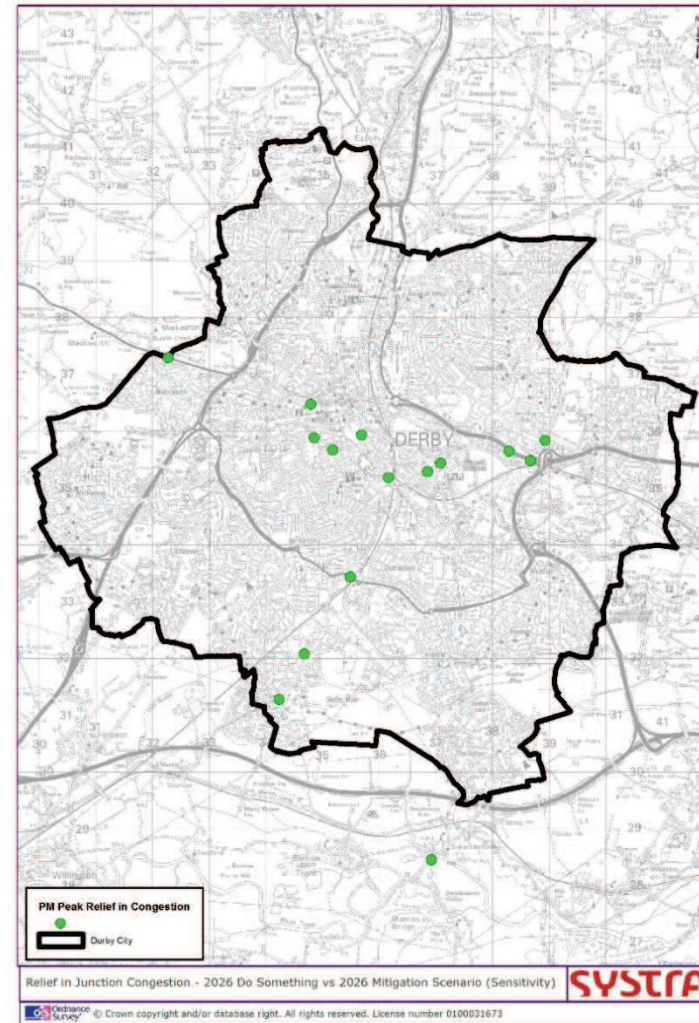
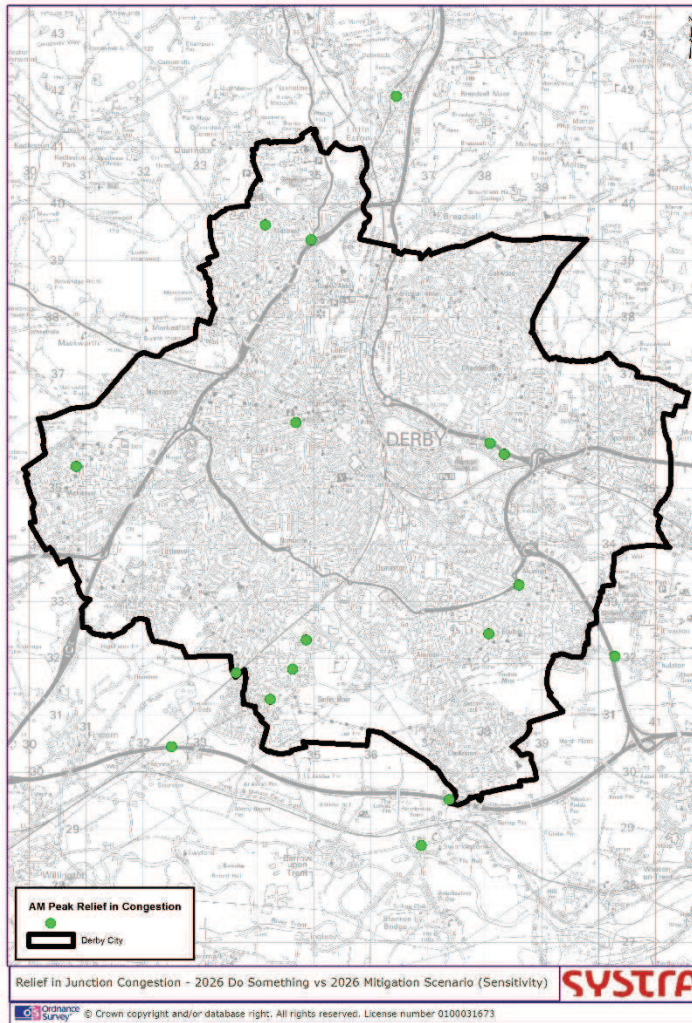
