Highways Note

Rossett Park Farm, Rossett Road, Holt, Wrexham

Client: Rossett Park Farming



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1 INTRODUCTION

1.1 Background

1.1.1 This Highways Note (HN) provides additional information requested by the highway officers at Wrexham County Borough Council (WCBC) with regards to a full retrospective planning application on land at Rossett Park Farm, off Rossett Road, Holt. The planning reference is P/2024/1167.

1.1.2 As acknowledged by WCBC, the application is broken down into the following key parts:

1. Retention of hardstanding (constructed) and used for agricultural purposes (storage of hay, haylage, straw and silage bales);
2. Retention of hard standing track to the permitter of farmland for ease of access, management of farmland and animal welfare, use by agricultural and farm vehicles;
3. Permissive use of extant hardstanding (in conjunction with the agricultural use) to allow for a community, accessible (all disability) and educational free trail (referred to as 'Tail Trail');
4. Permissive uses of extant hardstanding (in conjunction with the agricultural use) to allow for parking of vehicles (associated with the free and open access dog trail) to avoid parking on the verge of the B5102; and
5. Retention of two pedestrian access points and passing on the lane, including the retention of one passing place which has been resurfaced on the lane.

1.2 Purpose of Report

1.2.1 The additional information requested by WCBC in its consultation response dated 7th November 2024 is summarised as follows:

- Visibility splays and forward visibility at the proposed car park access;
- Details of the car park and its capacity;
- Details of traffic generation and parking demand;
- Agricultural storage; and
- Details of the passing bays on Lower Park Lane.

1.2.2 This HN provides information to address the above points in turn in Section 2, followed by a summary and conclusion in Section 3.

1.2.3 Reasonable checks have been carried out on any third-party information used in the preparation of this report but, nonetheless, Prime accepts no liability for the accuracy or otherwise of this data.

1.2.4 Third-party rights are excluded for the use of information contained within this report.

2 RESPONSE TO WCBC HIGHWAYS

2.1 Visibility Splays and Forward Visibility at Proposed Car Park Access

2.1.1 The car park access utilises a culvert on Rossett Road to the south of the centre of the site's frontage with the road. The culvert was in place prior to the development.

2.1.2 WCBC has requested 2.4m x 215m visibility splays in line with TAN 18 for 60mph, with Rossett Road being subject to national speed limit in this location. The standards in TAN 18 are taken from the Design Manual for Roads and Bridges (DMRB) with 215m being the splay length ('y' distance) based on the desirable minimum stopping sight distance for a 60mph design speed. It should be noted that DMRB standards are directly applicable to motorways and trunk roads and arguably not fully applicable to Rossett Road, though they can be considered to be a starting point for design. The standards at paragraph 3.5 in CD 123 of DMRB state that the 'y' distance can be calculated using design speed or speed measurement (85th percentile speeds).

2.1.3 The visibility splays achievable at the access have been considered in line with TAN 18/DMRB desirable minimum standards. Note that the design work has been based on a topographical survey to ensure a high degree of accuracy. A 2.4m x 215m visibility splay is achievable to the right on exit (south of access), in line with desirable minimum standards for 60mph. However, the 215m distance is not achievable to the north without hedgerow loss. A splay of 160m is however achievable without such loss which is in line with DMRB one step below desirable minimum visibility splays for 60mph, which should be acceptable given the non-trunk road classification of Rossett Road. This distance is also equivalent to the desirable minimum visibility splays for 50mph. This was discussed with WCBC Highways and a speed survey was requested.

2.1.4 An independent traffic survey consultant, Paul Castle Associates, was instructed to undertake an automatic traffic counter (ATC) based survey that recorded traffic speeds and flows roughly 160m north of the access on Rossett Road to ascertain speeds in this location. The ATC was temporarily installed for 7-days from 11th December 2024. The survey was undertaken in accordance with CA 185 Vehicle Speed Measurement of DMRB which represents national best practice guidance. A summary of the recorded 7-day speeds and weekday peak hour (AM = 0800-0900, PM = 1600-1700) flows is provided in Table 2.1 with the raw survey results provided in Appendix A.

Table 2.1: ATC Survey Results

Direction	Speed (mph)		Weekday Average Flow	
	Average	85th%ile	AM Peak	PM Peak
Southbound	44.2	52.5	95	120
Northbound	43.9	52.5	148	140

2.1.5 The 85th percentile speeds of 52.5mph lie within the 50mph design speed range, thereby validating the 2.4m x 160m splay to the left on exit. The proposed access therefore provides a safe level of visibility for vehicles exiting the site.

