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NON-TECHNICAL SUMMARY

1.1 Introduction

1.1.1 This Non-Technical Summary (NTS) summarises in non-technical language the findings of the Environmental Statement (ES) that reports on the potential effects of the development of the IAMP ONE Phase Two site (i.e. 'the site') on the environment and people of the local area.

1.1.2 The site is situated within the south-western corner of the overall International Advanced Manufacturing Park (IAMP) ONE area (see Figure 1 below) and includes land within the IAMP ONE Phase One site boundary in order to ensure that the proposed development can be delivered without any constraints in terms of access, landscape and flexibility of future development.

1.1.3 Access into the land proposed for development would be via the existing, consented access road.

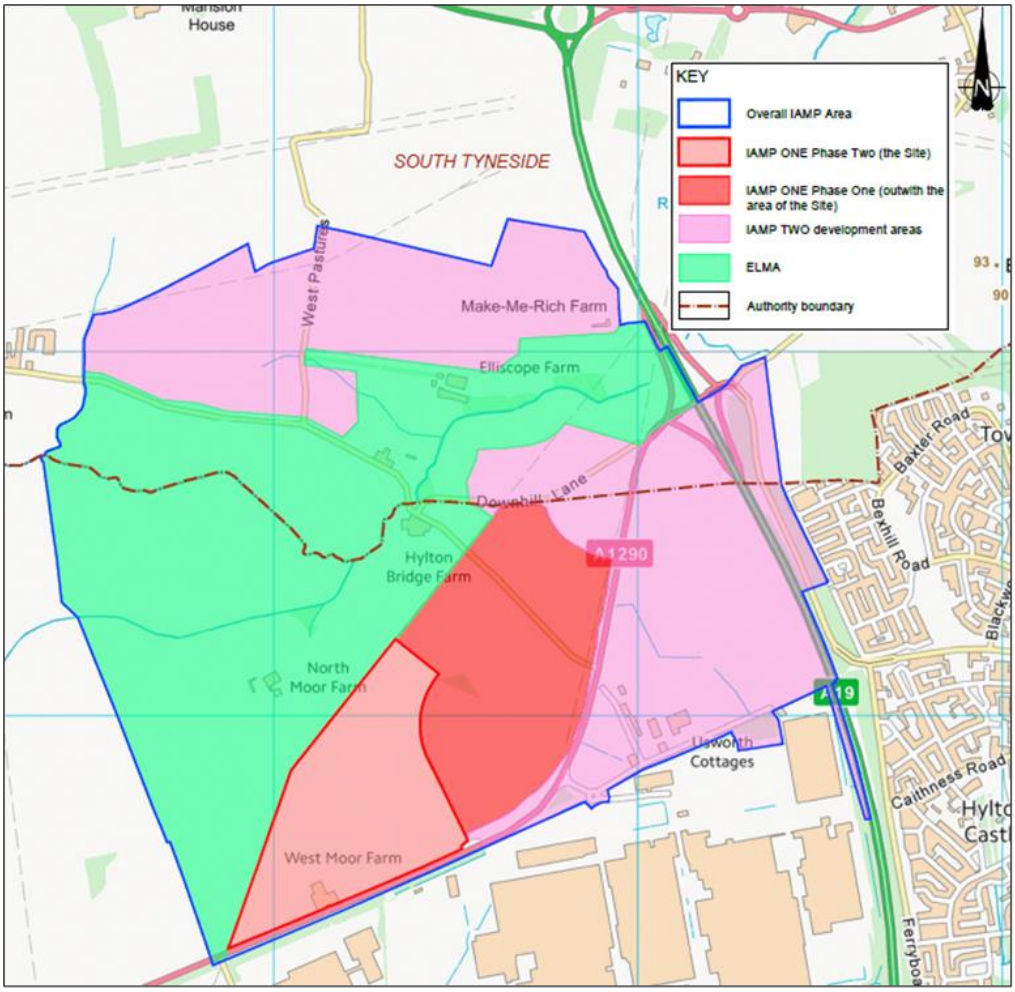

Figure 1: Overall IAMP Site Extents

1.1.4 Chapters 1 and 3 of the ES detail the context for the project and the project characteristics. Effects on the environment of the project area, on planning and development, and on the people of the area have been considered. Cumulative effects for the individual environmental aspects, as well as on the natural environment and the people and property of the local area, have also been considered.

1.1.5 Assessments have been undertaken in accordance with best practice and approved methodologies. This information is set out within each technical chapter of the ES. Consultations with the relevant statutory organisations and others are referenced, where these have occurred. Supporting information is included within the Appendices to the ES. Plans and figures illustrating the findings of the assessments are also provided.

1.2 Scope & Methodology

16.1.1 In March 2020, the IAMP ONE Phase Two Development planning application (ref. no. 20/00556/OU4) was submitted to Sunderland City Council and planning consent was approved in June 2020. Subsequent to receiving planning consent, an amendment to the following has been proposed; thereby necessitating the submission of a new application:

- Small changes to the redline boundary (e.g. along the southern perimeter, and changes to accommodate the access road junction) resulting in a small reduction of the site area.
- A change to the position and orientation of the industrial unit.
- A change of use from a light industrial use (whilst still remaining as class B2) specifically for the manufacture of lithium-ion batteries.

16.1.2 The ES to which this NTS relates supports a detailed planning application for the proposed development of the site for the creation of an electrode and battery manufacturing facility with the capacity to produce up to a maximum of 9 Gigawatt hour (GWh) per year.

16.1.3 To support the 2020 planning application, an Environmental Impact Assessment (EIA) was undertaken and the '*IAMP ONE Phase Two Development Environmental Statement (Wardell Armstrong, 2020)*' was submitted as part of the application package.

