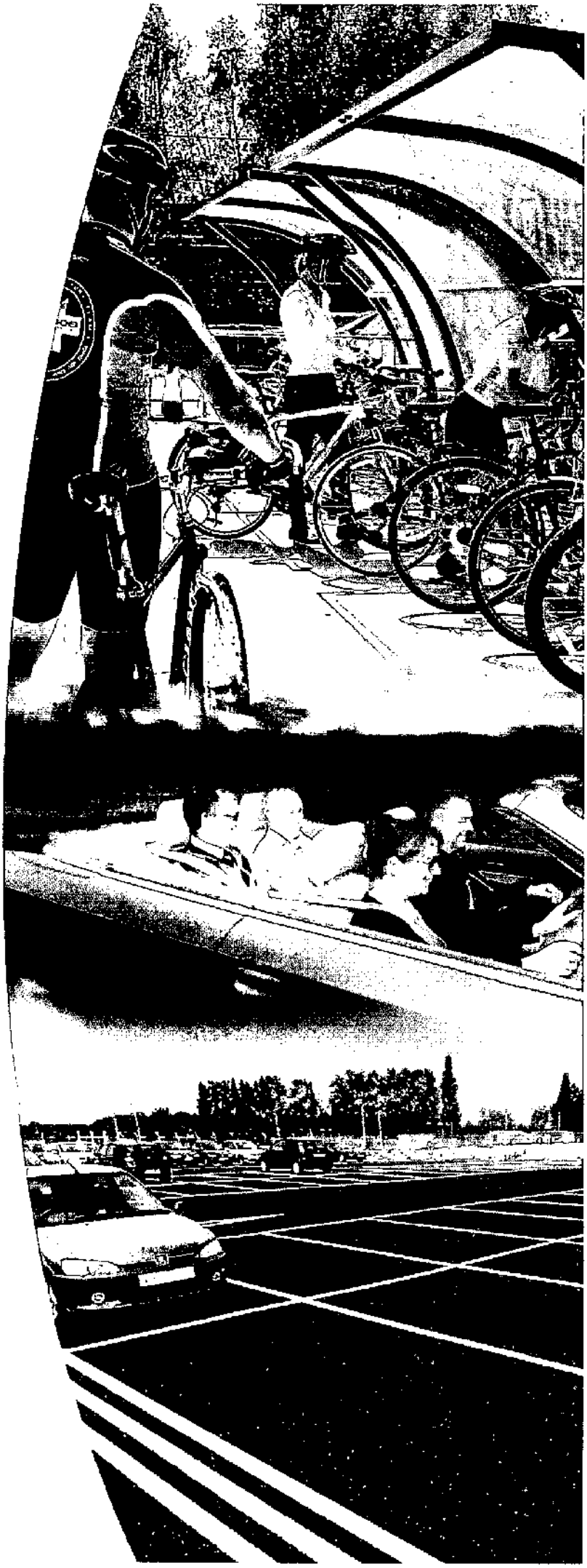
Sites Development

Preliminary Evaluation of the Transport Implications of the SDCP (PETIS)



PRELIMINARY EVALUATION OF THE TRANSPORT IMPLICATIONS OF THE SDCP

Summary text

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AMENDMENT RECORD

Amendment Number	Date Issued	Date Inserted	Amended by (signature)	Pages Affected

This is a Category B document.

Amendments must be recorded in the table above.

Agreed changes will be incorporated by Philip Parry.

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EXECUTIVE SUMMARY

This report summarises the key issues that arise from the preliminary evaluation of the transport implications of the Government's programme of investment to sustain key skills and facilities at AWE Aldermaston and Burghfield, as announced by the Secretary of State for Defence on 19 July 2005.

Neither the AWE Aldermaston or Burghfield sites are well connected to the surrounding transport network. There is no direct access to the trunk road network, surrounding roads have a poor safety record and connecting routes are constrained by vehicle, weight and height restrictions. Existing pedestrian and cycle provision is generally poor, bus services are relatively infrequent and there is no direct access to the rail network. Notwithstanding these issues, there are potential opportunities to improve the surrounding transport network.

It is currently estimated that the Investment Programme will increase operational staff and contractors at AWE Aldermaston by 1300 (including Portland House and Blacknest House). An additional 1200 construction staff and contractors are also estimated to be on site in 2012. Overall therefore, staff and contractors are estimated to increase by 2500, from an existing population of 5000 to a peak population of 7,500 in 2012 (including Portland House).

It is currently estimated that the Investment Programme will increase operational staff and contractors at AWE Burghfield by 150. An additional 450 construction staff and contractors are also estimated to be on site in 2012. Overall therefore, staff and contractors are estimated to increase by 600, from an existing population of 675 to a peak population of 1275 in 2012.

The increase in construction worker trips generated by the Investment Programme will only be temporary. Indeed, it is estimated that traffic levels will return to existing levels by 2016 if the Travel Plan targets are met. Where appropriate, the provision of initiatives should therefore reflect the temporary nature of the increases. It should also be noted that direct labour at Aldermaston and Burghfield has historically been higher than the peaks that are estimated to occur as a result of the Investment Programme.

At Aldermaston, it is estimated that the Investment Programme will generate some 4850 additional vehicular two-way trips (including 192 HGV two-way trips) during the day in 2012. At Burghfield, it is estimated that the Investment Programme will generate some 1150 additional two-way vehicular trips (including 90 HGV two-way trips) during the day in 2012.

It is probable that more than 1000 operational staff and contractors could live close enough to the sites to be able to walk and cycle. It is also probable that more than 1200 operational staff and contractors could live within walking distance of existing bus services.

The following junctions will also need some changes to accommodate changing travel patterns associated with the Investment Programme:

- West Gate (N).
- West Gate (S)
- Main Gate.
- Heath End roundabout.
- Falcon Gyratory.

All these junctions are located in the vicinity of AWE Aldermaston. No operational issues are predicted to occur at junctions in the vicinity of AWE Burghfield.

A Travel Plan has been prepared in support of the Investment Programme to:

- promote more sustainable transport choices for existing and future staff, contractors, visitors and where feasible, construction workers;
- promote accessibility to the AWE sites by walking, cycling, passenger transport, and car sharing and gate management;
- reduce the need to travel, especially alone by car; and
- better manage construction traffic, goods vehicles and service vehicles.

The Travel Plan aims to reduce the number of single occupancy vehicular trips from 82% to 65% at AWE Aldermaston and from 92% to 75% at Burghfield.

The majority of the movements generated by the additional operational workforce at AWE Aldermaston and Burghfield will be ameliorated if the Travel Plan targets are met. Accordingly, assuming the targets are met, the residual transport impact resulting from the Investment Programme will largely be related to construction generated traffic.

Consultation will be held with WBC, HCC and BDBC, to discuss and determine opportunities to improve facilities for pedestrians and cyclists, and to reduce vehicular speeds on the roads in the vicinity of the AWE site. Consultation will also be held with these authorities to determine opportunities to provide more regular, frequent and better marketed passenger transport services.

Managing flows through better utilisation of gates will further reduce the residual impact of the Investment Programme in operational terms.

Changes to the Heath End roundabout, Falcon Gyratory, West and Main Gates will be required. Discussions will be held with WBC, HCC and BDBC to determine opportunities to implement highway improvements.

Any mitigation measures will ameliorate the impact of the Investment Programme and reduce delays to levels lower than those that are estimated to occur without the Investment Programme in place.

The impact of construction traffic could be further reduced by requiring HGV movements to follow pre arranged construction routes. This could be achieved by AWE having routing agreements with their construction contractors.

