

BDC/035/03/3

Braintree Local Plan

Preferred Option Assessment

Highways/Transport Planning

March 2017



Appendix G: Junction Modelling Results

The following tables outline the results from the junction models run using both Junctions 9 and LinSig. There are one or more results tables for each junction. The first table for each junction is a do nothing scenario for the junction i.e. the existing layout with the forecast traffic growth for 2033. Some junctions have been modelled with the all movements junction on the A12 at junction 24 and therefore a table depicting the result of that model run is included. Some junctions have been modelled with mitigation applied to them and the model results of these are also included. Where mitigation has been applied a sentence describing this has been included.

A131 – London Road, Great Notley

Junction arms:

A – A131 Great Notley Bypass

B – London Road north-east

C – London Road south-east

D – A131 Great Leighs Bypass

Existing Layout

		A	B	C	D
AM					
Base Year	RFC	0.36	0.57	0.16	0.29
	Delay(s)	2.34	5.79	4.59	2.01
Scenario 1	RFC	0.68	0.91	0.24	0.69
	Delay(s)	5.09	27.94	7.81	4.58
Scenario 2	RFC	0.70	0.92	0.25	0.70
	Delay(s)	5.43	31.65	8.06	4.75
Scenario 3	RFC	0.72	0.93	0.25	0.71
	Delay(s)	5.81	36.32	8.32	4.95
PM					
Base Year	RFC	0.39	0.31	0.22	0.50
	Delay(s)	2.97	3.29	3.51	2.6
Scenario 1	RFC	1.02	0.52	0.35	0.81
	Delay(s)	60.21	6.23	6.29	7.11
Scenario 2	RFC	1.06	0.52	0.36	0.82
	Delay(s)	127.25	6.26	6.30	7.59
Scenario 3	RFC	1.10	0.52	0.36	0.84
	Delay(s)	229.08	6.20	6.28	8.14

Background growth only

		A	B	C	D
AM					
Base Year	RFC	0.36	0.57	0.16	0.29
	Delay(s)	2.34	5.79	4.59	2.01
Background Growth	RFC	0.44	0.55	0.16	0.33
	Delay(s)	2.77	5.65	4.78	2.1
PM					
Base Year	RFC	0.39	0.31	0.22	0.50
	Delay(s)	2.97	3.29	3.51	2.6
Background Growth	RFC	0.47	0.28	0.24	0.62
	Delay(s)	3.66	3.31	3.8	3.5

Mitigation Layout – Widening of A131N and London Road NE approaches

		A	B	C	D
AM					
Base Year	RFC	0.36	0.57	0.16	0.29
	Delay(s)	2.34	5.79	4.59	2.01
Scenario 1	RFC	0.54	0.81	0.24	0.69
	Delay(s)	2.80	13.08	7.92	4.59
Scenario 2	RFC	0.56	0.82	0.25	0.70
	Delay(s)	2.90	13.98	8.19	4.76
Scenario 3	RFC	0.57	0.83	0.25	0.71
	Delay(s)	3.00	15.03	8.48	4.96
PM					
Base Year	RFC	0.39	0.31	0.22	0.50
	Delay(s)	2.97	3.29	3.51	2.6
Scenario 1	RFC	0.78	0.47	0.36	0.81
	Delay(s)	7.12	4.98	6.62	7.11
Scenario 2	RFC	0.81	0.48	0.37	0.82
	Delay(s)	8.10	5.08	6.80	7.59
Scenario 3	RFC	0.84	0.48	0.37	0.84
	Delay(s)	9.41	5.20	6.99	8.14

Aetheric Road – Pierrefitte Way, Braintree

Junction arms:
 A – Aetheric Road
 B – Rayne Road east
 C – Pierrefitte Way
 D – London Road

Existing Layout

		A – BCD	B – ACD	C - AD	C – B	D -ABC
AM						
Base Year	Deg. Of Sat	104.2%	8.6%	99.6%	74%	104%
	Delay / PCU	173.2	42	133.8	75.3	173.2
Scenario 1	Deg. Of Sat	91.4%	8.4%	87.1%	75%	92.1%
	Delay / PCU	44.7	41.4	85.3	81	75.3
Scenario 2	Deg. Of Sat	93.3%	8.4%	88.1%	75%	93.3%
	Delay / PCU	48.1	41.4	87.3	81	79.7
Scenario 3	Deg. Of Sat	98.4%	8.6%	95.9%	80.4%	97.8%
	Delay / PCU	68.8	40.2	120.8	91.4	104.6
PM						
Base Year	Deg. Of Sat	95.3%	48.9%	94.2%	46.6%	94%
	Delay / PCU	94.1	53.5	89.1	51.6	62
Scenario 1	Deg. Of Sat	104.6%	53.8%	103.3%	48.4%	99.7%
	Delay / PCU	144.1	71.2	162.7	50	145.7
Scenario 2	Deg. Of Sat	105.7%	53.4%	105%	49.1%	106.2%
	Delay / PCU	159.4	71.4	186.3	50.2	226.7
Scenario 3	Deg. Of Sat	108.2%	53.3%	106.2%	49.9%	108.1%
	Delay / PCU	197.6	71.3	204	50.4	252.3

Background growth only

		A – BCD	B – ACD	C – AD	C – B	D – ABC
AM						
Base Year	Deg. Of Sat	104.2%	8.6%	99.6%	74%	104%
	Delay / PCU	173.2	42	133.8	75.3	173.2
Background Growth	Deg. Of Sat	76.2%	7.5%	74.2%	67.4%	75.2%
	Delay / PCU	37.1	35.8	68.4	71.8	48.1
PM						
Base Year	Deg. Of Sat	95.3%	48.9%	94.2%	46.6%	94%
	Delay / PCU	94.1	53.5	89.1	51.6	62
Background Growth	Deg. Of Sat	70.2%	49.7%	70.9%	43.3%	70.6%
	Delay / PCU	34.5	62.5	50.9	46.7	57.0

Broad Road, Braintree

Junction arms:
 A – A131 north
 B – A131 south
 C – Broad Road

Existing Layout

		A	B	C
AM				
Base Year	RFC	0.74	0.51	0.38
	Delay(s)	8.58	4.85	5.61
Scenario 1	RFC	0.63	1.33	0.35
	Delay(s)	6.54	952.23	6.40
Scenario 2	RFC	0.66	OC	0.35
	Delay(s)	6.98	OC	6.33
Scenario 3	RFC	0.69	OC	0.35
	Delay(s)	7.75	OC	6.22
PM				
Base Year	RFC	0.54	0.51	0.61
	Delay(s)	5.22	4.15	9.85
Scenario 1	RFC	1.20	0.84	1.08
	Delay(s)	327.35	12.46	145.96
Scenario 2	RFC	1.26	0.85	1.11
	Delay(s)	483.38	13.37	180.63
Scenario 3	RFC	1.32	0.87	1.13
	Delay(s)	643.91	14.33	230.93

Background growth only

		A	B	C
AM				
Base Year	RFC	0.74	0.51	0.38
	Delay(s)	8.58	4.85	5.61
Background Growth	RFC	0.42	0.49	0.25
	Delay(s)	4.08	4.83	4.69
PM				
Base Year	RFC	0.54	0.51	0.61
	Delay(s)	5.22	4.15	9.85
Background Growth	RFC	0.57	0.50	0.58
	Delay(s)	5.47	4.07	9.05

Mitigation Layout – Left turn slips on all arms

		A	B	C
AM				
Base Year	RFC	0.74	0.51	0.38
	Delay(s)	8.58	4.85	5.61
Scenario 1	RFC	0.44	0.66	0.36
	Delay(s)	4.03	6.21	6.67
Scenario 2	RFC	0.46	0.71	0.39
	Delay(s)	4.20	7.34	7.33
Scenario 3	RFC	0.49	0.77	0.41
	Delay(s)	4.48	9.28	8.12
PM				
Base Year	RFC	0.54	0.51	0.61
	Delay(s)	5.22	4.15	9.85
Scenario 1	RFC	0.28	0.50	0.92
	Delay(s)	3.54	3.41	38.25
Scenario 2	RFC	0.28	0.51	0.95
	Delay(s)	3.57	3.46	47.17
Scenario 3	RFC	0.28	0.52	0.97
	Delay(s)	3.6	3.51	56.95

Church Lane – Bradford Street, Braintree

Junction arms:

A – B1053 Church Lane

B – Convent Hill

C – Bradford Street

Existing Layout

		A	B	C
AM				
Base Year	RFC	0.80	1.00	0.62
	Delay(s)	23.90	69.86	8.72
Scenario 1	RFC	0.67	OC	0.55
	Delay(s)	15.04	OC	8.91
Scenario 2	RFC	0.69	OC	0.56
	Delay(s)	15.85	OC	9.12
Scenario 3	RFC	0.71	OC	0.57
	Delay(s)	16.79	OC	9.37
PM				
Base Year	RFC	0.99	0.56	0.93
	Delay(s)	78.21	8.82	32.58
Scenario 1	RFC	OC	0.89	1.31
	Delay(s)	OC	35.87	823.98
Scenario 2	RFC	OC	0.91	1.33
	Delay(s)	OC	40.84	875.61
Scenario 3	RFC	OC	0.92	1.34
	Delay(s)	OC	46.28	921.48

Background growth only

		A	B	C
AM				
Base Year	RFC	0.80	1.00	0.62
	Delay(s)	23.90	69.86	8.72
Background Growth	RFC	0.54	1.32	0.43
	Delay(s)	10.91	979.09	6.30
PM				
Base Year	RFC	0.99	0.56	0.93
	Delay(s)	78.21	8.82	32.58
Background Growth	RFC	OC	0.53	1.04
	Delay(s)	OC	9.06	122.21

Courtauld Road – Coggeshall Road, Braintree

Junction arms:

- 1A – Courtauld Road north
- 1B – Link road north
- 1C – Coggeshall Road west
- 2A – Link road south
- 2B – Coggeshall Road east
- 2C – Courtauld Road south

Existing Layout

		1A	1B	1C	2A	2B	2C
AM							
Base Year	RFC	0.72	0.62	0.78	0.93	0.82	0.41
	Delay(s)	10.59	7.44	25.11	29.66	18.60	8.07
Scenario 1	RFC	0.64	0.71	0.62	0.86	0.83	0.59
	Delay(s)	8.10	9.83	17.07	20.25	21.29	11.35
Scenario 2	RFC	0.64	0.72	0.63	0.86	0.84	0.61
	Delay(s)	8.10	9.99	17.25	20.92	22.22	11.88
Scenario 3	RFC	0.64	0.72	0.63	0.87	0.85	0.63
	Delay(s)	8.10	10.20	17.51	21.64	23.55	12.52
PM							
Base Year	RFC	0.53	0.61	0.96	0.90	0.65	0.67
	Delay(s)	6.56	6.97	64.93	22.55	9.83	12.98
Scenario 1	RFC	0.51	0.87	OC	0.79	0.84	0.89
	Delay(s)	6.11	20.00	OC	13.89	20.84	41.90
Scenario 2	RFC	0.51	0.88	OC	0.79	0.84	0.92
	Delay(s)	6.09	20.84	OC	14.17	21.23	51.14
Scenario 3	RFC	0.51	0.88	OC	0.79	0.84	0.94
	Delay(s)	6.07	21.35	OC	14.55	21.46	62.61

Background growth only

		1A	1B	1C	2A	2B	2C
AM							
Base Year	RFC	0.72	0.62	0.78	0.93	0.82	0.41
	Delay(s)	10.59	7.44	25.11	29.66	18.60	8.07
Background Growth	RFC	0.99	0.66	0.68	1.18	0.86	0.46
	Delay(s)	84.36	8.31	19.47	514.62	26.18	8.60
PM							
Base Year	RFC	0.53	0.61	0.96	0.90	0.65	0.67
	Delay(s)	6.56	6.97	64.93	22.55	9.83	12.98
Background Growth	RFC	0.50	0.83	OC	0.75	0.81	0.75
	Delay(s)	5.90	15.00	OC	11.52	17.70	19.88

Cressing Road – Coggeshall Road, Braintree

Existing Layout

Junction arms:

A – Coggeshall Road W

B – Coggeshall Road E

C – Cressing Road

D – Marlborough Road

EB Link – Eastbound Coggeshall Road Link

WB Link – Westbound Coggeshall Road Link

		A - BCD	WB Link	EB Link	D - ABC	B - ACD	C - ABD
AM							
Base Year 2015	Deg. Of Sat	36.5%	80.5%	40.6%	97.5%	100.2%	100.2%
	Delay / PCU	9.4	30.5	6.6	135	87.9	149.5
Scenario 1 2033	Deg. Of Sat	57.2	81.2	49.4	OC	OC	53.9
	Delay / PCU	11.2	38.7	10.3	OC	OC	44.9
Scenario 2 2033	Deg. Of Sat	60	78.4	52	OC	OC	54.1
	Delay / PCU	11.4	37.9	11.1	OC	OC	45
Scenario 3 2033	Deg. Of Sat	56	72.8	50.2	138.2	139.9	72.1
	Delay / PCU	9.5	24.8	10.6	636.4	601.7	73.2
PM							
Base Year 2015	Deg. Of Sat	73	49.8	70.2	49.5	117	117.6
	Delay / PCU	16.6	26.5	11.2	60.9	325.8	351.5
Scenario 1 2033	Deg. Of Sat	79.9	37.4	77.5	71.1	OC	OC
	Delay / PCU	13.5	11.3	12.5	76.6	OC	OC
Scenario 2 2033	Deg. Of Sat	81.9	36.4	79.3	73	OC	OC
	Delay / PCU	14.3	9.7	13	78.9	OC	OC
Scenario 3 2033	Deg. Of Sat	80.3	45.1	73.3	99	OC	OC
	Delay / PCU	17.5	31.6	10.9	211.1	OC	OC

Background growth only

		A - BCD	WB Link	EB Link	D - ABC	B - ACD	C - ABD
AM							
Base Year 2015	Deg. Of Sat	36.5%	80.5%	40.6%	97.5%	100.2%	100.2%
	Delay / PCU	9.4	30.5	6.6	135	87.9	149.5
Background Growth	Deg. Of Sat	47.9	95.5	39.9	116	122.9	45.9
	Delay / PCU	11.8	63	9.1	352.7	392.3	39.3
PM							
Base Year 2015	Deg. Of Sat	73	49.8	70.2	49.5	117	117.6
	Delay / PCU	16.6	26.5	11.2	60.9	325.8	351.5
Background Growth	Deg. Of Sat	70.6	49.1	69.7	55.7	198	195.4
	Delay / PCU	11.5	25.3	10.6	64	1004.5	995.4

Mitigation Layout – Double mini-roundabout

Junction arms:

1A – Coggeshall Road W

1B – Link road

1C – Crossing Road

2A – Coggeshall Road E

2B – Link road

2C – Marlborough Road

		1A	1B	1C	2A	2B	2C
AM							
Scenario 1	RFC	0.59	1.08	0.05	1.19	0.59	0.52
	Delay(s)	6.96	179.05	4.94	371.92	8.63	11.73
Scenario 2	RFC	0.62	1.08	0.05	1.19	0.62	0.53
	Delay(s)	7.47	183.36	4.91	371.87	9.33	12.39
Scenario 3	RFC	0.64	1.08	0.05	1.19	0.65	0.54
	Delay(s)	7.98	187.71	4.88	371.82	10.02	12.99
PM							
Scenario 1	RFC	0.94	0.98	0.45	0.98	1.13	0.33
	Delay(s)	41.93	63.66	9.44	63.91	259.03	15.01
Scenario 2	RFC	0.97	0.98	0.45	0.98	1.15	0.33
	Delay(s)	54.35	64.23	9.42	63.91	291.76	15.04
Scenario 3	RFC	0.99	0.98	0.45	0.98	1.17	0.33
	Delay(s)	72.96	64.07	9.42	63.91	322.16	15.07

