



KRONOSPAN, CHIRK

**NORTH ACCESS ROAD INTO THE KRONOSPAN
FACILITY, LORRY PARK, WEIGHBRIDGES AND
WEIGHBRIDGE BUILDING, WEIGHBRIDGE CAR PARK
AND FACILITIES BLOCK, ROUNDWOOD STORAGE
AREAS, 132KV SUBSTATION, AND ANCILLARY
WORKS**

**ENVIRONMENTAL STATEMENT CHAPTER 4.0 – DESCRIPTION
OF THE PROPOSED DEVELOPMENT**

REV A - JULY 2023

The axis logo consists of a dark blue square with the word 'axis' in white, lowercase, sans-serif font.

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4.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT

4.1 Introduction

4.1.1 This chapter of the Environmental Statement (ES) provides a description of the layout and design of the various components of the Proposed Development along with the operational processes that would occur. A description of the construction methods, including the measures proposed to mitigate potential construction phase effects is also provided.

4.1.2 The Proposed Development would comprise the principal components set out below. The location of each of these is illustrated on **Figure 4.1**. An illustrative 3D model of the Proposed Development (overlain on existing aerial photography) is provided at **Annex 4.1** at the end of this document.

- North access road
- Lorry park
- Weighbridges
- Weighbridge building
- Weighbridge car park
- Facilities block
- Roundwood storage areas
- 132kV substation
- Site drainage scheme
- Site landscape scheme

4.1.3 A more detailed explanation of each of the Proposed Development components, including general and/or site wide components is provided below.

4.2 General/Site-wide Components

Earthworks

4.2.1 To create a development platform for the Proposed Development, including suitable gradients for the proposed access roads, changes would be made to the landform of the Site, with areas of both cut and fill required. The landform

of the developed Site is presented on **Figure 4.2** and illustrative landscape cross sections through the Site are presented on **Figure 4.4**.

- 4.2.2 Approximately 53,860m³ of cut and approximately 65,060m³ of fill would be required to construct the Proposed Development. As such, there would be a materials balance of 11,200m³ fill. Heavy goods vehicles (HGVs) would be required to import this material – see **Planning Statement Appendix F (Transport Statement)** for further details of HGV movements during construction. It is likely that a proportion of the required fill material would be sourced from within the existing Kronospan Facility e.g. from the ongoing construction of the north east warehouse; however, the fill material balance stated above represents a reasonable worst case.
- 4.2.3 The eastern part of the Site would typically be in cut, i.e. proposed ground levels would be below existing. The western part of the Site would typically be on areas of fill, with proposed ground levels above the existing. At the western edge of the Site, an area of embankment would tie-in the Proposed Development platform with the existing landform.
- 4.2.4 Proposed levels across the Proposed Development Site would vary between 86.7m above ordnance datum (AOD) and 100.2m AOD. Please refer to **Figure 4.2** for proposed site levels.
- 4.2.5 An earth bund would be provided along the eastern boundary of the Site, which would provide some screening of views from the B5070 and from residential properties at the northern edge of Chirk. The bund would be up to approximately 7m higher than the level of the proposed new access road adjacent to the proposed new roundabout on the B5070, and would be 4m higher than the level of the proposed lorry park further south. Please refer to **Figure 4.4a-d** for cross sections of the Proposed Development.

Drainage

- 4.2.6 The Proposed Development would occupy an area that is at present undeveloped, and which has no formal drainage infrastructure. As such it is necessary to provide a Sustainable Drainage System (SuDS) to manage surface water run-off from the Site.

- 4.2.7 Full details of the proposed SuDS together with details of all modelling and assumptions made are described in the Flood Consequence Assessment and Surface Water Drainage Strategy (**Planning Statement Appendix B**). A summary description is set out below.
- 4.2.8 Once the Proposed Development is in place, the peak surface water run-off rate would be restricted to the equivalent greenfield rate for storm events. The SuDS has been designed to restrict surface water run-off from the Site based on a 1 in 100-year storm event, with an additional uplift in rainfall intensity of 40% to allow for climate change.
- 4.2.9 The proposed lorry park and car parking areas would be constructed as permeable paving with a geomembrane and sub-base. Surface water runoff from the Proposed Development would all be routed into the wider site drainage system.
- 4.2.10 Runoff would be allowed to infiltrate down through the permeable sub-base entering a smaller area of geo-cellular crates between the permeable paving and the geomembrane. All other areas of hardstanding located on the raised development platform will route runoff into the crates or permeable paving sub-base.
- 4.2.11 The substation platform would be constructed where possible from permeable materials (such as gravels or stones). The detailed drainage design for the proposed substation would be completed post-submission and will include pollution control measures required to contain any potential spill of hazardous substances. Any significant areas of hardstanding within the substation area will be included within the final drainage design, with flows routed to the wider site drainage system.
- 4.2.12 The geo-cellular crates would discharge to two attenuation basins in the northern extent of the Proposed Development Site, one either side of the existing farm access track. Both would have a depth of 0.6m. The roundabout area would also discharge into the northern attenuation basin.
- 4.2.13 The basins would not be permanently wet, and water levels are likely to fluctuate throughout the year depending on the amount of rainfall. It is likely that where little or no rain falls for an extended period, that the floor of the basins would be dry. Both basins would be designed with biodiversity

interests in mind in addition to the drainage function and would be managed to create a seasonally wet wetland habitat. The location of the two proposed wetland areas is illustrated on **Figure 4.1**.

- 4.2.14 The water would be discharged from the attenuation basins at a controlled rate into the Afon Bradley in the north-west of the Site.
- 4.2.15 The proposed SuDS would comply with the water quality requirements set out in the SuDS Manual, notably site management (permeable paving) and site control (attenuated wetland areas). As such, the Proposed Development would not give rise to any water quality issues. An oil interceptor would be installed as a precautionary measure prior to the point where drainage would discharge into the proposed attenuation basins.

Utilities

- 4.2.16 The Proposed Development would require connection to several utilities.

