Rampion 2 Wind Farm

Category 8: Examination Documents

Applicant's Update to Action Points 46 and 57 Arising from ISH2 and CAH1 (clean)

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A	03/06/2024	Issue for Deadline 4	WSP	RED	RED
B	01/08/2024	Update for Deadline 6	WSP	RED	RED

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1. Introduction

1.1 Purpose

1.1.1 This Appendix provides a technical note which details the Applicant's response to Action Points 46 and 57 within Action Points arising from Issue Specific Hearing 2 (ISH2) **[EV5-018]**. These Action Points are as follows:

- Action Point 46: "*The Applicant to provide a notice on the impact of the proposed Kent Street traffic management strategy on the overall traffic modelling for the Proposed Development*"; and
- Action Point 57: "*The Applicant to submit into the Examination and provide Cowfold Parish Council with details of turning movements at all junctions and proposed accesses along the A272*".

1.1.2 Given these action points both relate to the provision of estimated construction traffic flows to / from the A272 it is considered appropriate to include a response in one technical note within this Appendix.

1.1.3 Estimated peak construction traffic flows have been derived using the methodology provided in **Appendix 23.2: Traffic Generation Technical Note, Volume 4** of the Environmental Statement (ES) **[REP5-061]**, which itself takes account of prescribed construction traffic routing and controls contained in the **Outline Construction Traffic Management Plan [REP5-068]** updated at Deadline 4. Specifically in response to Action Point 46, construction traffic flows have been provided for the A272 as used in **Chapter 32: ES Addendum, Volume 2** of the Environmental Statement (ES) **[REP5-038]** and taking account of Construction Accesses A-26, A-28, A-61 and A-64 Traffic Management Strategies included within Appendix D of the **Outline Construction Traffic Management Plan [REP5-068]** updated at Deadline 4.

1.1.4 Such construction traffic controls includes use of a Delivery Management System (DMS), which will be used to manage construction deliveries. This DMS, through use of pre-booked delivery slots, will control the delivery of materials and equipment so that the number of construction vehicles on the road network at any one time can be minimised and so that deliveries can be spread across the working day. Further information on the DMS is provided in Section 8.4 of the **Outline Construction Traffic Management Plan [REP5-068]** updated at Deadline 4.

1.1.5 This Technical Note has been updated at Deadline 6 following a response from West Sussex County Council in their comments on any further information/submissions received by Deadline 4 **[REP5-134]** to provide an average construction traffic flow scenario. In addition, peak week construction traffic flows presented in **Table 2-2** and **Table 2-3** have been updated to ensure consistency with the updated **Chapter 32: ES Addendum, Volume 2** of the Environmental Statement (ES) **[REP5-038]**.

1.2 Construction Traffic Flow Scenarios

1.2.1 Given the length of the construction programme and transient nature of construction activity along the onshore cable route, it is not appropriate to provide a single scenario of estimates construction traffic flows. Estimated construction traffic flow information included within this technical note is therefore provided for the peak of construction traffic activity at a number of locations.

1.2.2 Estimated construction traffic flow information has been provided for the following scenarios:

- Peak week of construction traffic for junctions on the A272 between Cowfold and the A23, based upon data used for assessments contained within **Chapter 32: ES Addendum, Volume 2 of the ES [REP5-038]**; and
- Peak week construction traffic on Kent Street and construction traffic flows at construction accesses along the A272 for the same week with the controls set-out in Appendix D of the **Outline Construction Traffic Management Plan [REP5-068]** updated at Deadline 4.

1.2.3 Construction traffic flows associated with these scenarios are provided in **Sections 2** and **4** of this technical note.

