



TRANSPORT TECHNICAL NOTE
Green Park Village Phase 6,
Temporary Construction Car Park

Document History

Issue	Date	Description	Prepared By	Checked By
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Glanville

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1.0 Introduction

- 1.1 This report has been prepared by Glanville Consultants on behalf of St Edward Homes, hereafter referred to as St Edward, to support a full planning application for the expansion of the previously consented temporary contractors car park on Longwater Avenue in Green Park Village, Reading from 150 spaces to 300 spaces.
- 1.2 The location of the site is shown within Appendix A, whilst the consented 150 space car park layout is shown within Appendix B. The proposed 300 space car park layout is shown within Appendix C.
- 1.3 As part of the pre-application consultation with Reading Borough Council (RBC), information about the transport impact of the proposals was requested and so this Technical Note has been produced to assess the potential impact.

2.0 Scheme Background

- 2.1 The Green Park Village development currently has two contractor car parks for the residential development. The first is located on the Phase 6 site for the Phase 6 construction workers. The second is located at 200 Longwater Avenue and is for the remainder of the GPV development. It utilises the existing decked car park at the former Berkeley Homes office.
- 2.2 In early 2021, planning consent was granted for the provision of a 150 space temporary contractors car park on Longwater Avenue, to the south of Huntley Place Extra Care facility. This car park replaced the existing contractor car park on the Phase 6 site to facilitate the development of the Phase. The location and layout of the consented car park is shown within Appendices A and B respectively.
- 2.3 St Edward's Homes are now proposing to relocate the second contractors car park from 200 Longwater Avenue to the new contractors car park. This will require the expansion of the consented 150 space car park to 300 spaces.
- 2.4 A summary of the proposals are shown in Table 1.

Table 1: Development Proposals

Contractors Car Park Location	Type	Existing Spaces	Consented Spaces	Proposed Spaces
Green Park Village Phase 6	Existing	150	0	0
200 Longwater Avenue	Existing	150	150	0
New Car Park	Proposed	0	150	300

- 2.5 Consequently, it should be noted that the vehicles associated with the proposed car park expansion are already on the wider highway network. Consequently, this report assesses the impact on the local road network between 200 Long Water Avenue and the new temporary car park.

3.0 Existing Site and Highway Conditions

- 3.1 This chapter sets out information on the consented car park and the highway conditions in the vicinity of the proposals.

Consented 150 Space Contractors Car Park

- 3.2 The new car park will be accessed from Longwater Avenue via a priority T-junction / crossover sited around 80m south of the Longwater Avenue / Flagstaff Road roundabout and replaces the car park on the Phase 6 site.
- 3.3 Longwater Avenue is a 10.2m wide private road which provides a northern access road for the adjacent Green Park Village business park and a vehicular access to the Green Park Village residential development. It connects the A33 to the east with South Oak Way to the south.
- 3.4 In the vicinity of the site, Longwater Avenue does not have a kerbed central reservation but it does have a 1.5m wide over-runnable block paving central strip. Similarly, it also has 1m wide mandatory on-road cycle lanes on both sides of the carriageway.
- 3.5 There is a 1.8m wide footway on the eastern side of the carriageway which is separated from the carriageway by a 1.5 m grass verge but there is no footway on the western side. To the north of the site, there is a footpath between the site and the Huntley Place Extra Care facility and this connects Flagstaff Road to a footpath through the centre of the Green Park business park via an uncontrolled crossing around 40m north of the site access.

Existing Contractor Parking at 200 Longwater Avenue

- 3.6 The existing contractors car park at 200 Longwater Avenue, which is proposed to be relocated to the new car park, is accessed via the Sunapee Road / Longwater Avenue roundabout around 360m northeast of the new car park.
- 3.7 As the contractors currently park at 200 Longwater Avenue, the vehicles associated with the proposed 150 additional parking spaces are already travelling to and from Green Park Village and are already using Longwater Avenue. Consequently, there will be no additional impact on the wider highway network.
- 3.8 There will, however, be an increase in vehicles arriving and departing from/to the A33, using the 360m stretch of Longwater Avenue between Sunapee Road and the new car park. It should be noted, however, that traffic arriving from South Oak Way will be removed from this stretch of Longwater Avenue as they will turn into the site earlier in their journey than if they were using the existing car park.
- 3.9 It is understood from St Edward that on average there are around 100 contractor vehicles per day associated with the existing car park. Similarly there are around 20 delivery vehicles per day but these typically occur outside of the peak hours. To provide a robust assessment, however, this Technical Note assumes that all 300 spaces will be utilised every day.
- 3.10 St Edwards have also identified that contractors typically arrive and depart the site between the following times:

- Arrivals = 06:45 to 08:00
- Departures = 16:15 to 18:00

Existing Longwater Avenue Traffic Flows

3.11 To identify the potential impact of the development, two ATC surveys were undertaken on Longwater Avenue between the 28 October 2021 and the 03 November 2021. The surveys were sited as follows:

- Site 1: Longwater Avenue between Maine Street and Sunapee Road; and
- Site 2: Longwater Avenue between Flagstaff Road and South Oak Way.

3.12 The surveyed peak hours were different for each site potentially due to Site 1 including residential traffic for the occupied parts of the Green Park Village residential development. However, when both sites were combined, the observed peak hours were as follows:

- AM Peak = 08:00 to 09:00
- PM Peak = 17:00 to 18:00

3.13 The observed traffic flows are shown in Table 2 whilst the original data has been provided within Appendix D.

Table 2: Observed Longwater Avenue Traffic Volumes

Site	Peak Hour	5-day Average			7-day Average		
		Northbound	Southbound	2-way	Northbound	Southbound	2-way
Site 1	AM Peak	49	93	141	39	71	110
	PM Peak	52	64	122	44	57	106
	Daily	558	1,009	1,567	510	879	1,389
Site 2	AM Peak	52	46	98	38	38	76
	PM Peak	44	75	119	36	58	93
	Daily	458	679	1,137	384	560	944

3.14 The traffic flows shown in Table 2 indicate that Longwater Avenue is currently relatively lightly trafficked in the vicinity of the proposed temporary car park, despite it also providing access to some of the offices within the adjacent Green Park business park.

Longwater Avenue Speed Surveys

3.15 The traffic surveys also recorded vehicle speeds on Longwater Avenue. The observed speeds are shown in Table 3 and indicates that vehicles typically travel faster than the posted 25mph private speed limit.

Table 3: Observed Longwater Avenue Traffic Speeds

Site	Direction	5-day Average		7-day Average	
		Mean Speed	85%ile Speed	Mean Speed	85%ile Speed
Site 1	Northbound	26.4	32.4	26.2	32.1
	Southbound	23.9	29.0	23.7	28.9
	2-way	24.7	30.3	24.6	30.1
Site 2	Northbound	25.6	32.4	25.5	32.3
	Southbound	25.6	32.1	25.2	31.9
	2-way	25.6	32.2	25.3	32.1

4.0 Proposed Expanded Temporary Car Park

- 4.1 The proposed expanded car park layout is shown within Appendix C and, as mentioned previously, will accommodate the 150 contractors vehicles which currently use the decked car park at 200 Longwater Avenue. This relocation will require the 150 space car park to be doubled in size to 300 spaces.
- 4.2 Contractors will utilise the consented temporary bellmouth / crossover access to the car park which forms a priority T-junction with Longwater Avenue.
- 4.3 The car park has been designed to national standards, namely the parking spaces within the car park will be 2.4m x 4.8m in size, whilst the parking aisles will be 6m wide. There will be a 2m wide footway connecting the western end of the car park to Flagstaff Road.

5.0 Proposed Trip Generation and Distribution

- 5.1 In order to be able to identify the potential impact of the additional temporary parking spaces, the associated trip generation has been identified within this chapter.
- 5.2 As outlined within paragraph 3.9, this assessment assumes that all 300 spaces will be used every day in order to provide a robust assessment. These trips have been broken down between the 150 vehicles which are using the previously consented spaces and the 150 'new' trips, which will be re-directed from 200 Longwater Avenue to the new car park.
- 5.3 As outlined within paragraph 3.10, the arrival and departures typically occur over a two hour period. Whilst the number of arrivals and departures per hour is not known, the hourly split has been calculated based on the Site 1 traffic survey identified within Table 2 and is shown within Table 4.