Cuckoo Way, Great Notley

Junction arms:

A – A131 north

B – Cuckoo Way

C – A131 south

D – New arm for development

Existing Layout

		A	B	C	D
AM					
Base Year	RFC	0.31	0.31	0.53	N/A
	Delay(s)	2.08	3.07	4.76	N/A
Scenario 1	RFC	0.79	0.58	OC	0.32
	Delay(s)	7.07	7.72	OC	20.00
Scenario 2	RFC	0.81	0.60	OC	0.34
	Delay(s)	7.56	8.07	OC	21.50
Scenario 3	RFC	0.81	0.60	OC	0.35
	Delay(s)	7.67	8.36	OC	21.96
PM					
Base Year	RFC	0.37	0.31	0.51	N/A
	Delay(s)	2.22	2.92	4.25	N/A
Scenario 1	RFC	0.86	0.54	1.03	0.78
	Delay(s)	10.82	7.67	94.78	39.88
Scenario 2	RFC	0.90	0.57	1.09	0.80
	Delay(s)	15.10	8.58	150.46	44.78
Scenario 3	RFC	0.94	0.60	1.14	0.82
	Delay(s)	22.98	9.66	214.39	48.83

Background growth only

		A	B	C	D
AM					
Base Year	RFC	0.31	0.31	0.53	N/A
	Delay(s)	2.08	3.07	4.76	N/A
Background Growth	RFC	0.41	0.36	0.62	N/A
	Delay(s)	2.52	3.64	6.09	N/A
PM					
Base Year	RFC	0.37	0.31	0.51	N/A
	Delay(s)	2.22	2.92	4.25	N/A
Background Growth	RFC	0.40	0.29	0.55	N/A
	Delay(s)	2.32	2.98	4.79	N/A

Mitigation Layout – Widening of A131 approaches

		A	B	C	D
AM					
Base Year	RFC	0.31	0.31	0.53	N/A
	Delay(s)	2.08	3.07	4.76	N/A
Scenario 1	RFC	0.75	0.65	0.92	0.18
	Delay(s)	5.62	10.25	19.74	9.55
Scenario 2	RFC	0.78	0.68	0.95	0.20
	Delay(s)	6.41	11.69	28.17	10.26
Scenario 3	RFC	0.80	0.71	0.98	0.21
	Delay(s)	7.38	13.38	42.18	10.93
PM					
Base Year	RFC	0.37	0.31	0.51	N/A
	Delay(s)	2.22	2.92	4.25	N/A
Scenario 1	RFC	0.73	0.54	0.60	0.40
	Delay(s)	4.89	7.83	4.22	7.86
Scenario 2	RFC	0.77	0.58	0.64	0.42
	Delay(s)	5.86	8.99	4.67	8.51
Scenario 3	RFC	0.81	0.62	0.67	0.44
	Delay(s)	7.22	10.50	5.21	9.24

Deanery Hill, Braintree

Junction arms:
 A – Deanery Hill west
 B – Deanery Hill east
 C – Panfield Lane

Existing Layout

		B-C	B-A	C-AB
AM				
Base Year	RFC	0.16	0.16	0.30
	Delay(s)	6.89	10.99	8.19
Scenario 1	RFC	OC	OC	OC
	Delay(s)	OC	OC	OC
Scenario 2	RFC	OC	OC	OC
	Delay(s)	OC	OC	OC
Scenario 3	RFC	OC	OC	OC
	Delay(s)	OC	OC	OC
PM				
Base Year	RFC	0.16	0.21	0.21
	Delay(s)	7.03	9.78	7.04
Scenario 1	RFC	OC	OC	OC
	Delay(s)	OC	OC	OC
Scenario 2	RFC	OC	OC	OC
	Delay(s)	OC	OC	OC
Scenario 3	RFC	OC	OC	OC
	Delay(s)	OC	OC	OC

Background growth only

		B-C	B-A	C-AB
AM				
Base Year	RFC	0.16	0.16	0.30
	Delay(s)	6.89	10.99	8.19
Background Growth	RFC	0.08	0.13	0.34
	Delay(s)	8.78	15.5	11.6
PM				
Base Year	RFC	0.16	0.21	0.21
	Delay(s)	7.03	9.78	7.04
Background Growth	RFC	0.13	0.21	0.18
	Delay(s)	7.09	9.89	6.64

Mitigation Layout - Signalised

		A - BC	B - AC	C - AB
AM				
Scenario 1	Deg. Of Sat	63.8%	83%	83.7%
	Delay / PCU	35.5	21	19.5
Scenario 2	Deg. Of Sat	63.6%	85.9%	85.8%
	Delay / PCU	34.5	23.6	21.8
Scenario 3	Deg. Of Sat	63.6%	87.7%	88%
	Delay / PCU	33.6	26.1	24.5
PM				
Scenario 1	Deg. Of Sat	61.5%	59.3%	61.9%
	Delay / PCU	25.1	20.4	17.5
Scenario 2	Deg. Of Sat	64.3%	59.8%	64.9%
	Delay / PCU	25.8	20.7	18.3
Scenario 3	Deg. Of Sat	67.3%	60.2%	67.2%
	Delay / PCU	26.6	20.9	18.9

Mitigation Layout – Mini Roundabout

		A	B	C
AM				
Scenario 1	RFC	0.77	1.04	OC
	Delay(s)	28.4	88.2	OC
Scenario 2	RFC	0.79	1.08	OC
	Delay(s)	29.9	114.8	OC
Scenario 3	RFC	0.80	1.08	OC
	Delay(s)	31.3	130.7	OC
PM				
Scenario 1	RFC	0.94	0.78	0.86
	Delay(s)	63.5	27.4	37.8
Scenario 2	RFC	0.99	0.80	0.91
	Delay(s)	96.1	30.2	51.7
Scenario 3	RFC	1.04	0.82	0.95
	Delay(s)	143.5	32.4	67.9

Marks Farms, Braintree

Junction arms:
 A – A131
 B – A120 east
 C – A120 south
 D – Coggeshall Road

Existing Layout

		A	B	C	D
AM					
Base Year	RFC	0.76	0.61	0.50	0.73
	Delay(s)	17.44	14.86	2.89	10.29
Scenario 1	RFC	0.91	1.15	1.22	OC
	Delay(s)	38.85	330.60	659.14	OC
Scenario 2	RFC	1.27	OC	1.36	OC
	Delay(s)	477.81	OC	1059.37	OC
Scenario 3	RFC	1.31	OC	OC	OC
	Delay(s)	598.37	OC	OC	OC
PM					
Base Year	RFC	0.73	0.54	0.73	0.97
	Delay(s)	16.53	9.42	5.36	44.27
Scenario 1	RFC	0.90	1.15	1.22	OC
	Delay(s)	38.86	330.15	659.19	OC
Scenario 2	RFC	OC	0.92	1.21	OC
	Delay(s)	OC	42.23	616.91	OC
Scenario 3	RFC	OC	0.94	1.30	OC
	Delay(s)	OC	49.87	917.99	OC

Background growth only

		A	B	C	D
AM					
Base Year	RFC	0.76	0.61	0.50	0.73
	Delay(s)	17.44	14.86	2.89	10.29
Background Growth	RFC	0.62	0.56	0.56	0.81
	Delay(s)	12.19	9.55	3.37	14.38
PM					
Base Year	RFC	0.73	0.54	0.73	0.97
	Delay(s)	16.53	9.42	5.36	44.27
Background Growth	RFC	0.84	0.60	0.67	0.78
	Delay(s)	24.98	11.52	4.55	11.67

Effect of A12 J24 All Moves Junction

		A	B	C	D
AM					
Base Year	RFC	0.76	0.61	0.50	0.73
	Delay(s)	17.44	14.86	2.89	10.29
Scenario 1	RFC	0.83	1.14	0.99	OC
	Delay(s)	24.19	317.85	50.36	OC
Scenario 2	RFC	0.87	1.26	1.10	OC
	Delay(s)	29.90	638.30	301.73	OC
Scenario 3	RFC	0.90	1.39	1.22	OC
	Delay(s)	37.05	978.48	644.92	OC
PM					
Base Year	RFC	0.73	0.54	0.73	0.97
	Delay(s)	16.53	9.42	5.36	44.27
Scenario 1	RFC	OC	0.93	0.95	OC
	Delay(s)	OC	46.75	27.33	OC
Scenario 2	RFC	OC	0.93	1.13	OC
	Delay(s)	OC	47.04	128.40	OC
Scenario 3	RFC	OC	0.95	1.13	OC
	Delay(s)	OC	55.52	376.30	OC

Panners Interchange, Braintree/Great Notley

Junction arms:

- 1A – Pods Brook
- 1B – A131 (link)
- 1C – A120 west
- 2A – A131 (link)
- 2B – A120 east
- 2C – B1256
- 2D – A131 south

Existing Layout

		1A	1B	1C	2A	2B	2C	2D
AM								
Base Year	RFC	0.99	0.39	0.75	0.86	1.01	1.00	0.33
	Delay(s)	74.17	2.66	13.18	11	64.44	64.03	3.4
Scenario 1	RFC	OC	0.68	1.08	0.61	1.03	OC	0.76
	Delay(s)	OC	5.02	163.98	4.93	134.29	OC	7.58
Scenario 2	RFC	OC	0.67	1.07	0.61	1.04	OC	0.76
	Delay(s)	OC	4.99	158.11	4.97	164.22	OC	7.61
Scenario 3	RFC	OC	0.67	1.07	0.61	1.05	OC	0.77
	Delay(s)	OC	4.98	156.55	5.02	189.15	OC	7.62
PM								
Base Year	RFC	0.56	0.26	0.97	0.87	0.28	0.16	0.24
	Delay(s)	5.19	2.08	36.89	10.40	5.86	3.35	1.70
Scenario 1	RFC	1.10	0.54	OC	0.73	0.84	0.44	0.46
	Delay(s)	248.30	3.36	OC	6.07	26.15	8.78	2.54
Scenario 2	RFC	1.10	0.54	OC	0.73	0.86	0.44	0.47
	Delay(s)	251.69	3.35	OC	6.16	28.12	9.05	2.56
Scenario 3	RFC	1.10	0.54	OC	0.74	0.87	0.45	0.47
	Delay(s)	252.87	3.35	OC	6.24	30.46	9.41	2.58

Background growth only

		1A	1B	1C	2A	2B	2C	2D
AM								
Base Year	RFC	0.99	0.39	0.75	0.86	1.01	1.00	0.33
	Delay(s)	74.17	2.66	13.18	11	64.44	64.03	3.4
Background Growth	RFC	1.96	0.40	0.70	0.59	0.76	1.15	0.32
	Delay(s)	2766.97	2.74	10.91	3.56	12.55	225.08	2.69
PM								
Base Year	RFC	0.56	0.26	0.97	0.87	0.28	0.16	0.24
	Delay(s)	5.19	2.08	36.89	10.40	5.86	3.35	1.70
Background Growth	RFC	1.19	0.36	1.12	0.78	0.30	0.21	0.33
	Delay(s)	518.41	2.46	389.37	6.86	6.54	4.24	1.79

Mitigation – Widening of Pods Brook & A120 West Approaches

		1A	1B	1C	2A	2B	2C	2D
AM								
Base Year	RFC	0.99	0.39	0.75	0.86	1.01	1.00	0.33
	Delay(s)	74.2	2.7	13.2	11	64.4	64.	3.4
Scenario 1	RFC	1.25	0.62	0.88	0.88	OC	OC	0.74
	Delay(s)	693.1	4.3	30.1	15.5	OC	OC	6.9
Scenario 2	RFC	1.25	0.62	0.88	0.89	OC	OC	0.75
	Delay(s)	691.9	4.3	30.1	16	OC	OC	7
Scenario 3	RFC	1.25	0.62	0.88	0.89	OC	OC	0.75
	Delay(s)	693.4	4.3	30.1	16.5	OC	OC	7
PM								
Base Year	RFC	0.56	0.26	0.97	0.87	0.28	0.16	0.24
	Delay(s)	5.2	2.1	36.9	10.4	5.9	3.4	1.7
Scenario 1	RFC	0.62	0.54	1.31	0.80	0.97	0.47	0.46
	Delay(s)	6.7	3.3	931.5	8	70.2	9	2.6
Scenario 2	RFC	0.62	0.54	1.31	0.80	0.99	0.48	0.47
	Delay(s)	6.7	3.3	913.6	8.2	81	10.3	2.6
Scenario 3	RFC	0.62	0.54	1.31	0.80	1.01	0.48	0.47
	Delay(s)	6.7	3.3	906.3	8.3	96.4	10.8	2.6

Mitigation – Part Signalisation

N.B. Due to the number of links, only the results for the roundabout approaches have been shown.

		1A	1B	1C	2A	2B	2C	2D
AM								
Scenario 1	Degree of Saturation	OC	85.2%	52.7%	56.6%	89.5%	41.3%	OC
	Delay / PCU (s)	OC	36.1	17.1	7.4	34.8	4.7	OC
Scenario 2	Degree of Saturation	OC	91.1	63.9	65.6	94.5	42.2	OC
	Delay / PCU (s)	OC	40	17.6	9.9	47.7	5.1	OC
Scenario 3	Degree of Saturation	OC	87.9	85.2	66.1	107.3	62	OC
	Delay / PCU (s)	OC	35.7	30.9	5.3	172.7	11.7	OC
PM								
Scenario 1	Degree of Saturation	118.9	83.3	81.6	92.6	111.3	45.8	55.3
	Delay / PCU (s)	190.9	32.3	22.2	22.9	225.1	6	7.9
Scenario 2	Degree of Saturation	OC	88	89.4	95.8	109.3	39.9	59.9
	Delay / PCU (s)	OC	36	28.4	31.9	193.9	5.1	9
Scenario 3	Degree of Saturation	OC	88.2	92.6	100.2	133.2	41.8	54.7
	Delay / PCU (s)	OC	34.2	31.9	59.9	496	5.7	6.9

Springwood Drive, Braintree

Junction arms:

A – Springwood Drive north

B – Rayne Road east

C – Pods Brook Road south

D – Rayne Road west

Existing Layout

		A	B	C	D
AM					
Base Year	RFC	0.34	0.69	0.68	0.46
	Delay(s)	6.73	7.88	8.39	7.31
Scenario 1	RFC	0.89	1.01	0.94	0.65
	Delay(s)	35.82	80.06	36.61	15.97
Scenario 2	RFC	0.93	1.03	0.96	0.67
	Delay(s)	49.64	107.43	48.69	17.51
Scenario 3	RFC	0.95	1.04	0.99	0.69
	Delay(s)	60.77	130.29	66.29	19.18
PM					
Base Year	RFC	0.70	0.42	0.52	0.26
	Delay(s)	11.45	4.89	5.00	4.52
Scenario 1	RFC	0.97	0.63	0.89	0.37
	Delay(s)	56.65	8.80	22.89	7.99
Scenario 2	RFC	1.00	0.63	0.93	0.39
	Delay(s)	69.58	8.90	34.75	8.60
Scenario 3	RFC	1.02	0.64	0.98	0.41
	Delay(s)	83.21	9.08	60.04	9.13

Background growth only

		A	B	C	D
AM					
Base Year	RFC	0.34	0.69	0.68	0.46
	Delay(s)	6.73	7.88	8.39	7.31
Background Growth	RFC	0.23	0.62	0.55	0.38
	Delay(s)	5.59	6.75	6.60	6.31
PM					
Base Year	RFC	0.70	0.42	0.52	0.26
	Delay(s)	11.45	4.89	5.00	4.52
Background Growth	RFC	0.81	0.47	0.44	0.20
	Delay(s)	18.54	5.78	4.71	4.21