16.1.4 Within the 2020 EIA, a worst-case scenario was assessed. As the 2020 ES provides a detailed account of the site as it currently exists and there is no exceedance of the previously assessed building envelope / design extents, it is considered that the findings of the EIA detailed within the 2020 ES remain valid where they pertain to the development of the site within the established parameters for this type of development.

16.1.5 Where changes to the proposed development are proposed, a reassessment via a second EIA has been undertaken. The 2021 ES reports the findings of the second EIA in relation to the proposed changes at the site.

16.1.6 In addition to the same technical disciplines included within the 2020 ES, Climate Change has been considered as a discrete chapter within the ES. An Energy Statement (ES Appendix 3.2), a Sustainability Statement (ES Appendix 3.3) and a Glint Assessment (ES Appendix 3.4) have also been prepared (as standalone reports).

Informal Consultation

1.2.1 Informal consultation with Sunderland City Council was initially undertaken between June and November 2019 and again in April 2021 regarding the scope (i.e. the content) and preparation of the ES.

Methodology

1.2.2 The assessment of impacts on the environment for each technical discipline typically considers the following:

- Site activities and / or sources of potential impact for that particular topic.
- Potential Effects occurring as a result of the construction and the operation of the proposed development, including cumulative effects.
- Mitigation measures, which may be embedded within the design of the proposed development or provided as additional measures.
- Residual Effects, which are those that remain once mitigation measures are assumed to be in place.
- Whether any monitoring or follow-up is necessary to ensure that mitigation remains effective and appropriate.
- Cumulative Impacts, which may occur in association with other aspects of the project or with other development projects that have been consented but not constructed or are awaiting determination.

- Any limitations to the assessment.

1.2.3 Assessment methodologies have followed those used for the 2018 IAMP ONE EIA and are in accordance with industry best practice and standards. The assessments have been undertaken by experienced, qualified professionals.

1.2.4 Assessments will typically consider the sensitivity (or value) of a receptor, the likely magnitude of impact anticipated as a result of the proposed development and the resulting effect, and whether the effect is considered to be Significant or Not Significant (in EIA terms).

1.3 Site & Scheme Description

The Site

1.3.1 The site lies wholly within the administrative area of Sunderland City Council (SCC).

1.3.2 The site forms part of the overall IAMP area as identified in the adopted IAMP Area Action Plan (AAP) (2017-2032) and constitutes the second phase of the consented and under construction (in part) IAMP ONE development. IAMP TWO is to be delivered and determined under the Nationally Significant Infrastructure Project (NSIP) route.

1.3.3 The site comprises a triangular area of agricultural land (primarily arable) and hardstanding associated with the West Moor Farm and cottage that are located in the south-eastern corner of the triangular site, as well as land within the wider IAMP ONE site (associated with Plots 1 and 2 and the adjacent section of access road).

1.3.4 The triangular piece of land north and west of West Moor Farm (see Figure 1, above) were not included in the 2018 IAMP ONE planning application due to issues relating to the availability of up-to-date ecological survey information and the then occupied West Moor Farm property (since vacated and to be demolished).

16.1.7 The overall area within the application redline boundary for the site is approximately 25 ha in size and the triangular area of land that forms Phase Two of IAMP ONE is approximately 6.85 ha in size.

1.3.5 The agricultural land has been established (Sunderland UDP, September 1996) as Grade 3b and is, not best and most versatile (BMV) agricultural land. The existing field and roadside hedgerow boundaries, including occasional trees (i.e. ash, birch, sycamore and hawthorn), are present on the eastern edge of the triangular site and the southern edge of the wider site. The walkover survey of the site in 2019 confirmed that the hedgerows within the site are species-poor.

1.3.6 The land is largely level, with only minor variations in elevation. The wider area comprises very gently undulating topography dropping gradually to the River Don (690 m – 700 m to the north). Further to the south, south of the River Wear, the land rises to a high point of 136 m at the Penshaw Monument.

1.3.7 There is an existing access to the A1290 from the West Moor Farm property located approximately 300 m to the east of the junction into the Nissan site from the A1290. The site also incorporates an access track linking northwards to North Moor Farm. The implementation of the proposed development would result in both of these accesses being closed to vehicular use.

The proposed development

1.3.8 The 2020 planning application (ref. no. 20/00556/OU4) sought outline planning permission for: '*…the erection of industrial units (up to 98,937.2 m^2) (gross internal area) for light industrial, general industrial and storage and distribution uses (Class B1(c), B2 and B8) with ancillary office and research and development floorspace (Class B1(a) and B1(b)) with internal accesses, parking, service yards, electricity sub-stations, attenuation basins and associated infrastructure, earthworks and landscaping, as well as the demolition of the existing buildings at West Moor Farm*.' All matters were reserved for determination at a later stage. Access was reserved for future approval as the precise location of access routes into / within the site were unknown at the time of writing and submission. Access to the site was to be from the A1290 via International Drive.

1.3.9 Within the 2020 ES, Figure 3.1B Indicative Masterplan Option B illustrated the development of the site with one industrial unit (orientated south-west to north-east). The 2020 application was granted planning consent in June 2020.

1.3.10 The proposed development consists of a single, three-storey industrial unit (Class B2 General Industrial) that is to house an electrode and battery manufacturing facility with the capacity to produce up to a maximum of up to 9 GWh capacity / year. This is to comprise of two battery manufacturing plants separated by a central spine of offices (Class E(g)(i)). Included within the unit will be an integral electrode manufacturing plant.

1.3.11 The facility will employ circa 1,000 staff consisting of circa 850 shift-based staff and circa 150 day-based (office) staff. Access to the site will be from the A1290 via International Drive and an 800-space staff carpark will be created to the immediate north of the unit that will include forty 7 kWh electric vehicle charging bays.

