

CORMAC

RadarClass

A3078 Windmill Hill, St Just in Roseland Site 1 October 2023

26/10/2023

Cormac Solutions Ltd | Infrastructure Design



PART OF THE
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Issue & Revision Record						
Revision	Date	Originator	Checked	Authorised	Purpose of Issue	Nature of Change
1.0	26/10/2023	DIA	HE	MC	First Issue	

CORMAC

If you would like this report in another format, please contact



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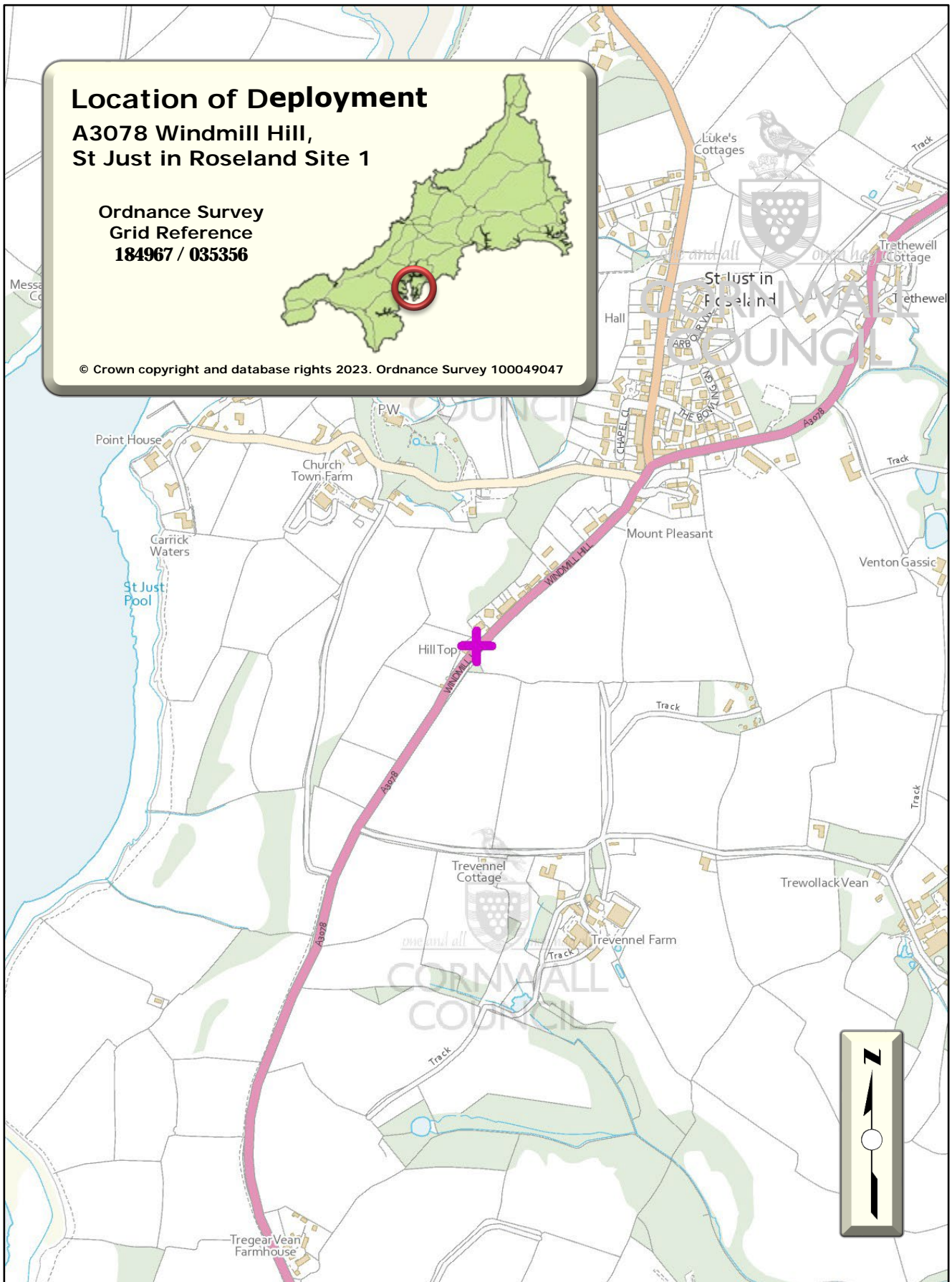
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CONTENTS

1	LOCATION MAP	2
2	GLOSSARY OF TERMS & ABBREVIATIONS	3
3	NORTH-EASTBOUND DETAILED STATISTICS	4
3.1	North-eastbound Daily Summary Table	4
3.2	North-eastbound Mean Speed & 85%ile Speeds by Day Chart	5
3.3	North-eastbound Speed Limit Compliance by Day Chart	6
3.4	North-eastbound Speed Frequencies by Day Table	7
3.5	North-eastbound Speed Frequencies Chart	8
3.6	North-eastbound Hour of Day Summary Table	9
3.7	North-eastbound Mean Speed & 85%ile Speed by Hour of Day Chart	10
3.8	North-eastbound Speed Limit Compliance by Hour of Day Chart	11
4	SOUTH-WESTBOUND DETAILED STATISTICS	12
4.1	South-westbound Daily Summary Table	12
4.2	South-westbound Mean Speed & 85%ile Speed by Day Chart	13
4.3	South-westbound Speed Limit Compliance by Day Chart	14
4.4	South-westbound Speed Frequencies by Day Table	15
4.5	South-westbound Speed Frequencies Chart	16
4.6	South-westbound Hour of Day Summary Table	17
4.7	South-westbound Mean Speed & 85%ile Speed by Hour of Day Chart	18
4.8	South-westbound Speed Limit Compliance by Hour of Day Chart	19

CORMAC		RadarClass				
		A3078 Windmill Hill, St Just in Roseland Site 1 October 2023 North-eastbound / South-westbound				
Route No	Column No	Neighbourhood Service Area	RadarClass Unit ID	Ordnance Survey Grid Reference		
A3078	Post	West	Unit 3	184967 / 035356		
Date of Deployment		End of Operation		Total Period of Operation		
18/10/2023		25/10/2023		8 days		
Summary Table						
 speed limit	All Observations		Weekdays		Weekends	
	North-eastbound	South-westbound	North-eastbound	South-westbound	North-eastbound	South-westbound
Number of Observations:	7,046	7,379	5,294	5,499	1,752	1,880
Mean Speed (mph):	28.1	31.5	28.0	31.4	28.5	32.0
85%ile Speed (mph):	33	37	33	37	33	38
Standard Deviation:	5.2	6.0	5.2	5.8	5.2	6.3
% ≤  :	69.9%	42.5%	70.2%	44.0%	69.1%	38.2%
% 31 mph to 40 mph:	28.8%	51.2%	28.8%	50.1%	28.9%	54.4%
% >40 mph:	1.3%	6.3%	1.0%	6.0%	2.0%	7.4%
Comments:						
Data Submitted by:			Ken Dunn	Data Processed by:		David Alway

1 Location Map



2 Glossary of Terms & Abbreviations


- 2.1.1 RadarClass is a portable radar device that detects and records the speed of passing vehicles. The unit is housed in an unobtrusive rugged black anti-vandal housing which can be mounted on any item of roadside furniture without looking conspicuous.
- 2.1.2 The principal role of the unit is to detect, and count passing vehicles and log the date, time and speed at which they passed. Data collected can be used to determine the volume of traffic flow on the road on which the unit has been deployed.



