

## N53 Hackballscross to Rassan

### Environmental Impact Assessment Screening Assessment

Louth County Council

24/05/2021



# Notice

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This document has 33 pages including the cover.

## Document history

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
Rev 0	Initial Draft	LMG/AMc	KL/AMc	DL	ST	21/04/2021
Rev 1	Final	AMc	AMc	DL	ST	24/05/2021

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# 1. Introduction

Louth County Council (LCC) appointed Atkins to prepare an Environmental Impact Assessment (EIA) Screening Report as part of the Part 8 Planning Application for the upgrade of the existing N53 route between Hackballscross to Rassan in County Louth.

The Louth County Development Plan 2015–2021 (LCC, 2015) earmarks the N53 for general improvements over the course of the plan. The overall aim of the scheme is to produce a safer route, which will adequately allow for an increase in traffic flow along this section of road.

Since the Phase 2 route option (i.e. the preferred route) was identified in 2019, it has been further developed as part of the Preliminary Design Stage. The existing N53 is narrow and winding with limited opportunities to overtake safely and with poor forward visibility. The proposed scheme will commence at an appropriate tie-in point adjacent to Hackballscross in the Townland of Carrickastuck in Co. Louth and traverses west through the town lands of Annaghvacky and Rassan to tie-in to the existing engineered road cross section point in the Townland of Rassan. The scheme consists of the realignment of circa 3.3km of the existing N53 National Secondary Route.

The proposed scheme location is presented in Figure 1-1. The proposed red-line development boundary and relevant preliminary design drawings are presented in Appendix A.

## 1.1. Purpose of this Report

This report has been prepared as part of the Part 8 application by Louth County Council in relation to the upgrade of the existing N53 route between Hackballscross to Rassan in County Louth. The purpose of this report is to determine whether the proposed project requires the preparation of an Environmental Impact Assessment Report (EIAR). The proposed infrastructure project has been screened to generate a summarised overview of the potential impacts on the receiving environment, and in the context of relevant statutory requirements.

A Stage 1 Screening for Appropriate Assessment has also been prepared (Atkins, 2021) (document reference; 5187353DG00115). The project has been assessed with regards to the likely significant effects (either alone or in combination) of each development on European sites within the zone of influence of each proposed project. This AA Screening recommended that the project has been screened out at Stage 1 Screening for Appropriate Assessment, and therefore does not require the preparation of a Natura Impact Statement (NIS).

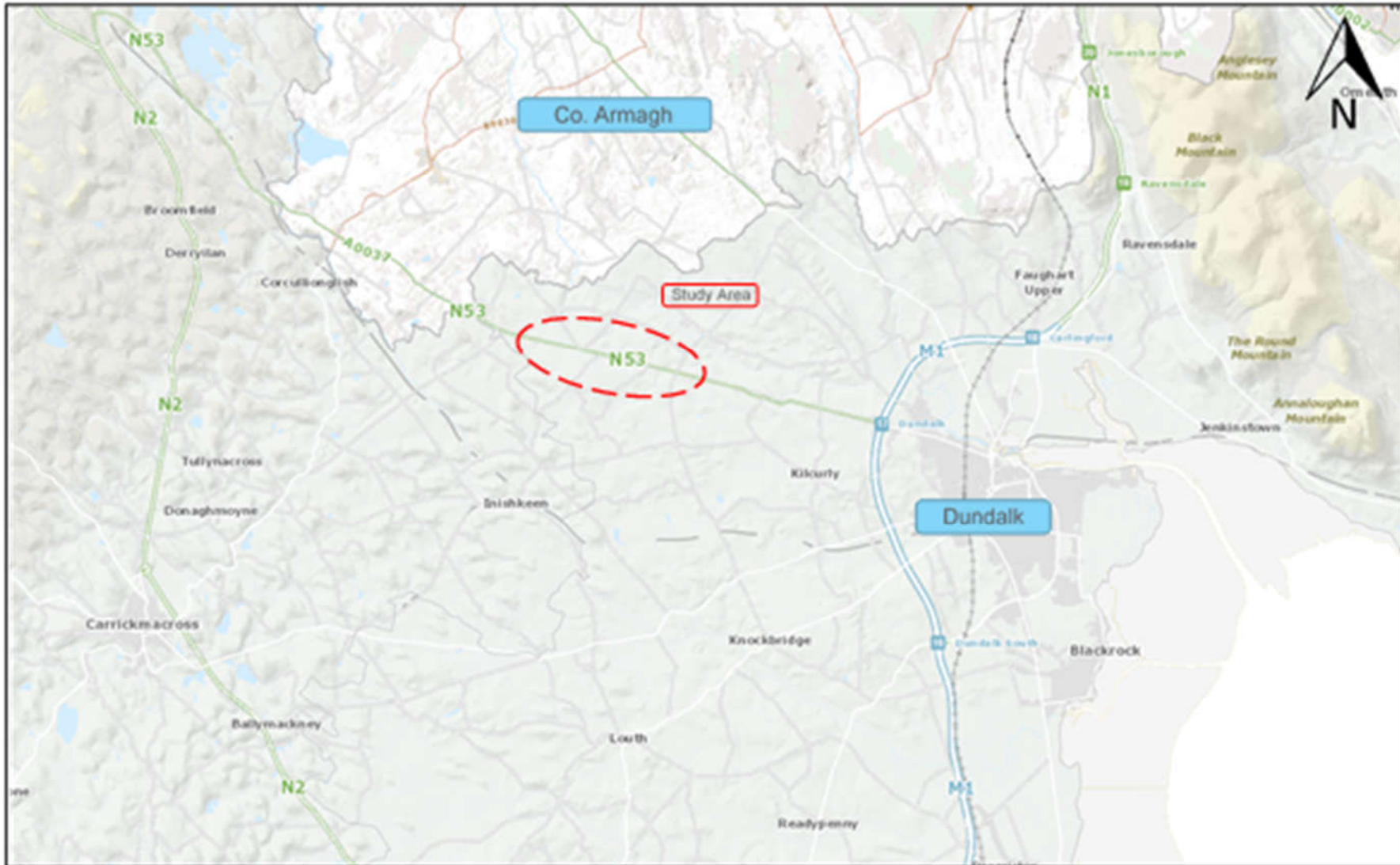


Figure 1-1 - Proposed Scheme Location

## 2. Methodology

The Environmental Impact Assessment (EIA) screening has been undertaken for the project based on the following methodology. The project has been screened in accordance with Section 50 of the Roads Acts 1993-2021 and Section 3.2 of the *'Guidelines on the Information to be contained in Environmental Impact Assessment Reports – Draft'* (EPA, 2017), the Environmental Impact Directive (85/337/EEC) (and all subsequent relevant amendments), and Planning and Development regulations (2001-2021)<sup>1</sup>.

As set out under the relevant legislation (detailed further in Section 2.1 of this report), there are two key steps when carrying out EIA screening for a road project;

**Step 1** is to determine if the proposed infrastructure works represent a project as understood by the Directive and if a mandatory EIAR is required. Such projects are defined in Article 4 of the EIA Directive and set out in Annexes I and II. Projects requiring a mandatory EIAR are included under Section 50 of the Roads Act (1993-2021), S.I. No. 279 of 2019 amendments and the prescribed projects listed in Section 8 of the Roads Regulations, 1994 (S.I. No. 119 of 1994).

**Step 2** is to determine if the project is likely to have significant effects on the receiving environment. Section 50 (1)(b) of the Roads Act (1993-2021) states that if An Bord Pleanála considers that any road development proposed (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment it shall direct that the development be subject to an environmental impact assessment. Section 50 (1)(e) of the Roads Act (1993-2021) states where a decision is being made pursuant to this subsection on whether a road development that is proposed would or would not be likely to have significant effects on the environment, An Bord Pleanála, or the road authority or the Authority concerned (as the case may be), shall take into account the relevant selection criteria specified in Annex III. Annex III as has been transposed into Irish Legislation via Schedule 7 of the Planning and Development Regulations 2001-2021.

There are no exacting rules as to what constitutes “significant” in terms of environmental impacts. The responsibility is on Planning Authorities to carefully examine every aspect of a development in the context of characterisation of the project; location of the project and type and characteristics of potential impacts. It is generally not necessary to provide specialist studies or technical reports to complete this screening process, rather to investigate where further studies may be required, and where risks, if any, to the integrity of the receiving environment may lie.

For the purposes of screening sub-threshold development for EIA, all of the relevant information as presented within Planning and Development Regulations 2020 (Schedule 7A) has been provided on behalf of the applicant Louth County Council. The potential for the project to pose a significant impact to the receiving environment has also been evaluated in accordance with criteria listed in the Planning & Development Regulations, 2001, as amended (2001-2021).

The findings of the EIA screening assessment have informed our professional opinion as to whether an EIAR is warranted, with due regard to all relevant statutory requirements and technical guidance. However ultimately it is the responsibility of the relevant planning authority to make a determination as to whether an EIAR is required for a particular project, based on the findings of the screening assessment.

Figure 2-1 provides a summary of the main steps involved in the EIA screening process.

<sup>1</sup> [file:///C:/Users/amccollom/Downloads/121548\\_a045e28d-c0fe-430a-a35f-d35a31df72c1%20\(1\).pdf](file:///C:/Users/amccollom/Downloads/121548_a045e28d-c0fe-430a-a35f-d35a31df72c1%20(1).pdf)