1.2.4 In viewing the construction traffic flows provided within this technical note, the following should be taken into account:

- For assessment purposes, it has been assumed that approximately 25% of heavy goods vehicles (HGVs) accessing junctions on the A272 route through Cowfold. This assumption was applied for assessment purposes only. Given commitments C-157 and C-158 (**Outline Construction Traffic Management Plan [REP5-068]**) state that construction HGVs should only route through Cowfold to access A-56 or A-57 or where use of locally sourced materials / equipment make its avoidance impracticable, the actual HGV flows should be much lower than assessed.
- All daily construction traffic estimates have been taken from weekly estimates and divided these by 5 working days rather than 5.5 working days (thereby excluding the Saturday working day). The daily flows are therefore artificially higher than would likely occur in reality.
- Estimates of construction traffic light goods vehicles (LGVs) are based upon robust estimates that assume all construction workers travel to each temporary construction compound via single occupancy car. It is considered commonplace however for construction workers to be based in shared accommodation such as hotels and B&Bs and travel to site together. The **Construction Workforce Travel Plan [REP3-031]** also makes provision for the use of multi-occupancy vehicles such as mini-buses to collect construction works from cluster locations, such as temporary accommodation or rail stations.
- West Sussex County Council has agreed as acceptable the assessment methodology and baseline data used within the **Chapter 32: ES Addendum, Volume 2** of the ES **[REP5-038]** as stated in their response to the Examining

Authority's First Written Question TA1.2 of West Sussex County Council's Deadline 3 Submission – Responses to Written Questions (ExQ1) **[REP3-073]**.

- West Sussex County Council has also agreed with the Applicant's conclusions contained within the Review of IEMA Guidelines in **Deadline 2 Submission – 8.41 Category 8: Examination Documents – Review of IEMA Guidelines on Environmental Assessment of Traffic and Movement** **[REP2-017]** in their response to the Examining Authority's First Written Question TA1.2 of West Sussex County Council's Deadline 3 Submission – Responses to Written Questions (ExQ1) **[REP3-073]**. This note concluded that no further assessment work was required in relation to the 2023 guidance and that the conclusions of the ES remained valid.

2. Peak week construction traffic flows on the A272

2.1 Introduction

2.1.1 This Section provides a summary of construction traffic flows along the A272 during the peak week of HGV activity and includes construction traffic associated with the following construction access locations:

- Access A-62: Oakendene temporary construction compound;
- Access A-63: Oakendene substation;
- Accesses A-61 and A-64 located on Kent Street; and
- Accesses A-67 and A-68 located on Wineham Lane.

2.1.2 A number of different traffic flow scenarios are provided to reflect that the peak week of construction activity is not the same for all locations. This means that the peak of activity at accesses A-62 or A-63 may be at a different time to peak construction activity for accesses A-61 and A-64 on Kent Street.

2.2 Individual peak week HGV construction traffic flows

2.2.1 Details of peak construction traffic flows for all proposed access junctions is provided within Table 6-8 of the **Appendix 23.2: Traffic Generation Technical Note, Volume 4** of the ES **[REP5-061]**.

2.3 Peak week construction traffic flows on A272

2.3.1 In addition to peak week construction traffic data for individual junctions, a summary of construction traffic use for the same week at other junctions on the A272 as shown in **Table 2-1**. This shows the estimated number of construction traffic movements across the whole of the A272 for each construction access peak and demonstrates how construction traffic flows are spread across the construction programme.

2.3.2 **Table 2-1** shows estimated daily construction traffic movements associated with each access on the A272. The text highlighted in red demonstrates the peak of total construction traffic flows for each access junction.

2.3.3 Estimates of construction traffic movements at each access is taken from Annex A of the **Appendix 23.2: Traffic Generation Technical Note, Volume 4** of the ES **[REP5-061]**.

Table 2-1 A272 Network Peak Daily Construction Traffic Flows

		A272		Kent Street		Wineham Lane	
Week	Construction Traffic	Access A-62	Access A-63	Access A-61	Access A-64	Access A-67	Access A-68
83	HGVs In	0	34	0	0	0	0
	HGVs Out	0	34	0	0	0	0
	Total In	11	90	0	0	0	0
	Total Out	11	90	0	0	0	0
125	HGVs In	26	12	0	2	0	0
	HGVs Out	26	12	0	2	0	0
	Total In	87	64	0	6	19	24
	Total Out	87	64	0	6	19	24
127	HGVs In	9	12	0	0	0	9
	HGVs Out	9	12	0	0	0	9
	Total In	32	65	0	0	0	28
	Total Out	32	65	0	0	0	28
160	HGVs In	0	2	15	0	0	2
	HGVs Out	0	2	15	0	0	2
	Total In	8	50	16	0	0	13
	Total Out	8	50	16	0	0	13
162	HGVs In	0	2	0	28	0	1
	HGVs Out	0	2	0	28	0	1
	Total In	15	50	0	29	0	13
	Total Out	15	50	0	29	0	13