Sewers

- 4.2.17 The Proposed Development would introduce new connections (see **Planning Drawing 10**) to the Kronospan foul sewer network for toilet and welfare facilities; the foul connection is to public sewer. The overall loading to sewer (once the Proposed Development is operational) would not increase as the Proposed Development is facilitating a change to existing operations with no additional employees i.e any loading from the Proposed Development would be offset by a reduced load on the main site connection at the existing Kronospan Facility.

Water

- 4.2.18 The proposed weighbridge building and facilities block would require a connection to the existing water system at the Kronospan Facility; this would be via the existing Kronoplus connection which comes from Holyhead Road (north of Kronoplus).

Telecommunications

- 4.2.19 The proposed weighbridge building and facilities block would require a connection to the existing telecommunications network at Kronospan; this would be the existing network from the north of Kronoplus.

Electricity

- 4.2.20 The Kronospan private 11kV electricity network at the existing Kronospan Facility and for the Proposed Development would need to be connected to the proposed 132kV substation. The 132kV substation would transform the voltage from 132kV to 11kV (via two grid transformers). Kronospan's existing 11kV electricity network would be disconnected from the distribution network operator (DNO) (Scottish Power Energy Networks (SPEN)) 33kV network and new 11kV underground connections provided to the proposed 132kV substation.
- 4.2.21 A 132kV underground cable connection will be required between the proposed 132kV substation and the existing 132kV network (the Legacy/Oswestry overhead line) owned and maintained by the DNO (SPEN). The proposed 132kV underground cable connection is to be installed, owned, and operated by SPEN and is not part of the Proposed Development. However, a cumulative assessment of its indicative alignment has been undertaken as referred to in **ES Chapter 2.0 (EIA Methodology)**. The indicative route of the 132kV underground cable is shown at **Figure 2.2**.

Gas

- 4.2.22 There is no requirement for a mains gas supply.

Lighting

- 4.2.23 The Proposed Development would require external lighting for the safe movement of vehicles and pedestrians, for any external amenity areas, and for the security of employees and visitors. The need to ensure safe working and living conditions would be balanced against the requirement to reduce any unwanted visual prominence of the Proposed Development at night and to address any ecological constraints, such as for example, bat flight paths.

- 4.2.24 Once commissioned, the Proposed Development would operate on a continuous (24 hour/7-day per week) basis, the same as it currently operates. However, the majority of deliveries and visits would be made during the normal working day. In the winter months, some of these deliveries/visits are likely to be made when it is dark (e.g. late afternoon and early morning). During hours of darkness or low-level natural illumination there would be a need for lighting commensurate with health and safety requirements to ensure a safe working environment for operatives on Site.
- 4.2.25 There are a series of relevant documents and guidance that provide advice when developing internal and external lighting systems, including:
- *Lighting Guide 6: Lighting The Outside Environment*, CIBSE SLL 1992;
 - *Guidance Notes for the Reduction of Obtrusive Light*, Institute of Lighting Engineers (ILE) 2011;
 - *PLG 04 - Guidance on Undertaking Environmental Lighting Impact Assessments* Institute of Lighting Professionals (ILP), 2013;
 - *HSG38: Lighting at Work*, Health and Safety Executive;
 - *Lighting Guide 12: Emergency Lighting Design Guide*, CIBSE SLL 2004;
 - *BS EN 12464-2 Light and Lighting. Lighting of work places. Outdoor work places*, BSI 2014.
- 4.2.26 The lighting design for the Proposed Development is described in detail in the Lighting Assessment at **Planning Statement Appendix D**. The assessment provides an indicative lighting design which would provide safe and well-lit external spaces and pedestrian walkways in accordance with the principles outlined in the best practice guidance above. Lighting levels would be designed to accord with best practice and to minimise the generation of obtrusive light beyond the development area.
- 4.2.27 Two lighting compliant options were considered for the proposed lorry park. The option with the lower height lighting columns (8m high instead of 12m high) was selected to minimise the visual impact – this is discussed further in **ES Chapter 3.0 (Alternatives)**.

- 4.2.28 The Lighting Assessment models the impact of the proposed lighting on nearby receptors to demonstrate compliance with the various guidance documents and standards set out above.
- 4.2.29 Light sources would typically be LED, or other high efficiency sources. This would maximise both energy efficiency and longevity. Luminaires would be chosen to prevent light output above the horizontal, minimising light pollution.
- 4.2.30 The particular type of lighting columns and bollards would be chosen in accordance with the optimum height and spacing to ensure an even and efficient distribution of light that fulfils the design requirements in terms of security, operational safety and minimises light pollution.
- 4.2.31 All non-essential external lighting would be turned off during hours of darkness outside normal working hours. Night-time lighting would only be activated during routine maintenance or in an emergency (both of which would be very infrequent). Lighting would be controlled via a timer system with photocell override (e.g. timer could be overridden if sufficient ambient light is available).
- 4.2.32 The lighting design would incorporate the following mitigation measures:
- the use of low-level lighting as far as possible to reduce night-time visibility.
 - the use of carefully located directional lighting incorporating light shields/or full-cut off luminaires to avoid unwanted light spray/ upward light and possible glare/ sky glow effects;
 - digital programmable switches including timers and/ or movement sensors; and
 - avoid unnecessary or unplanned lighting of building façades.

Security and Signage

- 4.2.33 Site security would be controlled via the proposed weighbridge and would be the principle point of communication 24/7. The perimeter of the southern extent of the Site would be secured by a 2.4m high welded mesh boundary fence (e.g. Paladin security fencing or similar) with matching lockable steel

gates to provide means of access. The new welded mesh fence would be green in colour.

- 4.2.34 Any CCTV systems deemed necessary by the operator would be installed, maintained and operated in accordance with *British Standard 7958:2005 - Closed Circuit Television (CCTV) Management and Operation Code of Practice*. CCTV cameras would be positioned to give clear surveillance of the Site including access points and car parking areas. CCTV cameras would be mounted on lighting columns, canopies and building walls as appropriate to ensure that comprehensive coverage is achieved.
- 4.2.35 Appropriate signage would be constructed at the proposed roundabout (and on the approach to the Proposed Development off the roundabout) to instruct and inform HGVs, visitors and contractors of the presence of and permanent access arrangements for the Kronospan Facility.

