0	508
13:15	364	86	25	36	4	3	0	518
13:30	367	93	26	38	4	4	0	532
13:45	367	93	26	39	3	3	1	532
14:00	403	91	23	41	4	2	1	565
14:15	395	84	18	32	4	2	2	537
14:30	406	90	13	30	7	1	3	550
14:45	430	82	8	23	6	3	2	555
15:00	429	84	8	20	5	2	3	551
15:15	447	83	6	22	6	3	2	569
15:30	436	92	6	18	2	3	1	548
15:45	438	100	10	19	3	2	0	572
16:00	432	102	5	14	3	6	0	562
16:15	442	107	6	11	4	8	0	578
16:30	484	86	8	10	4	10	0	602
16:45	479	79	6	2	5	11	1	583
17:00	491	80	7	1	7	8	2	596
17:15	479	66	6	2	6	5	2	566
17:30	453	62	5	2	7	6	2	537
17:45	477	66	5	11	5	5	1	570
18:00	473	51	4	15	5	5	0	553

Intelligent Data Collection Limited



Client: WSP Date of Survey: 16.09.2021
 Project Number: ID05935 Junction Name: A229 Loose Road / Cranborne Avenue / Sutton Road
 Junction Number: Site 3 Junction Type: Crossroads

Time	Total Junction Flow							Total
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	
07:00	239	76	6	5	4	4	2	336
07:15	247	75	11	7	3	3	0	349
07:30	176	47	9	7	6	6	1	252
07:45	143	34	0	7	5	8	1	198
08:00	326	58	9	26	11	4	2	436
08:15	405	73	7	16	5	4	2	512
08:30	349	58	8	13	6	3	6	443
08:45	425	78	10	20	7	3	0	543
09:00	507	98	12	22	6	2	1	648
09:15	448	123	15	17	3	3	1	610
09:30	444	110	19	26	9	5	1	614
09:45	446	88	17	32	10	5	1	599
10:00	411	99	20	25	8	2	1	566
10:15	438	94	17	32	7	3	1	592
10:30	429	82	26	30	6	8	1	582
10:45	429	96	18	23	8	2	0	576
11:00	423	89	10	25	3	1	0	551
11:15	487	78	18	19	8	3	1	614
11:30	423	88	23	24	7	3	2	588
11:45	450	86	28	16	6	5	0	591
12:00	449	82	16	20	6	6	0	579
12:15	484	110	17	24	5	6	0	646
12:30	448	91	21	21	5	3	2	591
12:45	434	80	17	22	5	8	1	567
13:00	477	79	17	18	3	8	0	602
13:15	426	84	21	19	7	6	0	563
13:30	432	102	18	23	5	2	0	588
13:45	447	95	16	20	7	6	1	592
14:00	475	91	14	26	4	4	1	615
14:15	487	95	13	15	7	2	0	619
14:30	490	149	14	27	6	8	1	655
14:45	512	82	20	12	8	6	1	641
15:00	427	95	15	10	4	7	1	559
15:15	455	93	9	16	11	4	1	589
15:30	533	71	10	19	5	12	1	651
15:45	521	82	13	13	8	2	4	643
16:00	531	96	11	11	5	6	1	661
16:15	483	115	5	8	10	7	2	630
16:30	588	97	11	17	5	4	2	724
16:45	574	89	1	6	8	13	2	693
17:00	578	90	2	5	4	9	0	688
17:15	579	80	4	4	6	8	2	683
17:30	642	82	6	4	7	12	3	756
17:45	568	80	5	8	7	6	1	675
18:00	557	56	2	7	6	3	1	632
18:15	544	61	3	6	7	12	1	634
18:30	608	71	2	14	5	13	0	713
18:45	593	66	2	8	9	8	0	686
Start Time	Rolling Hour							Total
07:00	805	232	26	28	18	22	4	1135
07:15	892	214	29	49	25	22	4	1235
07:30	1050	212	25	56	27	22	6	1398
07:45	1223	223	24	62	27	19	11	1589
08:00	1505	267	34	75	29	14	10	1934
08:15	1686	307	37	71	24	12	9	2146
08:30	1729	357	45	72	22	11	8	2244
08:45	1824	409	56	85	25	13	3	2415
09:00	1845	419	63	97	28	15	4	2471
09:15	1749	420	71	100	30	15	4	2389
09:30	1739	391	73	115	34	15	4	2371
09:45	1724	363	80	119	31	18	4	2339
10:00	1707	371	81	110	29	15	3	2316
10:15	1719	361	71	110	24	14	2	2301
10:30	1768	345	72	97	25	14	2	2323
10:45	1762	361	69	91	26	9	3	2321
11:00	1783	351	79	84	24	12	3	2336
11:15	1809	344	85	79	27	17	3	2364
11:30	1806	376	84	84	24	20	2	2396
11:45	1831	369	82	81	22	20	2	2407
12:00	1815	363	71	87	21	23	3	2383
12:15	1843	360	72	85	18	25	3	2406
12:30	1785	334	76	80	20	25	3	2323
12:45	1769	345	73	82	20	30	1	2320
13:00	1782	360	72	80	22	28	1	2345
13:15	1780	372	69	88	23	24	2	2358
13:30	1841	383	61	84	23	20	2	2414
13:45	1890	390	57	88	24	20	3	2481
14:00	1964	377	61	80	25	20	3	2530
14:15	1916	381	62	64	25	23	3	2474
14:30	1884	379	58	65	29	25	4	2444
14:45	1927	341	54	57	28	29	4	2440
15:00	1936	341	47	58	28	25	7	2442
15:15	2040	342	43	59	29	24	7	2544
15:30	2068	364	39	51	28	27	8	2585
15:45	2133	390	40	49	28	19	9	2668
16:00	2186	397	28	42	28	30	7	2718
16:15	2233	391	19	36	27	33	6	2745
16:30	2329	356	18	32	23	34	6	2798
16:45	2373	341	13	19	25	42	7	2820
17:00	2367	332	17	21	24	35	6	2802
17:15	2346	298	17	23	26	29	7	2746
17:30	2311	279	16	25	27	33	6	2697
17:45	2277	268	12	35	25	34	3	2654
18:00	2302	254	9	35	27	36	2	2665

Intelligent Data Collection Limited

Client: WSP Date of Survey: 16.09.2021
Project Number: ID05935 Junction Name: A229 Loose Road / Cranborne Avenue / Sutton Junction Type: Crossroads
Arm A: A229 Loose Road (N) Arm B: Cranborne Avenue (E) Arm C: Sutton Road (SE) Arm D: A229 Loose Road (S)



Table with PCU Summary and Rolling Hour sections. PCU Summary columns: Time, A to A, A to D, A to C, A to B, B to B, B to A, B to D, B to C, C to C, C to B, C to A, C to D, D to D, D to C, D to B, D to A. Rolling Hour columns: Start Time, A to A, A to D, A to C, A to B, B to B, B to A, B to D, B to C, C to C, C to B, C to A, C to D, D to D, D to C, D to B, D to A.

Intelligent Data Collection Limited



Client: WSP **Date of Survey:** 16.09.2021
Project Number: ID05935 **Junction Name:** A229 Loose Road / Cranborne Avenue / Sutton **Arm A:** A229 Loose Road (N)
Junction Number: Site 3 **Junction Type:** Crossroads **Arm B:** Cranborne Avenue (E) **Arm C:** Sutton Road (SE)
Arm D: A229 Loose Road (S)

Count Method: **Classes Included:** *Select the count method and desired user classes from the drop-downs in cells D8 and G8*

Maximum 15-minute Junction Flow:	AM Peak	from: 09:00	until: 09:15	flow: 708	<i>AM Peak covers 07:00 until 10:00</i>
	Inter-Peak	from: 14:30	until: 14:45	flow: 722	<i>Inter-Peak covers 10:00 until 16:00</i>
	PM Peak	from: 16:30	until: 16:45	flow: 780	<i>PM Peak covers 16:00 until 19:00</i>

Period Starting: *Select the time from the drop-down in cell D16 to show the 15-minute data for that period*

Movement Counts

		To				
		A	B	C	D	Total
From	A	0	2	162	132	296
	B	9	0	3	30	42
	C	131	1	0	25	156
	D	163	14	36	0	213
Total		303	17	201	187	708

HGV Proportions

		To				
		A	B	C	D	Total
From	A	0.0%	0.0%	17.1%	21.5%	19.0%
	B	0.0%	0.0%	0.0%	0.0%	0.0%
	C	17.1%	0.0%	0.0%	7.6%	15.5%
	D	13.0%	0.0%	0.0%	0.0%	9.9%
Total		14.4%	0.0%	13.8%	16.2%	14.4%

Maximum Hourly Junction Flow:	AM Peak	from: 09:00	until: 10:00	flow: 2742
	Inter-Peak	from: 15:45	until: 16:45	flow: 2821
	PM Peak	from: 16:30	until: 17:30	flow: 2884

Period Starting: *Select the time from the drop-down in cell D33 to show the hourly data for that period*

Movement Counts

		To				
		A	B	C	D	Total
From	A	0	27	719	654	1401
	B	21	0	15	86	122
	C	483	7	0	97	587
	D	592	45	127	0	765
Total		1097	79	862	837	2875

HGV Proportions

		To				
		A	B	C	D	Total
From	A	0.0%	0.0%	5.9%	4.3%	5.0%
	B	0.0%	0.0%	0.0%	0.0%	0.0%
	C	7.5%	0.0%	0.0%	0.0%	6.2%
	D	5.0%	0.0%	4.6%	0.0%	4.6%
Total		6.0%	0.0%	5.6%	3.4%	5.0%

Bold entries in the above tables indicate the maximum movement, approach and exit flows for the selected time period, and similarly with the HGV proportions



Intelligent Data Collection Limited Loose Road Corridor Repeat

Client: Kent County Council
Project Number: ID06551
Junction Number: Site 3
Date of Survey: 09.06.2022
Junction Name: A229 Loose Road / Cranborne Avenue / A274 Sutton Road
Junction Type: 4-arm Junction

Quality Assurance and Issue Record



Quality Assurance

Revision	Rev A			
Date	24.06.2022			
Prepared by	Sam Hamilton-Peach			
Signature				
Checked by	Luke Martin			
Signature				
Project Director	Paul O'Neill			
Signature				
Project Number	ID06551			
File Ref	ID06551 Loose Road Corridor Repeat - MCC Site 3 - 09.06.2022			

Issue Record

Issued to	Date			
	27.06.2022			
Sarah Tutt	E-mail			

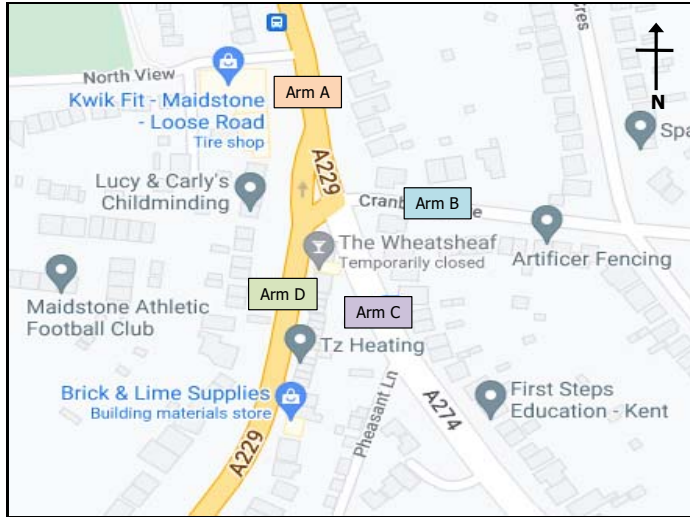
Intelligent Data Collection Limited



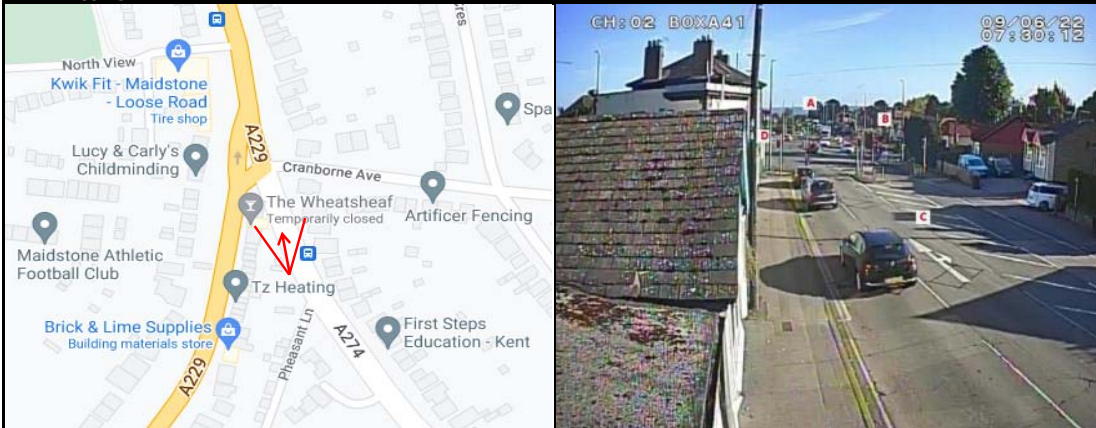
Client: Kent County Council **Date of Survey:** 09.06.2022
Project Number: ID06551 **Junction Name:** A229 Loose Road / Cranborne Avenue / A274 Sutton Road
Junction Number: Site 3 **Junction Type:** 4-arm Junction