Table 4: Existing Longwater Avenue Hourly Split

	2021 base Flows (5-day average)				150 Vehicle Trips Split
	North	South	2-way	Hourly Split	
07:00 to 08:00	105	27	132	48%	72
08:00 to 09:00	93	49	142	52%	78
16:00 to 17:00	69	53	121	51%	76
17:00 to 18:00	64	52	116	49%	74

Trip Distribution and Assignment

- 5.4 St Edward's have confirmed that the existing contractor vehicles are currently split 50% travelling to/from the north and 50% travelling to/from the south via South Oak Way. The proposed flow split in Table 4 has therefore been assigned to Longwater Avenue as follows:

Table 5: Trip Distribution and Assignment

Scenario	Time	North (50%)			South (50%)		
		Arrivals	Departures	2-way	Arrivals	Departures	2-way
AM Peak							
Consented 150 Spaces	07:00 to 08:00	36	0	36	36	0	36
	08:00 to 09:00	39	0	39	39	0	39
Proposed 150 Spaces	07:00 to 08:00	36	0	36	36	0	36
	08:00 to 09:00	39	0	39	39	0	39
Total 300 Spaces	07:00 to 08:00	72	0	72	72	0	72
	08:00 to 09:00	78	0	78	78	0	78
PM Peak							
Consented 150 Spaces	16:00 to 17:00	0	38	38	0	38	38
	17:00 to 18:00	0	37	37	0	37	37
Proposed 150 Spaces	16:00 to 17:00	0	38	38	0	38	38
	17:00 to 18:00	0	37	37	0	37	37
Total 300 Spaces	16:00 to 17:00	0	76	76	0	76	76
	17:00 to 18:00	0	74	74	0	74	74

6.0 Highway Impact

- 6.1 This chapter identifies the potential impact of the additional trips. As outlined within paragraph 2.5, the contractor vehicles associated with this application are already travelling to and from Longwater Avenue and so there will be no additional impact on the wider highway network. Consequently, this chapter reviews just the local highway network.

Longwater Avenue

- 6.2 There are existing northbound contractor trips travelling between South Oak Way and the existing car park at 200 Longwater Avenue. Once the new car park has been expanded, these northbound trips will no longer be travelling between the site and the Sunapee Road roundabout and will be replaced by the southbound trips. Consequently, as the contractor vehicles are split 50:50, there will just be a reversal in the peak direction of flow but the two-way flow will not differ from that currently experienced.
- 6.3 It should also be noted that traffic surveys, see Table 2, show that Longwater Avenue is currently lightly trafficked and therefore any increase in flow is liable to show a deceptively large percentage increase. It is therefore considered that the impact on Longwater Avenue between Sunapee Road and the site will be minimal and can not be classed as severe.

Longwater Avenue / Flagstaff Road Roundabout

- 6.4 As the Green Park Village development is still under construction, there are consented vehicle trips that are not currently using Longwater Avenue and therefore there is capacity within the existing junctions which is not being used.
- 6.5 A summary of the current Green Park Village development status is shown in Table 6 and indicates that between 281 and 332 vehicle trips are not currently using the highway.

Table 6: Green Park Village Development vehicular Trip Summary

Phase	Dwellings / Pupils	Total 2-way vehicle Trips		Unoccupied Dwellings	Trips Not Currently Using the Highway	
		AM	PM		AM	PM
Phase 1	116	37	51	0	0	0
Phase 2	80	10	11	0	0	0
Phase 3	360	107	141	360	107	141
Phase 4	108	38	54	108	38	54
Phase 5	84	25	33	0		
Phase 6	459	136	137	459	136	137
Primary School	420	21	10	0	0	0
Total Trips	-	374	437	927	281	332

Note: the housing trips have been calculated using the latest dwelling numbers and the trip rates in Table 7.4 of the PBA Transport Assessment for the Outline application (10/2172).

- 6.6 It is considered that the Phase 6 and the Green Park Railway Station development would have the greatest impact on the Flagstaff Road junction. The trip generation for Phase 6, as shown within Table 6, is significantly higher than the trip generation identified for the additional 150 spaces in Table 5 during each peak hour. Consequently, it is considered that the proposed trips can be accommodated within the existing spare capacity of the

Longwater Avenue / Flagstaff Road roundabout despite the reversal in peak flow direction identified in paragraph 6.2, and therefore the impact at the junction will be low.

- 6.7 It is understood that the Phase 6 development will start to be occupied in August 2022 and fully occupied in December 2023. It is also, likely that the dwellings in Phase 3 and 4 will also start to be occupied in 2022, whilst the Railway Station is due to open in June 2022. Therefore the number of contractors on site will start to reduce as the number of dwellings are completed and therefore it is considered that the resident vehicles will start to replace contractor vehicles on the highway network, thereby ensuring that the Flagstaff Road roundabout does not exceed capacity.

Car Park Access

- 6.8 Whilst it is considered that there is sufficient capacity on Longwater Avenue a PICADY model has been developed to assess the operation of the car park access within the following scenarios:
- 2022 Base plus Consented Development (surveyed flows plus the 150 space consented car park)
 - 2022 Base plus Development (Base plus consented flows plus additional 150 space car park)
 - 2022 Base + Development Sensitivity Test (assumes all 300 vehicles arrive and depart in the same peak hour)
- 6.9 As outlined within paragraph 6.7, it is understood that the Phase 6 development will start to be occupied in August 2022. Consequently, it is considered that the peak construction period will occur in 2022, and therefore the surveyed traffic flows in Table 2 have been growthed using the following growth factors extracted from Temprow and the resultant 2022 flows are shown in Table 7.
- AM = 1.0141
 - PM = 1.0141

Table 7: 2021 Traffic Flows Growthed to 2022

Site	Peak Hour	5-day Average			7-day Average		
		Northbound	Southbound	2-way	Northbound	Southbound	2-way
Site 1	AM Peak	50	94	143	40	72	112
	PM Peak	53	65	124	45	58	107
Site 2	AM Peak	53	47	99	39	39	77
	PM Peak	45	76	121	37	59	94

- 6.10 The PICADY results are shown within Table 8 whilst the model outputs have been provided within Appendix E.

Table 8: Two-way Percentage Impact on Longwater Avenue

		AM Peak			PM Peak		
		RFC	Queue (veh)	Delay (s)	RFC	Queue (veh)	Delay (s)
2021 Base + Consented	Site Access	0.00	0.0	0.00	0.16	0.2	8.39
	Longwater Av. RT	0.07	0.1	5.56	0.00	0.0	0.00
	Junction Delay (s)	1.24			3.10		
2021 Base + Development	Site Access	0.00	0.0	0.00	0.33	0.5	10.42
	Longwater Av. RT	0.14	0.2	6.10	0.00	0.0	0.00
	Junction Delay (s)	1.93			5.62		
2021 Base + Development Sensitivity Test	Site Access	0.00	0.0	0.00	0.64	1.8	19.67
	Longwater Av. RT	0.27	0.4	7.44	0.00	0.0	0.00
	Junction Delay (s)	2.94			13.73		

- 6.11 The capacity results shown in Table 8 indicate that the site access junction would operate significantly within capacity with minimal queueing and delays even if all 300 vehicles arrived in the same peak hour. It should be noted that the modelling assumes that the over-runnable strip in the centre of the carriageway is not used by vehicles waiting to turn right. If it is used as such, then southbound vehicles would be able to pass a right turning vehicle thereby reducing the delay experienced.
- 6.12 The amount of spare capacity also indicates that the junction would likely continue to operate within capacity as the Green Park Village development is occupied. It is therefore considered that the impact cannot be considered as severe in accordance with the NPPF.