Landscaping

- 4.2.36 The Illustrative Landscape Masterplan for the Proposed Development Site is shown on **Figure 4.3a**. In addition to the planting/seeding that is proposed, the Figure also shows areas of planting that have recently been implemented or which are required as part of other planning permissions at the Site, and which will be implemented prior to the Proposed Development being constructed.
- 4.2.37 The landscape proposals would include new native woodland planting, new native hedgerow planting, new specimen tree planting, new species-rich grassland and new wetland vegetation. Following implementation, the proposals would be managed proactively by the Applicant as part of the ongoing management and maintenance of vegetation within their landholding. Management would be undertaken with the aim of maximising the biodiversity interest and screening views of the Proposed Development from sensitive visual receptors.
- 4.2.38 New native woodland would be planted on the northern part of the earth mound located along the eastern boundary of the Site. Further belts of native woodland would be planted around the proposed attenuation basins and to the north and west of the western roundwood storage area. This planting would be intended to replace woodland cover lost to facilitate construction

and would help to screen views of the Proposed Development from the north and west. In total approximately 1.32ha of new woodland would be planted in these areas.

- 4.2.39 An additional belt of approximately 0.88ha of native woodland planting would be provided within the wider Kronospan landholding adjacent to the Llangollen Canal. This planting would fill up any gaps in the existing canal side vegetation and would wholly screen views of the Proposed Development from the canal corridor. The new planting would link with similar recently implemented woodland planted as part of the Kronospan Landscape Strategy to the north. These belts of planting would ultimately form a single block of native woodland located between the canal and the railway.
- 4.2.40 In total there would be 2.2ha of new woodland planting, compared with the 0.43ha that would be lost to deliver the Proposed Development.
- 4.2.41 Approximately 1.28km of new native hedgerow would be planted. This would be located chiefly along new sections of road (including the B5070), adjacent to the proposed attenuation basins to the north of the Site, and adjacent to the proposed 132kV substation, and would provide an attractive and naturalistic boundary to the road corridors. Hedgerow trees would be planted in the new hedgerows, which would provide additional visual interest, additional biodiversity interest and would help to break up views of the Proposed Development from the surrounding area.
- 4.2.42 In addition to the hedgerow trees, further specimen tree planting would be undertaken at the foot of the northern extent of the main earth bund, to the east of the eastern roundwood storage area, to the south and west of the 132kV substation, and to the west of the western roundwood storage area. This tree planting would help break up views of the Proposed Development from elevated locations to the west where total screening would not be possible (e.g. from Chirk Castle) but where there would be merit in reducing the visibility of the Proposed Development.
- 4.2.43 Approximately 4.19ha of new wildflower grassland would be created as part of the Proposed Development (either via new seeding or by changes to current management practices). This would provide an attractive appearance

to areas that are not planted with trees and shrubs and would provide biodiversity benefit.

- 4.2.44 The proposed attenuation basins would have an area of approximately 0.36ha. these areas would be seeded with a grassland mix suitable for seasonally wet areas. It is likely that further natural colonisation by species suitable for the specific conditions of the two attenuation basins would take place. The aim would be to create a habitat type similar to rush pasture or grazing marsh.

Off-Site Landscape Enhancements

- 4.2.45 Liaison with several stakeholders (including Cadw, the Canal and River Trust (CRT), the National Trust and NRW) during and following the statutory pre-application consultation stage identified a preference for additional off-site planting. Therefore, a series of off-site landscape enhancement have been identified; these are not proposed to mitigate adverse effects arising because of the Proposed Development, but rather are measures which will enhance the baseline condition of the landscape of the Study Area (including the visual amenity of people present within it). Off-site enhancement measures outside of the boundary of the Proposed Development are proposed on land within the wider Kronospan landholding, and on land under the control of third parties. These are described below.

Land under the Control of the Applicant

- 4.2.46 **Figure 4.3b** illustrates the location of proposed off-site landscape enhancements within land under the control of the Applicant (i.e. within the wider Kronospan estate). Each enhancement proposal is numbered and described in **Table 4.1** below.

Table 4.1: Off-Site Landscape Enhancements within Kronospan Land

Enhancement	Purpose
1	Specimen tree planting at the edge of Chirk (close to properties along Offa and Linden Avenue). The planting would not form a solid barrier to allows views west from the adjacent properties to be retained. The planting would soften views of the housing and the built edge of Chirk from within the Chirk Castle estate in particular, and from the wider Area of Outstanding Natural Beauty (AONB), thereby enhancing the views out from these locations
2	New native woodland belts to be planted within the field south of the golf course. Planting to retain open areas/ rides allowing a diverse vegetation structure to develop, including areas of grassland and woodland edge habitat. This would provide a general landscape enhancement via an increase of woodland cover locally, enhancing existing linkages between woodland along the canal corridor and woodland within the Chirk Castle estate. The planting and subsequent management would also enhance biodiversity.
3	New belt of native woodland planting to the south of the A5, extending similar planting already implemented as part of the Kronospan Landscape Strategy. This would provide additional screening of views of the wider Kronospan facility from the road and would reinforce existing and other proposed planting along the A5 and B5070 corridors.
4	Belt of new native woodland planting close to minor road junction north of Chirk Castle. This would reduce the visibility of the existing Kronospan facility (and potentially of the Proposed Development) from within the AONB. Similar existing planting has been undertaken as part of the Kronospan Landscape Strategy and is already beginning to provide effective screening (e.g. at the main entrance to the Chirk Castle estate).
5	Changes to hedgerow management along the Offa's Dyke Path National Trail and adjacent stretches of minor roads. This would reduce the visibility of the existing Kronospan facility (and potentially of the Proposed Development) from within the AONB. The existing hedgerows are typically clipped at a height of 1m-1.5m, and by allowing these to grow higher, outward views would be reduced appreciable (see Figure 5.2a Viewpoint B for existing views from this area).