1.3.12 The proposed facility will manufacture lithium-ion battery pouch cells and modules for electric vehicle (and other applications) via four production areas comprising of: i) electrode manufacture; ii) cell production; iii) formation and testing; iv) and module assembly. An overview of the production process is proved within Appendix 3.1 of the ES.

Figure 2: Architect's oblique aerial visualisation of the development

1.3.13 Whilst the 2020 outline application sought the same amount of floorspace as that approved through the IAMP ONE permission (i.e. 156,840 m^2 / 1.688 sq ft.), this detailed application seeks permission for a very small increase of 9,678 m^2. This raises the Gross Internal Area[1] (GIA) to a total of 108,615 m^2, but the additional area is to be used solely for the purpose of housing plant with high levels of automation and would not be accessible to staff for reasons of health and safety.

1.3.14 The proposed development is in accordance with Policy S2 (Land Uses) of the adopted IAMP Area Action Plan (AAP) 2017-2032 in that usage remains B2 production, supply chain and distribution activities directly related to the Automotive and Advanced Manufacturing sectors and related supporting uses, with ancillary E(g)(i) office space.

[1] This aspect is addressed in more detail within the Planning Statement accompanying the application.

1.3.15 A series of plans have been prepared to support the detailed planning application and define the proposed form of the IAMP ONE Phase Two development[2]. A selection of these, including the Masterplan (Drawing 101 Proposed Site Plan / Drawing 103 Proposed Landscape Plan), were used to inform the assessments reported in the technical chapters and are included at the rear of this ES. A full list of development plans is set out in the Planning Statement.

1.3.16 A draft Design Code was submitted with the 2018 IAMP ONE ES to provide the overarching design principles for the IAMP and to set out pragmatic, flexible guidance for the individual plots or buildings within the IAMP. The Design Code is to be read in conjunction with the AAP (policies D1, D2, T1-T4, IN1, IN2 and EN1-EN4), which set out the key agreed parameters and a series of strategic policies, design guidelines and masterplan principles. The design of building and plot within the site will comply with this Design Code. The accompanying Planning Statement prepared by Lichfields outlines how this scheme complies with AAP policy. A DAS is provided as part of the detailed planning application for the site, reinforcing this requirement.

1.3.17 The industrial unit will be of a modern design, set within a landscaped plot, with the necessary vehicle parking, loading/unloading and manoeuvring area(s). The building will be operated over a 24-hour, 7-day week period and, as such, external operational areas will require to be lit during the hours of darkness to the minimum levels required for their safe operational use. The building will incorporate the latest design specifications for energy efficiency and the use of sustainable resources.

1.3.18 The landscaping of the site will also follow the same principles as have been applied to the IAMP ONE Phase One development area, with perimeter screen planting, planting to individual plots, low topsoil bunding, retention and reinforcement of existing perimeter hedging and tree planting (see Drawing 103 Proposed Landscape Plan). Planting to the north-western boundary will have regard for the presence of the overhead electricity transmission line and will comprise relatively lower-growing species. National Grid clearance requirements will be adhered to. An additional planting buffer will be developed within the south-western triangular corner of the site, using native woodland tree and scrub species, to provide enhanced visual screening of the development in views from the A1290 (eastbound). The objective of this is to provide biodiversity net gain, in-line with the requirements of SCC's adopted Core Strategy & Development Plan (CSDP).

[2] These include those submitted as part of the 2020 application as well as this application.

1.3.19 A Landscape Management & Maintenance Plan and a Habitat Management Plan have been prepared for the IAMP ONE (Phase One) site, and a planning condition of IAMP ONE requires the preparation of a Landscape & Ecological Management Plan (LEMP) for the development plots and public realm areas within the development area (prior to the commencement of any planting within these areas). This will include details of how the landscaping scheme will be managed and maintained in the future. It is likely that this requirement will extend into the area of the site.

1.3.20 The IAMP development extents include 110 ha of land allocated as Ecological and Landscape Mitigation Area (ELMA) within the IAMP AAP (see Figure 1). This land will be used to implement some of the mitigation and compensation for impacts of the IAMP development on the habitats and species of the area.

1.3.21 A detailed surface water design strategy has been prepared for the development plot, designed by RPS Consulting and Systra utilising such measures as underground storage tanks, porous paving for parking areas, filter drains for internal roads. A detailed surface water design strategy has also been developed for the infrastructure drainage, which will manage run-off from the main access roads, and will provide connection points for surface water from the development plot(s).

1.3.22 The IAMP ONE Phase Two site development has been allowed for within all of the drainage design work undertaken in respect of the IAMP ONE Phase One site and, as such, no additional works are required other than to manage the surface and foul drainage associated with development within the site boundary.

Construction Methodology & Phasing

1.3.23 Subject to planning permission, construction of the proposed development is anticipated as commencing in March 2022 and lasting for a duration of circa 18 months / 72 weeks. The first phase of work will comprise the removal of topsoil from the areas proposed for built development (including roads and parking areas) and construction of the access road(s) into the site. Where possible, topsoil removed from within the development area will be retained for use onsite within bunding / landscaped areas.

1.3.24 In advance of construction work commencing at the site, it is anticipated that a pre-commencement ecological survey / walkover and report will require to be completed, to ensure that there is no disturbance to any ecology (i.e. fauna and flora) as a result of construction operations.

1.3.25 The hours (excluding deliveries) during which construction is anticipated to occur onsite are 07:00 - 18:00 hours on Mondays to Fridays and 08:00 - 17:00 hours on Saturdays, with no working on Sundays and Bank or Public Holidays.

1.3.26 Construction access to the site and contractor compound (located at the western edge of the site) will be from the A1290 to the north, adjacent to West Moor Farm. Access for construction vehicles may also be from International Drive.

