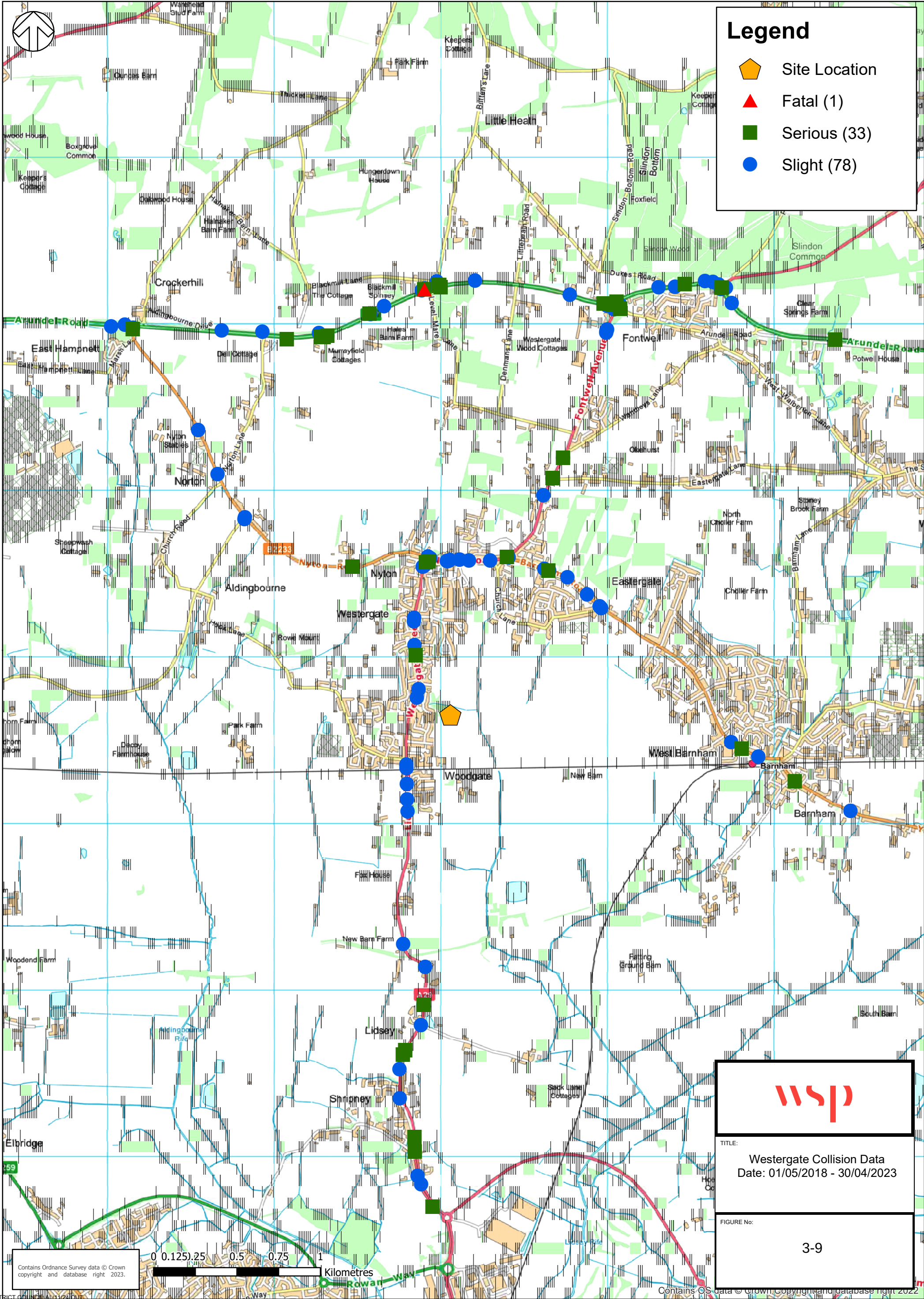




- 3.9.2. The data shows a total of 112 collisions that have occurred over the past five years, of which one collision was classed as 'Fatal', 33 collisions were classified as 'Serious' and the remaining 78 were classified as 'Slight' in terms of severity. In total, seven accidents involved pedestrians, nine involved cyclists and 18 involved a motor cyclist.
- 3.9.3. The data has been split into two sections; the first being the collisions that have occurred at the junctions and the second being the collisions that have occurred on links. These are summarised in **Table 3-9** and **Table 3-10** for junctions and links respectively.

PERSONAL INJURY COLLISIONS AT JUNCTIONS

Table 3-9 – Summary of PICs at Junctions

Junction	Severity			Type of Vulnerable User		
	Slight	Serious	Fatal	Pedestrian	Cyclist	Motor Cyclist
A27/ Arundel Road/ Fontwell Avenue	9	4	0	0	0	4
A27/ Nyton Road	2	1	0	0	0	0
A29/ Barnham Road	3	1	0	0	2	0
Westergate Street/ B2233 Nyton Road	4	2	0	1	1	1
Fontwell East Roundabout	3	1	0	0	0	0

A27 ARUNDEL ROAD / A29 FONTWELL AVENUE ROUNDABOUT

- 3.9.4. There have been 13 recorded accidents at the roundabout junction of A27/ Arundel Road/ Fontwell Avenue. Of the recorded accidents, four involved motor cyclists, three of which were as a result of driver error and the other was caused by the bike hitting gravel as it braked causing the rider to lose control. Three of these motorcycle accidents were classed as 'Serious' in terms of severity, whilst the four was classified as 'Slight'.

- 3.9.5. The remaining nine accidents were subject to collision between two or more vehicles, out of which eight were classified as 'Slight' in terms of severity and one classed as 'Serious'. During the one serious incident, the driver misjudged the road ahead, failing to slow down earlier enough, going into the back of a stationary vehicle. Streetlights were present and the condition was damp/wet.