7.0 Summary and Conclusions

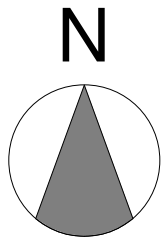
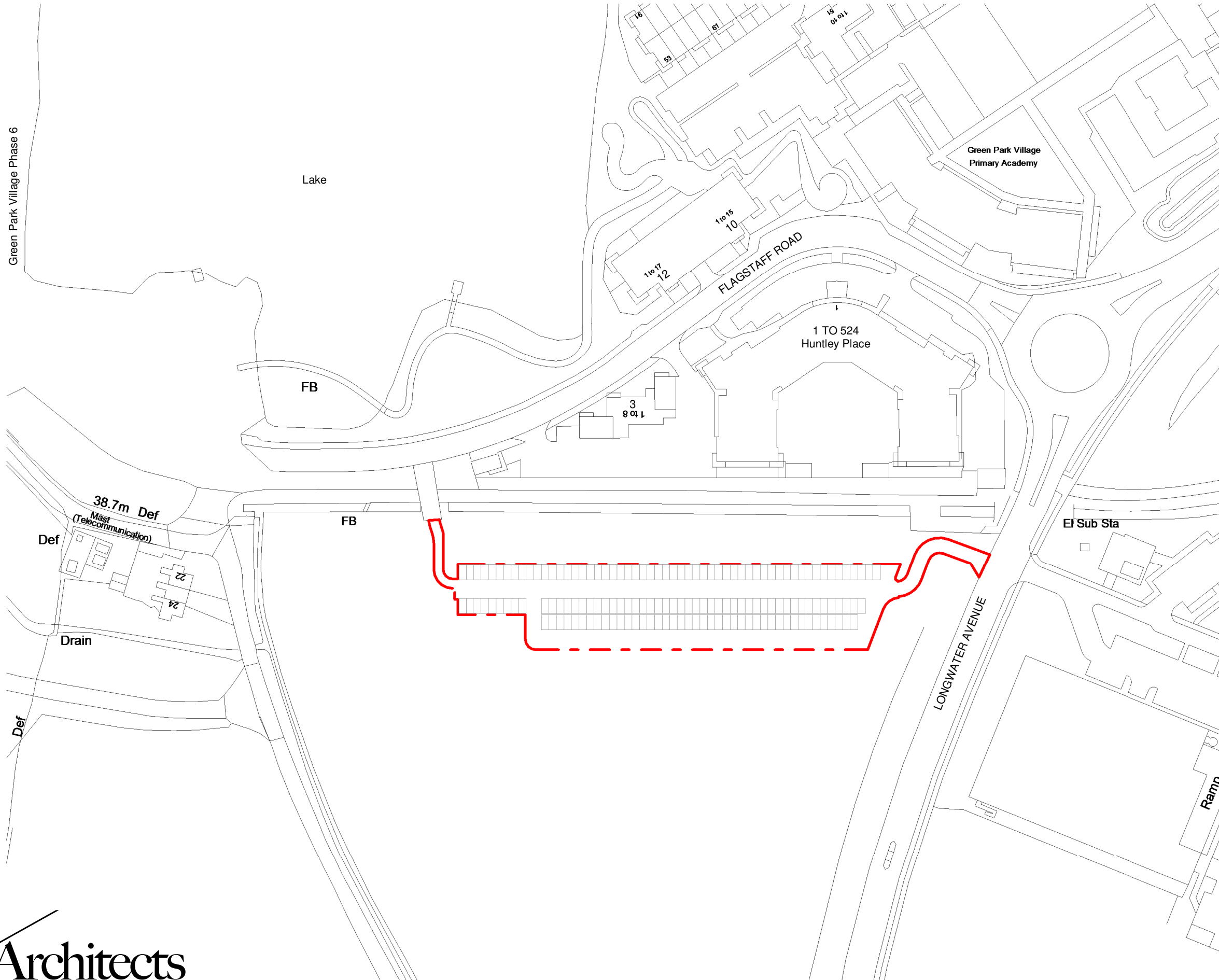
- 7.1 Glanville has assessed the potential impact associated within increasing the size of the temporary Green Park Village construction car park on Longwater Avenue from 150 spaces to 300 spaces. This expansion in the car park capacity will accommodate the contractor vehicles which currently park at 200 Longwater Avenue. Therefore the proposed flows are not new to the wider highway network but there is a reversal in flow direction on Longwater Avenue between Sunapee Road and the site as the parking is relocated.
- 7.2 The assessment identifies that Longwater Avenue is currently lightly trafficked and that the site access junction will operate significantly within capacity with minimal queues and delay. The Longwater Avenue / Flagstaff Road roundabout has been designed to accommodate all of the Green Park Village development traffic and as a significant proportion of the development is still under construction, and therefore unoccupied, there will be sufficient free capacity at this roundabout to accommodate the additional traffic flows even when the flow reversal is taken into account.

- 7.3 In conclusion it is therefore considered that the impact of the proposals cannot be considered as severe in accordance with the NPPF and that the Highway Authority will be able to give a positive response to the Planning Officer.

Appendices

Appendix A

Site Location



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G259-BAL-SW-00-DR-A-10-0113
D Car Park Access and Layout Updated 12.08.21
Temporary Car Park - Location Plan
Scale 1:1250

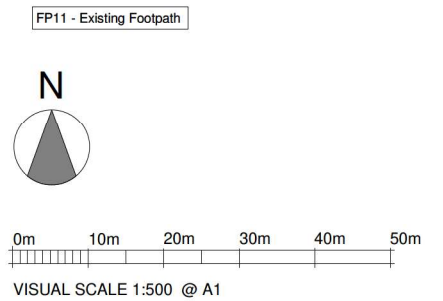
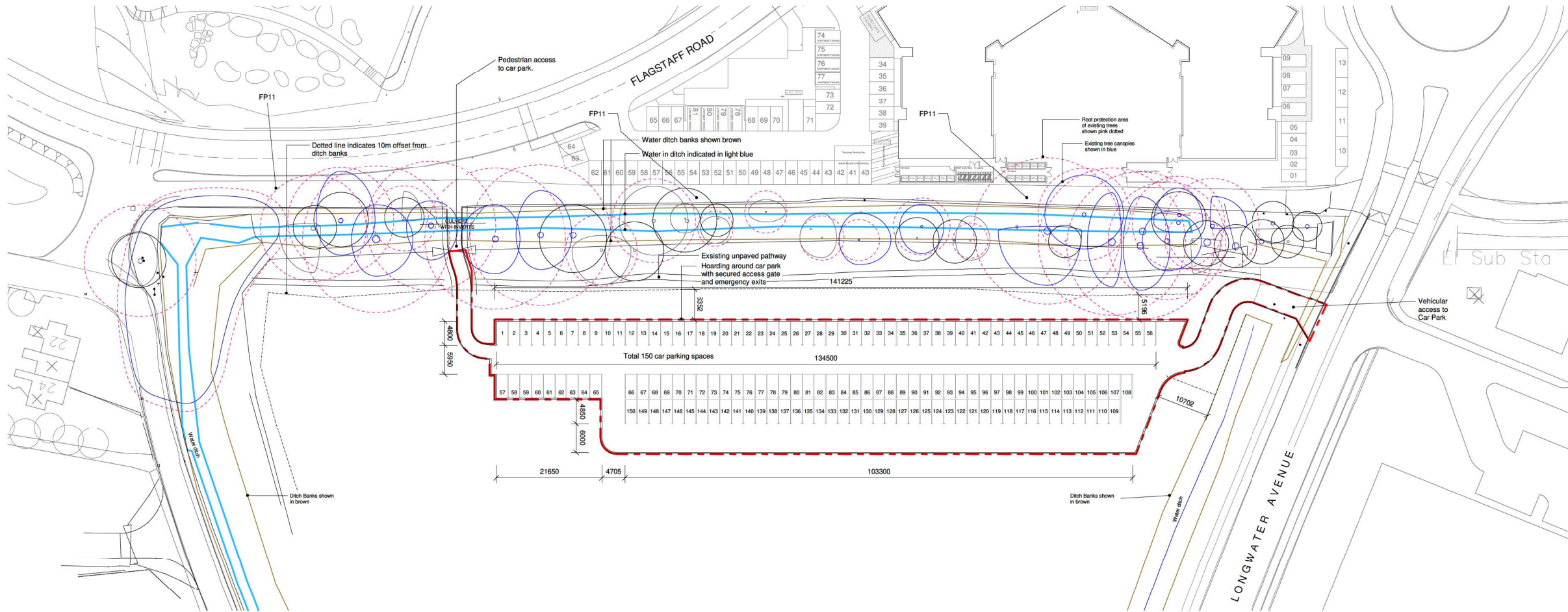


Legend

Proposed temporary car park extent

Appendix B

Consented 150 Space Car Park



PLANNING

Rev	Description	Issued	Dwn	Chk
A	Temporary Car Park Planning drawing 1st Issue	09.02.21	AM	AM
B	Location Plan moved to 0113	23.03.21	TD	AM
C	Car Park Access and Layout Updated	12.08.21	AM	TL
D	Temporary Car Park Planning Drawing Updated	16.08.21	AM	AM
E	Temporary Car Park Access Updated	17.08.21	AAA	AM