Third Party Land

4.2.47 As identified in **Section 5.3**, pre-application consultation has identified aspirations by stakeholders for further landscape enhancements within third

party land. The details of any proposals would be subject to agreement with relevant landholders, and as such cannot be stated with any certainty. Based on discussions to date the following outline landscape enhancements are proposed:

- A: Woodland Management Plan along the Llangollen Canal corridor, within CRT land ownership. This is envisaged to comprise:
 - Selective removal of old/decaying tree cover along the canal cuttings.
 - Replacement planting with new native species.
 - Management of the woodland (including any new planting) to maintain existing levels of visual screening, to enhance biodiversity, to ensure the safety of canal users, and to maintain the stability of the canal structures and earthworks.
- B: Heritage Enhancements, described in greater detail in **ES Chapter 6.0 (Historic Environment)**, would be provided via a Conservation Management Plan and would offer enhancement measures in relation to the World Heritage Site (and its Buffer Zone) through the setting out of relevant positive management proposals on land within the Applicant's ownership.

Delivery of Landscape Proposals and Off-Site Enhancements

4.2.48 The landscape proposals that form part of the Proposed Development along with off-site landscape enhancements could be delivered via a combination of suitably worded planning conditions and a Section 106 Agreement or Unilateral Undertaking. The various components of the proposed planting and management measures are set out below, together with an indication of the likely delivery mechanism:

- Landscape proposals within the red line boundary (i.e. part of the Proposed Development);
 - Specification, implementation, and short-term management (five-year period) via condition.
 - Long-term management (e.g. twenty-five-year period).
- Off-site enhancement proposals within the wider Kronospan landholding:

- Specification, implementation, and short-term management (five-year period) via condition.
- Long-term management (e.g. twenty-five-year period).
- Off-site enhancement proposals on third party land:
 - All via Section 106 Agreement or Unilateral Undertaking, with different schemes agreed with each landowner.

4.2.49 Therefore, it is likely therefore that any Section 106 Agreement made with Wrexham County Borough Council (WCBC) and other stakeholders, or any Unilateral Undertaking made with individual stakeholders would include the requirement to provide a series of separate documents that address the implementation and management of different elements of the proposals.

Noise

4.2.50 Noise mitigation is proposed to ensure significant noise effects on residential receptors can be avoided. These are summarised below with further details provided at **ES Chapter 8.0 (Noise and Vibration)** and **Figure 8.2**.

- One-way system for HGVs to avoid the need for any reverse parking alarms.
- Any mobile plant used during the daytime at the roundwood storage areas would be fitted with non-tonal reversing alarms.
- Vehicle engines switched off when stationary, unless for short engine warm up.
- No use of vehicle horns or vehicle reversing alarms unless in emergency.
- Log Loader would not be used at the proposed lorry park and the roundwood storage areas during night-time periods.
- Earth embankment screening to the eastern boundary and northeastern corner of the Site to a minimum height of 4m (spot heights along the earth embankment are provided on **Figure 4.1** and **Figure 4.3a**).
- Solid acoustic screen to a height of 3m around Receptor R4 (Bryn Hyfryd).
- Solid acoustic screen to a height of 5m east of the lorry park.
- Solid acoustic screen to a height of 3m west of the lorry park.

Heritage Assets

- 4.2.51 The targeted field evaluation (**Appendix 6.6**) confirmed the likely remains of a lime kiln of possible medieval/post-medieval origin at the eastern extent of the Proposed Development Site between the proposed weighbridge car park access road and the landscape bund. Subject to further archaeological archiving works, this feature has the potential to be of National Significance and would subsequently require preservation in situ. A 2m buffer (to be agreed with Cadw) would be enforced around the lime kiln feature to ensure the construction works would not cause damage. These measures will be set out in the detailed design stage but are referenced on **Figure 4.1** and **Figure 4.3a**.

Operating Hours

- 4.2.52 Once operational, HGVs would enter and exit the Kronospan Facility via the proposed north access road on a twenty-four hour a day, seven days a week (24/7) basis (same as existing operations). The proposed lorry park and weighbridges would also therefore be used on a 24/7 basis.
- 4.2.53 Internal movements to transport the stored logs elsewhere within the wider Kronospan Facility would be undertaken by crane wagons and would only take place between 07.00 and 19.00 seven days a week.

4.3 North Access Road and Lorry Park

Introduction

- 4.3.1 The proposed north access road and lorry park would provide a new access into the Kronospan Facility from the B5070 Holyhead Road. The new access point would be to the north of Chirk and would allow HGV traffic to access and egress the Kronospan Facility without having to enter the town itself (removing approximately 750 two-way HGV movements from the residential section of Holyhead Road over a 24-hour period).
- 4.3.2 Further details of the need and benefits of the Proposed Development is described at **Section 1.4 of ES Chapter 1.0 (Introduction)** and **Chapter 3.0 of the Planning Statement**.

Roundabout and B5070

- 4.3.3 Access from the public highway would be via a new priority-controlled roundabout off the B5070. The location of this is shown on **Figure 4.1**. The roundabout will replace the existing Holyhead Road / Old Black Park Road / Afon Bradley Farm access road staggered junction located to the north-east corner of the proposed site. As such, the roundabout would have four separate entry/exit points as follows:
- North – B5070.
 - East – Old Black Park Road (Minor Road).
 - South – B5070.
 - West – Kronospan Facility and Afon Bradley Farm.
- 4.3.4 The roundabout has been designed in accordance with CD116 Design Manual for Roads and Bridges (DMRB) guidance, '*Geometric design of Roundabouts*'. New footways will be provided all around the roundabout with un-controlled crossing points, across each arm, facilitated by dropped kerbs and tactile paving.
- 4.3.5 The introduction of a compact roundabout (instead of a standard roundabout design) is sufficient for the Proposed Development and necessitates a reduction in the speed limit along the B5070 from 50 miles per hour (mph) to 40mph to ensure DMRB compliance.
- 4.3.6 The B5070 would be realigned to join the roundabout, with approximately 100m length of road to the north of the roundabout and approximately 120m length of road to the south relocated by up approximately 13m west of the current alignment. The areas of the current highway that would no longer be required would be converted to highway grass verge and remain under the control of WCBC highways.
- 4.3.7 The proposed north access road would run from the western side of the new roundabout and would then curve to run due south to the existing Kronospan Facility boundary. The first approximately 435m of the road would be a conventional two-way road. Approximately 180m south of the roundabout (immediately north of the proposed lorry park), a separate access to the

proposed lorry park and the proposed weighbridge car park would be provided to the east of this road.