A27 / NYTON ROAD PRIORITY JUNCTION

- 3.9.6. There have been three recorded accidents at the priority junction of A27/ Nyton Road. Out of these, one was classified as 'Serious' in terms of severity and the remaining two as 'Slight'.
- 3.9.7. The 'Serious' accidents occurred when the driver of one vehicle moved into the path of another vehicle while negotiating A27 to enter Nyton Road.

A29 / BARNHAM ROAD ROUNDABOUT

- 3.9.8. Four accidents have been recorded at the roundabout junction of A29/ Barnham Road. One was classified as 'Serious' in terms of severity involving pedal cyclist. The accident involving the cyclist occurred when the vehicle travelling south of the roundabout failed to notice the cyclist travelling west of the roundabout and collided with the back wheel of the cycle, causing injury as the rider to fell onto the road.
- 3.9.9. A second accident involving a pedal cyclist was classified as 'Slight' in terms of severity. This was a similar accident to the more serious one in which driver error was the main factor. The remaining two incidents involved the collision of two or more vehicles. None of these accidents involve a vulnerable road user.

WESTERGATE STREET / B2233 NYTON ROAD PRIORITY JUNCTION

- 3.9.10. There have been six recorded accidents in the vicinity of the Westergate Street/ B2233 Nyton Road priority junction, three of which involved a vulnerable road user. An accident involving a pedal cycle classed as 'Slight' in terms of severity, occurred when the cyclist hit a pothole in the road, causing them to lose balance and fall.
- 3.9.11. One of the accidents classified as 'Serious' in terms of severity occurred when a pedestrian crossed the road in front of a motor cyclist. The other serious incident a collision between two vehicles where one of them had crossed the give way line, colliding into a speeding vehicle.

FONTWELL EAST ROUNDABOUT

- 3.9.12. A total of four collisions were recorded at Fontwell East Roundabout, three of which were classified as 'Slight' in terms of severity, and one has been classified as 'Serious'.
- 3.9.13. The serious accident occurred due to the vehicle reaching the roundabout at high speeds, therefore being unable to negotiate the junction properly. Another collision occurred due to the vehicle approaching the roundabout at too high of a speed and not being able to manoeuvre the junction. This incident was classed as 'Slight' in terms of severity.

3.9.14. The other two of collisions which occurred during the 5-year period obtained, were both classified as 'Slight' and has been attributed to driver error.

3.9.15. No accident involved a vulnerable road user.

PERSONAL INJURY ACCIDENTS ON LINKS

Table 3-10 – Summary of PICs on Links

Link	Severity			Type of Vulnerable User		
	Slight	Serious	Fatal	Pedestrian	Cyclist	Motor Cyclist
A29 Westergate Street/A29 Lindsey Road/A29 Shripney Road	16	7	0	2	2	5
Fontwell Avenue	5	2	0	1	1	0
Nyton Road	4	1	0	0	0	1
Nyton Road link between Westergate and Eastergate	6	0	0	1	0	1
Barnham Road	8	2	0	0	1	1
Arundel Road (west of A27/ Arundel Road/ Fontwell Avenue roundabout)	11	10	1	0	0	2
Arundel Road (east of A27/ Arundel Road/ Fontwell Avenue roundabout)	4	1	0	0	0	0

A29 WESTERGATE STREET/A29 LINDSEY ROAD/A29 SHRIPNEY ROAD

3.9.16. There have been 23 personal injury accidents recorded on the A29 Westergate Street. Out of these, 16 were classified 'Slight' in terms of severity and seven were classified as 'Serious'. Of these 23 accidents, five involved motor cyclists, two involved a pedestrian and two involved a pedal cycles.

3.9.17. All of the motor cycle PICs were attributed to careless driving, four of which have been classified as 'Slight' in terms of severity, whilst the final one has been classified as 'Serious'.

- 3.9.18. Both incidents involving the pedestrian resulted from careless behaviour from the pedestrian stepping into the carriageway without checking properly. One of these collisions was classified as 'Serious', occurring on the A29 Shripney Road some 150m north of the Aldi roundabout.
- 3.9.19. Of the remaining five 'Serious incidents, all were as a result of driver error. One may have been partially resulting from darkness with no streetlights, however the driver was noted to be impaired from alcohol. Wet conditions could have also been a factor for a second, although speeding was also involved.
- 3.9.20. None of the collisions involving a pedal cycle were classed as 'Serious' and were both due to careless driving, most likely not checking blind spots properly.
- 3.9.21. The remaining accidents classified as 'Slight' in terms of severity occurred either due to reckless driving, loss of control of the vehicle, or vehicle travelling too fast under prevailing conditions.

A29 FONTWELL AVENUE

- 3.9.22. The link connecting A27/ Arundel Road/ Fontwell Avenue Roundabout and B2233 Nyton Road/ Barnham Road has had seven accidents recorded; two of them were classified as 'Serious' in terms of severity, and five classified as 'Slight'.
- 3.9.23. Both 'Serious' accidents involved careless driving, one of the incidents resulted in a child passenger getting injured.
- 3.9.24. One of the seven PICs involved a pedal cycle, and one involved a pedestrian. Both of these were classified as 'Slight' in terms of severity and were as a result of careless driving/driver in a hurry.

B2233 NYTON ROAD

- 3.9.25. The B2233 Nyton Road links the A27 to A29 Westergate Street, where five personal injury accidents have been recorded on the Nyton Road link located west of the Westergate Street/ B2233 Nyton Road Priority junction. There was one accident classified as 'Serious' in terms of severity and four accidents classified as 'Slight' in terms of severity.
- 3.9.26. The accident that has been classified as 'Serious' was the only accident sustained by a vulnerable road user (moped) and was a result of the road user losing control as the moped rode over mud in the road during heavy rain causing the bike to lose grip.
- 3.9.27. The remaining collisions, all classified as 'Slight' in terms of severity, were between two cars and have been documented as driver error.