2.3.4 **Table 2-1** shows how estimated construction traffic varies with peaks of activity at each access junction generally occurring at different times. These have been considered in more detail in **paragraphs 2.3.5 to 2.3.18** below.

Week 83

2.3.5 Week 83 is the peak for construction traffic at Access A-63, Oakendene substation. During this week, 34 HGVs per day are estimated to enter and exit junctions on the A272 (68 movements in total). This means that an 5-6 HGVs per hour will be completing turning movements or one vehicle every 10-12 minutes.

2.3.6 In this week, the maximum number of construction traffic turning movements is estimated to be at Access A-63, which will serve 90 vehicles in and 90 vehicles out of the junction per day, which on average is a vehicle using the junction every 4 minutes. Other than Access A-63, a minimal number of construction vehicles are anticipated to use Access A-62.

2.3.7 During week 83, Accesses A-61, A-64, A-67 and A-68 are not estimated to generate any construction traffic. That means there will be no construction traffic turning into or out of Kent Street or Wineham Lane during the peak of construction activity at Access A-63.

Week 125

2.3.8 Week 125 is the peak for construction activity at Access A-62, which is the Oakendene temporary construction compound. This will serve 52 HGV movements per day during this week, or 4-5 per hour. All other access junctions will generate only 2-3 HGVs per hour in total during this week.

2.3.9 Overall, Access A-62 is estimated to serve 87 construction vehicle entries and 87 vehicle exits per day during week 125, which means that, on average, a construction vehicle will use the junction every 4-5 minutes. During this week, Access A-63 also serves 64 construction traffic vehicles in each direction, which averages at one vehicle every six minutes.

2.3.10 As noted within the Annex C of **Appendix 23.2: Traffic Generation Technical Note, Volume 4** of the ES **[REP5-061]**, this level of activity at Access A-62 remains above 95% of the peak week for only 2 weeks of the construction programme and above 75% for a further 2 weeks.

2.3.11 Week 125 is also the peak for construction activity at Access A-67 located on Wineham Lane. Whilst no HGV will use the access during this period, a total of 19 construction vehicle entries and exits per day will occur during this week, averaging 1-2 vehicles per hour using Access A-67.

Week 127

2.3.12 Week 127 is the peak for construction activity at Access A-68, located on Wineham Lane. During this week, Wineham Lane will accommodate 18 HGV movements in total (1-2 per hour) and approximately 40 LGVs (3-4 per hour).

2.3.13 Overall, the number of HGVs using the A272 is fairly low in this week with HGVs only accessing Accesses A-62, A-63 and A-68. In total 30 HGVs will enter and exit junctions on the A272 (60 in total), equivalent to one HGV every 12 minutes.

2.3.14 Access A-63 serves the maximum number of total construction traffic vehicles during this week, with approximately 130 vehicle movements in total per day, which will mainly be LGVs.

Week 160

2.3.15 Week 160 is the peak for construction activity at Access A-61, which is located on Kent Street. This will serve approximately 30 construction traffic vehicles per day via the A272, the majority of which will be HGVs. The other accesses on the A272 however serve very few HGVs during this week, with only Accesses A-62 and A-68 in use with these generating 8 HGV movements in total (less than one per hour).

2.3.16 Total construction traffic flows using accesses on the A272 are also lower in week 160 than other peaks, with Access A-63 serving the most construction vehicles at 50 entries and 50 exits per day or one vehicle using the junction every 7-8 minutes. This lower volume of construction traffic at Access A-63 is also combined with lower traffic flows at other accesses, with only Accesses A-62 and A-68 serving construction vehicles during this week.