- No of Observations:** The number of readings recorded by the radar. This does not correspond to an exact count of vehicles passing the sign, since vehicles may pass the sign in a tightly packed group (or 'platoon'); the radar will only record data for the 'lead vehicle' that is determining the speed for the remainder of the platoon.
- Mean Speed:** The arithmetic average of all the speed values recorded.
- 85%ile Speed:** The speed at or below which 85% of the vehicles recorded were travelling.
- Standard Deviation:** A measure of how widely speeds are dispersed from the Mean Speed.
- % ≤ 30 :** The percentage of vehicles travelling at speeds of 30 mph or below (i.e. the percentage of vehicles travelling at or within the 30 mph speed limit).
- % 31 mph to 40 mph:** The percentage of vehicles travelling at speeds of between 31 mph and 40mph.
- % >40 mph:** The percentage of vehicles travelling at speeds greater than 40 mph (i.e. the percentage of vehicles travelling at speeds in excess of 10mph above the 30 mph speed limit).

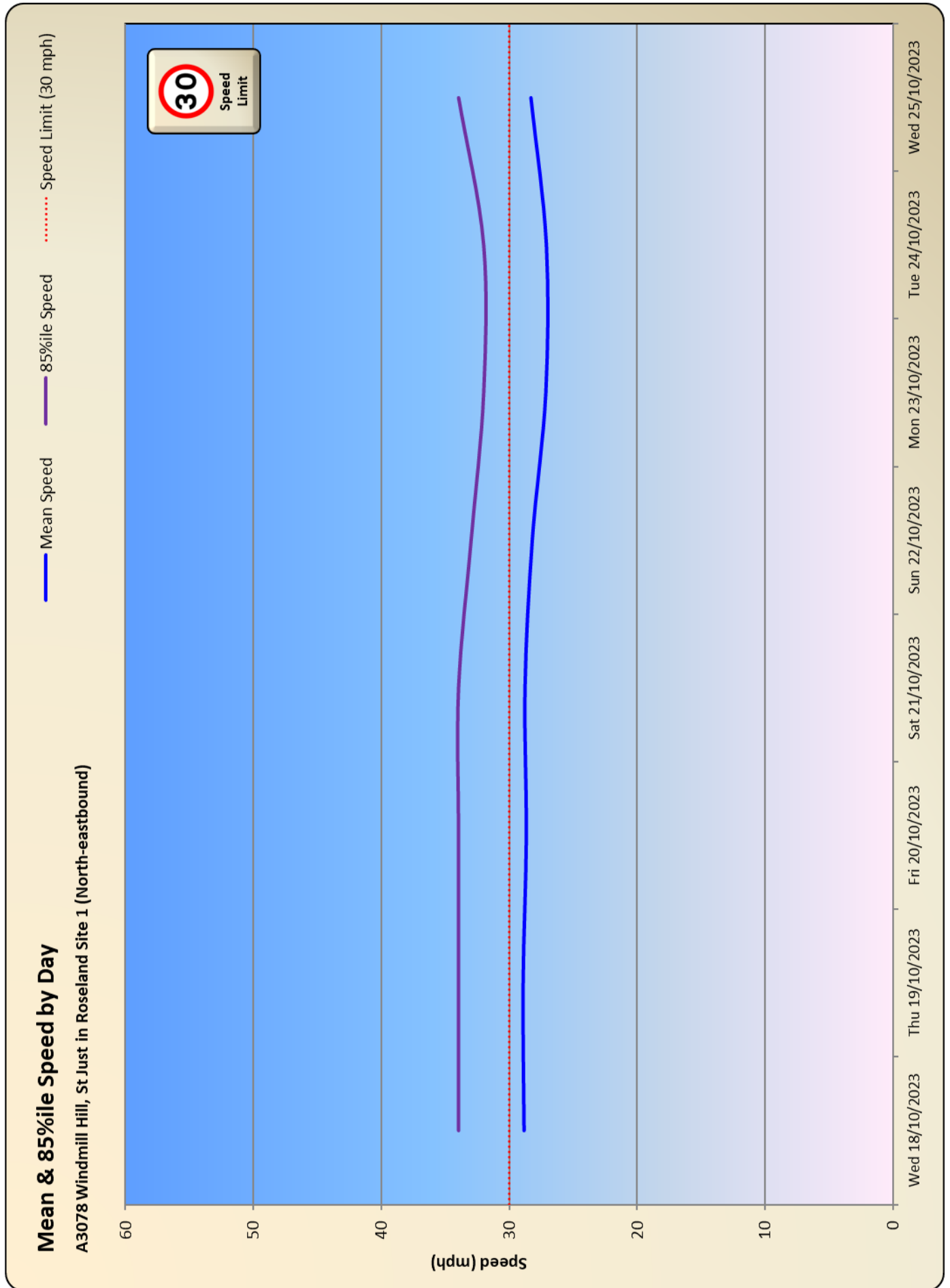
3 North-eastbound Detailed Statistics

3.1 North-eastbound Daily Summary Table

Date	Mean Speed	85%ile Speed	Standard Deviation	$N_e \leq$ 	% 31 mph to 40 mph	% >40 mph
Wed 18/10/2023	28.8	34	4.9	64.7%	33.5%	1.7%
Thu 19/10/2023	28.9	34	5.2	63.6%	35.1%	1.3%
Fri 20/10/2023	28.7	34	5.2	64.8%	34.2%	1.0%
Sat 21/10/2023	28.8	34	5.1	67.7%	30.2%	2.1%
Sun 22/10/2023	28.2	33	5.2	70.6%	27.5%	1.9%
Mon 23/10/2023	27.1	32	5.1	77.5%	21.7%	0.8%
Tue 24/10/2023	27.1	32	5.1	76.9%	22.4%	0.7%
Wed 25/10/2023	28.3	34	5.4	67.2%	31.6%	1.2%