NYTON ROAD LINK BETWEEN WESTERGATE AND EASTERGATE

- 3.9.28. There have been six accidents recorded on the short link joining Westergate and Eastergate, all classified as 'Slight' in terms of severity. One of these six accident involved a pedestrian and one involved a motor cyclist. All accidents on this corridor were due to driver error.

BARNHAM ROAD

- 3.9.29. There have been 10 recorded accidents on the Barnham Road link, two of which are classified as 'Serious' in terms of severity. Both serious accidents were due to human error, with one of them involving a pedestrian failing to look properly.
- 3.9.30. Of the remaining eight accidents which were all classified as 'Slight', one of them involved motor cyclists and was due to poor speed judgment and sudden braking.

ARUNDEL ROAD (WEST OF A27/ ARUNDEL ROAD/ FONTWELL AVENUE ROUNDABOUT)

- 3.9.31. There have been 22 recorded accidents on the Barnham Road link, 11 are classified as 'Slight' in terms of severity, 10 as 'Serious' and one as 'Fatal'. Of these 22 collisions, two involved vulnerable road users.
- 3.9.32. Of the 10 classified as 'Serious', seven were due to driver error, either speeding or misjudgement of other road users manoeuvres. One of the serious accidents was attributed to heavy rain making it difficult to see. Another has an unknown cause, with the driver entered a slight bend and lost control for an unknown reason.
- 3.9.33. The fatal accident was due to two vehicles racing resulting in a high-speed collision with other vehicles.

ARUNDEL ROAD (EAST OF A27/ ARUNDEL ROAD/ FONTWELL AVENUE ROUNDABOUT)

- 3.9.34. The Arundel Road link east of the A27/ Arundel Road/ Fontwell Avenue roundabout, recorded 5 PICs over the 5-year period covered. There was one accident classified as 'Serious' in terms of severity and four accidents classified as 'Slight' in terms of severity.
- 3.9.35. During the accident which has been classified as 'Serious', the driver states that upon approach to the roundabout, the vehicle failed to slow down after brakes were applied. Heavy rain during this period could have played a role.
- 3.9.36. The four accidents classified as 'Slight' in terms of severity were all a result of driver error, such as misjudging other road user's speed.
- 3.9.37. No accidents were involving vulnerable road users.

3.10 SUMMARY

- 3.10.1. Overall, there are three clusters where PICs have occurred over the five-year period; at A27/Arundel Road / Fontwell Avenue junction, Fontwell East Roundabout and Nyton Road link between Westergate and Eastergate. The main cause of accidents at these locations, with drivers misjudging other vehicles or losing of control of their vehicles. Therefore, it is concluded that there does not exist any operational or safety issues within the local highway network. The proposed development will therefore not result in a severe impact on the safety of the local network.

- 3.10.2. Additionally it is noted that the A27/Fontwell Avenue junction is also proposed to be signalised which should further improve safety at this junction by removing conflicting movements.

3.11 BASELINE TRAFFIC DATA – A29 ATC

An Automatic Traffic Count (ATC) was undertaken on A29 Westergate Street for a 7-day period w/c 28th February 2022 between Pine Close (South) and Oaks Close (North). The ATC survey recorded vehicle speeds and volume. **Table 3-11** summarises the seven-day and five-day average traffic volumes recorded.

Table 3-11 – A29 Westergate Street ATC

	Northbound	Southbound
5-day Average – AM Peak	668	498
5-day Average – PM Peak	385	686
7-day Average – AM Peak	568	423
7-day Average – PM Peak	361	595
5-day Average – 24 hours	6,809	6,758
7-day Average – 24 hours	6,404	6,347

- 3.11.1. Reviewing the data in **Table 3-11** this has identified a seven-day average AM peak flow of 568 and 423 vehicles northbound and southbound respectively. In the PM peak this was recorded as 361 and 595 vehicles northbound and southbound respectively. The ATC recorded an average 85th percentile speed of 33mph northbound and 36mph southbound.

3.12 BASELINE JUNCTION CAPACITY ASSESSMENTS

- 3.12.1. Junction assessments have been carried out for the 2019 baseline AM and PM peak periods. Traffic data for these assessments has been derived from the Chichester Area Transport Model (CATM) as agreed with WSCC and National Highways during pre-application scoping discussions. This provides a consistent approach to assessment as uses the same traffic flows as the Transport Assessment completed by Pell Frischmann in support of the planning application BN/11/22/OUT for BEW Parcel SC1. The CATM is a SATURN strategic model that was updated to a base year of 2019 for use within the A29 realignment business case and met relevant DfT WebTAG model validation criteria.
- 3.12.2. Junction assessments have been carried out using the program Junctions 10 developed by Transport Research Laboratory. Junctions 10 includes the ARCADY and PICADY computer modelling software modules which assesses the traffic capacity, queues and delays at roundabouts and priority junctions. Signalised junctions have been assessed using the program LinSig 3 by JCT

Consultancy. LinSig provides an assessment of the impact of traffic signals on traffic capacity, queues and delays at a junction.