1. INTRODUCTION

1.1 This report summarises the key issues that arise from the preliminary evaluation of the transport implications of the Government's programme of investment to sustain key skills and facilities at AWE Aldermaston and Burghfield, as announced by the Secretary of State for Defence on 19 July 2005.

2. EXISTING TRANSPORT SITUATION

2.1 Site Location

2.1.1 The location of the AWE sites at Aldermaston (including Portland House and Blacknest House) and Burghfield are shown, in relation to the surrounding highway network, on Figure 1. AWE Aldermaston can be accessed via a series of gates. These gate locations are shown on Figure 2.

2.1.2 It is important to note that both sites are located in relatively remote locations, primarily as a result of the activities that are undertaken at the sites.

2.1.3 There are various vehicle weight, height and width restrictions on roads surrounding both the AWE sites. These are generally in place to facilitate the crossing of the Kennet and Avon Canal. The restrictions are shown on Figure 3.

2.1.4 Having regard to these restrictions, and the desire to restrict construction HGV traffic to the strategic highway network as far as possible, there are minimal alternative routing options available to construction HGV traffic. The resulting available routing options are shown on Figure 4.

2.2 External Traffic Data

2.2.1 Existing traffic flows on the highway network surrounding AWE Aldermaston and Burghfield are shown on Figures 5 and 6.

2.2.2 Existing traffic flows indicate that the AM and PM peak hours on the external highway network are 0800 – 0900 hours and 1700 – 1800 hours respectively. This differs to the AWE site generated AM and PM peak hours that are 0715 – 0815 hours and 1630 – 1730 hours respectively.

2.2.3 Traffic speeds on links surrounding the AWE sites are generally high, particularly on the A340.

2.3 Existing Pedestrian and Cycle Provision

2.3.1 Existing pedestrian and cycle provision in the vicinity of the AWE Aldermaston and Burghfield sites is generally poor.

2.3.2 It is generally accepted that commuters will walk up to a maximum distance of 2km and cycle up to a maximum distance of 5km. In 2005, at least 1050 operational staff / contractors based at AWE Aldermaston lived within these walking and cycling distances of the site and at least 80 staff / contractors based at AWE Burghfield lived within these walking and cycling distances of the site. However, the poor facilities in the vicinity of both sites, combined with the high vehicle speeds on surrounding roads, contribute to deter walking and cycling to the sites. Indeed, given these poor facilities, AWE would not wish to encourage staff and contractors to cycle to and from their sites. Notwithstanding this, if improvements to off-site pedestrian and cycle facilities are made then this view could be reconsidered.

2.4 Passenger Transport

2.4.1 The sites are generally poorly served by bus services. However, Service 1 provides a good service between Basingstoke and the AWE Aldermaston site. This operates every 20 minutes from Basingstoke and, in 2005, approximately 1,000 operational staff and contractors lived within walking distance of the route.

2.4.2 Aldermaston railway station is located on the Reading – Bedwyn main line, approximately 5km from the AWE Aldermaston site and is served by 4-5 services in each direction during peak periods. The services that call at Aldermaston essentially serve all stations between Reading and Newbury.

2.4.3 Theale railway station is located on the Reading – Bedwyn main line, approximately 5km from the AWE Burghfield site and is served by 6-7 services in each direction during peak periods. Mortimer and Bramley railway stations are located on the Reading – Basingstoke main line, approximately 5 and 12km from the AWE Burghfield site respectively and are served by half hourly services in each direction.

2.5 Personal Injury Accidents

2.5.1 A review of Personal Injury Accidents (PIA) that have occurred in the vicinity of the AWE Aldermaston and Burghfield sites for the five year period, February 2000 to January 2005, indicate that there is a poor safety record on the following links:

- A340, Paices Hill (B3051 Link Road to Aldermaston village)
- A340 (Falcon Gyratory to Honey Mill Bridge)
- Church Road (Spring Lane to Rag Hill)
- Reading Road (Winkworth Lane to Falcon Gyratory)

2.6 Existing Travel Patterns

2.6.1 Surveys undertaken at AWE Aldermaston in March 2006 identified that:

- 82% of movements accessing / egressing the site were single occupancy vehicle trips. Of the remaining movements, 6% car shared, 5% cycled, 3% walked, 2% used passenger transport, and 2% used other modes.
- Approximately 10,700 gate movements occurred each day at Aldermaston main site, of which 9,175 were vehicular.
- 49% of gate movements used the West Gate, 44% used the Main Gate, 4% used the Falcon Gate and 3% used the Boiler House Gate.
- Approximately 1,350 gate movements occurred each day at Portland House, of which 1,275 were vehicular.

2.6.2 It should be noted that a parking management strategy was implemented at Portland House in 2006. Permits have been allocated to staff based in Portland House and visitors (including staff on the main AWE Aldermaston) are expected to travel to and from Portland House by a shuttle bus service that has been provided by AWE (that continues to AWE Burghfield). Parking spaces have been provided to facilitate this in the existing Recreational Society car park. This initiative will reduce daily vehicular movements to and from Portland House, from the existing 1,275 vehicles per day to approximately 600 vehicles per day.

2.6.3 Surveys undertaken at AWE Burghfield in March 2006 identified that:

- 92% of movements accessing / egressing the site were single occupancy vehicle trips. Of the remaining movements, 2% car shared, 4% used passenger transport and 2% cycled.
- Approximately 1,325 gate movements occurred each day, of which 1,250 were vehicular.

2.7 Existing Operational Staff and Contractor Distribution

2.7.1 A review of the home location areas of operational staff and contractors based at AWE Aldermaston and Burghfield in 2005 indicates that they were relatively evenly distributed in relation to nearby centres of population.

2.8 Car Parking

2.8.1 In March 2006 there were approximately 3,900 parking spaces generally available at AWE Aldermaston and approximately 950 parking spaces generally available at AWE Burghfield.

3. PLANNED EXTERNAL HIGHWAY IMPROVEMENTS AND TRAFFIC GROWTH

3.1 Planned External Highway Improvements

3.1.1 A major junction improvement is proposed for Junction 11, M4. Funding for the scheme will be available to allow the scheme to commence construction in Spring 2007. The scheme is expected to take some 2-3 years to complete.

3.2 Traffic Growth

3.2.1 AWE currently estimate that numbers of operational and construction staff and contractors generated by the Investment Programme will peak in 2012. Accordingly, this is the future year that was used for considering the impact of the Investment Programme on the external network.

3.2.2 Base year 2005 existing background traffic flows were therefore factored to 2012. The resulting future year 2012 flows are shown on Figures 5 and 6.

4. INVESTMENT PROGRAMME

4.1 Predicted Changes in Operational and Construction Staff and Contractors

4.1.1 It is currently estimated that the Investment Programme will increase operational staff and contractors at AWE Aldermaston by 1300 (including Portland House and Blacknest House). An additional 1200 construction staff and contractors are also estimated to be on site in 2012. Overall therefore, staff and contractors are estimated to increase by 2500, from an existing population of 5000 to a peak population of 7,500 in 2012 (including Portland House).

4.1.2 It is currently estimated that the Investment Programme will increase operational staff and contractors at AWE Burghfield by 150. An additional 450 construction staff and contractors are also estimated to be on site in 2012. Overall therefore, staff and contractors are estimated to increase by 600, from an existing population of 675 to a peak population of 1275 in 2012.

4.1.3 It should also be noted that direct labour at Aldermaston and Burghfield has historically been higher than the peaks that are predicted to occur as a result of the Investment Programme.