X Coordinate	Y Coordinate	Google Maps Link
51.257541	0.531196	Click Here
AM Peak Conditions	Inter-Peak Conditions	PM Peak Conditions
Clear	Clear	Clear

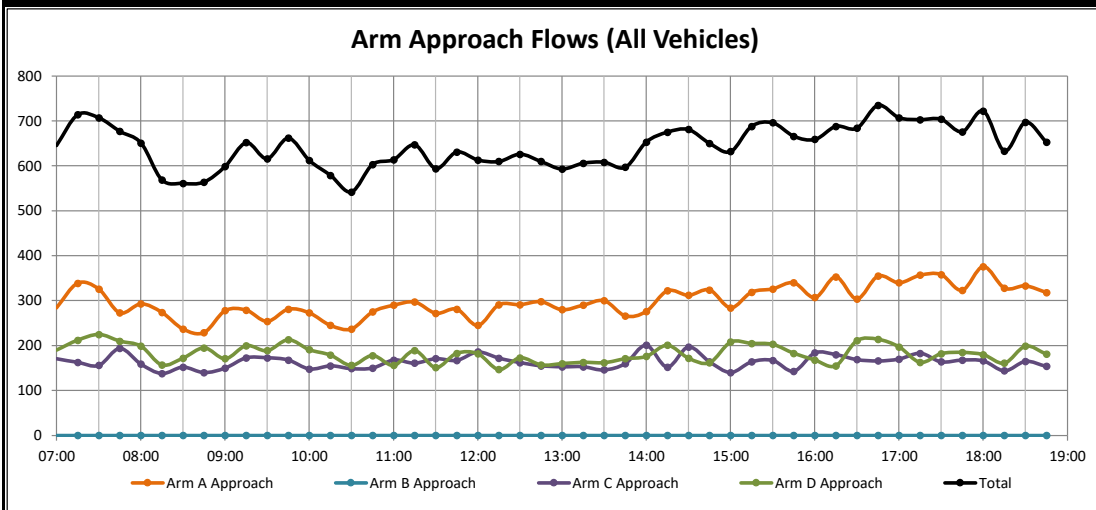
Junction Layout



Aerial Mapping and On-site Camera View



Junction Flow Profile



Additional Notes (Factors which may impact on survey results such as accidents, roadworks, special events):

Intelligent Data Collection Limited



Client: Kent County Council
 Project Number: ID06551
 Junction Number: Site 3

Date of Survey: 09.06.2022
 Junction Name: A229 Loose Road / Cranborne Avenue / A274 Sutton Road
 Junction Type: 4-arm Junction

Arm A: A229 Loose Road (N)
 Arm B: Cranborne Avenue (E)
 Arm C: A274 Sutton Road (SE)
 Arm D: A229 Loose Road (S)

Time	D to A							Total
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	
07:00	126	33	4	2	0	1	1	167
07:15	148	32	3	4	1	1	1	190
07:30	160	30	3	1	0	3	0	197
07:45	154	19	3	5	4	0	0	185
08:00	141	20	0	4	2	1	1	169
08:15	104	19	2	0	1	4	0	130
08:30	119	12	1	2	0	1	0	135
08:45	123	19	2	6	0	1	0	151
09:00	119	14	4	6	1	1	0	145
09:15	143	15	5	4	0	0	0	167
09:30	134	16	1	8	1	0	0	160
09:45	146	16	2	9	1	1	0	175
10:00	130	8	5	4	1	1	0	149
10:15	119	15	6	7	0	3	0	150
10:30	100	17	7	2	2	2	0	130
10:45	112	20	13	6	2	1	1	146
11:00	99	17	3	7	1	0	0	127
11:15	119	11	8	7	1	2	0	148
11:30	82	17	5	6	2	0	0	112
11:45	117	21	5	7	1	0	0	151
12:00	121	21	8	2	1	1	0	154
12:15	89	19	3	6	0	0	1	118
12:30	115	17	5	5	1	0	0	143
12:45	97	17	4	6	2	2	0	128
13:00	94	24	5	7	0	2	1	133
13:15	106	22	3	2	1	1	0	135
13:30	88	19	4	9	0	1	0	121
13:45	102	23	5	8	1	2	0	141
14:00	120	19	4	2	1	1	0	147
14:15	128	23	6	4	0	2	0	165
14:30	116	21	4	7	1	0	0	149
14:45	105	26	2	5	0	1	0	139
15:00	139	28	1	5	1	2	1	177
15:15	150	17	3	3	3	1	0	177
15:30	140	20	1	1	0	0	0	162
15:45	118	17	2	7	2	1	0	147
16:00	107	21	3	4	0	3	1	139
16:15	105	11	1	3	1	0	0	121
16:30	144	28	5	3	0	2	0	182
16:45	140	26	3	3	2	4	0	178
17:00	149	17	1	1	0	2	0	170
17:15	115	12	1	2	1	2	1	134
17:30	116	26	4	4	1	3	0	154
17:45	119	28	1	3	3	3	0	157
18:00	134	12	0	2	1	1	0	150
18:15	119	9	2	1	1	0	0	132
18:30	141	15	0	2	1	1	1	161
18:45	113	19	0	4	2	3	0	141
Start Time	Rolling Hour							Total
07:00	588	114	13	12	5	5	2	739
07:15	603	101	9	14	7	5	2	741
07:30	559	88	8	10	7	8	1	681
07:45	518	70	6	11	7	6	1	619
08:00	487	70	5	12	3	7	1	585
08:15	465	64	9	14	2	7	0	561
08:30	504	60	12	18	1	3	0	598
08:45	519	64	12	24	2	2	0	623
09:00	542	61	12	27	3	2	0	647
09:15	553	55	13	25	3	2	0	651
09:30	529	55	14	28	3	5	0	634
09:45	495	56	20	22	4	7	0	604
10:00	461	60	22	19	5	7	1	575
10:15	430	69	20	22	5	6	1	553
10:30	430	65	22	22	6	5	1	551
10:45	412	65	20	26	6	3	1	533
11:00	417	66	21	27	5	2	0	538
11:15	439	70	26	22	5	3	0	565
11:30	409	78	21	21	4	1	1	535
11:45	442	78	21	20	3	1	1	566
12:00	422	74	20	19	4	3	1	543
12:15	395	77	17	24	3	4	2	522
12:30	412	80	17	20	4	5	1	539
12:45	385	82	16	24	3	6	1	517
13:00	390	88	17	26	2	6	1	530
13:15	416	83	16	21	3	5	0	544
13:30	438	84	19	24	3	6	0	574
13:45	466	86	19	22	4	5	0	602
14:00	469	89	16	19	3	4	0	600
14:15	488	98	13	22	3	5	1	630
14:30	510	92	10	20	4	4	1	642
14:45	534	91	7	14	4	4	1	655
15:00	547	82	7	16	6	4	1	663
15:15	515	75	9	15	5	5	1	625
15:30	470	69	7	15	3	4	1	569
15:45	474	77	11	17	3	6	1	589
16:00	496	86	12	13	3	9	1	620
16:15	538	82	10	10	3	8	0	651
16:30	548	83	10	9	3	10	1	664
16:45	520	81	9	10	4	11	1	636
17:00	499	83	7	10	5	10	1	615
17:15	484	78	6	11	6	9	1	595
17:30	488	75	7	10	6	7	0	593
17:45	513	64	3	8	6	5	1	600
18:00	507	55	2	9	5	5	1	584

Intelligent Data Collection Limited



Client: Kent County Council Date of Survey: 09/06/2022
Project Number: ID06551 Junction Name: A229 Loose Road / Cranborne Avenue / A274 Sutton Road
Junction Number: Site 3 Junction Type: 4-arm Junction

Table with 24 columns and multiple rows containing traffic count data for various times of day (e.g., 07:00, 07:15, 07:30, etc.) across different junctions and directions.

Intelligent Data Collection Limited



Client: Kent County Council Date of Survey: 09/06/2022
 Project Number: ID06551 Junction Name: A229 Loose Road / Cranborne Avenue / A274 Sutton Road
 Junction Number: Site 3 Junction Type: 4-arm Junction

Time	Total Junction Flow							Total
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	
07:00	476	128	19	9	5	5	3	645
07:15	531	143	12	19	5	5	2	714
07:30	538	128	16	11	4	9	1	707
07:45	539	97	14	12	11	4	0	677
08:00	531	77	8	18	8	7	2	651
08:15	459	77	14	8	3	8	0	569
08:30	447	78	7	15	4	10	0	561
08:45	434	84	16	18	6	6	0	564
09:00	463	94	12	17	8	3	2	599
09:15	514	85	21	19	6	7	0	652
09:30	476	98	16	18	4	4	0	616
09:45	504	107	18	24	7	2	0	662
10:00	489	80	19	13	4	5	2	612
10:15	452	82	16	18	4	5	0	579
10:30	424	72	20	15	8	3	0	542
10:45	472	85	20	13	8	4	1	603
11:00	470	88	23	21	5	6	1	614
11:15	517	71	19	24	6	10	0	647
11:30	440	86	17	25	8	8	0	594
11:45	480	98	14	20	13	6	0	631
12:00	485	89	16	12	5	5	1	613
12:15	480	85	11	18	5	10	1	610
12:30	495	79	18	24	7	3	0	626
12:45	477	82	21	14	9	6	1	610
13:00	441	97	20	25	2	7	1	593
13:15	469	92	14	17	8	5	1	606
13:30	476	88	18	18	4	6	0	608
13:45	452	100	15	18	5	7	0	597
14:00	524	86	17	13	5	8	0	653
14:15	517	118	16	14	6	4	0	675
14:30	532	104	13	16	6	9	1	681
14:45	505	105	8	14	10	7	1	650
15:00	491	106	11	12	5	6	1	632
15:15	554	85	12	13	10	14	0	688
15:30	578	97	11	5	3	2	0	696
15:45	523	94	7	16	11	12	3	666
16:00	534	96	9	10	4	4	2	659
16:15	554	99	7	9	10	8	1	688
16:30	578	78	7	10	4	7	0	684
16:45	587	108	11	11	7	11	0	735
17:00	602	72	8	7	4	13	1	707
17:15	616	58	5	8	6	8	2	703
17:30	578	92	6	11	6	8	0	704
17:45	566	75	4	11	7	11	2	684
18:00	617	78	4	9	5	9	0	722
18:15	555	51	4	5	8	10	0	633
18:30	607	70	4	6	4	5	1	697
18:45	585	64	3	6	5	9	1	653
Start Time	Rolling Hour							Total
07:00	2084	496	61	48	25	23	6	2743
07:15	2139	445	50	57	28	25	5	2749
07:30	2067	379	52	49	26	29	2	2604
07:45	1976	329	43	53	26	29	2	2458
08:00	1871	316	45	59	21	31	2	2345
08:15	1803	333	49	58	21	27	2	2293
08:30	1858	341	56	69	24	26	2	2376
08:45	1887	361	65	72	24	20	2	2431
09:00	1957	384	67	78	25	16	2	2529
09:15	1983	370	74	74	21	18	2	2542
09:30	1921	367	71	73	19	16	2	2469
09:45	1869	341	75	70	23	15	2	2395
10:00	1837	319	77	59	24	17	3	2336
10:15	1818	327	81	67	25	18	2	2338
10:30	1883	316	82	73	27	23	2	2406
10:45	1899	340	79	83	27	28	2	2458
11:00	1907	353	73	90	32	30	1	2486
11:15	1922	354	66	81	32	29	1	2485
11:30	1885	368	58	75	31	29	2	2448
11:45	1940	351	59	74	30	24	2	2480
12:00	1937	335	66	68	26	24	3	2459
12:15	1893	343	70	81	23	26	3	2439
12:30	1882	350	73	80	26	21	3	2435
12:45	1863	359	73	74	23	22	3	2417
13:00	1838	377	67	78	19	23	2	2404
13:15	1921	366	64	66	22	24	1	2464
13:30	1969	392	66	63	20	23	0	2533
13:45	2025	408	61	61	22	28	1	2606
14:00	2078	413	54	57	27	28	2	2659
14:15	2045	433	48	56	27	26	3	2638
14:30	2082	400	44	55	31	36	3	2651
14:45	2128	393	42	44	28	29	2	2666
15:00	2146	382	41	46	29	34	4	2682
15:15	2189	372	39	44	28	32	5	2709
15:30	2189	386	34	40	28	26	6	2709
15:45	2189	367	30	45	29	31	6	2697
16:00	2253	381	34	40	25	30	3	2766
16:15	2321	357	33	37	25	39	2	2814
16:30	2383	316	31	36	21	39	3	2829
16:45	2383	330	30	40	23	40	3	2849
17:00	2362	297	23	40	23	40	5	2790
17:15	2377	303	19	42	24	36	4	2805
17:30	2316	296	18	39	26	38	2	2735
17:45	2345	274	16	31	24	35	3	2728
18:00	2344	263	15	26	22	33	2	2705

