



**CHANDLERS BMW,
ANGMERING, WEST SUSSEX**

Mixed-Use Development

Transport Statement

**Prepared on behalf of
Landspeed Homes Ltd**

LAHL/18/4619s

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1 INTRODUCTION

- 1.1.1 This Transport Statement (TS) has been prepared by RGP on behalf of Landspeed Homes Ltd to support a planning application for a proposed mixed-use development at Water Lane, Angmering, West Sussex. The application site covers an approximate area of 0.44ha situated on the southern side of the Water Lane and currently comprises a car dealership and a single residential dwelling. The site's location is shown in **Figure 1.1**.

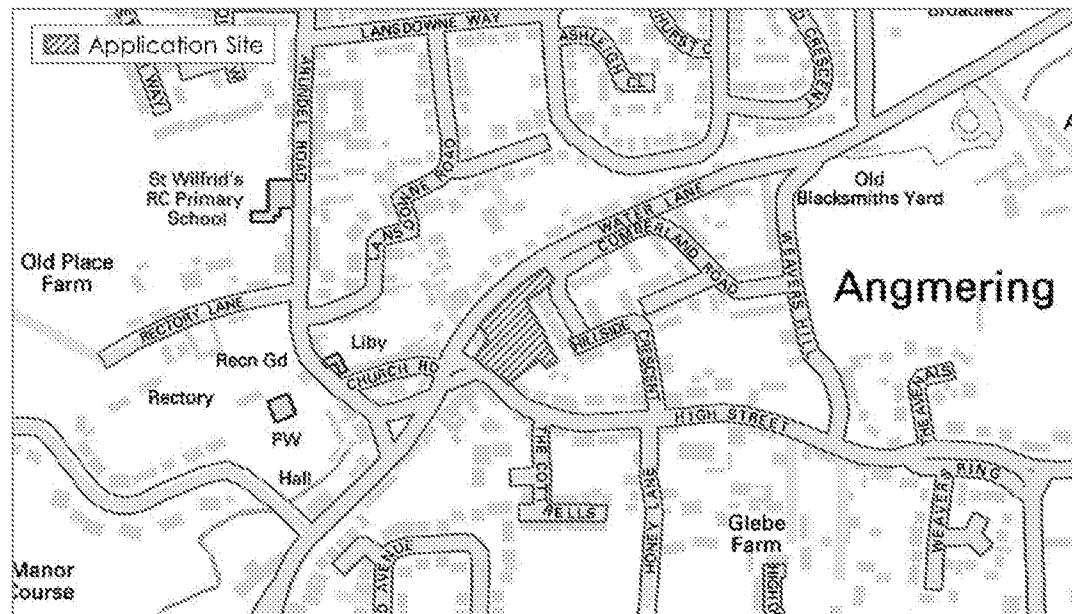


Figure 1.1: Application Site Location

- 1.1.2 The proposed development would involve the development of the site to provide 19 residential dwellings, a convenience shop, and a Parish Council building.

Scope of Report

- 1.1.3 This TS outlines the key transport planning matters in accordance with national, regional and local guidance, reviewing the site's accessibility, relevant planning history, the proposed development layout, car and cycle parking requirements, access arrangements, servicing arrangements, and the proposed trip impact on the local road network.

- 1.1.4 The remainder of this report comprises the following sections:

- (i) **Section 2** sets out the baseline transport conditions in the local area and highway network, and provides a review of highway safety;
- (ii) **Section 3** provides an assessment of the proposed access and internal layout design, parking provision, and the site's servicing arrangements;

- (iii) **Section 4** considers the anticipated traffic impact on the local highway network supported by trip generation assessment;
- (iv) **Section 5** provides a summary of the TS conclusions.

2 BASELINE CONDITIONS

2.1 Existing Site

- 2.1.1 The existing site encompasses an area of 0.44ha currently occupied by a car dealership and a single residential dwelling. **Plan 01** attached, highlights the location of the application site in relation to the local area and highway network. The site is bordered by Water Lane to the northwest, High Street to the southwest, and residential properties to the southeast/east. A single residential dwelling is situated on the western boundary of the site. The existing site context is demonstrated in **Figure 2.1**.



Figure 2.1: Existing Site Context

- 2.1.2 The site is currently served from 5 access points situated on Water Lane and High Street. The three of the vehicle access points adjoin Water Lane and comprise of c.14m wide informal bellmouth and a c.9m wide vehicle crossover, and an additional c6.5m crossover.
- 2.1.3 Two existing access points adjoin High Street on the southern boundary of the site. The accesses take the form of a c.3m wide driveway serving the single dwelling, and a c.3.5m wide gated access serving the vehicle repair element of the car dealership.

2.2 Local Road Network

- 2.2.1 The site fronts onto Water Lane which runs northeast-southwest between the A280 and the A259. Water Lane comprises a c.7m wide 2-way single carriageway flanked by footways on either side. The road is subject to a 20mph speed limit in the vicinity of the site and has no parking restrictions. Water Lane's highway features are shown in **Figure 2.2**.



Figure 2.2: Water Lane Heading Northeast

2.3 Wider Highway Network

- 2.3.1 Water Lane adjoins the A280 c.900m to the northeast of the site which in turn provides access to the A27. The A27 runs east-west along the south coast and provides access locally to Chichester, Worthing and Brighton. In addition, Water Lane adjoins the A259 c.1.3km to the south of the site providing access to Bognor Regis and an alternative route to Worthing. The site's location in the context of the wider highway network is shown in **Figure 2.3**.

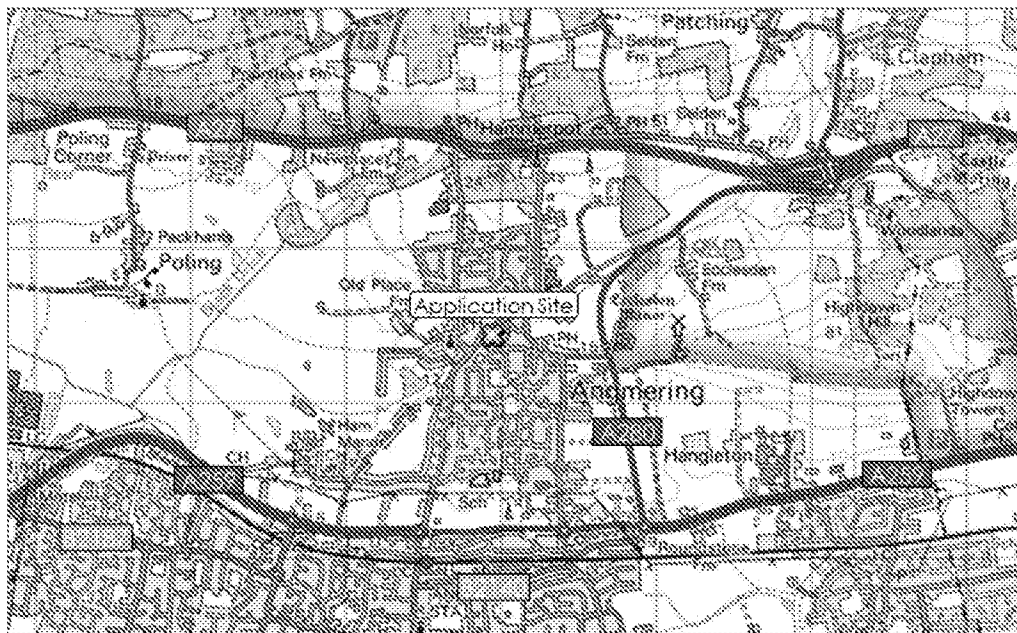


Figure 2.3: Wider Highway Network

2.4 Accessibility Credentials

Pedestrian Accessibility

- 2.4.1 Pedestrian access to the site is currently served from a c.1.5m wide footway flanking Water Lane. The footway connects with the wider footway network in Angmering providing continuous pedestrian links to the village's services and amenities. In addition, there are a number of Public Rights of Way (PROW) running throughout Angmering providing alternative pedestrian routes. The pedestrian infrastructure in the vicinity of the site is shown in **Figure 2.4**.



Figure 2.4: Pedestrian Infrastructure in the Vicinity of the Site

- 2.4.2 The Chartered Institute of Highways and Transportation's (CIHT) publication 'Providing for Journeys on Foot' (2000) states that the average length of a journey on foot is 1km. It further recommends a preferred maximum walking distance of 2km for commuting journeys. As shown on **Plan 01**, a wide range of local amenities are situated within 1km of the application site and are therefore accessible on foot. It is also notable that Angmering railway station is situated c.1.5km to the south of the site and is therefore accessible on-foot from the application site based on the CIHT guidance.

Cycle Accessibility

- 2.4.3 The South Coast Cycle Route (SCCR) is situated c.1.5km to the south of the site and runs east-west along the south coast and provides continuous cycle access to Worthing and Littlehampton. The SCCR can be accessed via local cycle routes which additionally provide access to Angmering railway station. The local cycle routes are shown on **Plan 01**.

- 2.4.4 The CIHT's publication 'Cycle Friendly Infrastructure' (1996), suggests that reasonably fit individuals can comfortably cycle a distance of 8km to workplace destinations. Worthing and Littlehampton are therefore accessible from the site by cycle.

Accessibility by Bus

- 2.4.5 The 'Village Green' bus stops are situated c.170m to the southwest of the site and serve the no.9 service which provides access to Shoreham, Lancing, Worthing, Littlehampton and Arundel. Details of the service are provided in **Figure 2.5**.

Service	Route Summary	Typical Frequency	Hours of Operation
9	Shoreham by Sea - Lancing - Worthing - Littlehampton - Arundel	Mon-Sat: 1 every hour	Mon-Fri: 07:59 – 19:14 Sat: 08:11 – 19:06

Figure 2.5: Bus Services Available from Local bus Stops

Accessibility by Rail

- 2.4.6 Angmering railway station is located c.1.5km to the south of the site and is therefore accessible on foot or by cycle. The station is operated by Southern Rail and provides services to Southampton, Portsmouth, Chichester, Littlehampton, Brighton, Worthing, and London Victoria. A summary of services available from Angmering railway station is provided in **Figure 2.6**.