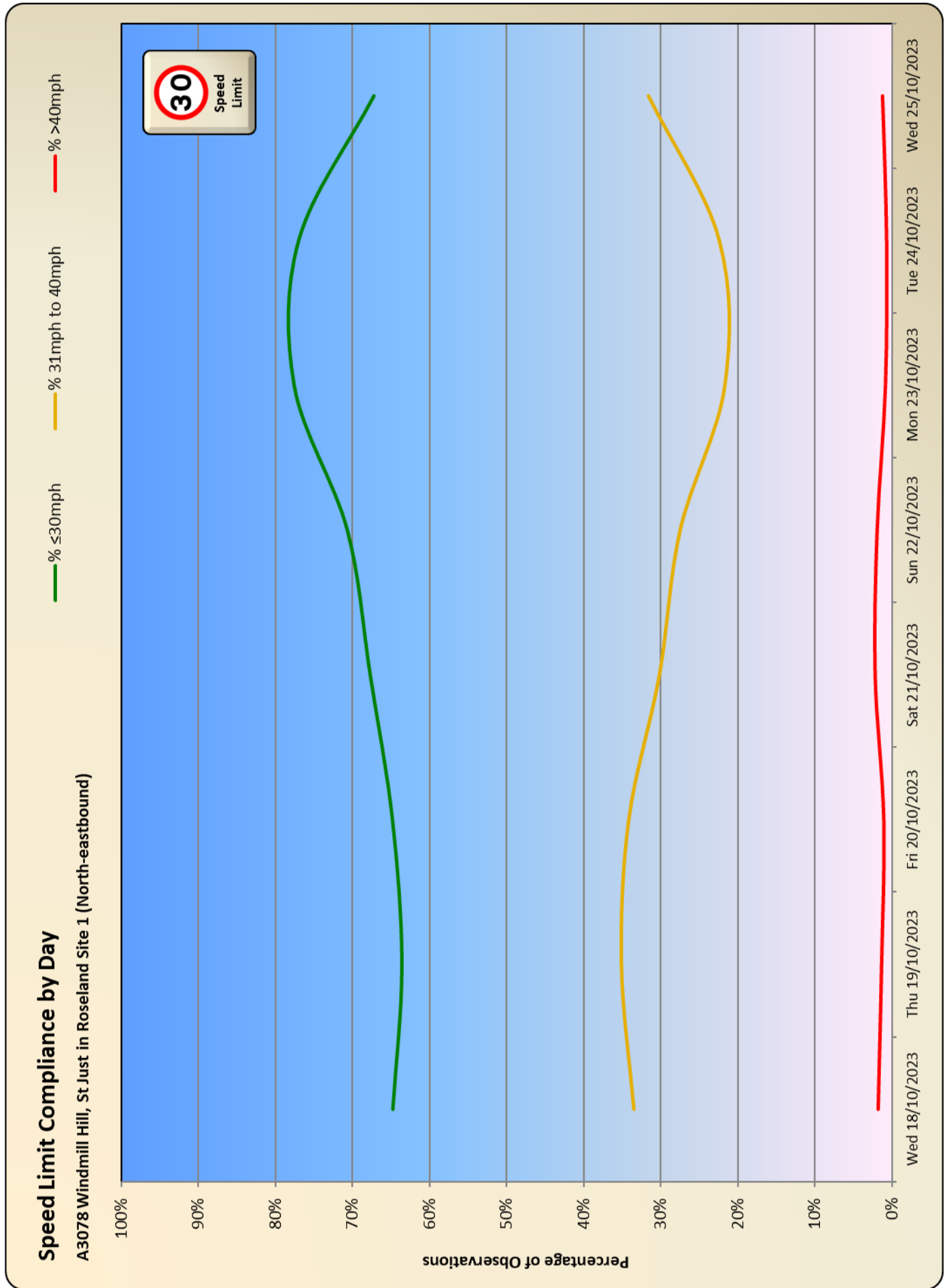
3.2

North-eastbound Mean Speed & 85%ile Speeds by Day Chart



3.3

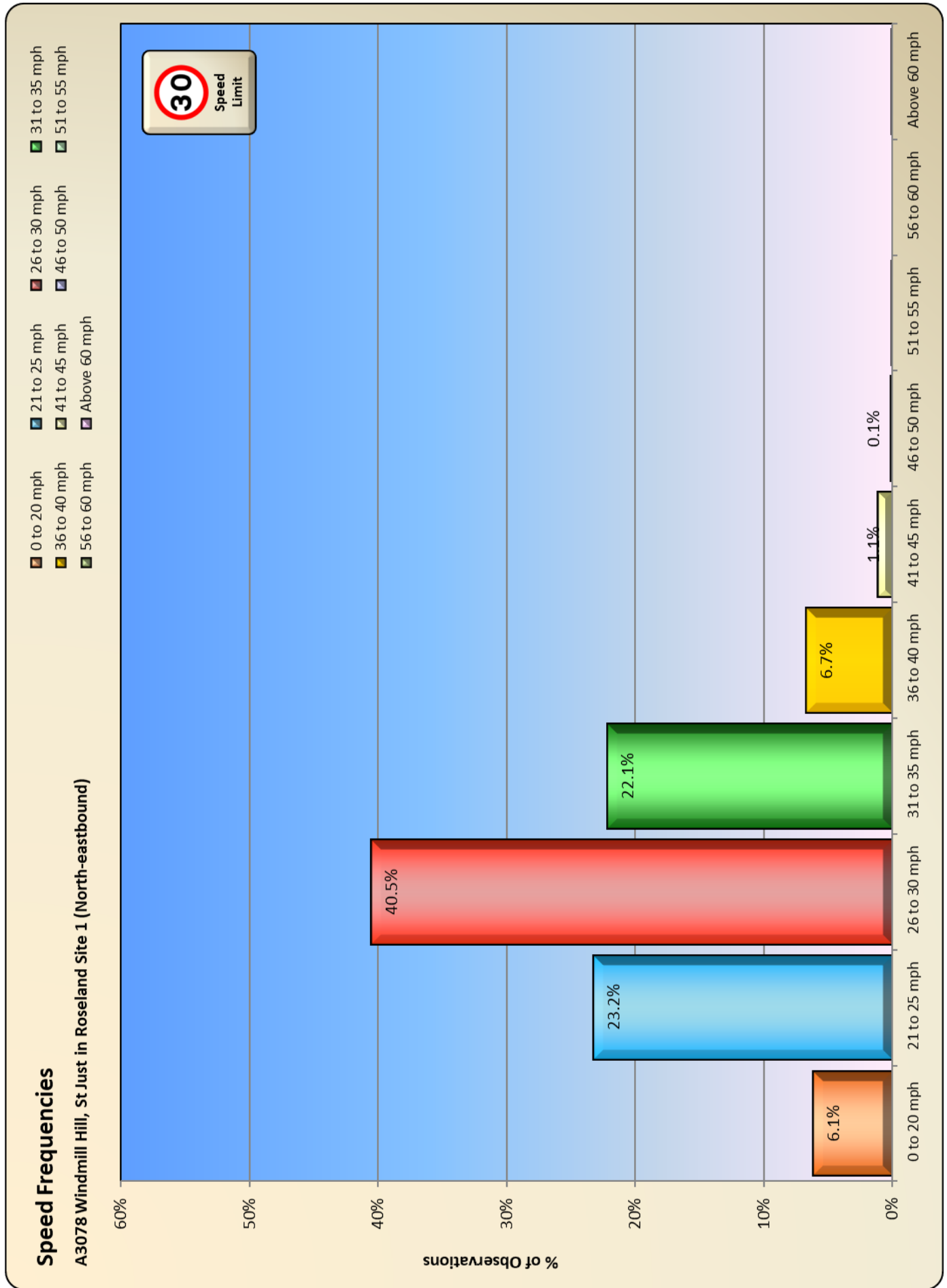
North-eastbound Speed Limit Compliance by Day Chart