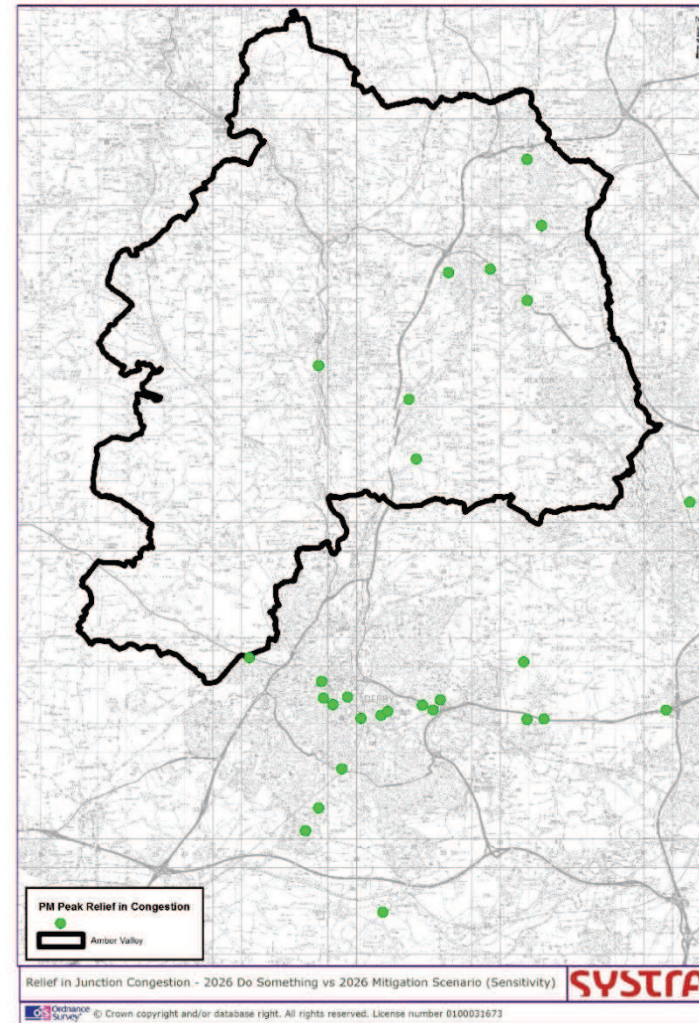
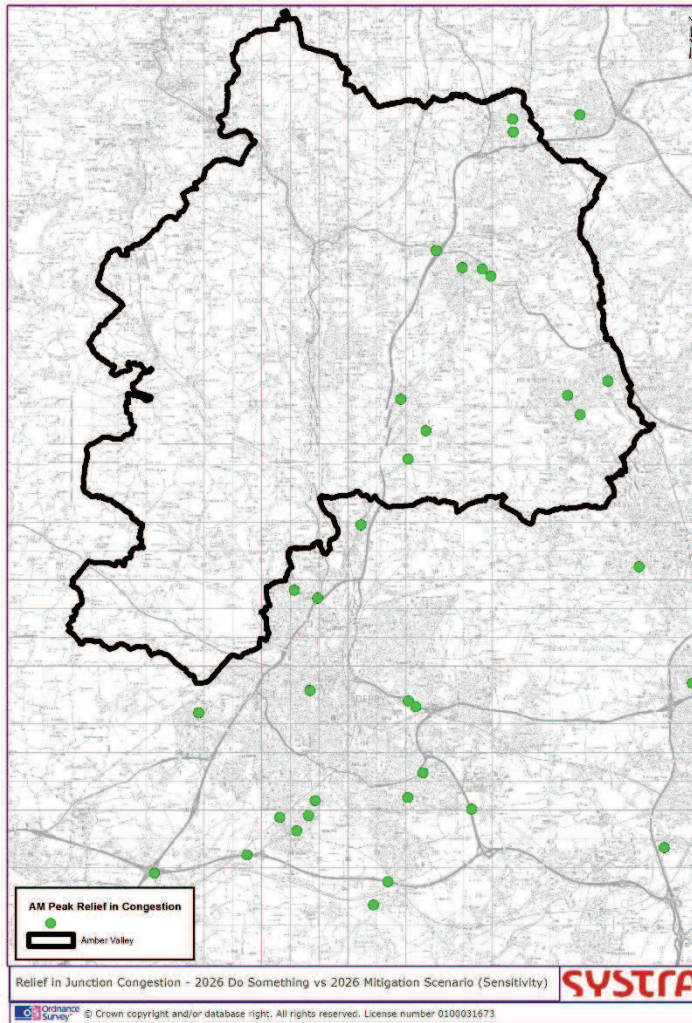