1.3.27 A Construction Traffic Management Plan (CTMP) will be prepared, setting-out the routes to be followed by construction traffic so as to avoid sensitive areas and areas of notable congestion, and the times when construction deliveries to the site will be permitted (typically 08:00 – 14:30 hours, Mondays to Saturdays). These will ensure that there is no potential conflict with times when shift changes take place within the adjacent Nissan factory.

1.3.28 The demolition of the West Moor Farm buildings is subject to a separate detailed application will be undertaken in accordance with an approved Construction Demolition Management Plan (CDMP), which will identify the types and volumes of waste arisings anticipated from the demolition and the means of re-using, recycling, recovering or otherwise disposing of these in a sustainable manner.

1.3.29 A Construction Environmental Management Plan (CEMP) will be prepared prior to the commencement of works onsite, including mitigation identified within the ES relating to construction activities. The CEMP will include a Site Waste Management Plan (SWMP) and Dust Management Plan (DMP), setting out the measures by which construction can take place with minimal impact on the local environment.

1.4 Planning Policy Context

1.4.1 The following plans and guidance are primary material policy considerations relevant to this outline planning application:

- The National Planning Policy Framework (July 2021).
- Planning Practice Guidance (March 2014) and as amended.
- The Adopted Development Plan, comprising:
  - Sunderland Core Strategy and Development Plan 2015-2033, adopted January 2020.
  - International Advanced Manufacturing Park (IAMP), Area Action Plan (AAP), adopted November 2017.

1.4.2 Following the approval of IAMP ONE Phase 2 application in June 2020, SCC has undertaken consultation on a number of policy documents, including the Allocations & Designations Plan (ADP). It has also undertaken consultation on the following Supplementary Planning Documents (SPD):

- Draft Development Management SPD.
- Washington Meadows SPD Scoping Report.
- Local Wildlife Site Report.

Planning History

1.4.3 Both the outline planning application (ref. no. 20/00556/OU4) that was submitted for the Site in 2020 and this detailed application form part of the wider planning base for the delivery of the International Advanced Manufacturing Park. In order to bring forward and meet the demand for early development on part of the IAMP site, IAMP ONE Phase One was made subject to consent by means of a planning application in 2018. Part of that IAMP ONE area (i.e. Phase Two) was not included within the 2018 planning application for the development due to the need for updated ecology surveys and the property within that parcel of land (i.e. West Moor Farm) was still occupied at that time. The 2020 outline planning application was submitted to ensure that the whole of the IAMP ONE area could benefit from a planning consent and, thereby, deliver the benefits anticipated at the outset of the process. Planning consent was approved in June 2020.

1.4.4 Subsequent to receiving planning consent in June 2020, the following amendments were proposed; thereby necessitating the submission of a new application:

- Small changes to the redline boundary (e.g. along the southern perimeter, and changes to accommodate the access road junction) resulting in a small reduction of the Site area.
- A change to the position and orientation of the industrial unit.
- A change of use (still within Class B2) to operations associated with an electrode and battery manufacturing facility, including the storage and use of hazardous substances.

1.5 Community Consultation & Consideration of Alternatives

Community Consultation

1.5.1 Consultation with the local community was undertaken following discussions with Sunderland City Council on the type of consultation considered to be appropriate for

the proposed planning application. This was agreed as a leaflet drop, targeted at specific residential and commercial areas in the vicinity of the site and immediate surroundings, in addition to organisations and businesses with connections to the IAMP site. Owing to the lockdown restrictions related to COVID-19, a public exhibition has not been undertaken.

1.5.2 The leaflet drop was undertaken in July 2021 and there were very few comments received in response to this. A summary of the consultation is provided within Appendix 5.1 at the rear of the ES. This also includes a copy of the leaflet and a figure identifying the area within which it was circulated.

1.5.3 A response on behalf of a landowner within IAMP TWO raised various questions in relation to the proposed outline planning application and indicated that further comments would be provided once the planning application is submitted.

1.5.4 Responses from the general public ranged from no objections; the suggestion that IAMP should be suspended and that manufacturing could be leaving the area rather than moving-in; that bringing jobs to the area is welcomed, but increased traffic is not; and the Metro line should be extended to Washington using the nearby closed Leamside Line.

Alternatives

1.5.5 Consideration of the reasonable alternatives studied by the developer and a description of these is a requirement of The Town & Country Planning (Environmental Impact Assessment (EIA)) Regulation 2017. Typically, consideration of alternatives includes such aspects as a 'Do Nothing' option, potential alternative sites, designs, site accesses or alternative technologies.

1.5.6 In the case of the Proposed Development of the IAMP ONE Phase Two site, the 2020 planning application was required to complete the suite of consents necessary to deliver the IAMP development as a whole within the wider area identified for this. As such, alternative sites, accesses and the 'Do Nothing' option were not relevant. It is, therefore, considered that, given the work previously completed in this regard, there is no requirement for any further consideration of reasonable alternatives as part of this submission.

1.6 Air Quality

1.6.1 An air quality assessment has been completed that considered the potential air quality effects of the construction and operational phases of the proposed

development in relation to both human and ecological sensitive receptors. Included as part of this was a detailed assessment of potential air quality impacts as a result of emissions to air from the onsite electrode and battery manufacturing processes.

1.6.2 A review of the baseline shows that existing pollutant concentrations within the local area are well below the air quality objectives and limit values.

1.6.3 IAMP ONE and all traffic arising from it was assessed as part of the 2018 ES and concluded negligible air quality changes resulting in an effect that was Not Significant. This was also reported within the ES prepared for the 2020 IAMP ONE Phase Two application. As the proposed development will not result in an increase in traffic flows above those that were previously assessed, the effect upon air quality as a result of traffic is assessed as **Not Significant**; pollutant concentrations would remain below the air quality objectives and limit values.