Destination	Route Summary	Typical Journey Time	Typical Frequency
Worthing	Angmering – Worthing	7 – 12 min	4 every hour
Littlehampton	Angmering – Littlehampton	11 – 17 min	3 every hour
Chichester	Angmering – Banham – Chichester	19 – 20 min	2 every hour
Brighton	Angmering – Worthing – Shoreham-by-Sea – Hove – Brighton	32 – 38 min	4 every hour
Portsmouth	Angmering – Chichester – Havant – Portsmouth	46 – 51 min	2 every hour
Southampton	Angmering – Chichester – Havant – Fareham – Southampton	1hr 13min – 1hr 31min	2 every hour
London Victoria	Angmering – Worthing – Hove – Gatwick Airport – Clapham Junction – London Victoria	1hr 36min – 1hr 39min	3 every hour

Figure 2.6: Services Available from Angmering Railway Station

2.5 Accident Data

- 2.5.1 To determine highway safety on the local road network an assessment of Personal Injury Accidents (PIAs) has been undertaken for a 5-year period from December 2013 to November 2018 using the Sussex Safer Partnership Data Portal. The area considered includes Water Lane, Arundel Road, Church Lane and High Street.
- 2.5.2 Patterns displayed in the data can be assessed with regards to their proximity, frequency, severity and the cause of incident to establish if there are any underlying highways design issues that require a more detailed investigation. Collisions are classified as 'slight', 'serious' or 'fatal', depending on the severity of the injuries sustained. The location of the incidents relative to the site is displayed on **Figure 2.7**.

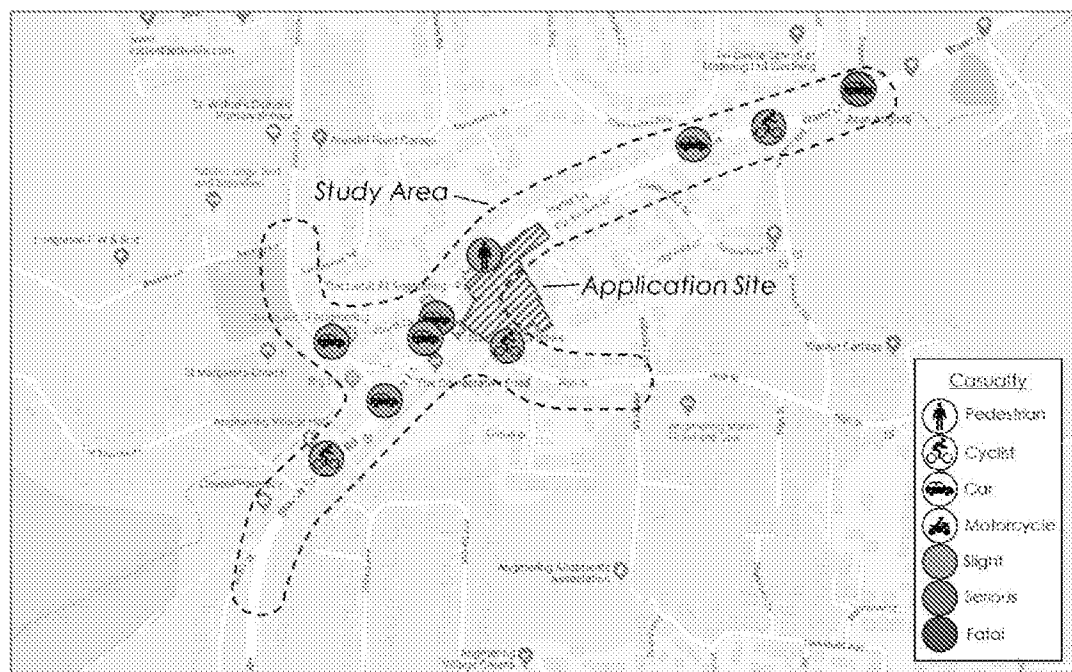


Figure 2.7: PIA Distribution

- 2.5.3 A total of 10 PIAs have been recorded in the 5-year period, comprising of 1 'serious' incident and 9 'slight' incidents. The frequency of incidents over the 5-year period is considered normal within the context of the vehicle and NMU flow through the village centre. The PIA record does not reveal any pattern that in terms of distribution, severity or cause that would be exacerbated by the proposed development.

2.6 Traffic Data

- 2.6.1 To establish the speeds of vehicles in the vicinity of the site, a radar speed survey was undertaken by Modal Data on 16th January 2019. The survey was undertaken between 10.15am – 11.57am in free flow conditions. The results of the survey are summarised in **Figure 2.8** and the survey data is attached at **Appendix A**.

Direction	Average Speed	85th Percentile
Northbound	22.4mph	26.0mph
Southbound	22.6mph	26.6mph

Figure 2.8: Summary of ATC Survey

3 PROPOSED DEVELOPMENT

3.1 Overview

- 3.1.1 The proposed development would entail the construction of 19 residential dwellings, a convenience shop, and a Parish Council building. The proposed layout is attached at **Appendix B** and a breakdown of the proposed development accommodation schedule is provided in **Figure 3.1**.

Unit		No. of units / GFA
Residential	1 Bed Apartment	3
	2 Bed Apartment	5
	1 Bed House	2
	2 Bed House	4
	3 Bed House	5
	Total	19
Convenience Shop		4086sqft (380sqm)
Parish Council Building		2561sqft (238sqm)

Figure 3.1: Proposed Development

3.2 Vehicle Access

- 3.2.1 The application site would be served from 2 vehicle access points adjoining Water Lane. The existing access points on High Street would be stopped up. The revised access strategy would offer a betterment to the local road network through the reduction of hazard points. The proposed accesses would be located in the vicinity of the existing access points. Both accesses would be reformed to offer improved geometric design and visibility.

Eastern Access

- 3.2.2 The eastern access point would serve the customer car park of the convenience shop and 3 apartments. The access would take the form of a 6.0m wide bellmouth supported by 3.6m corner radii, and would include a crossing facility for pedestrians. The eastern access is shown in **Drawing 2018/4619/001**.
- 3.2.3 The eastern access geometries would allow concurrent car movements and can accommodate delivery vehicles associated with the proposed apartments. A vehicle swept path analysis has been undertaken demonstrating these manoeuvres in **Drawing 2018/4619/002**.

Western Access

- 3.2.4 The western access point would serve the Parish Council building, staff parking for the convenience shop, and 16 residential units. The access would take the form of a 4.8m bellmouth supported by 6.0m corner radii and would include a crossing facility for pedestrians. The western access is shown in **Drawing 2018/4619/001**.

- 3.2.5 The western access geometries would allow concurrent car movements and can accommodate delivery vehicles associated with the proposed dwellings. A vehicle swept path analysis has been undertaken demonstrating these manoeuvres in **Drawing 2018/4619/002**.

Visibility

- 3.2.6 Visibility requirements from the access have been based on the 85th percentile design speeds as identified in the radar survey on Water Lane. The survey identified a northbound design speed of 26.0mph, and a southbound design speed of 26.6mph.
- 3.2.7 Using the calculation coefficients set out in 'Manual for Streets' (MfS) guidance, a stopping site distance (adjusted for bonnet length) of 35.1m would be required in the primary direction (looking south), and 36.2m in the secondary direction (looking north). Visibility from the access accordingly achieves the necessary sightlines in both directions as demonstrated in **Drawing 2018/4619/001**.

3.3 Pedestrian Access

- 3.3.1 Pedestrian access to the site would be served from a new footway running along the site frontage connecting with the existing footway on the Water Lane and internal footways within the site. Pedestrian movements across the proposed accesses would be facilitated by a pedestrian crossing in the form of dropped kerbs and tactile paving. The proposed pedestrian infrastructure is shown in **Drawing 2018/4619/001**.
- 3.3.2 In addition, a dedicated pedestrian access would be situated at the south-east corner of the site. The access would connect with internal footways providing pedestrian access throughout the site.

3.4 Emergency Access

- 3.4.1 The geometric design of both access points would allow fire tenders (the largest emergency vehicle) to comfortably negotiate the proposed accesses. A vehicle swept path analysis has been undertaken demonstrating fire tenders negotiating both access points in **Drawings 2018/4422/002**.
- 3.4.2 The proposed development would provide access within 45m of all buildings, in accordance with Building Regulation requirements for emergency vehicles. A minimum carriageway width of 3.7m is maintained throughout the site in accordance with Building Regulation requirements.

3.5 Delivery Arrangements

- 3.5.1 Both access points can accommodate access/egress manoeuvres by delivery vehicles and the proposed parking court geometries would allow delivery vehicles to perform turning manoeuvres ensuring delivery vehicle can enter and exit the site in a forward gear. A vehicle swept path analysis has been undertaken demonstrating these manoeuvres in **Drawings 2018/4619/002 and 2018/4619/004**.

3.6 Refuse Collection

- 3.6.1 Refuse collection would be undertaken on Water Lane's carriageway from bin stores situated within the proposed parking courts. Bin carry distances for residents/staff and collectors would be in line with the maximum thresholds set out in MfS (30m for residents/staff, 25m for collectors).

3.7 Stage 1 Road Safety Audit

- 3.7.1 The proposed access arrangements were subject to a Stage 1 Road Safety Audit (RSA) undertaken by Road Safety Answers in January 2019. The audit identified 3 issues with the proposed access design. A copy of the Stage 1 RSA including the Designer's Response is attached at **Appendix C**.

3.8 Car Parking Provision

- 3.8.1 Car parking would take place within a mixture of parking courts, and garages. All open spaces would use MfS standard bay dimensions of 2.4m x 4.8m, and garages would use minimum dimensions of 3.0m x 6.0m in accordance with WSCC's design guidance. A vehicle swept path analysis demonstrating parking manoeuvres is provided in **Drawing 2018/4619/003**.

Residential Units

- 3.8.2 The proposed car parking provision for the residential units has been provided in line with the anticipated parking demand as determined by WSCC's Residential Car Parking Demand Calculator tool. A summary of the anticipated demand and proposed provision is shown in **Figure 3.2** and the full calculator output is attached at **Appendix D**.

	WSCC Residential Car Parking Demand	Proposed Provision
Allocated	18	18
Unallocated	10	10
Total	28	28

Figure 3.2: Residential Car Parking Provision

Convenience Shop / Parish Council Building

- 3.8.3 Car parking for the proposed convenience shop and Parish Council building would be provided in accordance with WSCC's maximum car parking standards. A summary of the maximum standards and the proposed provision are shown in **Figure 3.3**.

	GFA (sqm)	WSCC Maximum Car Parking Standard	Maximum Provision	Proposed Provision
Convenience Shop	380	1 space per 14sqm	27	16
Parish Council Building	238	1 space per 30sqm	8	4

Figure 3.3: Convenience Shop / Parish Council Building Car Parking Provision

3.9 Cycle Parking

Residential Units

- 3.9.1 Cycle parking for the proposed residential units would be provided in accordance with the minimum cycle parking standards identified in WSCC's 'Guidance for Parking in New Residential Developments' (September 2010). A summary of the required and proposed cycle parking provision is shown in **Figure 3.4**.

