

West Midlands Average Speed Enforcement Pilot – Initial Evaluation

Presentation to Transportation,
Economy and Skills O&S
Committee – December 2017



AECOM



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History of Speed Enforcement

- West Midlands Casualty Reduction Partnership formed in 2002, step up of activity from 2007
- Disbanded in 2011 due to abolition of Road Safety Grant
- April 2013 GATSO camera operation ceased
- Mobile enforcement ongoing plus roads policing activities

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ASE Pilot / Why ASE?

- BCC, SMBC and WMP agreed to go forward with pilot ASE:
 - Improve road safety – reduce KSI
 - Improve speed compliance
 - Improve driver behaviour over larger area
 - Upgrading aging infrastructure
 - Solution that could be expanded to other sites with minimum costs
 - Improve back office operational efficiencies
- ASE cameras installed on 8 routes between BCC and SMBC
- BCC capital cost c. £300k
- ASE cameras went live in August 2016

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Pilot Routes ^{AG7}

Road	Authority	Length (miles)	Speed Limit (mph)
A38 Bristol Road	Birmingham	0.30	30
A456 Hagley Road	Birmingham	1.74	30
A45 Coventry Road	Birmingham	0.87	40
A4540 New John Street	Birmingham	0.12	30
A34 Newtown Row	Birmingham	0.37	30
B4114 Bradford Road	Solihull	0.25	30
B425 Lode Lane	Solihull	0.37	30
A3400 Stratford Road	Solihull	0.56	30

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How does it work?

- Speed is measured by a pair of ANPR cameras
- Number plates read at entry and again at exit
- Calculates the time vehicle taken to travel between the two points and converts to speed based on fixed distance
- Images of the offence automatically retrieved from the cameras
- WMP undertake the speed enforcement
- ASE cameras are rotated on a monthly basis from the back office
- All sites are calibrated on a yearly basis and regularly maintained by the equipment provider



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AG7 Length in miles and formatted table
Ampartzis, Georgios, 29/11/2017

Evaluation criteria

- Evaluation based primarily on speed reduction
- Collisions considered but not main factor:
 - Sites previously had GATSO cameras so had already seen collision reduction
 - Needs a full year of collision data but ideally three

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Speed Reduction ^{AG4}

Site	Speed Limit (mph)	85th%ile Speed before ASE (mph)	85th%ile Speed after ASE (mph)	Speed Reduction (%)
A38 Bristol Road Site 928	30	39.8	32.2	-19.10
A456 Hagley Road Site 924 (WB)	30	38.5	32.2	-16.36
A456 Hagley Road Site 925 (EB)	30	39.4	31.5	-20.05
A45 Coventry Road Site 926 (WB)	40	47.9	40.5	-15.45
A45 Coventry Road Site 927 (EB)	40	N/A	41.2	N/A
A4540 New John Street Site 178 (EB)	30	40.5	32.9	-18.77
A4540 New John Street Site 179 (WB)	30	38.9	32.4	-16.71
A34 Newtown Row	30	39.8	33.6	-15.58
B4114 Bradford Road Site 334 (EB)	30	38	32	-15.79
B4114 Bradford Road Site 336 (WB)	30	N/A	31.3	N/A
B425 Lode Lane Site 326 (NB)	30	33.6*	32.7	-2.68
B425 Lode Lane Site 327 (SB)	30	34.2*	33.1	-3.22
A3400 Stratford Road Site 2313 (NB)	30	38	32.9	-13.42
A3400 Stratford Road Site 2314 (SB)	30	38.5	31.8	-17.40



Average Speed Reduction at all sites: -14.54%

Before ASE data collected for the period of one week in April 2016.

After ASE data collected for the period of one week during April, May and August 2017.

Data captured by pneumatic counting device.