1.6.4 In relation to process emissions, the proposed development has been designed such that the maximum modelled process contributions and predicted environmental concentrations do not exceed the relevant air quality objectives for the existing sensitive receptors (i.e. human and ecological) considered. Taking into account the process contributions and (for both short-term and long-term emissions) the predicted environmental concentration, the overall air quality effect is assessed as **Not Significant**.

1.7 Noise

1.1.1 A noise and vibration assessment has been undertaken for the construction and operational phases of the proposed development to assess potential impacts upon the nearest existing sensitive receptor (i.e. North Moor Farm), which is situated circa 170 m to the north of the site boundary.

1.1.2 A noise survey was undertaken for the wider IAMP ONE application, the data from which has been used to inform the current assessment. The baseline data was used to establish thresholds for construction and operational noise. At North Moor Farm, distant road traffic on the surrounding road network (including on the A1290, A19 and A184) were the dominant noise sources. Noise from the Nissan plant was also audible and included a constant, low-level, low-frequency droning noise and reverse alarms.

1.1.3 Owing to the distance between North Moor Farm and the site, potential impacts as a result of noise and vibration due to activities associated with construction are assessed as **Not Significant**. The use of current best practice working methodologies

will, however, be adopted during the construction phase to ensure that any potential impacts that may occur are reduced as far as practicably possible.

1.1.4 During the operational phase of the proposed development, the character of the residual sound (which will contain broadband noise from road traffic and industrial noise from the Nissan Plant to the south) and the character of the specific sound of the proposed development will be very similar. The proposed development is, therefore, considered to be in keeping with the immediate area.

1.7.1 Embedded mitigation in the form of acoustic fencing (min. 1 m high and 15 kg / m^2 density) installed along the northern boundary of the site will be designed-in to the design proposals. With this in place, the potential impacts upon North More Farm as a result of noise and vibration due to activities associated with the daily operation of the proposed development are assessed as **Not Significant**.

1.8 Landscape & Visual Impact

1.8.1 Landscape planting for the proposed development will be along similar lines to that for IAMP ONE Phase One and will include native trees and scrub (where the constraint of overhead power lines prevents tree planting) along the site perimeter. Internally, a species-rich grassland will be created outside of the development area, to ensure that the development results in a biodiversity net gain. Other landscaping will include the reinforcement of the hedging alongside the A1290 (where this is to be retained) and along the new roadside edge, plus hedgerow tree planting. The residual effects discussed, below, include consideration of the proposed landscaping.

Landscape character and landscape resource during construction

1.8.2 Whilst construction works would take place in close proximity to the area of Green Belt, effects would be indirect and temporary and are assessed as **Not Significant**. There would be changes to the character of the landscape from the presence of plant and machinery within the site, as well as from the permanent loss of internal lengths of hedgerow and some hedgerow trees. Effects would also be adverse, but **Not Significant**. Minimal changes to the landform are anticipated. Lighting would be required during construction for security and the winter months, but this would be short-term and temporary. The effects would be adverse, but **Not Significant**.

1.8.3 Effects of construction on the landscape character area within which the site is located are assessed as a high magnitude of change on a low-medium sensitivity receptor and, as such, **Not Significant**. Indirect effects on the wider landscape character areas would be **Not Significant**.

Landscape character and landscape resource post-completion

1.8.4 The operational effects of the proposed development would be permanent and long-term. Effects (indirect) on the adjacent areas of Green Belt land from the presence of the completed development would be partially buffered by the perimeter landscaping of the site; these have been assessed as **Not Significant**.

1.8.5 There would be changes to the scale of the site from the presence of the large-scale building and from its association with the wider IAMP ONE development area. The generally medium scale of the existing landscape (within a wider area of medium to large scale) is likely to increase to large scale. The scale of the wider landscape is influenced by the presence of the existing and under-construction buildings within IAMP ONE Phase One (which are largely c. 13-15 m in height, with one that is c. 19 m tall at its highest point). The magnitude of change is assessed as medium-high on a low-medium sensitivity receptor and, as such, the change in landscape scale would be Significant. There would be changes to the degree of enclosure experienced within the site and from the presence of lighting associated with the development plots and spine road. Loss of existing hedgerows and trees would be compensated by the provision of replacement tree and scrub planting as well as the infilling of gaps within the retained hedging. This will, in the longer-term, make a positive contribution to the landscape character of the local area. Overall, other than from the change in landscape scale, the effects of the developed site on the landscape resource of the local area are assessed as **Not Significant**.

1.8.6 Changes within the site will result in changes within the Coalfield Lowland Terraces (Usworth Lowland) Landscape Character Area. This is assessed as Significant, but indirect effects on the wider landscape character areas from the presence of the developed site are assessed as **Not Significant**.

Cumulative effects on landscape character and landscape resource - post-completion

1.8.7 Cumulative effects on the landscape resource, from the presence of the operational Site in combination with the development of the IAMP ONE Phase One and IAMP TWO areas, would relate to the increased loss of hedgerows and trees from within the development area. Whilst this would be expected to be a Significant effect for the larger IAMP ONE Phase One and IAMP TWO sites, the additional cumulative effect on the landscape resource of the proposed development, with the wider IAMP development, is assessed as **Not Significant**.

1.8.8 No significant cumulative effects are predicted on the landscape resource from the combination of the proposed development with the various consented but not constructed developments and planning applications awaiting determination (ES Chapter 2, Table 2.5). Equally, no significant effects on landscape character are anticipated from the proposed development in combination with the wider IAMP ONE Phase One and IAMP TWO sites. Notwithstanding the prediction of a Significant effect on the Urban Fringe, Boldon Fell Landscape Character Area as a result of IAMP TWO, the greater distance of the site from this Landscape Character Area means that cumulative effects would be **Not Significant**.