Unit Type	Spaces per Unit
1-2 Bed Flat	0.5 Communal Spaces
1-2 Bed House	1 Space
3 Bed House	2 Spaces

Figure 3.4: Residential Cycle Parking Provision

- 3.9.2 Cycle parking for the proposed houses would take place within the curtilage of the proposed dwellings within garages or cycle stores located in the rear gardens of properties. Cycle parking for the proposed apartments would take place in communal cycle stores.

Convenience Shop / Parish Council Building

- 3.9.3 Cycle parking for the proposed convenience shop and Parish Council building would be provided in accordance with WSCC's minimum cycle parking standards. A summary of the standards and the proposed provision are shown in **Figure 3.5**.

Unit	GFA (sqm)	WSCC Minimum Cycle Parking Standard	Minimum Provision	Proposed Provision
Convenience Shop	380	1 space per 100sqm for staff and 1 space per 100sqm for customers.	4 staff spaces and 4 customer spaces	4 staff spaces and 4 customer spaces
Parish Council Building	238	1 space per 150sqm for staff and 1 space per 500sqm for visitors	2 spaces	2 spaces

Figure 3.5: Convenience Shop / Parish Council Building Cycle Parking Provision

- 3.9.4 Cycle parking for staff would take place in secure internal storage areas within the shop and Parish Council building. Visitor parking for the convenience shop would comprise Sheffield stands located to the front of the facility. Additional visitor spaces serving the residential units and Parish Council building would be situated at the entrance to the large apartment block.

4 TRIP GENERATION AND TRAFFIC IMPACT

- 4.1.1 To assess the traffic impact of the proposals, the TRICS database (version 7.5.4) has been interrogated to anticipate the likely traffic volumes generated by the existing site and the proposed development. The trip rates have then been compared to establish the net vehicle trip generation resulting from the development.

4.2 Existing Site

Car Dealership

- 4.2.1 To establish the number of the trips generated by the existing car dealership, the parameters identified in **Figure 4.1** have been used to filter the TRICS database.

TRICS (Version 7.5.4)	
Filtering Parameter:	Criteria Selected:
i) Land use	<i>Car Show Rooms</i>
ii) Regions	<i>England (Excluding Greater London)</i>
iii) Gross Floor Area	<i>45 – 3000 sqm</i>
iv) Date Range	<i>01/01/10 – 29/11/17</i>
v) Count Type	<i>Manual Count</i>
vi) Selected Days	<i>Weekdays</i>
vii) Selected Locations	• <i>Suburban Area</i> • <i>Edge of Town</i>

Figure 4.1: TRICS Filtering Parameters – Car Dealership

- 4.2.2 The TRICS output is provided at **Appendix E**, whilst a summary of the weekday peak hour and daily trip rates, along with the subsequent vehicle movements associated with the car dealership is provided in **Figure 4.2**.

TRICS Trip Rate per 100sqm (1524sqm)			
	Arrivals	Departures	Two-way Total
AM Peak Hour	1.113	0.562	1.675
PM Peak Hour	0.616	0.810	1.426
Daily Traffic	8.204	8.863	17.067
TRICS Vehicle Trip Generation			
AM Peak Hour	17	9	26
PM Peak Hour	9	12	22
Daily Traffic	125	135	260

Figure 4.2: Proposed Trip Generation – Car Dealership

House

- 4.2.3 To establish the number of the trips generated by the existing house, the parameters identified in **Figure 4.3** have been used to filter the TRICS database.

TRICS (Version 7.5.4)	
Filtering Parameter:	Criteria Selected:
i) Land use	Residential (Houses Privately Owned)
ii) Regions	England (Excluding Greater London)
iii) Number of Dwellings	6 – 30
iv) Date Range	01/01/10 – 22/11/17
v) Count Type	Manual Count
vi) Selected Days	Weekdays
vii) Selected Locations:	• Suburban Area • Edge of Town

Figure 4.3: TRICS Filtering Parameters – House

- 4.2.4 The TRICS output is provided at **Appendix F**, whilst a summary of the weekday peak hour and daily trip rates, along with the subsequent vehicle movements associated with the existing house is provided in **Figure 4.4**.

TRICS Trip Rate per House (1 House)			
	Arrivals	Departures	Two-way Total
AM Peak Hour	0.089	0.350	0.439
PM Peak Hour	0.393	0.150	0.543
Daily Traffic	2.272	2.322	4.594
TRICS Vehicle Trip Generation			
AM Peak Hour	0	0	0
PM Peak Hour	0	0	1
Daily Traffic	2	2	5

Figure 4.4: Existing Trip Generation – House

Total Existing Site

- 4.2.5 The traffic generations associated with the existing land uses have been summed to establish the total traffic generation of the existing site. A summary of the weekday peak hour and daily trip rates is provided in **Figure 4.5**.

TRICS Vehicle Trip Generation			
	Arrivals	Departures	Two-way Total
AM Peak Hour	17	9	26
PM Peak Hour	10	12	22
Daily Traffic	127	137	265

Figure 4.5: Existing Trip Generation – Total Site

- 4.2.6 The TRICS assessment suggests that the existing site generates a total of 265 daily 2-way vehicle movements of which 26 occur during the network's AM peak traffic hour, and 22 occur in the network's PM peak traffic hour.

4.3 Proposed Development

Houses

- 4.3.1 To establish the number of the trips generated by the proposed houses, the parameters identified in **Figure 4.6** have been used to filter the TRICS database.

TRICS (Version 7.5.4)		
Filtering Parameter:	Criteria Selected:	
viii) Land use	Residential (Houses Privately Owned)	
ix) Regions	England (Excluding Greater London)	
x) Number of Dwellings	6 – 30	
xi) Date Range	01/01/10 – 22/11/17	
xii) Count Type	Manual Count	
xiii) Selected Days	Weekdays	
xiv) Selected Locations	• Suburban Area • Edge of Town	

Figure 4.6: TRICS Filtering Parameters – House

- 4.3.2 The TRICS output is provided at **Appendix F**, whilst a summary of the weekday peak hour and daily trip rates, along with the subsequent vehicle movements associated with the proposed houses is provided in **Figure 4.7**.

TRICS Trip Rate per House (11 Houses)			
	Arrivals	Departures	Two-way Total
AM Peak Hour	0.089	0.350	0.439
PM Peak Hour	0.393	0.150	0.543
Daily Traffic	2.272	2.322	4.594
TRICS Vehicle Trip Generation			
AM Peak Hour	1	4	5
PM Peak Hour	4	2	6
Daily Traffic	25	26	51

Figure 4.7: Proposed Trip Generation – Houses

Apartments

- 4.3.3 To establish the number of the trips generated by the proposed apartments, the parameters identified in **Figure 4.8** have been used to filter the TRICS database.

TRICS (Version 7.5.4)	
Filtering Parameter:	Criteria Selected:
i) Land use	Residential (Flats Privately Owned)
ii) Regions	England (Excluding Greater London)
iii) Number of Dwellings	6 – 30
iv) Date Range	01/01/10 – 10/07/17
v) Count Type	Manual Count
vi) Selected Days	Weekdays
vii) Selected Locations	* Suburban Area * Edge of Town

Figure 4.8: TRICS Filtering Parameters – Apartments

- 4.3.4 The TRICS output is provided at **Appendix G**, whilst a summary of the weekday peak hour and daily trip rates, along with the subsequent vehicle movements associated with the proposed apartments is provided in **Figure 4.9**.

TRICS Trip Rate per Apartment (8 Apartments)			
	Arrivals	Departures	Two-way Total
AM Peak Hour	0.096	0.340	0.436
PM Peak Hour	0.330	0.074	0.404
Daily Traffic	2.141	2.045	4.186
TRICS Vehicle Trip Generation			
AM Peak Hour	1	3	3
PM Peak Hour	3	1	3
Daily Traffic	17	16	33

Figure 4.9: Proposed Trip Generation – Apartments

Convenience Shop

- 4.3.5 To establish the number of the trips generated by the proposed convenience shop, the parameters identified in **Figure 4.10** have been used to filter the TRICS database.

TRICS (Version 7.5.4)	
Filtering Parameter:	Criteria Selected:
i) Land use	Retail (Convenience Store)
ii) Regions	England (Excluding Greater London)
iii) Gross Floor Area	70 – 1000 sqm
iv) Date Range	01/01/10 – 07/04/17
v) Count Type	Manual Count
vi) Selected Days	Weekdays
vii) Selected Locations	Suburban Area

Figure 4.10: TRICS Filtering Parameters – Residential Units

- 4.3.6 The TRICS output is provided at **Appendix H**, whilst a summary of the weekday peak hour and daily trip rates, along with the subsequent vehicle movements associated with the proposed convenience shop is provided in **Figure 4.11**.

TRICS Trip Rate per 100sqm (380sqm)			
	Arrivals	Departures	Two-way Total
AM Peak Hour	5.727	5.286	11.013
PM Peak Hour	6.938	5.176	12.114
Daily Traffic	70.640	70.514	141.154
TRICS Vehicle Trip Generation			
AM Peak Hour	22	20	42
PM Peak Hour	26	20	46
Daily Traffic	268	268	536

Figure 4.11: Proposed Trip Generation – Convenience Shop

Parish Council Building

- 4.3.7 To establish the number of the trips generated by the proposed Parish Council building, the parameters identified in **Figure 4.12** have been used to filter the TRICS database.

TRICS (Version 7.5.4)	
Filtering Parameter:	Criteria Selected:
i) Land use	Employment (Office)
ii) Regions	England (Excluding Greater London)
iii) Gross Floor Area	186 – 1000 sqm
iv) Date Range	01/01/10 – 04/07/18
v) Count Type	Manual Count
vi) Selected Days	Weekdays
vii) Selected Locations	Suburban Area

Figure 4.12: TRICS Filtering Parameters – Parish Council Building

- 4.3.8 The TRICS output is provided at **Appendix I**, whilst a summary of the weekday peak hour and daily trip rates, along with the subsequent vehicle movements associated with the Parish Council building is provided in **Figure 4.13**.

TRICS Trip Rate per 100sqm (238sqm)			
	Arrivals	Departures	Two-way Total
AM Peak Hour	3.226	0.000	3.226
PM Peak Hour	0.000	3.226	3.226
Daily Traffic	12.367	12.365	24.732
TRICS Vehicle Trip Generation			
AM Peak Hour	8	0	8
PM Peak Hour	0	8	8
Daily Traffic	29	29	59

Figure 4.13: Proposed Trip Generation – Parish Council Building

Total Proposed Development

- 4.3.9 The traffic generations associated with each land use have been summed to establish the total traffic generation of the proposed development. A summary of the weekday peak hour and daily trip rates is provided in **Figure 4.13**.