2.1.6 WCBC Highways also requested that adequate forward visibility to a vehicle waiting to turn right into the site should be demonstrated. As per the visibility splay, the appropriate level of forward visibility based on the recorded 85th percentile speeds is 160m.

2.1.7 The visibility splays and forward visibility have been illustrated on Drawing P24092-001B in Appendix B.

2.1.8 The recorded peak hour flows shown in Table 2.1 demonstrate that Rossett Road is relatively lightly trafficked with an average weekday peak hour flow of 95-148 vehicles.

2.2 Car Park Design and Capacity

2.2.1 The car park has been constructed and consists of hardstanding. At WCBC request, the first 10m of the car park access has been constructed with a hard bound surfacing. The access reduces in with from 10.6m at the bellmouth to 5.0m at the gate.

2.2.2 The gate at the access will remain open at all times during operation, in line with WCBC requirements.

2.2.3 As the swept path analysis on Drawing P24092-001B illustrates, two large cars can safely pass on the access, though the instances of such will be very limited given the parking demand mentioned below.

2.2.4 The parking spaces are not lined but as Drawing P24092-001B illustrates, there is capacity for up to 26 cars without any bale storage in place (using standard 2.5m x 5.0m parking space dimensions), and 18 cars with bale storage.

2.2.5 The drawing also shows that cars can easily navigate the car park and manoeuvre with relative ease.

2.2.6 WCBC has requested details of the culvert at the car park access, assuming that it has been implemented as part of the scheme. However, as mentioned above, the access utilises a culvert used for field access that existed prior to the development. No works have been undertaken to the culvert other than the surfacing for access. The culvert and pipe dimensions are as they were prior to the development. Therefore, no further details should be required.

2.2.7 The hardstanding used for the car park is a semi-porous material and the car park is surrounded by fields on three sides with a ditch in the field to the north and a ditch between the car park and Rossett Road, therefore no surface water will drain onto public highway.

2.3 Traffic Generation and Parking Demand

2.3.1 The applicant has observed no more than 15 vehicles present during opening hours, with 5-6 vehicles being the average car park demand. The abovementioned car park capacity easily accommodates the

demand, even with bale storage in place. Any instances of parking demand overspilling onto Rossett Road are highly unlikely.

2.4 Agricultural Storage

2.4.1 As mentioned above, the car park will also be used for bale storage on a seasonal basis. The hay bales are collected on the adjacent land and transported to the storage area using internal field gates. The bales are only transported off-site when the car park is not in use, therefore, there is no scope for conflict with trail users. Bale storage is required during the winter months when the tail trail is typically less busy than during spring and summer months.

2.4.2 Agricultural vehicles will therefore only require access to the car park on an infrequent seasonal basis.

2.4.3 The bales will be stored no closer than 10m to any ditches.

2.5 Passing Place Provision

2.5.1 WCBC notes that two passing places have been constructed by the applicant on Lower Park Lane. These were provided by the applicant in order to provide a betterment along the lane, offering opportunities for road users to pass each other, including agricultural vehicles. Whilst the method of construction is similar to other local passing places and laybys, the applicant now recognises the need for any such works within the public highway to be undertaken in line with a Section 278 agreement with WCBC.

2.5.2 The applicant is willing to enter into such an agreement to provide the laybys to a specification that meets WCBCs standards for adoption. Alternatively, the laybys can be removed and the highway verge reverted back to its previous condition.

2.5.3 The applicant is willing to accept a condition requiring the layby works and the section of the access within highway land to be undertaken in line with WCBC's standards for adoption via Section 278 agreement, or for the laybys to be reinstated to highway verge within an agreed time limit.

3 SUMMARY AND CONCLUSION

3.1 Summary

3.1.1 This HN provides additional information as requested by WCBC Highways in its consultation response dated 7th November 2024 related to full retrospective planning permission for the construction and operation of a car parking area for a community dog walking trail, and agricultural storage on land off Rossett Road, Holt.