1.8.9 **No significant cumulative effects** on landscape character, direct or indirect, are identified for the combination of the site and the various consented but not constructed, and planning applications awaiting determination.

Visual Amenity – Post-Completion

1.8.10 There is relatively limited visibility of the existing site from within the surrounding area. This is mainly limited to locations close to the site or more distant, elevated positions to the north-west and south of the site. Effects have been assessed for the operational stage of the development, only, as it is considered that the short-term nature of construction works would not give rise to significant effects on visual amenity.

Residential Receptors

1.8.11 Significant effects on visual amenity have been identified for the occupants of North Moor Farm, the properties at Hylton Bridge Farm and the two roadside properties at Hylton Grove Farm in the short-to medium-term. In the longer-term, however, with the assimilation of the proposed development into the general area and the implementation of the proposed mitigation, this would reduce to **Not Significant**. There is also scope for positive effects for the local area. No other significant visual effects have been identified for residential receptors.

Users of Transport Routes and Rights of Way

1.8.12 Notwithstanding the close proximity of visual receptors using the A1290, no significant effects on visual amenity have been identified for users of this or other roads or rights of way (including the dismantled railway line on the eastern edge of Washington, west of the site). Views from the road for users of the A1290 within the section of road passing the site, when assessed in their totality, would experience a

range of near-distance, transient and oblique views of the site, seen in the context of the wider industrial development of this area; this is assessed as **Not Significant**.

Users of Formal and Informal Open Space and Recreation Areas

1.8.13 No significant effects on visual amenity have been identified for visitors to the Penshaw Monument, or for visitors to the North East Aircraft Museum.

Appraisal of Key Views

1.8.14 The following six viewpoints were selected to represent locations from where the site is most visible for the greatest numbers of visual receptors:

- Viewpoint 1 - views from the A1290 at the new entrance road.
- Viewpoint 13 - views from the Penshaw Monument.
- Viewpoint 16 - views from the A1290 to the west of the site.
- Viewpoint A - views from Follingsby Lane to the north of the site.
- Viewpoint B - views from Follingsby Lane to the north of the site.
- Viewpoint C: view from Follingsby Lane to the north of the site.

1.8.15 The magnitude of impact upon visual amenity varies between negligible-low and high and the sensitivity of receptors varies between low and medium-high. With the establishment of perimeter and internal planting and the assimilation of the proposed development into the general area, the adverse effect upon visual amenity for all views was assessed as **Not Significant** in the long-term.

Cumulative Effects on Visual Amenity

1.8.16 For the residents of North Moor Farm, there would be near and middle-distance views (seen in successive fields of view) of the site in combination with areas within IAMP ONE Phase One and IAMP TWO. In this instance, the magnitude of impact upon visual amenity is high and the sensitivity of the receptor is medium-high. As such, the adverse cumulative effect upon visual amenity is assessed as Significant in the short to mid-term. In the longer-term, however, the effect would reduce to **Not Significant** with the assimilation of the development into the general area.

Cumulative

1.8.17 Overall, the proposed development of the site would result in limited Significant effects on the landscape character and landscape resource of the area, restricted to the operational phase of the site, and limited Significant effects on visual amenity,

also during the operational stage, for properties close to the site. In the longer-term, with the assimilation of the proposed development into the general area and the establishment of the proposed mitigation, it is considered that these would reduce to **Not Significant** and that there is scope for some positive effects on the landscape character, landscape resource and visual amenity of the local area.

1.9 Waste

1.9.1 An assessment has been undertaken for potential significant effects of the development of the IAMP ONE Phase Two site (during construction and operation) on waste management.

1.9.2 The proposed development will require levelling and grading of the existing site (including the excavation of an estimated 300 mm depth of topsoil from areas of agricultural land), construction of a new building to house the two battery manufacturing plants and offices, construction of infrastructure and landscaping. The assessment focused on the likely quantities and waste types arising from these activities and how they can best be managed. Included as part of this was the consideration of both hazardous and non-hazardous wastes.

1.9.3 The anticipated waste volumes form a small fraction of regional waste generation and capacity and it is expected that the majority of waste arisings will be sent for disposal to local landfill sites or to suitable offsite locations for re-use. Any hazardous waste arisings would be dealt with by a specialist hazardous waste operator. Following the assessment, it was concluded that **no Significant environmental effects** were identified as a result of waste arisings and management practices in relation to the proposed IAMP ONE Phase Two development.

1.10 Water Resources

1.10.1 The site is located on the watershed of two surface water catchments. To the north of the watershed, water drains to the River Don. To the south of the watershed, water drains to watercourses / drains that are not located within a Water Framework Directive (WFD) surface water catchment. The site is located within the Tyne Carboniferous Limestone and Coal Measures groundwater catchment. There are no surface water or groundwater private water supplies within 2 km of the site. There are no groundwater abstractions within 2 km of the site.

1.10.2 The assessment found that, with appropriate mitigation in place, the scale of potential effects was no greater than negligible. As such, effects from the proposed development on the water environment would be **Not Significant**.

1.10.3 The Flood Risk Assessment & Drainage Strategy that has been prepared found that the majority of the site is located within Flood Zone 1 (less than 0.1% chance of flooding every year) from fluvial flooding.

1.10.4 There is very low flood risk from groundwater or sewer flooding and no risk from artificial sources.

1.10.5 Climate change impacts are estimated to have potential medium to high flood risks within the northern corners of the site, associated with fluvial flooding. These will be mitigated by the introduction of a set development platform the flood risk to the site is considered to be very low.

1.10.6 Whilst there are small areas of the site located within areas of medium to high risk of surface water flooding, the majority of the site is at a low risk of surface water flooding. A detailed surface water design strategy has been design utilising such measures as underground storage tanks, porous paving for parking areas, and filter drains for internal roads. With the proposed site-specific mitigation measures in place, the risk level has been assessed as low.