Mitigation Layout – Enlarged Roundabout

		A	B	C	D
AM					
Base Year	RFC	0.20	0.51	0.49	0.36
	Delay(s)	3.9	4.3	3.8	4.8
Scenario 1	RFC	0.72	0.80	0.75	0.55
	Delay(s)	12	14.3	7.7	9
Scenario 2	RFC	0.75	0.82	0.77	0.56
	Delay(s)	13.4	16	8.4	9.5
Scenario 3	RFC	0.77	0.83	0.79	0.58
	Delay(s)	14.4	16.9	9.1	10.3
PM					
Base Year	RFC	0.50	0.34	0.31	0.20
	Delay(s)	5	3.6	2.7	3.2
Scenario 1	RFC	0.63	0.49	0.64	0.32
	Delay(s)	7.1	4.9	5.6	5.3
Scenario 2	RFC	0.65	0.49	0.66	0.33
	Delay(s)	7.3	5	6.1	5.6
Scenario 3	RFC	0.66	0.50	0.70	0.34
	Delay(s)	7.6	5	6.7	5.9

A120 – Colne Road, Coggeshall

Junction arms:
 A – A120 east
 B – Colne Road south
 C – A120 west
 D – Colne Road north

Existing Layout

		B-C	B-AD	A-D	D-A	D-BC	C-B
AM							
Base Year	RFC	0.23	0.51	0.33	0.30	0.79	0.24
	Delay(s)	13.23	23.20	11.02	22.81	38.67	13.34
Scenario 1	RFC	OC	OC	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC	OC	OC
Scenario 2	RFC	OC	OC	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC	OC	OC
Scenario 3	RFC	OC	OC	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC	OC	OC
PM							
Base Year	RFC	0.20	0.50	0.20	0.30	0.63	0.09
	Delay(s)	11.44	19.81	11.72	14.40	24.88	8.90
Scenario 1	RFC	OC	OC	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC	OC	OC
Scenario 2	RFC	OC	OC	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC	OC	OC
Scenario 3	RFC	OC	OC	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC	OC	OC

Background growth only

		B-C	B-AD	A-D	D-A	D-BC	C-B
AM							
Base Year	RFC	0.23	0.51	0.33	0.30	0.79	0.24
	Delay(s)	13.23	23.20	11.02	22.81	38.67	13.34
Background Growth	RFC	0.20	0.81	0.70	1.00	1.01	0.37
	Delay(s)	21.37	59.65	26.32	305.60	209.25	19.60
PM							
Base Year	RFC	0.20	0.50	0.20	0.30	0.63	0.09
	Delay(s)	11.44	19.81	11.72	14.40	24.88	8.90
Background Growth	RFC	0.16	0.71	0.52	0.97	1.04	0.11
	Delay(s)	14.70	33.85	19.90	263.89	165.55	11.02

Effect of A12 J24 All Moves

		B-C	B-AD	A-D	D-A	D-BC	C-B
AM							
Base Year	RFC	0.23	0.51	0.33	0.30	0.79	0.24
	Delay(s)	13.23	23.20	11.02	22.81	38.67	13.34
Scenario 1	RFC	OC	OC	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC	OC	OC
Scenario 2	RFC	OC	OC	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC	OC	OC
Scenario 3	RFC	OC	OC	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC	OC	OC
PM							
Base Year	RFC	0.20	0.50	0.20	0.30	0.63	0.09
	Delay(s)	11.44	19.81	11.72	14.40	24.88	8.90
Scenario 1	RFC	OC	OC	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC	OC	OC
Scenario 2	RFC	OC	OC	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC	OC	OC
Scenario 3	RFC	OC	OC	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC	OC	OC

A1124 – Church Hill, Earls Colne

Junction arms:

A – A1124 Church Hill

B – Upper Holt Street

C – Coggeshall Road

Existing Layout

		A	B	C
AM				
Base Year	RFC	0.70	0.65	0.41
	Delay(s)	10.74	14.77	10.25
Scenario 1	RFC	1.04	0.92	0.69
	Delay(s)	160.34	64.58	19.34
Scenario 2	RFC	1.10	0.94	0.75
	Delay(s)	279.21	72.65	23.98
Scenario 3	RFC	1.15	0.96	0.82
	Delay(s)	419.65	78.38	30.92
PM				
Base Year	RFC	0.77	0.61	0.82
	Delay(s)	14.72	12.50	25.07
Scenario 1	RFC	1.22	0.88	OC
	Delay(s)	653.16	41.96	OC
Scenario 2	RFC	1.27	0.91	OC
	Delay(s)	820.78	49.98	OC
Scenario 3	RFC	1.33	0.93	OC
	Delay(s)	991.18	60.18	OC

Background growth only

		A	B	C
AM				
Base Year	RFC	0.70	0.65	0.41
	Delay(s)	10.74	14.77	10.25
Background Growth	RFC	0.77	0.68	0.35
	Delay(s)	15.08	17.73	9.34
PM				
Base Year	RFC	0.77	0.61	0.82
	Delay(s)	14.72	12.50	25.07
Background Growth	RFC	0.91	0.67	1.21
	Delay(s)	40.19	14.79	581.79

Mitigation Layout - Signalised

		A - BC	B - A	C - AB	D - C
AM					
Scenario 1	Deg. Of Sat	91%	87.4%	87.9%	34.5%
	Delay / PCU	39.8	60	61.9	4.5
Scenario 2	Deg. Of Sat	95.1%	95.9%	92.4%	35.7%
	Delay / PCU	49.8	93.2	71.8	3.8
Scenario 3	Deg. Of Sat	98.9%	100.7%	100.9%	36.9%
	Delay / PCU	69.7	132.1	125	3.2
PM					
Scenario 1	Deg. Of Sat	110.7%	107.6%	108.6%	9.8%
	Delay / PCU	221.4	197.2	190.6	3.3
Scenario 2	Deg. Of Sat	114.8%	111.5%	112.6%	10.5%
	Delay / PCU	280.7	249.5	247.5	3.2
Scenario 3	Deg. Of Sat	117.3%	116.9%	116.6%	11.1%
	Delay / PCU	324.6	318.8	301.4	3

Head Street, Halstead

Junction arms:

- 1A – A131 Head Street (link)
- 1B – Parsonage Street
- 1C – A131 Market Hill
- 1D – A1124 Hedingham Road
- 2A – A131 Head Street
- 2B – A1124 Colchester Road
- 2C – A131 Head Street (link)

Existing Layout

		1A	1B	1C	1D	2A	2B	2C
AM								
Base Year	RFC	1.02	0.94	0.78	0.98	1.35	0.84	0.61
	Delay(s)	54.61	55.46	14.23	45.07	333.72	26.22	14.82
Scenario 1	RFC	1.12	OC	1.20	OC	1.21	0.97	0.83
	Delay(s)	331.79	OC	575.95	OC	606.28	99.17	19.72
Scenario 2	RFC	1.12	OC	1.27	OC	1.23	0.99	0.84
	Delay(s)	331.28	OC	801.53	OC	675.53	114.18	20.82
Scenario 3	RFC	1.12	OC	1.34	OC	1.25	1.01	0.85
	Delay(s)	330.58	OC	1035.18	OC	740.65	131.85	22.03
PM								
Base Year	RFC	1.02	0.98	0.92	1.00	OC	1.03	0.76
	Delay(s)	56.61	79.30	36.00	67.52	OC	100.15	26.60
Scenario 1	RFC	1.06	OC	1.30	1.30	1.32	OC	1.07
	Delay(s)	180.62	OC	908.44	899.10	928.12	OC	173.79
Scenario 2	RFC	1.05	OC	1.33	1.35	1.34	OC	1.07
	Delay(s)	179.57	OC	987.64	1050.22	1006.06	OC	169.58
Scenario 3	RFC	1.05	OC	1.35	1.39	1.36	OC	1.06
	Delay(s)	178.40	OC	1066.09	1202.89	1085.18	OC	166.06

Background growth only

		1A	1B	1C	1D	2A	2B	2C
AM								
Base Year	RFC	1.02	0.94	0.78	0.98	1.35	0.84	0.61
	Delay(s)	54.61	55.46	14.23	45.07	333.72	26.22	14.82
Background Growth	RFC	1.07	OC	0.43	0.98	0.95	0.70	0.64
	Delay(s)	148.23	OC	17.81	89.07	47.24	20.24	8.41
PM								
Base Year	RFC	1.02	0.98	0.92	1.00	OC	1.03	0.76
	Delay(s)	56.61	79.30	36.00	67.52	OC	100.15	26.60
Background Growth	RFC	1.04	OC	0.99	0.92	1.15	1.14	1.06
	Delay(s)	111.74	OC	96.60	66.71	342.27	351.96	122.94

Maldon Road – The Street, Hatfield Peverel

Junction arms:

A – The Street east

B – B1019 Maldon Road

C – The Street west

Existing Layout

		A	B	C
AM				
Base Year	RFC	0.57	0.86	0.55
	Delay(s)	9.92	26.39	7.85
Scenario 1	RFC	0.77	0.44	1.38
	Delay(s)	29.54	8.68	1157.68
Scenario 2	RFC	0.79	0.45	1.40
	Delay(s)	32.05	8.92	1203.50
Scenario 3	RFC	0.81	0.46	OC
	Delay(s)	34.78	9.16	OC
PM				
Base Year	RFC	0.56	0.75	0.90
	Delay(s)	10.22	16.48	30.29
Scenario 1	RFC	0.71	1.03	1.06
	Delay(s)	15.00	169.28	186.57
Scenario 2	RFC	0.83	1.06	1.07
	Delay(s)	16.10	225.85	219.69
Scenario 3	RFC	0.75	1.09	1.08
	Delay(s)	17.26	287.21	252.92

Background growth only

		A	B	C
AM				
Base Year	RFC	0.57	0.86	0.55
	Delay(s)	9.92	26.39	7.85
Background Growth	RFC	0.63	0.30	1.21
	Delay(s)	20.94	6.76	657.20
PM				
Base Year	RFC	0.56	0.75	0.90
	Delay(s)	10.22	16.48	30.29
Background Growth	RFC	0.48	0.81	0.91
	Delay(s)	8.67	22.94	36.21

Feering Hill – Station Road, Kelvedon

Junction arms:

A – Feering Hill

B – Swan Street

C – B1024 High Street

D – B1024 Coggeshall Road

Existing Layout

		B-ACD	A-BCD	D-ABC	C-ABD
AM					
Base Year	RFC	0.18	0.40	0.78	0.03
	Delay(s)	12.27	8.31	37.57	8.59
Scenario 1	RFC	OC	0.35	OC	0.09
	Delay(s)	OC	6.67	OC	12.23
Scenario 2	RFC	OC	0.35	OC	0.10
	Delay(s)	OC	6.45	OC	12.88
Scenario 3	RFC	OC	0.34	OC	0.10
	Delay(s)	OC	6.25	OC	13.55
PM					
Base Year	RFC	0.09	0.15	0.59	0.05
	Delay(s)	9.65	7.68	21.26	8.66
Scenario 1	RFC	0.47	0.50	OC	0.11
	Delay(s)	56.68	9.81	OC	8.90
Scenario 2	RFC	0.41	0.47	OC	0.10
	Delay(s)	45.43	9.50	OC	8.83
Scenario 3	RFC	0.38	0.45	OC	0.10
	Delay(s)	39.59	9.28	OC	8.77

Background growth only

		B-ACD	A-BCD	D-ABC	C-ABD
AM					
Base Year	RFC	0.18	0.40	0.78	0.03
	Delay(s)	12.27	8.31	37.57	8.59
Background Growth	RFC	0.18	0.30	1.05	0.07
	Delay(s)	14.00	8.05	248.04	9.09
PM					
Base Year	RFC	0.09	0.15	0.59	0.05
	Delay(s)	9.65	7.68	21.26	8.66
Background Growth	RFC	0.15	0.30	0.75	0.09
	Delay(s)	11.06	8.58	35.81	7.78

Effect of A12 J24 All Moves Junction

		B-ACD	A-BCD	D-ABC	C-ABD
AM					
Base Year	RFC	0.18	0.40	0.78	0.03
	Delay(s)	12.27	8.31	37.57	8.59
Scenario 1	RFC	0.22	0.29	1.10	0.08
	Delay(s)	18.16	6.04	352.40	12.32
Scenario 2	RFC	0.24	0.29	1.13	0.08
	Delay(s)	20.54	5.86	430.22	13.11
Scenario 3	RFC	0.27	0.28	1.17	0.09
	Delay(s)	23.63	5.69	510.49	13.98
PM					
Base Year	RFC	0.09	0.15	0.59	0.05
	Delay(s)	9.65	7.68	21.26	8.66
Scenario 1	RFC	0.15	0.41	0.80	0.08
	Delay(s)	10.53	8.71	38.56	8.54
Scenario 2	RFC	0.15	0.39	0.79	0.08
	Delay(s)	10.45	8.51	36.99	8.47
Scenario 3	RFC	0.15	0.37	0.78	0.08
	Delay(s)	10.39	8.36	35.73	8.42

Mitigation Layout – Widening of Coggeshall Road approach and new A12 J24 junction

		B-ACD	A-BCD	D-AB	D-BC	C-ABD
AM						
Base Year	RFC	0.18	0.40	0.78	N/A	0.03
	Delay(s)	12.27	8.31	37.57	N/A	8.59
Scenario 1	RFC	0.21	0.29	0.81	0.89	0.08
	Delay(s)	17.78	6.04	82.62	89.96	12.32
Scenario 2	RFC	0.23	0.23	0.95	0.94	0.08
	Delay(s)	19.99	5.86	150.76	122.70	13.11
Scenario 3	RFC	0.26	0.28	0.98	0.96	0.09
	Delay(s)	22.82	5.69	180.99	153.03	13.98
PM						
Base Year	RFC	0.09	0.15	0.59	N/A	0.05
	Delay(s)	9.65	7.68	21.26	N/A	8.66
Scenario 1	RFC	0.15	0.41	0.43	0.53	0.08
	Delay(s)	10.50	8.71	13.50	22.93	8.54
Scenario 2	RFC	0.15	0.39	0.42	0.52	0.08
	Delay(s)	10.42	8.51	13.22	22.36	8.47
Scenario 3	RFC	0.15	0.37	0.41	0.52	0.08
	Delay(s)	10.37	8.36	12.99	21.98	8.42

Rye Mill Lane, Kelvedon

Junction arms:
 A – London Road
 B – Inworth Road
 C – Feering Hill
 D – Rye Mill Lane

Existing Layout

		B-C	B-AD	A-D	D-A	D-BC	C-B
AM							
Base Year	RFC	1.07	1.05	0.03	0.07	0.05	0.41
	Delay(s)	238.29	210.76	7.23	8.01	14.89	13.40
Scenario 1	RFC	OC	OC	0.04	0.20	0.75	0.72
	Delay(s)	OC	OC	10.72	27.25	285.85	39.62
Scenario 2	RFC	OC	OC	0.04	OC	OC	0.77
	Delay(s)	OC	OC	11.01	OC	OC	50.32
Scenario 3	RFC	OC	OC	0.04	OC	OC	0.83
	Delay(s)	OC	OC	11.41	OC	OC	67.81
PM							
Base Year	RFC	0.99	1.02	0.06	0.04	0.04	0.40
	Delay(s)	170.30	146.16	7.27	6.79	14.79	11.43
PM							
Scenario 1	RFC	OC	OC	0.07	0.05	0.17	0.83
	Delay(s)	OC	OC	9.54	9.37	38.47	50.34
Scenario 2	RFC	OC	OC	0.07	0.05	0.16	0.83
	Delay(s)	OC	OC	9.33	9.13	34.98	51.07
Scenario 3	RFC	0.50	0.74	0.06	0.03	0.03	0.30
	Delay(s)	23.28	41.23	6.89	6.40	14.82	10.16