3.4 North-eastbound Speed Frequencies by Day Table

Date	No ≤ 30			No > 30							Total
	0 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	Above 60	
Wed 18/10/2023	21	108	207	144	30	8	1	0	0	0	519
Thu 19/10/2023	47	218	424	287	94	12	1	1	0	0	1,084
Fri 20/10/2023	56	223	422	281	89	10	0	1	0	0	1,082
Sat 21/10/2023	36	178	391	200	70	17	2	0	0	0	894
Sun 22/10/2023	47	214	345	178	58	12	4	0	0	0	858
Mon 23/10/2023	100	316	460	187	58	9	0	0	0	0	1,130
Tue 24/10/2023	108	326	507	224	50	6	1	0	0	1	1,223
Wed 25/10/2023	18	54	100	59	22	3	0	0	0	0	256
Total	433	1,637	2,856	1,560	471	77	9	2	0	1	7,046
% of Total	6.1%	23.2%	40.5%	22.1%	6.7%	1.1%	0.1%	0.0%	0.0%	0.0%	100.0%

3.5 North-eastbound Speed Frequencies Chart

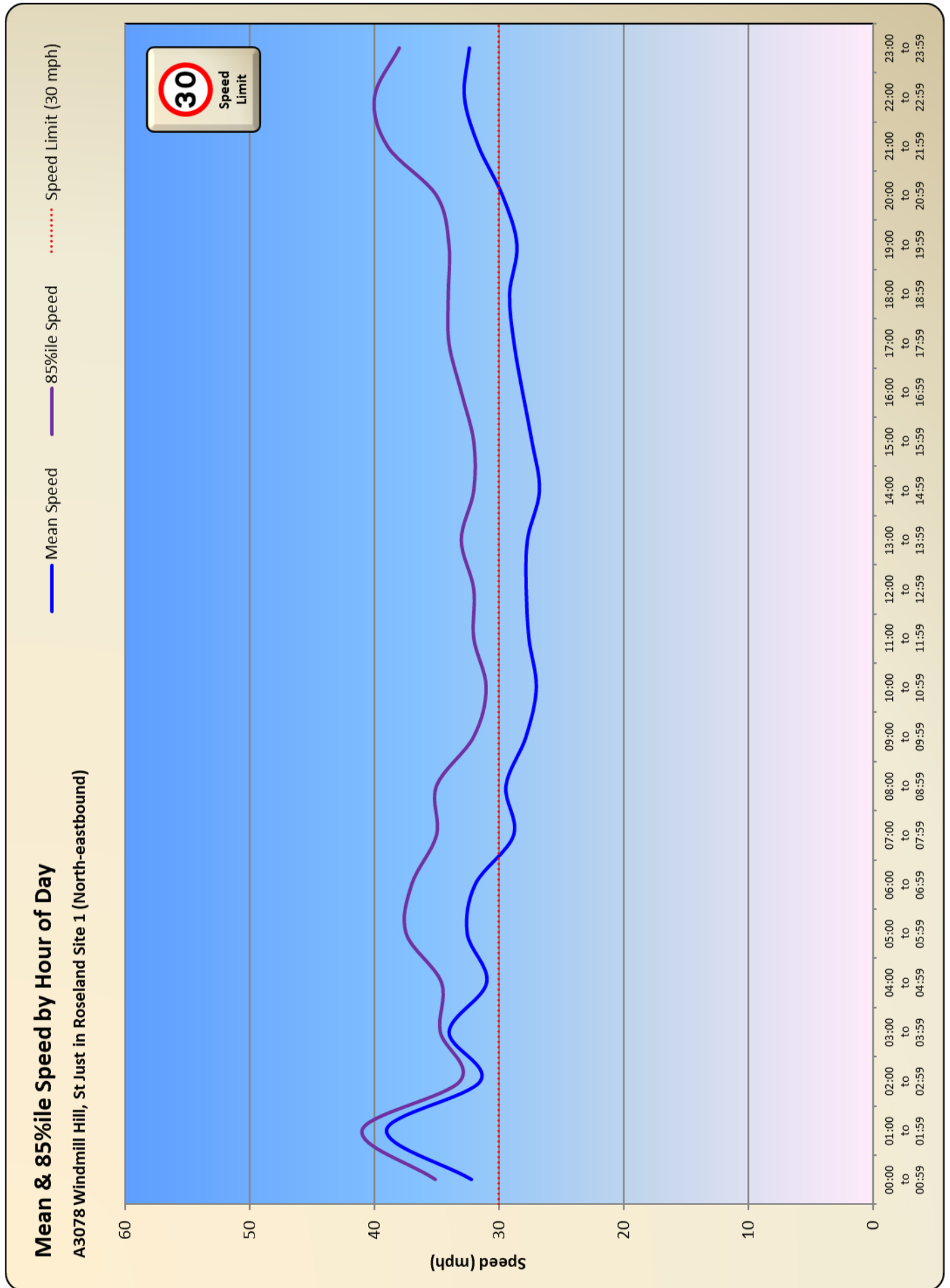


3.6 North-eastbound Hour of Day Summary Table

Hour of Day	Mean Speed	85%ile Speed	Standard Deviation	No ≤ 	% 31 mph to 40 mph	% >40 mph
00:00 to 00:59	32.2	35	3.8	28.6%	71.4%	0.0%
01:00 to 01:59	39.0	41	3.4	0.0%	50.0%	50.0%
02:00 to 02:59	31.5	33	2.1	25.0%	75.0%	0.0%
03:00 to 03:59	34.0	35	1.4	0.0%	100.0%	0.0%
04:00 to 04:59	31.0	35	4.1	60.0%	40.0%	0.0%
05:00 to 05:59	32.6	37	4.8	22.2%	77.8%	0.0%
06:00 to 06:59	31.9	37	5.4	36.7%	57.8%	5.6%
07:00 to 07:59	28.8	35	6.1	62.3%	34.8%	2.9%
08:00 to 08:59	29.5	35	5.4	58.2%	40.2%	1.6%
09:00 to 09:59	27.9	32	4.8	73.8%	25.3%	0.9%
10:00 to 10:59	27.0	31	4.6	78.9%	20.8%	0.3%
11:00 to 11:59	27.6	32	4.7	73.7%	25.9%	0.4%
12:00 to 12:59	27.8	32	4.9	73.2%	25.9%	0.9%
13:00 to 13:59	27.7	33	4.8	75.2%	24.4%	0.5%
14:00 to 14:59	26.8	32	4.9	78.6%	20.9%	0.5%
15:00 to 15:59	27.4	32	4.9	75.3%	24.5%	0.1%
16:00 to 16:59	28.1	33	5.0	68.3%	31.0%	0.7%
17:00 to 17:59	28.8	34	5.1	63.1%	35.7%	1.2%
18:00 to 18:59	29.2	34	5.6	60.6%	37.2%	2.2%
19:00 to 19:59	28.6	34	5.8	68.0%	28.4%	3.6%
20:00 to 20:59	29.7	35	5.7	61.5%	33.7%	4.8%
21:00 to 21:59	31.6	39	6.3	47.7%	43.2%	9.1%
22:00 to 22:59	32.8	40	6.7	43.5%	43.5%	12.9%
23:00 to 23:59	32.4	38	5.2	44.8%	51.7%	3.4%