1.10.7 Overall, for Water Resources, there are **No Significant environmental effects** identified in terms of changes to the hydrological and hydrogeological regime and / or potential pollution and degradation in water quality.

1.11 Geology & Soils

1.11.1 The site comprises 24.23 ha of arable agricultural land (existing or former), plus 0.85 ha of non-agricultural land (associated with West Moor Farm). The loss of 18.74 ha of the agricultural land within the site was consented via the granting planning permission for IAMP ONE Phase One and the loss of 5.49 ha of agricultural land was consented by the 2020 IAMP ONE Phase Two application. The proposed development will not result in the loss any additional agricultural land.

1.11.2 Two detailed soils and Agricultural Land Classification (ALC) surveys have been conducted within the site, both showing the soils to be slowly permeable clay loams over clays, the wetness of which limits the agricultural quality of the land to ALC Subgrade 3b (moderate quality, non-Best and Most Versatile (BMV)). Whilst all land within the site would be permanently removed from agricultural use due to the proposed development, the land is non-BMV and the loss is considered to be **Not Significant**.

1.11.3 The application of standard good practice soil management measures would reduce levels of soil loss and disturbance to negligible and **Not Significant**. Additionally, where practicable, the reuse of soils within areas of landscaping and greenspace would be maximised, with excess soils transported from site for beneficial reuse elsewhere.

1.12 Ecology & Biodiversity

1.12.1 The site does not lie within (or in close proximity to) any designated areas of ecological interest. Land within the site is comprised of former agricultural land that consists of a mix of arable, improved grassland and poor semi-improved grassland, as well as land affected by the ongoing development works within the wider IAMP ONE Phase One site that consists of bare ground and ephemeral vegetation. There are no invasive species present within the site. The habitats present are common within the wider landscape and readily replicated and, as such, are of local value, only.

1.12.2 The habitats support a number of over-wintering bird species, ten of which are Birds of Conservation Concern (BoCC) Red List species and one of which is listed under Schedule 1 of the Wildlife & Countryside Act (1981), and the site is considered to be of local value for the overwintering assemblage. The habitats also support a number of breeding bird species, seven of which are BoCC Red List species and four of which are BoCC Amber List species, and the site is considered to be of local value for the breeding assemblage. Barn owl and little owl were also recorded within the area. The site supports limited bat activity and only two common pipistrelle day roosts were recorded. As such, the site is considered to be of local value to bats.

1.12.3 The development proposals will result in the loss of all existing habitats within the site, which will result in the local displacement of the fauna species present. With the proposed mitigation measures (which include offsite replacement bat and barn owl boxes) identified within Chapter 12 of the ES in place, the impact as a result of activities associated with construction will be **Not Significant**. During the operational phase, the impact upon bats and farmland birds as a result of disturbance from the proposed development will be **Not Significant**. As an enhancement, a series of boxes for swifts will be installed on the new structure

1.12.4 In relation to the potential impact upon designated sites of ecological importance within the area, the results of the air quality assessment confirm that the maximum modelled process contributions for both nutrient nitrogen and acid deposition do

not exceed 100% of the long-term critical loads (for the protection of vegetation) for the nearby Local Nature Reserves and Local Wildlife Sites. The results also confirm that the maximum modelled process contributions do not exceed 10% of the short-term or 1% of the long-term critical levels (for the protection of vegetation) for the Northumbria Coast Ramsar site and Special Protected Area. Based upon the results of the assessment, nitrogen dioxide (NO_2) emissions will be **Not Significant** at the designated sites.

1.12.5 Overall, the onsite landscape strategy will deliver a 3.17 % biodiversity net gain for the IAMP scheme. In addition, the IAMP site includes 110 ha of land allocated as Ecological and Landscape Mitigation Area (ELMA) that will be used to implement a comprehensive habitat enhancement scheme.

1.13 Access & Transport

1.13.1 Consideration has been given to the potential access and transport impacts of the proposed development during construction and operation in relation to severance, driver stress and delay, pedestrian and cyclist amenity, pedestrian and cyclist delay, fear and intimidation, and highway safety.

1.13.2 In addition to the mitigation measures have been identified as part of the assessment, the mitigation measures identified for 2018 IAMP ONE Phase One and 2020 IAMP ONE Phase Two (i.e. the provision of facilities for cyclists, pedestrians and bus travel, other sustainable transport measures, compliance with the HOMP and the development of a CTMP) remain applicable for the proposed development.

1.13.3 During construction, the maximum residual effect is minor adverse (**Not Significant**). During operation, the maximum residual impacts have been assessed as minor adverse (**Not Significant**) for driver stress and delay (for all links considered), minor adverse (**Not Significant**) for highways safety (for all links considered), moderate adverse (***may* be a Significant**) for pedestrian and cyclist amenity (for one link), moderate adverse (***may* be a Significant**) for pedestrian and cyclist delay (for one link), moderate adverse (***may* be a Significant**) for severance (for two links) and major adverse (**Significant** effect) for fear and intimidation (for two links).

1.13.4 It should be noted, however, these impacts are not new to the proposed development, but are carried through from the 2018 ES for IAMP ONE, which presented an assessment of the environmental impacts of a full build out. Whereas the proposed development presents a single plot development with fewer staff numbers than previously forecast and, in turn, less vehicle trip generation potential.

As such, the previously reported significance of the residual effect (especially in terms of fear and intimidation upon Links 15 and 17) is considered to be an untrue reflection of the proposed development. With the mitigation measures proposed as part of IAMP ONE Phase One and IAMP ONE Phase two in place, and using professional judgement, the effects are expected to reduce to **Not Significant**.