4.2 Integrated Transport Strategy

4.2.1 The Investment Programme provides AWE with the opportunity to develop an Integrated Transport Strategy. AWE is therefore proposing to develop a strategy that focuses on demand management, and in particular:

- manages traffic on and off site;
- manages parking on site; and
- encourages use of alternative modes to travelling alone by car (Travel Plan).

4.3 Access Proposals

4.3.1 The existing West Gate will become the main point of access to the site, whilst the Main Gate and Boiler House Gate remain open. The opening hours of the Boiler House Gate will be extended to replicate those of the West Gate (0630 - 1900 hours).

4.3.2 To minimise the impact on the external highway network, the operational workforce who travel by car will be encouraged to use gates based on their home postcode location.

4.3.3 It is also proposed to re-open the A340(N) gate for HGV construction traffic and Falcon Gate for traffic exiting the site. A new pedestrian / cycle gate will be provided between AWE Aldermaston and Portland House.

4.3.4 It is also intended to reopen Pingewood Gate at AWE Burghfield.

4.4 Car Parking

4.4.1 Current operational workforce predictions suggest that approximately 4,400 car parking spaces will be required for the operational workforce at Aldermaston. However, car parking demand will peak in 2009 as the Travel Plan will not have met its targets by this time. It is estimated that 4,700 car parking spaces will need to be provided at this time.

4.4.2 Current operational workforce predictions suggest that approximately 700 car parking spaces will need to be provided for the operational workforce in 2012 at AWE Burghfield.

4.4.3 AWE currently predict that up to 1200 car parking spaces will be required by the construction workforce. The location of this car parking is currently being considered by AWE. Construction workers will also be encouraged to participate in the Travel Plan initiatives.

4.5 Travel Plan

4.5.1 A Travel Plan has been prepared in support of the Investment Programme to:

- promote more sustainable transport choices for existing and future staff, contractors, visitors and where feasible, construction workers;
- promote accessibility to the AWE sites by walking, cycling, passenger transport, and car sharing and gate management;
- reduce the need to travel, especially alone by car; and
- better manage construction traffic, goods vehicles and service vehicles.

4.5.2 The Travel Plan will aim to meet the following modal split targets:

	MODAL SPLIT			
	ALDERMASTON		BURGHFIELD	
	EXISTING	2012	EXISTING	2012
SOV	82%	65%	92%	75%
Car Share	6%	13%	2%	10%
Passenger Transport	2%	10%	4%	12%
Bicycle	5%	6%	2%	2%
Walk	3%	4%	0%	0%
Other	2%	2%	0%	1%
	100%	100%	100%	100%

5. TRIP GENERATION AND DISTRIBUTION

5.1 At Aldermaston, it is estimated that the Investment Programme will generate some 4850 additional vehicular two-way trips (including 192 HGV two-way trips) during the day in 2012. At Burghfield, it is estimated that the Investment Programme will generate some 1150 additional vehicular two-way trips (including 138 HGV two-way trips) during the day in 2012. The resulting increases in traffic are shown on Figures 5 and 6.

5.2 It is important to note that the additional construction worker trips generated by the Investment Programme will only be temporary. Indeed, it is estimated that traffic will return to existing levels by 2016 if the Travel Plan targets are met. Where appropriate, the provision of initiatives should therefore reflect the temporary nature of the increases.

6. ASSESSMENT

6.1 It is probable that more than 1000 operational staff and contractors could live close enough to the sites to be able to walk and cycle. It is also probable that more than 1200 operational staff and contractors could live within walking distance of existing bus services.

6.2 Key junctions in the vicinity of the AWE Aldermaston and Burghfield were operationally assessed in the AM and PM peak periods in 2012. This identified that it will be necessary to implement some changes to the following junctions to accommodate the changing traffic patterns associated with the Investment Programme:

- West Gate (N).
- West Gate (S)
- Main Gate.
- Heath End roundabout.
- Falcon Gyratory.

7. MITIGATION MEASURES

7.1 The majority of the movements generated by the additional operational workforce at AWE Aldermaston and Burghfield will be ameliorated if the Travel Plan targets are met. Accordingly, assuming the targets are met, the residual transport impact resulting from the Investment Programme will largely be related to construction generated traffic.

7.2 Consultation will be held with WBC, HCC and BDBC, to discuss and determine opportunities to improve facilities for pedestrians and cyclists, and to reduce vehicular speeds on the roads in the vicinity of the AWE site. Consultation will also be held with these authorities to determine opportunities to provide more regular, frequent and better marketed passenger transport services.

7.3 Managing flows through better utilisation of gates will further reduce the residual impact of the Investment Programme in operational terms.

7.4 Changes to the Heath End roundabout, Falcon Gyratory, West and Main Gates will be required to mitigate impacts. The location of these junctions are shown on Figure 7.

7.5 The effectiveness of these mitigation measures were operationally assessed and the impact on delays on key routes to the Aldermaston site in the AM peak period are shown below.

		TOTAL DELAY (SECONDS)		
FROM	TO	2012 / NO DEVELOPMENT	2012 / WITH DEVELOPMENT / GATE MANAGED / TRAVEL PLAN	2012 / WITH DEVELOPMENT / GATE MANAGED / TRAVEL PLAN / HIGHWAY IMPROVEMENTS
A340(N)	West Gate (N)	0	0	>0
B3051	West Gate (N)	<60	>300	<30
B3051	West Gate (S)	<60	<240	<30
Heath End Road	West Gate (N)	<60	<150	>30
Heath End Road	West Gate (S)	<60	>300	>30
Burnham Road	West Gate (S)	0	>0	>0
A340(S)	Main Gate (W)	>300	>300	<90
Soke Road	Boiler House Gate	<30	<30	<30
Welshman's Road / Reading Road (E)	Boiler House Gate	0	0	0