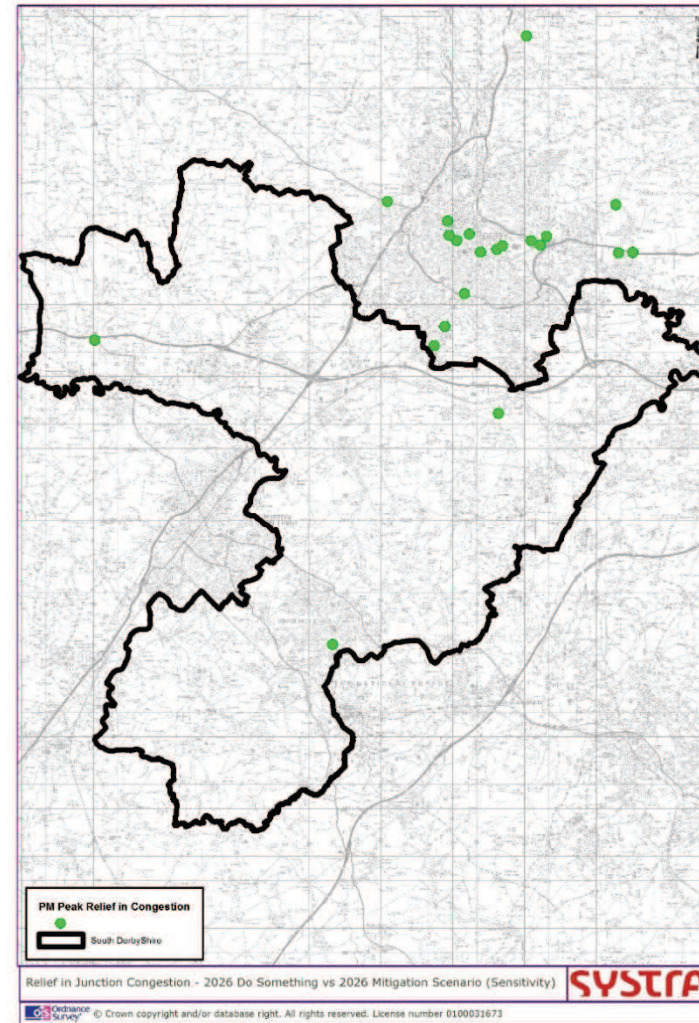
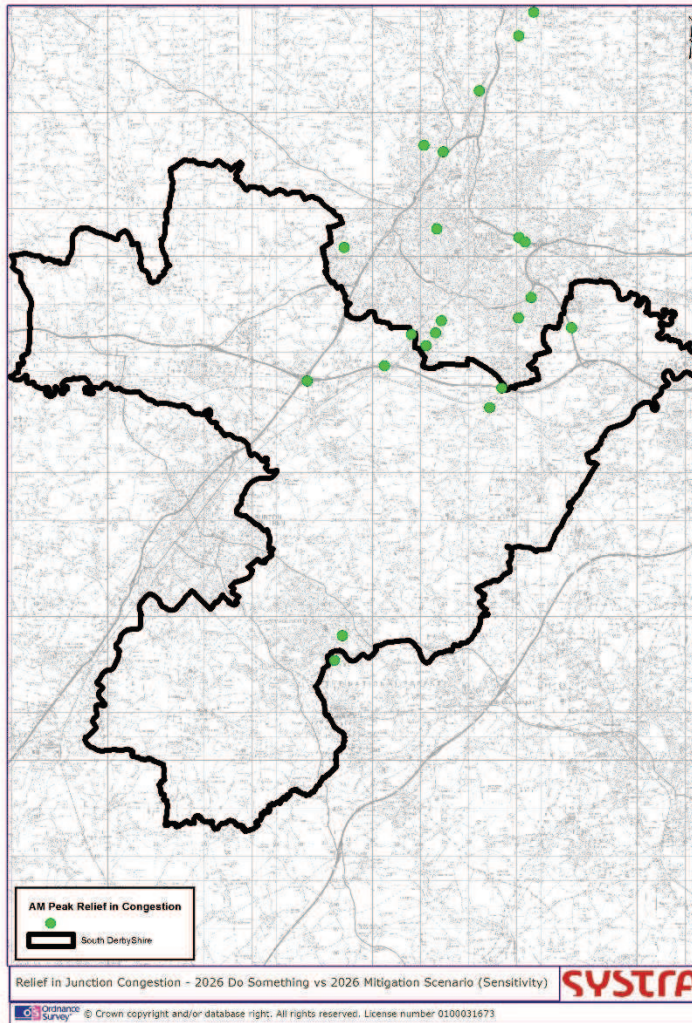
Congestion Decrease Derby