TRICS Vehicle Trip Generation			
	Arrivals	Departures	Two-way Total
AM Peak Hour	31	27	58
PM Peak Hour	33	30	63
Daily Traffic	340	339	679

Figure 4.13: Proposed Trip Generation – Total Site

- 4.3.10 The TRICS assessment suggests that the proposed development would generate a total of 679 daily 2-way vehicle movements of which 58 would occur during the network's AM peak traffic hour, and 63 would occur in the network's PM peak traffic hour.

4.4 Net Traffic Impact

- 4.4.1 The traffic generations associated with the existing site and the proposed development have been compared to establish the net traffic generation associated with the development. A summary of the weekday peak hour and daily trip rates is provided in **Figure 4.14**.

TRICS Vehicle Trip Generation			
	Arrivals	Departures	Two-way Total
AM Peak Hour	14	18	32
PM Peak Hour	24	17	41
Daily Traffic	215	204	419

Figure 4.14: Net Trip Generation

- 4.4.2 The TRICS assessment suggests that the overall site would generate an increase of 419 daily 2-way vehicle movements of which 32 would occur during the network's AM peak traffic hour, and 41 would occur in the network's PM peak traffic hour.
- 4.4.3 The vast majority of trips generated by the development would be associated with the convenience shop. It is widely recognised that trips to convenience shops largely comprise 'pass-by', 'linked' and 'diverted' trips and as such only generate a limited number of new vehicle trips on the local road network. The Department for Transport defines pass-by and diverted trips as:

- (i) **"Pass-by trips** – these are trips that are already present on the road network directly adjacent to the point(s) of access to the site, which will turn into the site. This type of trip is likely to be relevant only where the site is located on a major arterial route" (DfT Guidance on Transport Assessment – March 2007)
- (ii) **"Linked trips** – these are trips that will have multiple destinations either within the proposed development site. Examples include trips to food and non-food retail, between both the development site and existing adjacent sites or between the development site and an established town centre. Where there is a high probability that there will be a proportion of linked trips between two uses on a development, it is customary only to 'count' those trips once for the development as a whole, and not effectively double-count them by attributing two visits and departures affecting the sections of highway network being assessed." (DfT Guidance on Transport Assessment – March 2007)

- (iii) **"Diverted trips** – these are trips that are already present on the local road network but not the road(s) from which site access is taken and will divert from their existing route to access the site. These are similar to pass-by trips, but they have to deviate to make use of the development under consideration... Diverted trips will tend to return to their original route after visiting the development under consideration." (DfT Guidance on Transport Assessment – March 2007)

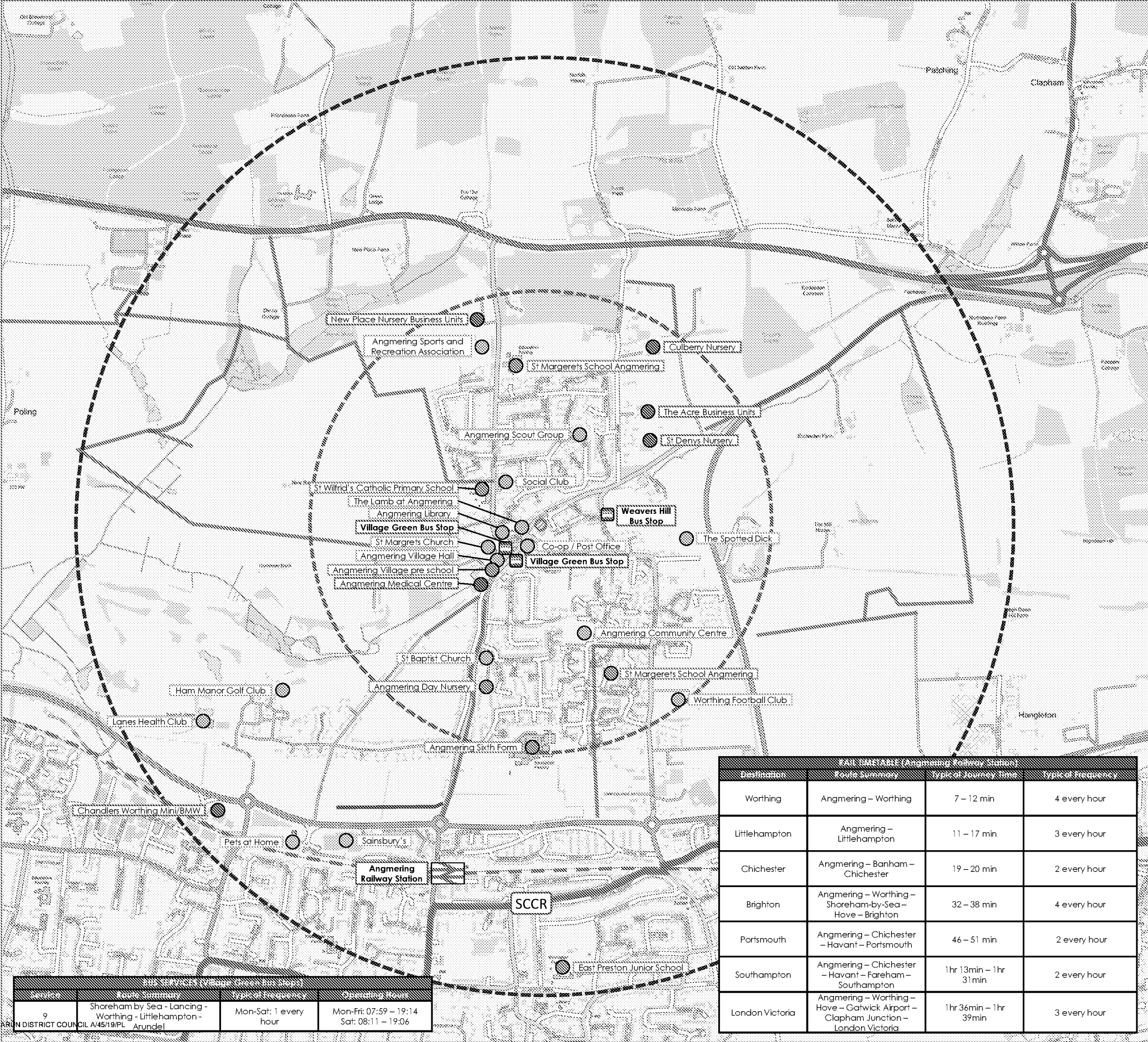
4.4.4 It is therefore anticipated that the development would only generate a limited number of 'primary' vehicle trips on the local road network and would have a negligible impact upon local road network in terms of highway capacity and safety.

5 SUMMARY AND CONCLUSIONS

5.1.1 This TS has been prepared by Russell Giles Partnership Ltd (RGP) on behalf of Landspeed Homes Ltd to support a planning application for a mixed-use development at Water Lane, Angmering, West Sussex. The conclusions from this report are as follows:

- (i) The proposed development would involve the demolition of the existing car dealership and dwelling to be replaced by 19 residential dwellings, a convenience shop and a Parish Council building.
- (ii) The application site is readily accessible on foot, by cycle and by public transport. There is a range of services and amenities available with walking and cycling distance of the site.
- (iii) The PIA record does not reveal any pattern in terms of distribution, severity or incident circumstances that would be exacerbated by the proposed development.
- (iv) The site would be served from 2 access points. The access geometries would allow two vehicles to concurrently turn in and out of the site and can accommodate delivery and emergency vehicles.
- (v) Both access points achieve the necessary visibility splays in both the primary and secondary directions based on the 85th percentile design speeds recorded on Water Lane.
- (vi) Deliveries to the convenience shop would be undertaken within the convenience store car park. Refuse collection would be undertaken from Water Lane's carriageway.
- (vii) Car and cycle parking would be provided in accordance with WSCC's parking standards.
- (viii) A vehicle trip generation assessment suggests that the development will generate an additional 419 daily vehicle trips, with an additional 32 trips in the network's AM peak hour, and 41 trips in the PM peak hour. It is expected that the majority of additional trips to the site would comprise 'pass-by' or 'diverted' trips associated with the convenience shop.
- (ix) The number of additional daily vehicle trips resulting from the proposed development would have a negligible impact upon local road network in terms of highway capacity and safety.

PLANS



LEGEND

- SITE LOCATION
- RAIL STATION
- RAILWAY
- BUS STOPS
- NATIONAL CYCLE ROUTE
- CYCLE ROUTES
- 1KM ISOCHROME
- 2KM ISOCHROME
- RETAIL
- EDUCATION
- LEISURE
- HEALTH CARE
- INDUSTRIAL



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Client: Landspeed Homes Limited
Project: Changers BMW, Water Lane, Angmering

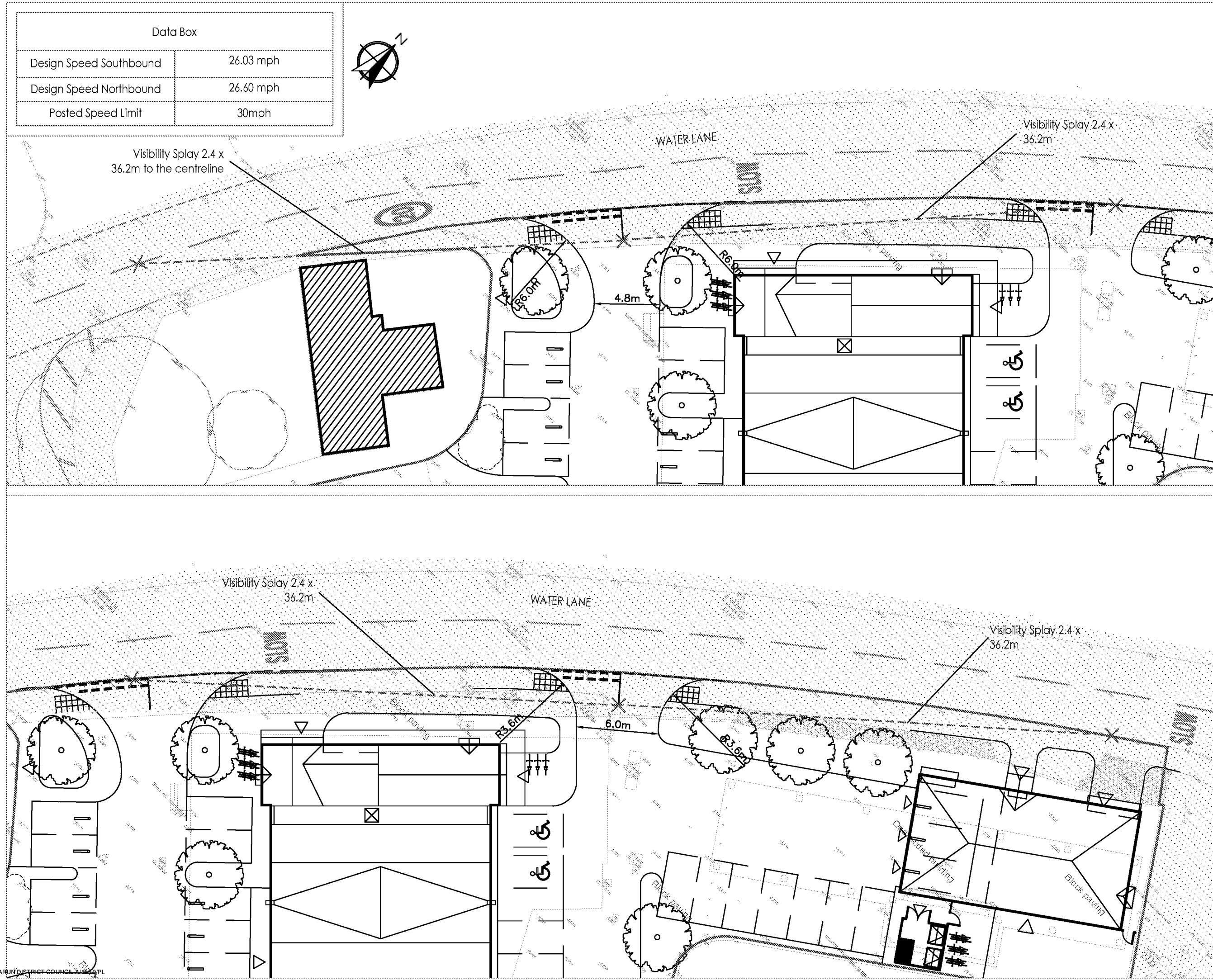
Title: Site Location & Accessibility Plan