3.1.2 The following matters have been addressed:

- A safe level of visibility to and from the car park access has been demonstrated based on observed speeds;
- Details of the access and car park design which shows it is easily navigable for its users;
- Details of the car park capacity, which demonstrates that it will provide sufficient capacity to accommodate the demand from trail users, including when hay bales are stored during winter months; and
- An acknowledgement that the applicant is willing to enter a Section 278 agreement to bring two recently installed passing places up to adoptable standards. Alternatively, the highway verges can be reverted back to their previous condition within an agreed time limit.

3.2 Conclusion

3.2.1 A sufficient level of information has been provided to address the concerns of the local highway authority. Should any concerns remain, we would be happy to consult further with them.

APPENDIX A

TRAFFIC SURVEY DATA

Rossett ATC, B5102 Rossett Road



Direction: Southbound

Hour Beginning	Wed 11/12/2024	Thu 12/12/2024	Fri 13/12/2024	Sat 14/12/2024	Sun 15/12/2024	Mon 16/12/2024	Tue 17/12/2024	5-Day Ave.	7-Day Ave.
00:00	1	1	11	13	16	4	1	4	7
01:00	0	0	1	4	9	3	0	1	2
02:00	1	1	1	1	2	0	1	1	1
03:00	2	2	3	1	2	2	1	2	2
04:00	3	2	2	5	3	7	4	4	4
05:00	8	9	6	2	0	6	7	7	5
06:00	24	19	22	8	4	16	26	21	17
07:00	69	44	61	28	18	64	51	58	48
08:00	109	104	82	42	23	84	96	95	77
09:00	67	92	80	73	49	78	88	81	75
10:00	91	86	70	78	68	80	87	83	80
11:00	94	68	105	101	93	83	66	83	87
12:00	97	81	119	99	108	87	89	95	97
13:00	73	85	96	106	93	85	77	83	88
14:00	75	105	108	98	100	91	89	94	95
15:00	113	121	119	82	81	119	109	116	106
16:00	127	103	128	96	90	123	117	120	112
17:00	101	119	113	51	56	115	107	111	95
18:00	83	68	89	60	34	66	77	77	68
19:00	48	57	40	30	31	35	31	42	39
20:00	25	35	35	26	27	24	37	31	30
21:00	27	33	23	12	20	21	24	26	23
22:00	18	19	23	17	10	15	12	17	16
23:00	7	10	14	18	7	5	8	9	10
Total									
12H(7-19)	1099	1076	1170	914	813	1075	1053	1095	1029
16H(6-22)	1223	1220	1290	990	895	1171	1171	1215	1137
18H(6-24)	1248	1249	1327	1025	912	1191	1191	1241	1163
24H(0-24)	1263	1264	1351	1051	944	1213	1205	1259	1184
AM Peak	08:00	08:00	11:00	11:00	11:00	08:00	08:00	08:00	11:00
	109	104	105	101	93	84	96	95	87
PM Peak	16:00	15:00	16:00	13:00	12:00	16:00	16:00	16:00	16:00
	127	121	128	106	108	123	117	120	112

Direction: Northbound

Hour Beginning	Wed 11/12/2024	Thu 12/12/2024	Fri 13/12/2024	Sat 14/12/2024	Sun 15/12/2024	Mon 16/12/2024	Tue 17/12/2024	5-Day Ave.	7-Day Ave.
00:00	2	0	3	8	8	4	3	2	4
01:00	1	0	0	6	3	3	0	1	2
02:00	0	0	4	2	1	1	0	1	1
03:00	0	3	1	2	2	1	0	1	1
04:00	1	0	2	2	2	0	2	1	1
05:00	11	9	10	3	3	8	6	9	7
06:00	27	27	22	13	5	30	29	27	22
07:00	84	78	61	23	9	83	68	75	58
08:00	174	152	130	46	25	156	129	148	116
09:00	76	89	93	63	48	95	100	91	81
10:00	79	78	87	84	93	73	64	76	80
11:00	91	96	88	103	118	87	87	90	96
12:00	77	101	101	115	107	101	99	96	100
13:00	69	82	113	116	87	89	87	88	92
14:00	81	96	88	104	89	84	109	92	93
15:00	124	110	126	91	97	128	103	118	111
16:00	142	145	157	77	74	132	126	140	122
17:00	145	107	82	43	34	103	30	93	78
18:00	65	82	64	51	29	35	52	60	54
19:00	30	43	50	40	27	40	4	33	33
20:00	28	27	23	18	24	24	0	20	21
21:00	10	17	18	9	8	17	0	12	11
22:00	10	21	19	17	12	11	0	12	13
23:00	4	6	8	15	7	4	0	4	6
Total									
12H(7-19)	1207	1216	1190	916	810	1166	1054	1167	1080
16H(6-22)	1302	1330	1303	996	874	1277	1087	1260	1167
18H(6-24)	1316	1357	1330	1028	893	1292	1087	1276	1186
24H(0-24)	1331	1369	1350	1051	912	1309	1098	1291	1203
AM Peak	08:00	08:00	08:00	11:00	11:00	08:00	08:00	08:00	08:00
	174	152	130	103	118	156	129	148	116
PM Peak	17:00	16:00	16:00	13:00	12:00	16:00	16:00	16:00	16:00
	145	145	157	116	107	132	126	140	122