* Dec 2014

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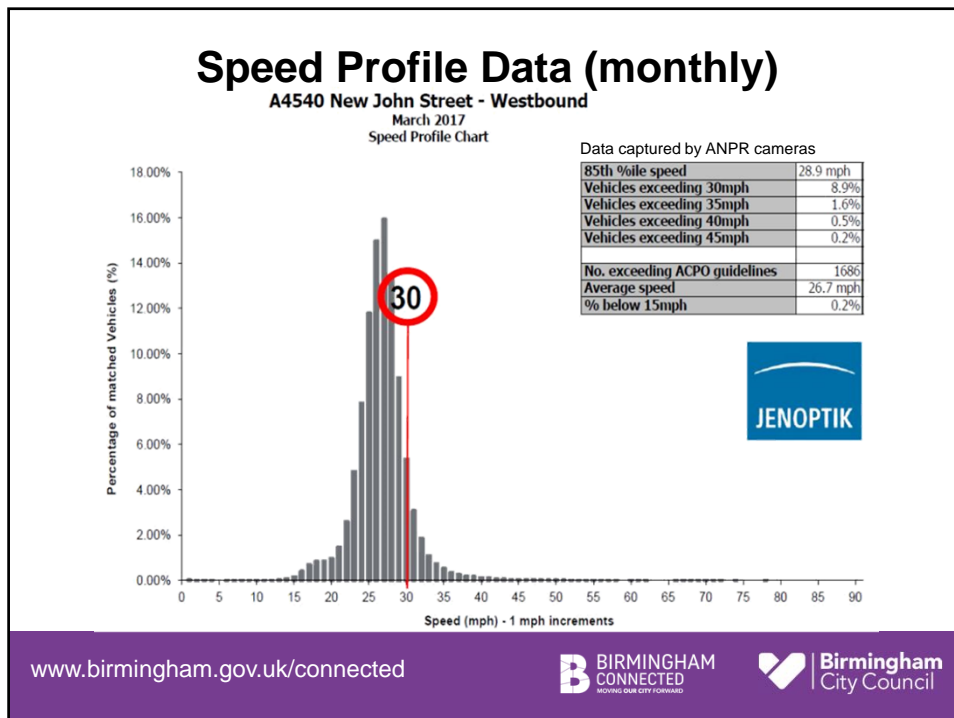
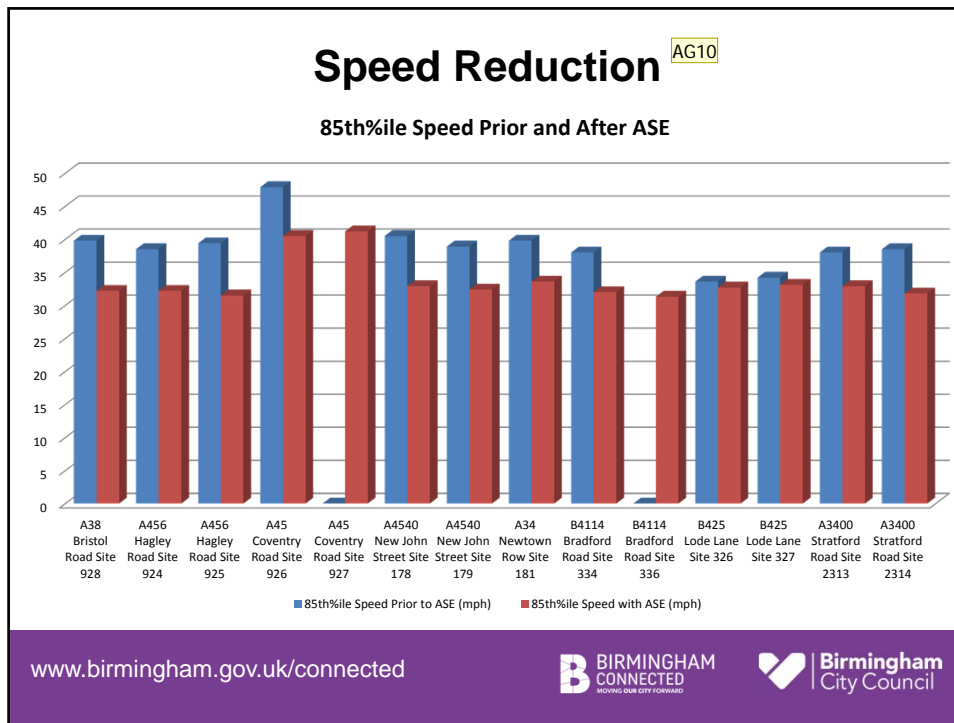