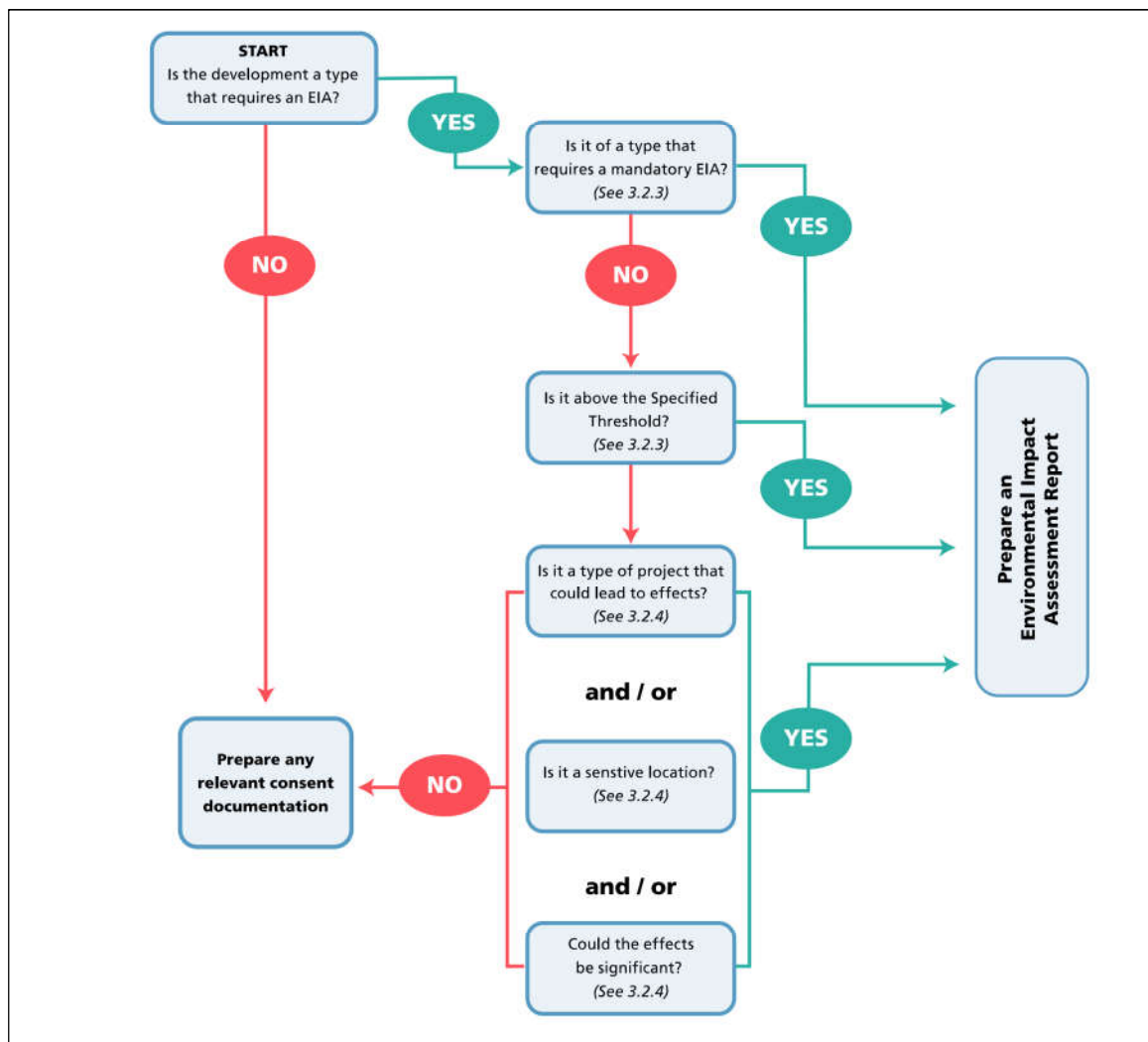


Figure 2-1 – EIA Screening Process (EPA, 2017)

## 2.1. Relevant Legislation

The Environmental Impact Directive 85/337/EEC was brought into force in 1985 and amended by the following directives - 97/11/EC, 2003/35/EC and 2009/31/EC. The directive was codified and repealed by the Environment Impact Assessment Directive 2011/92/EU and amended by directive 2014/52/EU (EU, 2011 – 2014). The Directive was originally transposed into Irish Law by the European Communities (Environmental Impact Assessment) Regulations, 1989 (S.I. No. 349/1989). This introduced the requirement for an Environmental Impact Assessment in certain specified circumstances. The most recent amendment to the Directive is focused on clarifying and simplifying the process of EIA. The screening criteria have been updated, and Member States have a mandate to simplify their assessment procedures. EIA reports are to be made more readily understandable to members of the general public. Section 50 of the Roads Acts (1993-2021) outlines certain categories of roads projects which require an EIAR.

The 2018 European Union (Planning and Development) (Environmental Impact Assessment) Regulations transpose the 2014 EIA Directive into Irish law (S.I No. 296 of 2018). These regulations amend the Planning and Development Regulations 2001 (S.I. No.600 of 2001) and to give further effect to the 2011 Directive, as follows:

- An EIAR is required as a matter of course on specified large-scale projects which have a high likelihood of impacting on the receiving environment. These projects are listed in full within Part 1 and Part 2 of Schedule 5 – Development for the purposes of Part 10 of the Planning &

Development Regulations (2001-2021). Part 10 of the regulations relates to Environmental Impact Statements.

- Each EU Member State has discretionary consideration for the requirement of an EIA in relation to various processes and activities. These projects are listed in full within the Planning & Development Regulations (2001-2021), Schedule 5, Part 2 – Development for the purposes of Part 10. If the proposed project is listed under Schedule 5, Part 2, but does not exceed the relevant stated thresholds, it is considered to be sub-threshold. Part 10, article 92 of the Planning & Development Regulations, 2001, as amended states “*‘sub-threshold development’ means development of a type set out in Part 2 of Schedule 5, which does not equal or exceed, as the case may be, a quantity, area or other limit specified in that Schedule in respect of the relevant class of development*”. Any sub-threshold developments should be evaluated to determine if the project is likely to have a significant impact on the environment.
- Criteria to evaluate whether significant impacts on the receiving environment will arise from a proposed development are listed under Schedule 7 of the relevant Planning & Development Regulations (2001-2021). A list of the relevant information to be provided by the applicant or developer for the purposes of sub-threshold EIA screening is presented in Schedule 7A of the Regulations, and summarised below;
  1. A description of the proposed development, including in particular:
    - (a) a description of the physical characteristics of the whole proposed development and, where relevant, of demolition works; and,
    - (b) a description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.
  2. A description of the aspects of the environment likely to be significantly affected by the proposed development.
  3. A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from:
    - (a) the expected residues and emissions and the production of waste, where relevant: and,
    - (b) the use of natural resources, in particular soil, land, water and biodiversity.
  4. The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7.

## 3. Screening Assessment

### 3.1. Step 1 - Mandatory Screening for EIA

The scheme has been screened against the criteria outlined in Section 50(1)(a) of the Roads Act 1993-2021<sup>2</sup> and Article 8 of S.I. No. 119/1994- Roads Regulations, 1994<sup>3</sup>. This project does not fall within any category of development requiring a mandatory EIA; hence the preparation of an EIAR is not required under Section 50 (1)(a).

#### 3.1.1. Sub-threshold Development Likely to Have Significant Effects on the Environment

The scheme has been screened against the criteria outlined in Section 50(1)(b) of the Roads Act 1993-2021, as follows;

*'Where the Minister considers that any proposed road development (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment, he shall direct the road authority to prepare an environmental impact statement in respect of such proposed road development and the authority shall comply with such direction'.*

Therefore, it is considered that the scheme should undergo an EIA screening to determine if an EIAR would be required in accordance with Section 50(1)(b) of the Roads Act 1993-2021.

### 3.2. Step 2 - Determining if significant environmental effects are likely

The scheme has been screened against the criteria outlined in Schedule 7(A) of the Planning and Development Regulations (2001-2021) – Information to be provided by the Applicant or Developer for the Purposes of Screening Sub-threshold Development for Environmental Impact Assessment

For ease of reference, each criterion which must be considered (as per the relevant regulations) in order to determine if the project is likely to have a significant effect on the receiving environment is set out below (*in italics*), followed by the corresponding response.

#### 3.2.1. Description of the Proposed Development (Schedule 7A(1))

*Schedule 7A (1)(a) - a description of the physical characteristics of the whole proposed development and where relevant of demolition works*

The N53 has been identified as one of the country's important National Secondary Routes, providing a strategic transport link for the northwest to the northeast of the county. The N53 serves the towns of Dundalk, and Castleblayney where it joins the N2 for its onward linkage to the northwest.

The section of the N53 between Hackballscross and Rasan is a national secondary route corridor which had essentially evolved over the ages and thus fits within the existing landscape. Hence, the current road layout bears little resemblance to modern day safety requirements and transportation demands. Hence, the alignment is well below current standards as it traverses the hilly terrain. The existing N53 is narrow and undulating in character thereby providing limited overtaking opportunities

<sup>2</sup> <http://www.irishstatutebook.ie/eli/1993/act/14/section/50/enacted/en/html#sec50>

<sup>3</sup> <http://www.irishstatutebook.ie/eli/1994/si/119/made/en/print>

along its length. This in turn tends to lead to driver frustration and potentially hazardous driving manoeuvres.

The existing carriageway is a single carriageway, generally 6.0m wide with grass verge widths varying between 0.5m and 2.5m. The speed limit is generally 100km/h however reduces to 80km/h and 60km/h each side of, and through, Annaghvacky. There are no hard shoulders present, nor footways/cycleways, which creates an inherently hazardous environment for vulnerable road users such as pedestrians and cyclists. There is no formal surface water drainage system present and run off from the road surface simply runs along the edge of the carriageway and discharges into the nearest ditch. The uneven surface results in surface water ponding in certain areas during periods of heavy rainfall which creates inherent safety issues in wet weather.

The route passes through a small crossroads at Annaghvacky which has a local shop and several domestic houses. The N53 also caters for significant HGV's and by its nature, the National Secondary Route is a strategic traffic route from the northeast to the northwest and runs partly through Northern Ireland. However, the high number of local accesses and the rural environment within which it lies means there is a significant proportion of local traffic and slow-moving agricultural vehicles.

These factors, combined with those already mentioned, lead to unreliable journey times. In addition, road safety is a particular concern along the route given the poor alignment, mix of regional and local traffic, observed traffic speeds and the general lack of facilities / space for vulnerable road users. The N53 Hackballscross to Rassan Scheme is classified as a Minor Project (< €20m) [Ref: TII Project Appraisal Guidelines Unit 2.0].

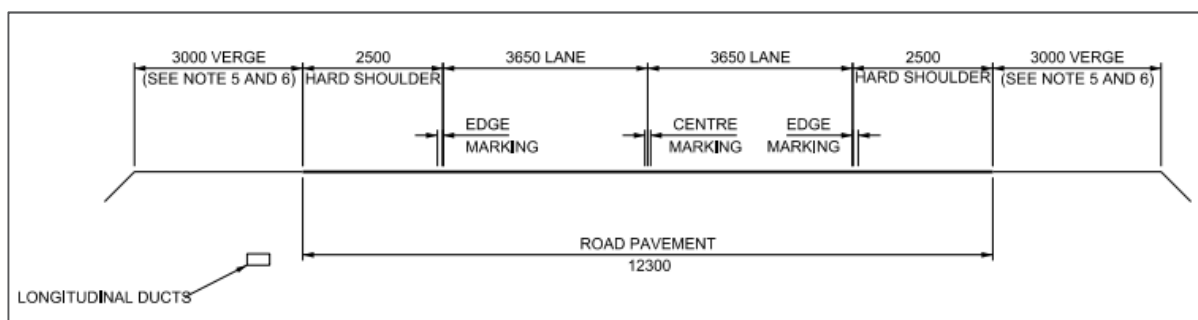
Louth County Council (LCC) proposes to upgrade this section of the existing N53 route between Hackballscross and an area approximately 350m west of the N53, L-7120 junction at Annaghvacky, and the section of the road within Rassan townland. The proposed scheme will be realigned between these upgrade sections and will provide a road which is designed to comply with current TII design standards and does not present drivers with unexpected or substandard layouts. The route will be designed to comply with the requirements of TII Publications. 1no. residential property and 2no. associated outbuildings will be demolished as part of the proposed scheme.

The proposed scheme, currently at the Preliminary Design Phase, has the following characteristics:

- Length of proposed mainline: 3.3km;
- Percentage online / offline: approximately 900m online / 2,500m offline;
- Mainline cross-section: Type 1 Single Carriageway (as per TII's CC-SCD-00001);
- Number of mainline junctions: 3 No. Junctions;
- Side roads realigned (from west to east): L-7120, Link back to the existing N53 (junction at chainage 1955) and the LT-31253;
- Structures: 1 No. pedestrian subway; and,
- Townlands through which it travels (from west to east): Rassan, Shanmullagh, Annaghvacky, Carrickastuck and Barronstown.