Direction: Total Flow

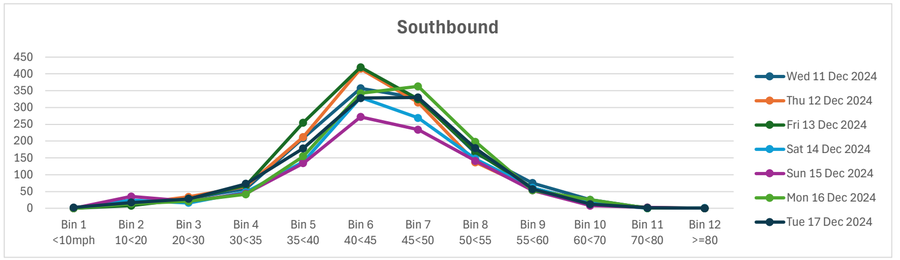
Hour Beginning	Wed 11/12/2024	Thu 12/12/2024	Fri 13/12/2024	Sat 14/12/2024	Sun 15/12/2024	Mon 16/12/2024	Tue 17/12/2024	5-Day Ave.	7-Day Ave.
00:00	3	1	14	21	24	8	4	6	11
01:00	1	0	1	10	12	6	0	2	4
02:00	1	1	5	3	3	1	1	2	2
03:00	2	5	4	3	4	3	1	3	3
04:00	4	2	4	7	5	7	6	5	5
05:00	19	18	16	5	3	14	13	16	13
06:00	51	46	44	21	9	46	55	48	39
07:00	153	122	122	51	27	147	119	133	106
08:00	283	256	212	88	48	240	225	243	193
09:00	143	181	173	136	97	173	188	172	156
10:00	170	164	157	162	161	153	151	159	160
11:00	185	164	193	204	211	170	153	173	183
12:00	174	182	220	214	215	188	188	190	197
13:00	142	167	209	222	180	174	164	171	180
14:00	156	201	196	202	189	175	198	185	188
15:00	237	231	245	173	178	247	212	234	218
16:00	269	248	285	173	164	255	243	260	234
17:00	246	226	195	94	90	218	137	204	172
18:00	148	150	153	111	63	101	129	136	122
19:00	78	100	90	70	58	75	35	76	72
20:00	53	62	58	44	51	48	37	52	50
21:00	37	50	41	21	28	38	24	38	34
22:00	28	40	42	34	22	26	12	30	29
23:00	11	16	22	33	14	9	8	13	16
Total									
12H(7-19)	2306	2292	2360	1830	1623	2241	2107	2261	2108
16H(6-22)	2525	2550	2593	1986	1769	2448	2258	2475	2304
18H(6-24)	2564	2606	2657	2053	1805	2483	2278	2518	2349
24H(0-24)	2594	2633	2701	2102	1856	2522	2303	2551	2387
AM Peak	08:00	08:00	08:00	11:00	11:00	08:00	08:00	08:00	08:00
	283	256	212	204	211	240	225	243	193
PM Peak	16:00	16:00	16:00	13:00	12:00	16:00	16:00	16:00	16:00
	269	248	285	222	215	255	243	260	234