Intelligent Data Collection Limited



Client: Kent County Council
Project Number: ID06551
Junction Number: Site 3

Date of Survey: 09.06.2022
Junction Name: A229 Loose Road / Cranborne Avenue / A274 Su
Junction Type: 4-arm Junction

Arm A: A229 Loose Road (N)
Arm B: Cranborne Avenue (E)

Arm C: A274 Sutton Road (SE)
Arm D: A229 Loose Road (S)

Count Method: Vehicles **Classes Included:** All Classes *Select the count method and desired user classes from the drop-downs in cells D8 and G8*

Maximum 15-minute Junction Flow:	AM Peak	from: 07:15	until: 07:30	flow: 714	<i>AM Peak covers 07:00 until 10:00</i>
	Inter-Peak	from: 15:30	until: 15:45	flow: 696	<i>Inter-Peak covers 10:00 until 16:00</i>
	PM Peak	from: 16:45	until: 17:00	flow: 735	<i>PM Peak covers 16:00 until 19:00</i>

Period Starting: 07:00 *Select the time from the drop-down in cell D16 to show the 15-minute data for that period*

Movement Counts

		To				Total
		A	B	C	D	
From	A	0	0	129	155	284
	B	0	0	0	0	0
	C	147	0	0	24	171
	D	167	0	23	0	190
	Total	314	0	152	179	645

HGV Proportions

		To				Total
		A	B	C	D	
From	A	0.0%	0.0%	4.7%	9.0%	7.0%
	B	0.0%	0.0%	0.0%	0.0%	0.0%
	C	3.4%	0.0%	0.0%	0.0%	2.9%
	D	3.6%	0.0%	8.7%	0.0%	4.2%
	Total	3.5%	0.0%	5.3%	7.8%	5.1%

Maximum Hourly Junction Flow:	AM Peak	from: 07:15	until: 08:15	flow: 2749
	Inter-Peak	from: 15:15	until: 16:15	flow: 2709
	PM Peak	from: 16:45	until: 17:45	flow: 2849

Period Starting: 07:00 *Select the time from the drop-down in cell D33 to show the hourly data for that period*

Movement Counts

		To				Total
		A	B	C	D	
From	A	0	0	572	650	1222
	B	0	0	0	0	0
	C	546	0	0	138	684
	D	739	0	98	0	837
	Total	1285	0	670	788	2743

HGV Proportions

		To				Total
		A	B	C	D	
From	A	0.0%	0.0%	3.5%	7.7%	5.7%
	B	0.0%	0.0%	0.0%	0.0%	0.0%
	C	4.6%	0.0%	0.0%	3.6%	4.4%
	D	4.1%	0.0%	4.1%	0.0%	4.1%
	Total	4.3%	0.0%	3.6%	7.0%	4.9%

Bold entries in the above tables indicate the maximum movement, approach and exit flows for the selected time period, and similarly with the HGV proportions



Intelligent Data Collection Limited Loose Road Corridor

Client: WSP
Project Number: ID05935
Junction Number: Site 2
Date of Survey: 16.09.2021
Junction Name: A229 Loose Road / Plains Avenue
Junction Type: T-Junction

Quality Assurance and Issue Record



Quality Assurance

Revision	Rev A			
Date	23.09.2021			
Prepared by	Gabriel Adelowo			
Signature				
Checked by	Luke Martin			
Signature				
Project Director	Paul O'Neill			
Signature				
Project Number	ID05935			
File Ref	ID05935 Loose Road Corridor - MCC Site 2 - 16.09.2021			

Issue Record

Issued to	Date			
	24.09.2021			
Simon Bourne	E-mail			

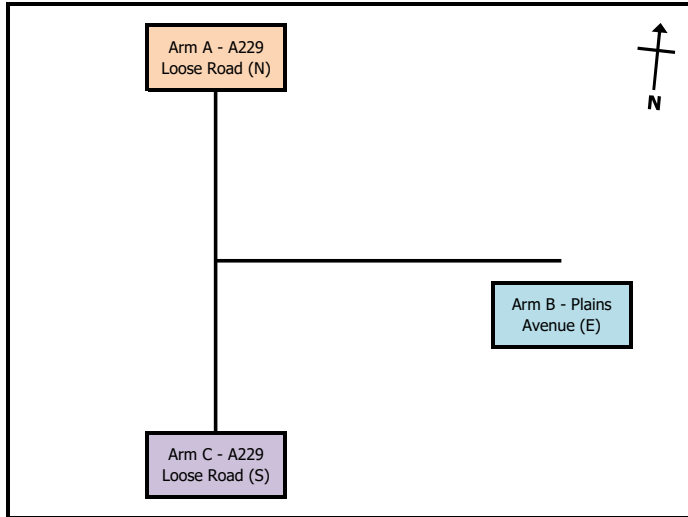
Intelligent Data Collection Limited



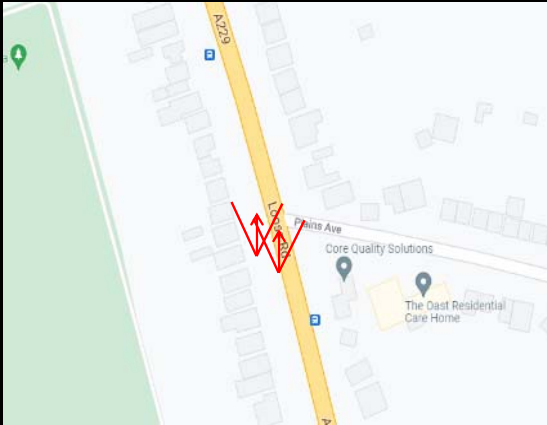
Client: WSP
Project Number: ID05935
Junction Number: Site 2
Date of Survey: 16.09.2021
Junction Name: A229 Loose Road / Plains Avenue
Junction Type: T-Junction

X Coordinate	Y Coordinate	Google Maps Link
51.260236	0.530249	Click Here
AM Peak Conditions	Inter-Peak Conditions	PM Peak Conditions
Sunny Intervals	Sunny Intervals	Sunny Intervals

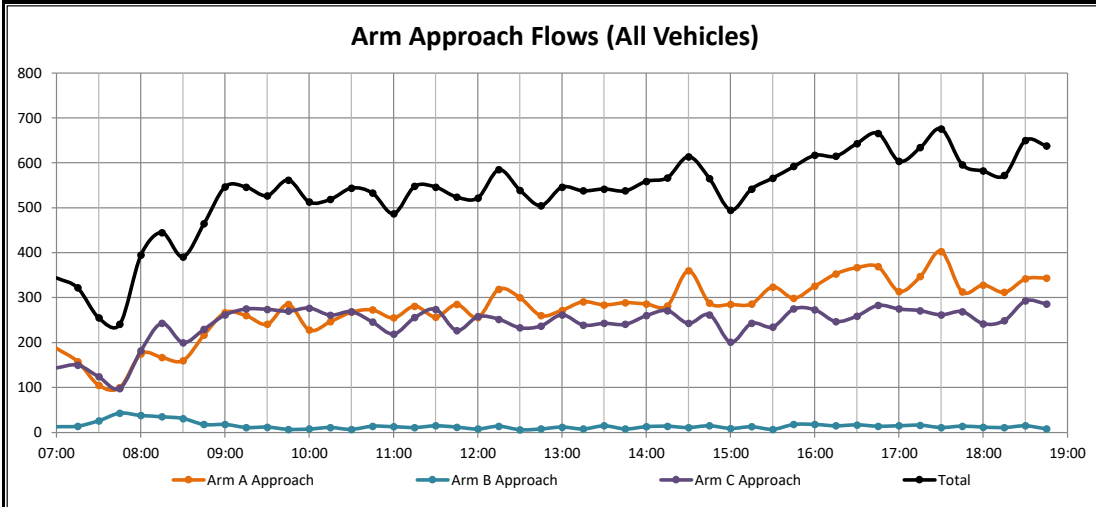
Junction Layout



Aerial Mapping and On-site Camera View



Junction Flow Profile



Additional Notes (Factors which may impact on survey results such as accidents, roadworks, special events):

Intelligent Data Collection Limited



Client: WSP Date of Survey: 16.09.2021
 Project Number: ID05935 Junction Name: A229 Loose Road / Plains Avenue
 Junction Number: Site 2 Junction Type: T-Junction

Time	Total Junction Flow							Total
	Cars	LGV	OGV1	OGV2	Buses	M/C	Cycle	
07:00	242	76	9	8	3	5	1	344
07:15	219	77	9	3	4	1	1	322
07:30	187	43	8	6	7	4	0	255
07:45	176	43	2	7	5	7	1	241
08:00	299	56	6	20	9	4	1	395
08:15	336	74	7	19	4	4	1	445
08:30	297	60	6	13	7	2	6	391
08:45	356	77	7	17	6	2	0	465
09:00	423	82	13	20	6	2	1	547
09:15	460	111	11	16	5	2	1	596
09:30	363	102	23	26	6	6	1	527
09:45	416	85	13	32	10	5	1	562
10:00	380	81	21	23	6	2	0	513
10:15	375	87	16	28	9	3	1	519
10:30	395	82	22	31	6	7	1	544
10:45	397	88	17	21	8	2	0	533
11:00	366	86	9	22	3	1	0	487
11:15	431	78	12	16	8	2	1	548
11:30	463	85	20	27	6	2	3	596
11:45	400	73	23	16	7	4	1	524
12:00	398	78	16	19	5	6	0	522
12:15	427	105	16	23	7	7	0	585
12:30	401	89	19	21	4	4	1	539
12:45	391	67	14	22	4	7	0	505
13:00	424	76	18	15	4	9	0	546
13:15	405	83	18	20	7	5	0	538
13:30	398	95	16	20	5	8	0	542
13:45	396	92	16	21	7	4	2	538
14:00	420	94	15	21	4	4	1	559
14:15	438	91	11	16	7	3	1	567
14:30	447	111	14	26	7	8	1	614
14:45	443	73	20	16	7	6	0	565
15:00	383	87	10	7	3	5	0	495
15:15	415	90	11	12	9	5	0	542
15:30	458	65	11	17	5	10	0	566
15:45	480	74	12	14	8	4	0	592
16:00	494	89	11	11	6	4	2	617
16:15	475	108	5	9	9	7	2	615
16:30	514	92	10	15	6	4	2	643
16:45	545	95	2	4	8	12	0	666
17:00	501	82	2	5	4	10	0	604
17:15	529	83	3	4	5	8	2	634
17:30	573	70	8	4	8	12	1	676
17:45	497	74	3	8	6	7	1	596
18:00	500	61	3	7	7	3	1	582
18:15	494	51	3	5	6	13	0	572
18:30	539	71	2	14	7	17	0	650
18:45	548	60	2	8	9	10	1	638
Start Time	Rolling Hour							Total
07:00	824	239	28	30	18	20	3	1162
07:15	881	219	25	42	24	19	3	1213
07:30	998	216	23	52	28	19	3	1336
07:45	1108	233	21	59	25	17	9	1472
08:00	1288	267	26	69	26	12	8	1696
08:15	1412	293	33	69	23	10	8	1848
08:30	1476	330	37	66	24	8	8	1949
08:45	1542	372	54	79	23	12	3	2085
09:00	1602	380	60	94	27	15	4	2182
09:15	1559	379	68	97	27	15	3	2148
09:30	1524	355	73	109	31	16	3	2121
09:45	1566	335	72	114	31	17	3	2138
10:00	1547	338	76	103	29	14	2	2109
10:15	1533	343	64	102	26	13	2	2083
10:30	1589	324	60	90	25	12	2	2112
10:45	1597	337	58	86	25	7	4	2114
11:00	1600	322	64	81	24	9	5	2105
11:15	1632	314	71	78	26	14	5	2140
11:30	1626	341	75	85	25	19	4	2177
11:45	1626	345	74	79	23	21	2	2170
12:00	1617	339	65	85	20	24	1	2151
12:15	1643	337	67	81	19	27	1	2175
12:30	1621	315	69	78	19	25	1	2128
12:45	1618	321	66	77	20	29	0	2131
13:00	1623	346	68	76	23	26	2	2164
13:15	1619	364	65	82	23	21	3	2177
13:30	1652	372	58	78	23	19	4	2206
13:45	1701	388	56	84	25	19	5	2278
14:00	1748	369	60	79	25	21	3	2305
14:15	1711	362	55	65	24	22	2	2241
14:30	1688	261	55	61	26	24	1	2216
14:45	1699	315	52	52	24	26	0	2168
15:00	1736	316	44	50	25	24	0	2195
15:15	1847	318	45	54	28	23	2	2317
15:30	1907	326	39	51	28	25	4	2390
15:45	1963	363	38	49	29	19	6	2467
16:00	2028	384	28	39	29	27	6	2541
16:15	2035	377	19	33	27	33	4	2528
16:30	2089	352	17	28	23	34	4	2547
16:45	2148	330	15	17	25	42	3	2580
17:00	2100	309	16	21	23	37	4	2510
17:15	2099	288	17	23	26	30	5	2488
17:30	2064	256	17	24	27	35	3	2426
17:45	2030	257	11	34	26	40	2	2400
18:00	2081	243	10	34	29	43	2	2442

