

NON-TECHNICAL SUMMARY
of
ENVIRONMENTAL IMPACT ASSESSMENT REPORT
for

Proposed Overhead Line Diversion
at
Intel, Leixlip Co. Kildare

prepared for



by

Environmental Impact Services



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1 BACKGROUND

Intel Ireland (Intel hereafter) is making a planning application for the proposed re-alignment of an overhead electricity power line, located to the east side at their site and also located at adjacent properties north and south of their site at Collinstown, Leixlip, Blakestown, Kellystown, Collinstown Industrial Park, Leixlip, Co. Kildare.

The proposal provides for the realignment of an approximate 1.1km section of existing double circuit overhead line which supports the existing Maynooth-Ryebrook and Dunfirth-Kinnegad-Rinawade 110kV overhead line circuits.



Figure 1.1 Site Location¹

ENVIRONMENTAL IMPACT ASSESSMENT REPORT (EIAR)

Planning regulations require that certain types of projects be subject to Environmental Impact Assessment as part of the planning consent process. The report on this assessment is called an Environmental Impact Assessment Report (EIAR). The purpose of an EIAR is to publicly provide information about the effects of the project on the environment *before* any decision is made.

An EIAR is usually prepared during the design stage of a project. This allows environmental experts to advise the designers about how to improve the project by avoiding potential environmental problems. Experience has shown that it is much better to try to avoid environmental problems at the design stage than to try to reduce or fix them after the project has been built.

An EIAR is prepared on behalf of the developer and must follow the legislation that sets out all of the information that needs to be presented so that all aspects of the environment are covered and so that the full effects of the project can be clearly understood.

It has been recognised that an EIAR can become quite large and complex in order to satisfy these legal requirements. This can make people feel unable to easily understand what the effects of the project will be. To try to address this problem, the regulations also require the preparation of a summary, in non-technical language, of the main content and findings of the EIAR.

The following pages provide a summary of the main information that is contained in this EIA. It is laid out in the same order and using the same headings as the EIA. If you feel that you need to know more about any topic that is summarised here you can look it up under the same heading in the main EIA.

Here are explanations of a key terms that are used and may need some clarification:

EIA	E nvironmental I mpact A ssessment - The <i>process</i> of preparing and assessing the EIA
EIAR	E nvironmental I mpact A ssessment R eport - The <i>document</i> that describes the impacts
Scope	The coverage of the EIA
Likely Impacts	Effects that are expected to occur
Mitigation Measures	Steps taken to avoid, reduce or repair unwanted effects

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2 DESCRIPTION OF THE MAIN ELEMENTS OF THE PROPOSED DEVELOPMENT

The proposed development is illustrated on a site plan on the following page.

The proposed development consists of the realignment of an approximate 1.1km section of existing double circuit overhead line which supports the existing Maynooth-Ryebrook and Dunfirth-Kinnegad-Rinawade 110kV overhead line circuits.

The proposed development comprises of the following:

- Diverting a section of the existing 110 kV double circuit overhead line to the north of the River Rye, along the eastern edge of the Intel site at Collinstown, linking back into the existing overhead line section at the car park of the Lidl supermarket, directly south of the R148.
- The decommissioning and removal of 4 No existing double circuit steel lattice towers and associated electrical conductors to include the removal of the existing towers and associated electrical conductors from site.
- The installation of 7 No new double circuit steel lattice towers. Two of these will be replacement towers (Towers T1 & T7). The towers will range in height from approximately 20.75 m to approximately 39.75 m above ground level and will support six electrical conductors (overhead lines).
- All ancillary site development, preparation and reinstatement works, including access, landscaping and connection to existing services and utilities and miscellaneous site works