Week 162

2.3.17 Week 162 is the peak for construction activity at Access A-64, which is also located on Kent Street. This will serve 60 HGV movements per day during this week, or 4-5 per hour. In total, all other access junctions will generate one HGV every two hours during this week.

2.3.18 In total, 107 construction vehicles will enter and exit construction access junctions per day during this week (214 movements in total), with Access A-63 serving the most construction vehicles at 50 entries and 50 exits per day or one vehicle using the junction every 6-7 minutes.

2.4 Peak week construction traffic flows on A272 / A281 in Cowfold

2.4.1 As detailed within **Appendix 23.2: Traffic Generation Technical Note, Volume 4** of the ES **[REP5-061]**, the peak construction activity at individual accesses shown in **Table 2-1** have been combined with construction traffic routing contained within the **Outline Construction Traffic Management Plan** **[REP5-068]** to calculate the volume of construction traffic on highway links within the transport Study Area. These have then been used in the assessment of the construction phase of the Proposed Development contained within **Chapter 32: ES Addendum Volume 2** of the ES **[REP5-038]**.

2.4.2 The estimated construction daily traffic flows passing through the A272 / A281 junction in Cowfold is shown in **Table 2-2** below, for the peak HGV week and peak total construction traffic week. In addition to traffic associated with the junctions included in Table 2-1 the estimates provided in **Table 2-2** also include construction traffic using Accesses A-56 or A-57, which is permitted to route through Cowfold within the **Outline Construction Traffic Management Plan** **[REP5-068]**.

2.4.3 The total construction traffic peak through Cowfold is in week 125.

Table 2-2 A272 / A281 total construction traffic peak week flows

Highway Link	Direction	Total construction traffic per weekday	Construction traffic HGVs per weekday
A281 North	Northbound	0	0
	Southbound	0	0
A272 Bolney Road	Eastbound	98	16
	Westbound	127	16
A281 South	Northbound	15	0
	Southbound	44	0
A272 Station Road	Eastbound	84	16
	Westbound	84	16
A281 between roundabouts	Northbound	84	16
	Southbound	84	16

2.4.4 **Table 2-2** shows that in the week of peak construction traffic movements through the A272 / A281 junction in Cowfold (week 125), there will be approximately 230 vehicles routing through the two mini-roundabouts per day, of which 32 will be HGVs. This construction traffic is predicted to be split between A272 Bolney Road (56%), A272 Station Road (37%) and A281 south of the roundabout (7%).

2.5 A23 / A272 peak week construction traffic flows

2.5.1 Using the same methodology as **Section 2.4**, a summary of peak week construction traffic flows is provided for the A23 / A272 junction in **Table 2-3** below.

2.5.2 The A23 / A272 junction is the main entry point onto the local road network for construction HGV traffic based upon the permitted construction traffic routing contained within the **Outline Construction Traffic Management Plan [REP5-068]**.

2.5.3 The total construction traffic peak for the A23 / A272 is week 125.

Table 2-3 A23 / A272 total construction traffic peak week flows

Highway Link	Direction	Total construction traffic per weekday	Construction traffic HGVs per weekday
A23 North of A272	Northbound	49	24
	Southbound	49	24
A272 East of A23	Eastbound	13	0
	Westbound	13	0
A23 South of A272	Northbound	61	34
	Southbound	61	34
A272 West of A23	Eastbound	107	26
	Westbound	107	26

2.5.4 **Table 2-3** shows that in the week of peak construction traffic movements through the A23 / A272 junction (week 125) there will be approximately 230 vehicles routing through the two junctions per day, of which 84 will be HGVs. Of the 230 vehicles, it should be noted that approximately 41 vehicles per day will route along the A23 northbound or southbound without interacting with the A272 junction. It is predicted that there will be an approximate 50/50 spit between traffic routing to / from the A23 north and south of the junction. This means that individual turning movements between on and off-slip will be limited to approximately 50 vehicles per day per direction.