Intelligent Data Collection Limited



Client: WSP
 Project Number: ID05935
 Junction Number: Site 2

Date of Survey: 16.09.2021
 Junction Name: A229 Loose Road / Plains Avenue
 Junction Type: T-Junction

Arm A: A229 Loose Road (N)
 Arm B: Plains Avenue (E)
 Arm C: A229 Loose Road (S)

PCU Summary									
Time	A to A	A to C	A to B	B to B	B to A	B to C	C to C	C to B	C to A
07:00	0	200	4	0	13	0	0	3	148
07:15	0	164	8	0	10	4	0	0	163
07:30	0	119	3	0	18	8	0	0	134
07:45	0	103	10	0	38	6	0	1	101
08:00	0	197	5	0	31	7	0	3	205
08:15	0	190	5	0	28	7	0	8	253
08:30	0	166	15	0	20	11	0	5	208
08:45	0	238	9	0	14	4	0	2	244
09:00	0	296	6	0	10	8	0	2	282
09:15	0	269	13	0	8	3	0	2	297
09:30	0	269	14	0	10	1	0	5	303
09:45	0	320	14	0	2	4	0	3	303
10:00	0	254	9	0	6	2	0	5	308
10:15	0	262	16	0	7	3	0	6	303
15:45	0	307	16	0	10	8	0	4	294
16:00	0	321	27	0	13	5	0	4	283
16:15	0	355	18	0	13	2	0	10	247
16:30	0	360	20	0	12	5	0	5	284
16:45	0	352	23	0	10	4	0	8	284
17:00	0	305	17	0	10	5	0	4	274
17:15	0	332	23	0	11	5	0	10	265
17:30	0	391	22	0	6	4	0	10	261
17:45	0	317	11	0	7	7	0	9	267
18:00	0	308	29	0	10	2	0	5	252
18:15	0	308	16	0	6	4	0	6	246
18:30	0	326	22	0	11	5	0	8	307
18:45	0	331	18	0	5	2	0	4	302
Start Time	Rolling Hour								
07:00	0	585	25	0	79	18	0	4	546
07:15	0	582	26	0	97	25	0	4	603
07:30	0	608	23	0	115	28	0	12	693
07:45	0	656	35	0	117	31	0	17	767
08:00	0	791	34	0	93	29	0	18	910
08:15	0	890	35	0	72	30	0	17	987
08:30	0	970	43	0	52	26	0	11	1030
08:45	0	1072	42	0	42	16	0	11	1125
09:00	0	1154	47	0	30	16	0	12	1184
09:15	0	1112	50	0	26	10	0	15	1210
09:30	0	1104	53	0	25	10	0	19	1216
09:45	0	1127	50	0	20	11	0	19	1226
10:00	0	1096	45	0	27	14	0	21	1203
10:15	0	1112	43	0	28	18	0	17	1145
10:30	0	1142	40	0	29	18	0	15	1121
10:45	0	1124	43	0	35	20	0	15	1123
11:00	0	1129	55	0	33	18	0	13	1095
11:15	0	1133	62	0	31	16	0	18	1119
11:30	0	1172	66	0	31	19	0	25	1116
11:45	0	1225	61	0	21	19	0	26	1055
12:00	0	1197	59	0	18	18	0	24	1069
12:15	0	1194	63	0	23	17	0	18	1085
12:30	0	1170	58	0	19	15	0	9	1079
12:45	0	1127	66	0	27	17	0	5	1107
13:00	0	1161	67	0	27	17	0	9	1105
13:15	0	1182	72	0	26	18	0	14	1099
13:30	0	1160	73	0	27	22	0	16	1128
13:45	0	1250	69	0	28	17	0	17	1128
14:00	0	1237	73	0	31	21	0	15	1154
14:15	0	1219	78	0	28	20	0	18	1072
14:30	0	1216	83	0	33	15	0	17	1042
14:45	0	1163	98	0	27	17	0	25	1004
15:00	0	1182	90	0	30	17	0	26	1007
15:15	0	1230	90	0	37	19	0	22	1088
15:30	0	1303	89	0	40	18	0	29	1066
15:45	0	1343	81	0	48	20	0	23	1107
16:00	0	1387	88	0	48	16	0	27	1097
16:15	0	1371	78	0	45	16	0	27	1088
16:30	0	1348	84	0	43	19	0	27	1106
16:45	0	1379	86	0	37	18	0	32	1084
17:00	0	1345	74	0	34	21	0	33	1066
17:15	0	1348	85	0	34	18	0	34	1044
17:30	0	1324	78	0	30	17	0	30	1025
17:45	0	1258	78	0	34	18	0	28	1071
18:00	0	1272	84	0	33	13	0	23	1107

Intelligent Data Collection Limited



Client: WSP
 Project Number: ID05935
 Junction Number: Site 2

Date of Survey: 16.09.2021
 Junction Name: A229 Loose Road / Plains Avenue
 Junction Type: T-Junction

Arm A: A229 Loose Road (N)
 Arm B: Plains Avenue (E)
 Arm C: A229 Loose Road (S)

Count Method: Classes Included: *Select the count method and desired user classes from the drop-downs in cells D8 and G8*

Maximum 15-minute Junction Flow:	AM Peak	from:	09:45	until:	10:00	flow:	646	<i>AM Peak covers 07:00 until 10:00</i>
	Inter-Peak	from:	14:30	until:	14:45	flow:	681	<i>Inter-Peak covers 10:00 until 16:00</i>
	PM Peak	from:	17:30	until:	17:45	flow:	695	<i>PM Peak covers 16:00 until 19:00</i>

Period Starting: *Select the time from the drop-down in cell D16 to show the 15-minute data for that period*

Movement Counts

		To			
		A	B	C	Total
From	A	0	5	197	202
	B	31	0	7	38
	C	205	3	0	209
	Total	236	8	204	449

HGV Proportions

		To			
		A	B	C	Total
From	A	0.0%	0.0%	23.2%	22.7%
	B	0.0%	0.0%	0.0%	0.0%
	C	22.5%	0.0%	0.0%	22.1%
	Total	19.5%	0.0%	22.4%	20.5%

Maximum Hourly Junction Flow:	AM Peak	from:	09:45	until:	10:45	flow:	2453
	Inter-Peak	from:	15:45	until:	16:45	flow:	2622
	PM Peak	from:	16:00	until:	17:00	flow:	2663

Period Starting: *Select the time from the drop-down in cell D32 to show the hourly data for that period*

Movement Counts

		To			
		A	B	C	Total
From	A	0	25	585	610
	B	79	0	18	97
	C	546	4	0	550
	Total	625	29	603	1257

HGV Proportions

		To			
		A	B	C	Total
From	A	0.0%	0.0%	18.4%	17.7%
	B	2.4%	0.0%	0.0%	2.0%
	C	13.5%	48.7%	0.0%	13.7%
	Total	12.1%	6.6%	17.9%	14.7%

Bold entries in the above tables indicate the maximum movement, approach and exit flows for the selected time period, and similarly with the HGV proportions

Appendix B Queue Length Raw Data



Intelligent Data Collection Limited Loose Road Corridor

Client: WSP
Project Number: ID05935
Site Number: Site 3
Date of Survey: 16.09.2021
Junction Name: A229 Loose Road / Cranborne Avenue / Sutton Road
Survey Type: Queue Length Survey

Quality Assurance and Issue Record



Quality Assurance

Revision	Rev A			
Date	23.09.2021			
Prepared by	Gabriel Adelowo			
Signature				
Checked by	Luke Martin			
Signature				
Project Director	Paul O'Neill			
Signature				
Project Number	ID05935			
File Ref	ID05935 Loose Road Corridor - Queue Site 3 - 16.09.2021			

Issue Record

Issued to	Date			
	24.09.2021			
Simon Bourne	E-mail			

Intelligent Data Collection Limited



Client: WSP
Project Number: ID05935
Site Number: Site 3
Date of Survey: 16.09.2021
Junction Name: A229 Loose Road / Cranborne Avenue / Sutton Road
Survey Type: Queue Length Survey

X Coordinate	Y Coordinate	Google Maps Link
51.257519	0.531210	Click Here
AM Peak Conditions	Inter-peak Conditions	PM Peak Conditions
Sunny Intervals	Sunny Intervals	Sunny Intervals

Junction Layout



Queue Length Methodology

The maximum queue length, in vehicles, is reported by lane for each five-minute period.

These are segregated into 'light' and 'heavy' vehicles, and are then presented as a maximum queue length using the assumption that a light vehicle contributes 6m to a queue and a heavy vehicle 15m. These values can be updated by the user.

Vehicle Length Assumptions (metres)

Lights	Heavies
6	15

Additional Notes (Factors which may impact on survey results such as accidents, roadworks, special events)

Any shaded entries for Arms B, C and D indicate where queues reach the extent of the camera view.

Any shaded entries for Arm A indicate where queues reach back to the upstream signalised junction (Site 1).



Intelligent Data Collection Limited Loose Road Corridor Repeat

Client: Kent County Council
Project Number: ID06551
Site Number: Site 3
Date of Survey: 09.06.2022
Junction Name: A229 Loose Road / Cranborne Avenue / A274 Sutton Road
Survey Type: Queue Length Survey

Quality Assurance and Issue Record



Quality Assurance

Revision	Rev A			
Date	24.06.2022			
Prepared by	Sam Hamilton-Peach			
Signature				
Checked by	Luke Martin			
Signature				
Project Director	Paul O'Neill			
Signature				
Project Number	ID06551			
File Ref	ID06551 Loose Road Corridor Repeat - Queue Site 3 - 09.06.2022			

Issue Record

Issued to	Date			
	27.06.2022			
Sarah Tutt	E-mail			

Intelligent Data Collection Limited



Client: Kent County Council
Project Number: ID06551
Site Number: Site 3
Date of Survey: 09.06.2022
Junction Name: A229 Loose Road / Cranborne Avenue / A274 Sutton Road
Survey Type: Queue Length Survey

X Coordinate	Y Coordinate	Google Maps Link
51.257541	0.531196	Click Here
AM Peak Conditions	Inter-peak Conditions	PM Peak Conditions
Clear	Clear	Clear

Junction Layout



Queue Length Methodology

The snapshot queue length, in vehicles, is reported by lane at each five-minute interval. For signalised junctions the queue is recorded the first time the signals turn green after each interval.