- 4.3.8 The road would then split immediately north of the proposed weighbridges. A single 'in' lane would run to the east of the weighbridge building, where it would join a second 'in' lane leading directly from the proposed lorry park. One 'in' lane and one 'out' lane would run to the west of the proposed weighbridges. A separate two-way lane would bypass the weighbridges on the western side. The access to the proposed 132kV substation and one (the western) of the roundwood storage areas would lead off section of the road.
- 4.3.9 To the south of the proposed weighbridges, separate entry and exit roads to the existing Kronospan Facility would be provided, and these would be separated from one another by an undeveloped area. The access to the eastern roundwood storage area would lead off the entry road. A footway would follow the eastern side of the entry road, allowing pedestrian access to and from the weighbridges and associated parking area and the lorry park. At the northern edge of the existing Kronospan Facility, the two proposed roads would be approximately 60m apart, allowing wholly separate entry and exit to the remainder of the Kronospan Facility.
- 4.3.10 A separate access road approximately 95m in length would run west from the main proposed access road and would lead to Afon Bradley Farm. This farmholding is under the control of the Applicant. This farm access would also allow access to the two proposed drainage ponds that would be created as part of the Proposed Development.

Lorry Park

Overview

- 4.3.11 The proposed lorry park would be in the centre of the Proposed Development Site, to the east of the proposed north access road and to the north of the proposed weighbridges. It would cover an area of approximately 0.87ha. There would be two separate entrances to the lorry park and three exits.
- 4.3.12 The proposed lorry park would be used to store loaded and unloaded trailers for both inbound and outbound loads. This enables driver hours to be maximised (this was of critical importance during the driver shortage – see

also **ES Chapter 3.0 (Alternatives))**; Kronospan operates a shunting operation for out-bound loading and unloading where a base fleet of vehicles from Chirk are parked overnight (no drivers in cabs) and the drivers are locally based – see sub-header ‘Operation of Existing and Proposed Lorry Park below’ for further details.

- 4.3.13 The entrance would be at the northern edge of the lorry park and would lead onto the access road shared with the proposed weighbridge car park (which would run around the eastern edge of the lorry park). This road would join the main proposed access road immediately northwest of the proposed lorry park.
- 4.3.14 The first exit would be approximately halfway along the western side of the proposed lorry park. This would lead directly to the main new access road.
- 4.3.15 The second exit would be at the southern edge of the proposed lorry park. This would lead directly into an ‘in’ lane for the proposed weighbridges.
- 4.3.16 The proposed lorry park would include spaces for 45 HGVs. The proposed lorry park has been designed so that vehicles can enter and exit the proposed parking spaces in forward gear, without the need for reversing, thereby reducing the potential for accidents to occur.
- 4.3.17 Once the proposed lorry park is operational, the existing lorry park at the Kronospan Facility would only be used to store outbound stand trailers for Kronospan’s main outbound haulier and is likely to be re-purposed in the future for improved staff, visitor and contractor car parking, improving the working conditions for employees and enhancing the appearance of the entrance to the facility. Keeping the main stand trailer separate and closer to the despatch loading area, maximises the on-site efficiencies and reduces the potential for on-site bottlenecks. Access and egress to the Site would be via the proposed north access road; HGV access/egress via the existing access off the B5070 would be in exceptional/emergency circumstances only.

Operation of Existing and Proposed Lorry Park

- 4.3.18 The Proposed Development has been designed to maintain the current levels of activity and operations at the existing Kronospan Facility i.e., there are no provisions in place to increase the number of HGVs accessing and egressing.

However, the Proposed Development would enable the benefits as described at **Section 1.4 of ES Chapter 1.0 (Introduction)** and **Chapter 3.0 of the Planning Statement** to be realised whilst ensuring that site operations are effectively and efficiently managed.

- 4.3.19 The Kronospan Facility adopts a shunting loading/unloading operation to manage out-bound HGVs and a timed (slotted) operation for in-bound timber deliveries only. The HGV shunting operation is undertaken on-site and has significant operational benefits by maximising HGV driver hours on the public road network and minimising the distance and duration of HGV shunting movements. This process is summarised below and illustrated on **Inset 4.1**.

HGV Arrives at Existing Kronospan Lorry Park

- Option 1 - HGV driver drops trailer and collects new trailer and paperwork.
- Option 2 - HGV driver waits to enter site via weighbridge to be live loaded or unloaded.