Slide 8

AG4

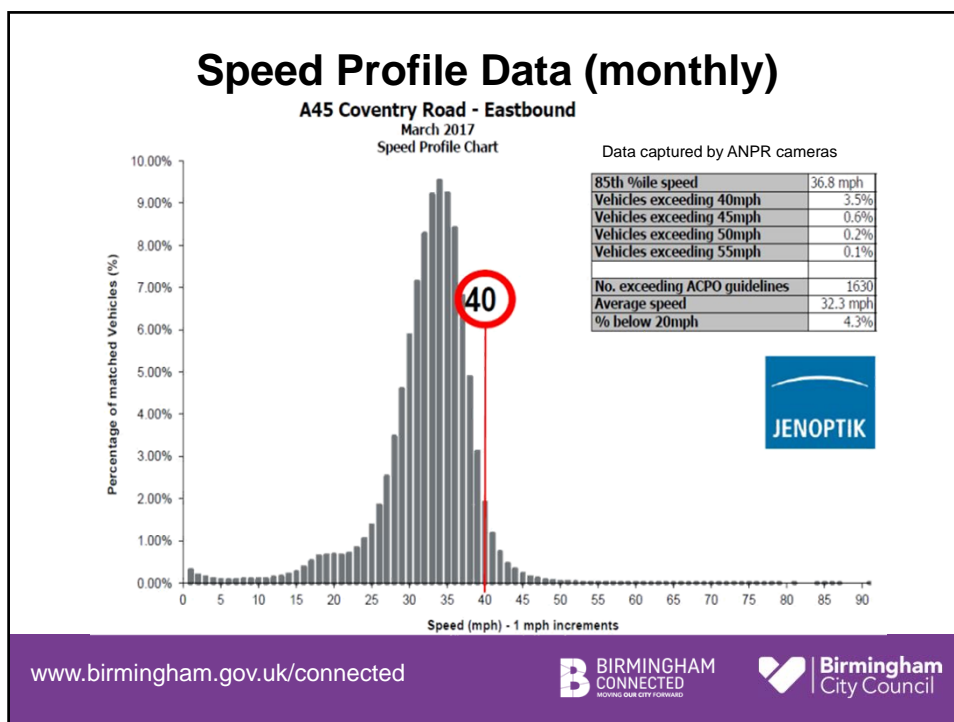
ADDED site direction

Ampartzis, Georgios, 29/11/2017



Slide 9

AG10 Amended key of graph
Ampartzis, Georgios, 29/11/2017



Pilot Conclusions

Primary Benefits

- Speed Reduction
- Larger 'halo impact' – driver compliance over longer distance
- No vandalism to date
- Less civils costs and easier to install or relocate

Secondary Benefits

- Clone vehicles have been identified
- Repeat offenders
- Aids WMP in investigating other offences/crimes
- Use of traffic data – many possibilities
- Positive public response – want more!

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Way Forward & Next Steps

- Full 21 month evaluation period to be concluded
- Sufficient positive results from pilot to roll-out
- Existing arrangements/contract allow for further expansion
- Already commenced high level discussions with WMP
- Data-led approach to bringing forward new sites – will look at existing GATSO sites and others – integrate into scheme delivery where applicable – desktop exercise in new year, other timescales tbc
- Longer term – other West Midlands authorities looking to bring sites forward – legal agreements and procurement will take time – focus on Key Route Network for WM coordination?

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Partner Views



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Discussion and Questions

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