These are segregated into 'light' and 'heavy' vehicles, and are then presented as a snapshot queue length using the assumption that a light vehicle contributes 6m to a queue and a heavy vehicle 15m. These values can be updated by the user.

Vehicle Length Assumptions (metres)

Lights	Heavies
6	15

Additional Notes (Factors which may impact on survey results such as accidents, roadworks, special events)

Any shaded entries indicate where queues reach the extent of the camera view.

Intelligent Data Collection Limited

Client: Kent County Council
Project Number: 100553
Site Number: 3
Date of Survey: 09.05.2022
Junction Names: A229 Loose Road / Cranborne Avenue / A274 Sutton Road
Survey Type: Queue Length Survey



Table with columns for Time, Lane A1, Lane A2, Lane C1, Lane C2, Lane D1, and Lane D2. Each lane column includes sub-columns for Lights, Heavies, and Total, along with Length (m). The table contains data for various time intervals from 07:00 to 18:55.



Intelligent Data Collection Limited Loose Road Corridor

Client: WSP
Project Number: ID05935
Site Number: Site 2
Date of Survey: 16.09.2021
Junction Name: A229 Loose Road / Plains Avenue
Survey Type: Queue Length Survey

Quality Assurance and Issue Record



Quality Assurance

Revision	Rev A			
Date	23.09.2021			
Prepared by	Gabriel Adelowo			
Signature				
Checked by	Luke Martin			
Signature				
Project Director	Paul O'Neill			
Signature				
Project Number	ID05935			
File Ref	ID05935 Loose Road Corridor - Queue Site 2 - 16.09.2021			

Issue Record

Issued to	Date			
	24.09.2021			
Simon Bourne	E-mail			

Intelligent Data Collection Limited



Client: WSP
Project Number: ID05935
Site Number: Site 2
Date of Survey: 16.09.2021
Junction Name: A229 Loose Road / Plains Avenue
Survey Type: Queue Length Survey

X Coordinate	Y Coordinate	Google Maps Link
51.260236	0.530249	Click Here
AM Peak Conditions	Inter-peak Conditions	PM Peak Conditions
Sunny Intervals	Sunny Intervals	Sunny Intervals

Junction Layout



Queue Length Methodology

The maximum queue length, in vehicles, is reported by lane for each five-minute period.

These are segregated into 'light' and 'heavy' vehicles, and are then presented as a maximum queue length using the assumption that a light vehicle contributes 6m to a queue and a heavy vehicle 15m. These values can be updated by the user.

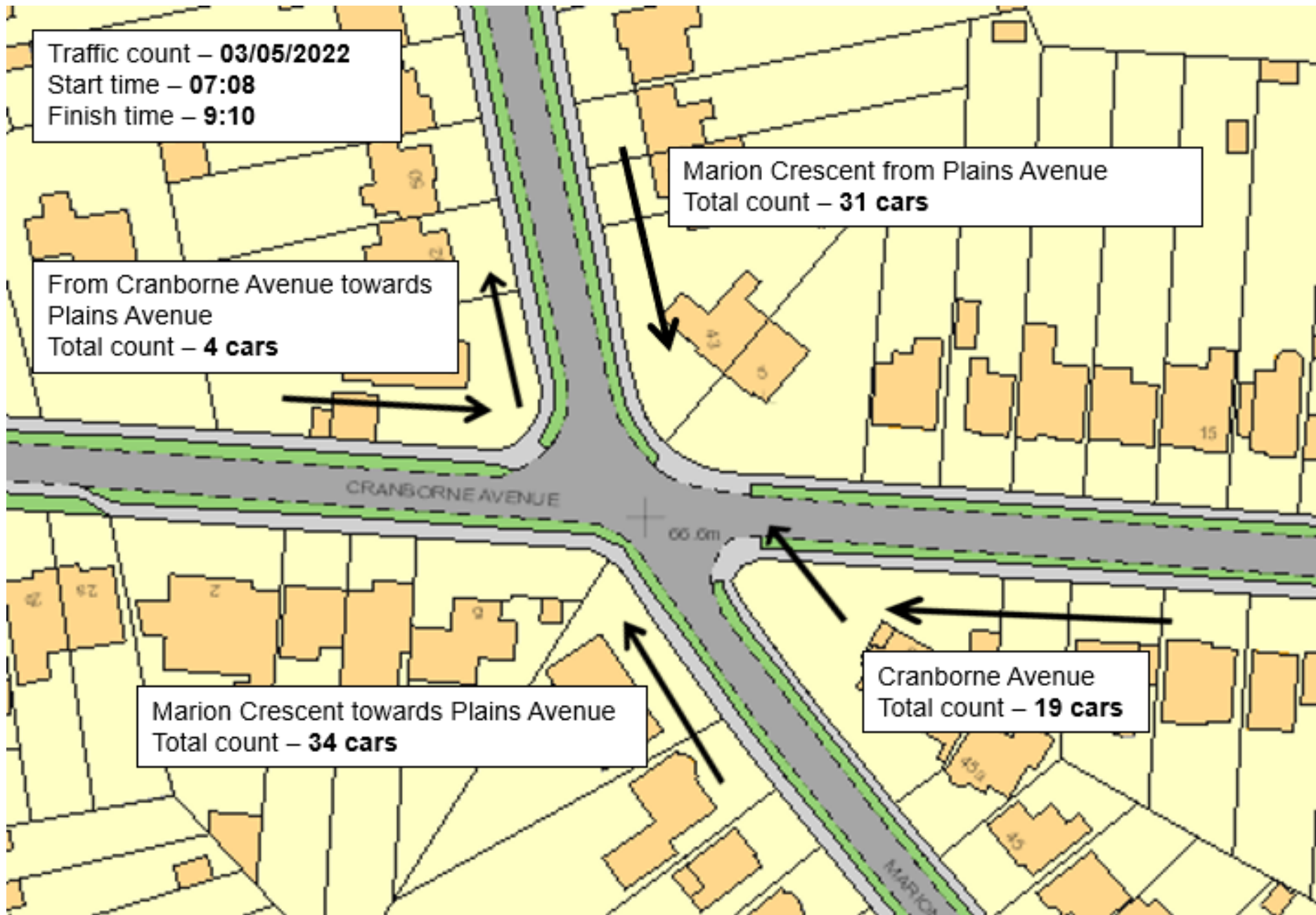
Vehicle Length Assumptions (metres)

Lights	Heavies
6	15

Additional Notes (Factors which may impact on survey results such as accidents, roadworks, special events)

Any shaded entries indicate where queues reach the extent of the camera view.

Appendix C Site Observation Queue





Entering Plains Avenue North bound. Traffic count: **63 cars**

Entering Plains Avenue South bound. Traffic count: **41 cars**

Exiting Plains Avenue travelling North bound. Traffic count: **130 cars**

Exiting Plains Avenue travelling South bound entering Loose Road. Traffic count: **180 cars**

Queuing cars max: 7 cars
Queuing cars min: 2 cars

Play Area

Orchard House

FiveKins Court

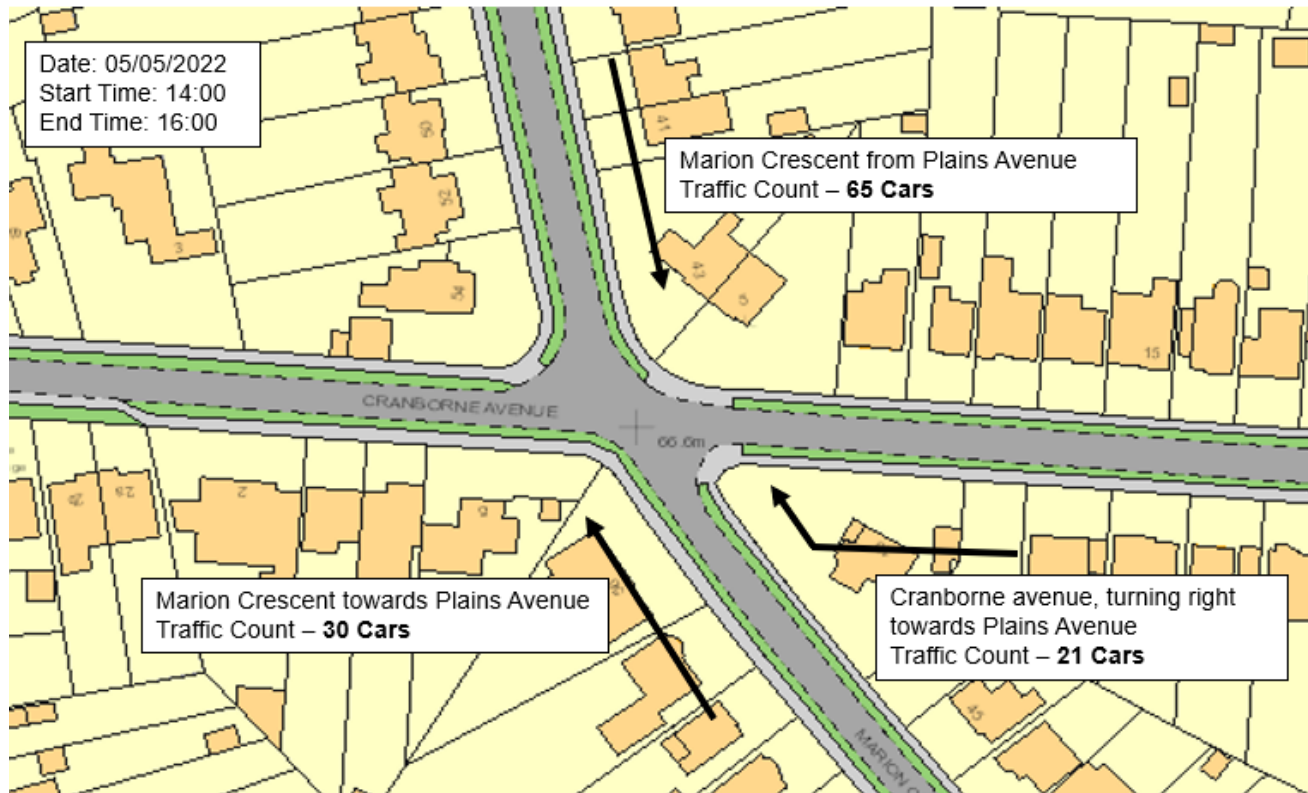
South Park

PLAINS AVENUE

LOOSE ROAD

CO COURT & VINEY BAY

MANOR C



Date: 05/05/2022
Start Time: 14:00
End Time: 16:00

Entering Plains Avenue North bound. Traffic count: **145 cars**

Entering Plains Avenue South bound. Traffic count: **99 cars**

Exiting Plains Avenue travelling North bound. Traffic count: **108 cars**

Exiting Plains Avenue travelling South bound entering Loose Road. Traffic count: **103 cars**