1.13.5 Overall, the mitigation measures for IAMP ONE Phase One and IAMP ONE Phase Two (i.e. the provision of facilities for cyclists, pedestrians and bus travel, other sustainable transport measures, compliance with the HOMP and the development of a CTMP) have the potential to enable the proposed development to be built in a positive way. The Travel Plan, managed by the Travel Plan Coordinator, will also increase community participation in further meeting the travel demands of the development, once operational. Indeed, the Travel Plan is one of the primary mitigation measures.

1.14 Vulnerability to Major Accidents & Disasters

1.14.1 An assessment has been carried out for the vulnerability of the proposed development to major accidents and disasters. This considered the possibility for the proposed development to be vulnerable to existing, low-likelihood, environmental hazards that would introduce the risk of adverse effects upon such sensitive receptors as people and the environment.

1.14.2 Construction and operational effects have been considered separately, including potential cumulative effects. The assessment considered natural and man-made / industrial hazards and allowed for site-specific mitigation measures to be identified, where required.

1.14.3 The assessment concluded that, with measures in place to manage such aspects as dust dispersion, fire suppression, flood risk and the potential for an interruption to the power supply, the vulnerability of the proposed development to major accidents and disasters, including cumulatively with other developments, would be **Not Significant**.

1.15 Climate Change

1.15.1 The proposed development's absolute emissions were modelled with embedded mitigation in place. Two potential scenarios were considered, consisting of 'Scenario A - with gas boilers' and 'Scenario B - with all-electric heating'.

1.15.2 For Scenario A, the absolute emissions were less than 0.63 % below the baseline emissions, which would be a negligible beneficial impact (**Not Significant**) in the long-term. There would also still be a reliance on the combustion of fossil fuel to meet the majority of the required energy demand.

1.15.3 For Scenario B, the absolute emissions were more than 68 % below the baseline emissions, which would be a major beneficial impact (**Significant**) in the long-term. The shift to all electric to meet the energy demands for the proposed development would also benefit from the decarbonisation of the national grid.

1.15.4 With the proposed development, the Applicant is considering measures to exceed the minimum standards required by Building Regulations as well as meeting the Future Buildings Standard. The proposed development has set a target to be zero carbon by 2050 and, therefore, Scenario B (i.e. where the plant is entirely electric) is the preferred option to be implemented if technically and financially viable.

1.15.5 There is also the potential for additional onsite renewables to be added to the energy supply and Air Source Heat Pumps (ASHP) are being considered to provide further CO_2e emission saving.

1.15.6 Whilst this should not be interpreted as the proposed development having no impact on climate change through greenhouse gas (GHG) emissions, it signifies that it includes measures to improve the overall impact above a development of the same size and with comparable facilities, constructed to Building Regulations. It should also be noted that the production of EV batteries will enable emission savings of around 117,211 tCO_2e each year through the removal of the equivalent number of fossil fuel powered vehicles from the roads.

It is not possible to eliminate every risk associated with climate change, but through intelligent design, preparation and responsible construction, the risks can be minimised. These include reducing risks in such key areas as potential overheating, flooding and extreme weather, taking into consideration the health and safety of the users of the proposed development and the resilience of the proposed development, itself.

Each technical discipline has identified, where necessary, mitigation measures and, with these in place, there will be no significant impact on the development as a result of climate change in the long-term. With these in place, the overall significance of future climate change on the proposed development will be **Not Significant**.

1.16 Cumulative Effects

1.16.1 An assessment of the potential for the proposed development to result in cumulative effects has been undertaken. This includes consideration of the combination of environmental aspects associated with the proposed development, itself, known as intra-cumulative effects, and the combination of the proposed development and other developments within the local area, known as inter-cumulative effects.

1.16.2 The other developments considered are listed within Table 2.5 in Chapter 2 of the ES and include the wider areas of IAMP ONE Phase One and IAMP TWO, as well as others within the local area.

1.16.3 The proposed development is considered to have very limited scope for significant intra-cumulative and / or inter-cumulative effects during both the construction or operational phases. With the mitigation measures identified within the technical chapters of the ES in place, any cumulative effects would be **Not Significant**.

1.16.4 Whilst a Significant intern-cumulative effect on the visual amenity of the occupants of North Moor Farm is identified for the combination of the proposed development and the wider IAMP ONE Phase One and IAMP TWO developments, this will be in the short to medium-term, only, and will reduce to **Not Significant** in the longer-term, following establishment of the landscape planting and assimilation of the development into the general area.

1.16.5 No other significant cumulative effects on visual amenity have been identified for any other visual receptors.

1.17 Summary

1.17.1 The proposed development of the IAMP ONE Phase Two site has been assessed for its potential effects on the environment of the local area, with only a limited number of short to medium-term significant effects pertaining to Landscape and Access and Transport have been identified.

1.17.2 Significant effects on visual amenity have been identified for the occupants of North Moor Farm, the properties at Hylton Bridge Farm and the two roadside properties at Hylton Grove Farm. A Significant cumulative effect upon visual amenity has also been identified for the occupants of North Moor Farm from the operational presence of the proposed IAMP ONE Phase Two development, including inter-cumulative effects in relation to the combination of the proposed development and

the wider areas of IAMP ONE Phase One and IAMP TWO. In the longer-term, these will reduce to **Not Significant** following the establishment of the landscape planting, the softening of views and the assimilation of the development into the area.

1.17.3 With the implementation of the mitigation measures proposed, **no other significant residual effects** (including cumulative effects) on the natural environment or on the people and property of the area have been identified. There would be a 3.17 % net gain in biodiversity as a result of the proposed development landscape strategy. Overall, it is considered that the effects of the proposed development can be suitably mitigated such that there would be no unacceptable level of harm to the environment of the local area.