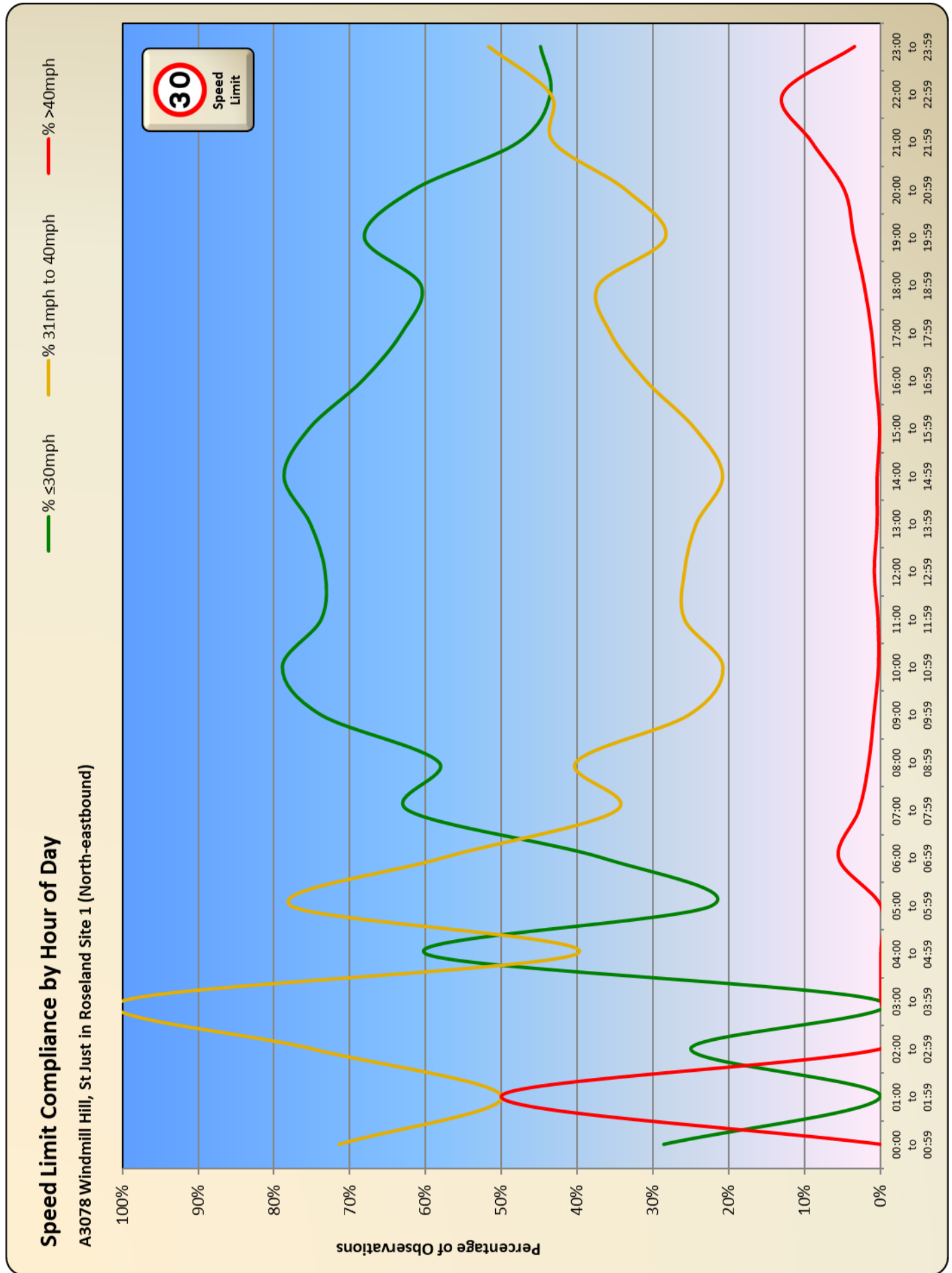
3.7

North-eastbound Mean Speed & 85%ile Speed by Hour of Day Chart




3.8

North-eastbound Speed Limit Compliance by Hour of Day Chart

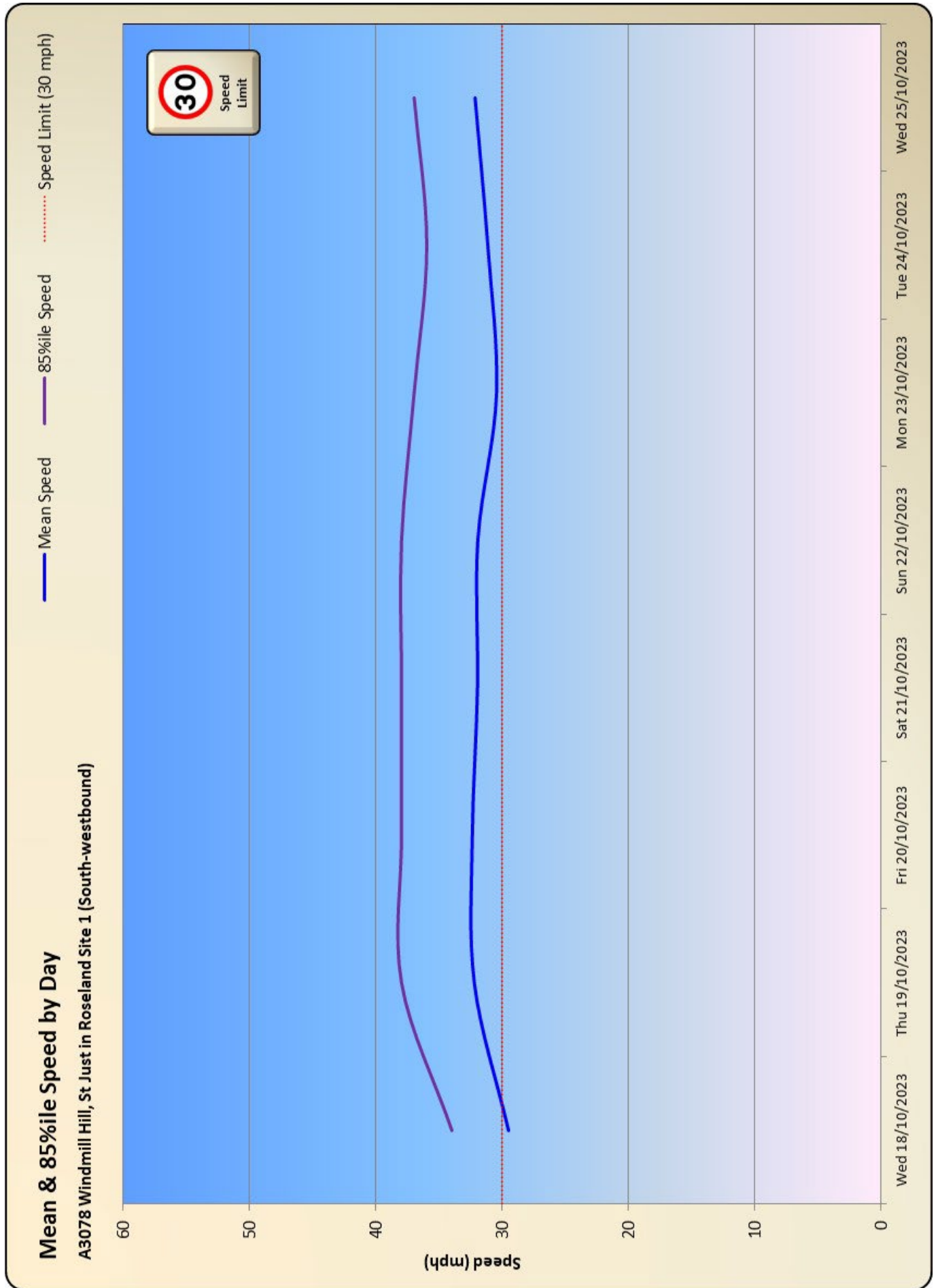


4 South-westbound Detailed Statistics

4.1 South-westbound Daily Summary Table

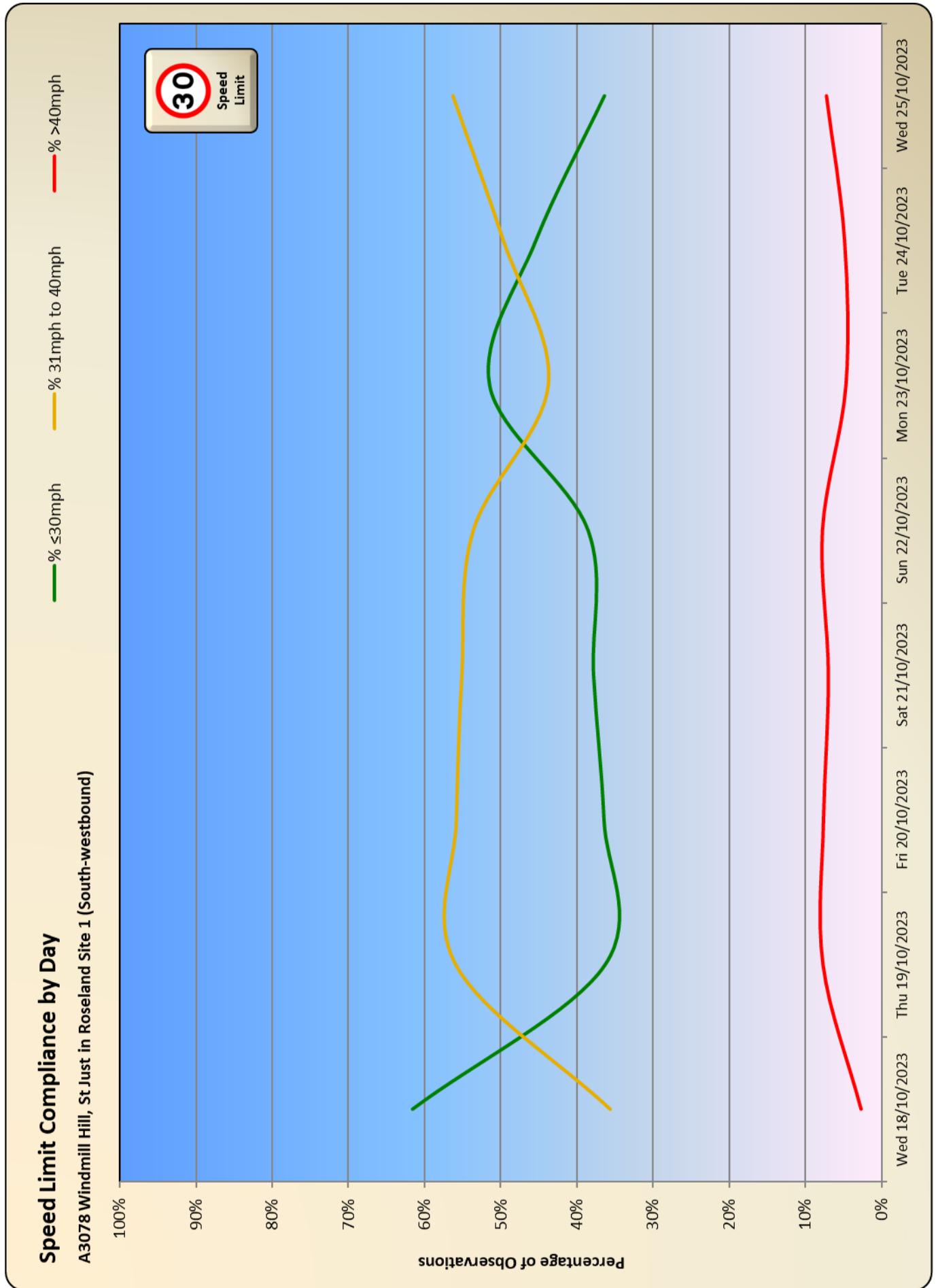
Date	Mean Speed	85%ile Speed	Standard Deviation	$N_e \leq$ 	% 31 mph to 40 mph	% >40 mph
Wed 18/10/2023	29.5	34	5.1	61.6%	35.7%	2.7%
Thu 19/10/2023	32.2	38	6.0	36.3%	55.9%	7.7%
Fri 20/10/2023	32.4	38	5.7	36.5%	55.8%	7.7%
Sat 21/10/2023	32.0	38	6.3	37.9%	55.1%	7.0%
Sun 22/10/2023	32.0	38	6.2	38.6%	53.6%	7.8%
Mon 23/10/2023	30.5	37	5.9	51.5%	43.8%	4.7%
Tue 24/10/2023	31.2	36	5.7	45.4%	49.7%	4.9%
Wed 25/10/2023	32.2	37	6.3	36.4%	56.3%	7.3%