Plan No:	Job No:	Date:	Scale:
Plan 01	4619	Feb 19	NTS
Drawn By:	Checked By:	Approved By:	Rev:
SMO	ALB	ALB	-

RAIL TIMETABLE (Angmering Railway Station)			
Destination	Route Summary	Typical Journey Time	Typical Frequency
Worthing	Angmering – Worthing	7 – 12 min	4 every hour
Littlehampton	Angmering – Littlehampton	11 – 17 min	3 every hour
Chichester	Angmering – Banham – Chichester	19 – 20 min	2 every hour
Brighton	Angmering – Worthing – Shoreham-by-Sea – Hove – Brighton	32 – 38 min	4 every hour
Portsmouth	Angmering – Chichester – Havant – Portsmouth	46 – 51 min	2 every hour
Southampton	Angmering – Chichester – Havant – Fareham – Southampton	1hr 13min – 1hr 31min	2 every hour
London Victoria	Angmering – Worthing – Hove – Gatwick Airport – Clapham Junction – London Victoria	1hr 36min – 1hr 39min	3 every hour

BUS SERVICES (Village Green Bus Stops)			
Service	Route Summary	Typical Frequency	Operating Hours
9	Shoreham by Sea - Lancing - Worthing - Littlehampton - Arundel	Mon-Sat: 1 every hour	Mon-Fri: 07:59 – 19:14 Sat: 08:11 – 19:06

DRAWINGS



Data Box	
Design Speed Southbound	26.03 mph
Design Speed Northbound	26.60 mph
Posted Speed Limit	30mph



NOTES

A3

-LEGEND-

Site Boundary

Highway Boundary

Existing Road Markings

Visibility Splays

C	Mar 19	New Layout	SMO	ALB
B	Mar 19	New Layout	SMO	ALB
A	Jan 19	RSA Comments	SMO	ALB
-	Jan 19	Original Issue	SMO	ALB
Rev.	Date	Amendments	Drawn	Appr.

RESIDUAL HAZARDS

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, note the following:

- Buried Services
- Overhead Cable
- Working in Live Carriageway
- Public Being Struck by Plant
- Hazardous Substances

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved risk assessment and method statement

This drawing has been prepared for the purposes of planning discussions and does not constitute a detailed design drawing, or Construction drawing. A Design Hazard Inventory has been prepared by RGP setting out the hazards which have been designed out. This is available upon request.