3. Average construction traffic flows on the A272

3.1.1 This Section provides a summary of the average construction traffic flows along the A272 across the whole 4-year construction programme and includes construction traffic associated with the same construction access junctions as **Section 2.3**.

3.2 Average construction traffic flows on A272

3.2.1 In addition to peak week construction traffic data for individual junctions, a summary of average construction traffic use across the programme is provided at other junctions on the A272 as shown in **Table 2-1.** This shows the estimated number of construction traffic movements across the whole of the A272 for each construction access and demonstrates how construction traffic flows are spread across the construction programme.

3.2.2 **Table 3-1** shows average daily construction traffic movements associated with each access on the A272.

3.2.3 Estimates of construction traffic movements at each access is taken from Annex A of the **Appendix 23.2: Traffic Generation Technical Note, Volume 4** of the ES **[REP5-061]**.

Table 3-1 A272 Average Daily Construction Traffic Flows

		A272		Kent Street		Wineham Lane	
Year	Construction Traffic	Access A-62	Access A-63	Access A-61	Access A-64	Access A-67	Access A-68
1	HGVs In	0	0	<1	0	0	0
	HGVs Out	0	0	<1	0	0	0
	Total In	2	0	1	0	0	0
	Total Out	2	0	1	0	0	0
2	HGVs In	3	16	<1	0	0	0
	HGVs Out	3	16	<1	0	0	0
	Total In	12	58	<1	<1	<1	0
	Total Out	12	58	<1	<1	<1	0
3	HGVs In	8	6	<1	1	<1	2

	HGVs Out	8	6	<1	1	<1	2
	Total In	26	51	2	1	1	12
	Total Out	26	51	2	1	1	12
4	HGVs In	<1	<1	<1	<1	<1	<1
	HGVs Out	<1	<1	<1	<1	<1	<1
	Total In	2	12	<1	<1	<1	3
	Total Out	2	12	<1	<1	<1	3
All	HGVs In	3	6	<1	<1	<1	<1
	HGVs Out	3	6	<1	<1	<1	<1
	Total In	11	31	1	<1	<1	4
	Total Out	11	31	1	<1	<1	4

3.2.4 **Table 3-1** shows how estimated construction traffic varies with at each access junction generally occurring at different times across the construction programme. The highest average daily traffic is on the A272 during years 2 and 3.

3.3 Average construction traffic flows on A272 / A281 in Cowfold

3.3.1 Using the same methodology as **Section 3.3**, a summary of the average construction traffic flows is provided for the A272 / A281 junction in **Table 3-2** below.

Table 3-2 A272 / A281 average construction traffic flows

Highway Link	Direction	Total construction traffic per weekday	Construction traffic HGVs per weekday
A281 North	Northbound	0	0
	Southbound	0	0
A272 Bolney Road	Eastbound	32	3
	Westbound	32	3
A281 South	Northbound	9	<1
	Southbound	9	<1
A272 Station Road	Eastbound	23	3

Highway Link	Direction	Total construction traffic per weekday	Construction traffic HGVs per weekday
	Westbound	23	3
A281 between roundabouts	Northbound	23	3
	Southbound	23	3

3.3.2 **Table 4-2** shows that across the whole construction programme traffic movements through the A272 / A281 junction in Cowfold, there will be an average of approximately 64 vehicles routing through the two mini-roundabouts per day, of which 6 will be HGVs.

3.3.3 Based upon the current construction programme, it is anticipated that HGVs will route through Cowfold for 116 weeks of the 204 week construction programme.

3.4 A23 / A272 average construction traffic flows

3.4.1 Using the same methodology as **Section 3.3**, a summary of the average construction traffic flows is provided for the A23 / A23 junction in **Table 3-3** below.