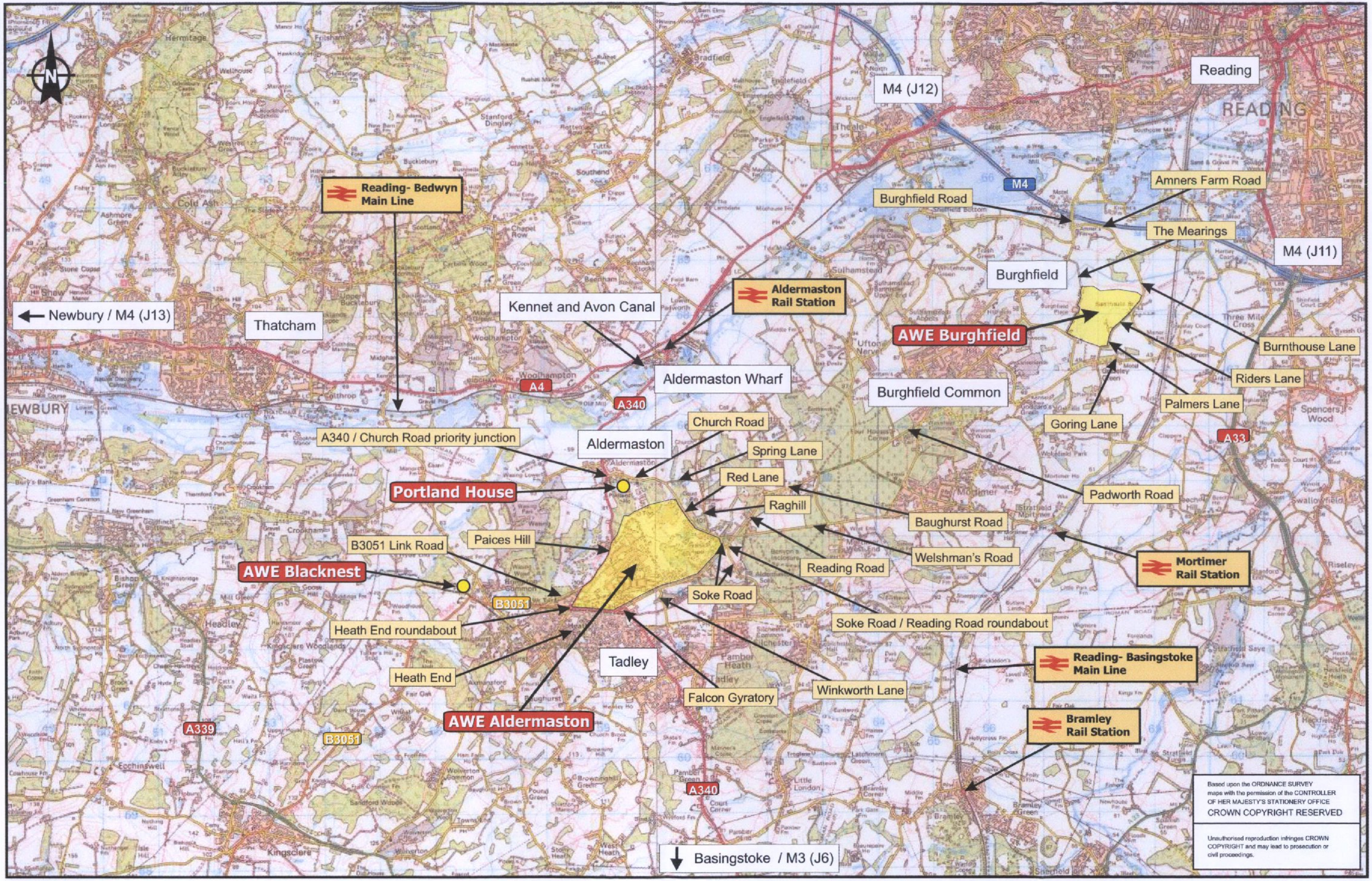
7.6 The operational assessments demonstrate that the introduction of gate management and meeting the Travel Plan targets will not ameliorate the impact of the Investment Programme. However, the introduction of highway improvements will ameliorate the impact and reduce delays to levels lower than those that are estimated to occur in 2012 without the Investment Programme in place. Sensitive tests were also undertaken to assess the impact of falling short of the Travel Plan targets by 50% and very similar delays are estimated to occur.

7.7 Discussions will be held with WBC, HCC and BDBC to determine the preferred package of highway improvement measures.

7.8 An alternative mitigation strategy to reduce the impact of construction HGV generated movements through Aldermaston village could be to use alternative construction routes. There is the potential to re-route the traffic arriving / departing to / from M4 East via Junction 12, M4, along Goring Lane to the south of AWE Burghfield. This alternative route is shown on Figure 8. A construction management plan is also being developed to minimise the impact of construction related vehicles in the vicinity of the sites.

8. DISTRIBUTION

Name:	No Copies
MoD Nuclear Weapon Integrated Project Team	10
MoD Defence Estates	4
West Berkshire Council	4
Basingstoke & Deane Borough Council	4
Hampshire County Council	4
AWE Director Infrastructure	1
AWE Head of Traffic & Transport	1
AWE Travel Board	12
AWE Site Development & Planning	4
AWE Travel & Transport Project Team	10
RPS Newbury Office	4