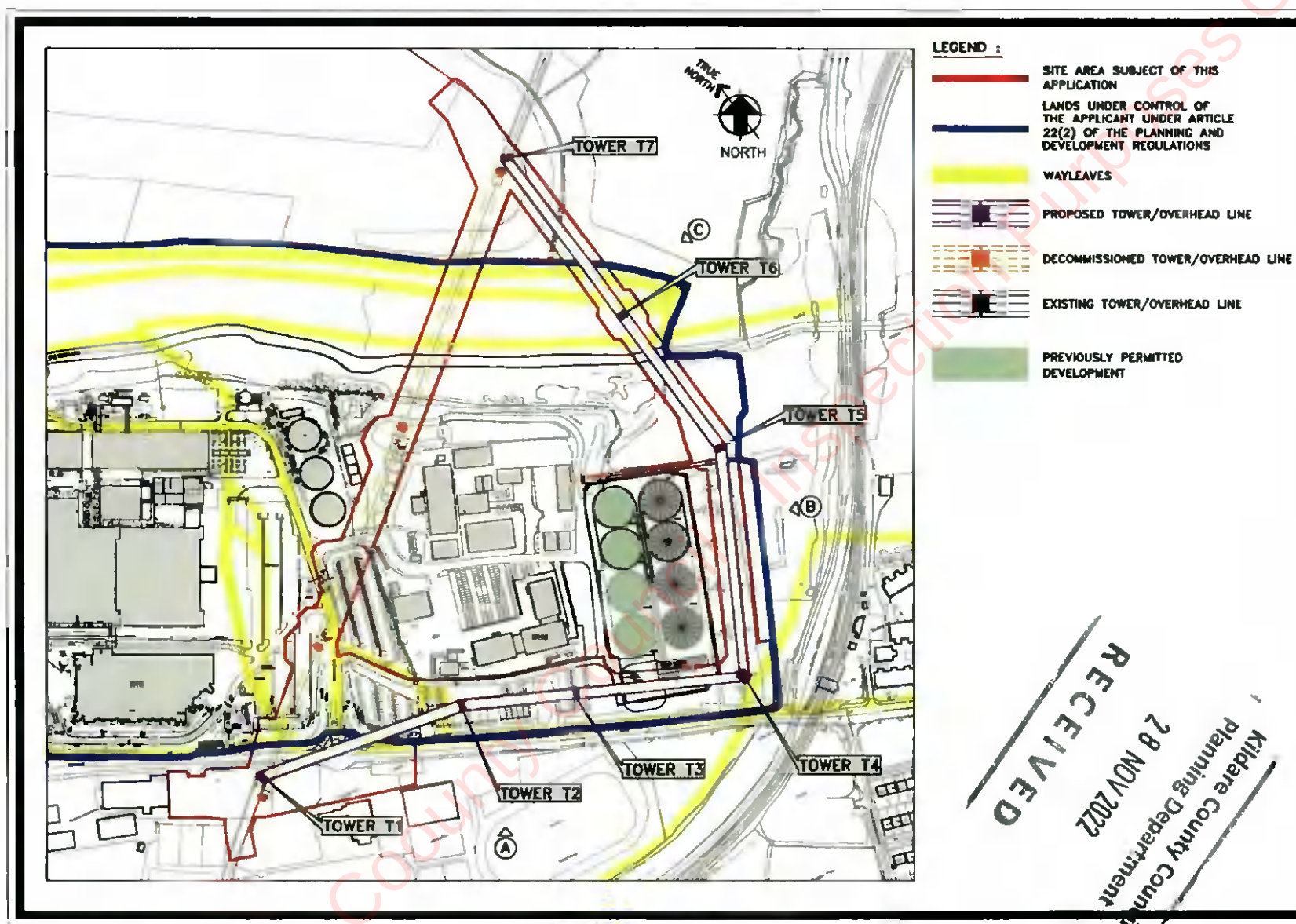


Figure 2.1 Proposed Route Layout

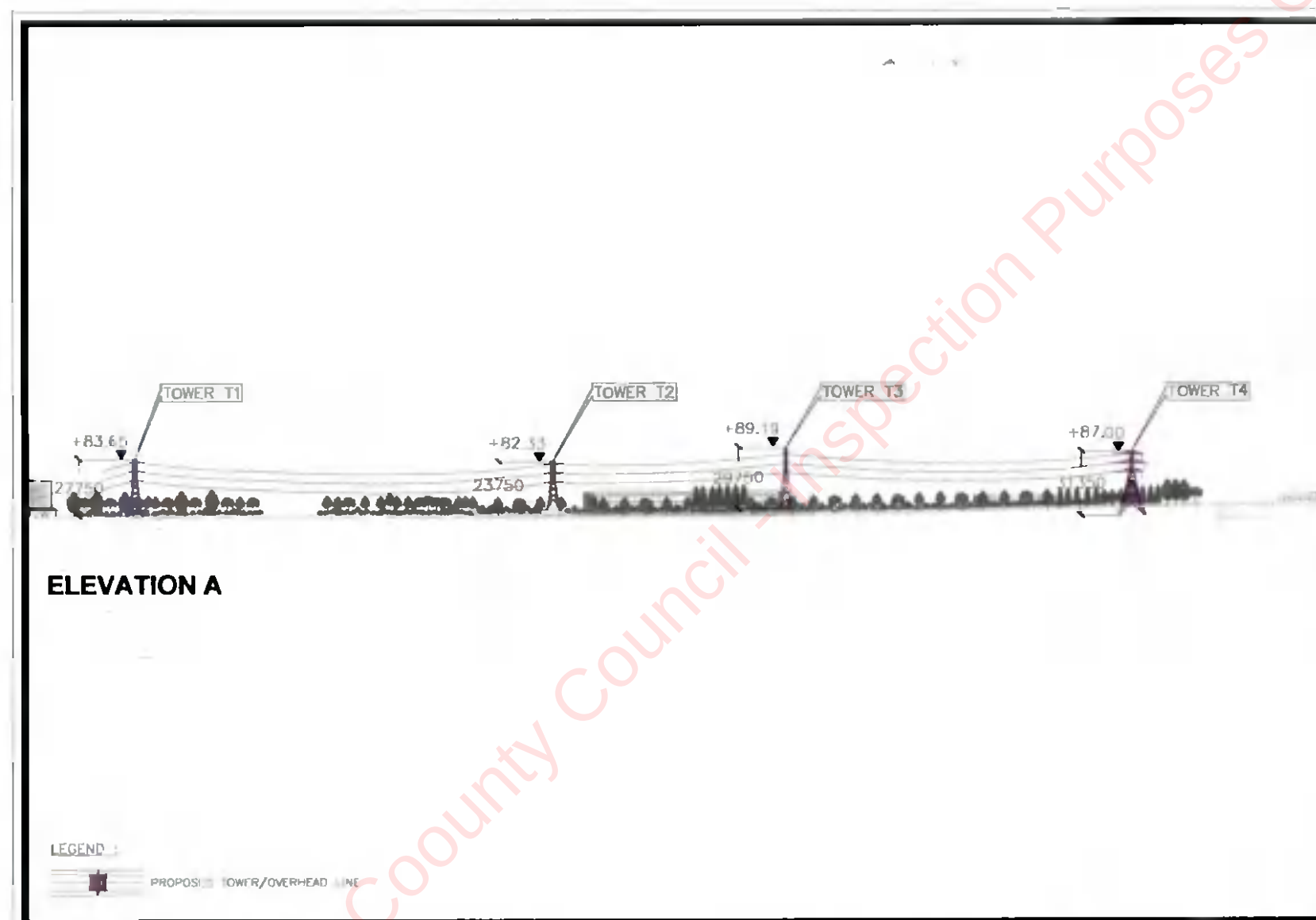


Figure 2.2 Proposed Elevations (A-A)