Table 3-3 A23 / A272 average construction traffic flows

Highway Link	Direction	Total construction traffic per weekday	Construction traffic HGVs per weekday
A23 North of A272	Northbound	17	9
	Southbound	17	9
A272 East of A23	Eastbound	4	0
	Westbound	4	0
A23 South of A272	Northbound	18	11
	Southbound	18	11
A272 West of A23	Eastbound	27	8
	Westbound	27	8

3.4.2 **Table 3-3** shows that across the whole construction programme traffic movements through the A23 / A272 junction will be approximately 66 vehicles routing through the junction per day, of which 28 will be HGVs.

3.4.3 Based upon the current construction programme, it is anticipated that HGVs will route along the A272 for 116 weeks of the 204 week construction programme.

4. Impact of Kent Street Traffic Management Strategy

4.1 Introduction

4.1.1 This Section provides a summary of an assessment of impact of the Traffic Management Strategy for Accesses A-61 and A-64 as detailed in the Construction Accesses A-26, A-28, A-61 and A-64 Traffic Management Strategies included within Appendix D of the **Outline Construction Traffic Management Plan [REP5-068]**.

4.1.2 To ensure that safe access can be achieved to Accesses A-61 and A-64 the Traffic Management Strategy for Kent Street will require all incoming HGVs to travel to Access A-62 (Oakendene temporary construction compound), before being called into site. This means that construction HGVs arriving from the east will need to route past Kent Street and into Access A-62.

4.1.3 To inform this assessment, an update has been made to Table 2-1 which provided an estimate of peak week traffic flow at junctions along the A272. This update assumes that during Weeks 160 and 162 (the peak of construction activity for Accesses A-61 and A-64), all construction traffic associated with Accesses A-61 and A-64 is added to entry and exit movements at Access A-62. **Table 4-1** shows the change in construction traffic movements as a result of the proposed traffic management strategy and **Table 4-2** shows the revised daily traffic movements with the traffic management strategy in place. The text highlighted in red demonstrates the peak of total construction traffic flows for each access junction.

Table 4-1 Impact of Kent Street Traffic Management Strategy

		A272		Kent Street		Wineham Lane	
Week	Construction Traffic	Access A-62	Access A-63	Access A-61	Access A-64	Access A-67	Access A-68
160	HGVs In	+15	0	0	0	0	0
	HGVs Out	+15	0	0	0	0	0
	Total In	+16	0	0	0	0	0
	Total Out	+16	0	0	0	0	0
162	HGVs In	+28	0	0	0	0	0
	HGVs Out	+28	0	0	0	0	0
	Total In	+29	0	0	0	0	0
	Total Out	+29	0	0	0	0	0

Table 4-2 Construction traffic flow with Kent Street traffic management strategy in place

		A272		Kent Street		Wineham Lane	
Week	Construction Traffic	Access A-62	Access A-63	Access A-61	Access A-64	Access A-67	Access A-68
160	HGVs In	15	2	**15**	0	0	2
	HGVs Out	15	2	**15**	0	0	2
	Total In	24	50	**16**	0	0	13
	Total Out	24	50	**16**	0	0	13
162	HGVs In	28	2	0	**28**	0	1
	HGVs Out	28	2	0	**28**	0	1
	Total In	44	50	0	**29**	0	13
	Total Out	44	50	0	**29**	0	13

4.1.4 **Table 4-1** and **Table 4-2** shows that total construction traffic flows at Access A-62 will remain much lower than the peak for this junction (week 125) when adding peak week traffic associated with Accesses A-61 and A-64. Total construction traffic flows using Access A-62 with the Kent Street traffic management strategy in place will be approximately 25% (week 160) and 50% (week 162) of the peak for Access A-62 (week 125). Importantly, it is also noted that Access A-62 is not estimated to cater for any HGV movements during the peak of construction activity at Accesses A-61 and A-64 which means that additional construction traffic can be accommodated without conflicting with other HGV movements at this junction.

4.1.5 On the basis of this assessment, the Kent Street Traffic Management Strategy does not impact upon peak week construction traffic movements on the A272 west of Kent Street. The conclusions of **Chapter 32: ES Addendum, Volume 4** of the ES **[REP5-038]** therefore remain valid.

Rampion 2
WIND FARM