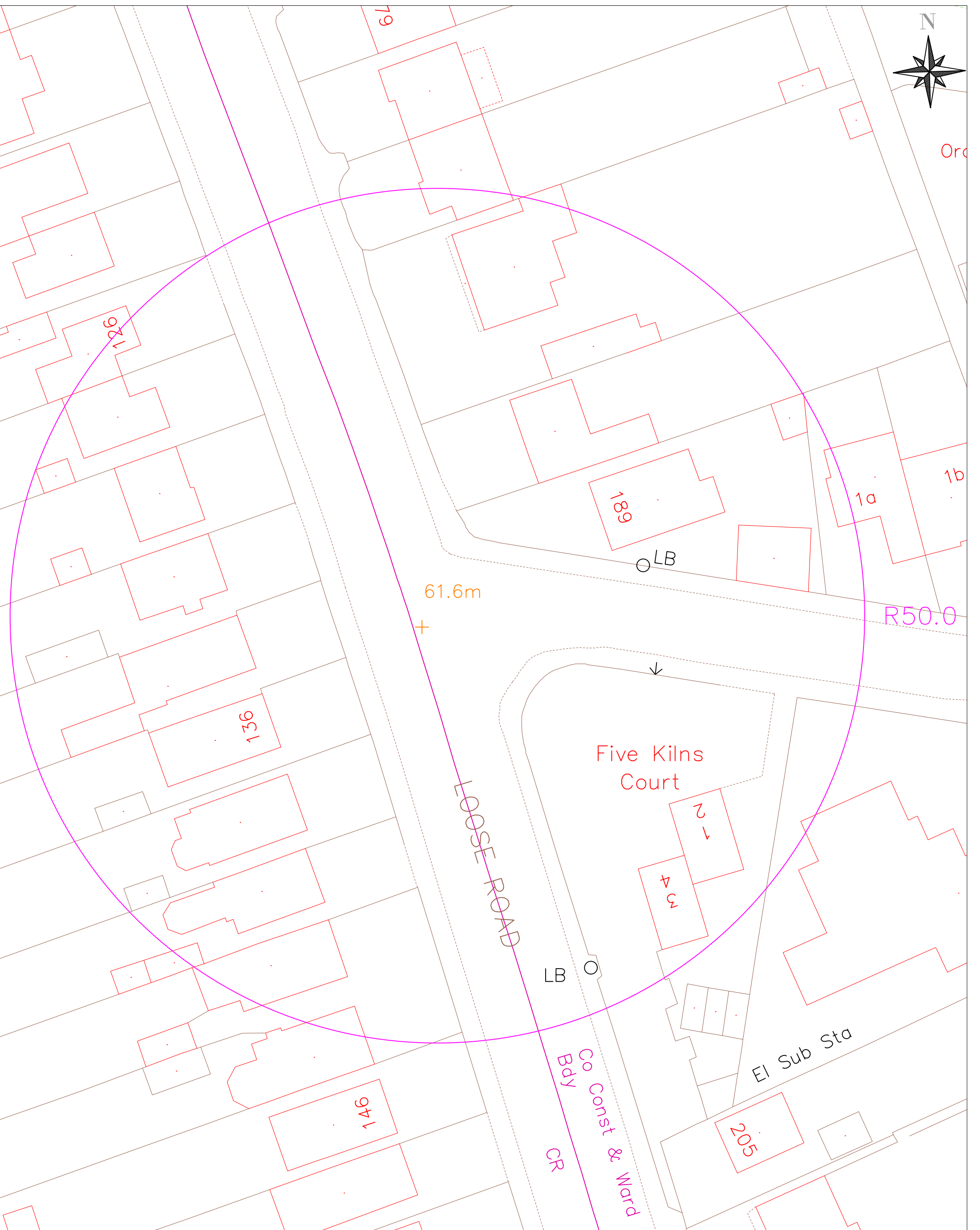
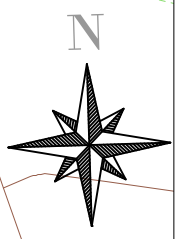
Max queuing cars: **4 cars**

Max queuing cars: **6 cars**





Appendix D Collision Data



Location: Plains Avenue j/w A229 Loose Rd, Maidstone

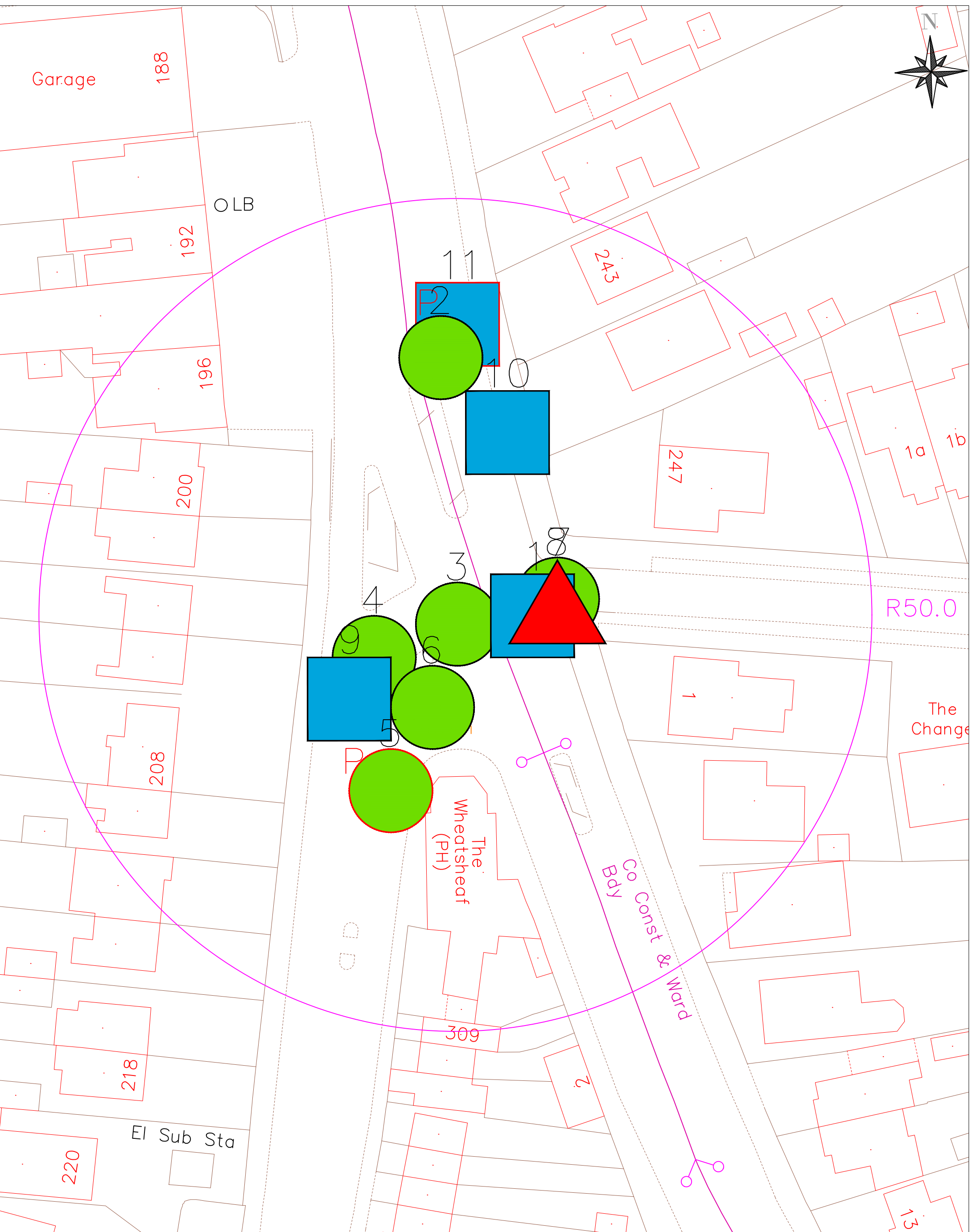
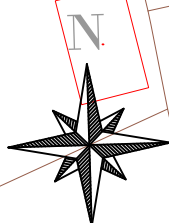
5 years personal injury crash data up to 31/03/2023- Zero crashes

KCC Ref number: INT/230/23

Crash Severity	
●	Slight
■	Serious
▲	Fatal



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Location: Cranborne Avenue j/w A229 Loose Rd, Maidstone
 5 years personal injury crash data up to 31/03/2023
 KCC Ref number: INT/229/23

Crash Severity	
●	Slight
■	Serious
▲	Fatal



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Date: 13-September-2023

Time: 08:00:37

Title: **Cranborne Avenue jw A229 Loose Road, Maidstone**

Requested output: **D - Print Crash Report**

Date: 13-September-2023

Accident Date BETWEEN '01-Apr-2018' AND '31-Mar-2023'

There were 11 reported crashes resulting in injury

D-PRINT CRASH REPORT

13-Sep-2023

08:00:37

Cranborne Avenue jw A229 Loose Road, Maidstone
Accident Date BETWEEN '01-Apr-2018' AND '31-Mar-2023'

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
1	Road No A229 Grid 576729E Section 200 Ref 153967N	SERIOUS	30/10/2018	3	18:40	DRK STL	Dry	Fine		R.TURN	M/C
A229, LOOSE RD J/W CRANBORNE AVE, MAIDSTONE.									Maidstone		
FOR AN UNKNOWN REASON V1 PULLED INTO THE PATH OF V2 HAVING NOT EITHER SEEN OR ALLOWED FOR THE PROGRESS OF V2 CAUSING COLLISION.							Veh1, car, N -> SW Veh2, m/cycle 125 - 500cc, SE -> N			Casualties	1
										Vehicles	2
2	Road No A229 Grid 576718E Section 200 Ref 153998N	SLIGHT	15/01/2019	3	15:45	L	Dry	Fine			
A229 LOOSE RD J/W CRANBORNE AVE, MAIDSTONE (MAPPED TO COORDS)									Maidstone		
V1 AND V2 WERE TRAVELLING SOUTHEAST ON LOOSE RD. V2 WAS HELD AT RED TRAFFIC LIGHTS IN LANE 2 OF 2 AT THE JUNCTION WITH SUTTON RD. V1 EXECUTED A PRE-EMPTIVE STOP ACROSS THE FRONT OF V2. D1 THEN SELECTED "P" ON THEIR AUTOMATIC TRANSMISSION SELECTOR AND ALIGHTED FROM V1, HOWEVER, THE GEARBOX WENT INTO NEUTRAL AND ROLLED BACKWARDS, COLLIDED WITH V2.							Veh1, car, SE -> NW Veh2, car, NW -> SE			Casualties	1
										Vehicles	2
3	Road No A229 Grid 576720E Section 200 Ref 153966N	SLIGHT	10/10/2019	5	20:20	DRK STL	Dry	Fine		R.TURN	M/C
A229 LOOSE RD J/W A274 SUTTON RD, MAIDSTONE									Maidstone		
V2 was turning right from Loose Rd onto Sutton Rd when V1, travelling northwest on Sutton Rd onto Loose Rd, allegedly went through a red light and collided with the rear offside of V2. R1 left the scene without exchanging details. C1, a passenger of V1, was seen limping back to V1 and R1 was also believed to be injured.							Veh1, m/cycle unknown cc, SE -> NW Veh2, car, SW -> SE			Casualties	2
										Vehicles	2

Key Involved

PED Pedestrian
HGV Heavy Goods Vehicle
GV Goods Vehicle
M/C Motor Cycle
P/C Pedal Cycle
PSV Bus/Coach

Street Lighting

L Daylight

STL Street Lights
USL Street Lights Unlit
NSL No Street Lights
STU Street Lights Unknown

FACTORS

+VE Positive Breath Test
R.TURN Right Turn Manoeuvre
O/TAKE Overtaking Manoeuvre
S.VEH Single Vehicle

Special Conditions

ATS OUT Traffic Lights Not Working
ATS DEF Traffic Lights Defective
SIGNS Road Signs Defective or Obscured
RD WRKS Road Works
Surface Road Surface Defective

D-PRINT CRASH REPORT

13-Sep-2023

08:00:37

Cranborne Avenue jw A229 Loose Road, Maidstone
Accident Date BETWEEN '01-Apr-2018' AND '31-Mar-2023'

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
4	Road No A229 Grid 576710E Section Ref 153962N	SLIGHT	12/11/2019	3	08:53	L	Wet/Damp	Fine		R.TURN	
A229 LOOSE ROAD AT JW A274 SUTTON ROAD MAIDSTONE (MAPPED TO DESC)									Maidstone		
V1 was following V2 northbound on A229 as the lights turned green they turned right at the Wheatsheaf onto A274. As they went through green light, V3, a police car on blue lights, approached. V2 slowed down and V1 went into the back of them							Veh1, car, S -> SE Veh2, car, S -> SE Veh3, car, NW -> SE			Casualties 1 Vehicles 3	
5	Road No A229 Grid 576712E Section 200 Ref 153946N	SLIGHT	02/03/2020	2	15:38	L	Dry	Fine	W	S.VEH	
A229, LOOSE RD NEAR J/W A274 SUTTON RD, LOOSE									Maidstone		PED
C1 WAS CROSSING THE ROAD AND HAS BEEN LET OUT BY ONE CAR. C1 HAS WALKED OUT AND THEN RAN STRAIGHT INTO THE NEXT LANE WITHOUT LOOKING INTO AN ONCOMING CAR WHO HAD NO CHANCE OF STOPPING. THE FRONT NEARSIDE OF THE VEHICLE IS WHAT HIT C1. C1 HAS MINOR INJURIES.							Veh1, car, SW -> NE			Casualties 1 Vehicles 1	
6	Road No A229 Grid 576717E Section 200 Ref 153956N	SLIGHT	21/04/2020	3	21:49	DRK STL	Dry	Fine			
A229, LOOSE RD J/W A274 SUTTON RD, MAIDSTONE.									Maidstone		
V2 WAS TRAVELLING SOUTH ONTO SUTTON ROAD FROM LOOSE ROAD. AS D2 WENT THROUGH THE TRAFFIC LIGHTS BY JUNCTION WITH CRANBORNE AVENUE, V1 CAME OUT ONTO LOOSE ROAD, COLIDING WITH V2.							Veh1, car, E -> W Veh2, car, NW -> SE			Casualties 1 Vehicles 2	