Rossett ATC, B5102 Rossett Road

Direction: Southbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Wed 11 Dec 2024	1263	52.8	44.3	8.1	1	17	29	58	209	357	328	164	75	25	0	0
Thu 12 Dec 2024	1264	51.6	43.7	7.6	0	12	34	65	212	415	315	137	57	16	1	0
Fri 13 Dec 2024	1351	51.6	44.0	7.4	0	8	28	68	255	420	325	168	60	17	2	0
Sat 14 Dec 2024	1051	53.1	44.4	8.3	0	24	16	48	138	330	269	147	61	17	0	1
Sun 15 Dec 2024	944	53.1	43.8	9.0	0	35	21	44	134	272	234	141	53	8	2	0
Mon 16 Dec 2024	1213	53.0	45.1	7.6	0	14	21	42	155	342	363	198	53	25	0	0
Tue 17 Dec 2024	1205	52.5	44.1	8.1	2	17	28	73	178	328	330	179	57	12	1	0
5 Day Ave.	1259	52.3	44.3	7.8	1	14	28	61	202	372	332	169	60	19	1	0
7 Day Ave.	1184	52.5	44.2	8.0	0	18	25	57	183	352	309	162	59	17	1	0

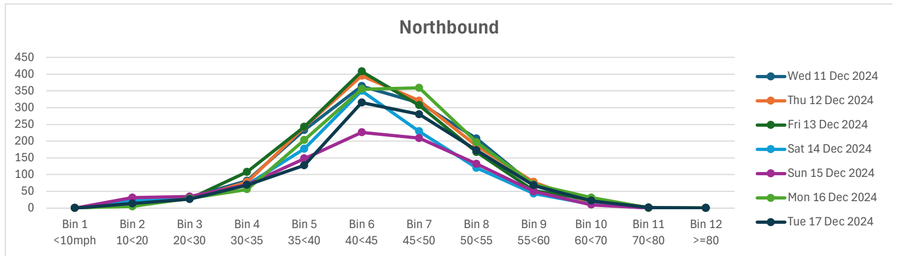
Paul Castle Associates



Direction: Northbound

	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Wed 11 Dec 2024	1331	52.3	44.2	7.9	0	11	33	82	233	364	314	208	68	17	1	0
Thu 12 Dec 2024	1369	52.3	43.8	8.2	0	25	28	78	242	395	321	186	78	15	1	0
Fri 13 Dec 2024	1350	51.7	43.7	7.8	0	10	28	108	243	408	307	167	52	25	2	0
Sat 14 Dec 2024	1051	51.5	43.1	8.2	0	22	28	70	177	350	229	120	43	12	0	0
Sun 15 Dec 2024	912	52.7	43.0	9.4	0	31	35	70	148	226	209	132	50	10	1	0
Mon 16 Dec 2024	1309	53.1	45.1	7.8	1	5	29	56	203	355	359	197	71	31	1	1
Tue 17 Dec 2024	1098	53.4	44.8	8.3	0	14	27	69	128	315	280	173	68	22	2	0
5 Day Ave.	1291	52.6	44.3	8.0	0	13	29	79	210	367	316	186	67	22	1	0
7 Day Ave.	1203	52.5	43.9	8.2	0	17	30	76	196	345	288	169	61	19	1	0

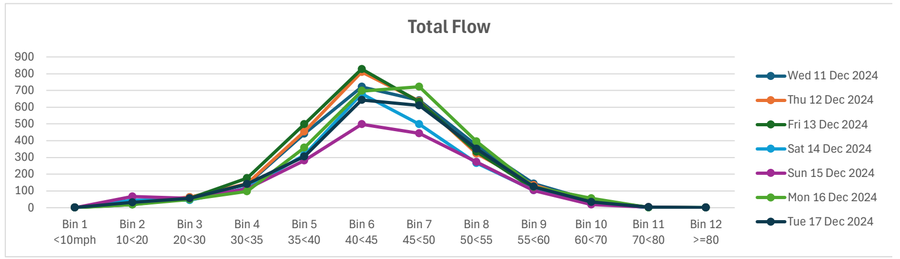
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Direction: Total Flow