Client
Berkeley Homes (Western) Ltd

Project
Green Park Village, Reading
Phase 6

Drawing
Temporary Car Park
Proposed Site Plan

Scale	Date	Drawn	Checked
1 : 500@A1	Jan' 21	AM	AM

BrookesArchitects

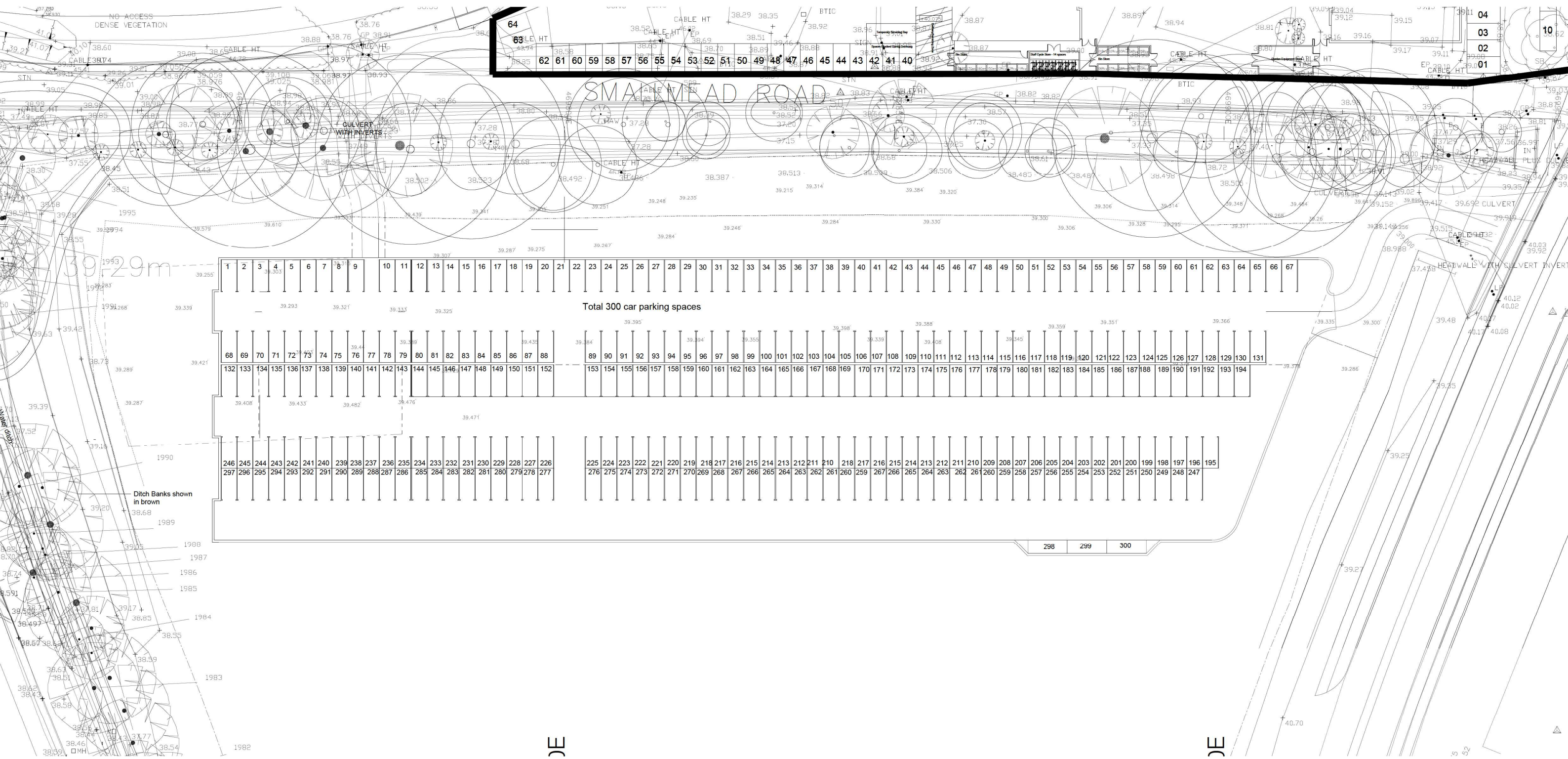
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Rev. No.
G259-BAL-SW-00-DR-A-10-0114 E

2 Site Plan - Temporary Car Park
1 : 500

Appendix C

Proposed 300 Space Car Park Layout



Appendix D

2021 Traffic Counts

Reading ATC 1, Longwater Avenue (Northern Site)



Direction: Northeastbound

Hour Beginning	Thu Oct 28	Fri Oct 29	Sat Oct 30	Sun Oct 31	Mon Nov 01	Tue Nov 02	Wed Nov 03	5-Day Ave.	7-Day Ave.
00:00	1	2	3	6	2	1	1	1	2
01:00	1	3	1	1	2	1	0	1	1
02:00	0	1	4	0	0	1	0	0	1
03:00	0	1	0	0	0	0	0	0	0
04:00	1	1	1	1	2	1	1	1	1
05:00	6	8	2	2	4	2	1	4	4
06:00	21	23	8	6	18	9	7	16	13
07:00	31	22	9	6	39	26	16	27	21
08:00	64	47	12	14	54	46	33	49	39
09:00	35	47	41	18	36	33	17	34	32
10:00	62	51	32	33	32	26	17	38	36
11:00	54	59	36	24	30	25	14	36	35
12:00	59	45	49	33	48	25	18	39	40
13:00	57	60	40	27	27	24	19	37	36
14:00	64	50	31	31	40	33	29	43	40
15:00	61	50	39	31	43	39	37	46	43
16:00	87	63	34	23	55	38	20	53	46
17:00	92	56	24	23	52	32	28	52	44
18:00	55	39	17	13	22	16	17	30	26
19:00	18	40	20	19	18	6	11	19	19
20:00	29	22	19	10	7	3	4	13	13
21:00	14	21	10	9	7	4	4	10	10
22:00	14	10	15	4	2	1	7	7	8
23:00	2	4	2	1	0	1	2	2	2
Total									
12H(7-19)	721	589	364	276	478	363	265	483	437
16H(6-22)	803	695	421	320	528	385	291	540	492
18H(6-24)	819	709	438	325	530	387	300	549	501
24H(0-24)	828	725	449	335	540	393	303	558	510
AM Peak	08:00 64	11:00 59	09:00 41	10:00 33	08:00 54	08:00 46	08:00 33	08:00 49	08:00 39
PM Peak	17:00 92	16:00 63	12:00 49	12:00 33	16:00 55	15:00 39	15:00 37	16:00 53	16:00 46

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Direction: Southwestbound

Hour Beginning	Thu Oct 28	Fri Oct 29	Sat Oct 30	Sun Oct 31	Mon Nov 01	Tue Nov 02	Wed Nov 03	5-Day Ave.	7-Day Ave.
00:00	4	2	7	12	4	2	5	3	5
01:00	3	3	4	3	2	1	3	2	3
02:00	0	1	2	1	0	1	1	1	1
03:00	0	1	1	1	1	1	0	1	1
04:00	2	2	2	1	3	1	4	2	2
05:00	9	9	4	3	9	7	8	8	7
06:00	40	48	12	7	45	38	48	44	34
07:00	109	85	25	12	117	108	106	105	80
08:00	87	38	20	17	93	112	133	93	71
09:00	67	64	25	55	50	91	89	72	63
10:00	65	56	36	34	63	79	54	63	55
11:00	75	49	46	40	46	75	62	61	56
12:00	60	57	45	45	54	87	58	63	58
13:00	55	56	49	29	52	64	55	56	51
14:00	55	58	44	42	51	72	80	63	57
15:00	64	48	37	44	50	68	84	63	56
16:00	73	58	44	29	65	79	72	69	60
17:00	65	56	40	36	58	71	72	64	57
18:00	49	55	41	18	48	65	52	54	47
19:00	47	54	32	29	43	39	30	43	39
20:00	34	46	28	22	30	24	45	36	33
21:00	24	26	26	13	14	14	13	18	19
22:00	24	14	20	9	14	10	21	17	16
23:00	3	13	10	2	5	4	8	7	6
Total									
12H(7-19)	824	680	452	401	747	971	917	828	713
16H(6-22)	969	854	550	472	879	1086	1053	968	838
18H(6-24)	996	881	580	483	898	1100	1082	991	860
24H(0-24)	1014	899	600	504	917	1113	1103	1009	879
AM Peak	07:00 109	07:00 85	11:00 46	09:00 55	07:00 117	08:00 112	08:00 133	07:00 105	07:00 80
PM Peak	16:00 73	14:00 58	13:00 49	12:00 45	16:00 65	12:00 87	15:00 84	16:00 69	16:00 60

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Direction: Total Flow

Hour Beginning	Thu Oct 28	Fri Oct 29	Sat Oct 30	Sun Oct 31	Mon Nov 01	Tue Nov 02	Wed Nov 03	5-Day Ave.	7-Day Ave.
00:00	5	4	10	18	6	3	6	5	7
01:00	4	6	5	4	4	2	3	4	4
02:00	0	2	6	1	0	2	1	1	2
03:00	0	2	1	1	1	1	0	1	1
04:00	3	3	3	2	5	2	5	4	3
05:00	15	17	6	5	13	9	9	13	11
06:00	61	71	20	13	63	47	55	59	47
07:00	140	107	34	18	156	134	122	132	102
08:00	151	85	32	31	147	158	166	141	110
09:00	102	111	66	73	86	124	106	106	95
10:00	127	107	68	67	95	105	71	101	91
11:00	129	108	82	64	76	100	76	98	91
12:00	119	102	94	78	102	112	76	102	98
13:00	112	116	89	56	79	88	74	94	88
14:00	119	108	75	73	91	105	109	106	97
15:00	125	98	76	75	93	107	121	109	99
16:00	160	121	78	52	120	117	92	122	106
17:00	157	112	64	59	110	103	100	116	101
18:00	104	94	58	31	70	81	69	84	72
19:00	65	94	52	48	61	45	41	61	58
20:00	63	68	47	32	37	27	49	49	46
21:00	38	47	36	22	21	18	17	28	28
22:00	38	24	35	13	16	11	28	23	24
23:00	5	17	12	3	5	5	10	8	8
Total									
12H(7-19)	1545	1269	816	677	1225	1334	1182	1311	1150
16H(6-22)	1772	1549	971	792	1407	1471	1344	1509	1329
18H(6-24)	1815	1590	1018	808	1428	1487	1382	1540	1361
24H(0-24)	1842	1624	1049	839	1457	1506	1406	1567	1389
AM Peak	08:00 151	09:00 111	11:00 82	09:00 73	07:00 156	08:00 158	08:00 166	08:00 141	08:00 110
PM Peak	16:00 160	16:00 121	12:00 94	12:00 78	16:00 120	16:00 117	15:00 121	16:00 122	16:00 106