Background growth only

		B-C	B-AD	A-D	D-A	D-BC	C-B
AM							
Base Year	RFC	1.07	1.05	0.03	0.07	0.05	0.41
	Delay(s)	238.29	210.76	7.23	8.01	14.89	13.40
Background Growth	RFC	1.29	1.22	0.03	0.08	0.08	0.43
	Delay(s)	786.06	810.46	7.56	7.84	17.49	13.49
PM							
Base Year	RFC	0.99	1.02	0.06	0.04	0.04	0.40
	Delay(s)	170.30	146.16	7.27	6.79	14.79	11.43
Background Growth	RFC	0.93	0.94	0.06	0.05	0.06	0.35
	Delay(s)	154.45	125.22	7.18	6.84	12.88	10.98

Effect of A12 J24 All Moves junction

		B-C	B-AD	A-D	D-A	D-BC	C-B
AM							
Base Year	RFC	1.07	1.05	0.03	0.07	0.05	0.41
	Delay(s)	238.29	210.76	7.23	8.01	14.89	13.40
Scenario 1	RFC	OC	OC	0.03	0.07	0.08	0.01
	Delay(s)	OC	OC	7.21	7.45	16.44	8.67
Scenario 2	RFC	OC	OC	0.03	0.07	0.09	0.01
	Delay(s)	OC	OC	7.36	7.64	18.49	9.17
Scenario 3	RFC	OC	OC	0.03	0.07	0.10	0.01
	Delay(s)	OC	OC	7.51	7.84	21.12	9.72
PM							
Base Year	RFC	0.99	1.02	0.06	0.04	0.04	0.40
	Delay(s)	170.30	146.16	7.27	6.79	14.79	11.43
Scenario 1	RFC	OC	OC	0.07	0.05	0.17	0.83
	Delay(s)	OC	OC	9.54	9.37	38.47	50.34
Scenario 2	RFC	OC	OC	0.07	0.05	0.16	0.83
	Delay(s)	OC	OC	9.33	9.13	34.98	51.07
Scenario 3	RFC	0.50	0.74	0.06	0.03	0.03	0.30
	Delay(s)	23.38	41.23	6.89	6.40	14.82	10.16

Mitigation Layout – Double Mini-roundabout with new A12 J24

		1A	1B	1C	2A	2B	2C
AM							
Scenario 1	RFC	0.93	0.66	0.11	0.78	1.07	0.09
	Delay(s)	40.35	13.8	8.21	14.07	258.29	6.16
Scenario 2	RFC	1.02	0.71	0.11	0.85	1.16	0.09
	Delay(s)	106.65	16.42	8.56	20.7	484.81	6.52
Scenario 3	RFC	1.12	0.73	0.11	0.91	1.26	0.09
	Delay(s)	272.95	16.55	8.54	33.13	708.22	6.55
PM							
Scenario 1	RFC	0.80	0.44	0.05	0.72	0.59	0.19
	Delay(s)	17.19	8.42	6.78	11.36	11.96	5.71
Scenario 2	RFC	0.80	0.44	0.05	0.72	0.59	0.19
	Delay(s)	17.22	8.40	6.78	11.34	11.73	5.68
Scenario 3	RFC	0.80	0.44	0.05	0.72	0.58	0.18
	Delay(s)	17.52	8.42	6.78	11.43	11.58	5.56

Chipping Hill, Witham

Junction arms:

A – Braintree Road/Chipping Hill

B – The Avenue

C – Collingwood Road

Existing Layout

		A	B	C
AM				
Base Year	RFC	0.99	0.82	0.54
	Delay(s)	74.10	30.93	9.79
Scenario 1	RFC	1.30	1.40	0.85
	Delay(s)	926.73	1244.98	31.45
Scenario 2	RFC	1.33	OC	0.87
	Delay(s)	1022.34	OC	36.19
Scenario 3	RFC	1.36	OC	0.89
	Delay(s)	1118.44	OC	42.17
PM				
Base Year	RFC	0.80	0.96	0.67
	Delay(s)	14.71	64.40	13.92
Scenario 1	RFC	0.96	1.31	0.59
	Delay(s)	56.32	838.46	11.68
Scenario 2	RFC	0.97	1.34	0.60
	Delay(s)	68.27	918.97	11.76
Scenario 3	RFC	0.99	1.36	0.60
	Delay(s)	82.71	997.74	11.91

Background growth only

		A	B	C
AM				
Base Year	RFC	0.99	0.82	0.54
	Delay(s)	74.10	30.93	9.79
Background Growth	RFC	1.05	1.16	0.71
	Delay(s)	172.02	451.39	17.72
PM				
Base Year	RFC	0.80	0.96	0.67
	Delay(s)	14.71	64.40	13.92
Background Growth	RFC	0.73	0.93	0.54
	Delay(s)	11.05	51.77	11.13

Gershwin Boulevard, Witham

Junction arms:

- A – Hatfield Road north-east
- B – Gershwin Boulevard
- C – Hatfield Road south-east
- D – New arm

Existing Layout

		A	B	C	D
AM					
Base Year	RFC	0.49	0.34	0.44	N/A
	Delay(s)	4.48	4.48	4.35	N/A
Scenario 1	RFC	0.77	0.55	0.55	0.50
	Delay(s)	10.10	9.75	5.37	7.93
Scenario 2	RFC	0.77	0.56	0.55	0.50
	Delay(s)	10.38	9.96	5.42	8.02
Scenario 3	RFC	0.78	0.56	0.56	0.50
	Delay(s)	10.64	10.17	5.46	8.10
PM					
Base Year	RFC	0.37	0.23	0.70	N/A
	Delay(s)	3.67	3.28	7.25	N/A
Scenario 1	RFC	0.48	0.63	0.68	0.39
	Delay(s)	4.42	8.44	7.26	7.10
Scenario 2	RFC	0.48	0.65	0.69	0.40
	Delay(s)	4.47	8.96	7.36	7.20
Scenario 3	RFC	0.49	0.67	0.69	0.41
	Delay(s)	4.51	9.50	7.44	7.32

Background growth only

		A	B	C	D
AM					
Base Year	RFC	0.49	0.34	0.44	N/A
	Delay(s)	4.48	4.48	4.35	N/A
Scenario 1	RFC	0.48	0.33	0.43	N/A
	Delay(s)	4.08	4.35	3.9	N/A
PM					
Base Year	RFC	0.37	0.23	0.70	N/A
	Delay(s)	3.67	3.28	7.25	N/A
Scenario 1	RFC	0.36	0.24	0.53	N/A
	Delay(s)	3.25	3.34	4.27	N/A

Newland Street, Witham

Junction arms:

- A – Newland Street north-east
- B – Maldon Road
- C – Newland Street south-west
- D – Collingwood Road

Existing Layout

		C – A	C – B	Link SW – BC	B – CA	Link NE – DA	A – CD	D - AC
AM								
Base Year	Deg. Of Sat	40.6%	26.2%	33.9%	73.2%	43.4%	36.6%	58.3%
	Delay(s)	36.3	38.1	4.0	55.2	6.1	38.7	47.3
Scenario 1	Deg. Of Sat	56.2%	44.2%	35.1%	94.3	59.4%	OC	OC
	Delay(s)	25.9	35.8	4	180.2	8.1	OC	OC
Scenario 2	Deg. Of Sat	56.5%	45.3%	35.7%	102.8	60.4%	OC	OC
	Delay(s)	26	36.9	3.7	248.7	8.6	OC	OC
Scenario 3	Deg. Of Sat	56.8%	46.1%	36.6%	111.2	61%	OC	OC
	Delay(s)	26	37.7	3.8	341.8	8.8	OC	OC
PM								
Base Year	Deg. Of Sat	47.2%	76.9%	61.6%	80.2%	43.5%	82.3%	102.3%
	Delay(s)	36.5	91.4	6.8	64.8	6.8	55	159.5
Scenario 1	Deg. Of Sat	75.1%	73.3%	49.6%	107%	75.4%	OC	OC
	Delay(s)	40.4	66.2	3.3	294.8	12.9	OC	OC
Scenario 2	Deg. Of Sat	75.5%	74.3%	49.8%	108.6%	75.8%	OC	OC
	Delay(s)	40.6	67.7	3.2	313.8	13.1	OC	OC
Scenario 3	Deg. Of Sat	75.7%	75.5%	50.2%	109.5%	76.1%	OC	OC
	Delay(s)	40.8	69.7	3.1	323.5	13.2	OC	OC

Background growth only

		C – A	C – B	Link SW – BC	B – CA	Link NE – DA	A – CD	D - AC
AM								
Base Year	Deg. Of Sat	40.6%	26.2%	33.9%	73.2%	43.4%	36.6%	58.3%
	Delay(s)	36.3	38.1	4.0	55.2	6.1	38.7	47.3
Background Growth	Deg. Of Sat	53.8%	37.3%	51.7%	33.7%	27.4%	223.1%	227.1%
	Delay(s)	25.3	29.2	4.9	76.2	4.0	1131.4	1202.2
PM								
Base Year	Deg. Of Sat	47.2%	76.9%	61.6%	80.2%	43.5%	82.3%	102.3%
	Delay(s)	36.5	91.4	6.8	64.8	6.8	55	159.5
Background Growth	Deg. Of Sat	72.5%	53.6%	72.9%	101.9%	38.7%	201.7%	200.7%
	Delay(s)	39.1	45.6	12.1	240.3	2.9	1004.5	1079.6

Rickstones Road, Witham

Junction arms:

- 1A – Rickstones Road
- 1B – B1018 Braintree Road (link)
- 1C – B1018 Cressing Road
- 2A – B1018 Braintree Road (link)
- 2B – Cypress Road
- 2C – B1018 Braintree Road south

Existing Layout

		1A	1B	1C	2A	2B	2C
AM							
Base Year	RFC	0.58	0.77	0.97	0.90	0.69	0.67
	Delay(s)	14.73	14.10	60.85	25.76	37.68	8.43
Scenario 1	RFC	0.71	0.71	1.26	1.02	0.54	0.62
	Delay(s)	24.77	11.37	790.7	104.76	34.54	7.38
Scenario 2	RFC	0.72	0.73	1.30	1.03	0.54	0.64
	Delay(s)	25.49	12.31	917.07	111.12	35	7.79
Scenario 3	RFC	0.73	0.76	1.34	1.03	0.55	0.66
	Delay(s)	26.4	13.5	1047.62	118.62	35.48	8.28
PM							
Base Year	RFC	0.39	0.88	0.84	0.74	0.25	0.86
	Delay(s)	7.3	22.61	26.38	12	9.95	16.93
Scenario 1	RFC	0.39	0.91	1	0.85	0.47	0.86
	Delay(s)	9.03	29.28	106.15	20.99	16.93	18.96
Scenario 2	RFC	0.40	0.92	1.01	0.85	0.48	0.88
	Delay(s)	9.17	33.54	125.19	22.15	17.42	21.16
Scenario 3	RFC	0.41	0.94	1.02	0.86	0.50	0.90
	Delay(s)	9.35	40.44	143.34	23.34	18.1	24.33

Background growth only (developer layout)

		1A	1B	1C	2B – 2C	2B – 2A	2C – 2A,2B
AM							
Base Year	RFC	0.50	0.77	1.21	0.46	0.31	0.16
	Delay(s)	10.76	14.14	496.66	17.94	50.67	9.98
Background Growth	RFC	0.41	0.79	OC	OC	OC	OC
	Delay(s)	9.78	15.77	OC	OC	OC	OC
PM							
Base Year	RFC	0.40	0.89	1.06	0.23	0.27	0.30
	Delay(s)	7.56	23.6	93.68	9.63	37.06	9.09
Background Growth	RFC	0.27	0.88	1.26	OC	OC	OC
	Delay(s)	6.07	28.09	411.1	OC	OC	OC

Proposed Developer Layout

		1A	1B	1C	2B – 2C	2B – 2A	2C – 2A,2B
AM							
Base Year	RFC	0.50	0.77	1.21	0.46	0.31	0.16
	Delay(s)	10.76	14.14	496.66	17.94	50.67	9.98
Scenario 1	RFC	0.54	0.99	OC	OC	OC	OC
	Delay(s)	12.17	72.23	OC	OC	OC	OC
Scenario 2	RFC	0.55	1.02	OC	OC	OC	OC
	Delay(s)	12.32	97.07	OC	OC	OC	OC
Scenario 3	RFC	0.56	1.05	OC	OC	OC	OC
	Delay(s)	12.53	128.03	OC	OC	OC	OC
PM							
Base Year	RFC	0.40	0.89	1.06	0.23	0.27	0.30
	Delay(s)	7.56	23.6	93.68	9.63	37.06	9.09
Scenario 1	RFC	0.36	0.98	OC	OC	OC	OC
	Delay(s)	7.79	59.94	OC	OC	OC	OC
Scenario 2	RFC	0.37	0.99	OC	OC	OC	OC
	Delay(s)	7.83	68.71	OC	OC	OC	OC
Scenario 3	RFC	0.37	1.00	OC	OC	OC	OC
	Delay(s)	7.89	82.89	OC	OC	OC	OC

Mitigation Layout – Signalised Junction

A – Rickstones Road

B – Cypress Road

C – Braintree Road

D – Crossing Road

		A	B	C	D
AM					
Scenario 1	Deg. Of Sat	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC
Scenario 2	Deg. Of Sat	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC
Scenario 3	Deg. Of Sat	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC
PM					
Scenario 1	Deg. Of Sat	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC
Scenario 2	Deg. Of Sat	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC
Scenario 3	Deg. Of Sat	OC	OC	OC	OC
	Delay(s)	OC	OC	OC	OC

Appendix H: Junction Mitigation Designs



Notes

1. Do not scale.
2. Design shown is indicative only and based on Ordnance Survey data. A full topographical survey is required to develop the design and ensure buildability.