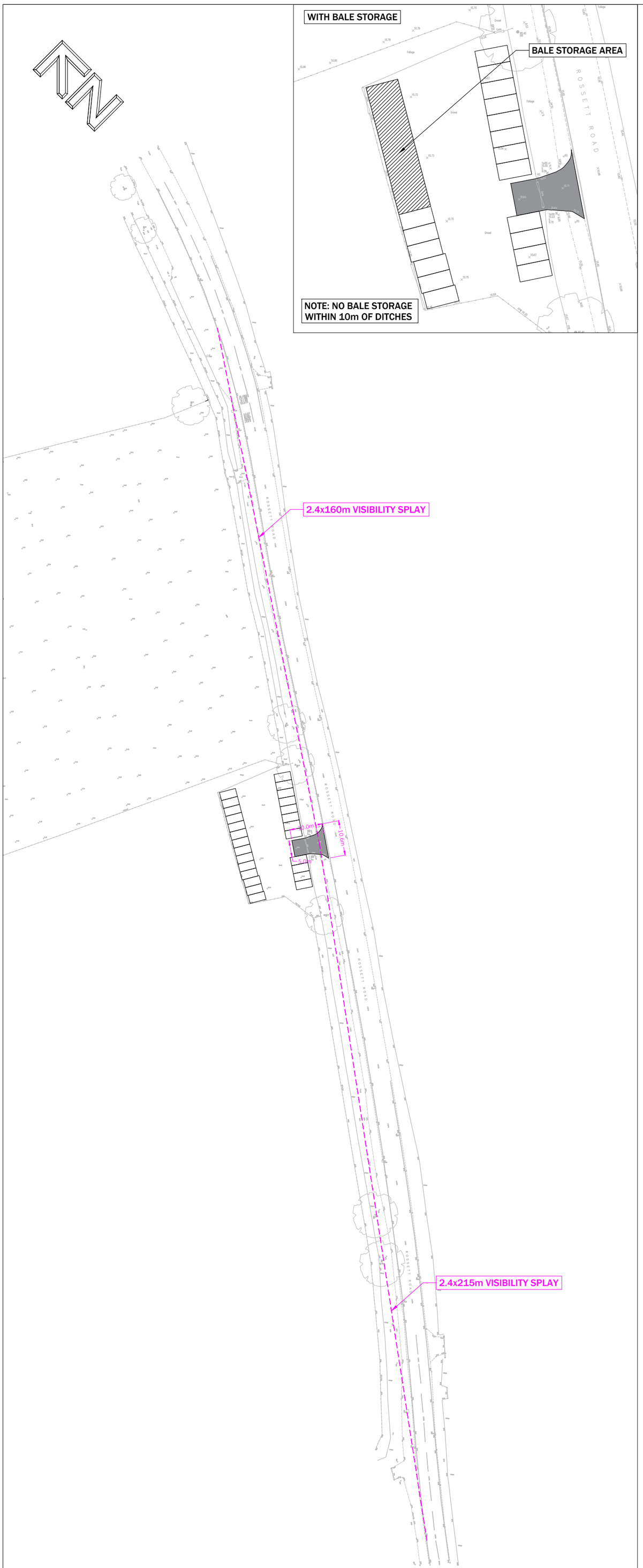
	Total Volume	85th Percentile	Mean Average	Standard Deviation	Bin 1 <10mph	Bin 2 10<20	Bin 3 20<30	Bin 4 30<35	Bin 5 35<40	Bin 6 40<45	Bin 7 45<50	Bin 8 50<55	Bin 9 55<60	Bin 10 60<70	Bin 11 70<80	Bin 12 >=80
Wed 11 Dec 2024	2594	52.6	44.3	8.0	1	28	62	140	442	721	642	372	143	42	1	0
Thu 12 Dec 2024	2633	52.0	43.8	7.9	0	37	62	143	454	810	636	323	135	31	2	0
Fri 13 Dec 2024	2701	51.7	43.8	7.6	0	18	56	176	498	828	632	335	112	42	4	0
Sat 14 Dec 2024	2102	52.3	43.7	8.3	0	46	44	118	315	680	498	267	104	29	0	1
Sun 15 Dec 2024	1856	52.9	43.4	9.2	0	66	56	114	282	498	443	273	103	18	3	0
Mon 16 Dec 2024	2522	53.1	45.1	7.7	1	19	50	98	358	697	722	395	124	56	1	1
Tue 17 Dec 2024	2303	52.9	44.4	8.2	2	31	55	142	306	643	610	352	125	34	3	0
5 Day Ave.	2551	52.4	44.3	7.9	1	27	57	140	412	740	648	355	128	41	2	0
7 Day Ave.	2387	52.5	44.1	8.1	1	35	55	133	379	697	598	331	121	36	2	0