- 3.12.3. The results of the roundabout and priority junction assessments are expressed in terms of the predicted Ratio of Flow to Capacity (RFC) for each arm of the junction. The RFC provides a numerical indication of the likely performance of a junction. Volume 6 Section 2 of Design Manual for Roads and Bridges (Highways England) contains the document TA23/81 Junctions and Access: Determination of Size of Roundabouts and Major/Minor Priority Junctions, which provides advice on the interpretation of RFC values. The document states that if any arm has an RFC ratio of around 0.85 queuing will theoretically be avoided in five out of six cases. Therefore, an RFC below 0.85 is regarded as demonstrating that the junction would work satisfactorily with minimal delay to vehicular traffic. RFC values over 1.0 indicate that the junction is over design capacity and significant delays are likely to result on at least one arm of the junction.
- 3.12.4. The junction assessments also produce an estimate of the maximum queue lengths for each arm. Queue lengths are expressed in the number of vehicles or Passenger Car Units (PCU).
- 3.12.5. LinSig models provide an indication of the Degree of Saturation (DoS) as a percentage and the Mean Maximum Queue (MMQ) in Passenger Car Units (PCUs) for each junction approach, the average delay per vehicle on each approach, recorded in seconds and the Practical Reserve Capacity (PRC), which is a measure of the junctions total capacity (as a percentage). When reviewing the PRC of a junction the following is considered:
 - A positive figure indicates the junction operates with reserve capacity;
 - A negative figure less than -10%, suggests that the junction would be broadly at capacity; and
 - A negative figure more than -10% indicates that the junction cannot accommodate the demand.
- 3.12.6. For DoS the thresholds can be categorised as follows:
 - Less than 90%: Any queues that have built up will be able to disperse during the relevant stage in each cycle;
 - 90-100%: Indicates that an arm is close to its theoretical capacity and any queue that has built up does not fully clear within each cycle; and
 - More than 100%: Indicates an arm is over its theoretical capacity and significant queues are likely as a result.
- 3.12.7. Junction geometries have been measured against Ordnance Survey data and aerial photography. The theoretical queue lengths contained within the base model junction assessments have been validated against observed queue length data that was recorded as part of the MCCs conducted in 2016 as part of the Transport Assessment produced in support of the previous planning application for the site (AL/15/17/PL). Given that the layout of the junction assessed has not changed since 2016, this ensures that the assessments are producing an accurate representation of the existing operation of the junction.
- 3.12.8. This scope of junction assessments completed is as follows:

- A27/A29 Eastern Roundabout
- A27 Arundel Road/A27/Arundel Road/A29 Fontwell Roundabout
- A29/B2233 Barnham Road Roundabout
- A27 Arundel Road/B2233 Nyton Road
- A29 Westergate Street/B2233 Nyton Road Priority Junction (South)
- A29 Westergate Street/B2233 Nyton Road Priority Junction (East)
- A29/A259 Rolls Royce Roundabout; and
- A29 Westergate Street/Meadow Way

3.12.9. The location of these junction is shown in **Figure 3-10** below. Full outputs from all junction capacity assessments are included in **Appendix B**.

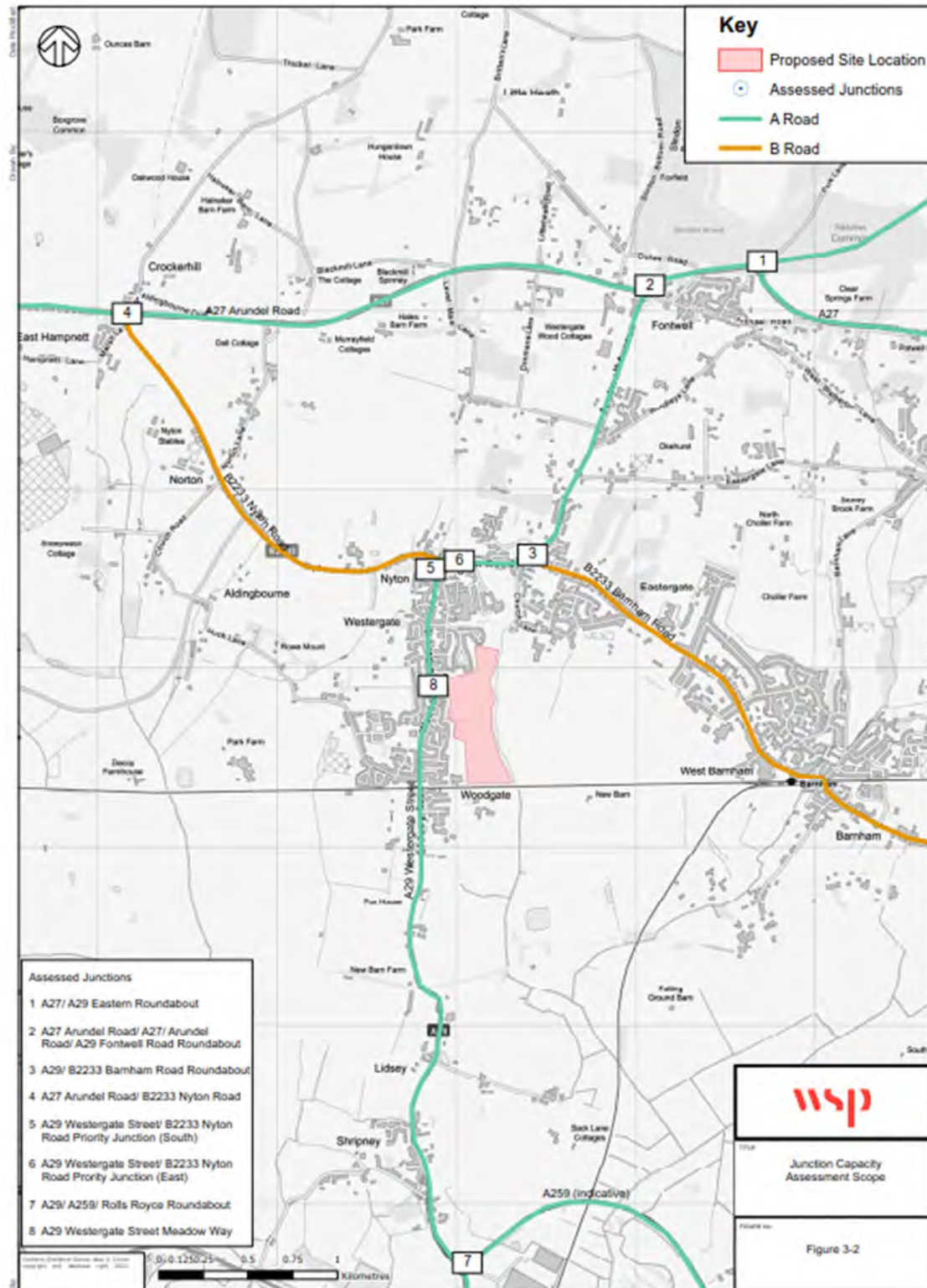


Figure 3-10 – Scope of Junction Capacity Assessments

SITE 1: A27 – A29

3.12.10. The junction of A27/ A29 is a 3-arm roundabout providing access to Arundel to the east and Chichester to the west. There are two lanes on the approach from A29 and A27 (West) and three lanes from the A27 (East); all the approaches are subject to the national speed limit.