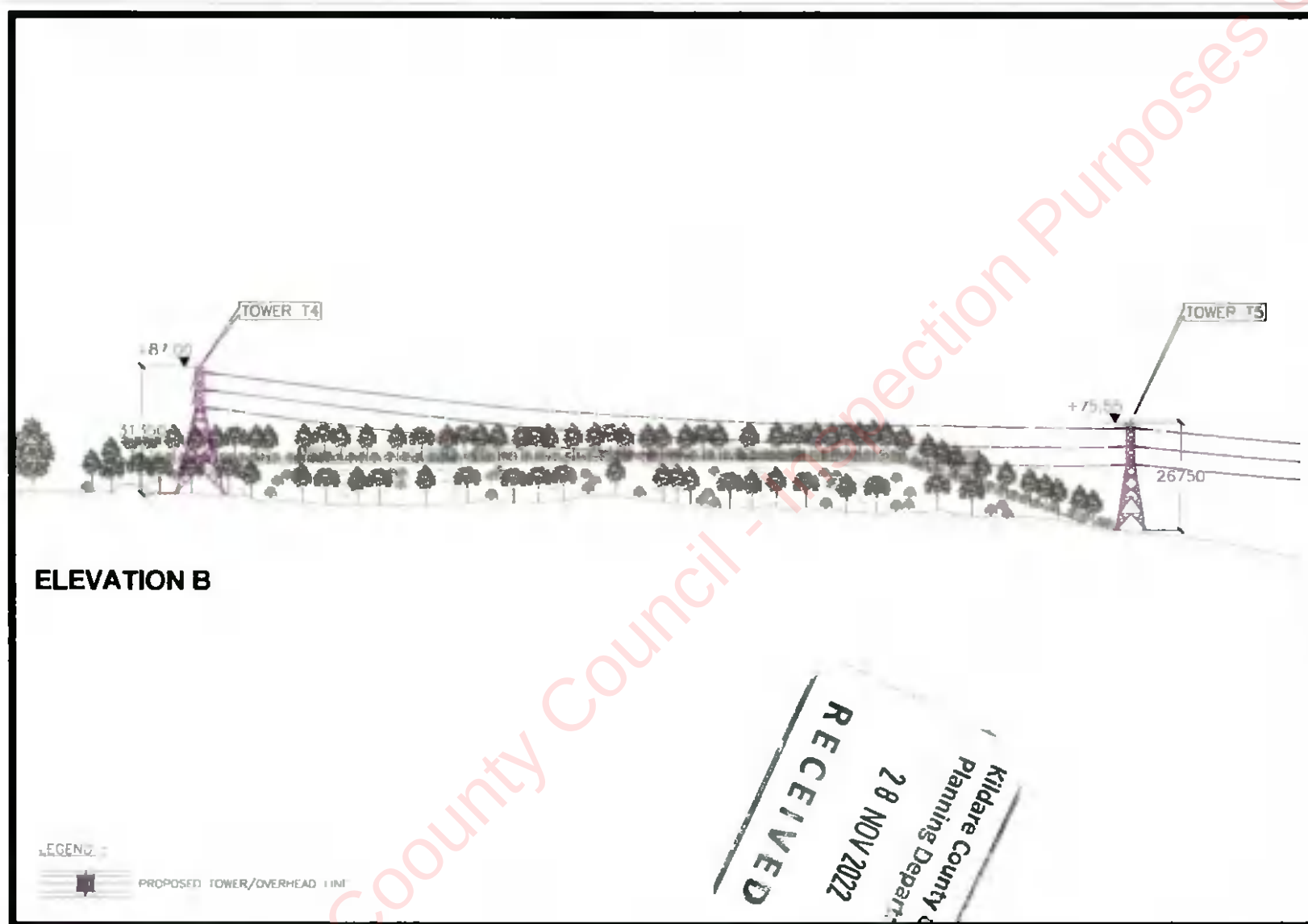


Figure 2.3 Proposed Elevations (B-B)

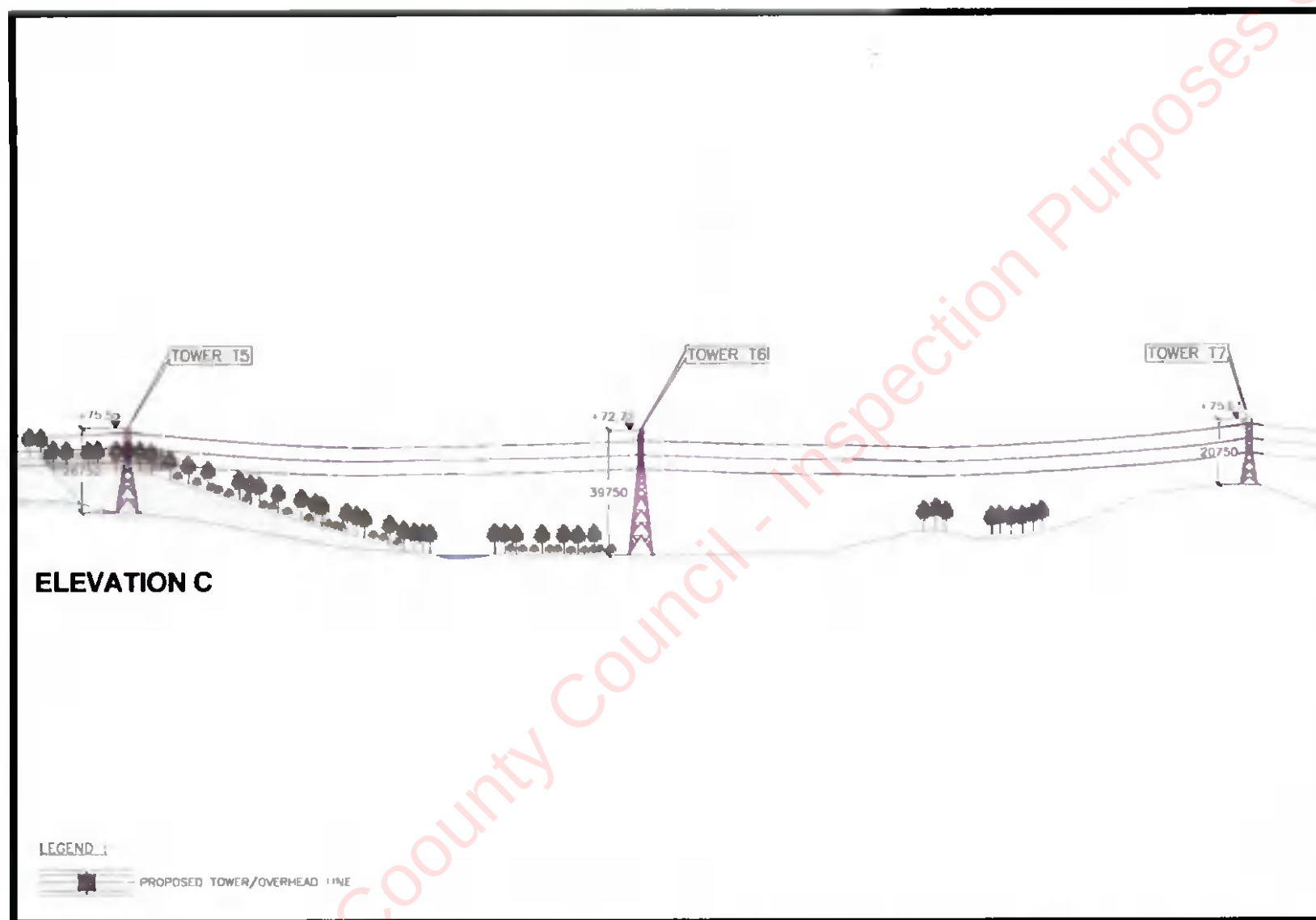


Figure 2.4 Proposed Elevations (C-C)

3 ENVIRONMENTAL EFFECTS

The following sections summarise the findings about each of the environmental topics that are examined in the EIA.