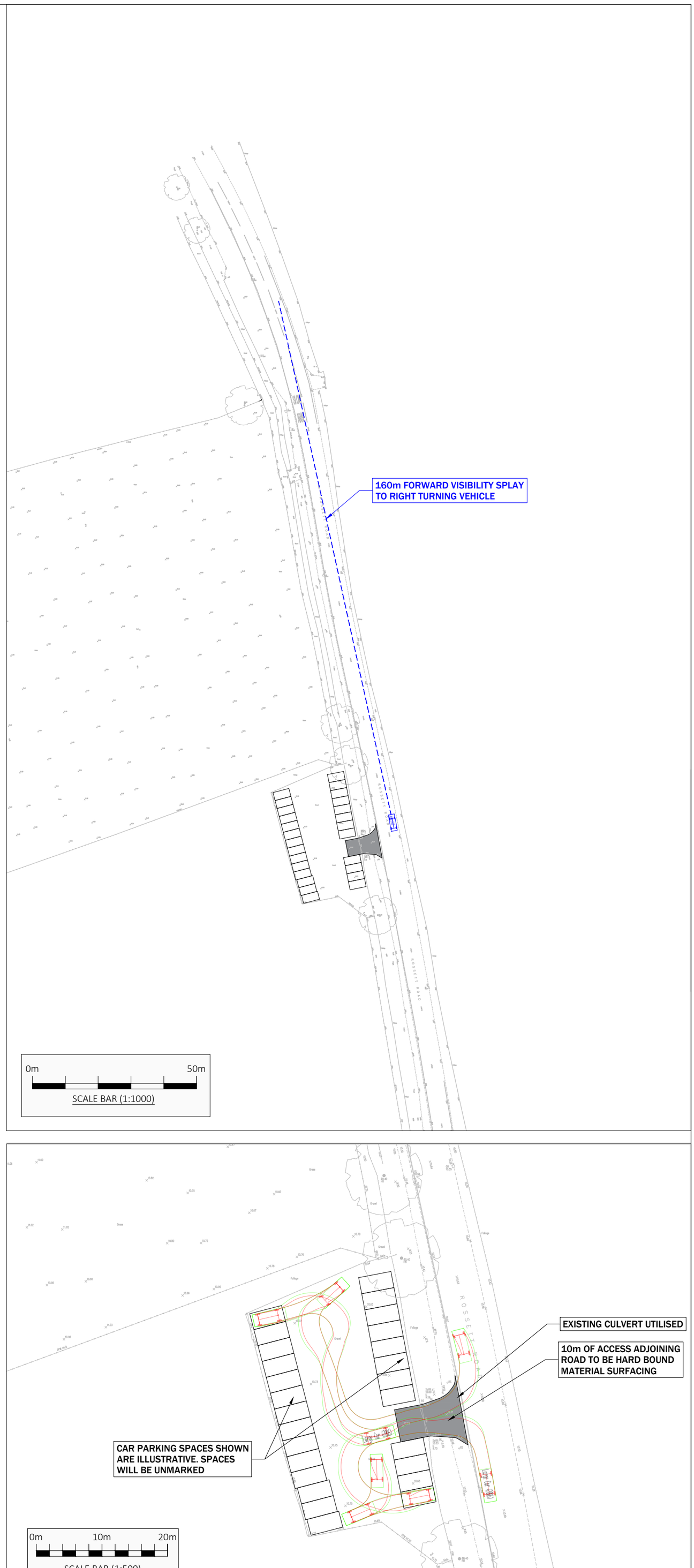
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APPENDIX B

ACCESS DRAWING





VEHICLE MODEL USED IN SWEPT PATH ANALYSIS

Large Car (2006)	
Overall Length	5.079m
Overall Width	1.872m
Overall Body Height	1.525m
Min Body Ground Clearance	0.310m
Max Track Width	1.831m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.900m

Prime Transport Planning
Together for Progress

9 Hurricane Court
Liverpool International Business Park | Estuary Boulevard | Liverpool | L24 8RL
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Rev	Date	By	Revision notes
B	16/01/25	RO	VARIOUS AMENDMENTS
A	02/01/25	RO	PARKING AMENDED

Status

INFORMATION

Project

THE TAIL TRAIL, ROSSETT ROAD, HOLT, WREXHAM

Title

SITE ACCESS VISIBILITY AND CAR PARK AREA

Drawn by	Issue date
RO	28 NOV 2024

Scale(s)

1:1000 / 1:500 @ A2

Drawing No

P24092-001B