3.12.11. **Table 3-12** summarises the baseline modelling results.

Table 3-12 – A27 / A29 2019 Baseline Junction Capacity Assessment

Arm	Approach	AM Peak			PM Peak		
		RFC	Total Delay	Modelled Queue	RFC	Total Delay	Modelled Queue
A	A29	0.67	11	2	0.70	11	2
B	A27 (East)	0.62	3	2	0.50	3	1
C	A27 (West)	0.60	3	2	0.54	2	1

3.12.12. The baseline modelling results indicate that the junction will operate within theoretical capacity in the AM and PM peak periods. The maximum RFC of 0.70 is recorded on the approach from the A29 in the PM peak with an associated queue of three vehicles and delay of 11 seconds suggests the junction arm is near capacity.

SITE 2: A27 – ARUNDEL ROAD – A29 FONTWELL AVENUE

- 3.12.13. The junction of the A27/ Arundel Road/ A29 Fontwell Avenue is a 4-arm roundabout which provides access to Fontwell village to the east. There is a single lane on the approach from Arundel Road, two lanes on the approach from the A29 Fontwell Avenue and A27 (North) and three lanes on the approach from the A27 (West). All arms are subject to a national speed limit.
- 3.12.14. The baseline modelling results for the roundabout are presented in **Table 3-13**.

Table 3-13 – A27 / Arundel Road / A29 Fontwell Avenue 2019 Baseline Junction Capacity Assessment

Arm	Approach	AM Peak			PM Peak		
		RFC	Total Delay	Modelled Queue	RFC	Total Delay	Modelled Queue
A	A27 Arundel Road	0.71	6	3	0.75	5	3
B	A27 (East)	0.78	6	4	0.75	6	3
C	Arundel Road	0.67	29	2	0.47	24	1
D	A29 Fontwell Avenue	0.83	34	5	0.47	10	1

- 3.12.15. The results summarised in the table above show that the A27 / A29 Fontwell Avenue roundabout is approaching capacity in the AM and PM peaks. In the AM peak the A29 Fontwell Avenue has the highest RFC of 0.83, leading to a delay 34 seconds and queue of five vehicles. In the PM peak both A27 approaches have RFC values of 0.75 leading to a queue of three vehicles

SITE 3: A29 – BARNHAM ROAD

3.12.16. The A29/B2233 Barnham Road is a 3-arm roundabout providing access to Westergate to the west and Barnham train station to the east. All the arms are subject to a 30mph speed limit, with a single lane approach from B2323 Barnham Road and A29 (North) and two lanes on the approach from A29 (West). The base modelling results are shown in **Table 3-14**.

Table 3-14 – A29 / Barnham Road (War Memorial) Roundabout 2019 Baseline Junction Capacity Assessment

Arm	Approach	AM Peak			PM Peak		
		RFC	Total Delay	Modelled Queue	RFC	Total Delay	Modelled Queue
A	B2233 Barnham Road	0.58	7	1	0.48	7	1
B	A29 Nyton Road	0.46	3	1	0.39	3	1
C	A29 Fontwell Avenue	0.50	7	1	0.76	14	3

3.12.17. The A29/ B2233 Barnham Road modelling results indicates the junction is operating within capacity in the AM and PM peak. The maximum RFC of 0.58 occurs on the approach from Barnham Road with an associated delay of seven seconds and a queue of one vehicle.

SITE 4: A27 – NYTON ROAD

3.12.18. A27/ Nyton Road is a 3-arm priority junction providing access to the A27 Trunk Road. All the approaches are subject to the national speed limit with a right turn lane provided for vehicles entering Nyton Road with queuing for up to 16 vehicles. The baseline modelling results are presented in **Table 3-15**.

Table 3-15 –A27 / Nyton Road 2019 Baseline Junction Capacity Assessment

Arm	Approach	AM Peak			PM Peak		
		RFC	Total Delay	Modelled Queue	RFC	Total Delay	Modelled Queue
B	Nyton Road B2233	0.60	16	2	0.15	7	0
C	A27	0.12	9	0	0.30	9	0

3.12.19. The modelling results summarised above indicates the junction operates within capacity in the AM and PM peaks. The highest RFC of 0.60 occurs on the approach from the A27 Arundel Road (West) with an associated delay of 16 seconds and a queue of two vehicles.

SITE 5: WESTERGATE STREET – NYTON ROAD (EAST JUNCTION)

3.12.20. Westergate Street/ Nyton Road (East Junction) is a 3-arm priority junction in the centre of Westergate. All the approaches are subject to a 30mph speed limit with a right turn lane provided for vehicles turning from Nyton Road (east) to Nyton Road (west). The baseline modelling results are shown in **Table 3-16**.

Table 3-16 –A29 / Nyton Road East 2019 Baseline Junction Capacity Assessment

Arm	Approach	AM Peak			PM Peak		
		RFC	Total Delay	Modelled Queue	RFC	Total Delay	Modelled Queue
B	Nyton Road B2233	0.14	1	1	0.04	1	1
C	Nyton Road A29	0.68	51	3	0.92	82	8

3.12.21. The baseline modelling results indicates the priority junction currently operates within capacity in the AM peak and at capacity in the PM peak. The maximum RFC of 0.92 occurs on the approach from A29 Nyton Road in the AM peak with a total delay of 82 seconds and an associated queue of eight vehicles.