Key

- Proposed footway
- Proposed additional carriageway
- Proposed physical boundary
- Proposed areas of road markings
- Proposed kerb
- Proposed PCC edging

Existing footway used when possible due to the likelihood of STATS being found in this area

Land required from developer

Non-physical boundary for left turn slip on one arm

Existing footway used when possible due to the likelihood of STATS being found in this area

BROAD ROAD
ROMAN ROAD

B 1053

Land required from developer

Physical boundary for left turn slip on two arms

A131

Rev	Date	Description of revision	Drawn	Checked	Review'd	Approv'd

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Seax House, Victoria Road South, Chelmsford, CM1 1QH.
Tel: 0345 6037631 © Essex County Council

BRAintree LOCAL PLAN
SUPPORT

A131 BROAD ROAD

DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
...	BA
DATE	DATE	DATE	DATE	DATE
NOV 16	NOV 16			

DRAWING UNITS U.N.O. DIMENSIONS IN MILLIMETRES LEVELS IN METRES

SCALE AT A3 (420x297mm) 1:1250

DRAWING No. **B3553R5D-01-AD-00-001** REV. -

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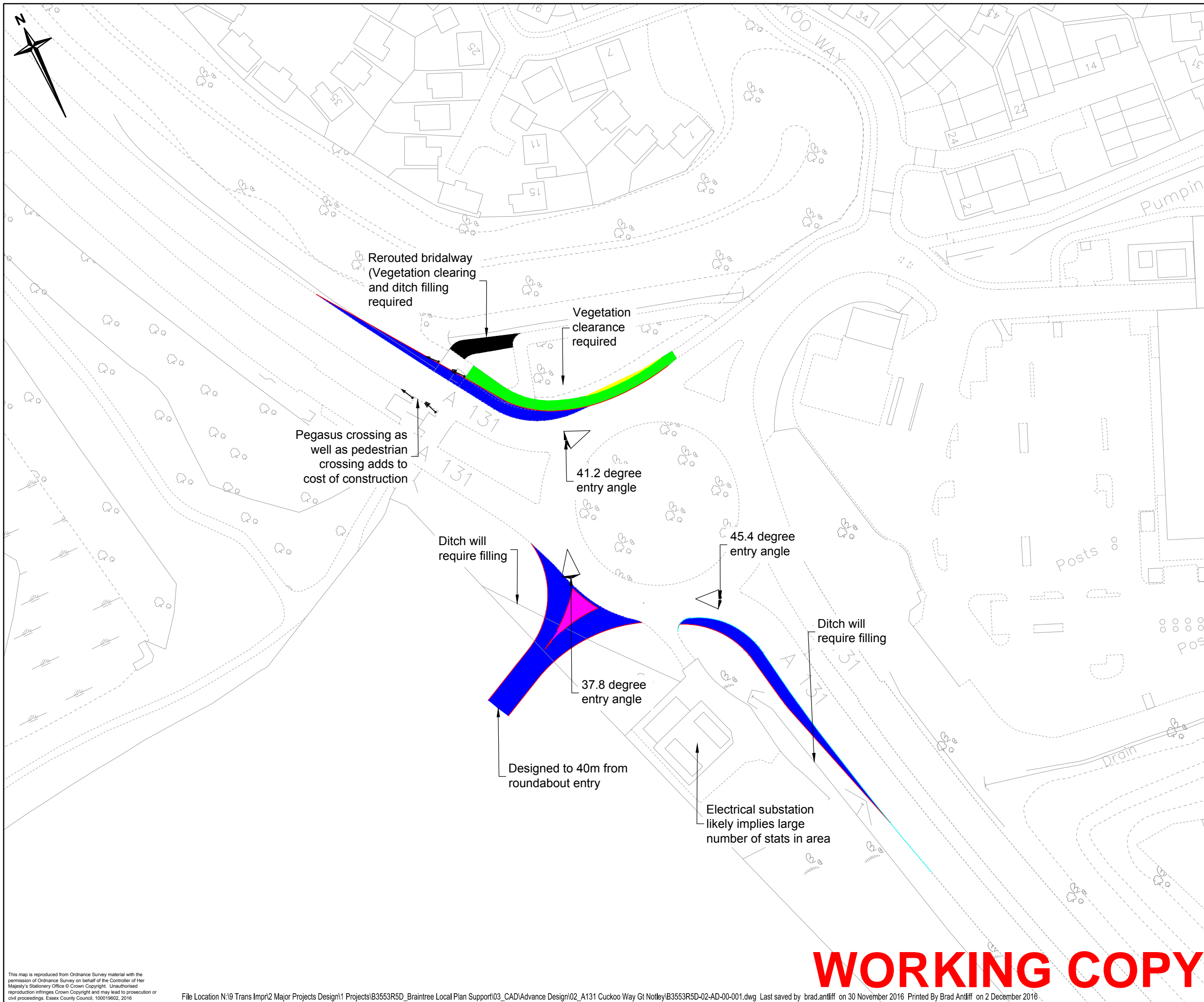


Notes

1. Do not scale.
2. Design shown is indicative only and based on Ordnance Survey data. A full topographical survey is required to develop the design and ensure buildability.

Key

- Proposed footway
- Proposed additional carriageway
- Proposed island
- Proposed additional verge
- Proposed Kerb
- Proposed PCC edging
- Proposed primary traffic signal
- Proposed secondary traffic signal



Rev	Date	Description of revision	Drawn	Checked	Reviewed	Approved
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BRAINTREE LOCAL PLAN SUPPORT

**A131 CUCKOO WAY,
GREAT NOTLEY**

DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
BA	BA			
DATE	DATE	DATE	DATE	DATE
NOV 16	NOV 16			

DRAWING UNITS U.N.O. DIMENSIONS IN MILLIMETRES LEVELS IN METRES SCALE AT A3 (420x297mm) 1:1000

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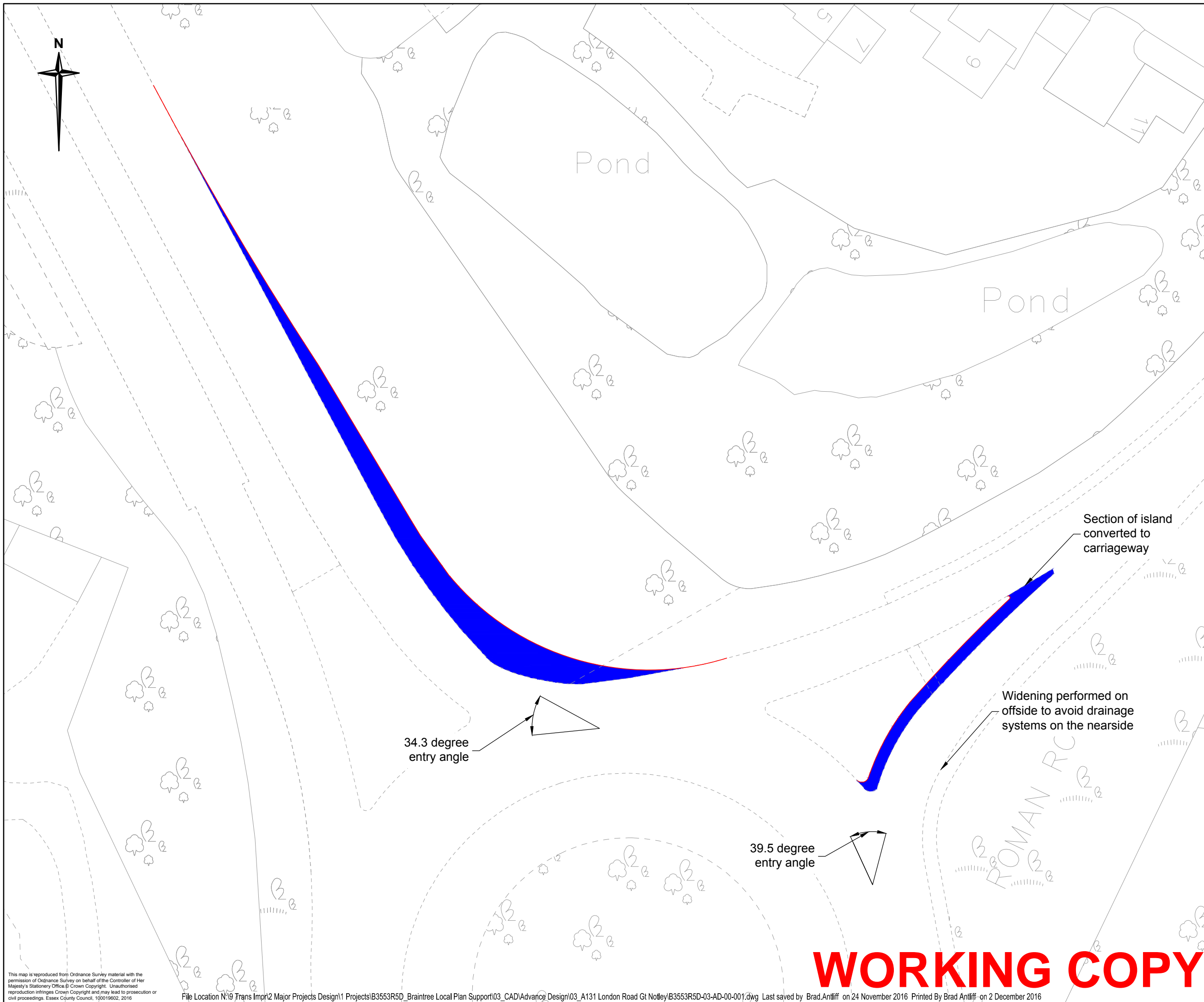


Notes

1. Do not scale.
2. Design shown is indicative only and based on Ordnance Survey data. A full topographical survey is required to develop the design and ensure buildability.

Key

-  Proposed additional carriageway
-  Proposed kerbs



34.3 degree entry angle

39.5 degree entry angle

Section of island converted to carriageway

Widening performed on offside to avoid drainage systems on the nearside

ROMAN RC

Rev	Date	Description of revision	Drawn	Checked	Review'd	Approv'd

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SCHEME TITLE

BRAINTREE LOCAL PLAN SUPPORT

DRAWING TITLE

A131 LONDON ROAD, GREAT NOTLEY

DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
BA	BA			
DATE	DATE	DATE	DATE	DATE
NOV 16	NOV 16			

DRAWING UNITS U.N.O. DIMENSIONS IN MILLIMETRES LEVELS IN METRES SCALE AT A3 (420x297mm) 1:500

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61.5m

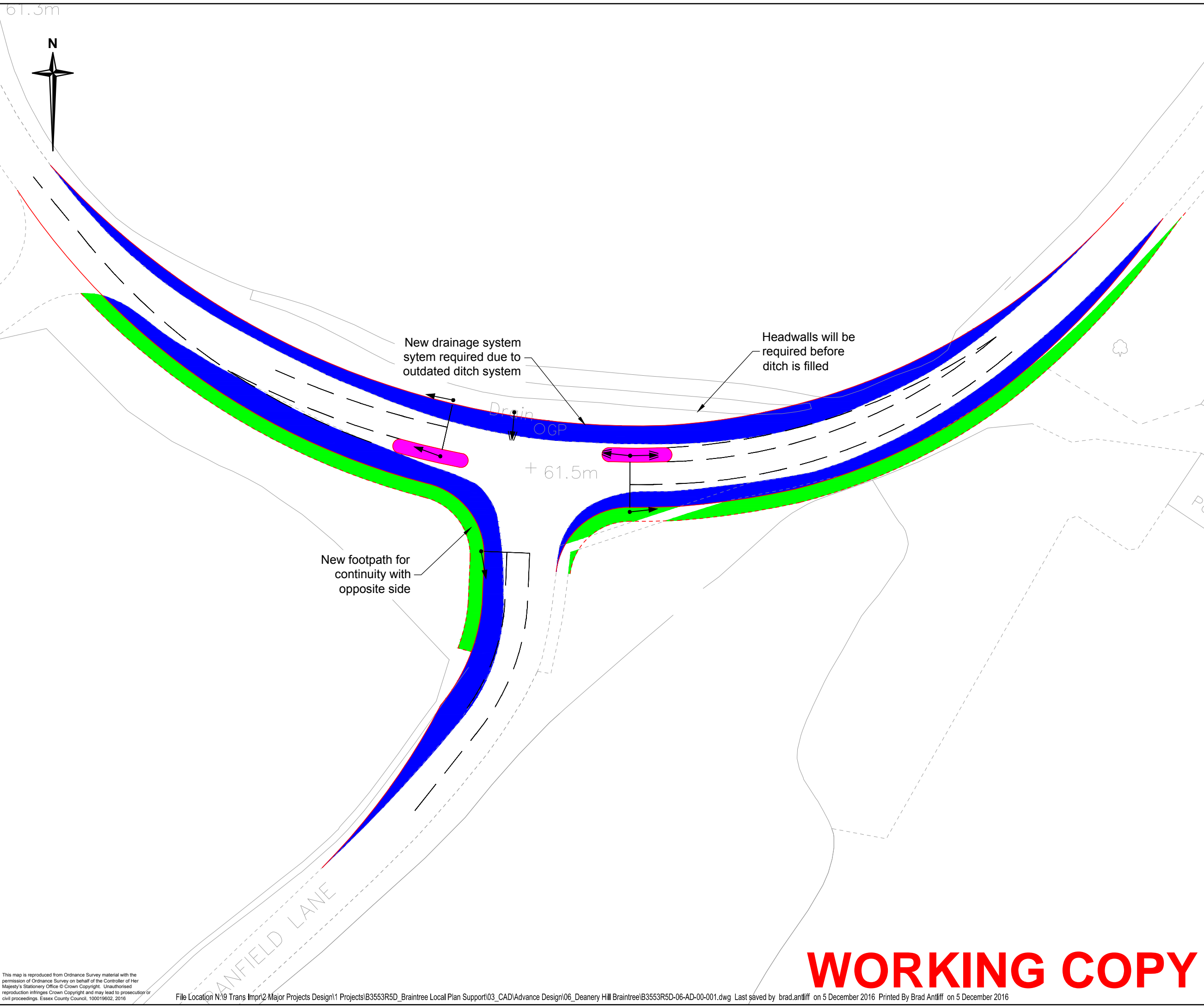


Notes

- 1. Do not scale.
- 2. Design shown is indicative only and based on Ordnance Survey data. A full topographical survey is required to develop the design and ensure buildability.

Key

- Proposed footway
- Proposed additional carriageway
- Proposed island
- Proposed Kerb
- Proposed PCC edging
- Proposed primary traffic signal
- Proposed secondary traffic signal



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BRAINTREE LOCAL PLAN SUPPORT

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DATE	DATE	DATE	DATE	DATE
NOV 16	NOV 16			

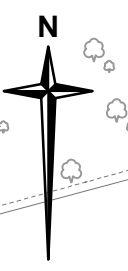
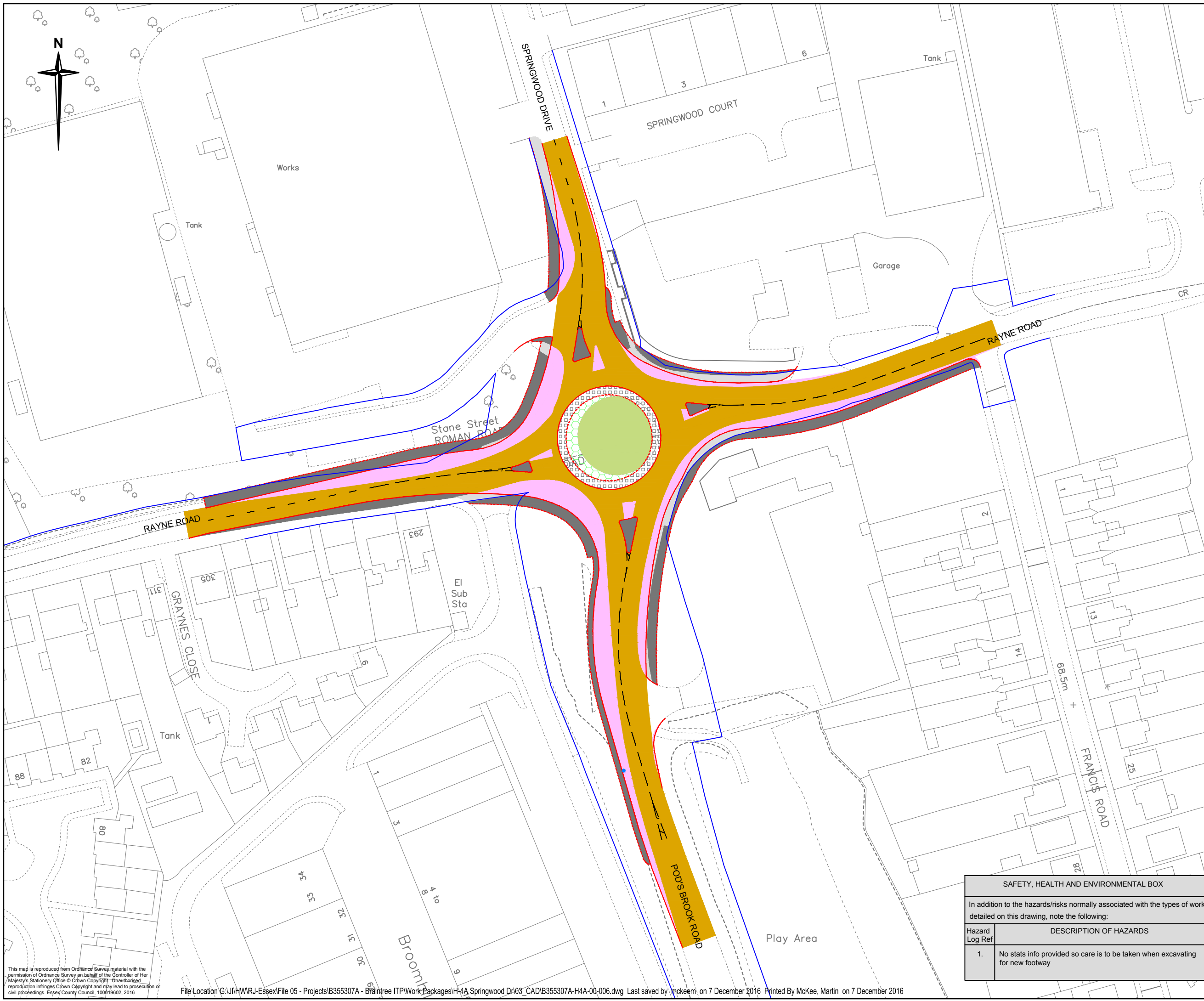
DRAWING UNITS U.N.O.
DIMENSIONS IN MILLIMETRES
LEVELS IN METRES