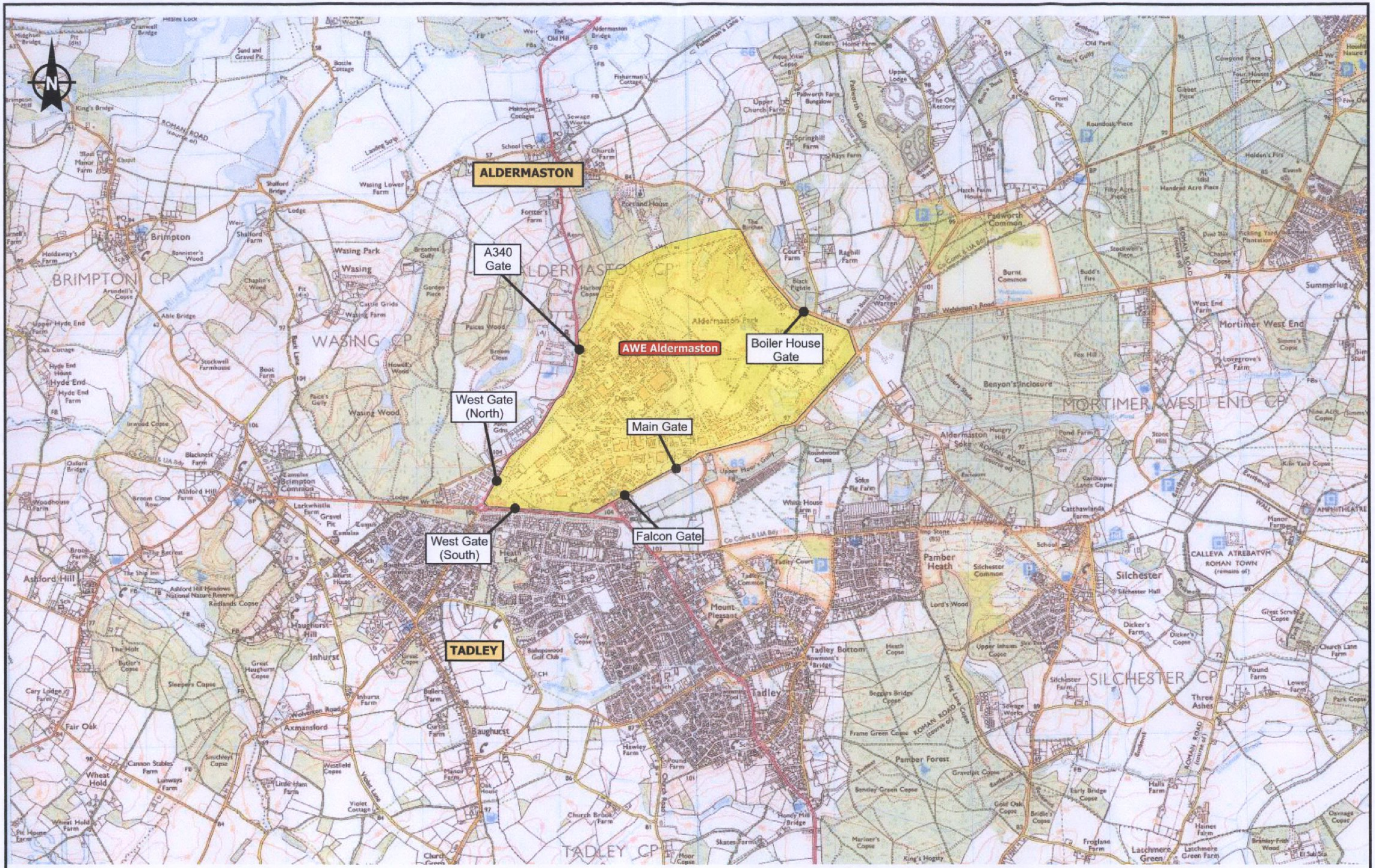
JNY5205-421/REVA / MW /June 06

RPS Transport

AWE

Location Plan: AWE Aldermaston and AWE Burghfield

Figure 1



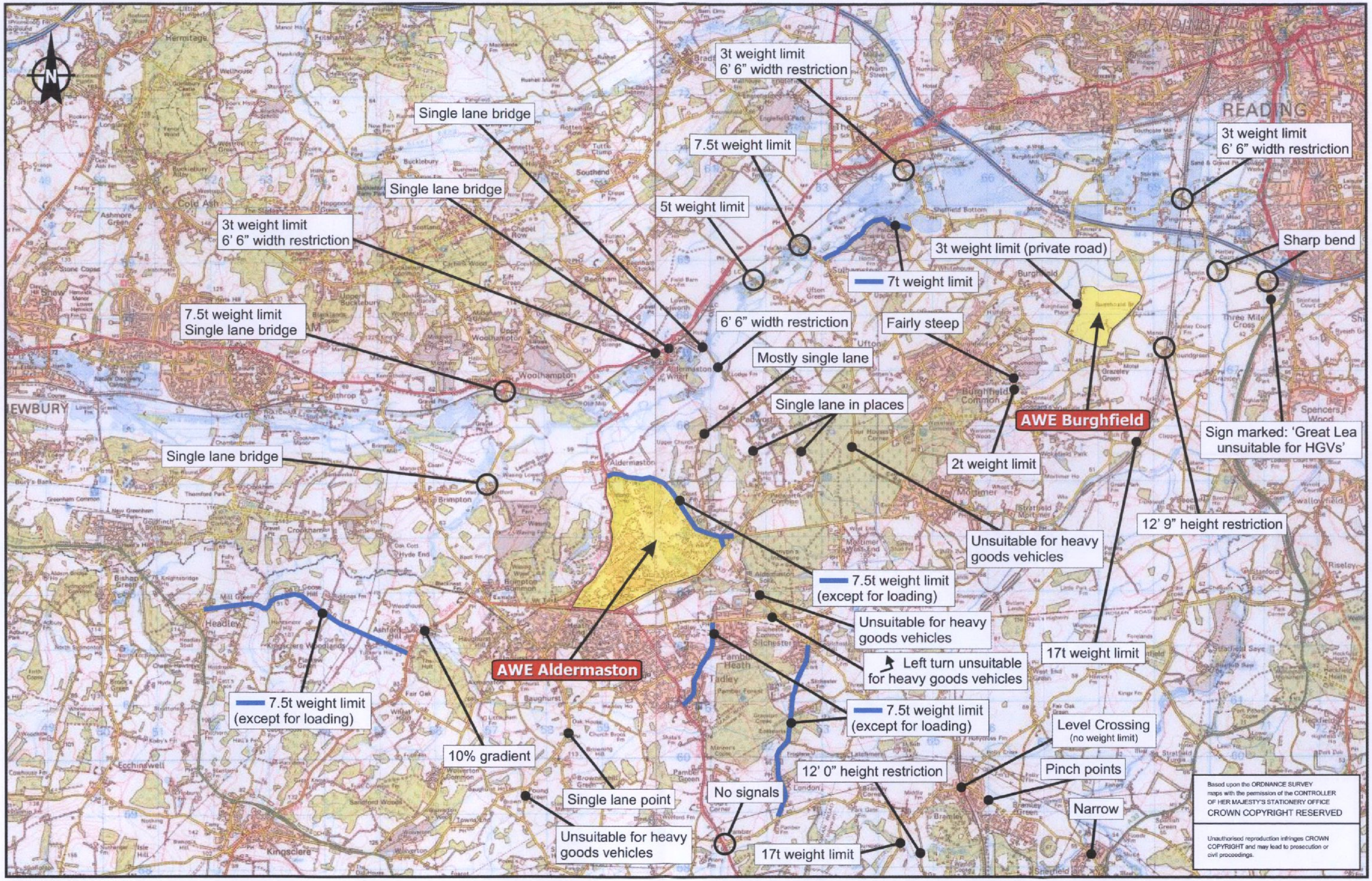
JNY5205-420/REV B/MW/JUNE2006

RPS Transport

AWE

AWE Aldermaston: Gate Locations

Figure 2



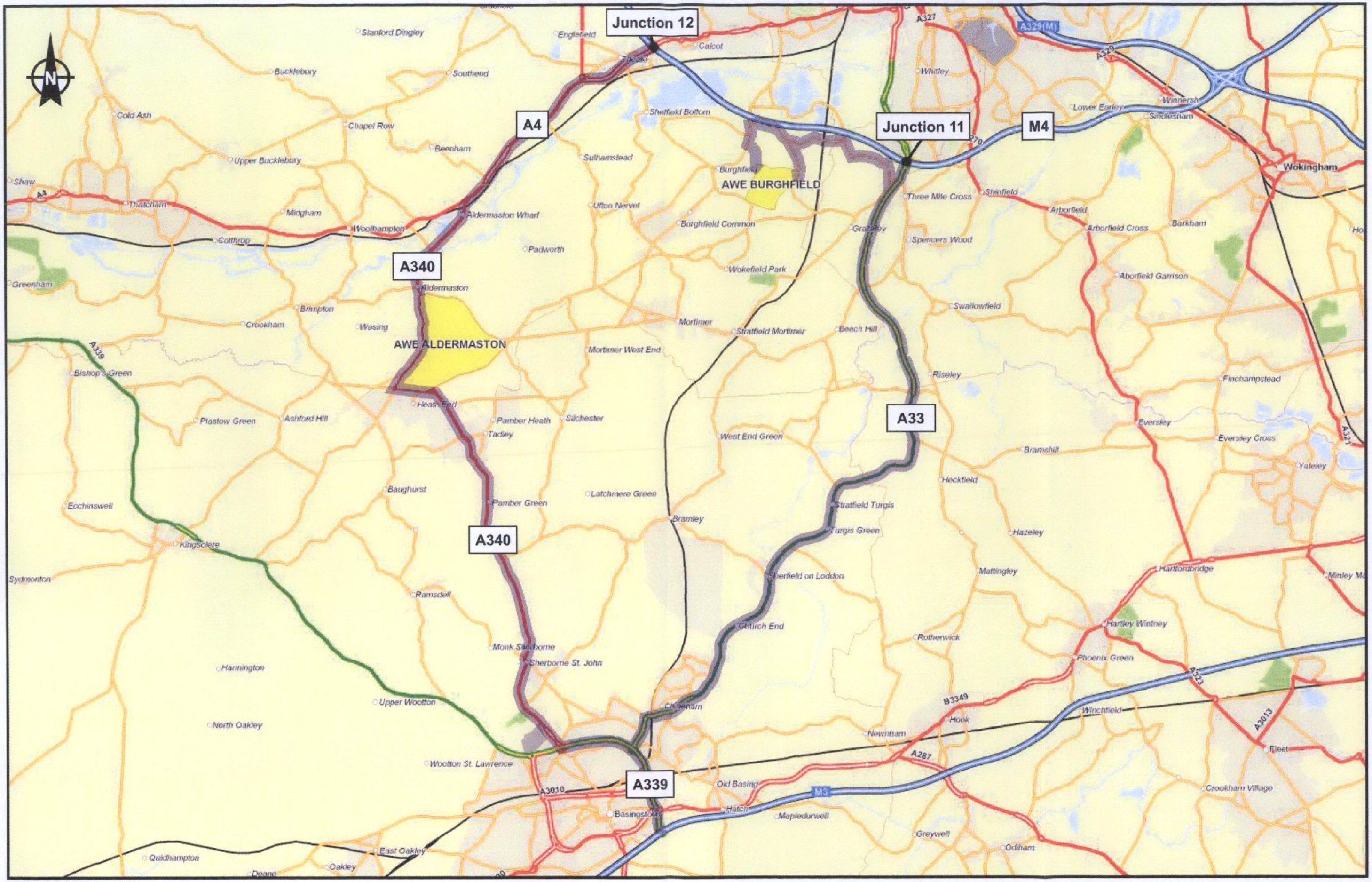
JNY5205-340 / Rev F / MW / June 2006

RPS Transport

AWE

Road Restrictions in Vicinity of AWE Aldermaston and Burghfield

Figure 3



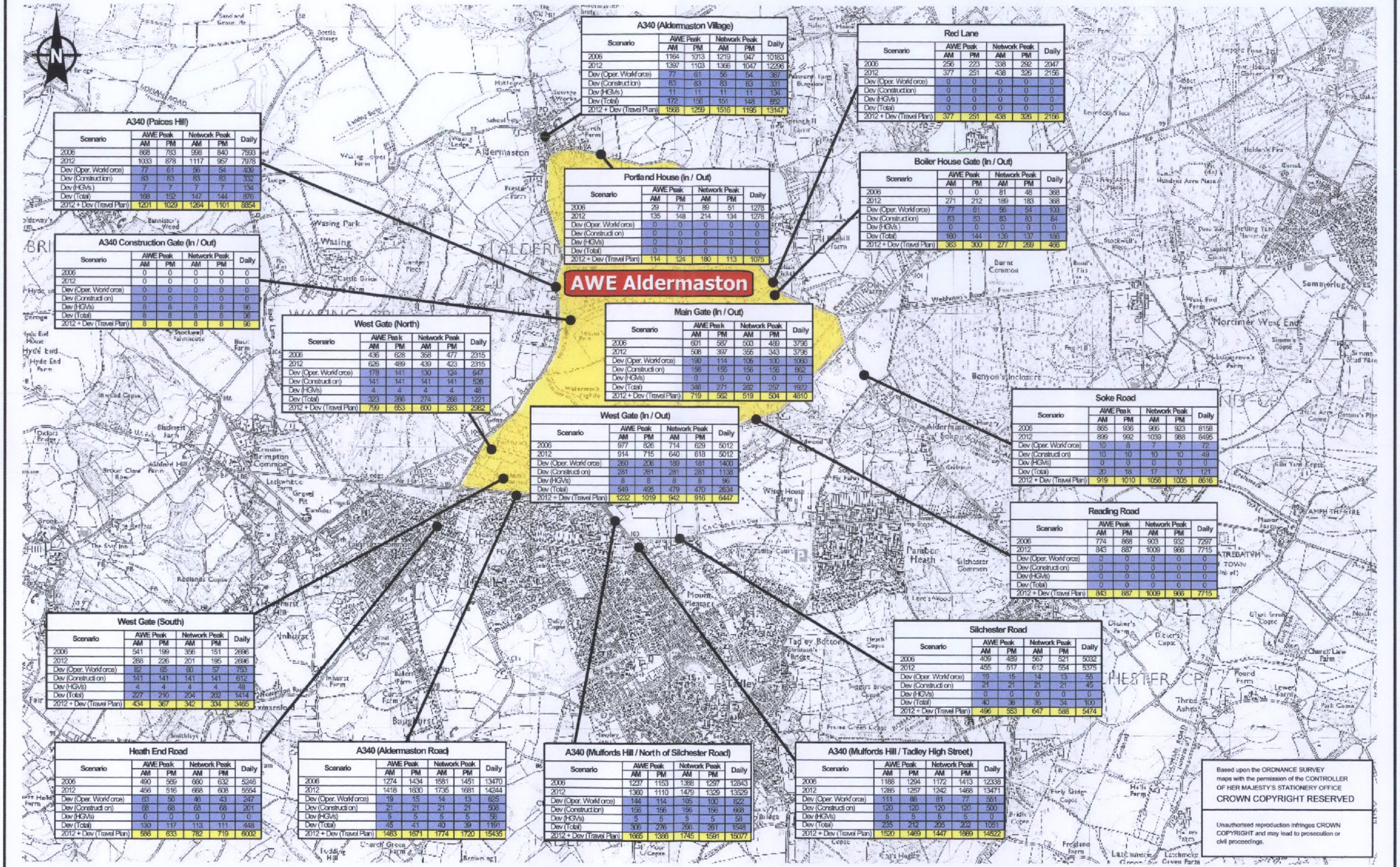
JNY5205-341 / Rev D/ MW / June 2006

RPS Transport

AWE

Construction HGV Strategic Routing Options

Figure 4



A340 (Aldermaston Village)

Scenario	AWE Peak AM	AWE Peak PM	Network Peak AM	Network Peak PM	Daily
2006	1164	1013	1219	947	10183
2012	1397	1103	1366	1047	12296
Dev (Oper. Workforce)	77	61	56	54	387
Dev (Construction)	83	83	83	83	331
Dev (HGVs)	11	11	11	11	134
Dev (Total)	172	156	151	148	852
2012 + Dev (Travel Plan)	1568	1259	1516	1195	13147

Red Lane

Scenario	AWE Peak AM	AWE Peak PM	Network Peak AM	Network Peak PM	Daily
2006	256	223	338	292	2047
2012	377	251	438	326	2156
Dev (Oper. Workforce)	0	0	0	0	0
Dev (Construction)	0	0	0	0	0
Dev (HGVs)	0	0	0	0	0
Dev (Total)	0	0	0	0	0
2012 + Dev (Travel Plan)	377	251	438	326	2156

Portland House (In / Out)

Scenario	AWE Peak AM	AWE Peak PM	Network Peak AM	Network Peak PM	Daily
2006	29	71	89	51	1278
2012	135	148	214	134	1278