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Client

LandSpeed Homes Limited

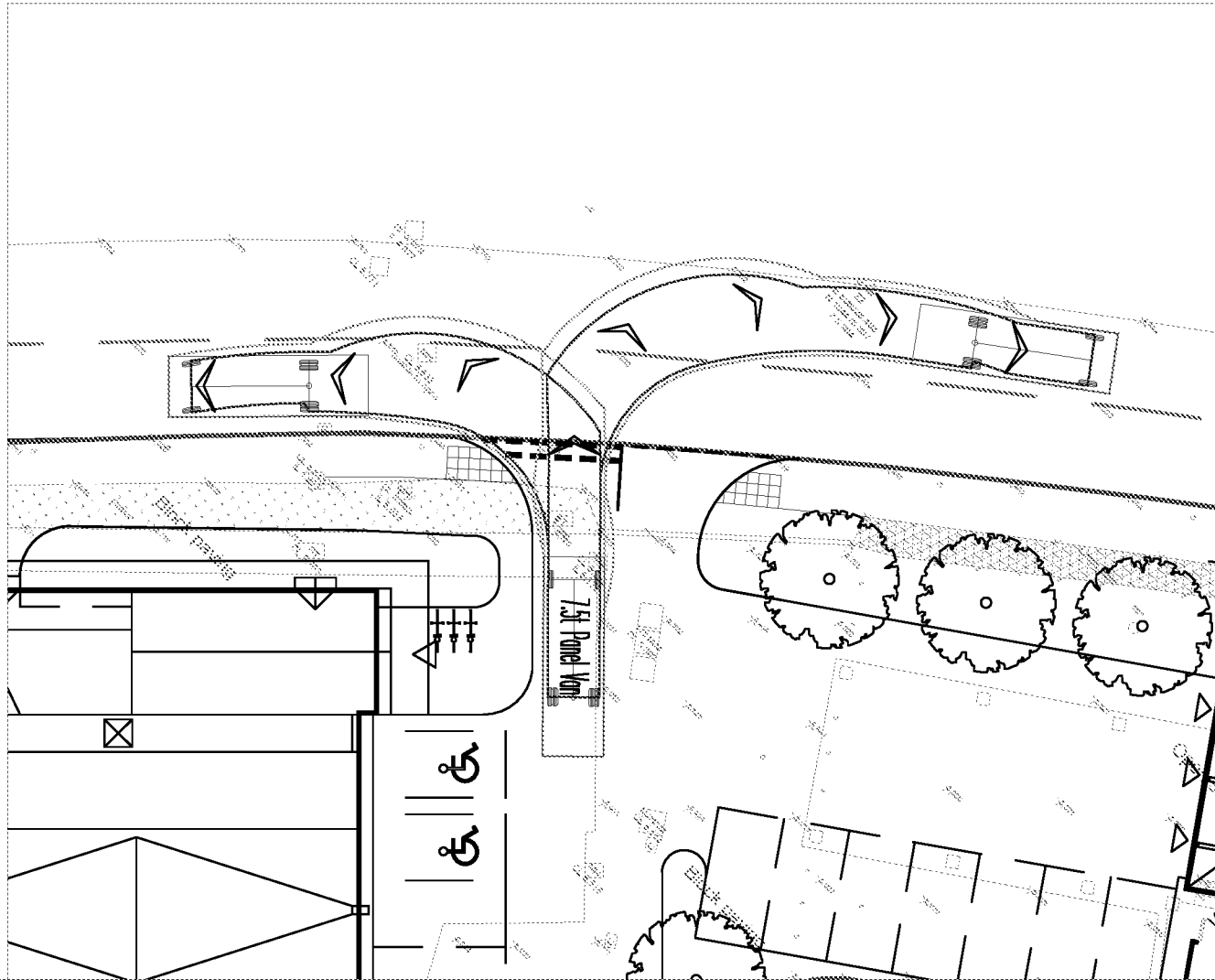
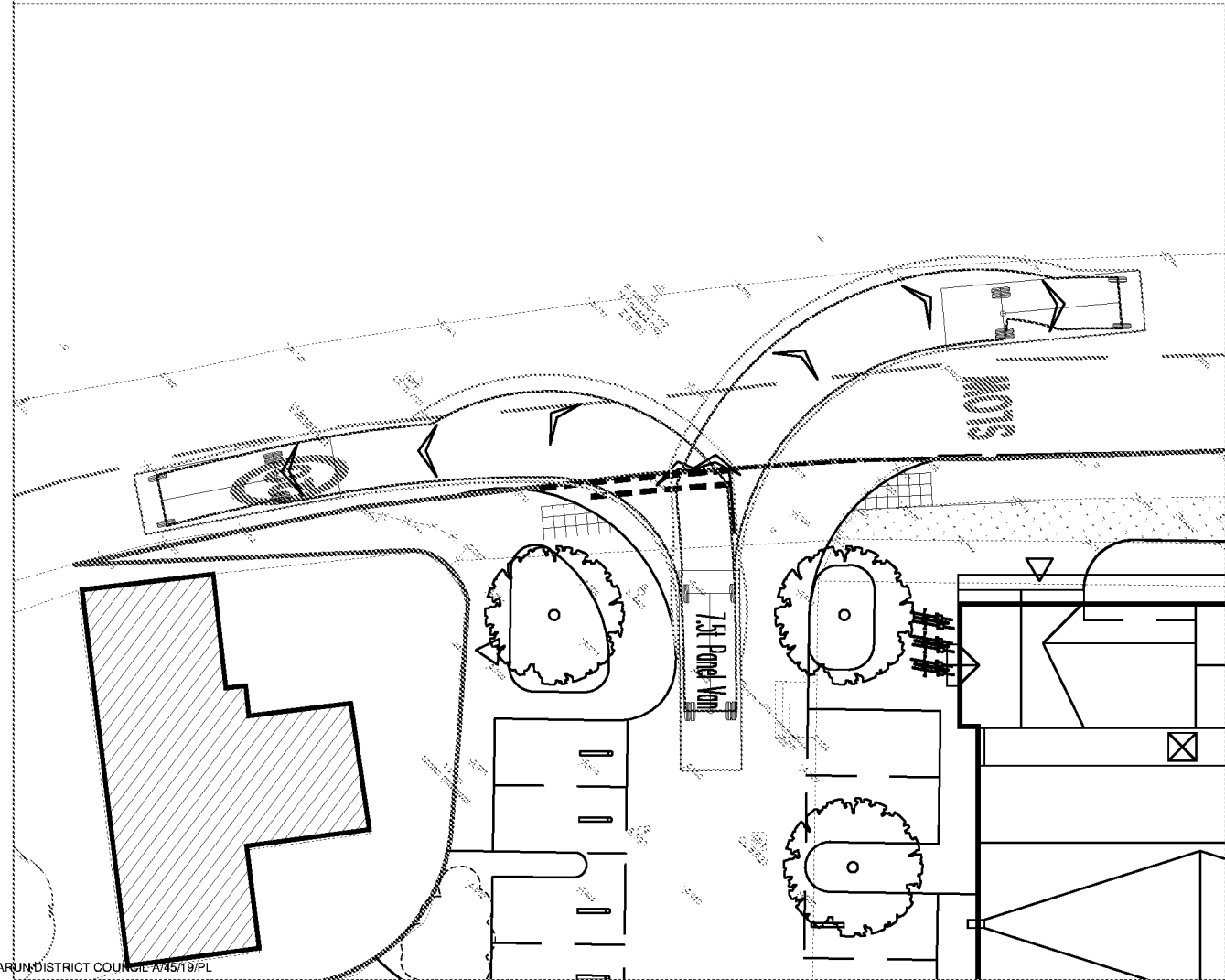
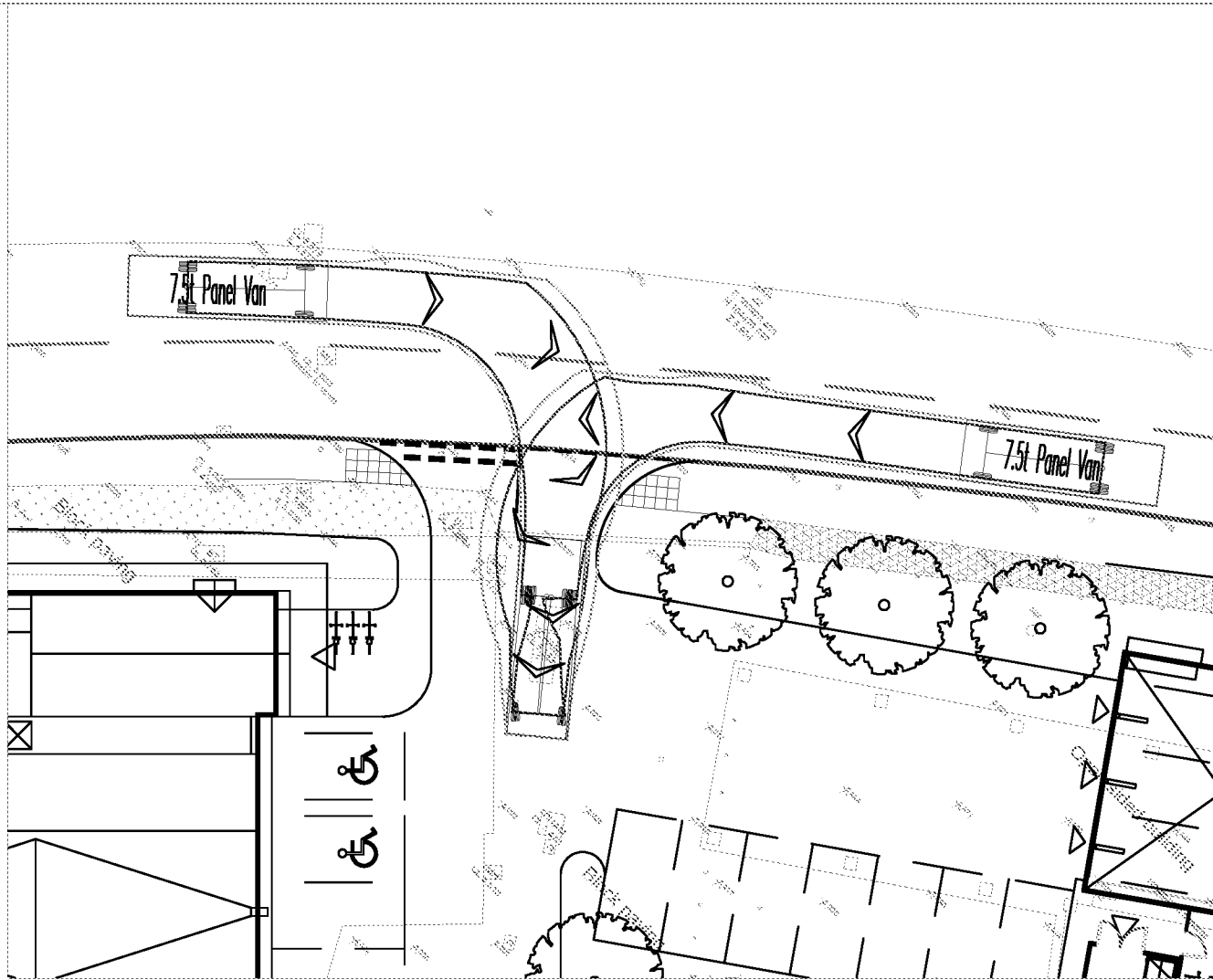
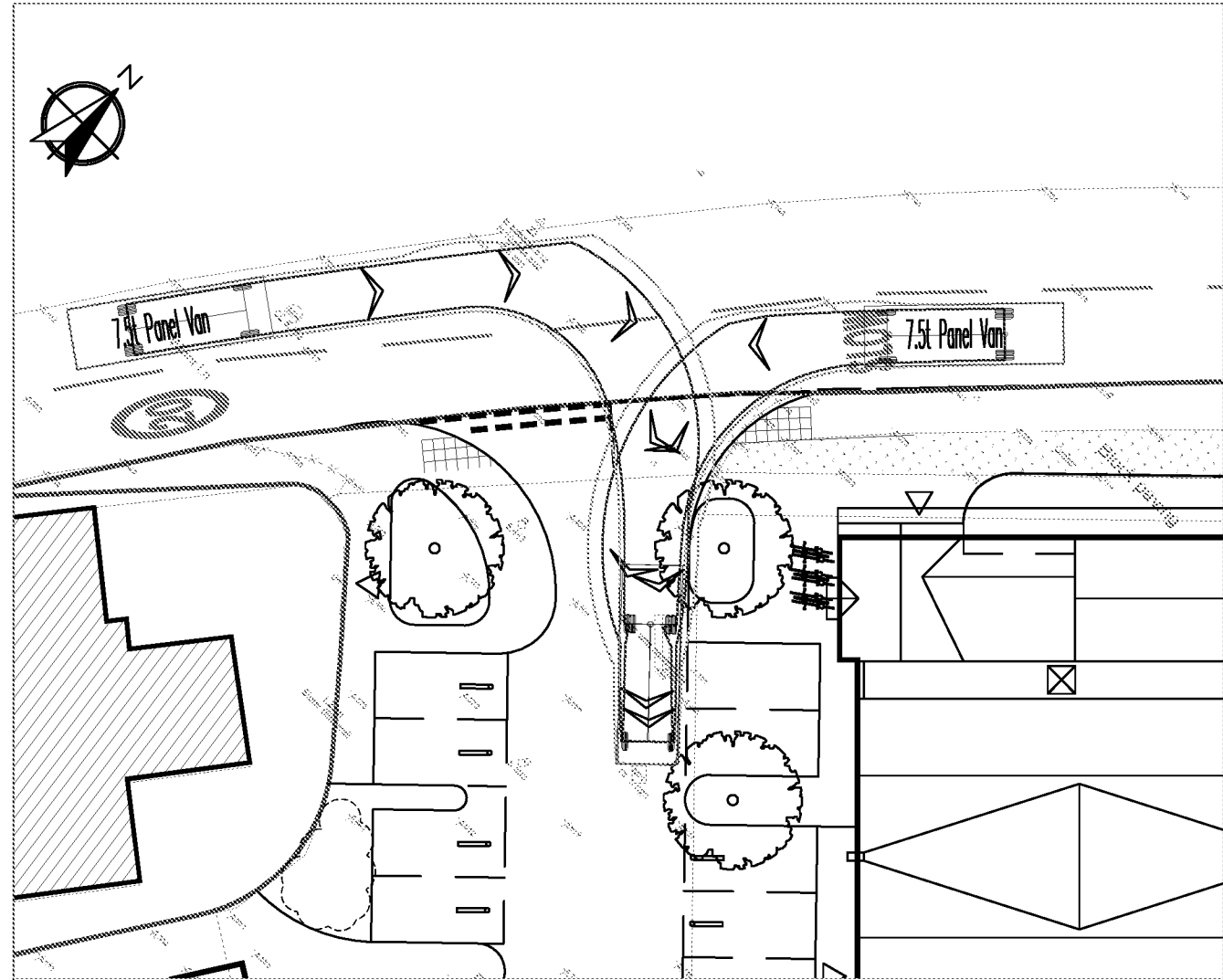
Project

Chandlers BMW, Water Lane Angmering

Drawing Title

Visibility Splays

Scale	1:250	Drawn By	SMO	Checked By	ALB	Approved By	PMR
Date	March 2019	Drawing No	2018-4619-001	Rev.			C

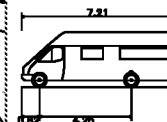


NOTES

A3

-LEGEND-

- Site Boundary
- Existing Road Markings



7.5t Panel Van	Overall Length	7.210m
	Overall Width	2.192m
	Overall Body Height	2.544m
	Min Body Ground Clearance	0.316m
	Track Width	1.865m
	Lock to lock time	4.00s
	Kerb to Kerb Turning Radius	7.400m

C	Mar 19	New Layout	SMO	ALB
B	Mar 19	New Layout	SMO	ALB
A	Jan 19	RSA Comments	SMO	ALB
-	Jan 19	Original Issue	SMO	ALB
Rev.	Date	Amendments	Drawn	Appr.

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Landspeed Homes Limited
Project: Chander's BMW, Water Lane Angmering

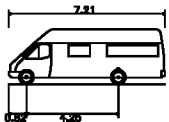
Drawing Title: Swept Path Analysis

Scale	1:250	Drawn By	SMO	Checked By	ALB	Approved By	PMR
Date	March 2019	Drawing No	2018-4619-002	Rev.			C

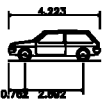
NOTES

-LEGEND-

- Site Boundary
- Existing Road Markings



7.5t Panel Van
Overall Length 7.210m
Overall Width 2.192m
Overall Body Height 2.544m
Min Body Ground Clearance 0.316m
Track Width 1.865m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 7.400m



DB32 Private Car
Overall Length 4.223m
Overall Width 1.715m
Overall Body Height 1.392m
Min Body Ground Clearance 0.235m
Max Track Width 1.679m
Lock to lock time 4.00s
Kerb to Kerb Turning Radius 5.780m

B	Mar 19	New Layout	SMO	ALB
A	Mar 19	New Layout	SMO	ALB
-	Jan 19	Original Issue	SMO	ALB
Rev.	Date	Amendments	Drawn	Appr.