The type of road proposed to be constructed is a Type 1 Single Carriageway for the full length of the proposed route with the exception of chainage 3000 to Chainage 3350 (approximately) where the scheme transitions into a Type 2 Single Carriageway (to facilitate the tie-in with the existing N53 at Hackballscross). A typical cross-section for this type of Carriageway is shown in the Transport Infrastructure Ireland (TII) Standard Construction Details Drawing No. CC-SCD-00001 (TII, 2017) and is shown in Figure 3-1 (note that all dimensions presented in the figure are in millimetres).

Pedestrians and cyclists will be catered for by the scheme. Facilities will be provided to link such users between Annaghvacky and Hackballscross, via a section of the stopped-up N53 combined with a segregated path parallel to the proposed N53. Similarly, a pedestrian subway will be provided beneath the proposed mainline to facilitate a link between Annaghvacky and Shanmullagh (along the L7120 local road).



**Figure 3-1 - Type 1 Single Carriageway (CC-SCD-00001)**

*Schedule 7A(1)(b) - a description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected*

The proposed N53 route commences at Hackballscross located approximately 8.5km northwest of Dundalk on the current N53 national road and terminates within the townland of Rassin located approximately 1.8km southeast from the County Armagh, Northern Ireland border. The land surrounding the proposed route comprises of predominately agricultural land with local roads and residential dwellings. A description of the environmental sensitivity of the area is described in the following sections.

Landowner Impacts

The proposed route requires the acquisition of 1no. residential property as previously mentioned (ca.1.2 acres). The route will require the land take of ca.46 acres which includes 38 acres of agricultural land and 5.9 acres of road network as well as the 1.2 acres of residential property. There will be a total of 32no. landowners impacted by the proposed scheme (including agricultural and residential properties).

Designated Conservation Area

The proposed route does not lie within any European sites. There are 4 No. European sites within 15km of the scheme, which consist of 3 No. Special Areas of Conservation (SAC) and 1 No. Special Protection Area (SPA). These include the Dundalk Bay SAC located approximately 8.6km east of the proposed route; the Slieve Gullion SAC located approximately 10km north of the proposed route; the Carlingford Mountain SAC located approximately 12.6km northeast of the proposed route and the Dundalk Bay SPA located approximately 7.2km east of the proposed route (Atkins, 2021).

Additionally, the proposed route does not intersect any designated conservation sites such as Wetlands of International Importance (Ramsar sites), Areas of Special Scientific Interest (ASSI) sites or National Heritage Areas (NHA). The route also avoids woodland habitats within the area.

The proposed route directly intersects the south side of the Annaghvacky (Hackballscross) Wet Woodland adjacent to the N53 and will result in an estimated loss of 0.465ha (between approximately Ch. 2700 and 2900) of this locally important habitat.

The route is located to the south of the Annaghvacky West Wetland site (site code: WHI\_LH237) between approximately Ch. 700 and Ch. 1200. This wetland consists of transition mire, wet heath, cutover bog and scrub habitats and is noted by Wetland Surveys Ireland to be of county conservation value. Areas of this wetland site have recently been designated by the Department of Heritage Culture and the Gaeltacht in - *The Status of EU Protected Habitats and Species in Ireland Habitat Assessments Report* (2019) as Annex I Habitat -Transition Mire and quaking bog [7140] and as such areas of this wetland habitat are now considered to be of international conservation value.

While the scheme has been carefully designed to ensure that the Annex I wetland habitat is not intercepted by the proposed route, it will run to the south of the Annex I wetland habitat. A hydrogeological review prepared as part of Atkins (2021) Environmental Report (document reference: 5187353DG0118) was undertaken to evaluate any surface water / groundwater linkages with this sensitive wetland site, and to identify any design measures / monitoring works which may need to be implemented. Based on the findings of this review, a site-specific conceptual site model (CSM) has

been developed for this particular area of the proposed scheme. Taking account of all available information, including site-specific data (IGSL Ltd., 2021) the Annex I wetland habitat is likely fed by perched water / shallow groundwater rather than surface water sources. Based on groundwater level monitoring (7 No. events carried out between February and April 2021<sup>4</sup>) static groundwater levels beneath the Annex I wetland habitat, and also beneath the adjacent proposed route (Ch. 700 and Ch. 1200) are within 0.5m of the existing ground level in these areas. Therefore, taking account of the emplacement of fill material along this particular section of the proposed scheme, potential impacts to groundwater quality and existing groundwater levels have been identified. Accordingly potential biodiversity impacts to the Annex I wetland habitat have also been identified, via. perched water / groundwater linkages. Mitigation measures, which are documented fully within Atkins (2021) Environmental Report (document reference: 5187353DG0118), will be fully implemented during the construction and operational phases of the proposed scheme, and will ensure any potential impacts (to groundwater, surface water or biodiversity receptors) are addressed. Therefore no significant environmental impacts to the Annex I wetland habitat via. groundwater or surface water sources are likely to occur as a result of the proposed scheme. Similarly no significant ecological impacts to the Annex I wetland habitats are anticipated as a result of the proposed scheme.

Additionally, there will be approximately 3,500m of hedgerow habitat, considered to be of high local conservation value, which will be lost by the proposed route predominantly along the existing N53 (Atkins, 2021).

### Soils and Geology

Based on regional mapping sources the general vicinity of the proposed route is underlain predominantly by till derived from Lower Palaeozoic sandstones and shales with cut over raised peat at the eastern and western ends of the route. There are also small areas of alluvium where the route crosses the existing L-7120 and lacustrine sediments at the eastern end. Areas of rock outcrop and subcrop are present along the length of the route (GSI, 2021). Anecdotal evidence from public consultation carried out during Stage 2 Phase 2 of the route selection process indicated there are significant volumes of peat and poor ground in the area (Atkins, 2020). The route is underlain by calcareous red-mica greywacke of the Clontail Formation (GSI, 2021).

Based on site-specific data presented in the Ground Investigation Report (IGSL Ltd., 2021), the scheme is generally underlain by Topsoil or Made Ground, with silt / clay encountered to a maximum depth of ca. 3.6mbgl, and gravel encountered to a maximum depth of ca. 5.3mbgl (with peat encountered in localised areas to a maximum depth of ca. 1.8mbgl). Rockhead was encountered at depths of between ca. 0.5 to 7.3mbgl along the scheme. Bedrock generally comprises thickly to thinly bedded, dark greenish blue, fine-grained sandstone (interbedded with siltstone); and thinly bedded to structureless, green, fine-grained siltstone/mudstone.

Conditional permission was granted by Louth County Council in 2004 for agricultural land to be raised by 1m. This land is located to the south of the existing N53 in the area of cut over raised peat. The nature of the material used to raise the land level is unknown, as is whether the peat is still present in this area. Additionally, an area cleared of vegetation with possible stockpile and infill material is located in the townland of Shanmullagh. Likewise, the nature of the material here is also unknown.

Disposal of inert clay arisings immediately south of the existing N53, between the L7120 and L7116 junctions in the townland of Annaghvacky was permitted by Louth County Council and are now incorporated into the existing Inert Clay Import Facility (Atkins, 2020).

Of these features, the area of infill inert clay waste arisings and areas of peat and alluvium are attributed a medium importance. Areas of well drained soils (areas of till derived from Lower Palaeozoic sandstones and shales) are attributed a high importance.

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<sup>4</sup> It should be noted that the groundwater level monitoring programme was designed to be carried out when groundwater levels would typically be at their seasonal highest, to ensure a worst case scenario could be assessed as part of the Hydrogeological review.

No karst features are recorded directly along the proposed scheme. No evidence of karst (i.e. voids, infill cavities, extensive fracturing / weathering) was identified in the site-specific data presented in the Ground Investigation Report (IGSL Ltd., 2021).

#### Hydrology and Flooding

Surface water features in the immediate area of the proposed route include the Carrickastuck Stream, Drumboat Stream and Inishkeen Steam. The Annaghvacky Stream is mapped as starting within a woodland bordering the existing N53 road approximately 0.7km west of the Hackballscross junction. However, a site walkover carried out on 10<sup>th</sup> July 2020 confirmed that the source of the stream is located within a woodland approximately 0.5km northwest of the current mapped source. This woodland is identifiable by a ringfort in an adjacent field. Both streams are classified as having 'good' water quality status for the 2013 to 2018 period but are classified as being 'at risk' of not achieving good quality in accordance with the Water Framework Directive. Both streams flow into the Castletown River which in turn flows into Dundalk Bay SAC/SPA (EPA, 2021).

There are no significant reported abstractions from surface water along the proposed route.

A review of the OPW flood maps (OPW, 2021) did not identify any areas mapped as liable to flooding or any historical flooding events. A Stage 1-Flood Risk Assessment (FRA) has been prepared (Atkins, 2021) (document reference 5187353DG0110) to establish whether a flood risk issue currently exists or may exist in the future. The FRA concluded that *'proposed development while classified as a 'highly vulnerable development' as per the vulnerability classification in the planning guidelines is within Flood Zone C. Based on an examination of the data available, the FRA has demonstrated that the flood maps indicate a low risk of flooding to the proposed development. Therefore, a Stage 2 Flood Risk Assessment is not required and therefore the report shall be concluded at this point.'*

#### Hydrogeology

The proposed route and surrounding area are located within the Louth Groundwater Body (GWB). The groundwater flow regime associated with this GWB is expected to be limited, with flow primarily through fractures and the weathered bedrock zone, with short flow paths and primary discharge to local rivers and streams (GSI, 2004). Water quality within the Louth GWB was classified as having 'Good' status for the 2013 to 2018 monitoring and is 'not at risk' of failing to meet the relevant Water Framework Directive objectives.

There are seven registered wells within the area, however there are no reported Public Supply Source Protection Areas, Group Water Schemes or commercial or industrial groundwater abstractions. It is assumed that all residential properties within the vicinity of the proposed scheme are likely supplied by unregistered private wells for drinking water use (GSI, 2021; EPA, 2021). A pre-construction well survey will be carried out at all properties within 150m of the proposed scheme. Any wells which may potentially be at risk (via. resource / quality impacts) during the construction or operational phases will be identified and appropriate measures implemented in order to protect any vulnerable groundwater supplies within the vicinity.

There are two ponds located within the area of cut raised over peat which are identifiable on the historical 6-inch map (1837 – 1842) and 25-inch map (1888 – 1913) (OSI, 2021). It is unknown if these are associated with unmapped surface water features but are likely formed by depressions within the peat and representative of the water level within the peat soils.

The greywacke bedrock of the Clontail Formation underlying the proposed scheme and surrounding area is classified as a Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones 'Pl'. Refer to Figure 8-2. Groundwater vulnerability along the length of the route ranges from 'high' to 'extreme' and *'rock at or near surface or karst'*, with a minor portion in the vicinity of the southern portion of the proposed scheme identified as *'moderate'*, indicating that on a regional scale bedrock is shallow and generally within 5m of the ground level. Refer to Figure 8-3. These groundwater classifications indicate that the bedrock is very vulnerable to potential contamination (GSI, 2021).