Dev (Oper. Workforce)	0	0	0	0	0
Dev (Construction)	0	0	0	0	0
Dev (HGVs)	0	0	0	0	0
Dev (Total)	0	0	0	0	0
2012 + Dev (Travel Plan)	114	124	180	113	1075

Boiler House Gate (In / Out)

Scenario	AWE Peak AM	AWE Peak PM	Network Peak AM	Network Peak PM	Daily
2006	0	0	81	48	368
2012	271	212	189	183	368
Dev (Oper. Workforce)	77	61	56	54	103
Dev (Construction)	83	83	83	83	84
Dev (HGVs)	0	0	0	0	0
Dev (Total)	160	144	139	137	186
2012 + Dev (Travel Plan)	363	300	277	269	466

A340 (Paices Hill)

Scenario	AWE Peak AM	AWE Peak PM	Network Peak AM	Network Peak PM	Daily
2006	868	783	998	840	7593
2012	1033	878	1117	957	7978
Dev (Oper. Workforce)	77	61	56	54	409
Dev (Construction)	83	83	83	83	332
Dev (HGVs)	7	7	7	7	134
Dev (Total)	168	152	147	144	876
2012 + Dev (Travel Plan)	1201	1029	1264	1101	8854

A340 Construction Gate (In / Out)

Scenario	AWE Peak AM	AWE Peak PM	Network Peak AM	Network Peak PM	Daily
2006	0	0	0	0	0
2012	0	0	0	0	0
Dev (Oper. Workforce)	0	0	0	0	0
Dev (Construction)	0	0	0	0	0
Dev (HGVs)	8	8	8	8	96
Dev (Total)	8	8	8	8	96
2012 + Dev (Travel Plan)	8	8	8	8	96

Main Gate (In / Out)

Scenario	AWE Peak AM	AWE Peak PM	Network Peak AM	Network Peak PM	Daily
2006	601	587	503	489	3796
2012	508	397	355	343	3796
Dev (Oper. Workforce)	190	114	106	100	1060
Dev (Construction)	156	156	156	156	862
Dev (HGVs)	0	0	0	0	0
Dev (Total)	346	271	262	257	1922
2012 + Dev (Travel Plan)	719	562	519	504	4810

West Gate (North)