POPULATION & HUMAN HEALTH

See Section 5 of the EIA for full details

Overview

This chapter considers the impact of the project on the population, settlement, land use, employment, and other impacts of a social and economic nature of the vicinity. This also includes impacts on housing, amenities and services in the area, additional economic opportunities and impacts on existing land uses.

Potential for effects on human health are dealt with under the specific topic headings under which it might arise. These topics include air, water, noise and waste.

Impacts

The proposed development will have a positive long-term impact on the immediate hinterlands of Intel and also the secondary hinterlands of County Kildare and the Greater Dublin Area region through continued efficient operation of the Intel Campus and the associated economic and social benefits.

BIODIVERSITY (FLORA & FAUNA)

See Section 6 of the EIA for full details

Overview

This chapter assesses potential impacts of the proposed development on biodiversity.

Impacts

Habitats within the proposed tower locations include artificial surfaces (BL3) at T1 consisting of the Lidl carpark, a mixture of buildings and artificial surfaces (BL3) and bare ground (ED2) associated with the car park opposite the entrance to IR96 building at sites T2 and T3, a mosaic of dry calcareous and neutral grassland (GS1) and scrub (WS1) at T4 and dry calcareous and neutral grassland (GS1) at T5. Site T6 is located on the opposite side of the Rye Water within the North Field area of the Intel grounds and consists of recolonising bare ground (ED3) and bare ground (ED2) adjacent to an area of dry meadows and grassy verges (GS2)¹. T7 is located in third party farmland on the northern side of the Rye Water. No Annex I habitat types, including the priority petrifying springs with tufa formation (Cratoneurion) habitat for which the adjacent Rye Water Valley/Carlton SAC is designated, were identified at any of the proposed tower locations, as per the Interpretation Manual of European Union Habitats².

None of the proposed towers are located within a European site, however the proposed application boundary / proposed overhead line infrastructure crosses through the Rye Water Valley/Carlton SAC. The proposed development lies in close proximity (c. 44m) from the Royal Canal pNHA (002103).

No records of plant species protected through their inclusion within the Flora (Protection) Order, 2015, were recorded during the field surveys of the Intel site and surrounding lands.

¹ Fossitt (2000). *A guide to habitats in Ireland*. The Heritage Council, Kilkenny.

² European Commission (2013) *Interpretation Manual of European Union Habitats*

With regard to the Key Ecological Receptors identified within the proposed development site, there will be permanent loss of small areas of dry calcareous and neutral grassland, scrub, recolonising bare ground and dry meadows and grassy verges habitat associated with the construction of the proposed towers and associated foundations. However, given the size of the proposed tower foundations, these areas of habitat loss will be minor. Additionally, as outlined within the Outline Construction Environmental Management Plan, following construction of the proposed towers, lands will be reinstated with topsoil and vegetation which will minimise the impact of those effects on habitats over the short to medium-term.

Assuming the full and successful implementation of the mitigation measures outlined above, no significant residual impacts are predicted on the receiving aquatic environment or downstream European or Nationally designated sites at any geographical scale.

Direct mortality from collisions with overhead lines to breeding and wintering during operation of the proposed development will likely result in a negative effect on the local bird population. Although the mitigation measures outlined within the Biodiversity chapter will minimise the impact of those effects on the local bird populations residual impacts on birds will remain during operation. Therefore, the proposed development is likely to result in long-term effects on breeding and wintering populations and will result in a likely significant negative residual effect at the local to national geographic scale, depending on the species impacted upon.

Assuming the full and successful implementation of the mitigation measures outlined above, no residual impacts are predicted on the local badger, otter, other small mammals or bat populations at any geographical scale.

LAND, SOILS, GEOLOGY & HYDROGEOLOGY

See Section 7 of the EIAR for full details

Overview

This chapter assesses potential impacts that may arise from the proposed development on land, soils, geology, and hydrogeology within the local environment.

The GSI/ Teagasc Subsoil Map of Ireland shows the soil covering the site to be predominantly gleys and brown earths derived from limestone glacial till which is to be expected, given the underlying bedrock. The soil mapping indicates that the soils comprise primarily of basic grey brown podzolics and brown earths (BminPD and BminDW) at the site. These ground conditions have been confirmed by site investigations undertaken in the subject site, which have described the local topsoil as sandy gravelly Clay. However, made ground composed of granular fill was encountered within the Intel campus. (T2 & T3).

Reference to the GSI National Draft Bedrock Aquifer Map for the site indicates that the site is underlain by a Locally Important Bedrock Aquifer (LI), which is described by the GSI as bedrock as 'moderately productive only in local zones.'

Impacts

The activities required for the construction phase of the proposed development represent the greatest risk of potential impact on the hydrogeological environment. These activities primarily pertain to the site preparation, excavation, levelling, and infilling activities required to facilitate construction of the proposed development.