Site-specific data presented in the Ground Investigation Report (IGSL Ltd., 2021) was reviewed to determine the potential for groundwater to be encountered and potentially impacted during the construction phase of the proposed scheme. Beneath the proposed scheme, perched water strikes

(albeit slow to moderate ingress is noted) were encountered at general depths of between 0.6 and 1.9mbgl, generally within peat /clay / silt layers. Shallow groundwater strikes were encountered within saturated gravel layers, at general depths of between 0.6 and 5.9mbgl. Groundwater strikes within the bedrock aquifer beneath the proposed scheme were encountered occasionally, within sandstone bedrock at a general depth of 7mbgl, and within mudstone bedrock at a general depth of 9mbgl. In summary perched water and shallow groundwater levels beneath the general vicinity of the proposed scheme appear to be shallow (0.6 – 5.9mbgl) whilst groundwater levels within the sandstone / siltstone bedrock aquifer appear to be deeper (7 - 9mbgl).

Regionally groundwater flow direction is anticipated to follow topography in a general easterly direction towards the Irish Sea. On a local scale groundwater is likely to discharge to the closest identified rivers / streams, and generally follow topography. There are seven registered wells within the area, however there are no reported Public Supply Source Protection Areas, Group Water Schemes or commercial or industrial groundwater abstractions. It is assumed that all residential properties within the vicinity of the proposed scheme are likely supplied by unregistered private wells for drinking water use (GSI, 2021; EPA, 2021).

### Biodiversity

A review of the National Biodiversity Data Centre Biodiversity Maps identified 11 No. protected and threatened species within 2km of the proposed scheme. At least one record of these species were recorded within the last 10 years, between 2011 to 2018. No invasive species were identified within the area of the proposed scheme.

The protected and threatened species present in the area of the proposed scheme are summarised in Table 3-1 below.

**Table 3-1 - Species in the area of the proposed scheme**

Species group	Species name	Designation	Location
Terrestrial Mammals	West European Hedgehog (Erinaceus europaeus)	Protected Species: Wildlife Acts	Along the proposed route in the western section
	European Otter (Lutra lutra)	Protected Species: EU Habitats Directive - Annex II Protected Species: Wildlife Acts	On the existing N53, approx. 1.2km west of Annaghvacky
	Eurasian Badger (Meles meles)	Protected Species: Wildlife Acts	Across the proposed route study area
	Red Deer (Cervus elaphus)	Protected Species: Wildlife Acts	In Annaghvacky, approx. 0.1km north of the centre section, approx. 1.7km north-northwest of Hackballscross
Birds	Yellowhammer (Emberiza citrinella)	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern - Red List	Across the proposed route study area
Flowering Plants	Swamp Meadow-grass (Poa palustris)	Threatened Species: Vulnerable	In Tattynaskeagh approx. 1.3km south of the eastern section

Prior to 2011, there were 16 No. protected and threatened bird species identified in the area. However, as these were not presented in more recent databases it is unknown if these species are still present in the area (NBDC, 2021).

### Archaeology and Cultural Heritage

There are no Protected Structures, Architectural Conservation Areas or sites listed in the National Inventory of Architectural Conservation (NIAH) within the area of the proposed route. Sites relating to architectural heritage located along the proposed route corridor include three unregistered extant building clusters and one unregistered extant single building in the Carrickastuck and Rissan townlands as detailed further within the Atkins (2021) Environmental Report (document reference: 5187353DG0118).

There are no National Monuments, or sites subject to a preservation order within the proposed scheme. Archaeology and cultural heritage sites which will be impacted by the proposed scheme are presented in the Atkins (2021) Environmental Report (document reference: 5187353DG0118).

There are 2 No. Record of Monuments and Places (RMP) sites within the study area of the proposed scheme, with a likely impact to 1 No. of these sites. The proposed scheme is considered to have a 'moderate' impact on 2 No. areas of archaeological potential (AAPs) and a 'slight' impact on 2 No. AAPs.

The proposed scheme will transect and impact three townland boundaries; 1 No. of which is considered by Rubicon Heritage (2019) to be moderately impacted.

*Additionally, the proposed scheme 'encompasses the sites of 15 vernacular buildings or building clusters. These largely represent the sites of preFamine dwellings and farmsteads. There are no indications of surface remains for these sites, however sub-surface remains may still be present. Construction of this route option would require construction groundworks that could impact upon such material. The significance level of this impact is considered to be slight'* (Rubicon Heritage, 2019).

Earthsound Geophysics (2020) completed an Archaeological Geophysical Survey for the proposed scheme; a detailed location plan of which is presented in Atkins (2021) Environmental Report (document reference: 5187353DG0118). The survey concluded that *'the geophysical surveys undertaken for this report have revealed a series of possible archaeological features. The majority of these are likely to represent boundary features or relict agricultural divisions. One oval possible archaeological enclosure was detected to the east of the ring-barrow (LH003-019001). Two anomalies were also identified which match features shown on the historic Ordnance Survey mapping. Other possible archaeological remains include one possible pit and numerous zones of magnetic enhancement. Evidence of geological activity can be seen throughout the survey areas with the detection of multiple geological dykes. These have created both linear anomalies and zones of high magnetic responses, these responses are so strong that they may have masked any archaeological remains within the area. Evidence for cultivation was also detected as well as areas of high magnetic modern disturbance.'*

The Archaeological Geophysical Survey (Earthsound Geophysics, 2020) recommended that a number of test excavations be conducted prior to construction works. Such excavations will be undertaken at an appropriate time in the project programme.

### Landscape and Visual

EBLA (2019) report *'N53 Hackballscross to Rissan Route Selection Report: Landscape and Visual Impact Assessment'* has noted from his field study that the proposed scheme has strongly undulating topography and the general area of the proposed scheme is agricultural in nature with fields of small to large scale which are *'rectangular and irregular shaped and enclosed by hedgerows and tree lines'*. EBLA (2019) has noted that the *'views from within this area towards a line of mature beach trees lining the avenue to Roachdale House and a small hillock with a tree group on top east of Roachdale House. There are a number of settlement clusters at Annaghvacky, Sheelagh, Hackballs Cross'* and other settlement comprise of *'numerous one off housing and farm buildings dotted throughout area'* (EBLA, 2019). EBLA (2019) has noted from their field study that there are *'irregular grid of minor roads crosses the area and the existing N53 is in a straight alignment'* to the proposed scheme. The presence of the rural settlement, isolated dwelling and farms and the existing N53 reduce the tranquility of the area (EBLA, 2019). EBLA (2019) also notes that the *'attractive appearance is partially degraded by views to electricity pylons'*. There are no Tree Preservation Orders (TPO), Trees and

Woodlands of Special Amenity or Areas of Outstanding Natural Beauty or Areas of High Scenic Quality / designated Scenic Routes within the general area of the proposed scheme (EBLA, 2019).

#### Noise

There are 60no. properties within 300m of the proposed route which include 15no. properties between 0m – 50m; 3no. properties between 50m – 100m; 20no. properties between 100m – 200m and 22no. properties between 200m – 300m (AWN, 2020). Of these properties, there are 3no. properties which will require noise mitigation in the form of noise barriers, to maintain noise levels within the day-evening-night limit of 60 dB (Atkins, 2021).

#### Air Quality

The proposed route is located within air quality Zone D which represents rural Ireland and includes all towns with a population of 15,000 or less. The major source of air pollution in the general area of the scheme is predominantly from the existing N53. Air quality is variable and subject to significant spatial variation, with concentrations generally falling significantly with distance from major road sources. The highest levels of air pollution are experienced along the existing N53 with the remainder of the study area generally experiencing rural background concentrations of pollutants (AWN, 2019). An assessment of the impacts of the proposed scheme on the Annaghvacky West Wetland site was undertaken by AWN (2021) which reported that the air quality impact on the Annaghvacky West Wetlands as a result of the proposed scheme alignment is considered positive, localised, long-term and imperceptible.

### **3.2.2. Description of Aspects of the Environment Likely to be Significantly affected by the Proposed Development (Schedule 7A (2)).**

The proposed scheme does not lie within any European sites, nature reserves or existing/ proposed natural heritage areas (detailed in Section 3.2.1 of this report). There are 4 No. European sites within 15km of the site. It is not anticipated that there will be a significant impact on these areas.

The route is located to the south side of the Annaghvacky West Wetland site (site code: WHI\_LH237) between approximately Ch. 700 and Ch. 1200. This wetland consists of transition mire, wet heath, cutover bog and scrub habitats and is noted by Wetland Surveys Ireland as of County importance. Areas of this wetland site have recently been designated by the Department of Heritage Culture and the Gaeltacht in - *The Status of EU Protected Habitats and Species in Ireland Habitat Assessments Report* (2019) as Annex I Habitat -Transition Mire and quaking bog [7140] and as such areas of this wetland habitat are now considered to be of international conservation value.

While the scheme has been carefully designed to ensure that the Annex I wetland habitat is not intercepted by the proposed route, it will run to the south of the Annex I wetland habitat. A hydrogeological review prepared as part of Atkins (2021) Environmental Report (document reference: 5187353DG0118) was undertaken to evaluate any surface water / groundwater linkages with this sensitive wetland site, and to identify any design measures / monitoring works which may need to be implemented. Based on the findings of this review, a site-specific conceptual site model (CSM) has been developed for this particular area of the proposed scheme. Taking account of all available information, including site-specific data (IGSL Ltd., 2021) the Annex I wetland habitat is likely fed by perched water / shallow groundwater rather than surface water sources. Based on groundwater level monitoring (7no. events carried out between February and April 2021 ) static groundwater levels beneath the Annex I wetland habitat, and also beneath the adjacent proposed route (Ch. 700 and Ch. 1200) are within 0.5m of the existing ground level in these areas. Therefore, taking account of the emplacement of fill material along this particular section of the proposed scheme, potential impacts to groundwater quality and existing groundwater levels have been identified. Accordingly potential biodiversity impacts to the Annex I wetland habitat have also been identified, via. perched water / groundwater linkages. Mitigation measures, which are documented fully within Atkins (2021) Environmental Report (document reference: 5187353DG0118), will be fully implemented during the construction and operational phases of the proposed scheme, and will ensure any potential impacts (to groundwater, surface water or biodiversity receptors) are addressed. Therefore no significant environmental impacts to the Annex I wetland habitat via. groundwater or surface water sources are likely to occur as a result of the proposed scheme. Similarly no significant ecological impacts to the Annex I wetland habitats are anticipated as a result of the proposed scheme.

There will be a direct impact on the locally important (low value; as classified by Wetland Survey Ireland (2021)) Annaghvacky (Hackballscross) Wet Woodland habitat and the high local conservation value hedgerow habitat from the proposed route. This is due to the loss of approximately 0.465ha from the Wet Woodland and a loss of approximately 3500m from the hedgerow habitat.

There are no anticipated significant impacts on the Archaeology and Cultural Heritage environment. However, test excavations will be conducted prior to construction works in line TII Code of Conduct (2017).

The other relevant aspects of the environment (including human health) which could potentially be significantly affected by the proposed scheme are the receiving groundwater and surface water environment, air quality environment, the receiving noise and vibration environment, and the receiving traffic environment, during the construction phase. These are outlined in further detail in the following paragraphs.

Potential ecological impacts will be addressed by the implementation of ecological mitigation measures. Ecological mitigation measures are outlined in the Atkins (2021) Environmental Report (document reference: 5187353DG0118) and will be further developed and informed from ecological surveys required to be undertaken prior to construction. As such, significant ecological impacts are not considered likely.

The works will mainly involve the excavation of agricultural land. The maximum anticipated depth of cutting is approximately 6.7m. Based on the results of the Ground Investigation, perched water / shallow groundwater will likely be encountered during construction work.