Scenario	AWE Peak AM	AWE Peak PM	Network Peak AM	Network Peak PM	Daily
2006	436	628	358	477	2315
2012	626	489	439	423	2315
Dev (Oper. Workforce)	178	141	130	124	647
Dev (Construction)	141	141	141	141	526
Dev (HGVs)	4	4	4	4	48
Dev (Total)	323	286	274	268	1221
2012 + Dev (Travel Plan)	799	653	600	583	2382

West Gate (In / Out)

Scenario	AWE Peak AM	AWE Peak PM	Network Peak AM	Network Peak PM	Daily
2006	977	826	714	629	5012
2012	914	715	640	618	5012
Dev (Oper. Workforce)	260	206	189	181	1400
Dev (Construction)	281	281	281	281	1138
Dev (HGVs)	8	8	8	8	96
Dev (Total)	549	495	479	470	2634
2012 + Dev (Travel Plan)	1232	1019	942	916	6447

Soke Road

Scenario	AWE Peak AM	AWE Peak PM	Network Peak AM	Network Peak PM	Daily
2006	865	936	966	923	8158
2012	899	992	1039	988	8495
Dev (Oper. Workforce)	10	8	7	7	72
Dev (Construction)	10	10	10	10	49
Dev (HGVs)	0	0	0	0	0
Dev (Total)	20	18	17	17	121
2012 + Dev (Travel Plan)	919	1010	1056	1005	8616

Reading Road

Scenario	AWE Peak AM	AWE Peak PM	Network Peak AM	Network Peak PM	Daily
2006	774	868	903	932	7297
2012	843	887	1009	966	7715
Dev (Oper. Workforce)	0	0	0	0	0
Dev (Construction)	0	0	0	0	0
Dev (HGVs)	0	0	0	0	0
Dev (Total)	0	0	0	0	0
2012 + Dev (Travel Plan)	843	887	1009	966	7715

West Gate (South)

Scenario	AWE Peak AM	AWE Peak PM	Network Peak AM	Network Peak PM	Daily
2006	541	199	356	151	2696
2012	288	226	201	195	2696
Dev (Oper. Workforce)	82	65	60	57	753
Dev (Construction)	141	141	141	141	612
Dev (HGVs)	4	4	4	4	48
Dev (Total)	227	210	204	202	1414
2012 + Dev (Travel Plan)	434	367	342	334	3465

Silchester Road

Scenario	AWE Peak AM	AWE Peak PM	Network Peak AM	Network Peak PM	Daily
2006	409	489	567	521	5032
2012	455	517	612	554	5375
Dev (Oper. Workforce)	19	15	14	13	55
Dev (Construction)	21	21	21	21	45
Dev (HGVs)	0	0	0	0	0
Dev (Total)	40	36	35	34	100
2012 + Dev (Travel Plan)	496	553	647	588	5474

Heath End Road

Scenario	AWE Peak AM	AWE Peak PM	Network Peak AM	Network Peak PM	Daily
2006	490	569	660	632	5246
2012	456	516	668	608	5554
Dev (Oper. Workforce)	63	50	46	43	247
Dev (Construction)	68	68	68	68	201
Dev (HGVs)	0	0	0	0	0
Dev (Total)	130	117	113	111	448
2012 + Dev (Travel Plan)	586	633	782	719	6002

A340 (Aldermaston Road)

Scenario	AWE Peak AM	AWE Peak PM	Network Peak AM	Network Peak PM	Daily
2006	1274	1434	1581	1451	13470
2012	1418	1630	1735	1681	14244
Dev (Oper. Workforce)	19	15	14	13	625
Dev (Construction)	21	21	21	21	508
Dev (HGVs)	5	5	5	5	58
Dev (Total)	45	41	40	39	1191
2012 + Dev (Travel Plan)	1463	1671	1774	1720	15435

A340 (Mulfords Hill / North of Silchester Road)

Scenario	AWE Peak AM	AWE Peak PM	Network Peak AM	Network Peak PM	Daily
2006	1237	1153	1398	1297	12843
2012	1360	1110	1479	1329	13529
Dev (Oper. Workforce)	144	114	105	100	822
Dev (Construction)	156	156	156	156	668
Dev (HGVs)	5	5	5	5	58
Dev (Total)	305	276	266	261	1548
2012 + Dev (Travel Plan)	1665	1388	1745	1591	15077

A340 (Mulfords Hill / Tadley High Street)

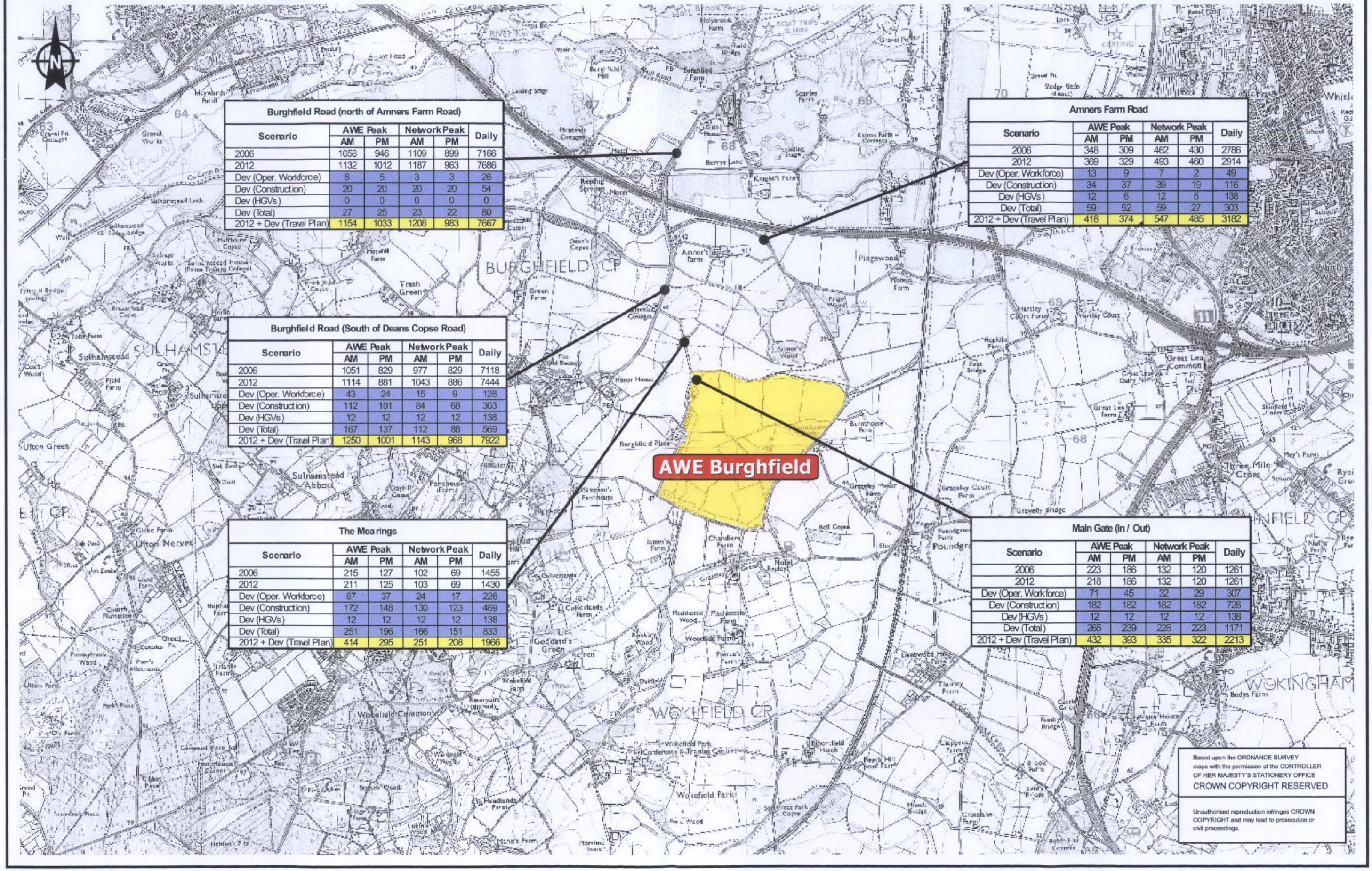
Scenario	AWE Peak AM	AWE Peak PM	Network Peak AM	Network Peak PM	Daily
2006	1188	1294	1172	1413	12338
2012	1285	1257	1242	1468	13471
Dev (Oper. Workforce)	111	86	81	77	561
Dev (Construction)	120	120	120	120	500
Dev (HGVs)	5	5	5	5	0
Dev (Total)	235	212	205	202	1061
2012 + Dev (Travel Plan)	1520	1469	1447	1669	14522