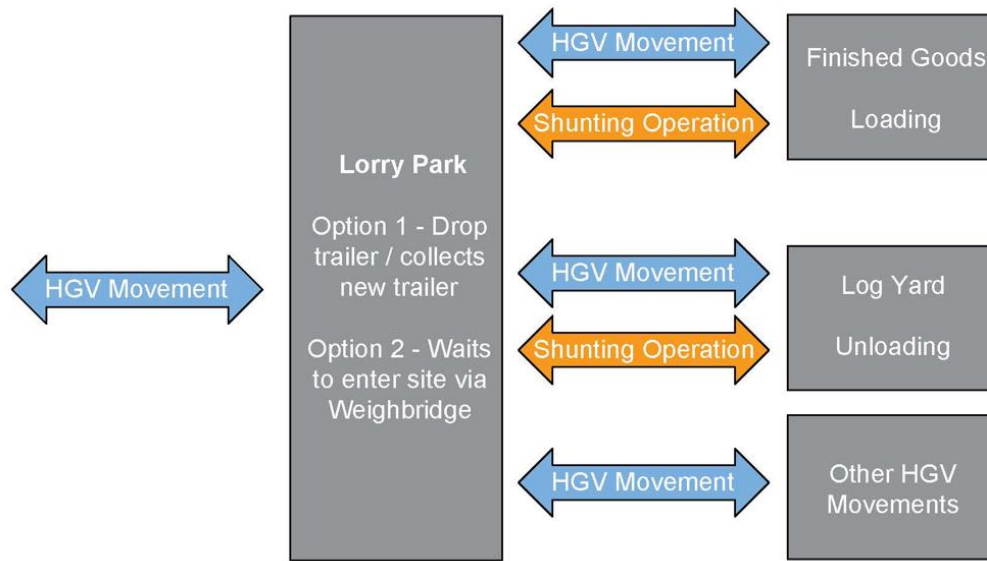
Finished Goods Loading

- Option 1 (Stand Trailer Loading) - HGV shunter brings empty trailer onto site and leaves on finished goods loading area; HGV shunter then delivers trailer back to trailer park once loading is complete.
- Option 2 (Live Loading) - HGV driver waits to enter site via weighbridge and enters finished goods loading area and is “live” loaded by a forklift truck, before leaving site via the weighbridge.

Log Yard Unloading

- Option 1 (Stand Trailer Unloading) - HGV shunter brings loaded trailer onto site and drives to the log yard unloading area; HGV shunter stays with trailer then delivers trailer back to trailer park once unloading is complete.
- Option 2 (Live Unloading) - HGV driver waits to enter site via weighbridge and enters the log yard unloading area and is “live” unloaded by a bucket loader, before leaving site via the weighbridge.

Inset 3.1: Existing and Proposed Lorry Park HGV Shunting Operation



4.4 Weighbridges and Weighbridge Car Park

- 4.4.1 Three new 'in' weighbridges and one new 'out' weighbridge would be to the south-west of the proposed lorry park. The proposed weighbridges have the flexibility to operate as two 'in' and two 'out' as required. Their locations are illustrated on **Figure 4.1** and elevations of the proposed weighbridge building are illustrated on **Figure 4.5**.
- 4.4.2 The quantity of incoming and outgoing materials would be checked and recorded at the proposed weighbridges. Vehicle loads would be checked periodically at the proposed weighbridges to confirm the nature of incoming materials.
- 4.4.3 The proposed weighbridge building would be a timber-clad, three-storey structure with a gantry, allowing timber samples to be taken from incoming vehicles for quality checking (to check the moisture content of recycled timber, peeled chips, sawdust and logs). This is required for supplier payments as these can be on a dry timber weight. Recycled timber also goes through additional testing as the supplier's feedstocks can vary significantly. It also checks that no hazardous material is present in the loads (these would be rejected).
- 4.4.4 The ridge height of the building would be approximately 9m, and the level of the gantry platform would be approximately 5.6m. The weighbridge and

logistics function would take place on the ground floor, timber buying function of the building would take place on the first floor, and quality checking would take place on the second floor.

- 4.4.5 The proposed weighbridge car park would be required due to the distance (approximately 750m) between the proposed weighbridges and the existing car park to the south; therefore, it would remove the requirement for staff and visitors associated with the weighbridges to walk this distance through the Kronospan Facility and improve the efficiency of site operations and health and safety. The proposed weighbridge car park would be to the east of the proposed weighbridges, and between the proposed lorry park to the north and the proposed eastern roundwood storage area to the south. It would cover an area of approximately 0.09ha and would include spaces for 32 cars. One space would be reserved for disabled users. Approximately 75% of the spaces (25 no.) would be reserved for staff use, with the remainder (8 no.) available for visitors. Four electric car charging points would be installed with additional ducting in place for further charging points in the future.
- 4.4.6 The two-way access road for the proposed weighbridge car park would run northwards around the eastern edge of the proposed lorry park to join the main access road. The length of the proposed access road would be approximately 380m.
- 4.4.7 Pedestrian routes would run from the proposed weighbridge car park to the proposed lorry park to the north and the proposed weighbridges to the west.
- 4.4.8 The proposed facilities block would be a timber-clad, single-storey structure providing welfare and toilet facilities for HGV drivers. The proposed facilities block would be immediately north of the proposed weighbridge car park. Its location is illustrated on **Figure 4.1** and elevations are illustrated on **Figure 4.5**.

4.5 132kV Substation

- 4.5.1 The proposed 132kV substation would be in the south-western part of the Site, to the south-west of the proposed weighbridges and due south of the proposed western roundwood storage area. It would cover an area of approximately 0.36ha. Access would be via a short road (approximately 30m in length) leading south-west from the main new access road. The location

of the proposed 132kV substation is shown on **Figure 4.1** and **Figure 4.6**, and elevations are shown on **Figures 4.7 – 4.9**.

4.5.2 The proposed substation would comprise a fenced compound housing a series of electricity supply infrastructure. Key components of the substation would include:

- 11kV substation building
- ancillary equipment building
- 6 no. voltage transformers
- 5 no. disconnector earth switches
- 2 no. grid transformers, with associated earthing transformer and neutral earthing resistor (both behind a 6.2m high fire wall)
- 3 no. surge arrestors
- 3 no. (cable) sealing ends
- 3 no. circuit breakers
- 4 no. post insulators
- Underground electrical cables buried in trenches
- Underground drainage infrastructure leading to a soakaway
- 2.4m steel palisade security fence and matching lockable gate
- Column mounted lighting
- Internal access road (3.7m wide)
- Parking for 5 no. vehicles

4.5.3 The proposed dimensions of the above components are set out on **Figures 4.7 – 4.9**. The tallest component would be the proposed disconnector earth switches, which would be approximately 6.3m high, whilst most of the substation electrical infrastructure would be up to approximately 6m high. The proposed ancillary equipment building and the proposed 11kV substation building would be approximately 3m high and finished in brickwork and metal cladding (colour to be determined at detailed design stage) respectively.