During the construction phase of the project, It is expected that dewatering will be required during the excavation of T6 tower which location lies close to the Rye River in a relatively low-lying area. There may be some connectivity between the groundwater regime in the area of Tower 6 and the level of the nearby Rye Water River. The projected depth of the tower is 2.8 m and its surface area

2.8 m x 4.0 m. No significant dewatering is expected in the other towers, with the exception of T4 whose location overlies granular deposit. Any water in the excavation will be pumped out prior to any concrete being poured into the foundation.

The potential impacts of construction and operation and environmental control measures proposed have been identified and will be included in the Construction Environmental Management Plan (CEMP) for the Proposed Development.

Following implementation of environmental control measures which are detailed in Chapter 7 of the EIA Report, the predicted impact during construction of the proposed development will be temporary-imperceptible-neutral.

There will not be abstractions from or discharge to the aquifer during operation. In addition, it is expected that any effect on soils will be localised due to the anticipated thickness of low-permeability protective overburden. No future soil or groundwater monitoring is proposed as part of the proposed project as no bulk chemical storage on site.

The predicted impact during operation of the proposed development, following implementation of environmental control measures detailed in Chapter 7 of the EIA Report will be long-term, imperceptible and neutral.

WATER & HYDROLOGY

See Section 8 of the EIA for full details

Overview

The proposed route of the OHL runs in close proximity to the Rye Water Valley/Cartron SAC which stretches along either side of the River Rye from the Carton Estate to the Leixlip Spa. The area and its wildlife are protected from site development and disturbance. The area is designated as a SAC due to the value of the area to the local community and the presence of a wide diversity of wildlife, including some endangered species. The overhead line crosses the River Rye between Tower 6 and Tower 7.

The Leixlip Spa site in Co. Kildare is a wetland area which developed on five distinct terraces with shallow bedrock and constitutes part of the Rye Water Valley Special Area of Conservation. The Leixlip Spa includes the Louisa Bridge petrifying springs with a tufa formation on the southern bank of the Rye Water. The Louisa spring is located within the Leixlip Spa boundary, which is adjacent to the east of the projected T5 tower. The Leixlip Spa has two sources of groundwater. The main source of water comes from a deeper, older and warmer groundwater system, discharging at the top of the first terrace through the Spa Well. The second is a more recent, shallow groundwater that flows through shallower limestone bedrock with the main groundwater discharge located in the vicinity of the fen wetland habitat ('filtering ponds') at the most elevated, southern terrace and at a similar horizon on surrounding drainage. The tufa is deposited as water saturated with calcium carbonate releases carbon dioxide resulting in natural deposition of tufa along a natural terrace paralleling the Rye Water River.

Two small tributaries streams have been identified in the vicinity of the site. The Collinstown Stream flows adjacent to T6 and T7 in the northside of the Rye Water. An unnamed stream/ open ditch has also been identified in the southside. These two streams discharge into the Rye Water. In addition to these small scale stream, no ditches or active open water courses have been identified in the immediate vicinity of the projected towers. However, there is a ditch running north-south to the east of both T4 and T5 which seems to be dry.

The Royal Canal is located to the south of the proposed works, it is upgradient in terms of groundwater flow direction and is lined. There is no hydrological linkage between the area of the proposed tower areas and the Canal.

Figure 3.1 below shows the site location in relation to the local hydrological environment



Figure 3.1 Site Location and Local Environment

Impacts

A range of construction phase environmental control measures proposed have been identified and are included in the Outline Construction Environmental Management Plan (CEMP) for the proposed development. The implementation of these measures as detailed in Chapter 8 of the EIA Report will ensure that the potential impacts on the surface water environment do not occur during the construction phase and that the residual impact will be short-term, imperceptible and neutral.

There will be a minimal decrease in recharge area (c. 96.8 m²) associated with the foundations surface area. The predicted impact during operation, following implementation of mitigation measures detailed in Chapter 8 of the EIA Report will be long-term, imperceptible and neutral.

AIR QUALITY & CLIMATE

See Section 9 of the EIA Report for full details

Overview

The chapter examines potential impacts during construction and operation – when air-borne factors such as dust can have an impact if not properly planned for.

Impacts to air quality and climate can occur during the construction phase of the proposed development. With regard to the construction stage the greatest potential for air quality impacts is from fugitive dust emissions impacting nearby sensitive receptors. Impacts to climate can occur as a result of vehicle and machinery emissions.

A low level of sensitivity to construction dust soiling impacts has been assigned to the surrounding area. The surrounding area is considered of low sensitivity to human health related dust impacts

while there is a high sensitivity with regards ecological impacts. The IAQM guidance was used to determine the level of risk associated with the construction phase of the proposed development in relation to potential dust impacts to the surrounding area. Provided the dust mitigation measures outlined in Appendix 9.1 of Chapter 9 are implemented, dust emissions are predicted to be short-term, negative and imperceptible and will not cause a nuisance at nearby sensitive receptors.