There are 3no. streams with connectivity to the proposed scheme via the proposed road's surface water drainage; Carrickastuck Stream, Drumboat Stream and Inishkeen Stream. The Carrickastuck Stream is located to the north of the proposed route and flows in a general northern direction before joining with the Castletown River to the north and discharging to Dundalk Bay approximately 7km east (by land) and down hydraulic gradient of the proposed route. To the south of the proposed new alignment, surface water drainage is proposed to outfall via attenuation ponds to the Drumboat and Inishkeen streams which conjoin with the Fane River which outfalls to sea in the area of Blackrock town. >18km downstream of the proposed scheme. The Contractor will be obliged to prepare a project specific Construction Environmental Management Plan (CEMP) prior to commencement of the proposed development, which will include specific mitigation measures to be implemented to fully address any potential surface water impacts and monitoring as necessary. Due to the nature and scale of the project it is anticipated that the construction works, and operation of the proposed development will not have a significant impact on surface water quality.

The 'high' to 'extreme' groundwater vulnerability and potentially shallow groundwater table indicates there is a risk of impact to the groundwater quality. Additionally, groundwater flow is expected to be in an overall southwest to northeast direction, hence the emplacement of fill material between Ch. 700 and Ch. 1200 may have an impact on groundwater quality at the Annex I Annaghvacky West Wetland site located immediately to the north of the proposed route. However mitigation measures will be implemented to ensure no significant environmental impacts via groundwater or surface water sources are likely to occur as a result of the proposed scheme.

Dust may be generated during the construction phase of the proposed development. The Air Quality Index for Louth is 'good' (EPA, 2021). However, management of dust will be in line with relevant best practice measures such as those set out in *'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes'* (NRA, 2011). Due to the nature and scale of the project it is anticipated that the construction works, and operation of the proposed development will not have a significant impact on air quality.

Construction will require the use of machinery and the presence of such machines may result in a temporary increase of noise or vibration. Noise levels shall not exceed the indicative levels of acceptability for construction noise in an urban environment as set out in the NRA guidance *'Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes'* (NRA, 2014). Contractors will be required to comply with the requirements of the European Communities

(Construction Plant and Equipment) (Permissible Noise Levels) Regulations, 1988 as amended in 1990 and 1996 (S.I. No. 320 of 1988, S.I. No. 297 of 1990 and S.I. No. 359 of 1996), and the Safety, Health and Welfare at Work (Control of Noise at Work) Regulations, 2006 (S.I. No. 371 of 2006). Three properties have been identified as potentially impacted by noise during the operation of the scheme. A combination of low noise road surfacing along the entire scheme and noise barriers at these locations will ensure that there is no significant impact from noise during the operational phase.

Due to the nature and scale of the project it is anticipated that the construction works, and operation of the proposed development will not have a significant impact on noise.

The operational use of the proposed route will result in exposure to traffic pollutants such as nitrogen oxides and particulate matter with a diameter of 10µm or less. However, these pollutants will have a lower impact on receptors by diverting traffic away from settlement clusters e.g. Annaghvacky, resulting in a positive air quality impact for these properties, but a negative air quality impact on properties along the new N53 route. The impact from air quality on Annex I Habitat -Transition Mire and quaking bog at Annaghvacky West Wetland has been assessed by AWN (2020) and it has been concluded that the proposed scheme *'will not significantly impact NOX concentrations within the Annaghvacky West Wetlands site. By moving the traffic further from the Wetlands, there is an overall improvement in NOX concentrations'*. Additionally, the road upgrade works will improve traffic flow resulting in less pollutants emitted and an overall beneficial impact on air quality.

#### *The Expected Residues and Emissions and the Production of Waste where relevant (Schedule 7A (3)(a))*

The proposed development may give rise to air, noise and water emissions. However, the development will be designed in order to minimise any potential impacts as a result of these emissions during the operational phase. Standard mitigation measures will be implemented by the Contractor (refer to section 3.3.4) to address potential air and noise emissions during the construction phase. The Contractor will ensure that onsite storm water management during the construction phase is carried out in accordance with relevant best practice measures as set out in Construction Industry Research and Information Association (CIRIA) guidance 'C532 - Control of Water Pollution from Construction Sites' (CIRIA, 2001).

During the construction phase the following waste streams will be generated: soil, construction and demolition (C&D) waste, mixed municipal waste (MMW), recyclables such as plastic wrapping, wooden pallets, paper and/or waste electrical and electronic equipment (WEEE). All waste generated will be disposed of by the Contractor in accordance with all relevant waste management legislation. The Contractor will be responsible for segregating each waste type as per the relevant List of Waste (LoW) (also referred to European Waste Catalogue (EWC)) code. All waste materials must be removed offsite by a suitably permitted waste haulage contractor who holds a current valid waste collection permit issued by the National Waste Collection Permit Office (NWCPO).

It will be the responsibility of the appointed Contractor to prepare a project specific detailed C&D Waste Management Plan to provide a framework for waste management and clearly identify the processes that will be implemented onsite, whilst also seeking to ensure compliance with relevant waste legislation, government policy objectives and project specific waste objectives. The document shall be refined as more information becomes available and there is more certainty in terms of the proposed scheme layout, construction methods, programme and waste streams, in accordance with 'Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Waste Projects' in advance of commencing the works.

#### *The Use of Any Natural Resources in particular soil, land, water and biodiversity (Schedule 7A (3)(b))*

Natural resources in the area are required to facilitate the development of this scheme during construction phases. The scheme will be constructed predominantly on agricultural land, with a portion of the scheme located along the existing N53. Due to the scale and nature of the scheme it is not anticipated that it will have a significant impact on land.

The N53 Hackballscross to Rassan scheme will involve a cut volume of approximately 154,800m<sup>3</sup> and a fill volume of approximately 157,200m<sup>3</sup>. The contractor shall employ soil stabilisation measures to minimise the quantity of remaining material being disposed offsite. All soil requiring disposal offsite will require testing against the EPA *“Determining if Waste is Hazardous or Non-Hazardous”* criteria (EPA, 2019), and the waste acceptance criteria (WAC) for the receiving facilities before being moved offsite to an appropriate, licenced, permitted or registered facility.

All excess soil will be transported directly offsite to a licenced, permitted, or registered waste disposal facility. Suitable soil will be required to be imported as engineering grade fill material during the proposed works.

The use of other natural resources with respect to soils and land will not be required arising from the proposed development.

Small sections of field boundaries will require removal. No EPA identified watercourses will be intercepted by the proposed scheme.

Habitats within the Annaghvackey West Wetland site located to the north of the proposed route could be impacted from proposed road construction between Ch. 700 and Ch. 1200. While the scheme has been carefully designed to ensure that the Annex I wetland habitat is not intercepted by the proposed route, it will run to the south of the Annex I wetland habitat. A hydrogeological review prepared as part of Atkins (2021) Environmental Report (document reference: 5187353DG0118) was undertaken to evaluate any surface water / groundwater linkages with this sensitive wetland site, and to identify any design measures / monitoring works which may need to be implemented. Based on the findings of this review, a site-specific conceptual site model (CSM) has been developed for this particular area of the proposed scheme. Taking account of all available information, including site-specific data (IGSL Ltd., 2021) the Annex I wetland habitat is likely fed by perched water / shallow groundwater rather than surface water sources. Based on groundwater level monitoring (7no. events carried out between February and April 2021 ) static groundwater levels beneath the Annex I wetland habitat, and also beneath the adjacent proposed route (Ch. 700 and Ch. 1200) are within 0.5m of the existing ground level in these areas. Therefore, taking account of the emplacement of fill material along this particular section of the proposed scheme, potential impacts to groundwater quality and existing groundwater levels have been identified. Accordingly potential biodiversity impacts to the Annex I wetland habitat have also been identified, via. perched water / groundwater linkages. Mitigation measures, which are documented fully within Atkins (2021) Environmental Report (document reference: 5187353DG0118), will be fully implemented during the construction and operational phases of the proposed scheme, and will ensure any potential impacts (to groundwater, surface water or biodiversity receptors) are addressed. Therefore no significant environmental impacts to the Annex I wetland habitat via. groundwater or surface water sources are likely to occur as a result of the proposed scheme. Similarly no significant ecological impacts to the Annex I wetland habitats are anticipated as a result of the proposed scheme.

No karst features are recorded beneath the proposed scheme. Due to the nature and scale of the proposed scheme, and taking account of proposed mitigation measures, it is not likely that there will be a significant impact the underlying geological / hydrogeological conditions.

Therefore, based on the environmental setting, and taking account of the nature, scale and location of the proposed scheme other than standard construction materials, the proposed development (during both construction and operational phases) will not have a significant impact on biodiversity, land, soil and surface water.

### 3.2.3. The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7 (Schedule 7A (4))

All relevant criteria set out in Schedule 7 of the Regulations is presented in Section 3.3 (*‘Criteria for Determining Whether Development Listed in Part 2 of Schedule 5 Should be subject to an EIA’*) of this screening report.

During the preparation of Sections 3.2.1 to 3.2.2 (i.e. Schedule 7A (1) to (3)) all pertinent Schedule 7 information has been taken account of as required, with specific details presented in the following section of this report (Section 3.3).

### 3.3. Criteria for Determining Whether Development Listed in Part 2 of Schedule 5 Should be subject to an EIA<sup>5</sup>

#### 3.3.1. Characteristics of proposed development (Schedule 7(1))

*The size and design of the whole of the proposed development (Schedule 7(1)(a))*

Refer to Section 3.2.1 under ‘Schedule 7A (1)(a) - a description of the physical characteristics of the whole proposed development and where relevant of demolition works’.

*Schedule 7 (1)(b) Cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment*

#### Committed Development

A search of Louth County Council Planning records has been undertaken for the applications submitted within the last seven years along the proposed route and in the vicinity of the scheme. The majority of these planning applications are small scale projects comprising renovations and extensions of existing residential properties and are located in Annaghvackey which the proposed route bypasses (Dept. HPLG, 2021).

This search identified five developments which are in close proximity to the proposed scheme. These applications are small scale in nature (i.e. extension works, or property retention works) as presented below:

- **Planning Application Reference No. 17362 (Granted December 31/7/2017);**

The planning application is for retention permission for existing 24m telecommunications structure, carrying associated antennas and dishes, associated equipment including associated equipment cabin, cabinet, located in secure compound, security fencing and access route. Planning was granted on the 31/07/2017 and is located approximately 420m east of the Hackballscross crossroads.

- **Planning Application Reference No. 19978 (Granted June 2020);**

The planning application is for retention for demolition of existing cottage and retention and permission for completion of cottage, waste water treatment system, new site entrance & all associated site works Planning was granted on the 24/6/2020. This development is located approximately 150m southwest of the western boundary of the proposed scheme.

- **Planning Application Reference No. 16466 (Granted November 2016);**

The planning application is for retention permission and permission for development consisting of alterations to an existing dwelling previously granted planning permission under planning Ref. No. 96208; retention of a domestic garage; retention of front boundary wall and permission to upgrade an existing septic tank and percolation area. Permission was granted on the 17/10/2016. This development is located along the proposed route approximately 290m southeast of Annaghvackey.