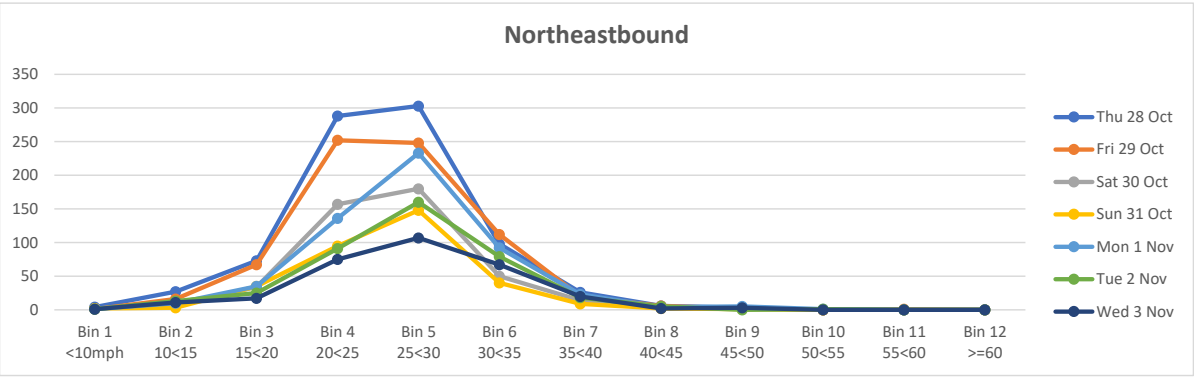
360 TSL Ltd

Reading ATC 1, Longwater Avenue (Northern Site)

Direction: Northeastbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<15	Bin 3 15<20	Bin 4 20<25	Bin 5 25<30	Bin 6 30<35	Bin 7 35<40	Bin 8 40<45	Bin 9 45<50	Bin 10 50<55	Bin 11 55<60	Bin 12 >=60
Thu 28 Oct	828	31.2	25.4	5.6	4	27	73	288	303	98	26	6	3	0	0	0
Fri 29 Oct	725	31.5	25.7	5.6	1	16	67	252	248	112	20	6	2	0	1	0
Sat 30 Oct	449	31.1	25.7	5.2	2	8	34	157	180	50	14	2	2	0	0	0
Sun 31 Oct	335	31.2	25.8	5.2	2	3	35	95	148	40	9	2	1	0	0	0
Mon 1 Nov	540	32.8	26.9	5.7	1	10	35	136	233	92	23	4	5	1	0	0
Tue 2 Nov	393	32.9	26.9	5.9	1	13	25	91	160	79	18	5	0	1	0	0
Wed 3 Nov	303	33.6	27.2	6.2	1	11	17	75	107	67	20	2	3	0	0	0
5 Day Ave.	558	32.4	26.4	5.8	2	15	43	168	210	90	21	5	3	0	0	0
7 Day Ave.	510	32.1	26.2	5.6	2	13	41	156	197	77	19	4	2	0	0	0

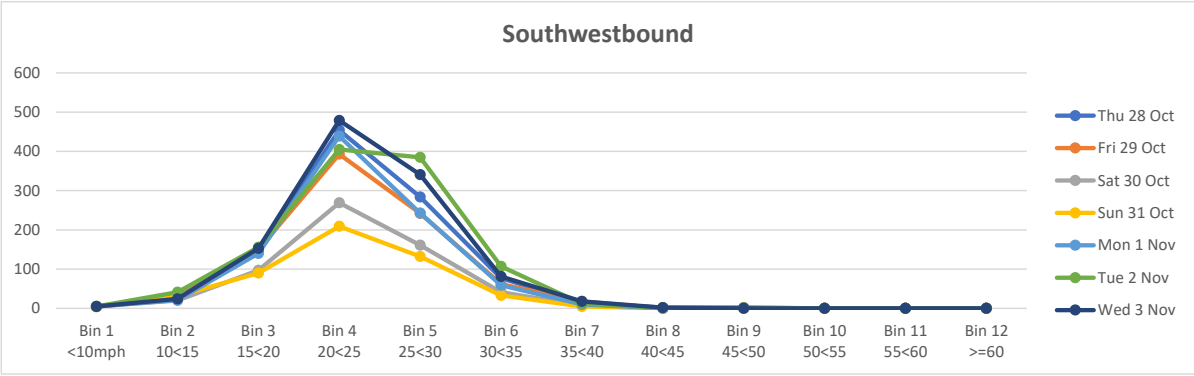
360 TSL Ltd



Direction: Southwestbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<15	Bin 3 15<20	Bin 4 20<25	Bin 5 25<30	Bin 6 30<35	Bin 7 35<40	Bin 8 40<45	Bin 9 45<50	Bin 10 50<55	Bin 11 55<60	Bin 12 >=60
Thu 28 Oct	1014	29.1	23.9	5.0	4	29	148	454	284	77	14	2	2	0	0	0
Fri 29 Oct	899	28.9	23.6	5.1	5	28	150	393	242	62	18	0	1	0	0	0
Sat 30 Oct	600	28.6	23.4	4.9	5	20	97	269	161	41	7	0	0	0	0	0
Sun 31 Oct	504	28.4	23.0	5.2	4	31	90	209	132	33	5	0	0	0	0	0
Mon 1 Nov	917	28.4	23.6	4.7	5	21	140	439	243	59	10	0	0	0	0	0
Tue 2 Nov	1113	29.6	24.3	5.2	5	41	156	405	385	107	12	1	1	0	0	0
Wed 3 Nov	1103	29.1	24.1	4.9	5	24	153	479	341	81	18	2	0	0	0	0
5 Day Ave.	1009	29.0	23.9	5.0	5	29	149	434	299	77	14	1	1	0	0	0
7 Day Ave.	879	28.9	23.7	5.0	5	28	133	378	255	66	12	1	1	0	0	0

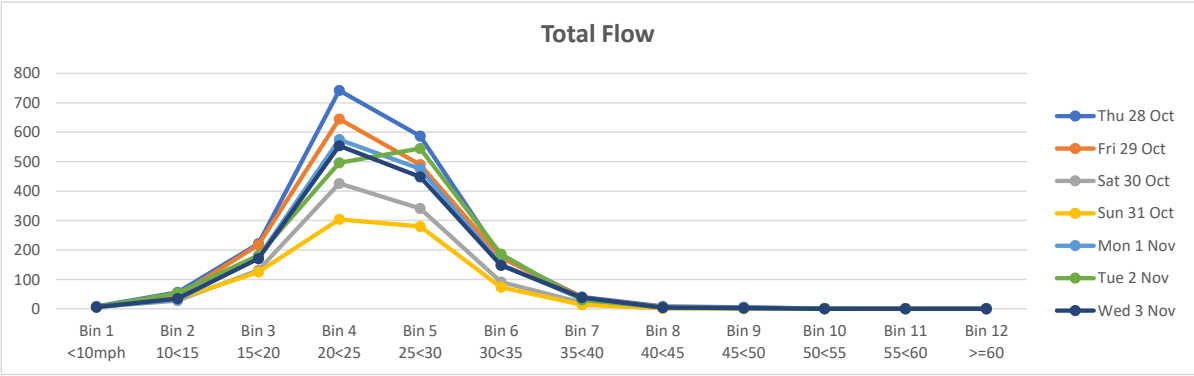
360 TSL Ltd



Direction: Total Flow

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<15	Bin 3 15<20	Bin 4 20<25	Bin 5 25<30	Bin 6 30<35	Bin 7 35<40	Bin 8 40<45	Bin 9 45<50	Bin 10 50<55	Bin 11 55<60	Bin 12 >=60
Thu 28 Oct	1842	30.1	24.6	5.3	8	56	221	742	587	175	40	8	5	0	0	0
Fri 29 Oct	1624	30.2	24.6	5.4	6	44	217	645	490	174	38	6	3	0	1	0
Sat 30 Oct	1049	29.8	24.4	5.2	7	28	131	426	341	91	21	2	2	0	0	0
Sun 31 Oct	839	29.7	24.1	5.4	6	34	125	304	280	73	14	2	1	0	0	0
Mon 1 Nov	1457	30.3	24.8	5.3	6	31	175	575	476	151	33	4	5	1	0	0
Tue 2 Nov	1506	30.6	24.9	5.5	6	54	181	496	545	186	30	6	1	1	0	0
Wed 3 Nov	1406	30.3	24.7	5.3	6	35	170	554	448	148	38	4	3	0	0	0
5 Day Ave.	1567	30.3	24.7	5.4	6	44	193	602	509	167	36	6	3	0	0	0
7 Day Ave.	1389	30.1	24.6	5.4	6	40	174	535	452	143	31	5	3	0	0	0