4.6 Roundwood Storage Areas

4.6.1 Two proposed roundwood storage areas would be provided in the locations indicated on **Figure 4.1**.

- 4.6.2 One storage area would be immediately north of the proposed 132kV substation and west of the proposed weighbridge and would cover an area of approximately 0.41ha. Access would be from the proposed access road leading to the proposed 132kV substation.
- 4.6.3 The second storage area would be south of the proposed weighbridge car park and south-east of the proposed weighbridges and would cover an area of approximately 0.3ha. Access would be from the new road leading into the wider Kronospan Facility that runs due south from the proposed weighbridges. Both areas would be formed using permeable ground cover and not formally drained, with the proposed surfacing comprising crushed stone.
- 4.6.4 Both of the proposed roundwood storage areas would provide temporary storage for logs, prior to these being moved to other facilities within the wider Kronospan Facility for processing. Internal movements to transport the stored logs elsewhere within the wider Kronospan Facility would be undertaken by crane wagons and would only take place between 07.00 and 19.00 seven days a week.
- 4.6.5 Health and Safety Guidance 172 (Health and Safety in Woodworking and Sawmilling) states that log stacks should not normally be higher than the length of the log that they contain (2.8m high); however, double stacking of the timber enables the height to be doubled.

4.7 Employment

- 4.7.1 The proposed weighbridges and weighbridge building would comprise an upgrade and relocation of similar existing facilities located elsewhere within the wider Kronospan Facility. As such, they would not generate additional employment, but rather would maintain existing employment levels.
- 4.7.2 The proposed north access road, lorry park and 132kV substation would not generate any direct employment once operational. However, they would also contribute to maintaining existing employment levels.

4.8 Operations

4.8.1 Once operational, the Proposed Development would be managed in accordance with ISO 14001:2015 Environmental Management Systems and would require ongoing routine maintenance. This is anticipated to include:

- Management and maintenance of the proposed landscaping.
- Management and maintenance of the SuDS network.
- Maintenance of security features.
- Control of litter.

4.8.2 Maintenance access is likely to be via the wider Kronospan Facility and is unlikely to be intensive in terms of personnel or equipment.

4.9 Construction Methods

4.9.1 The following section provides a summary of the key elements of the construction of the Proposed Development. This description is not intended to be prescriptive and the exact construction methods, phasing and programme would be determined by the appointed designers and contractors. However, the following description enables the principal construction phases and methods to be understood.

Programme and Phasing

Programme

4.9.2 The timing of all construction activity would be dependent on the grant of planning permission for the Proposed Development and subsequent contract negotiations. At present, it is anticipated that construction would occur between Quarter 2 2024 and Quarter 3 2027. There would be overlap between some of these activities, and the majority of construction works, (i.e. from the start of site clearance to the completion of the roundwood storage areas and weighbridge car park) would last for approximately fifteen months in total. Construction of the proposed 132kV substation would take place after all the other elements are built and in operation.

4.9.3 An indicative construction programme is provided below at **Inset 4.1**.

Inset 4.1: Indicative Construction Programme

Activity	Duration (Days)	2024				2025				2026				2027			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Increase Afon Bradley access off B5070	10																
Site compound set up	15																
Earthworks (including wetlands and bund construction)	120																
North access road	140																
Lorry park	170																
s278 highways works	180																
Weighbridge building and facilities block	150																
Roundwood storage area	60																
Weighbridge car park	40																
132kV substation	600																

4.9.4 New landscaping would typically be implemented at the end of the construction period, with any proposed tree and shrub planting taking place in the first available planting season following completion of works. In areas unaffected by construction, or where activities are complete early in the construction period, it may prove possible to implement landscaping at an earlier date.

B5070 Highway Works – Construction Management

4.9.5 The proposed works to the B5070 would be undertaken in phases to ensure the works are undertaken as effectively and efficiently as possible whilst keeping disturbance and inconvenience to users of the B5070 to a minimum.

4.9.6 During Phase 1, works would be undertaken on the roundabout itself (excluding its far eastern extent) and the immediate parts of the proposed northern, southern, and western arms. During the construction works, northbound and southbound traffic would be able to continue travelling in separate lanes to the immediate east of the work areas.

4.9.7 During Phase 2, works would be undertaken on the eastern extent of the roundabout including the northbound and southbound lanes north and south of the roundabout. During the construction works, signal controlled single lane traffic would be used for northbound and southbound traffic at the eastern extent of the works area.

4.9.8 During Phase 3, works would be undertaken on the western extent of the roundabout including the eastern arm, and the southbound lane to the north and south of the roundabout. During the construction works, signal controlled single lane traffic would be used for northbound and southbound traffic at the western extent of the works area (using the newly constructed northbound lane and roundabout).

4.9.9 The above phases are illustrated at **Figure 4.10**.

Construction Hours

4.9.10 Construction operations would generally be limited to 07:30hrs to 18:00hrs Monday to Friday and 08:00hrs to 14:00hrs on Saturday. No construction work is planned on Sundays or Bank Holidays, however there may be occasions when construction would need to be undertaken outside of the core hours, for example, during major concrete pours or the transfer of abnormal loads.

4.9.11 HGV movements would not be permitted outside the hours outlined above without prior agreement from WCBC. It is anticipated that these matters would be controlled through a Construction Environmental Management Plan (CEMP), which would be secured via planning condition.

Construction Employment

4.9.12 It is anticipated that on a typical day during the construction period, approximately 15 - 20 people would be employed on the Proposed Development Site and that approximately 5 – 10 full time equivalent construction posts would be created for each year of the construction period. Actual numbers of people employed on-site at any one time are likely to fluctuate depending upon the programming of particular work elements.

Temporary Compound, Access and Car Parking

4.9.13 A temporary contractor's compound would be located at Afon Bradley Farm. The existing concrete pad at Afon Bradley Farm would be used for parking, and this has space for approximately 20 vehicles. The compound would provide any temporary site offices and welfare facilities required, along with material and plant storage areas. Dedicated refuelling areas and chemical and oil storage areas would also be provided within the compound.