Congestion Decrease Amber Valley



Congestion Decrease South Derbyshire



3.



Network Indicators

SYSTRA

Full Area



INDICATOR	Morning peak				Evening peak			
	Ref	DS	Mit	% Mit	Ref	DS	Mit	% Mit
Over Capacity Queues (PCU Hrs)	3,083	4,254	3,959	25%	2,909	4,056	3,852	18%
Total Travel Time (PCU kms)	49,363	53,760	53,033	17%	45,677	50,059	49,397	15%
Total Travel Distance (PCU kms)	2,489,445	2,606,358	2,598,014	7%	2,304,439	2,427,823	2,416,608	9%
Average Speed (km/hr)	50.4	48.5	49.0	26%	50.5	48.5	48.9	20%

Amber Valley



INDICATOR	Morning peak				Evening peak			
	Ref	DS	Mit	% Mit	Ref	DS	Mit	% Mit
Over Capacity Queues (PCU Hrs)	268	603	482	36%	156	443	397	16%
Total Travel Time (PCU kms)	6,177	7,261	6,978	26%	5,865	6,987	6,737	22%
Total Travel Distance (PCU kms)	323,458	351,776	350,722	4%	315,770	349,342	346,356	9%
Average Speed (km/hr)	52.4	48.4	50.3	48%	53.8	50.0	51.4	37%

Derby City



INDICATOR	Morning peak				Evening peak			
	Ref	DS	Mit	% Mit	Ref	DS	Mit	% Mit
Over Capacity Queues (PCU Hrs)	718	1,102	1,041	16%	762	1,211	1,105	24%
Total Travel Time (PCU kms)	11,978	13,401	13,315	6%	12,190	13,506	13,397	8%
Total Travel Distance (PCU kms)	379,774	403,989	408,281	-18%	385,954	407,605	411,581	-18%
Average Speed (km/hr)	31.7	30.1	30.7	37%	31.7	30.2	30.7	33%