Key Involved

PED Pedestrian
HGV Heavy Goods Vehicle
GV Goods Vehicle
M/C Motor Cycle
P/C Pedal Cycle
PSV Bus/Coach

Street Lighting

L Daylight

STL Street Lights
USL Street Lights Unlit
NSL No Street Lights
STU Street Lights Unknown

FACTORS

+VE Positive Breath Test
R.TURN Right Turn Manoeuvre
O/TAKE Overtaking Manoeuvre
S.VEH Single Vehicle

Special Conditions

ATS OUT Traffic Lights Not Working
ATS DEF Traffic Lights Defective
SIGNS Road Signs Defective or Obscured
RD WRKS Road Works
Surface Road Surface Defective

D-PRINT CRASH REPORT

13-Sep-2023

08:00:37

Cranborne Avenue jw A229 Loose Road, Maidstone
Accident Date BETWEEN '01-Apr-2018' AND '31-Mar-2023'

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
7	Road No A229 Grid 576732E Section 200 Ref 153967N	FATAL	01/01/2021	6	17:41	DRK STL	Wet/Damp	Rain			P/C
A229 LOOSE ROAD J/W CRANBORNE AVENUE, MAIDSTONE									Maidstone		
V1 pedal cycle had been travelling down Cranborne Avenue towards Loose Road at the junction controlled by traffic lights. V2 was travelling from Maidstone towards Headcorn on the Loose Road. As V2 drove towards the traffic lights at the j/w Cranborne Avenue, V1 came out of Cranborne Avenue and hit V2 in the front passenger side wing and door. V2 stopped at the scene.							Veh1, pedal cycle, E -> W Veh2, car, NW -> SE			Casualties 3 Vehicles 2	
8	Road No A229 Grid 576732E Section Ref 153969N	SLIGHT	11/02/2022	6	17:49	L	Dry	Fine		R.TURN	
A229 LOOSE RD J/W CRANBORNE AVE, MAIDSTONE									Maidstone		
V1 WAS TRAVELLING NORTHWEST ON SUTTON RD AND TURNED RIGHT TOWARDS CRANBORNE AVE, COLLIDING WITH V2, WHICH WAS TRAVELLING SOUTHEAST ON LOOSE RD.							Veh1, car, SE -> E Veh2, car, NW -> SE			Casualties 1 Vehicles 2	
9	Road No A229 Grid 576707E Section Ref 153957N	SERIOUS	06/05/2022	6	20:43	DRK STL	Dry	Fine			P/C
A229 LOOSE ROAD NEAR WHEATSHEAF PUB/OPPOSITE CRANBORNE AVENUE, MAIDSTONE									Maidstone		
V2 has collided with C1 as they crossed the road on a bicycle. V2 hit the bicycle causing rider to fall off and hit their head on the road.							Veh1, pedal cycle, W -> E Veh2, car, S -> N			Casualties 1 Vehicles 2	

Key Involved

PED Pedestrian
HGV Heavy Goods Vehicle
GV Goods Vehicle
M/C Motor Cycle
P/C Pedal Cycle
PSV Bus/Coach

Street Lighting

L Daylight

STL Street Lights
USL Street Lights Unlit
NSL No Street Lights
STU Street Lights Unknown

FACTORS

+VE Positive Breath Test
R.TURN Right Turn Manoeuvre
O/TAKE Overtaking Manoeuvre
S.VEH Single Vehicle

Special Conditions

ATS OUT Traffic Lights Not Working
ATS DEF Traffic Lights Defective
SIGNS Road Signs Defective or Obscured
RD WRKS Road Works
Surface Road Surface Defective

D-PRINT CRASH REPORT

13-Sep-2023
08:00:37

Cranborne Avenue jw A229 Loose Road, Maidstone
Accident Date BETWEEN '01-Apr-2018' AND '31-Mar-2023'

No	Location	Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
10	Road No A229 Grid 576726E Section Ref 153989N	SERIOUS	07/06/2022	3	07:00	L	Dry	Fine			P/C
A229 LOOSE RD J/W CRANBORNE AVE, MAIDSTONE									Maidstone		
V2 was travelling southeast on Loose Rd and was waiting to continue onto Sutton Rd. V2 moved off upon the lights turning green when R1 cut across V2's path, colliding with the offside of V2.							Veh1, pedal cycle, NW -> SE Veh2, car, NW -> SE			Casualties 1 Vehicles 2	
11	Road No A229 Grid 576720E Section 200 Ref 154002N	SERIOUS	24/01/2023	3	13:36	L	Dry	Fine	SW	S.VEH	HGV
A229, LOOSE RD, MAIDSTONE, (RE-MAPPED TO DESC)									Maidstone		PED
D1 was sat at red traffic light on Loose Road heading away from Maidstone town centre. C1 has seen traffic had stopped and walked into the middle of the road 2 car lengths away from V1/lorry. C1 has walked down the middle of the road and has gone to cross in front of V1 once alongside it. The traffic light has gone green and D1 has driven forward, not seeing C1 who had just stepped out in front. C1 hit the front nearside of V1 and legs got run over.							Veh1, goods > 7.5t, SW -> N			Casualties 1 Vehicles 1	

Key Involved

PED Pedestrian
HGV Heavy Goods Vehicle
GV Goods Vehicle
M/C Motor Cycle
P/C Pedal Cycle
PSV Bus/Coach

Street Lighting

L Daylight

STL Street Lights
USL Street Lights Unlit
NSL No Street Lights
STU Street Lights Unknown

FACTORS

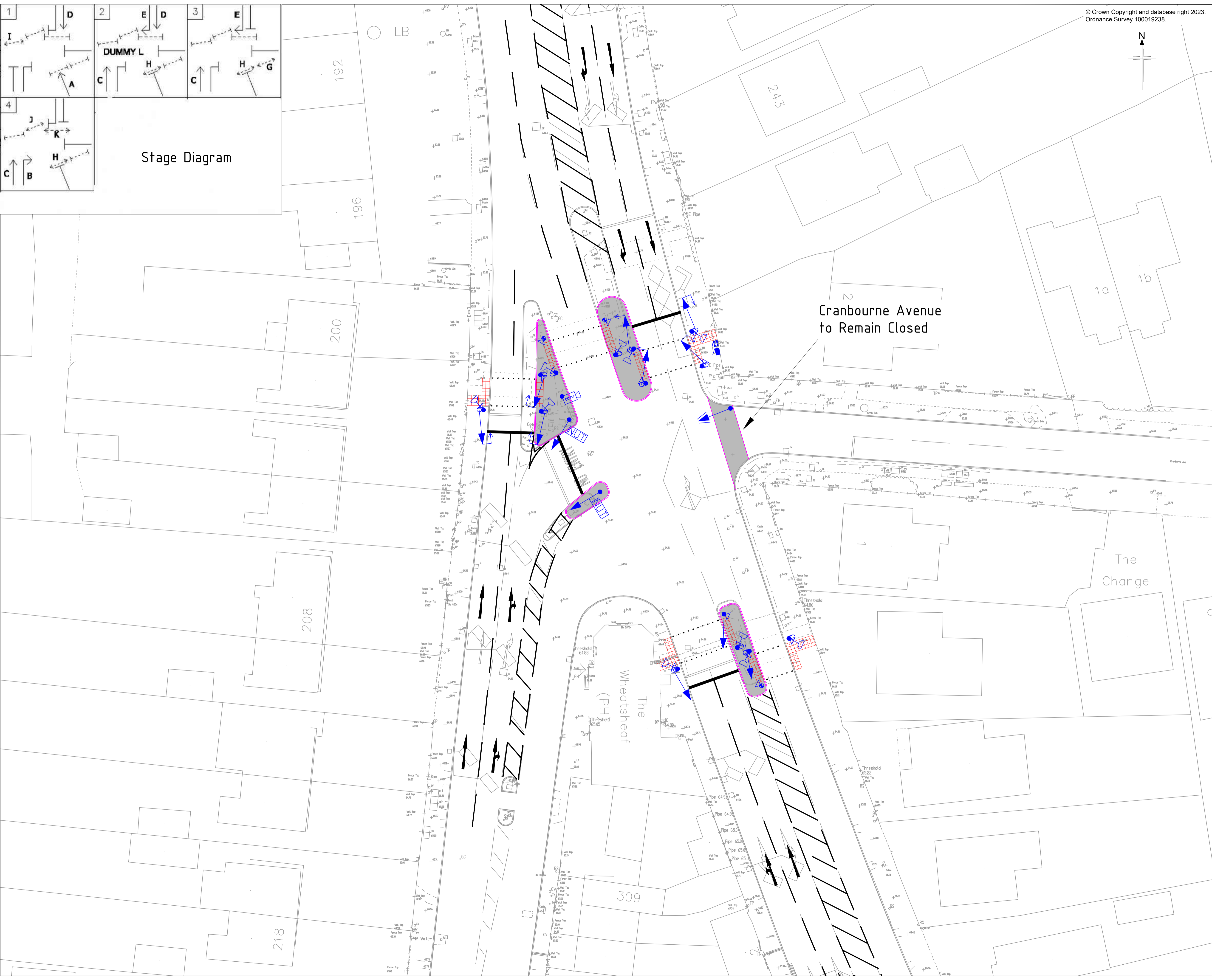
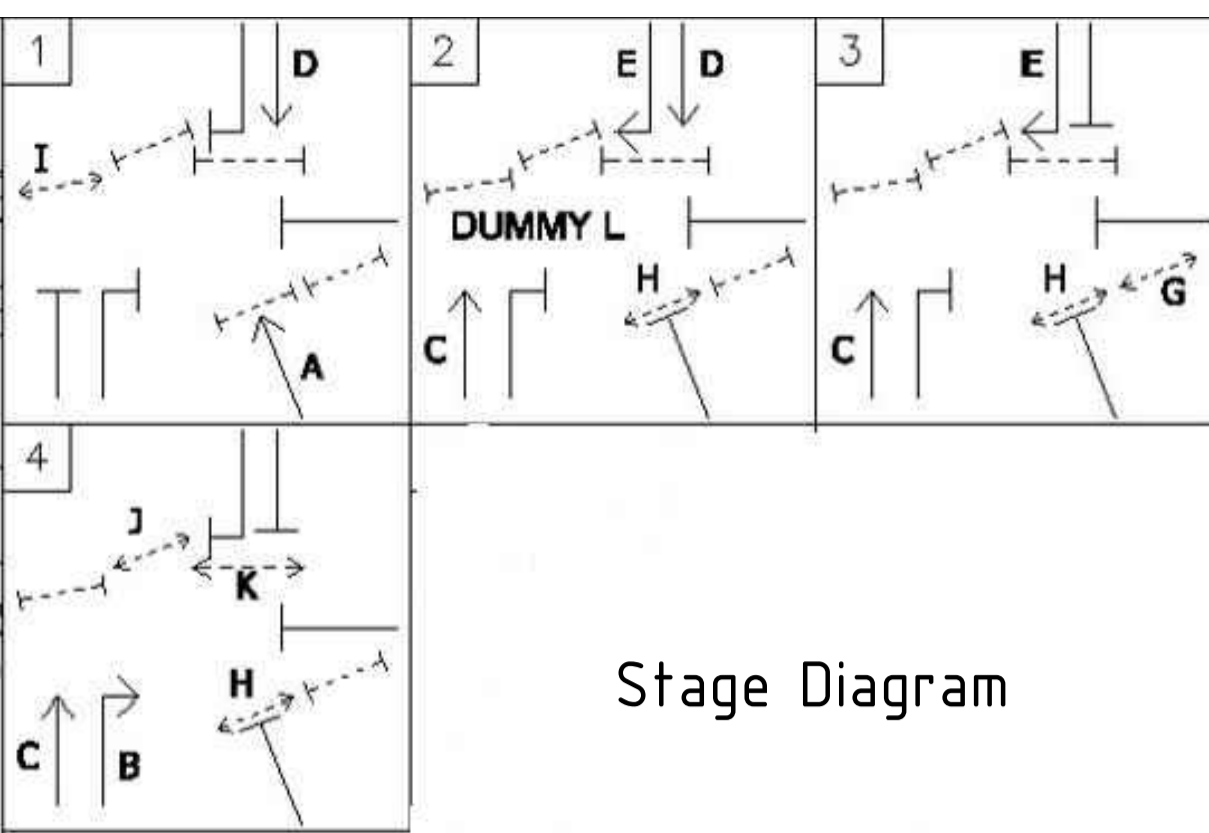
+VE Positive Breath Test
R.TURN Right Turn Manoeuvre
O/TAKE Overtaking Manoeuvre
S.VEH Single Vehicle