SCALE AT A3 (420x297mm)
1:500

DRAWING No. **B3553R5D-06-AD-00-001**
REV. **-**

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- Notes:**
1. Do not scale.
 2. This drawing is to be read in conjunction with all other contract drawings and documents.
- Key**
- Highway Boundary
 - Proposed Precast Concrete HB2 Kerb as per Essex folio EB100
 - - - Proposed Edging Kerb (EF 150) laid flush with footway as per Essex folio EB102
 - Proposed Carriagewa
 - Proposed Slope Embankment Area
 - Proposed Shared Footway/Cycleway
 - Existing Footway
 - Resurface Existing Carriageway
 - Existing landscaping
 - Proposed landscaping
 - - - Proposed Road Marking

Rev	Date	Description of revision	Drawn	Checked	Reviewed	Approved

DRAWING STATUS
STAGE 2 - SCHEME IDENTIFICATION



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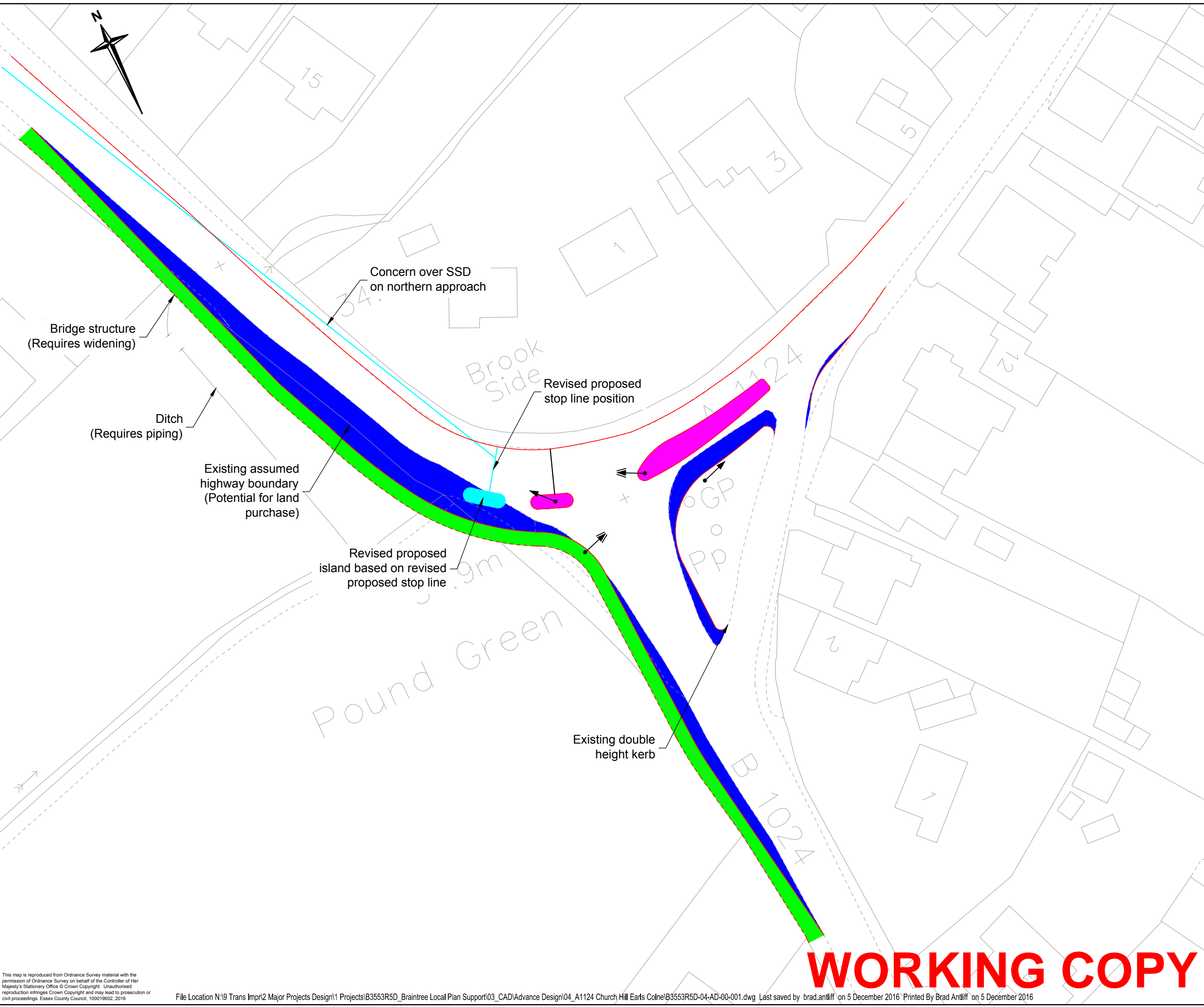
SCHEME TITLE
SPRINGWOOD DRIVE/PODS BROOK ROAD JUNCTION IMPROVEMENTS

DRAWING TITLE
H-4A OPTION 6 IMPROVED ROUNDABOUT

SAFETY, HEALTH AND ENVIRONMENTAL BOX				
In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:				
Hazard Log Ref	DESCRIPTION OF HAZARDS			
1.	No stats info provided so care is to be taken when excavating for new footway			

DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
RS	AG	BB	PM	BS
DATE	DATE	DATE	DATE	DATE
NOV 16	NOV 16	NOV 16	NOV 16	NOV 16
DRAWING UNITS U.N.O.				SCALE AT A3 (420x297mm)
DIMENSIONS IN MILLIMETRES				1:1000
LEVELS IN METRES				
DRAWING No.				REV.
B355307A-H4A-00-006				-

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- Notes**
1. Do not scale.
 2. Design shown is indicative only and based on Ordnance Survey data. A full topographical survey is required to develop the design and ensure buildability.

- Key**
- Proposed footway
 - Proposed additional carriageway
 - Proposed islands
 - Proposed kerbs
 - Proposed PCC edging
 - Proposed primary traffic signal
 - Proposed secondary traffic signal

Rev.	Date	Description of revision	Drawn	Checked	Reviewed	Approved
CHECK PRINT						

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SCHEME TITLE
BRAINTREE LOCAL PLAN SUPPORT

DRAWING TITLE
A1124 CHURCH HILL, EARLS COLNE

DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
BA	BA			
DATE	DATE	DATE	DATE	DATE
NOV 16	NOV 16			

DRAWING UNITS U.N.O.
DIMENSIONS IN MILLIMETRES
LEVELS IN METRES

SCALE AT A3 (420x297mm)
1:500

DRAWING No. **B3553R5D-04-AD-001** REV. **-**

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22.3m

Achieve as much flare as possible

BUS STOP

23.2m

Could remove hatch to gain width.

24.3m
Railway
Tavern
(PH)

Kelvedon
Bridge

Notes
1. Do not scale.

Rev	Date	Description of revision	Drawn	Checked	Reviewed	Approved
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DRAWING STATUS
FEASIBILITY



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SCHEME TITLE
**BRAINTREE LOCAL PLAN
SUPPORT**

DRAWING TITLE
**FEERING HILL STATION ROAD
KELVEDON**

DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
BA	BA			
DATE	DATE	DATE	DATE	DATE
NOV 16	NOV 16			

DRAWING UNITS U.N.O. DIMENSIONS IN MILLIMETRES LEVELS IN METRES
SCALE AT A1 (841X594mm)
1:200

DRAWING No. **B3553R5D-07-AD-00-001** REV. **-**

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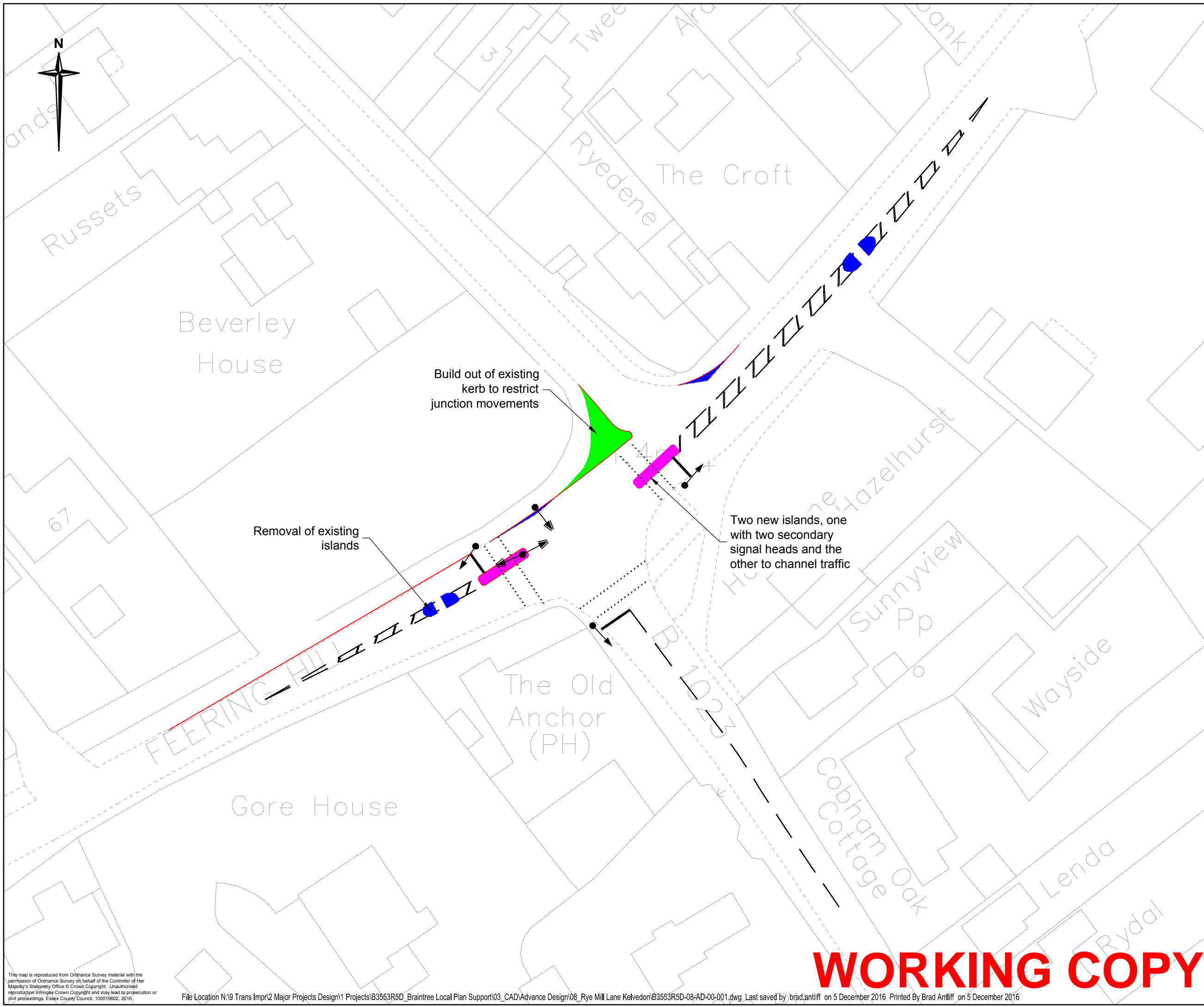


Notes

1. Do not scale.
2. Design shown is indicative only and based on Ordnance Survey data. A full topographical survey is required to develop the design and ensure buildability.

Key

-  Proposed footway
-  Proposed additional carriageway
-  Proposed island
-  Proposed Kerb
-  Proposed primary traffic signal
-  Proposed secondary traffic signal



Rev	Date	Description of revision	Drawn	Checked	Review'd	Approv'd
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SCHEME TITLE
BRAINTREE LOCAL PLAN SUPPORT

DRAWING TITLE
RYE MILL LANE, KELVEDON

DESIGNED	DRAWN	CHECKED	REVIEWED	APPROVED
BA	BA			
DATE	DATE	DATE	DATE	DATE
NOV 16	NOV 16			

DRAWING UNITS U.N.O.
DIMENSIONS IN MILLIMETRES
LEVELS IN METRES

SCALE AT A3 (420x297mm)
1:500

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Appendix I: Existing Bus Links to Developments