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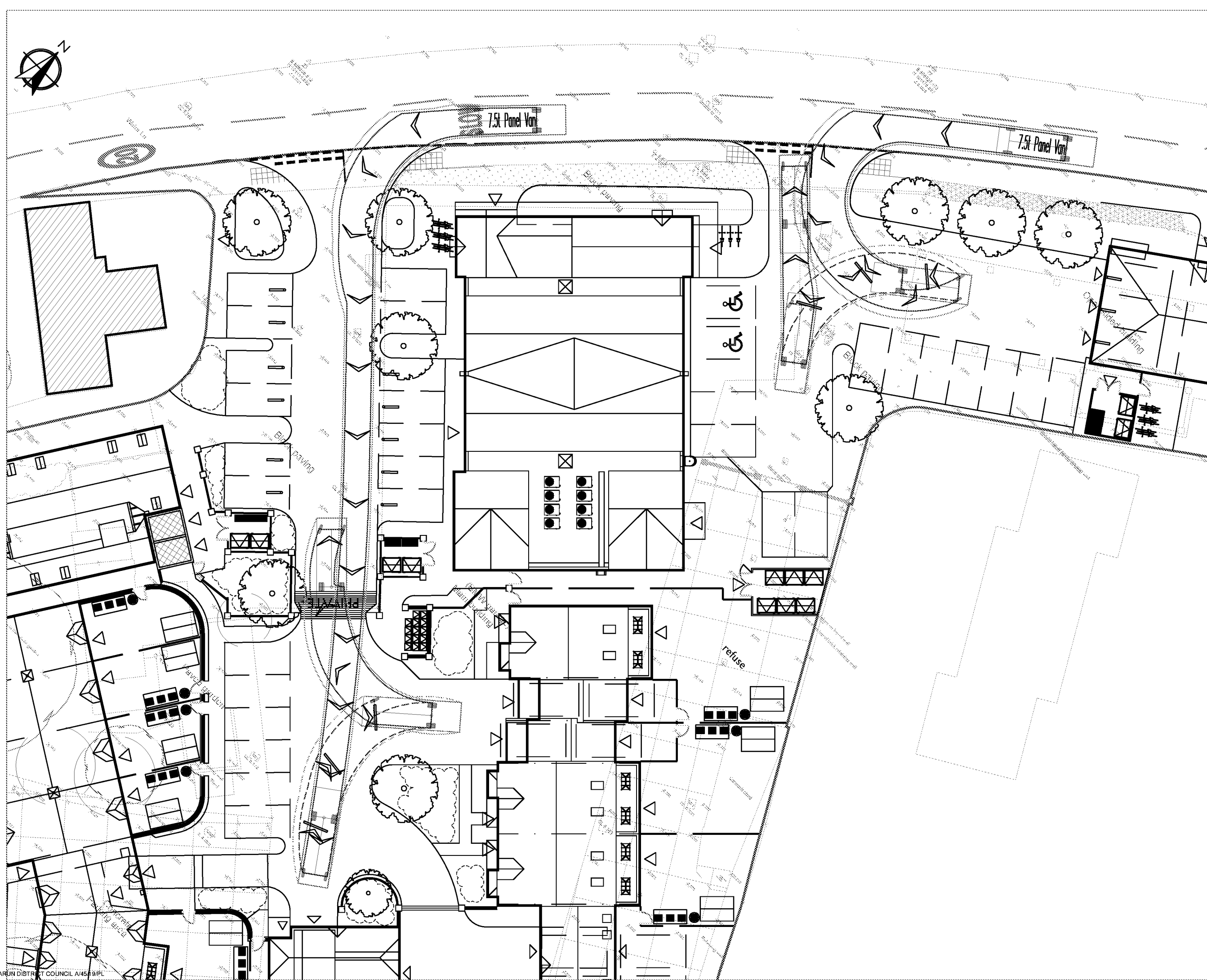
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Client

Landspeed Homes Limited

Project
Chandlers BMW, Water Lane
Angmering

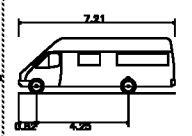
Drawing Title
Swept Path Analysis
Parking

Scale	1:250	Drawn By	SMO	Checked By	ALB	Approved By	PMR
Date	March 2019	Drawing No	2018-4619-002	Rev.			B



-LEGEND-

- Site Boundary
- Existing Road Markings



7.5t Panel Van	Overall Length	7.210m
	Overall Width	2.192m
	Overall Height	2.544m
	Min Body Ground Clearance	0.316m
	Track Width	1.865m
	Lock to lock time	4.00s
	Kerb to Kerb Turning Radius	7.400m

Rev.	Date	Amendments	Drawn	Appr.
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A	Mar 19	New Layout	SMO	ALB
-	Jan 19	Original Issue	SMO	ALB