360 TSL Ltd



Reading ATC 2, Longwater Avenue (Southern Site)



Direction: Northeastbound

Hour Beginning	Thu Oct 28	Fri Oct 29	Sat Oct 30	Sun Oct 31	Mon Nov 01	Tue Nov 02	Wed Nov 03	5-Day Ave.	7-Day Ave.
00:00	2	2	1	0	1	0	0	1	1
01:00	0	3	0	1	1	0	1	1	1
02:00	0	0	0	0	0	1	0	0	0
03:00	0	0	0	0	0	0	0	0	0
04:00	2	1	1	1	1	1	0	1	1
05:00	2	3	3	2	3	1	2	2	2
06:00	8	6	3	2	12	7	10	9	7
07:00	44	25	1	0	52	45	44	42	30
08:00	58	25	1	7	44	78	53	52	38
09:00	27	30	11	10	32	55	41	37	29
10:00	32	23	12	15	24	39	31	30	25
11:00	31	28	19	12	20	32	23	27	24
12:00	24	25	19	19	29	28	30	27	25
13:00	35	37	16	16	22	40	31	33	28
14:00	30	28	21	21	20	18	42	28	26
15:00	31	24	27	25	27	32	53	33	31
16:00	37	30	18	18	43	39	34	37	31
17:00	56	35	12	17	41	39	49	44	36
18:00	34	22	17	3	19	18	23	23	19
19:00	15	19	10	9	16	16	16	16	14
20:00	8	6	4	3	6	5	8	7	6
21:00	7	7	6	2	3	7	4	6	5
22:00	0	4	9	1	2	1	3	2	3
23:00	2	2	1	0	0	1	2	1	1
Total	439	332	174	163	373	463	454	412	343
12H(7-19)	477	370	197	179	410	498	492	449	375
16H(6-22)	479	376	207	180	412	500	497	453	379
24H(0-24)	485	385	212	184	418	503	500	458	384
AM Peak	08:00 58	09:00 30	11:00 19	10:00 15	07:00 52	08:00 78	08:00 53	08:00 52	08:00 38
PM Peak	17:00 56	13:00 37	15:00 27	15:00 25	16:00 43	13:00 40	15:00 53	17:00 44	17:00 36

360 TSL Ltd

Direction: Southwestbound

Hour Beginning	Thu Oct 28	Fri Oct 29	Sat Oct 30	Sun Oct 31	Mon Nov 01	Tue Nov 02	Wed Nov 03	5-Day Ave.	7-Day Ave.
00:00	4	2	3	2	2	2	1	2	2
01:00	2	1	1	2	1	0	1	1	1
02:00	0	0	1	0	0	0	0	0	0
03:00	0	0	1	0	1	0	0	0	0
04:00	3	3	2	2	2	1	4	3	2
05:00	6	3	2	2	7	5	6	5	4
06:00	34	34	10	2	31	30	38	33	26
07:00	71	51	11	8	85	60	69	67	51
08:00	45	32	20	14	49	48	56	46	38
09:00	45	43	19	55	39	48	35	42	41
10:00	33	33	26	21	43	60	48	43	38
11:00	51	39	26	12	31	50	49	44	37
12:00	41	46	24	21	37	63	47	47	40
13:00	39	28	26	18	30	48	31	35	31
14:00	42	27	19	11	27	48	63	41	34
15:00	56	30	19	16	29	57	65	47	39
16:00	61	30	21	5	55	68	59	55	43
17:00	77	46	20	10	76	90	84	75	58
18:00	39	25	15	5	38	43	37	36	29
19:00	26	23	10	8	23	31	23	25	21
20:00	12	22	4	5	13	8	15	14	11
21:00	10	9	9	4	7	6	10	8	8
22:00	4	4	8	0	5	4	3	4	4
23:00	2	6	4	1	3	3	3	3	3
Total	600	430	246	196	539	683	643	579	477
12H(7-19)	682	518	279	215	613	758	729	660	542
16H(6-22)	688	528	291	216	621	765	735	667	549
24H(0-24)	703	537	301	224	634	773	747	679	560
AM Peak	07:00 71	07:00 51	10:00 26	09:00 55	07:00 85	07:00 60	07:00 69	07:00 67	07:00 51
PM Peak	17:00 77	12:00 46	13:00 26	12:00 21	17:00 76	17:00 90	17:00 84	17:00 75	17:00 58

360 TSL Ltd

Direction: Total Flow

Hour Beginning	Thu Oct 28	Fri Oct 29	Sat Oct 30	Sun Oct 31	Mon Nov 01	Tue Nov 02	Wed Nov 03	5-Day Ave.	7-Day Ave.
00:00	6	4	4	2	3	2	1	3	3
01:00	2	4	1	3	2	0	2	2	2
02:00	0	0	1	0	0	1	0	0	0
03:00	0	0	1	0	1	0	0	0	0
04:00	5	4	3	3	3	2	4	4	3
05:00	8	6	5	4	10	6	8	8	7
06:00	42	40	13	4	43	37	48	42	32
07:00	115	76	12	8	137	105	113	109	81
08:00	103	57	21	21	93	126	109	98	76
09:00	72	73	30	65	71	103	76	79	70
10:00	65	56	38	36	67	99	79	73	63
11:00	82	67	45	24	51	82	72	71	60
12:00	65	71	43	40	66	91	77	74	65
13:00	74	65	42	34	52	88	62	68	60
14:00	72	55	40	32	47	66	105	69	60
15:00	87	54	46	41	56	89	118	81	70
16:00	98	60	39	23	98	107	93	91	74
17:00	133	81	32	27	117	129	133	119	93
18:00	73	47	32	8	57	61	60	60	48
19:00	41	42	20	17	39	47	39	42	35
20:00	20	28	8	8	19	13	23	21	17
21:00	17	16	15	6	10	13	14	14	13
22:00	4	8	17	1	7	5	6	6	7
23:00	4	8	5	1	3	4	5	5	4
Total	1039	762	420	359	912	1146	1097	991	819
12H(7-19)	1159	888	476	394	1023	1256	1221	1109	917
16H(6-22)	1167	904	498	396	1033	1265	1232	1120	928
24H(0-24)	1188	922	513	408	1052	1276	1247	1137	944
AM Peak	07:00 115	07:00 76	11:00 45	09:00 65	07:00 137	08:00 126	07:00 113	07:00 109	07:00 81
PM Peak	17:00 133	17:00 81	15:00 46	15:00 41	17:00 117	17:00 129	17:00 133	17:00 119	17:00 93

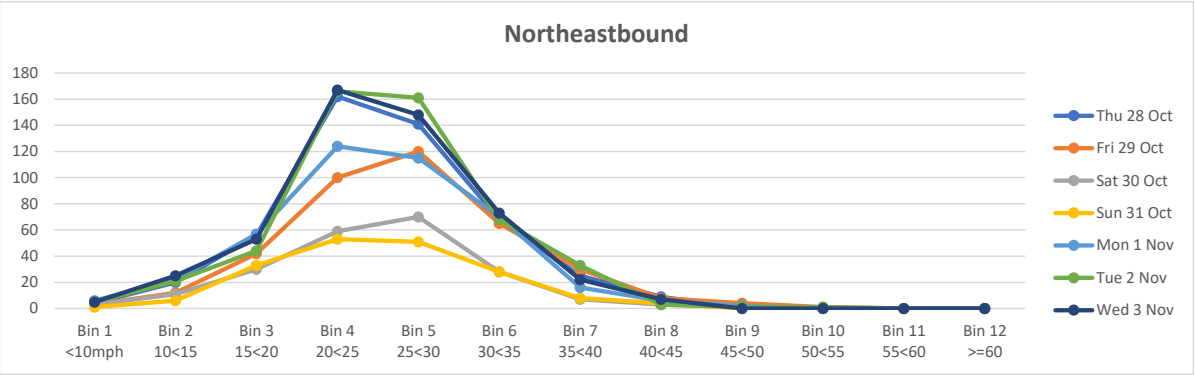
360 TSL Ltd

Reading ATC 2, Longwater Avenue (Southern Site)