South Derbyshire



INDICATOR	Morning peak				Evening peak			
	Ref	DS	Mit	% Mit	Ref	DS	Mit	% Mit
Over Capacity Queues (PCU Hrs)	493	901	742	39%	511	823	752	23%
Total Travel Time (PCU kms)	7,667	8,964	9,103	-11%	7,609	8,943	9,123	-13%
Total Travel Distance (PCU kms)	421,367	462,062	483,682	-53%	419,366	460,467	482,998	-55%
Average Speed (km/hr)	55.0	51.5	53.1	46%	55.1	51.5	52.9	39%

Derby Urban Area



INDICATOR	Morning peak				Evening peak			
	Ref	DS	Mit	% Mit	Ref	DS	Mit	% Mit
Over Capacity Queues (PCU Hrs)	811	1,346	1225	23%	1,091	1,614	1,528	16%
Total Travel Time (PCU kms)	15,338	17,376	17,115	13%	15,802	17,755	17,466	15%
Total Travel Distance (PCU kms)	580,088	625,188	623,092	5%	585,606	628,992	624,579	10%
Average Speed (km/hr)	37.8	36.0	36.4	22%	37.1	35.4	35.8	24%

4.



Network Severity Indices

SYSTRA

Amber Valley



INDICATOR	Morning peak				Evening peak			
	Ref	DS	Mit	%	Ref	DS	Mit	%
				Mit				Mit
Congested Route kms	39	55	53	13%	36	49	46	25%
Severity Index	97	131	137	-16%	64	107	102	12%

Derby City



INDICATOR	Morning peak				Evening peak			
	Ref	DS	Mit	% Mit	Ref	DS	Mit	% Mit
Congested Route kms	36	46	44	20%	35	42	39	36%
Severity Index	104	132	134	-10%	99	116	112	25%

South Derbyshire



INDICATOR	Morning peak				Evening peak			
	Ref	DS	Mit	%	Ref	DS	Mit	%
				Mit				Mit
Congested Route kms	36	55	47	46%	30	58	51	22%
Severity Index	155	274	212	52%	131	328	272	28%