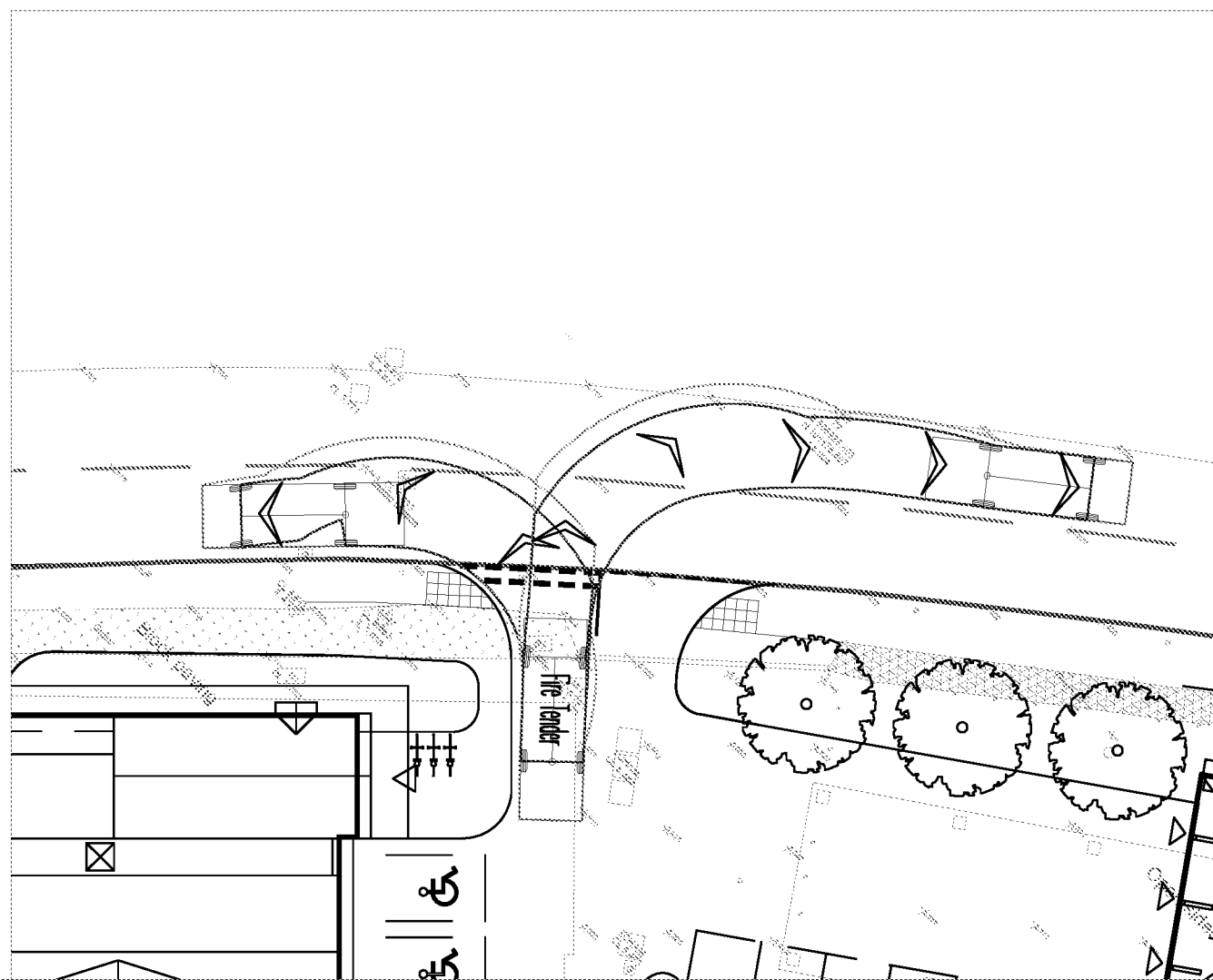
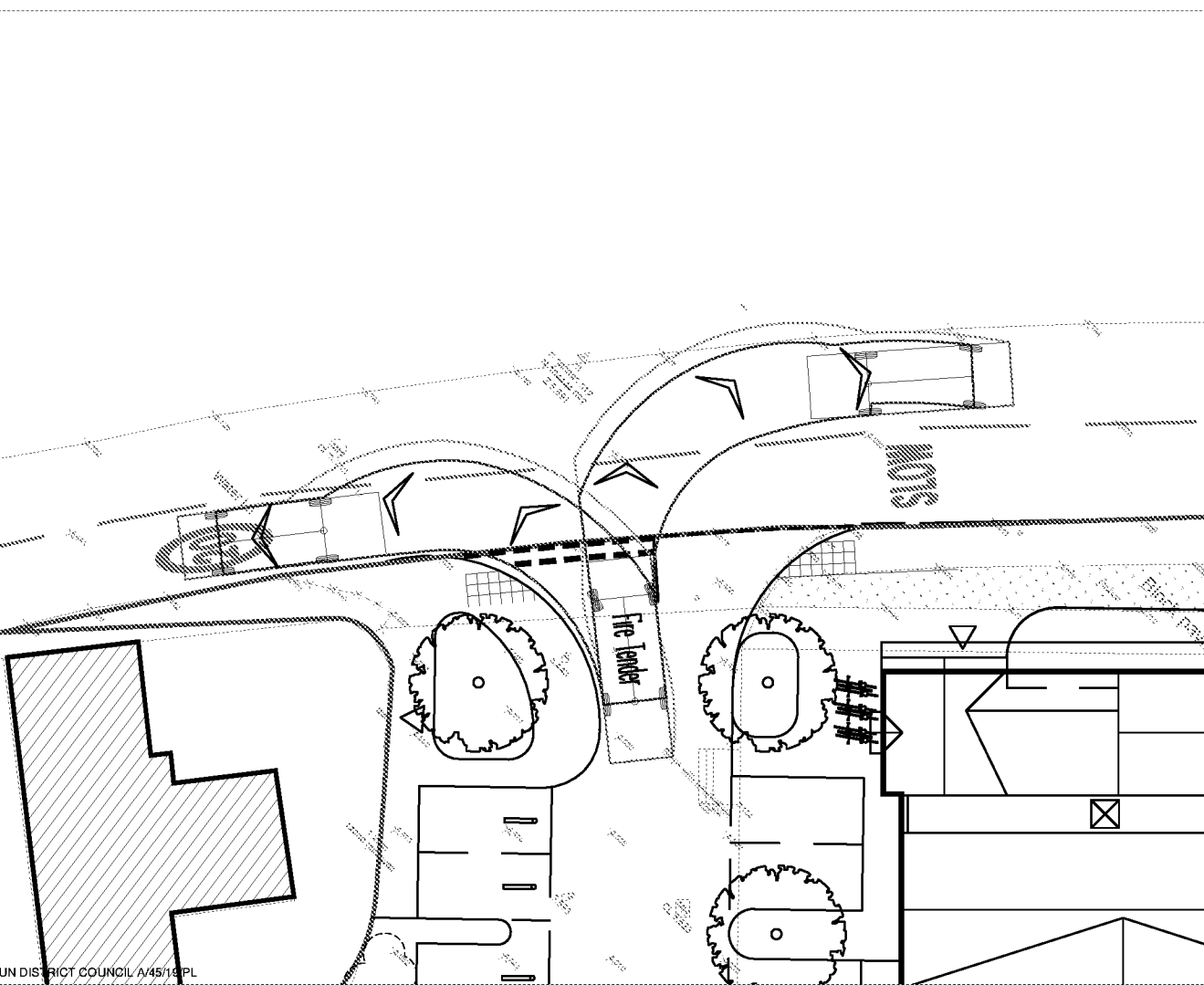
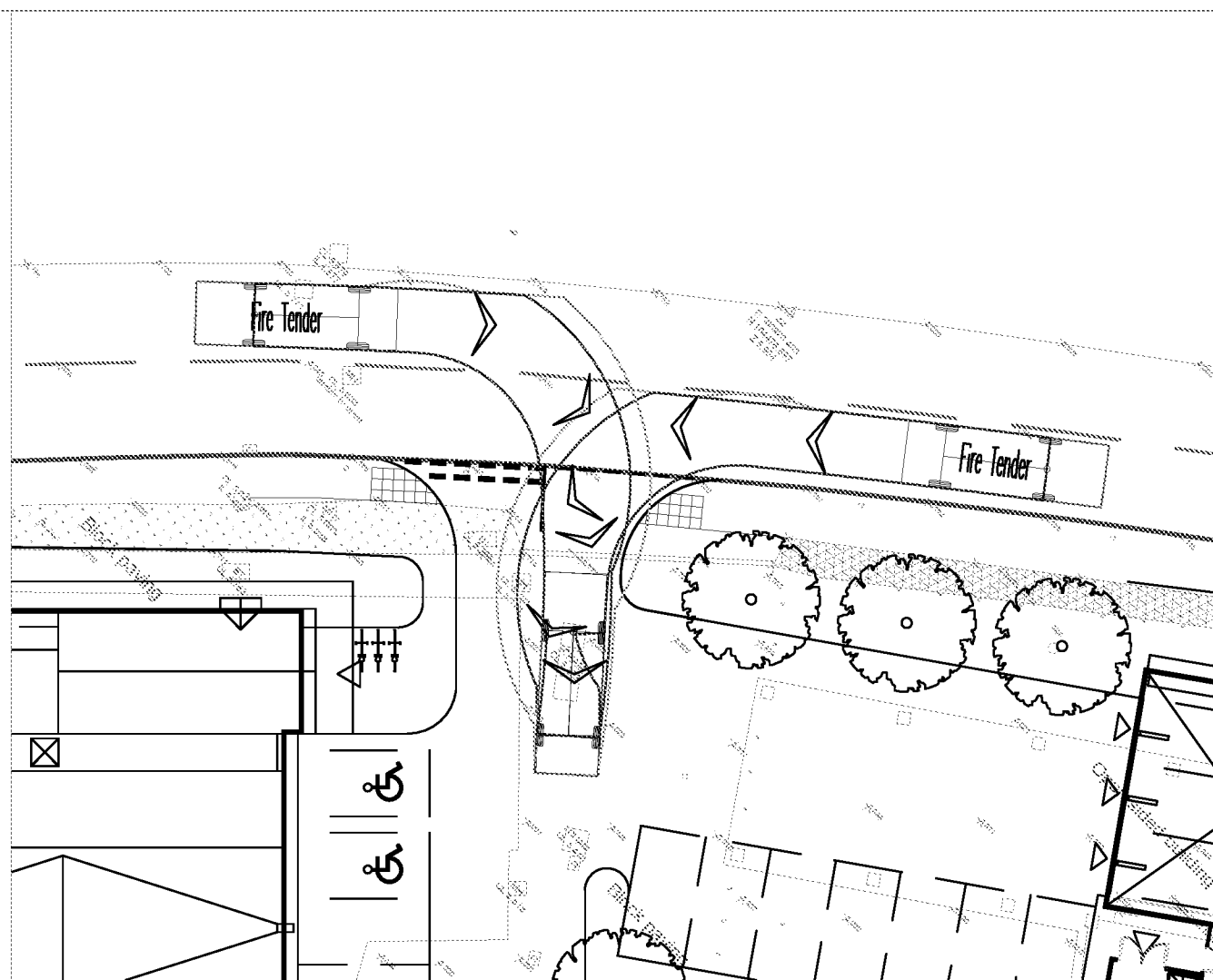
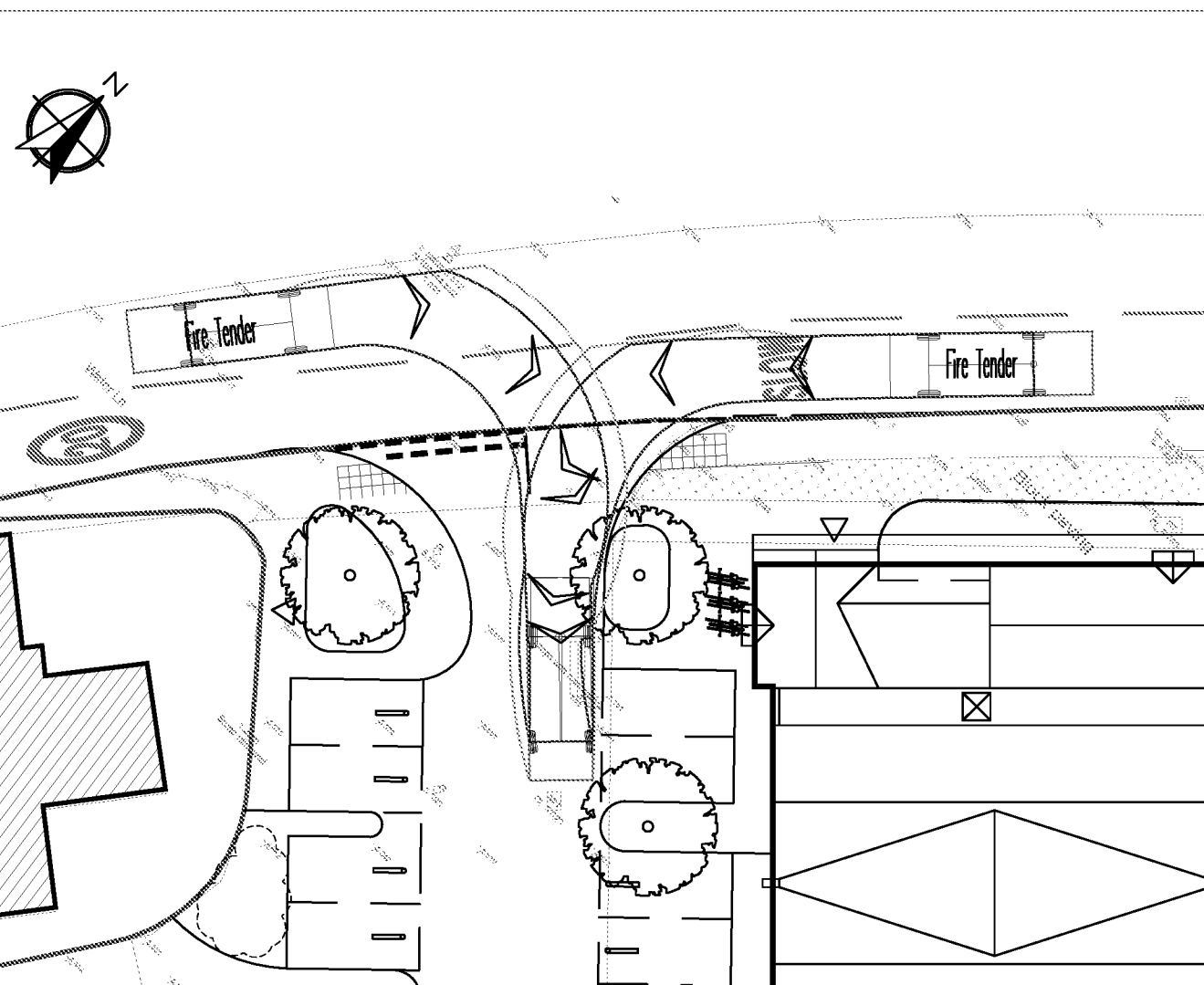
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Landspeed Homes Limited			
Project Chandlers BMW, Water Lane Angmering			
Drawing Title Swept Path Analysis 7.5t Panel Van Turning			
Scale 1:250	Drawn By SMO	Checked By ALB	Approved By PMR
Date March 2019	Drawing No 2018-4619-002	Rev. B	



NOTES

A3

-LEGEND-

Site Boundary

Existing Road Markings

7.334m

Overall Length

2.286m

Overall Width

0.380m

Min Body Ground Clearance

2.286m

Track Width

5.00s

Lock to lock time

8.000m

Kerb to Kerb Turning Radius

Fire Tender

Overall Length

Overall Width

Min Body Ground Clearance

Track Width

Lock to lock time

Kerb to Kerb Turning Radius

7.334m

2.286m

0.380m

2.286m

5.00s

8.000m

B	Mar 19	New Layout	SMO	ALB
A	Mar 19	New Layout	SMO	ALB
-	Jan 19	Original Issue	SMO	ALB
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Chesham

Landspeed Homes Limited

Project

Chandlers BMW, Water Lane Angmering

Drawing Title

Swept Path Analysis
Fire Tender

Scale	1:250	Drawn By	SMO	Checked By	ALB	Approved By	PMR
Date	March 2019	Drawing No	2018-4619-005	Rev.			B

ARUN DISTRICT COUNCIL A/45/19 PL