The best practice dust mitigation measures that will be put in place during construction of the proposed development will ensure that the impact of the development complies with all EU ambient air quality legislative limit values which are based on the protection of human health. Therefore, the impact of construction of the proposed development will be short-term, localised, negative and imperceptible with respect to human health.

Due to the nature of the proposed development impacts to air quality and climate are not predicted for the operational phase as there will be no emissions to atmosphere associated with the development. As such an operational stage assessment has been scoped out.

No significant impacts to either air quality or climate are predicted during the construction or operational phases of the proposed development.

NOISE & VIBRATION

See Section 10 of the EIAR for full details

Overview

This section assesses the anticipated noise and vibration impact associated with the proposed development at nearby noise-sensitive locations during the construction and operational phases.

Impacts

Construction Noise

Appropriate noise and vibration guidance has been reviewed; following this review, distinct noise and vibration criteria for the construction phase and noise criteria for the operational phase of the development have been identified.

Subject to good working practice as outlined in the Outline Construction Environmental Management Plan (CEMP) and not exceeding any noise limits proposed within the EIAR, it is anticipated that the effect of noise and vibration during the construction phase will be neutral, imperceptible and short-term.

Operational Noise

There are no proposed sources of vibration associated with the operation of the proposed development. The associated effects can therefore be described as neutral, imperceptible, and long term.

LANDSCAPE & VISUAL

See Section 11 of the EIA for full details

Overview

This section examines the potential impact of the proposed development on the appearance and character of the area.

Impacts

There is no single definitive visual impact of a project. Instead there are a series of effects - each different in appearance and degree - that occur throughout the area from which the project is visible.

The proposed development will give rise to effects that will be seen in the context of an established industrial site to the north and west of the route. It replaces impacts that already occur, but will move these closer to sensitive receptors. The route also lies directly adjacent to amenities and views around the Royal Canal, the Rye Water and the Leixlip Spa that are designated in the County and Local Area Plans.

The project will significantly alter or affect views from amenities in the area – such as views from the Canal, the Aqueduct and associated walks, as well as the Leixlip Spa and Waterfall. It will also be conspicuous when seen from the R148, Louisa Bridge and the adjoining commuter rail station. These will be intermittent and highly localised due to the local screening afforded by vegetation and topography.

The proposed developments will alter the views from some Louisa Park Apartments where these are not screened by existing mature vegetation. All such visibility will be in the highly developed context of the existing station and mainline rail line. There will be no significant visibility of the project from other housing areas in the general vicinity.

The proposed development will take place on and adjacent to lands zoned for industrial use with an established industrial appearance. The principle mitigation method employed was route selection following an extensive consideration of alternative routings that included both Overground as well as underground options.

There will be a localised intensification of effects on nearby amenities around the Royal Canal. These will represent a localised intensification and spatial expansion of pre-existing effects that accord with the zoning and established use of these lands.

MATERIAL ASSETS

See Section 12 of the EIA for full details

Overview

This chapter covers the proposals for built services - comprising, energy (electrical supply, gas supply) and water services.

Impacts

Energy demand

There will be low use of fuel and electricity during the construction phase because of the nature of the project. Resources consumed will mainly include use of fuels for construction related machinery, electricity to light the site and power construction tools.

The proposed development is an energy project that will divert and decommission existing transmission infrastructure, but not disrupt energy supplies, during the carrying out of the project.

Water Supply

Minor connection will be made to the existing Intel supply in a designated area of Intel's car park close to IR96 ground floor main contractor area for temporary site offices, and minor welfare amenities.

There will be no connection for water supply or discharges of waste water required during the operational phased of the proposed development.

Relocation of Existing Services

A review of existing utilities mapping and silt trenching has been carried out to identify any existing services that may be impacted on by the proposed development.

- **Watermain**
During slit trenching at Tower 2 concrete was identified running across both trenches which indicated the presence of a service within the concrete casing. Upon review with existing utilities mapping, it was found out to be an existing watermain. This watermain will be diverted prior to the excavation of the foundation for the tower.
- **Medium Voltage Cable**
On the location of Tower 3, the existing service drawing shows the presence of an MV cable, this was also identified by a Cable Avoidance Tool (CAT). The water main at Tower 2 and MV cable at Tower 3 as outlined in above will be diverted in advance of the tower foundation installations at these locations.
- **High Voltage Cable**
The proposed development will relocate the existing high voltage lines

WASTE MANAGEMENT

See Section 13 of the EIAR for full details

Overview

This chapter assess the impact of the generation of waste materials arising during the construction and operational phases of the proposed development. Such wastes are referred to as C&D (Construction and Demolition) wastes.