Derby Urban Area



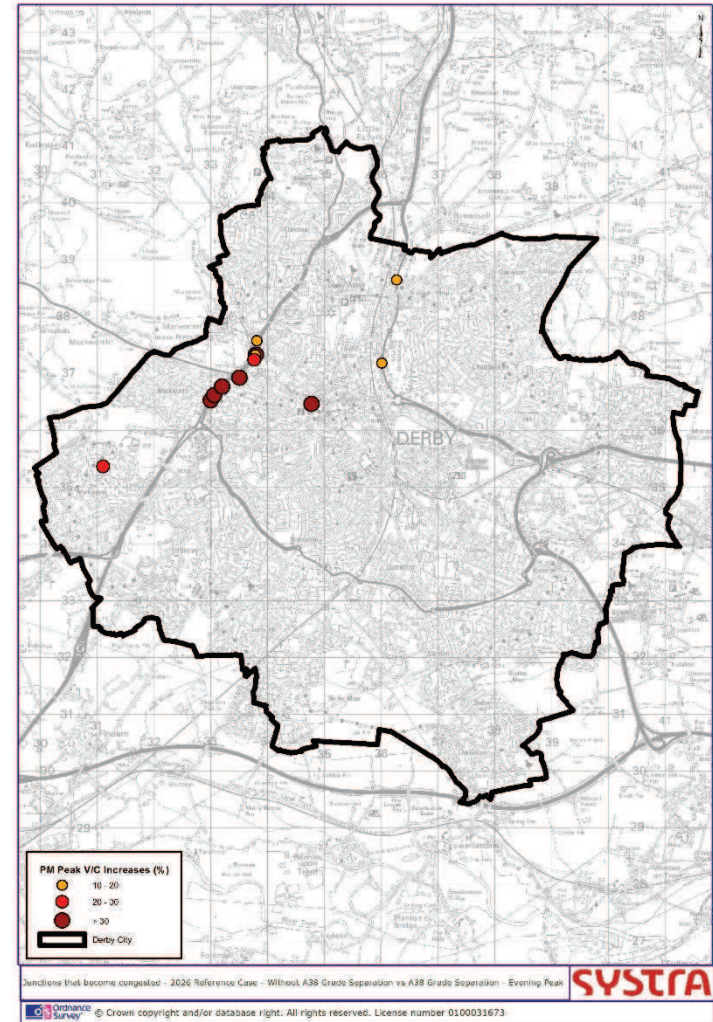
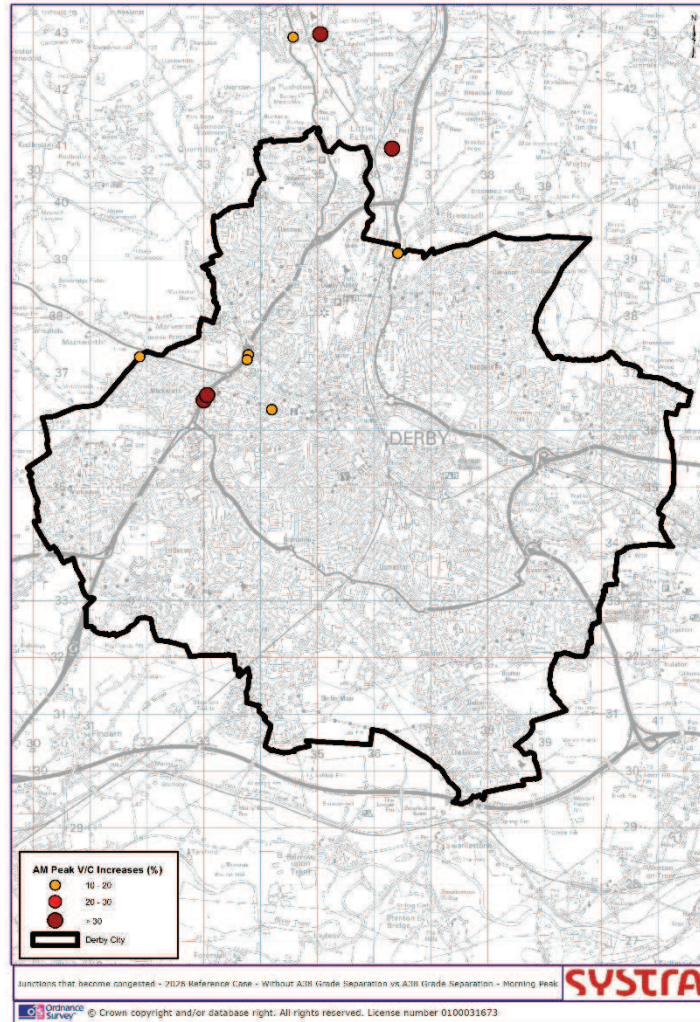
INDICATOR	Morning peak				Evening peak			
	Ref	DS	Mit	% Mit	Ref	DS	Mit	% Mit
Congested Route kms	47	74	67	26%	47	72	70	8%
Severity Index	158	322	304	11%	166	347	332	8%