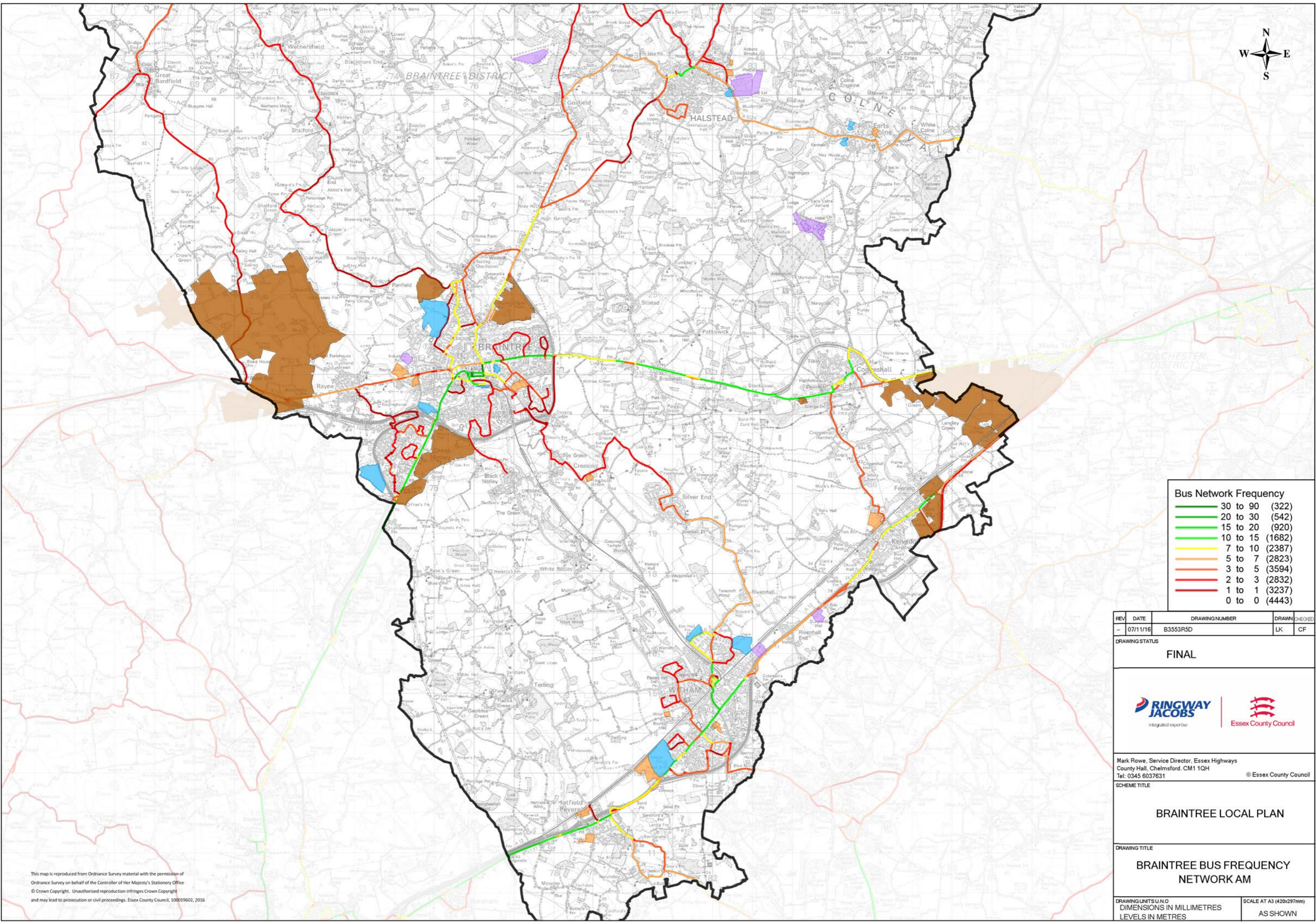
Site Reference	Direct Bus Link	Buses /hour AM	Buses /hour PM	Existing bus stop	Bus link <400m	Buses /hour AM	Buses /hour PM	Existing bus stop <400m	Comments
Residential									
BOCN123	N	-	-	-	Y	7 to 10	5 to 7	Y	Closest bus link on B1053 Broad Road
BOCN127	N	-	-	-	Y	5 to 7	3 to 5	Y	Closest bus link on B1053 Broad Road
BOCS140	Y	3 to 5	2 to 3	Y	-	-	-	-	Bus link on Rayne Road
BRAW153	N	-	-	-	Y	3 to 5	2 to 3	Y	Bus link on Rayne Road
BCBG149	N	-	-	-	Y	3 to 5	5 to 7	Y	Bus link on Cressing Road, Chapel Hill and B1018. values here given for closest bus stop on Cressing Road
BCBG550	N	-	-	-	Y	3 to 5	5 to 7	Y	Bus link on Cressing Road, Chapel Hill and B1018. values here given for closest bus stop on Cressing Road
WITN425	Y	7 to 10	7 to 10	Y	-	-	-	-	Lots of bus links near train station
WITC421	N	-	-	-	Y	10 to 15	7 to 10	Y	Bus link on B1389 Newland Street
WITW431	N	-	-	-	Y	2 to 3	2 to 3	Y	Bus link within 400m on Humber Road
HATF314/315	Y	7 to 10	5 to 7	Y	-	-	-	-	Bus stop going east easily accessible but bus stop going west, having to cross high speed road with islands in between
BURE165/166	N	-	-	-	Y	3 to 5	3 to 5	Y	Bus link on Colchester Road approx. 300m away
CRESS201	Y	2 to 3	3 to 5	Y	-	-	-	-	Bus link on Polecat Road
HASA295	Y	1	2 to 3	Y	-	-	-	-	Bus link on Fenn Road

Site Reference	Direct Bus Link	Buses /hour AM	Buses /hour PM	Existing bus stop	Bus link <400m	Buses /hour AM	Buses /hour PM	Existing bus stop <400m	Comments
HASA289	N	-	-	-	Y	2 to 3	2 to 3	Y	Bus link on Fenn Road
KELV335	N	-	-	-	N	-	-	-	Nearest bus link on Kelvedon High Street approx. 600m
SIBH377	N	-	-	-	N	-	-	-	Bus link approx 500m away on Yeldham Road A1017
EAR1475	N	-	-	-	N	-	-	-	Bus link approx. 470m away on A1124 Halstead Road
HAT ARLA	N	-	-	-	N	-	-	-	Bus link just over 400m away on B1137 The Street used, for frequency see HAT 545
HAT545	N	-	-	-	Y	15 to 20	10 to 15	N	Bus link on B1137 The Street. Bus stop only just over 400m, most likely not worth putting new bus stop on this route
Mixed									
BOCN132	Y	7 to 10	5 to 7	Y	-	-	-	-	No bus link on A131, only on Broad Road
BOCN137	Y	2 to 3	1	Y	-	-	-	-	Bus link on Deanery Hill
COGG506	Y	7 to 10	10 to 15	Y	-	-	-	-	Bus link on West Street
FEER232/230/233	Y	3 to 5	3 to 5	Y	-	-	-	-	Values taken from Inworth Road as worst case scenario, more frequent service on London Road
BLAN114/115	Y	10 to 15	10 to 15	Y	-	-	-	-	On the western boundary there are 10 to 15 per hour in the AM and there are another bus link on the eastern boundary with 1 to 2 buses per hour in the PM
GRSA269	Y	5 to 7	3 to 5	Y	-	-	-	-	Bus link used on Rayne Road

Site Reference	Direct Bus Link	Buses /hour AM	Buses /hour PM	Existing bus stop	Bus link <400m	Buses /hour AM	Buses /hour PM	Existing bus stop <400m	Comments
FFER231	Y	7 to 10	7 to 10	Y	-	-	-	-	Land access assumed was Coggeshall Road, could also be from A12
Confirmed									
GNBN264	Y	15 to 20	15 to 20	Y	-	-	-	-	Bus stop 360m away on London Road
BRSO152	Y	7 to 10	3 to 5	Y	-	-	-	-	Bus stop at the rail station
WITHN426/427	Y	7 to 10	7 to 10	Y	-	-	-	-	Bus link on Conrad Road
HASA513	Y	5 to 7	3 to 5	Y	-	-	-	-	Bus link on Colchester Road
EARC225	Y	5 to 7	5 to 7	Y	-	-	-	-	Bus link on Halstead Road
EAR3H	Y	-	-	-	Y	5 to 7	5 to 7	Y	Technically there is a directly bus link on Station Road but it doesn't run 1 service an hour in the AM/PM peak. Bus link nearby on A1124 Halstead Road
EAST ST	N	-	-	-	Y	7 to 10	7 to 10	Y	Two bus links within 400m to the north and south, values given from southern link as it was slightly closer on the B1018, northern bus link on B1256 Coggeshall Road
PANF	Y	1	1	Y	-	-	-	-	Bus link on Panfield Lane
GRNO260	N	-	-	-	N	-	-	-	Closest bus link approx. 600m on Notley Green with frequency of 2 to 3 in AM and PM
RIVE360	Y	2 to 3	2 to 3	Y	-	-	-	-	Bus link on Forest Road
WITC423	Y	7 to 10	10 to 15	N	-	-	-	-	Bus link used here on Hatfield Road. Another one on the NE boundary on Allectus Way

Site Reference	Direct Bus Link	Buses /hour AM	Buses /hour PM	Existing bus stop	Bus link <400m	Buses /hour AM	Buses /hour PM	Existing bus stop <400m	Comments
Employment									
BOCS138	N	-	-	-	N	-	-	-	Bus link approx. 670m away on Rayne Road
RIVE362/363	N	-	-	-	Y	5 to 7	3 to 5	N	Nearby bus link is A12 but closest bus stop on Colchester Road/Colemans Bridge
EARC2276	N	-	-	-	N	-	-	-	Bus link approx. 3.5km away on A1124 Halstead Road
GOSF249	N	-	-	-	N	-	-	-	Bus link approx. 600m away on A1017 Hedingham Road
RIVE364	Y	5 to 7	3 to 5	Y	-	-	-	-	Bus stop going westbound accessible but would have to cross the A12 for bus stop going eastbound
COLE188	Y	5 to 7	3 to 5	Y	-	-	-	-	Site access assumed to be Colchester Road. Existing bus stop approx. 450m away

Appendix J: Bus Frequencies



Bus Network Frequency

30 to 90	(322)
20 to 30	(542)
15 to 20	(920)
10 to 15	(1682)
7 to 10	(2387)
5 to 7	(2823)
3 to 5	(3594)
2 to 3	(2832)
1 to 1	(3237)
0 to 0	(4443)

REV	DATE	DRAWING NUMBER	DRAWN	CHECKED
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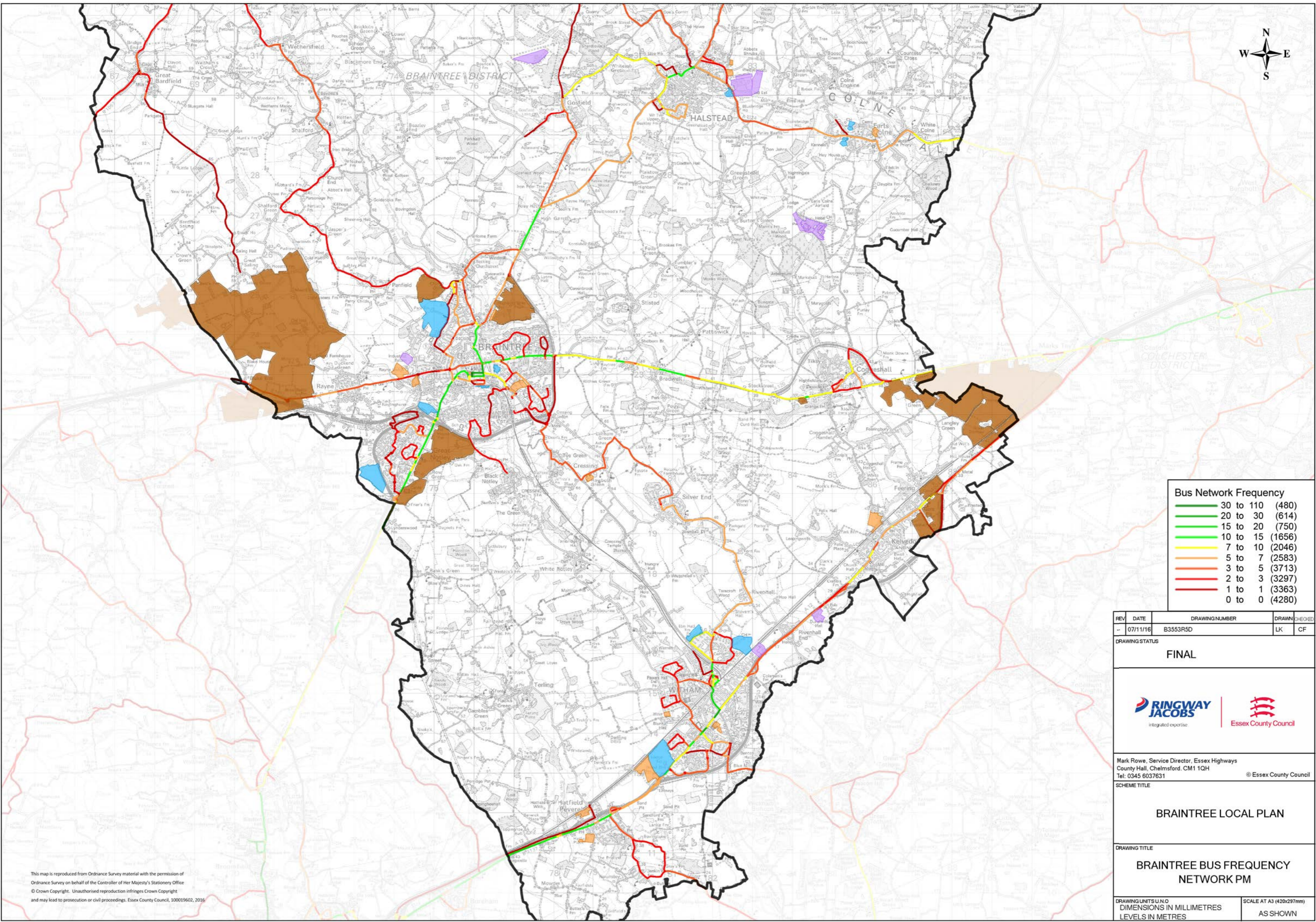
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BRAINTREE LOCAL PLAN

DRAWING TITLE
BRAINTREE BUS FREQUENCY NETWORK AM

DRAWING UNITS U.N.O
DIMENSIONS IN MILLIMETRES
LEVELS IN METRES

SCALE AT A3 (420x297mm)
AS SHOWN

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Bus Network Frequency

Green	30 to 110	(480)
Light Green	20 to 30	(614)
Yellow-Green	15 to 20	(750)
Yellow	10 to 15	(1656)
Orange	7 to 10	(2046)
Light Orange	5 to 7	(2583)
Red-Orange	3 to 5	(3713)
Red	2 to 3	(3297)
Dark Red	1 to 1	(3363)
Black	0 to 0	(4280)

REV	DATE	DRAWING NUMBER	DRAWN	CHECKED
--	07/11/16	B3553R5D	LK	CF

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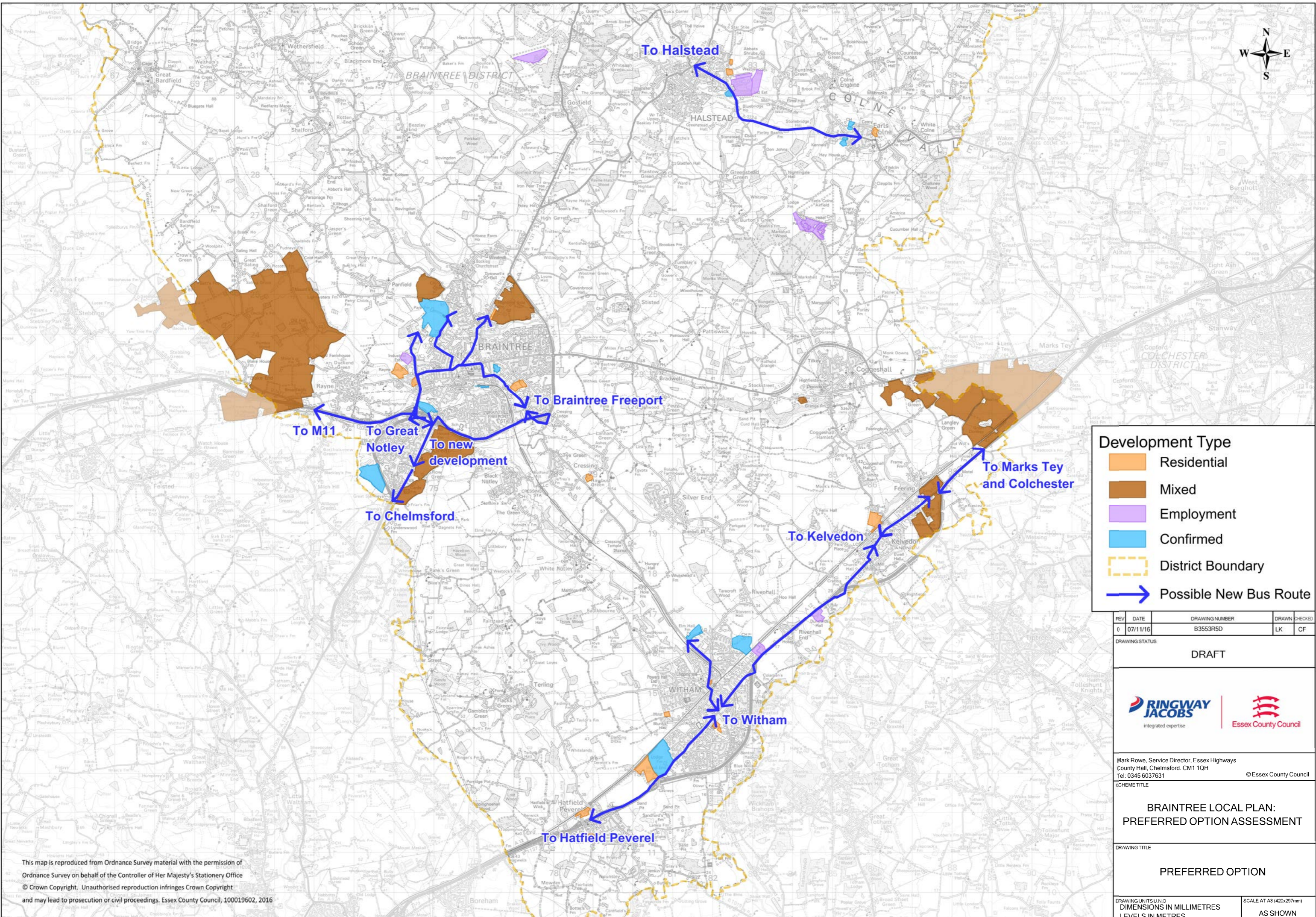
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DRAWING TITLE: **BRAINTREE BUS FREQUENCY NETWORK PM**