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<sup>5</sup> Pursuant to Schedule 7 of the Planning and Development Regulations as amended 2001-2021

- **Planning Application Reference No. 18580 (Granted June 2019);**

The planning application is for the construction of two storey detached dwelling house, single storey detached garage, waste water treatment system, new entrance onto public roadway and associated site works. Permission was granted on the 10/6/2019. This development is located ca. 120m south of the proposed scheme.

- **Planning Application Reference No. 1717 (Granted June 2017);**

The planning application is for a development consisting of dumping and spreading of soil and stone waste for the benefit of agricultural activity and all associated site works. Further Information was submitted 04/05/2017 and provided for the creation of a new access route. Permission was granted on the 26/6/2017. This development is located approximately 310m east-southeast of Annaghvacky and approximately 150m north of the proposed scheme.

All of the developments mentioned above are relatively minor projects and due to the nature, size and scale of these projects it is not likely that they will act in combination with the proposed scheme to cause significant impacts.

The N53 roadway has been subject to previous upgrades. The N53 Road Improvement Scheme – Barronstown to Newtownbalregan scheme has been completed and this 3.5km section of roadway located east of the proposed N53 Hackballscross to Rassan scheme is fully operational. No likely significant impacts are anticipated from the construction or operation of the proposed road scheme. As such it is considered that the currently operational upgraded N53 roadway between Barronstown and Newtownbalregan will not act in combination with the proposed scheme to give rise to cumulative impacts.

*Schedule 7 (1)(c) The nature of any associated demolition works*

Refer to Section 3.2.1 under ‘*Schedule 7A (1)(a) - a description of the physical characteristics of the whole proposed development and where relevant of demolition works*’.

*Schedule 7 (1)(d) The use of natural resources, in particular land, soil, water and biodiversity*

Refer to Section 3.2.2 under Schedule 7A (3)(b) – *the use of natural resources, in particular soil, land, water and biodiversity. No significant impact on land, soil or surface water is anticipated from the proposed scheme.*

A direct impact is expected on the locally important (low value; as classified by Wetland Survey Ireland (2021)) Annaghvacky (Hackballscross) Wet Woodland habitat and also hedgerow habitat, however the impact on local biodiversity is not anticipated to be significant.

While the scheme has been carefully designed to ensure that the Annex I wetland habitat is not intercepted by the proposed route, it will run to the south of the Annex I wetland habitat. A hydrogeological review prepared as part of Atkins (2021) Environmental Report (document reference: 5187353DG0118) was undertaken to evaluate any surface water / groundwater linkages with this sensitive wetland site, and to identify any design measures / monitoring works which may need to be implemented. Based on the findings of this review, a site-specific conceptual site model (CSM) has been developed for this particular area of the proposed scheme. Taking account of all available information, including site-specific data (IGSL Ltd., 2021) the Annex I wetland habitat is likely fed by perched water / shallow groundwater rather than surface water sources. Based on groundwater level monitoring (7no. events carried out between February and April 2021 ) static groundwater levels beneath the Annex I wetland habitat, and also beneath the adjacent proposed route (Ch. 700 and Ch. 1200) are within 0.5m of the existing ground level in these areas. Therefore, taking account of the emplacement of fill material along this particular section of the proposed scheme, potential impacts to groundwater quality and existing groundwater levels have been identified. Accordingly potential biodiversity impacts to the Annex I wetland habitat have also been identified, via. perched water / groundwater linkages. Mitigation measures, which are documented fully within Atkins (2021)

Environmental Report (document reference: 5187353DG0118), will be fully implemented during the construction and operational phases of the proposed scheme, and will ensure any potential impacts (to groundwater, surface water or biodiversity receptors) are addressed. Therefore no significant environmental impacts to the Annex I wetland habitat via groundwater or surface water sources are likely to occur as a result of the proposed scheme. Similarly no significant ecological impacts to the Annex I wetland habitats are anticipated as a result of the proposed scheme.

**Schedule 7 (1)(e) The production of waste**

Refer to Section 3.2.2 under Schedule 7A (3)(a) *The Expected residues and emissions and the production of waste, where relevant. All waste will be removed to an appropriately licenced/ permitted waste disposal/ recovery facility.*

**Schedule 7 (1)(f) Pollution and nuisances**

Refer to Section 3.2.2 under ‘Schedule 7A (2) – a description of aspects of the environment likely to be significantly affected by the proposed development’. The Contractor will be obliged to prepare a project specific Construction Environmental Management Plan (CEMP) prior to commencement of the proposed development, which will include specific mitigation measures to be implemented to fully address any potential surface water impacts and monitoring as necessary. No significant impact from pollution or nuisance is anticipated from the proposed scheme.

**Schedule 7 (1)(g) The risk of major accidents, and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge**

There are no Seveso (COMAH) establishments within 15km of the proposed scheme. Due to the nature and scale of the works and control procedures to be implemented it is considered therefore, that the likely impact from accidents and /or disasters is not significant.

**Schedule 7 (1)(h) The risks to human health (for example, due to water contamination or air pollution)**

Refer to Section 3.2.2 under ‘Schedule 7A (2) – a description of the aspects of the environment likely to be significantly affected by the proposed development’.

Dust may be generated during the construction phase. However, management of dust will be in line with best practice such as that set out in ‘Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes’ (NRA, 2011).

Noise levels, during the construction phase, shall not exceed the indicative levels of acceptability for construction noise in an urban environment as set out in the NRA guidance ‘Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes’ (NRA, 2014). Contractors will be required to comply with the requirements of the European Communities (Noise Emission by Equipment For Use Outdoors) Regulations, 2001, as amended in 2006 (S.I. No. 632/2001), and the Safety, Health and Welfare at Work (General Application) Regulations, 2007 (S.I. No 299 of 2007) Mitigation measures such as low noise road surface and noise barriers will reduce the potential impact of noise on adjacent houses. No significant impact on human health due to noise pollution is anticipated to occur during the operational phase of the project.

There are no reported public drinking water supplies within a 2km radius of the scheme (GSI, 2021). It is assumed that all residential properties within the vicinity of the proposed scheme are likely supplied by private wells for drinking water purposes. A pre-construction well survey will be carried out at all properties within 150m of the proposed scheme. Any wells which may potentially be at risk from resource or quality impacts during the construction or operational phases will be identified and appropriate measures implemented in order to protect any vulnerable groundwater supplies within the vicinity.

Given the location, nature and scale of the proposed development, the overall risk of adverse impacts to human health are low.

### 3.3.2. Location of proposed development - The environmental sensitivity of geographical areas likely to be affected by the proposed development (Schedule 7 (2))

#### *Schedule 7 (2)(a) - the existing and approved land use*

As detailed previously, the scheme will be located in a rural area on agricultural land and partially along the existing N53 road.

#### *Schedule 7 (2)(b) - The relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground*

Refer to Section 3.2.2 under *Schedule 7A (3)(b) – the use of natural resources, in particular soil, land, water and biodiversity*. The proposed development is not likely to have a significant environmental effect with regard to the use of soil, land and surface water or on biodiversity.

#### *Schedule 7(2)(c) - The absorption capacity of the natural environment, paying particular attention to the following areas*

##### (i) Wetlands, riparian areas, river mouths

The proposed scheme is located primarily along agricultural land and the existing N53 road. The proposed development is not likely to have a significant effect on biodiversity.

##### (ii) Coastal zones and the marine environment.

The proposed development is located approximately 11.1km northwest of the Irish Sea.

##### (iii) Mountain and forest areas.

There are no mountain or forested areas within 2km of the proposed development.

##### (iv) Nature reserves and parks

There are no nature reserves or parks within 2km of the scheme.

##### (v) Areas classified or protected under legislation, including European areas designated pursuant to the Habitats Directive and the Birds Directive

The proposed scheme does not lie within any European sites, nature reserves or existing or proposed natural heritage areas. There are 4 No. European sites within 15km of the site. It is not anticipated that there will be a significant impact on these areas.

The risk from the hydrological link between the proposed scheme and the Dundalk Bay SAC/SPA and pNHA is negated due to the scale and nature of the proposed scheme and fundamentally due to the geographical distance from the scheme to the designated sites. It is considered that the proposed scheme will not give rise to significant effects on Dundalk Bay SAC and Dundalk Bay SPA. No significant environmental impacts to the Annex I wetland habitat via. perched water / groundwater or surface water sources are likely to occur as a result of the proposed scheme. Accordingly no significant biodiversity impacts are likely.

[\(vi\) Areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure.](#)

The scheme lies within the Louth groundwater body (GWB). The groundwater status for this GWB is 'Good' for the 2013 to 2018 and is 'Not at Risk' of failing to meet the WFD objectives (EPA, 2021). Due to the nature and scale of the works the proposed scheme is not anticipated to significantly impact groundwater quality.

The Water Framework Directive (WFD) has assigned a 'Good' water quality status to the Carrickastuck Stream, Inishkeen Stream, Castletown River and Fane River with their risk of failing to meet the WFD objectives under 'review' (EPA, 2021). The WFD has assigned a 'Moderate' water quality status to the Drumboat Stream which is 'At Risk' of failing to meet the WD objectives. Due to the scale and nature of the works the proposed development is not anticipated to have a significant impact on surface water quality.

Air quality in the area is reported as 'Good' (EPA, 2021). Due to the nature and scale of the project it is anticipated that there will be no significant impact on air quality. Dust may be generated during the construction phase which has the potential to impact on human health. However, management of dust will be in line with best practice such as that set out in 'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes' (NRA, 2011). AWN Consulting conducted an air assessment on the proposed scheme during the route selection phase of the project and is presented in Appendix F of Atkins's Option Selection Report (Atkins, 2020). The assessment is based on identifying the number of sensitive receptor locations within 50m of the edge of the proposed route that would experience a change in traffic for the scheme. The proposed route NOx exposure index is 17637, the PM10 exposure index is 450, resulting in an overall decrease in exposure index in comparison to the existing N53 route. The AWN report states the following;

*'Pollution from traffic sources increases at low traffic speeds and during congested traffic conditions. An improvement in the road infrastructure is likely to improve traffic flow, relative to the current alignment. In addition, the number of receptors directly impacted by the proposed routes will be less than the current route.'*

The impact from air quality on Annex I Habitat -Transition Mire and quaking bog at Annaghvacky West Wetland has been assessed and it was determined that the proposed scheme would have a positive impact on this Annex I Habitat.

It is anticipated that during construction there may be an increase in noise volumes. The Contractor will be required to prepare a CEMP and implement standard construction control measures to minimise noise levels associated with construction works. Noise levels shall not exceed the indicative levels of acceptability for construction noise in a rural environment as set out in the TII guidance 'Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes' (TII, 2014). A Noise Impact Assessment undertaken by AWN (2021) determined that 3 No. residential properties would require noise mitigation measures for the operational stage. Low noise road surfacing will be used throughout the entire scheme, with noise barriers being placed within vicinity of these 3 No. properties. Therefore, significant noise impacts are not anticipated.

[\(vii\) Densely populated areas](#)

The proposed development will be constructed in County Louth with a population of 128,884 based on the 2016 census. The development will be constructed through agricultural land and partially along the existing N53. There are some residential properties adjacent to the proposed scheme. The proposed scheme is located partly within the electoral division of Barronstown and the electoral division of Creggan Upper. The combined population of these areas in 2016 was reported as 1,593 (CSO, 2016).

Due to the nature and scale of the project is anticipated that there will be no significant impact on densely populated areas.