With A38 Grade Separation compared to No A38 –
Reference Case

SYSTRA

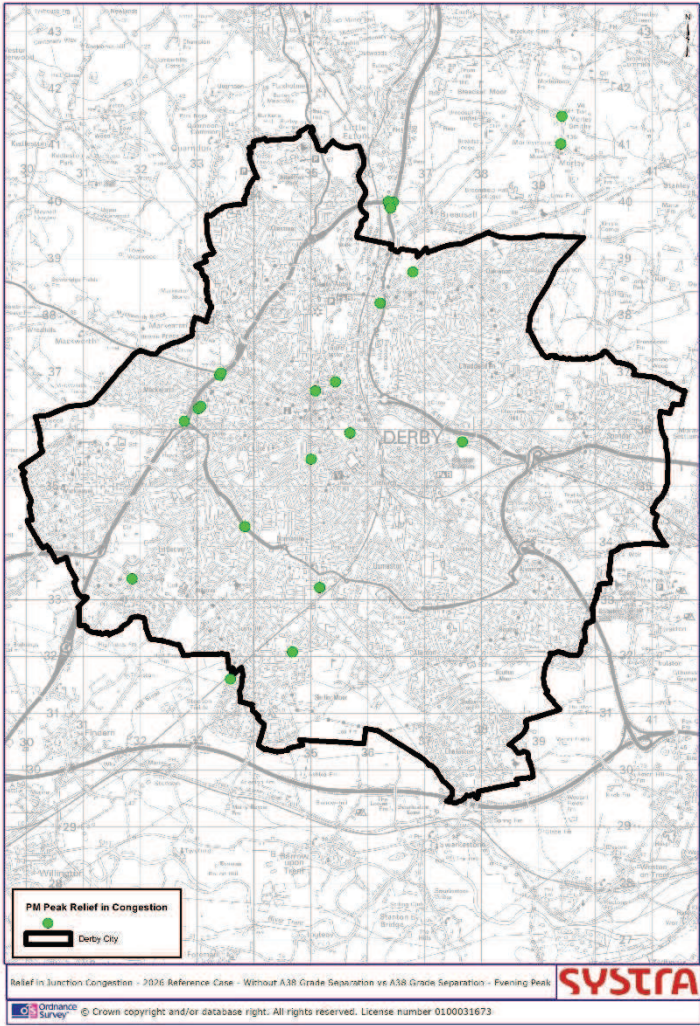
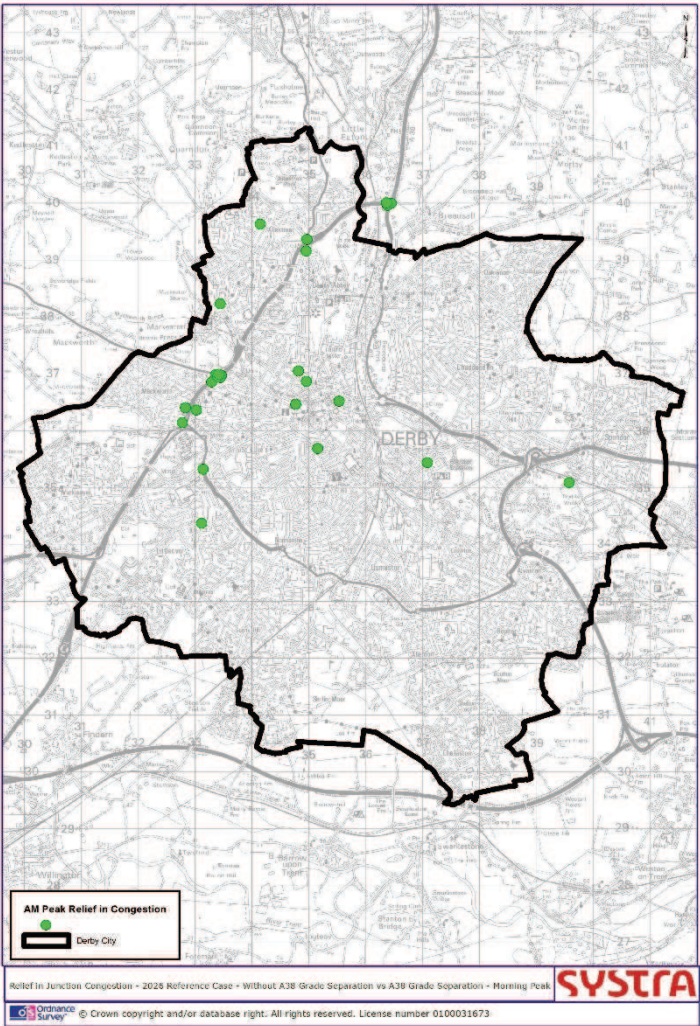
Becomes Congested Derby



Congestion Increase Derby



Congestion Decreases





With A38 Grade Separation compared to No A38 – with CS
no Mitigation

SYSTRA

Becomes Congested Derby