Direction: Northeastbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<15	Bin 3 15<20	Bin 4 20<25	Bin 5 25<30	Bin 6 30<35	Bin 7 35<40	Bin 8 40<45	Bin 9 45<50	Bin 10 50<55	Bin 11 55<60	Bin 12 >=60
Thu 28 Oct	485	32.0	25.4	6.4	4	20	56	162	141	68	25	9	0	0	0	0
Fri 29 Oct	385	34.0	26.7	7.0	3	12	42	100	120	65	30	8	4	1	0	0
Sat 30 Oct	212	31.8	24.9	6.6	3	11	30	59	70	28	7	3	1	0	0	0
Sun 31 Oct	184	31.9	25.2	6.5	1	6	33	53	51	28	8	4	0	0	0	0
Mon 1 Nov	418	32.1	25.1	6.8	6	22	57	124	115	70	16	6	2	0	0	0
Tue 2 Nov	503	32.2	25.7	6.3	5	21	44	166	161	68	33	3	1	1	0	0
Wed 3 Nov	500	31.8	25.2	6.3	5	25	53	167	148	73	22	7	0	0	0	0
5 Day Ave.	458	32.4	25.6	6.6	5	20	50	144	137	69	25	7	1	0	0	0
7 Day Ave.	384	32.3	25.5	6.6	4	17	45	119	115	57	20	6	1	0	0	0

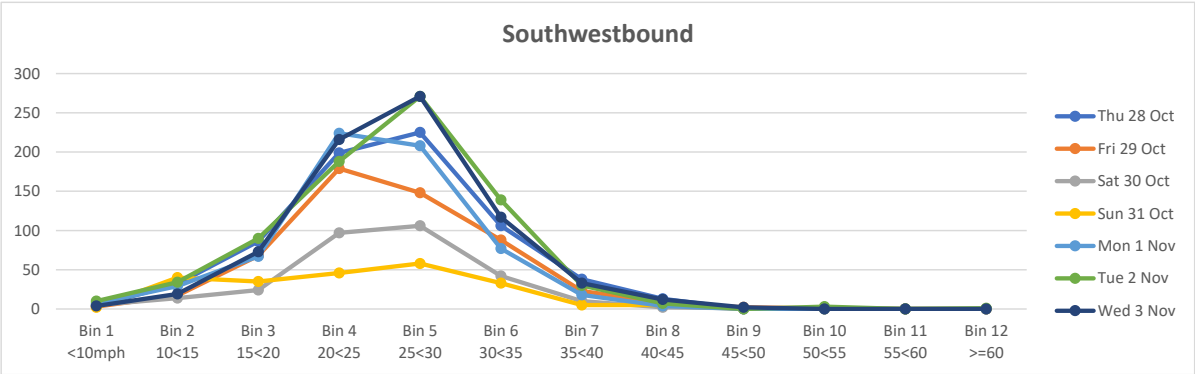
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Direction: Southwestbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<15	Bin 3 15<20	Bin 4 20<25	Bin 5 25<30	Bin 6 30<35	Bin 7 35<40	Bin 8 40<45	Bin 9 45<50	Bin 10 50<55	Bin 11 55<60	Bin 12 >=60
Thu 28 Oct	703	32.3	25.6	6.5	4	32	86	199	225	106	38	13	0	0	0	0
Fri 29 Oct	537	32.2	25.6	6.4	3	17	68	179	148	88	23	8	2	1	0	0
Sat 30 Oct	301	31.6	25.3	6.1	5	14	24	97	106	42	10	2	1	0	0	0
Sun 31 Oct	224	31.3	23.4	7.6	2	40	35	46	58	33	5	5	0	0	0	0
Mon 1 Nov	634	30.8	24.8	5.8	7	29	67	224	208	77	18	4	0	0	0	0
Tue 2 Nov	773	32.7	25.8	6.7	10	34	90	188	271	139	30	7	0	3	0	1
Wed 3 Nov	747	32.3	26.1	6.0	4	19	73	216	271	117	33	12	2	0	0	0
5 Day Ave.	679	32.1	25.6	6.3	6	26	77	201	225	105	28	9	1	1	0	0
7 Day Ave.	560	31.9	25.2	6.4	5	26	63	164	184	86	22	7	1	1	0	0

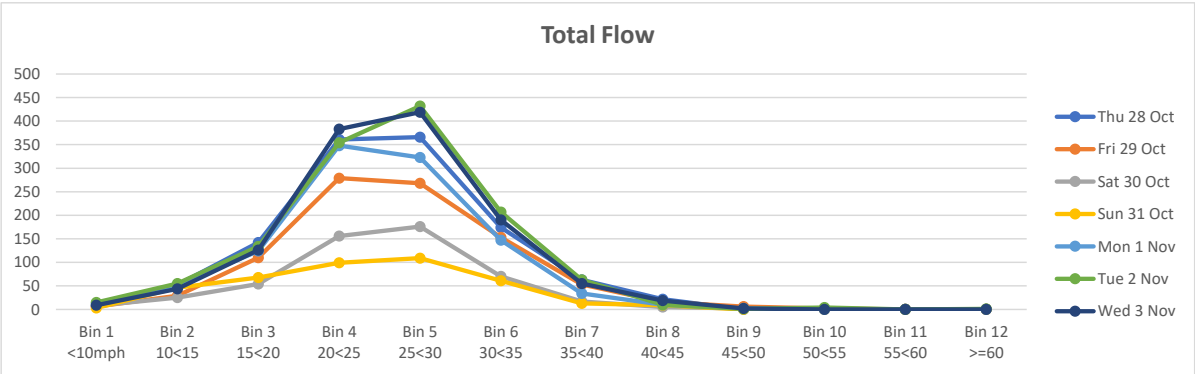
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Direction: Total Flow

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<15	Bin 3 15<20	Bin 4 20<25	Bin 5 25<30	Bin 6 30<35	Bin 7 35<40	Bin 8 40<45	Bin 9 45<50	Bin 10 50<55	Bin 11 55<60	Bin 12 >=60
Thu 28 Oct	1188	32.2	25.5	6.4	8	52	142	361	366	174	63	22	0	0	0	0
Fri 29 Oct	922	33.0	26.0	6.7	6	29	110	279	268	153	53	16	6	2	0	0
Sat 30 Oct	513	31.7	25.1	6.3	8	25	54	156	176	70	17	5	2	0	0	0
Sun 31 Oct	408	31.6	24.2	7.2	3	46	68	99	109	61	13	9	0	0	0	0
Mon 1 Nov	1052	31.3	24.9	6.2	13	51	124	348	323	147	34	10	2	0	0	0
Tue 2 Nov	1276	32.5	25.7	6.5	15	55	134	354	432	207	63	10	1	4	0	1
Wed 3 Nov	1247	32.1	25.7	6.1	9	44	126	383	419	190	55	19	2	0	0	0
5 Day Ave.	1137	32.2	25.6	6.4	10	46	127	345	362	174	54	15	2	1	0	0
7 Day Ave.	944	32.1	25.3	6.5	9	43	108	283	299	143	43	13	2	1	0	0

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Appendix E

PICADY Outputs

Junctions 9										
PICADY 9 - Priority Intersection Module										
Version: 9.0.2.5947										
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Filename: Proposed Car Park Access.j9

Path: S:\2020\4200535\3)_Civil-Transport\Modelling

Report generation date: 18/11/2021 14:23:45

- »Proposed Junction - 2021 Base + Consented Dev, AM
- »Proposed Junction - 2021 Base + Consented Dev, PM
- »Proposed Junction - 2021 Base + Development, AM
- »Proposed Junction - 2021 Base + Development, PM
- »Proposed Junction - 2021 Base + Dev Sensitivity Test, AM
- »Proposed Junction - 2021 Base + Dev Sensitivity Test, PM

Summary of junction performance

	AM					PM				
	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)
	Proposed Junction - 2021 Base + Consented Dev									
Stream B-AC	0.0	0.00	0.00	A	1.24	0.2	8.39	0.16	A	3.10
Stream C-AB	0.1	5.56	0.07	A		0.0	0.00	0.00	A	
	Proposed Junction - 2021 Base + Development									
Stream B-AC	0.0	0.00	0.00	A	1.93	0.5	10.42	0.33	B	5.62
Stream C-AB	0.2	6.10	0.14	A		0.0	0.00	0.00	A	
	Proposed Junction - 2021 Base + Dev Sensitivity Test									
Stream B-AC	0.0	0.00	0.00	A	2.94	1.8	19.67	0.64	C	13.73
Stream C-AB	0.4	7.44	0.27	A		0.0	0.00	0.00	A	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	Green Park Village - Temporary Car Park
Location	Longwater Avenue, Reading
Site number	
Date	16/11/2021
Version	
Status	(new file)
Identifier	St Edward Homes
Client	
Jobnumber	4200535
Enumerator	UKIdkemp
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021 Base + Consented Dev	AM	ONE HOUR	07:45	09:15	15
D2	2021 Base + Consented Dev	PM	ONE HOUR	16:45	18:15	15
D3	2021 Base + Development	AM	ONE HOUR	07:45	09:15	15
D4	2021 Base + Development	PM	ONE HOUR	16:45	18:15	15
D5	2021 Base + Dev Sensitivity Test	AM	ONE HOUR	07:45	09:15	15
D6	2021 Base + Dev Sensitivity Test	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Proposed Junction	100.000