(viii) Landscapes and sites of historical, cultural or archaeological significance

There are no National Monuments, or sites subject to a preservation order within the proposed scheme. Archaeology and cultural heritage sites which will be impacted by the proposed scheme are presented in the Atkins (2021) Environmental Report (document reference: 5187353DG0118).

There are 2 No. Record of Monuments and Places (RMP) sites within the study area of the proposed scheme. The proposed scheme is considered to have an impact on 4 No. AAPs.

The proposed scheme will transect and impact three townland boundaries.

The proposed scheme encompasses the sites of 15 vernacular buildings or building clusters which represent the sites of pre-famine dwellings and farmsteads. Construction of this route option would require construction groundworks that could impact on sub-surface material associated with these site. The significance level of this impact is considered to be slight (Rubicon Heritage, 2019).

A survey completed by Earthsound Geophysics (2020) revealed a series of possible archaeological features, the majority of which are likely to represent boundary features or relict agricultural divisions. One oval possible archaeological enclosure and two anomalies were also identified which match features shown on the historic Ordnance Survey mapping. *'Other possible archaeological remains include one possible pit and numerous zones of magnetic enhancement. Evidence of geological activity can be seen throughout the survey areas with the detection of multiple geological dykes. These have created both linear anomalies and zones of high magnetic responses, these responses are so strong that they may have masked any archaeological remains within the area. Evidence for cultivation was also detected as well as areas of high magnetic modern disturbance (Earthsound Geophysics, 2020).*

The Archaeological Geophysical Survey (Earthsound Geophysics, 2020) recommended that a number of test excavations be conducted prior to construction works. Such excavations will be undertaken at an appropriate time in the project programme.

No architectural features within vicinity of the proposed scheme have been identified which could be impacted by the proposed scheme.

### 3.3.3. Types and Characteristics of Potential Impacts (Schedule 7(3))

The likely significant effects on the environment of the proposed development have been evaluated taking into account the following specific criteria.

*Schedule 7(3)(a) - The magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected)*

The spatial extent of potential impacts is limited to the footprint of the proposed scheme (refer to Figure 1-1). Based on the location, current site setting, and the nature of the proposed project, any potential impacts (during the construction and operational phases) are not likely to be significant in magnitude should standard mitigation measures be enforced.

*Schedule 7(3)(b) - The nature of the impact*

There will be no significant impact on the receiving environment arising from the proposed development (during the construction or operational phases) should standard mitigation measures be implemented.

*Schedule 7(3)(c) - The transboundary nature of the impact*

There is no potential for transboundary impacts as a result of the proposed development (during the construction or operational phases).

*Schedule 7(3)(d) - The intensity and complexity of the impact*

There will be no significant impact on the receiving environment arising from the proposed development (during the construction or operational phases) should standard mitigation measures be implemented.

*Schedule 7(3)(e) - The probability of the impact*

The probability of such impacts on the receiving environment is low given the following considerations;

- The Contractor will be obliged to implement standard best practice procedures prior to commencement of the proposed scheme including all environmental control measures for the onsite management of any pollution / nuisance issues which could arise during the construction phase.
- The Contractor will be obliged to prepare a project specific Construction Environmental Management Plan (CEMP) prior to commencement of the proposed development which will clearly set out all environmental control measures for the onsite management of any pollution / nuisance issues which could arise during the construction phase.

*Schedule 7(3)(f) - The expected onset, duration, frequency and reversibility of the impact*

The probability of impacts on the receiving environment is expected to be low, as previously outlined provided standard mitigation measures are enforced. Therefore, there shall be no requirement for the reversibility of the impacts caused by this development (during the construction or operational phases).

*Schedule 7(3)(g) - The cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment*

As previously detailed no significant cumulative impacts associated with the project (during the construction or operational phases) have been identified, arising from other existing and/or approved projects. Refer to Section 3.3 under '*Schedule 7(1)(b) Cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment.*

*Schedule 7(3)(h) - The possibility of effectively reducing the impact*

A project specific CEMP will be prepared by the appointed Contractor prior to the works commencing which will clearly set out all environmental control measures for the onsite management of any pollution / nuisance issues which could arise during the construction phase.

### **3.4. Step 3 – Potential for Significant Effects on the Receiving Environment**

All relevant information as required under Schedule 7A has been provided on behalf of Louth County Council and is presented within Section 3.2 of this screening report. The potential for this project to pose a significant impact to the receiving environment has also been evaluated in accordance with criteria listed in the Planning & Development Regulations, 2001 as amended (Schedule 7, Schedule

7A), as presented within Section 3.2 of this screening report, and Section 50(1)(b) of the Roads Act (1993-2021).

Based on the information provided within Section 3.1 and Section 3.2 of this report, it is considered that due to the size, nature, and characteristics of the proposed development, no significant effects on the receiving environment are expected provided standard mitigation measures are implemented; hence the preparation of a sub-threshold EIAR is not required.

### 3.5. Screening Conclusion

This EIA screening assessment has been carried out in accordance with the Planning and Development Regulations as amended 2001-2021 (which give effect to the provisions of EU Directive 2014/52/EU), and the Roads Acts (1993-2021). The report assessed the impact of this scheme in conjunction with committed development in the surrounding area.

Based on all available information, and taking account of the scale, nature and location of the proposed scheme it is our opinion that the preparation of an EIAR is not a mandatory requirement (under Section 50 of the Roads Acts (1993–2021)). The project is deemed a sub-threshold development; hence the potential for significant environmental effects arising as a result of the proposed scheme has been evaluated, in accordance with the requirements of Schedule 7A and Schedule 7 of the Planning and Development Acts 2001-2021.

Key findings are summarised as follows;

- Due to the limited nature of the works it is considered that there will be no significant cumulative impacts with other developments in the general area should standard mitigation measures be implemented.
- No significant environmental / biodiversity impacts to the Annex I wetland habitat via. perched water / groundwater or surface water sources are likely to occur as a result of the proposed scheme. Limited noise, vibration and dust emissions may be generated during construction and operational phase; however, this is anticipated to be minimal in effect and will cause no significant impact.
- Soil and waste will be generated during construction; however, this is not anticipated to have significant impact.
- There may be some potential impacts on surface water; however due to the nature and scale of the project and standard control procedures during construction this will not be significant.
- Earthsound Geophysics (2020) completed an Archaeological Geophysical Survey for the proposed scheme. The survey concluded that *'the geophysical surveys undertaken for this report have revealed a series of possible archaeological features. The majority of these are likely to represent boundary features or relict agricultural divisions. One oval possible archaeological enclosure was detected to the east of the ring-barrow (LH003-019001). Two anomalies were also identified which match features shown on the historic Ordnance Survey mapping. Other possible archaeological remains include one possible pit and numerous zones of magnetic enhancement. Evidence of geological activity can be seen throughout the survey areas with the detection of multiple geological dykes. These have created both linear anomalies and zones of high magnetic responses, these responses are so strong that they may have masked any archaeological remains within the area. Evidence for cultivation was also detected as well as areas of high magnetic modern disturbance.'* The Archaeological Geophysical Survey (Earthsound Geophysics, 2020) recommended that a number of test excavations be conducted prior to construction works. Such excavations will be undertaken at an appropriate time in the project programme.

In summary, no significant adverse impacts to the receiving environment are likely to arise as a result of the proposed development, provided standard mitigation measures are implemented, and subject to the findings of the archaeological test excavations, which will be conducted prior to the commencement of construction works in line with TII Code of Practice (2017).

Accordingly, we consider that the preparation of an EIAR is not required for the scheme.

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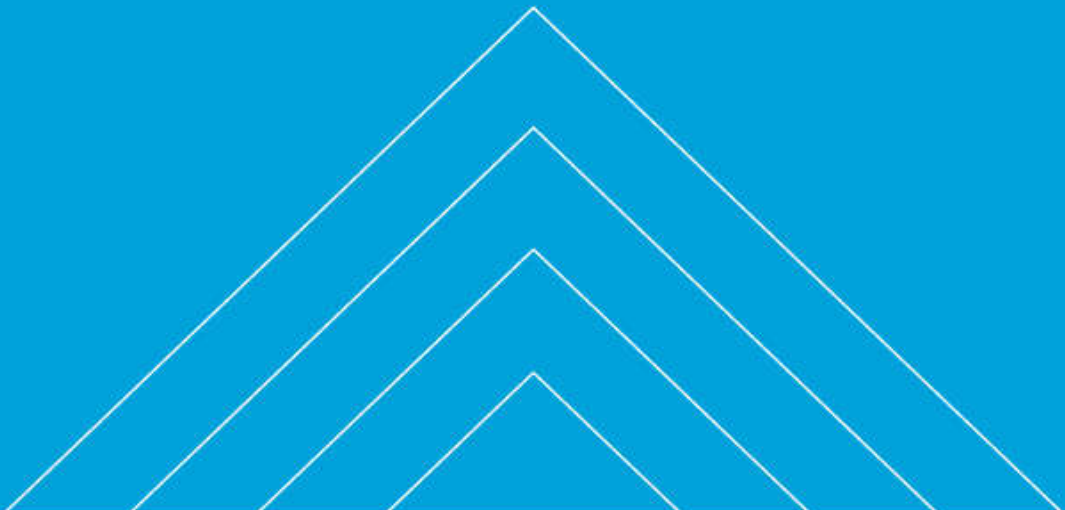
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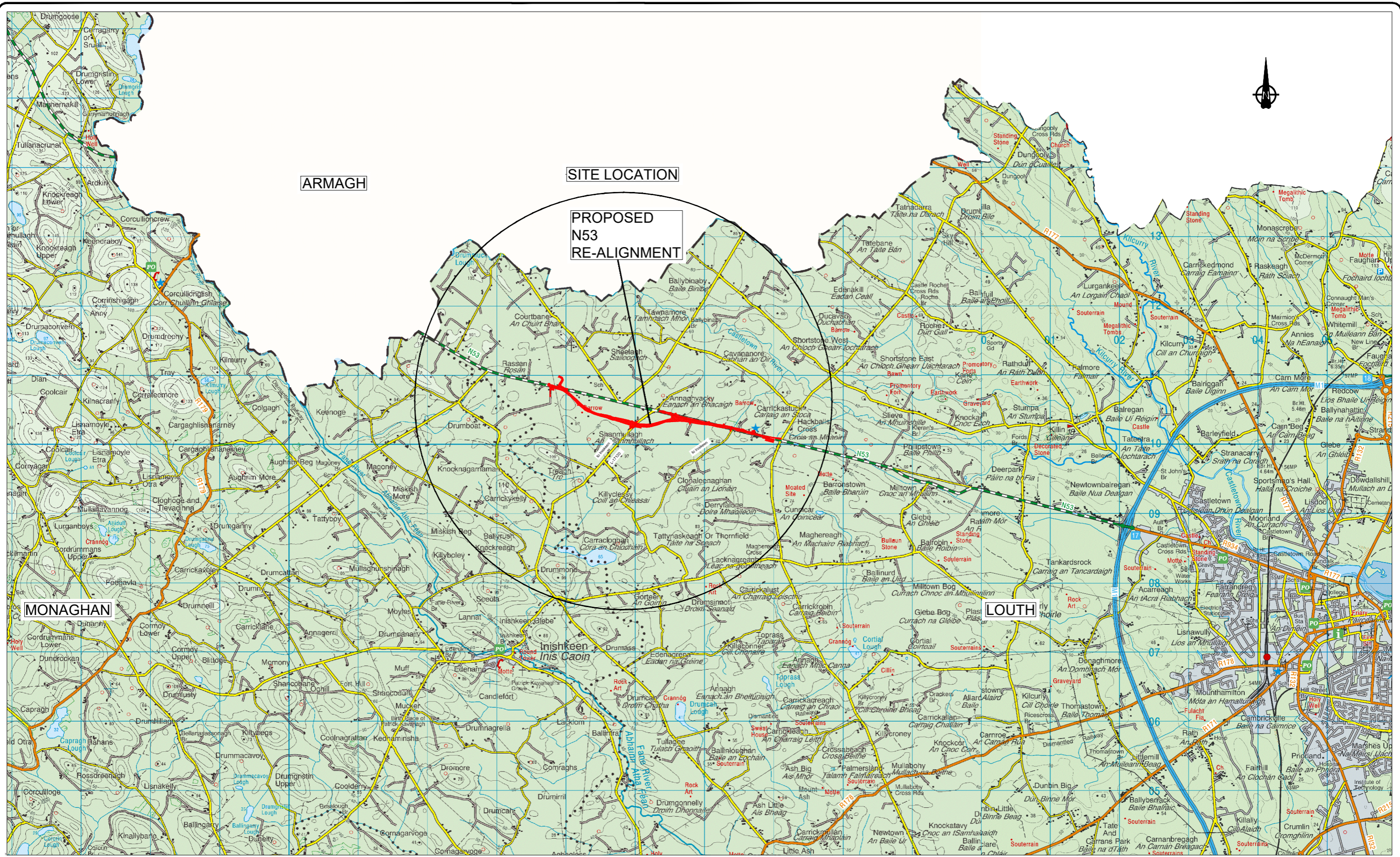
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# Appendices