- 4.9.14 During the construction period initial access to the Proposed Development Site would be via the access to Afon Bradley Farm. Once the proposed roundabout is in place, access would be via this.

Lighting

- 4.9.15 Lighting during construction would need to be sufficient to satisfy health and safety requirements, whilst ensuring impacts on the surrounding environment, including those from sky glow, glare and light spillage, are minimised.
- 4.9.16 Artificial lighting would only be used during the hours of darkness, low levels of natural light or during specific construction tasks, to ensure the health, safety and welfare of those on site, including construction staff and visitors.
- 4.9.17 Appropriate lighting would be installed and operated to ensure that:
- Access/egress points are clearly visible during operational hours.
 - Staff and visitors can move safely around site.
 - Site security can be monitored and maintained.
 - Sufficient area lighting is provided for the site office and laydown areas.
- 4.9.18 This would involve the installation of fixed lighting columns and the use of mobile task lighting.
- 4.9.19 Fixed lighting installations (columns) would typically be around the outer edge of the main construction zones and the compound/laydown areas. The luminaires would be mounted as low as possible to facilitate safe working.
- 4.9.20 Mobile lighting would be used to supplement column lighting and provide the additional lighting necessary to satisfy health and safety requirements. Mobile lighting would be mounted on telescopic poles.

Plant

- 4.9.21 The following items are anticipated to be the principal elements of plant used during construction:
- Tracked excavators (excavation and loading).
 - Articulated dump trucks.

- Low-loader trailers.
- Wheeled backhoe loader.
- HGV wagons.
- Mobiles cranes and telescopic handlers.
- Rollers and vibratory compactors.
- Generators and water pumps.
- Concrete batching plant and pumps; and cement mixer trucks.

Construction Environmental Management Plan

- 4.9.22 A CEMP would be developed and implemented for the construction phase of the Proposed Development. This is likely to comprise an overarching CEMP framework to be applied to all phases of the development and a series of phase specific CEMP documents which define specific measures to be adopted during the construction of the various components of the Proposed Development.
- 4.9.23 The purpose of the overarching CEMP would be to manage and report environmental effects of the Proposed Development during construction. The CEMP would set out how environmental issues would be managed in accordance with relevant legislation, regulations and best practice guidance. It would be the responsibility of the main contractor to develop and enforce the CEMP.
- 4.9.24 It is suggested that the requirement for a CEMP to be prepared is subject to a planning condition.
- 4.9.25 The objectives of the CEMP would be to:
- highlight environmental impacts resulting from the development and identify sensitive receptors within the construction area to the construction team;
 - reduce and manage environmental impacts through appropriate construction methods;
 - reduce and manage environmental impacts through implementing environmental best practice during the construction period;

- undertake ongoing monitoring and assessment during construction to ensure environmental objectives are achieved;
- provide emergency procedures to protect against environmental damage;
- provide an environmental management structure for the construction stage;
- recommend mechanisms to reduce risks of environmental damage occurring; and
- ensure procedures are in place for consultation with WCBC and other relevant stakeholders e.g. Natural Resources Wales (NRW) throughout the works if necessary.

4.9.26 A CEMP for a project of the type proposed would typically cover the following key elements:

- drainage, water quality and hydrology;
- dust, emissions and odours;
- health and safety/site management;
- waste management;
- traffic management;
- wildlife and natural features; and
- contaminated material.

4.9.27 Prior to the commencement of construction, an environmental walkover would be undertaken to establish any changes in the environmental baseline since the surveys undertaken as part of the EIA and update any of the defined construction procedures as necessary.

4.9.28 Detailed construction method statements would be included within the CEMP. Method statements would be developed for the key construction phases e.g., site preparation and development of site compound, earthworks, foundations, and main construction works. The method statements would outline the key construction processes, identify potential environmental and health and safety risks and define appropriate mitigation measures. In parallel to these method statements several environmental management

plans would be developed; these would include but would not be limited to the following:

- Waste and Resource Management Plan, including a Site Waste Management Plan (SWMP).
- Pollution Control and Contingency Plan – Emergency Procedures.
- Noise and Vibration Management Plan (NVMP).
- Air Quality Plan (AQP).
- Construction Traffic Management Plan (CTMP).

4.9.29 The main contractor, in conjunction with Kronospan, would also develop a local community liaison strategy. This strategy would detail how Kronospan would engage with the local community to inform them of the construction progress and inform them of any works that may give rise to queries or concerns e.g., timing of piling works/night-time concrete pours etc. The strategy would also set out the means to allow the public to raise any concerns with the contractor and mechanisms to resolve any complaints.

4.9.30 The main contractor would take regard of the following guidelines¹, and any other topic-specific good practice guidance, in preparation of the CEMP and during the operation of the Proposed Development Site:

- *GPP1: understanding your environmental responsibilities – good environmental practice* (NRW et al, 2020);
- *GPP 2: Above ground oil storage tanks* (NRW et al, 2018);
- *GPP3: Use and design of oil separators in surface water drainage systems* (NRW et al, 2022);
- *GPP 5: Works and maintenance in or near water* (NRW et al, 2018);
- *PPG 6: Working at construction and demolition* (Environment Agency et al, 2012);
- *GPP 8: Safe storage and disposal of used oils* (NRW et al, 2017);
- *PPG 18: Managing fire water and major spillages* (Environment Agency et al, 2000);

¹ All available via <https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/guidance-for-pollution-prevention-gpps-full-list/> [accessed 10 Aug 2022]

- *GPP 21: Pollution incident response planning* (NRW et al, 2021);
- *GPP 22: Dealing with spills* (NRW et al, 2018);
- *C532 Control of water pollution from construction sites* (CIRIA, 2001); and
- *C650. Environmental Good Practice on Site* (CIRIA, 2005).

ANNEX 4.1

PROPOSED DEVELOPMENT – ILLUSTRATIVE 3D MODEL USING EXISTING AERIAL PHOTOGRAPHY