Proposed Junction - 2021 Base + Consented Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Temporary Car Park Access	T-Junction	Two-way	1.24	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Longwater Ave South		Major
B	Car Park Access		Minor
C	Longwater Ave North		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00			200.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	2.50	20	27

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	472	0.082	0.208	0.131	0.297
1	B-C	609	0.089	0.226	-	-
1	C-B	690	0.256	0.256	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2021 Base + Consented Dev	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	92	100.000
B		✓	0	100.000
C		✓	86	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A	B	C
	A	0	39	53
	B	0	0	0
	C	47	39	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	11
	B	0	0	0
	C	8	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.07	5.56	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	511	0.000	0	0.0	0.000	A
C-AB	31	692	0.045	31	0.1	5.442	A
C-A	34			34			
A-B	29			29			
A-C	40			40			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	507	0.000	0	0.0	0.000	A
C-AB	37	693	0.054	37	0.1	5.491	A
C-A	40			40			
A-B	35			35			
A-C	48			48			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	501	0.000	0	0.0	0.000	A
C-AB	46	693	0.067	46	0.1	5.560	A
C-A	48			48			
A-B	43			43			
A-C	58			58			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	501	0.000	0	0.0	0.000	A
C-AB	46	693	0.067	46	0.1	5.564	A
C-A	48			48			
A-B	43			43			
A-C	58			58			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	507	0.000	0	0.0	0.000	A
C-AB	37	693	0.054	37	0.1	5.500	A
C-A	40			40			
A-B	35			35			
A-C	48			48			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	511	0.000	0	0.0	0.000	A
C-AB	31	692	0.045	31	0.1	5.450	A
C-A	34			34			
A-B	29			29			
A-C	40			40			

Proposed Junction - 2021 Base + Consented Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Temporary Car Park Access	T-Junction	Two-way	3.10	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2021 Base + Consented Dev	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	45	100.000
B		✓	76	100.000
C		✓	76	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	0	45
	B	38	0	38
	C	76	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	11
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.16	8.39	0.2	A
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	57	519	0.110	57	0.1	7.783	A
C-AB	0	664	0.000	0	0.0	0.000	A
C-A	57			57			
A-B	0			0			
A-C	34			34			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	68	516	0.132	68	0.2	8.034	A
C-AB	0	662	0.000	0	0.0	0.000	A
C-A	68			68			
A-B	0			0			
A-C	40			40			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	84	513	0.163	84	0.2	8.385	A
C-AB	0	659	0.000	0	0.0	0.000	A
C-A	84			84			
A-B	0			0			
A-C	50			50			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	84	513	0.163	84	0.2	8.391	A
C-AB	0	659	0.000	0	0.0	0.000	A
C-A	84			84			
A-B	0			0			
A-C	50			50			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	68	516	0.132	68	0.2	8.042	A
C-AB	0	662	0.000	0	0.0	0.000	A
C-A	68			68			
A-B	0			0			
A-C	40			40			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	57	519	0.110	57	0.1	7.802	A
C-AB	0	664	0.000	0	0.0	0.000	A
C-A	57			57			
A-B	0			0			
A-C	34			34			

Proposed Junction - 2021 Base + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Temporary Car Park Access	T-Junction	Two-way	1.93	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2021 Base + Development	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	131	100.000
B		✓	0	100.000
C		✓	125	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	78	53
	B	0	0	0
	C	47	78	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	11
	B	0	0	0
	C	8	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.14	6.10	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	503	0.000	0	0.0	0.000	A
C-AB	62	685	0.090	62	0.1	5.772	A
C-A	32			32			
A-B	59			59			
A-C	40			40			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	497	0.000	0	0.0	0.000	A
C-AB	75	684	0.109	75	0.1	5.906	A
C-A	38			38			
A-B	70			70			
A-C	48			48			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	489	0.000	0	0.0	0.000	A
C-AB	93	683	0.136	93	0.2	6.099	A
C-A	45			45			
A-B	86			86			
A-C	58			58			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	489	0.000	0	0.0	0.000	A
C-AB	93	683	0.136	93	0.2	6.103	A
C-A	45			45			
A-B	86			86			
A-C	58			58			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	497	0.000	0	0.0	0.000	A
C-AB	75	684	0.109	75	0.1	5.919	A
C-A	38			38			
A-B	70			70			
A-C	48			48			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	503	0.000	0	0.0	0.000	A
C-AB	62	685	0.090	62	0.1	5.787	A
C-A	32			32			
A-B	59			59			
A-C	40			40			

Proposed Junction - 2021 Base + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Temporary Car Park Access	T-Junction	Two-way	5.62	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2021 Base + Development	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	45	100.000
B		✓	152	100.000
C		✓	76	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	0	45
	B	76	0	76
	C	76	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	11
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.33	10.42	0.5	B
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	114	519	0.221	113	0.3	8.855	A
C-AB	0	664	0.000	0	0.0	0.000	A
C-A	57			57			
A-B	0			0			
A-C	34			34			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	137	516	0.265	136	0.4	9.468	A
C-AB	0	662	0.000	0	0.0	0.000	A
C-A	68			68			
A-B	0			0			
A-C	40			40			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	167	513	0.326	167	0.5	10.396	B
C-AB	0	659	0.000	0	0.0	0.000	A
C-A	84			84			
A-B	0			0			
A-C	50			50			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	167	513	0.326	167	0.5	10.425	B
C-AB	0	659	0.000	0	0.0	0.000	A
C-A	84			84			
A-B	0			0			
A-C	50			50			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	137	516	0.265	137	0.4	9.507	A
C-AB	0	662	0.000	0	0.0	0.000	A
C-A	68			68			
A-B	0			0			
A-C	40			40			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	114	519	0.221	115	0.3	8.916	A
C-AB	0	664	0.000	0	0.0	0.000	A
C-A	57			57			
A-B	0			0			
A-C	34			34			

Proposed Junction - 2021 Base + Dev Sensitivity Test, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Temporary Car Park Access	T-Junction	Two-way	2.94	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2021 Base + Dev Sensitivity Test	AM	ONE HOUR	07:45	09:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	203	100.000
B		✓	0	100.000
C		✓	197	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	150	53
	B	0	0	0
	C	47	150	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	11
	B	0	0	0
	C	8	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.27	7.44	0.4	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	487	0.000	0	0.0	0.000	A
C-AB	119	671	0.178	118	0.2	6.503	A
C-A	29			29			
A-B	113			113			
A-C	40			40			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	478	0.000	0	0.0	0.000	A
C-AB	144	668	0.216	144	0.3	6.866	A
C-A	33			33			
A-B	135			135			
A-C	48			48			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	465	0.000	0	0.0	0.000	A
C-AB	179	663	0.270	179	0.4	7.423	A
C-A	38			38			
A-B	165			165			
A-C	58			58			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	465	0.000	0	0.0	0.000	A
C-AB	179	663	0.270	179	0.4	7.439	A
C-A	38			38			
A-B	165			165			
A-C	58			58			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	478	0.000	0	0.0	0.000	A
C-AB	144	668	0.216	144	0.3	6.890	A
C-A	33			33			
A-B	135			135			
A-C	48			48			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	0	487	0.000	0	0.0	0.000	A
C-AB	119	671	0.178	120	0.2	6.535	A
C-A	29			29			
A-B	113			113			
A-C	40			40			

Proposed Junction - 2021 Base + Dev Sensitivity Test, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction Type	Major road direction	Junction Delay (s)	Junction LOS
1	Temporary Car Park Access	T-Junction	Two-way	13.73	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2021 Base + Dev Sensitivity Test	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	45	100.000
B		✓	300	100.000
C		✓	76	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	0	45
	B	150	0	150
	C	76	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	0	11
	B	0	0	0
	C	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.64	19.67	1.8	C
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	226	519	0.435	223	0.8	12.047	B
C-AB	0	664	0.000	0	0.0	0.000	A
C-A	57			57			
A-B	0			0			
A-C	34			34			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	270	516	0.522	268	1.1	14.453	B
C-AB	0	662	0.000	0	0.0	0.000	A
C-A	68			68			
A-B	0			0			
A-C	40			40			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	330	513	0.644	328	1.7	19.179	C
C-AB	0	659	0.000	0	0.0	0.000	A
C-A	84			84			
A-B	0			0			
A-C	50			50			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	330	513	0.644	330	1.8	19.668	C
C-AB	0	659	0.000	0	0.0	0.000	A
C-A	84			84			
A-B	0			0			
A-C	50			50			

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	270	516	0.522	272	1.1	14.905	B
C-AB	0	662	0.000	0	0.0	0.000	A
C-A	68			68			
A-B	0			0			
A-C	40			40			

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	LOS
B-AC	226	519	0.435	227	0.8	12.403	B
C-AB	0	664	0.000	0	0.0	0.000	A
C-A	57			57			
A-B	0			0			
A-C	34			34			



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