DRAWING UNITS U.N.O. DIMENSIONS IN MILLIMETRES LEVELS IN METRES	SCALE AT A3 (420x297mm) AS SHOWN
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Appendix K: Potential bus links to developments



Development Type

- Residential
- Mixed
- Employment
- Confirmed
- District Boundary
- Possible New Bus Route

REV	DATE	DRAWING NUMBER	DRAWN	CHECKED
0	07/11/16	B3553R5D	LK	CF

DRAWING STATUS: **DRAFT**



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**BRAINTREE LOCAL PLAN:
 PREFERRED OPTION ASSESSMENT**

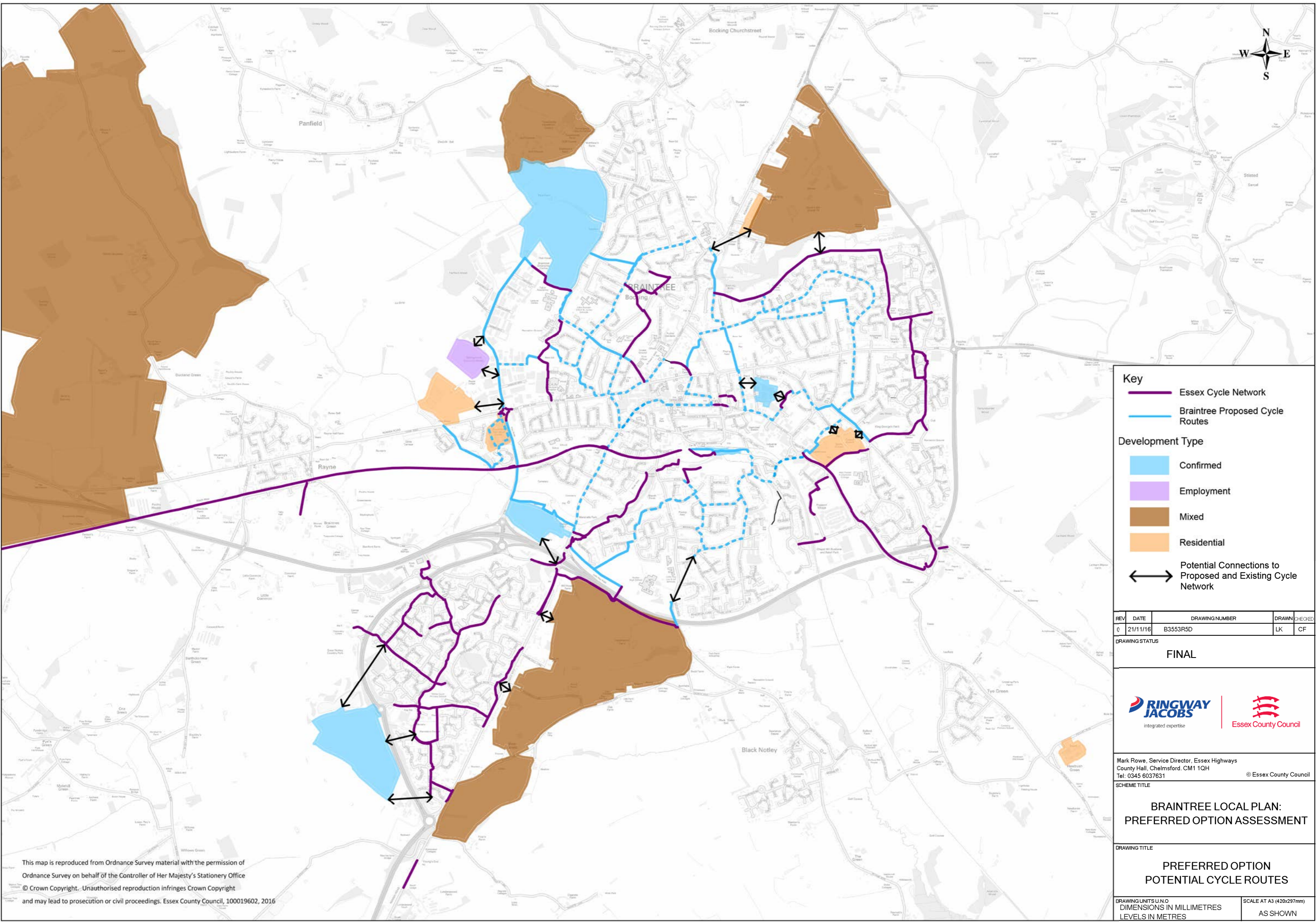
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DRAWING UNITS: U N O
 DIMENSIONS IN MILLIMETRES
 LEVELS IN METRES

SCALE AT A3 (420x297mm)
 AS SHOWN

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**Appendix L:
Potential cycle
links to
developments**



Key

- Essex Cycle Network
- Braintree Proposed Cycle Routes

Development Type

- Confirmed
- Employment
- Mixed
- Residential

Potential Connections to Proposed and Existing Cycle Network

REV	DATE	DRAWING NUMBER	DRAWN	CHECKED
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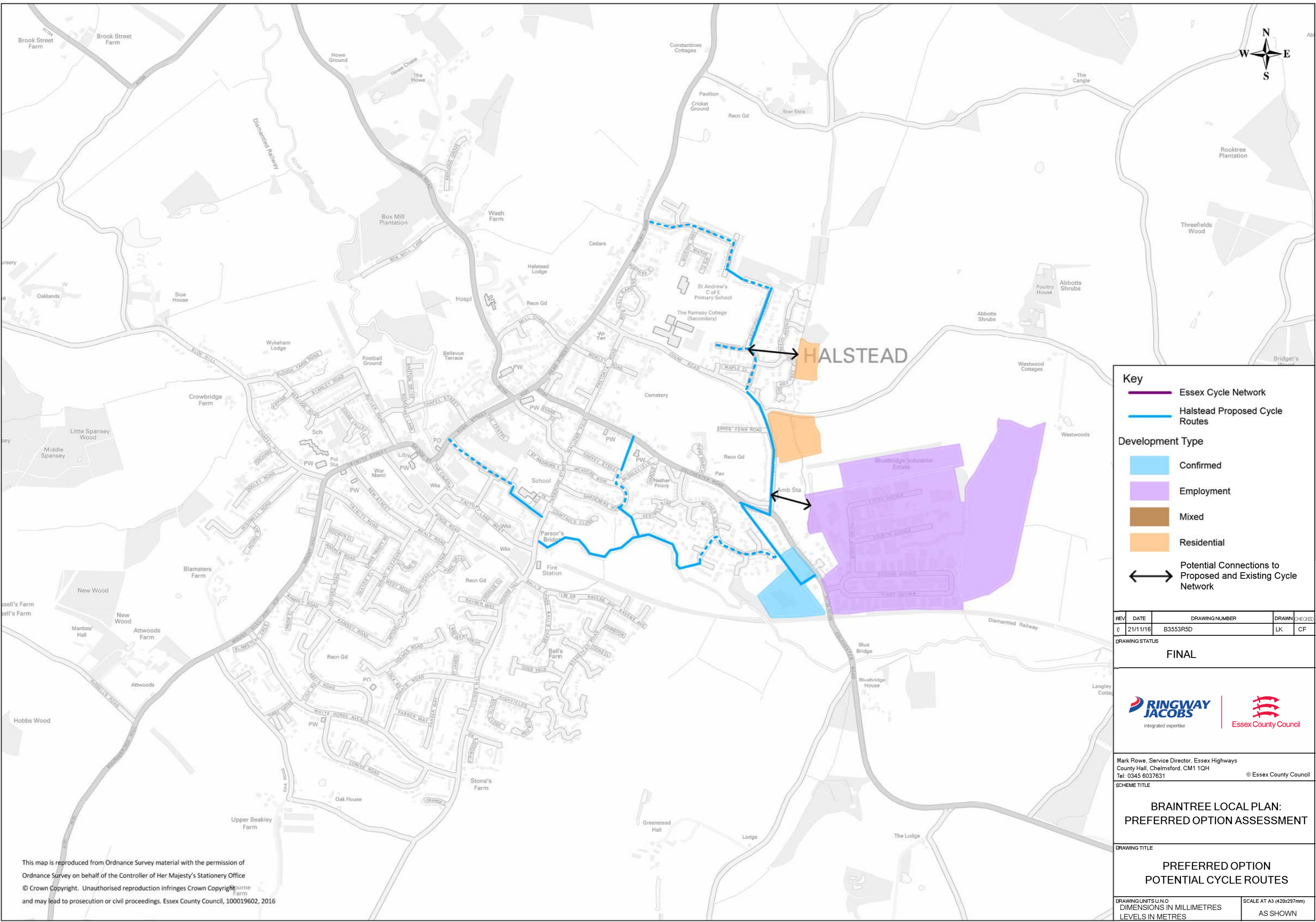
SCHEME TITLE
**BRAINTREE LOCAL PLAN:
PREFERRED OPTION ASSESSMENT**

DRAWING TITLE
**PREFERRED OPTION
POTENTIAL CYCLE ROUTES**



DRAWING UNITS U.N.O
DIMENSIONS IN MILLIMETRES
LEVELS IN METRES

SCALE AT A3 (420x297mm)
AS SHOWN





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


Key

-  Essex Cycle Network
-  Halstead Proposed Cycle Routes

Development Type

-  Confirmed
-  Employment
-  Mixed
-  Residential

 Potential Connections to Proposed and Existing Cycle Network

REV	DATE	DRAWING NUMBER	DRAWN	CHECKED
0	21/11/16	B3553R5D	LK	CF

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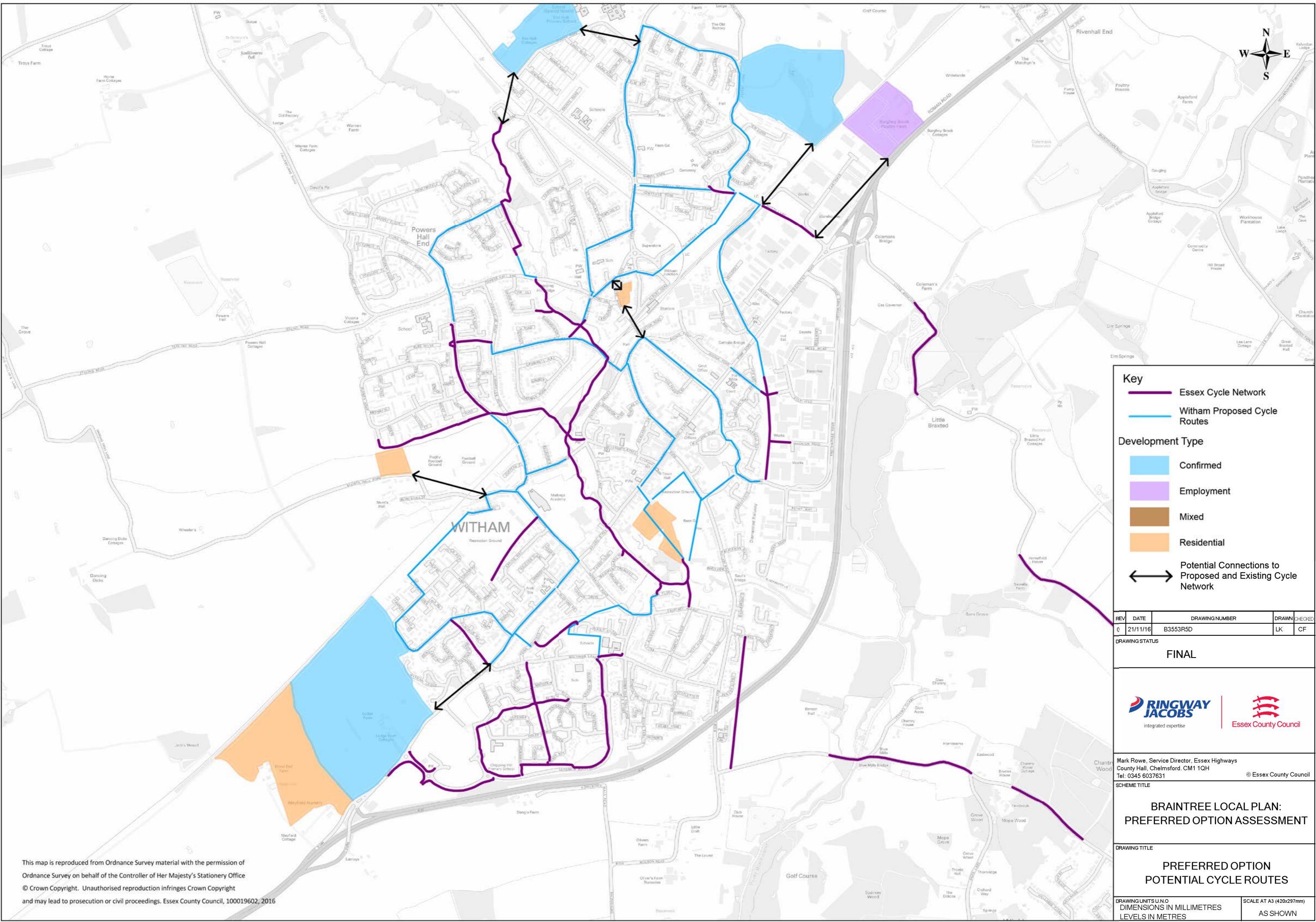
**BRAINTREE LOCAL PLAN:
PREFERRED OPTION ASSESSMENT**

**PREFERRED OPTION
POTENTIAL CYCLE ROUTES**

DRAWING UNITS: U.N.O
DIMENSIONS IN MILLIMETRES
LEVELS IN METRES

SCALE AT A3 (420x297mm)
AS SHOWN

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Key

- Essex Cycle Network
- Witham Proposed Cycle Routes

Development Type

- Confirmed
- Employment
- Mixed
- Residential

↔ Potential Connections to Proposed and Existing Cycle Network

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0	21/11/16	B3553R5D	LK	CF

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SCHEME TITLE
**BRAINTREE LOCAL PLAN:
PREFERRED OPTION ASSESSMENT**

DRAWING TITLE
**PREFERRED OPTION
POTENTIAL CYCLE ROUTES**

DRAWING UNITS U.N.O
DIMENSIONS IN MILLIMETRES
LEVELS IN METRES

SCALE AT A3 (420x297mm)
AS SHOWN

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