Impacts

During the construction phase, typical Construction & Demolition (C&D) waste materials will be generated which will be source segregated on-site into appropriate skips/containers, where practical and removed from site by suitably permitted waste contractors to authorised waste facilities. Where possible, materials will be reused on-site to minimise raw material consumption. Source segregation of waste materials will improve the re-use opportunities of recyclable materials off-site. Construction of new foundations and the installation of underground services will require the excavation of c.85,000m³ of material, it is likely that none of this excavated material will be able to be reused onsite. The balance of excavated materials, which is either unsuitable for use as fill, or not required for use as fill, will be exported off site. Excavated material which is to be taken offsite will be taken for offsite reuse, recovery, recycling and/or disposal.

A carefully planned approach to waste management and adherence to the site-specific Resource & Waste Management Plan (Appendix 14.1) during the construction phase will ensure that the effect on the environment will be short-term, imperceptible and neutral.

During normal operations, no waste will be generated or stored at the proposed development. It is anticipated that imperceptible amount of waste will be generated from ESB Networks staff during their inspections and maintenance works. All waste generated will be removed from site by ESB Networks staff or contractors and therefore there will be no potential impacts from the development once operational.

BUILT HERITAGE

See Section 14 of the EIAR for full details

Overview

This section examines the potential impact of the proposed development on architectural and cultural heritage.

Impacts

There will be no direct impact on the known recorded archaeological monuments or architectural heritage as no such sites are present within the site boundary. However, there are several protected structures, proposed protected structures, heritage structures under the National Inventory of Architectural Heritage and other heritage properties of significance within the vicinity of the site, and others of high importance at a greater distance and in each case the potential impacts have been examined.

A potential impact will occur to protected structures and other structures of architectural heritage merit as a consequence of the proposed development works. Most notably these include Louisa Bridge, the Hexagonal Well, the Romanesque Bath, the Rye Water Aqueduct, the Collectors House and that part of the Royal Canal between Louisa Bridge and Confey.

While Deey Bridge and Lock, Nelson's Cottage and Blakestown House are within very close proximity to the proposed works there will be little or no perceptible direct impacts arising from the proposed works upon these elements of the heritage environment.

The proposed development works will have an appreciable indirect impact on the views, prospects or settings of various structures considered. These include Louisa Bridge, the Station House, the Hexagonal Well, the Romanesque Bath, the Rye Water Aqueduct, the Collectors House and that part of the Royal Canal between Louisa Bridge and Confey. Due to the design of the proposal and the mitigation measures proposed in this chapter there will be no significant negative impact on built heritage as a result of this proposed development.

ARCHAEOLOGY

See Section 15 of the EIAR for full details

Overview

This section examines the potential impact of the proposed development on Archaeology.

Impacts

There will be no direct impact on the known recorded archaeological monuments as no such sites are present within the site boundary.

A potential impact on the archaeological resource lies in the uncovering of sub-surface archaeological features during groundworks associated with the construction of the proposed towers. Towers 7, 6, 5 and 4 are in greenfield areas which have a greater potential to contain yet undiscovered sub-surface archaeology. Should anomalies identified as a result of the geophysical survey or any additional features be present, the proposed development will have a direct negative impact on these remains.

Where archaeological material/features are shown to be present on-site, mitigation should either involve preservation in situ (avoidance) or preservation by record (excavation). The site of the proposed development shall be archaeologically assessed in advance of the development.

All topsoil removal operations required for the proposed development, shall be fully monitored by a qualified archaeologist.

Due to the design of the proposal and the mitigation measures proposed in this chapter there will be no negative impact on archaeology or cultural heritage as a result of this proposed development.

ACCIDENT & DISASTER RISKS

See Section 16 of the EIAR for full details

Overview

The Intel campus grounds are mainly flat in topography consisting of employee multi-level car parks, tarmacadam-surfaced car parks and, in Eastlands, gravel-surfaced car parks. Peripheral landscaped areas bound the site. To the rear of the plant there is a gradual slope descending from south to north towards the Rye Water River valley. There is, however, a pronounced descent from the elevation of the newly built Process Water Tanks in Eastlands (c.59m OD) through to the green belt referred to earlier (T4 & T5 / 55 - 47m OD) and beyond to the Rye Water River (c.33m OD). The nearest residences are approximately 115 metres away from the development areas at the closest point (proposed tower T4).

The existing Intel Manufacturing facility is operated in accordance with an Industrial Emissions Licence issued by the EPA (licence ref P0207-05).

Impacts

Due to the comprehensive controls and design standards that have been followed during initial design and that will be followed during detailed design combined with the measures contained in the outline CEMP, the assessment finds that any potential risks under this heading are negligible and present no significant potential to cause environmental effects.

INTERACTIONS & CUMULATIVE EFFECTS

See Section 17 of the EIAR for full details

This section of the EIAR describes the interactions between the various impacts identified in the previous sections - during both the construction and operational phases of the proposed development. Where such interactions are likely to arise then these have been considered under each relevant heading in the EIAR.

This section also describes where any combination of effects arising from this proposal in-combination with effects arising from other permitted developments have been found to be significant and where these have been addressed in the