SITE 6: WESTERGATE STREET – NYTON ROAD (SOUTH JUNCTION)

3.12.22. Westergate Street/ Nyton Road (South Junction) is a 3-arm priority junction in the centre of Westergate. All the approaches are subject to a 30mph speed limit. The baseline modelling results are shown in **Table 3-17**.

Table 3-17 –A29 / Nyton Road South 2019 Baseline Junction Capacity Assessment

Arm	Approach	AM Peak			PM Peak		
		RFC	Total Delay	Modelled Queue	RFC	Total Delay	Modelled Queue
B	Nyton Road B2233	0.18	14	0	0.49	21	1
C	Nyton Road A29	0.00	0	0	0.00	0	0

3.12.23. The baseline modelling results indicates the priority junction operates well within at capacity in the AM and PM peak.

SITE 7: WESTERGATE STREET – NYTON ROAD (NORTH JUNCTION)

3.12.24. Westergate Street/ Nyton Road (North Junction) is a 3-arm priority junction in the centre of Westergate. All the approaches are subject to a 30mph speed limit. The baseline modelling results are shown in **Table 3-18**.

Table 3-18 – A29 / Nyton Road North 2019 Baseline Junction Capacity Assessment

Arm	Approach	AM Peak			PM Peak		
		RFC	Total Delay	Modelled Queue	RFC	Total Delay	Modelled Queue
B	Nyton Road B2233	0.60	16	2	0.15	7	0
C	Nyton Road A29	0.12	9	0	0.30	9	0

3.12.25. The modelling results indicates the junction currently operates within capacity. The maximum RFC of 0.60 occurs on the approach from Nyton Road B2233 with a total delay of 16 seconds and a queue of two vehicles.

SITE 8: A29/A259 FELPHAM RELIEF/INDUSTRIAL ESTATE

3.12.26. The junction of A29/ A259 Felpham Relief Road/ Industrial Estate is a 5-arm roundabout providing access to Bognor Regis to the south. There are two lanes on all of the approaches with all the approaches are subject to the national speed limit.

3.12.27. **Table 3-19** summarises the baseline modelling results.

Table 3-19 – A29 / A259 Roundabout 2019 Baseline Junction Capacity Assessment

Arm	Approach	AM Peak			PM Peak		
		RFC	Total Delay	Modelled Queue	RFC	Total Delay	Modelled Queue
A	A259	0.59	6	2	0.50	5	1
B	Rolls Royce Access	0.02	6	0	0.05	5	0
C	A29 (South)	0.51	3	1	0.52	3	1
D	Saltbox Road	0.00	0	0	0.00	0	0
E	A29 (North)	0.24	2	0	0.39	3	1

3.12.28. The results of the junction assessment indicate that the existing junction is operating within their theoretical capacity in the AM and PM peak. The maximum RFC of 0.59 occurs on the approach from the A259 approach in the AM peak, leading to a delay of six seconds and queue length of two vehicles.

2019 BASELINE JUNCTION ASSESSMENT SUMMARY

3.12.29. The junction capacity assessments show that all junction operate within capacity in the base year of 2019, although the A27 / A29 Fontwell roundabout (Site 2) and the A29 / Nyton Road priority are approaching capacity. The A27 / A29 Fontwell roundabout is subject to a committed improvement scheme as part of the Arun District Council Transport Study – Stage 3(2016) where the existing junction is to be signalised. This layout has been incorporated into forecast scenario junction capacity assessments included in **Section 7**.

4 DEVELOPMENT PROPOSALS

4.1 DEVELOPMENT DESCRIPTION

- 4.1.1. Cala Homes are proposing to develop the site for residential use to provide a total of 400 dwellings, with associated car parking and a new vehicular and pedestrian site access via a four-arm signalised junction with Meadow Way and A29 Westergate Street. The site forms part of the BEW strategic site which is allocated under policy H SP2c of the Arun Local Plan to provide at least 2,300 dwellings. Further information on the BEW Strategic Site is provided below.
- 4.1.2. The proposed Access, Movement and Street Hierarchy Parameters Plan for the Cala Homes development is shown in **Figure 4-1**.