Special Conditions

ATS OUT Traffic Lights Not Working
ATS DEF Traffic Lights Defective
SIGNS Road Signs Defective or Obscured
RD WRKS Road Works
Surface Road Surface Defective

Appendix E Do Minimum Proposed Drawing

- Key**
- Junction box 550mm depth (no under kerb ducts)
 - Junction box 550mm depth (with under kerb ducts)
 - Junction pit 900mm depth (no under kerb ducts)
 - Junction pit 900mm depth (with under kerb ducts)
 - Junction pit 550mm depth (no under kerb ducts)
 - Junction pit 550mm depth (with under kerb ducts)
 - Duct FW/1 100mm dia
 - Duct FW/2 100mm dia
 - Duct FW/3 100mm dia
 - Duct FW/4 100mm dia
 - Duct CW/1 100mm dia
 - Duct CW/2 100mm dia
 - Duct CW/3 100mm dia
 - Duct CW/4 100mm dia
 - Traffic signal controller cabinet
 - Electricity supply pillar for dedicated unmetred DNO connection
 - BT termination pillar
 - Vehicle detector loop and identify
 - Traffic signal head with primary hoods
 - Traffic signal head with secondary hoods
 - Pedestrian signal
 - Far side Toucan pedestrian / cycle signal
 - Standard 4m pole
 - Short 2m pole
 - Curved crank 4m pole
 - 6m pole with two traffic signal heads
 - Pedestrian/Puffin/Toucan push button unit
 - Pedestrian push button unit with tactile cone
 - Nearside toucan ped/ cycle signal with combined push button unit and tactile cone
 - Puffin pedestrian signal with combined push button unit and tactile cone
 - Microwave vehicle detector
 - Pedestrian / cycle on crossing detector
 - Infra Red pedestrian or vehicle presence detector
 - Visual pedestrian or vehicle presence detector
 - Photo electric cell
 - Bus priority receiver
 - Post mounted loop detector housing
 - CCTV unit mounted on traffic signal pole
 - Layout of blister tactile surface modules (red)
 - Layout of blister tactile surface modules (buff)
 - Dropped kerb (not at signalled crossing)
 - Roadstuds
 - Existing lighting column
 - Kerb/ footway alignment - proposed
 - HFS (All HFS to be coloured Dark Grey or Black)
 - Traffic bollard (keep left)



0	06/09/23	OUTLINE DESIGN	PT	AWM	TB
---	----------	----------------	----	-----	----

Rev	Revision Date	Purpose of revision	Drawn	Checked	App'd
-----	---------------	---------------------	-------	---------	-------

Kent County Council
Ashford Highway Depot
Henwood Industrial Estate
Ashford
TN24 8AD
Tel: 03000 418181

Project
**Wheatsheaf Junction
Highway Improvement Scheme**

Drawing title
**Outline Traffic Signal Design
(Site Ref No. 11/0927)**

Drawing status
OUTLINE DESIGN

Scale
1:200 at A1 Do not scale

Drawing number
KCC/ITS/2023/0210/S/1 Rev
0

This drawing is not to be used in whole or part other than for the intended purpose and project as defined on this drawing. Refer to the contract for full terms and conditions.

Appendix F Do Maximum Proposed Drawing

DO NOT SCALE



LOCATION PLAN

NOTES:

- DO NOT SCALE THIS DRAWING.
- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
- THIS DRAWING SHOULD BE PRINTED IN COLOUR.
- THIS DRAWING IS BASED ON TOPOGRAPHICAL SURVEY AND OS BASE DATA SUPPLIED BY KENT COUNTY COUNCIL.
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT SCHEME DRAWINGS AND SPECIFICATION.
- ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE DEPARTMENT FOR TRANSPORT SPECIFICATION FOR HIGHWAY WORKS & SUPPLEMENTARY SPECIFICATION DOCUMENTS.
- ALL LEVELS SHOWN ARE IN METRES ABOVE ORDNANCE DATUM.
- ALL ROAD MARKINGS AND TRAFFIC SIGNS SHALL BE IN ACCORDANCE WITH THE TSRGD 2016.
- ALL PROPOSED KERBS TO TIE IN TO EXISTING KERB LINES AS REQUIRED.
- MANY DISCREPANCY WITH THE ORIGINAL SITE SURVEY MUST BE REPORTED IMMEDIATELY TO THE SITE ENGINEER OR KENT COUNCIL PROJECT MANAGER.
- ALL EXISTING ROAD MARKINGS TO BE RENEWED TO TIE IN WITH THE PROPOSED LAYOUT. REFER TO DRAWING 70043445-DD-033-1200-001 FOR DETAILS.
- PARKING RESTRICTIONS (YELLOW LINE ROAD MARKINGS) AT THE JUNCTION ARE TO BE MARKED IN CONSENT WITH KENT COUNTY COUNCIL.

P01	09/09/2020	DS	REVISED LAYOUT	AB	MB
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: S3 - FOR REVIEW

wsp

2 Lansdowne Rd, Craydon, CR9 2ER, UK
T+ 44 (0) 208 263 2413
wsp.com

CLIENT: Kent County Council
1st Floor, Invidia House, Maidstone, ME14 1XX

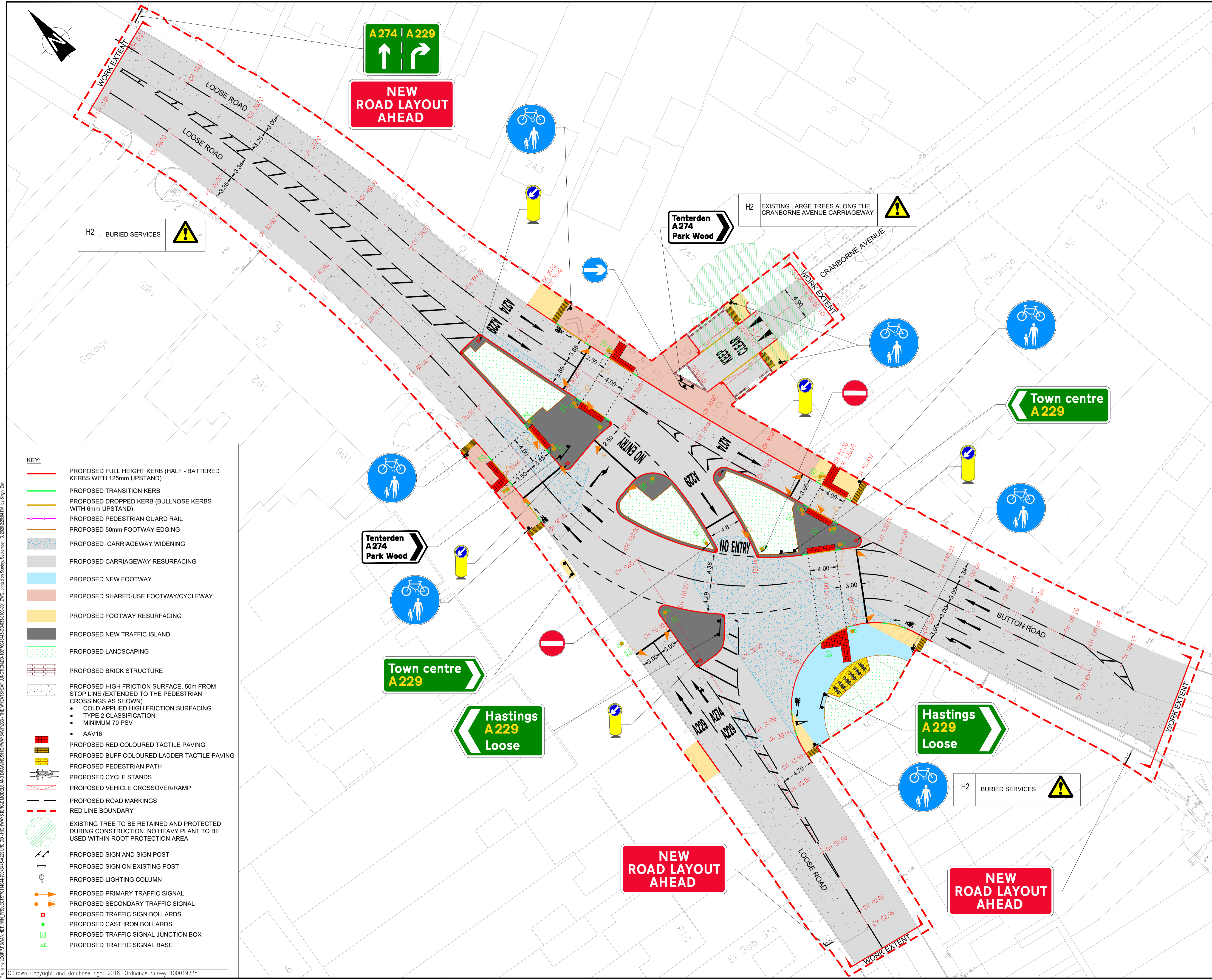
SITE PROJECT: A229 LOOSE ROAD CORRIDOR DETAILED DESIGN THE WHEATSHEAF JUNCTION

TITLE: GENERAL ARRANGEMENT

SCALE @ A1: 1:250	CHECKED: AB	APPROVED: MB
PROJECT NO: 70043445	DESIGNED: KK	DRAWN: DS
DATE: Sep-20		

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- KEY:**
- PROPOSED FULL HEIGHT KERB (HALF - BATTERED KERBS WITH 125mm UPSTAND)
 - PROPOSED TRANSITION KERB
 - PROPOSED DROPPED KERB (BULLNOSE KERBS WITH 6mm UPSTAND)
 - PROPOSED PEDESTRIAN GUARD RAIL
 - PROPOSED 50mm FOOTWAY EDGING
 - PROPOSED CARRIAGEWAY WIDENING
 - PROPOSED CARRIAGEWAY RESURFACING
 - PROPOSED NEW FOOTWAY
 - PROPOSED SHARED-USE FOOTWAY/CYCLEWAY
 - PROPOSED FOOTWAY RESURFACING
 - PROPOSED NEW TRAFFIC ISLAND
 - PROPOSED LANDSCAPING
 - PROPOSED BRICK STRUCTURE
 - PROPOSED HIGH FRICTION SURFACE, 50m FROM STOP LINE (EXTENDED TO THE PEDESTRIAN CROSSINGS AS SHOWN)
 - COLD APPLIED HIGH FRICTION SURFACING
 - TYPE 2 CLASSIFICATION
 - MINIMUM 70 PSV
 - AAV16
 - PROPOSED RED COLOURED TACTILE PAVING
 - PROPOSED BUFF COLOURED LADDER TACTILE PAVING
 - PROPOSED PEDESTRIAN PATH
 - PROPOSED CYCLE STANDS
 - PROPOSED VEHICLE CROSSOVER/RAMP
 - PROPOSED ROAD MARKINGS
 - RED LINE BOUNDARY
 - EXISTING TREE TO BE RETAINED AND PROTECTED DURING CONSTRUCTION. NO HEAVY PLANT TO BE USED WITHIN ROOT PROTECTION AREA
 - PROPOSED SIGN AND SIGN POST
 - PROPOSED SIGN ON EXISTING POST
 - PROPOSED LIGHTING COLUMN
 - PROPOSED PRIMARY TRAFFIC SIGNAL
 - PROPOSED SECONDARY TRAFFIC SIGNAL
 - PROPOSED TRAFFIC SIGN BOLLARDS
 - PROPOSED CAST IRON BOLLARDS
 - PROPOSED TRAFFIC SIGNAL JUNCTION BOX
 - PROPOSED TRAFFIC SIGNAL BASE