4.2 South-westbound Mean Speed & 85%ile Speed by Day Chart



4.3

South-westbound Speed Limit Compliance by Day Chart

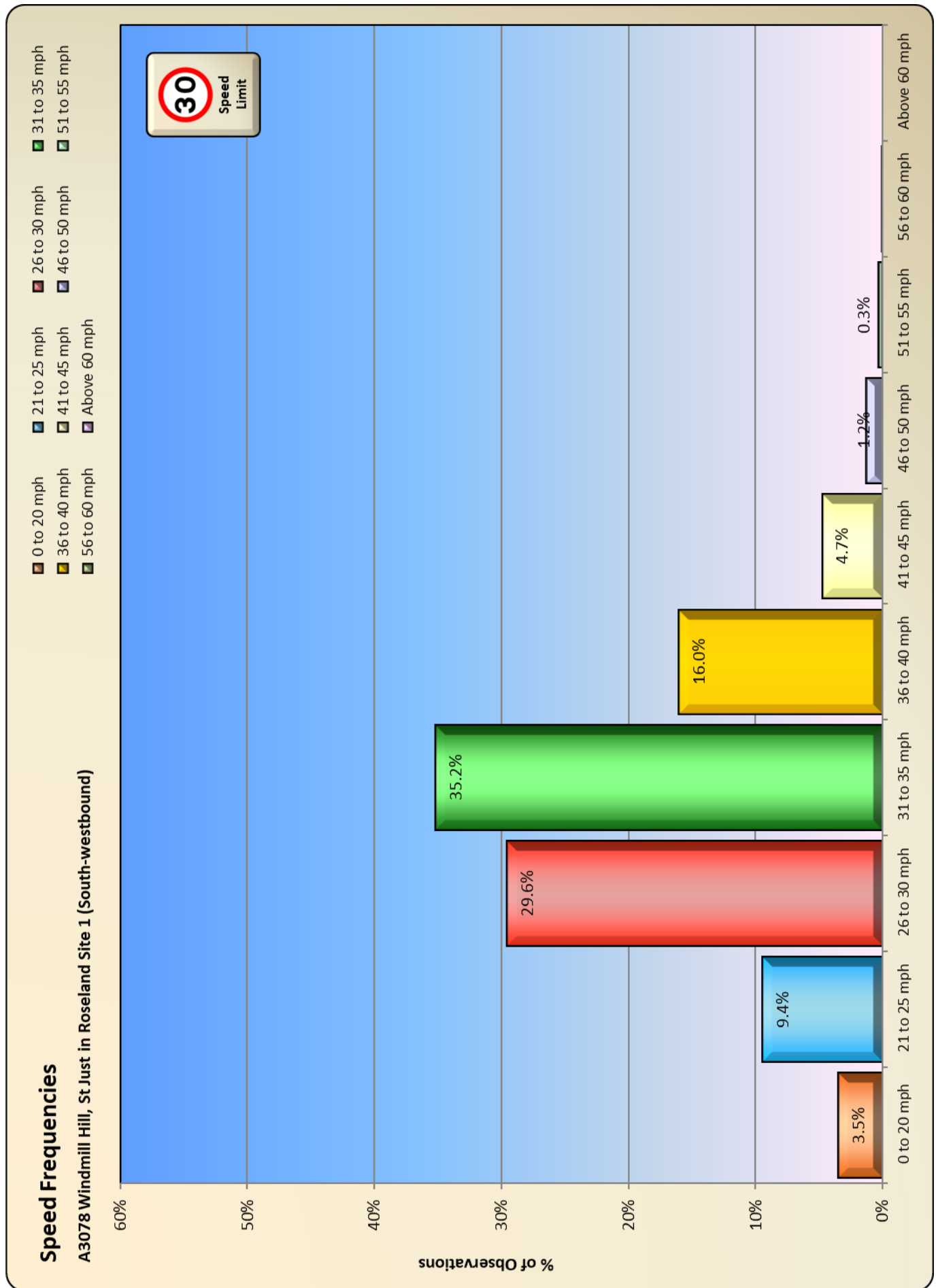


4.4 South-westbound Speed Frequencies by Day Table

Date	No ≤ 30			No > 30							Total
	0 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	Above 60	
Wed 18/10/2023	18	88	208	139	43	12	1	1	0	0	510
Thu 19/10/2023	36	88	279	412	209	67	12	6	1	0	1,110
Fri 20/10/2023	31	80	317	439	216	72	14	4	0	0	1,173
Sat 21/10/2023	45	67	265	348	201	55	11	4	0	0	996
Sun 22/10/2023	27	69	245	340	134	51	16	2	0	0	884
Mon 23/10/2023	45	173	380	351	158	42	11	2	0	0	1,162
Tue 24/10/2023	50	95	419	449	168	42	16	2	1	0	1,242
Wed 25/10/2023	6	36	68	116	54	9	11	1	1	0	302
Total	258	696	2,181	2,594	1,183	350	92	22	3	0	7,379
% of Total	3.5%	9.4%	29.6%	35.2%	16.0%	4.7%	1.2%	0.3%	0.0%	0.0%	100.0%