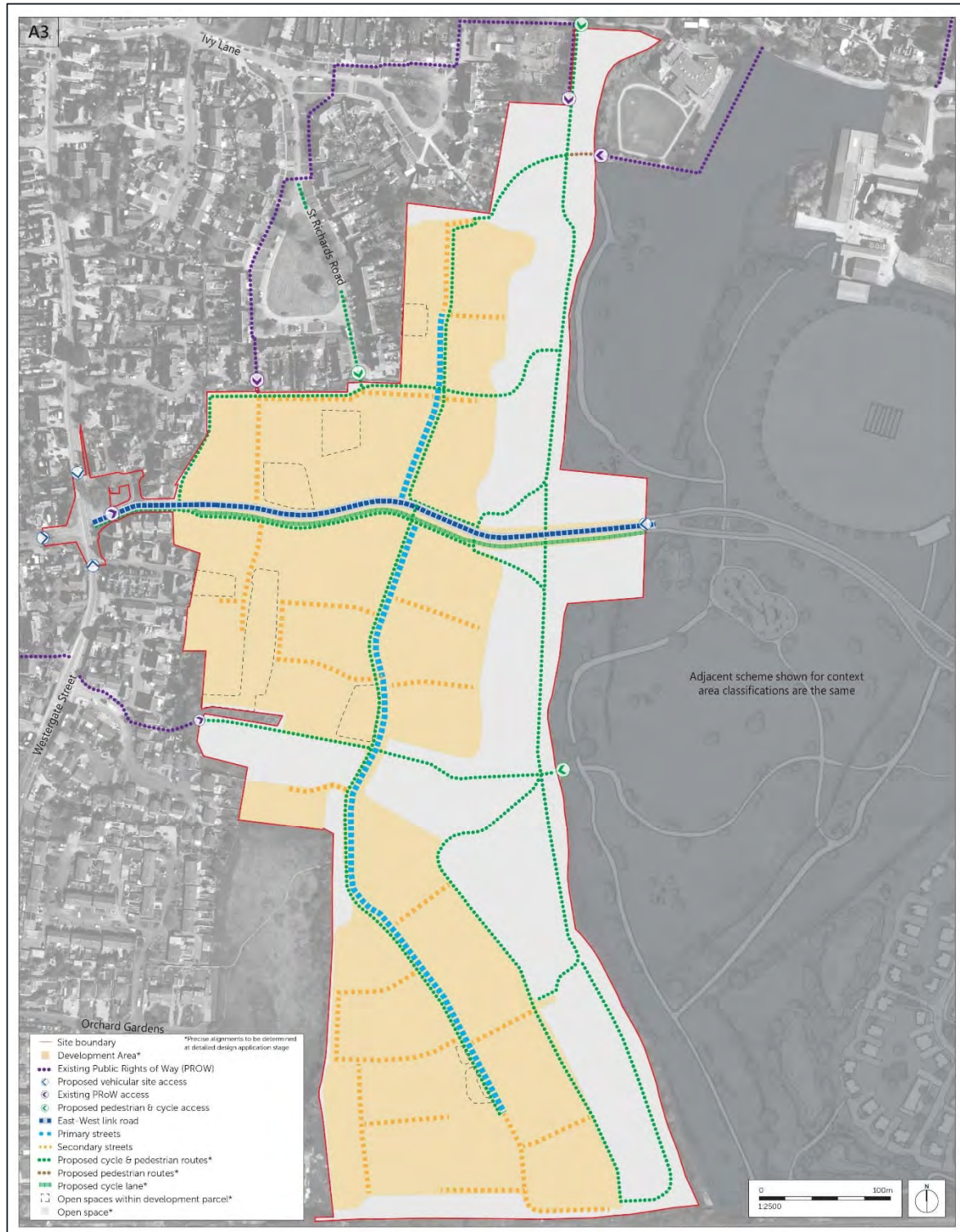


Figure 4-1 - Access, Movement and Street Hierarchy Parameter Plan

4.2 BARNHAM / EASTERGATE / WESTERGATE STRATEGIC DEVELOPMENT SITE

- 4.2.1. An Outline Planning Application with all matters reserved (except for the A29 realignment) to provide up to 1,250 dwelling and associated infrastructure, care home/senior living accommodation, retail and community facilities, a primary school and open space has been submitted under Planning Application reference BN/11/22/OUT. The Planning Application is currently under review. The proposals include a new A29 alignment link routing north – south through the site boundary and an East-West link through the site, connecting to the Cala site on its Western boundary. It is also proposed that the site will include a Primary School and mixed use local centres.
- 4.2.2. The A29 is being realigned through the development site in a north/south direction. The new connection provided by the spine road will provide a benefit to the highway operation of the local area, in particular the existing A29. The route will be designed in accordance with principles of the Design Manual for Roads and Bridges (DMRB). The northern section of the realigned road is being delivered by WSCC and is proposed as a 30mph single carriageway road. Planning permission for the northern section was granted in June 2021 (ref. WSCC/052/20). The southern section is proposed to be designed to the same principles, with a 30mph speed limit and to be a single carriageway road with localised widening for junctions and crossing points. The A29 realignment south of Barnham Road will be delivered in two-phases aligned with construction of the wider development proposals. The A29 realignment north of the Barnham to Chichester railway line will be delivered as part of phase 1 of Parcel SC1 (1,250 homes) and the realignment south of the railway line will be delivered as part of phase 2 of Parcel SC1 (2,000 homes)
- 4.2.3. The East-West road which will link the existing A29 Westergate Street through the site, to the new realigned A29 and onto B2233 Barnham Road (near Barnham Station). The site access junction and access road for the Cala Homes development forms the western section of the East-West link road.

4.3 SITE ACCESS AND EAST-WEST LINK ROAD

A29 SITE ACCES DESIGN

- 4.3.1. The proposed site access will be achieved via a four-arm signalised junction with Meadow Way and A29 Westergate Street as shown on Drawing LAW-WSP-ZZ-ZZ-C-DR-00006 included in **Appendix C**. The proposed access junction is the same layout which supported the 2017 planning application, which at the time was subject to a Design Statement and Departures from Standards application related to the following aspects:
- Intervisibility between junction stop lines on A29 southern arm, Meadow Way and site access;
 - Forward visibility (SSD) on the A29 northbound approach to the traffic signals; and
 - Forward visibility (SSD) to the back of queuing traffic on the A29 northbound approach to the traffic signals.
- 4.3.2. These Departures from Standards were approved by WSCC as reflected in their 'no objection' response to planning application AL/15/17/PL. However, given that relevant aspects of the DMRB

have been updated since submission of the Departures from Standards application in 2017 it has been necessary to complete a review of the design guidance to ensure that all aspects are still applicable to the proposed site access junction.

- 4.3.3. Since 2017 TD50/04 guidance document has been replaced by the CD 123 “Geometric design of at-grade priority and signal-controlled junctions” (November 2021) document whilst the Traffic Signs Manual Chapter 6 (Traffic Control) (2019) also now provides general guidance on the layout of traffic signal junctions with a speed limit of 40mph or below. Following a review of the newly published guidance, it has been determined that the current design standards do not alter the Departure from Standards requirements related to the proposed layout.