RPS Transport

AWE

Traffic Flows in Vicinity of AWE Aldermaston

Figure 5



Burghfield Road (north of Amners Farm Road)

Scenario	AWE Peak		Network Peak		Daily
	AM	PM	AM	PM	
2006	1058	946	1109	899	7166
2012	1132	1012	1187	963	7686
Dev (Oper. Workforce)	8	5	3	3	26
Dev (Construction)	20	20	20	20	54
Dev (HGVs)	0	0	0	0	0
Dev (Total)	27	25	23	22	80
2012 + Dev (Travel Plan)	1154	1033	1208	983	7667

Amners Farm Road

Scenario	AWE Peak		Network Peak		Daily
	AM	PM	AM	PM	
2006	348	309	462	430	2786
2012	369	329	493	460	2914
Dev (Oper. Workforce)	13	9	7	2	49
Dev (Construction)	34	37	39	19	116
Dev (HGVs)	12	6	12	6	138
Dev (Total)	59	52	59	27	303
2012 + Dev (Travel Plan)	418	374	547	485	3182

Burghfield Road (South of Deans Copse Road)

Scenario	AWE Peak		Network Peak		Daily
	AM	PM	AM	PM	
2006	1051	829	977	829	7118
2012	1114	881	1043	886	7444
Dev (Oper. Workforce)	43	24	15	9	128
Dev (Construction)	112	101	84	68	303
Dev (HGVs)	12	12	12	12	138
Dev (Total)	167	137	112	88	569
2012 + Dev (Travel Plan)	1250	1001	1143	968	7922

The Mearings

Scenario	AWE Peak		Network Peak		Daily
	AM	PM	AM	PM	
2006	215	127	102	69	1455
2012	211	125	103	69	1430
Dev (Oper. Workforce)	67	37	24	17	226
Dev (Construction)	172	148	130	123	469
Dev (HGVs)	12	12	12	12	138
Dev (Total)	251	196	166	151	833
2012 + Dev (Travel Plan)	414	295	251	208	1966

Main Gate (In / Out)

Scenario	AWE Peak		Network Peak		Daily
	AM	PM	AM	PM	
2006	223	186	132	120	1261
2012	218	186	132	120	1261
Dev (Oper. Workforce)	71	45	32	29	307
Dev (Construction)	182	182	182	182	726
Dev (HGVs)	12	12	12	12	138
Dev (Total)	265	239	226	223	1171
2012 + Dev (Travel Plan)	432	393	335	322	2213

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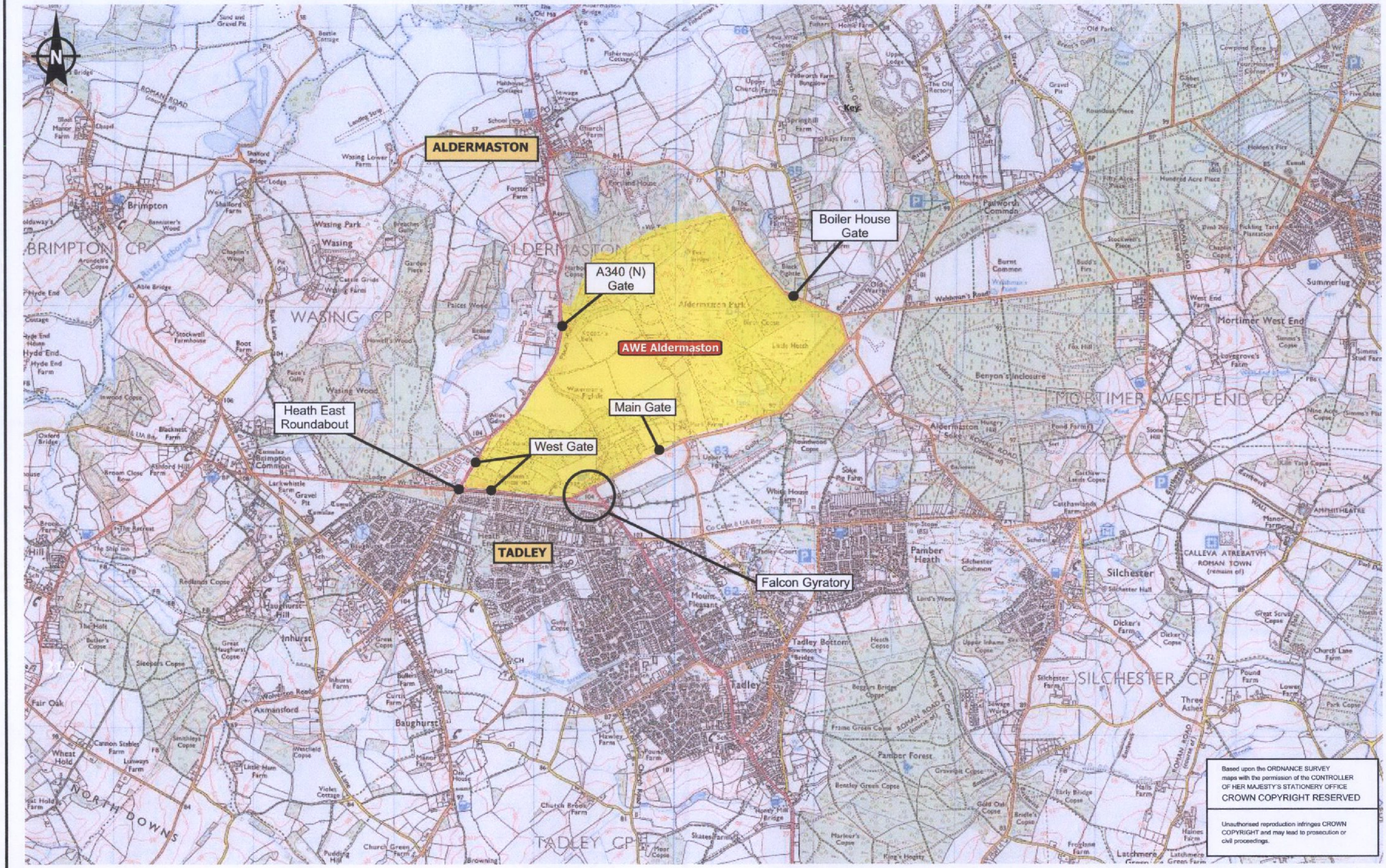
AWE

Traffic Flows in Vicinity of AWE Burghfield

Figure 6



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AWE

Location of Possible Off-Site Highway Improvements

Figure 7