4.5

South-westbound Speed Frequencies Chart

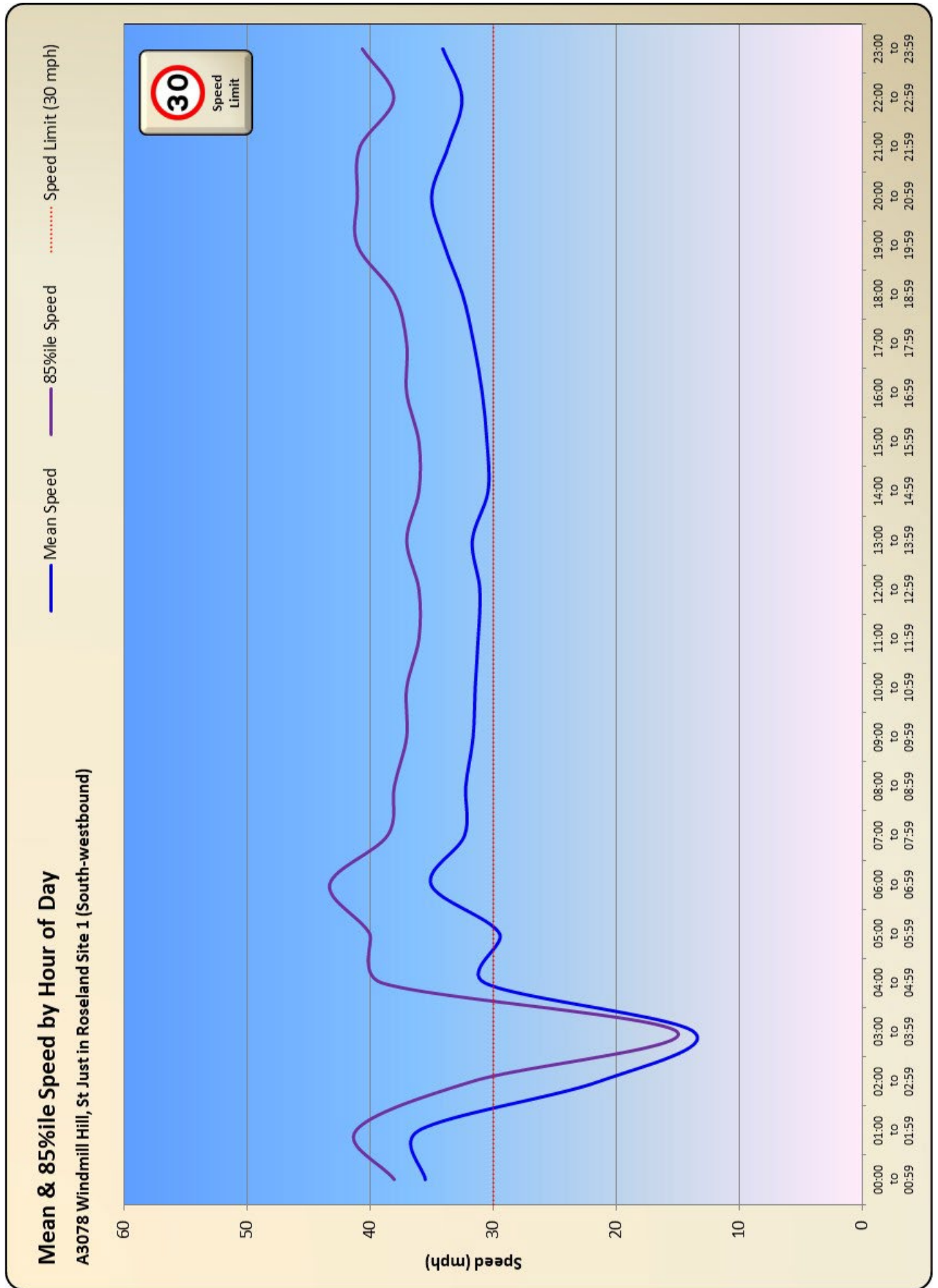


4.6 South-westbound Hour of Day Summary Table

Hour of Day	Mean Speed	85 th ile Speed	Standard Deviation	$N_e \leq \text{30}$	% 31 mph to 40 mph	% >40 mph
00:00 to 00:59	35.5	38	5.4	20.0%	70.0%	10.0%
01:00 to 01:59	36.0	41	6.1	25.0%	50.0%	25.0%
02:00 to 02:59	21.3	32	16.2	66.7%	33.3%	0.0%
03:00 to 03:59	13.7	15	1.3	100.0%	0.0%	0.0%
04:00 to 04:59	30.7	39	10.6	50.0%	33.3%	16.7%
05:00 to 05:59	29.5	40	10.0	46.2%	41.0%	12.8%
06:00 to 06:59	35.0	43	8.5	26.7%	46.5%	26.7%
07:00 to 07:59	32.3	39	6.5	36.5%	55.0%	8.6%
08:00 to 08:59	32.2	38	6.1	40.6%	49.9%	9.5%
09:00 to 09:59	31.6	37	6.2	39.3%	53.5%	7.2%
10:00 to 10:59	31.4	37	6.0	40.2%	53.6%	6.2%
11:00 to 11:59	31.2	36	5.1	41.2%	56.0%	2.8%
12:00 to 12:59	31.1	36	5.3	44.3%	52.1%	3.6%
13:00 to 13:59	31.7	37	5.1	41.3%	54.3%	4.3%
14:00 to 14:59	30.4	36	5.2	51.7%	45.2%	3.2%
15:00 to 15:59	30.5	36	5.4	50.0%	47.5%	2.5%
16:00 to 16:59	30.9	37	5.8	50.3%	45.0%	4.7%
17:00 to 17:59	31.6	37	6.0	43.7%	49.1%	7.2%
18:00 to 18:59	32.5	38	5.9	35.7%	56.8%	7.5%
19:00 to 19:59	33.9	41	6.2	28.4%	55.8%	15.9%
20:00 to 20:59	35.0	41	6.5	26.4%	55.5%	18.2%
21:00 to 21:59	33.7	41	6.6	33.7%	50.6%	15.7%
22:00 to 22:59	32.5	38	5.2	37.8%	56.8%	5.4%
23:00 to 23:59	34.1	41	7.2	29.7%	54.1%	16.2%

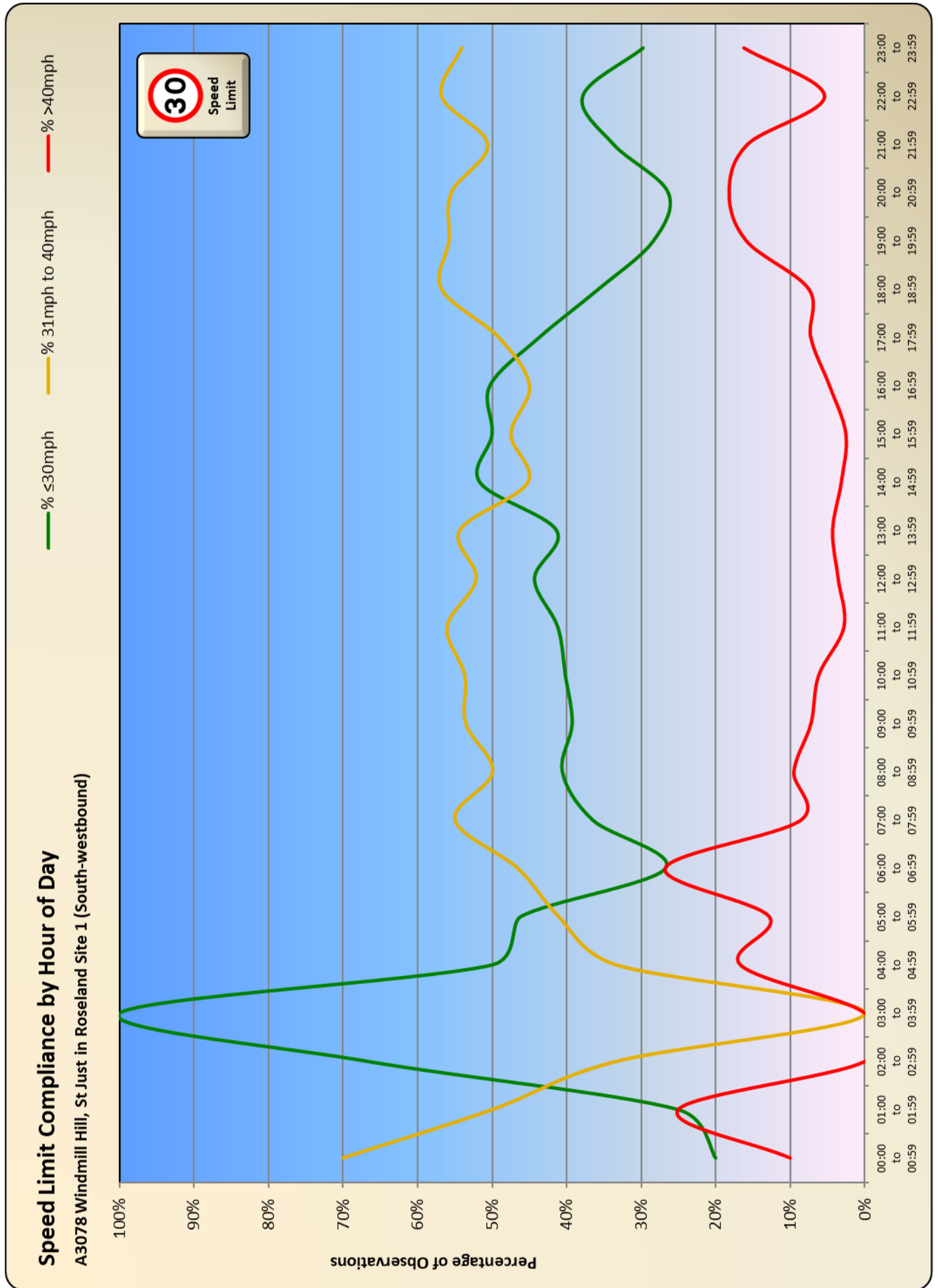
4.7

South-westbound Mean Speed & 85%ile Speed by Hour of Day Chart



4.8

South-westbound Speed Limit Compliance by Hour of Day Chart

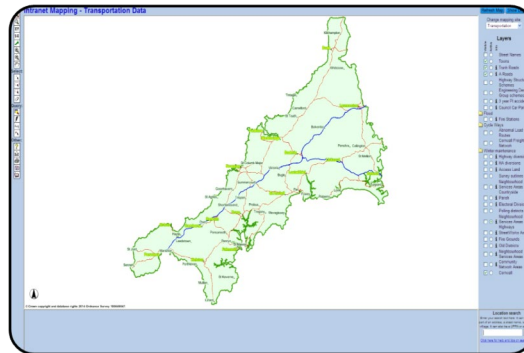


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Infrastructure Design



Speed Analysis
RadarClass is part of the
Infrastructure Design
Speed Analysis Programme



View the SpeedVISOR & RadarClass layer on Intranet mapping at

<http://cornwallcouncilintranet.cc.cornwallonline.net/default.aspx?page=1480>

(Cormac and Cornwall Council employees only)

View the locations of all SpeedVISOR and RadarClass deployments since 2002 on an interactive map of Cornwall

To request a deployment and/or obtain a quote for
SpeedVISOR, RadarClass or Hand-held Radar deployment
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