Road Safety Audit

- 4.3.4. Guidance on the completion of Road Safety Audits has also been published since the 2017 application, making it necessary to undertake a new independent Stage 1 Road Safety Audit (RSA) that aligns with DMRB GG119. This RSA, Designers Response and Decision Log is included in **Appendix D** along with a new Departures from Standard Application taking account of the latest design standards contained within Traffic Signs Manual Chapter 6. The RSA included a number of recommendations which have been taken into account the design of the access junction presented in Drawing LAW-WSP-ZZ-ZZ-C-DR-00006 and the overall access strategy for the site or recommended for inclusion with the detailed design process. These include:
- The provision of yellow box junction markings on the westbound site access approach;
 - The consideration during detailed design of an all red extending loops to ensure the pedestrian crossings are clear before traffic stages commence;
 - Use of MOVA detection to facilitate more accurate traffic staging;
 - Installation of signs to Diagram 543 and 584 of TSGRD on the A29 northbound approach to warn drivers of traffic signals / queueing traffic;
 - The consideration of high coloured surfacing will be reviewed during detailed design;
 - The provision of an offside primary signal head on the A29 northbound approach to maximise visibility to the traffic signals;
 - The consideration of new and enhanced street lighting during the detailed design; and
 - That the Eat-West Link Road does not operate as all vehicle link until the full A29 realignment is complete.
- 4.3.5. One further recommendation was made in relation to the provision of maintenance layby in proximity of site access junction for traffic signal engineers. Whilst it was not possible to identify a suitable location where a layby could be provided, it is noted that on-street parking will be available within the stopped up section of Pine Close and on Meadow Way. Given the infrequent nature of traffic signal maintenance, the use of Pine Close and Meadow Way it is considered that this will not generate a road safety issue.

SITE ACCESS OPERATION

- 4.3.6. It is recommended that the junction will operate with Microprocessor Optimised Vehicle Actuation (MOVA) to minimise vehicle delays on all approaches. The proposed junction will generally operate in three stages with the A29 running together in each direction before Meadow Way and the site access run independently. To aid right turning movements from the A29 ghost-island right turn lanes are provided and northbound traffic will also benefit from the extension of the green phase whilst southbound traffic is held. This will ensure any traffic turning right into the site will clear the junction if they have not found a suitable gap during the normal phase.

EAST-WEST LINK ROAD

- 4.3.7. It is noted that, as part of the BEW strategic development site an East – West Link Road is proposed between the site and the BEW Parcel SC1 that is subject to the BN/11/22/OUT application. A connection to this East-West Link Road from the Cala Homes site will be facilitated by a bridge over the Lindsey Rife which will be constructed as part of the Cala Homes development.
- 4.3.8. As part of pre-application discussion with WSCC, it has agreed that the East-West Link Road bridge will operate as a bus, pedestrian and cycle only route until the full A29 realignment is complete. This strategy mitigates concerns raised by WSP related to the impact of traffic associated with Parcel SC1 on the operation of the site access junction prior to the full A29 realignment being completed. Further details of this assessment is provided in the Site Access Assessments Technical Note which is appended to the Transport Assessment Scoping Note included in **Appendix A**.
- 4.3.9. The layout of the East-West Link Road with the Cala site is shown on Drawing LAW-WSP-ZZ-ZZ-C-DR-00006 included in **Appendix C**. This consists of a 6.5-7.3m single carriageway road with a 2m footway on the northern side of the link and 2m footway plus an LTN1/20 compliant 3m segregated bidirectional cycle route provided on the southern side of link. Access to the main Cala Home residential parcels will be via a staggered crossroads located approximately 120m east of the centre of the bridge. The design speeds of the East-West Link Road is 50kph.
- 4.3.10. Swept path analysis of a bus and refuse vehicle is shown on Drawings LAW-WSP-ZZ-ZZ-C-DR-00008 and LAW-WSP-ZZ-ZZ-C-DR-00009 included in **Appendix C**

4.4 PEDESTRIAN AND BICYCLE ACCESS

- 4.4.1. The main access into the site for pedestrians and cyclists will be provided at the main access junction as described above. As part of this junction a pedestrian footway will be provided on the southern side of the site access road to link the existing footway on A29 Westergate Street into the site. From the north pedestrian access will be through Pine Close, which will be closed to through traffic but will remain open for pedestrian access.
- 4.4.2. In addition, the site is well connected via existing footways and enhanced PRow footpaths to surrounding residential areas, schools, village shopping and community facilities. Footpaths that fall

within the red line boundary that will be upgraded as part of the development proposals are as follows:

- Footpath 297: routes from the A29 Westergate Street, along Pine Close and connects into St Richard's Road. This will provide connections north to Westergate village centre, Six Villages Sports Centre, Ormiston Six Villages Academy and Eastergate Church of England Primary School;
- Footpath 298: provides a continuation of Footpath 297 on an east-west alignment connecting on Footpath 296, thereby providing a connection into the north-south routes through the site;
- Footpath 300: on an east-west alignment and connecting into the north-south routes through site; and
- Footpath 296 and 317: Provides a north-south connection with Footpath 298 and 300 to provide connections north to Westergate village centre, Six Villages Sports Centre, Ormiston Six Villages Academy and Eastergate Church of England Primary School.

4.4.3. Each of these routes, which also link into the wider pedestrian network described in **Section 3.4** will provide pedestrian connections to local facilities thereby removing the need to make trips by private car. Cyclists wishing to reach destinations to the north will be directed via the access onto St Richard's Road shown on Photograph 4, via Ivy Lane and existing shared use path to Church Lane or onto the A29. This will also act as the route to access Barnham village centre and railway station prior to completion of the East-West link road.

4.4.4. The proposed site access junction onto A29 Westergate Street described in **Section 4.3** also improves pedestrian access for those wishing to access facilities to the north and west via the A29, through the provision of controlled pedestrian crossings. These destinations include Aldingbourne Community Sports Centre, Westergate village centre and Aldingbourne Primary School with the benefit of controlled crossing facilities applying to new residents and the existing community.

4.4.5. **Figure 4-2** illustrates the provision of existing walking and cycling connections routing from the site to the wider network.