# Appendix A. Preliminary Drawings

# Design



**MONAGHAN**

**ARMAGH**

**SITE LOCATION**

**PROPOSED  
N53  
RE-ALIGNMENT**

**LOUTH**



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Rev.	Description	Date	By	Chk'd	App'd
	PRELIMINARY				
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	TENDER				
	CONSTRUCTION				

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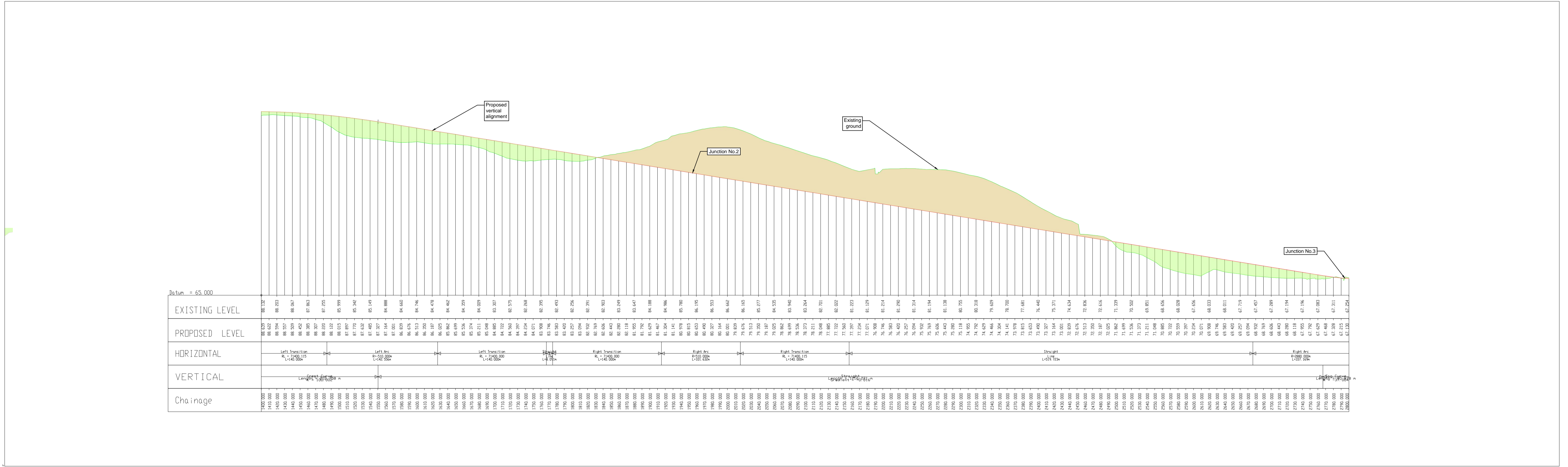
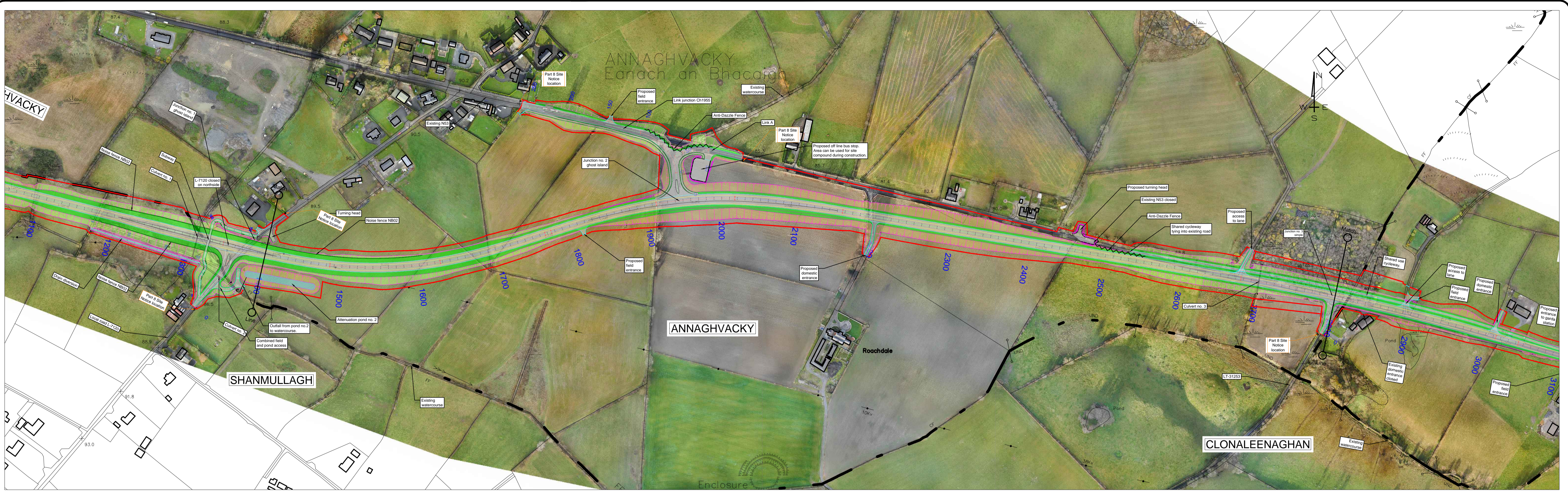
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Checked:	KL	Date:	19 <sup>th</sup> May 2021
Approved:	AC	Printed:	May 20, 2021 - 3:56pm
Status:		Information	
Drawing No.:		WH5302-04-005.1	

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**Project**  
N53 Hackballcross to Rassan

**Title**  
Mainline location map - horizontal and vertical ch1400 to ch2800

(Sheet 02 of 03)

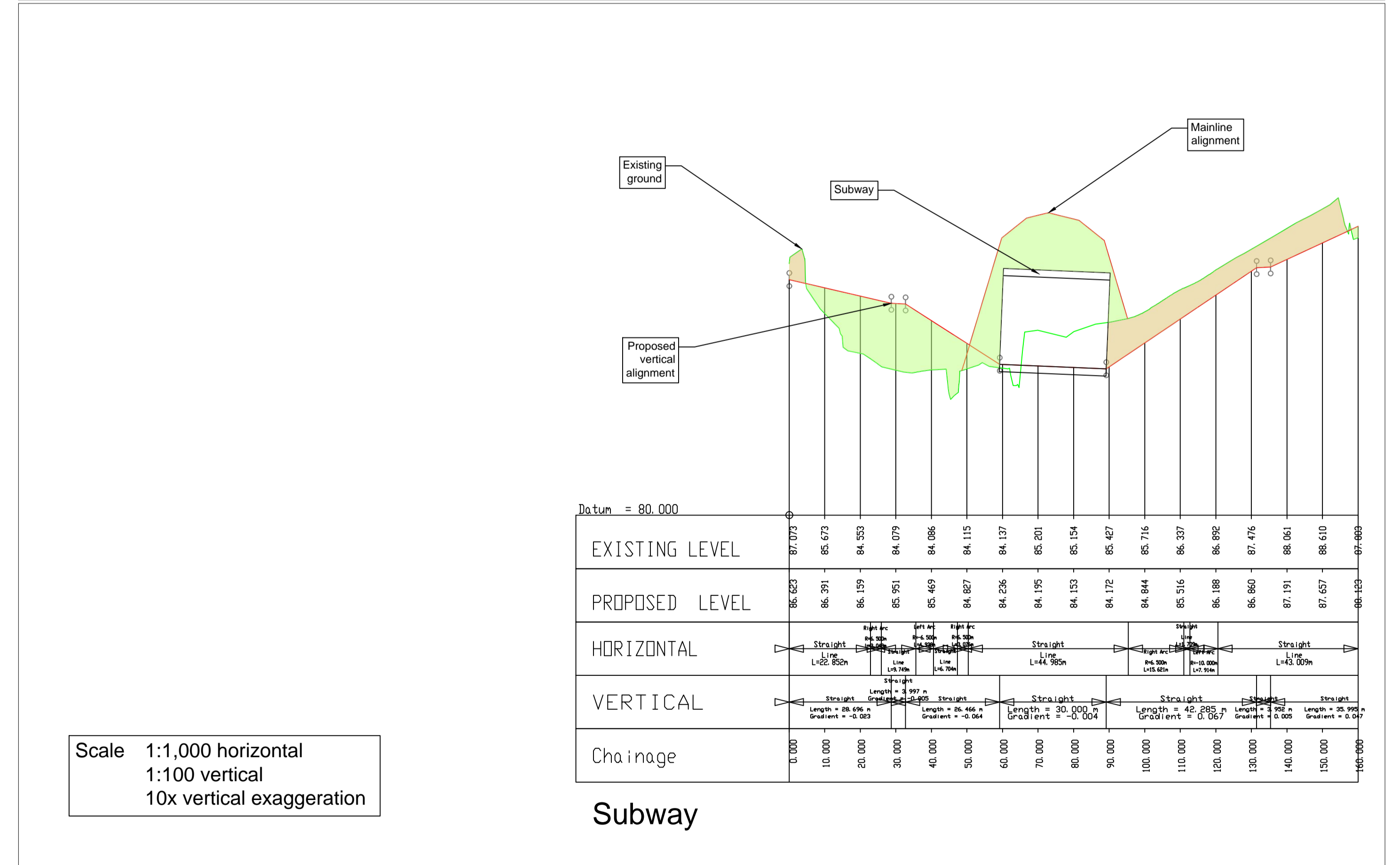
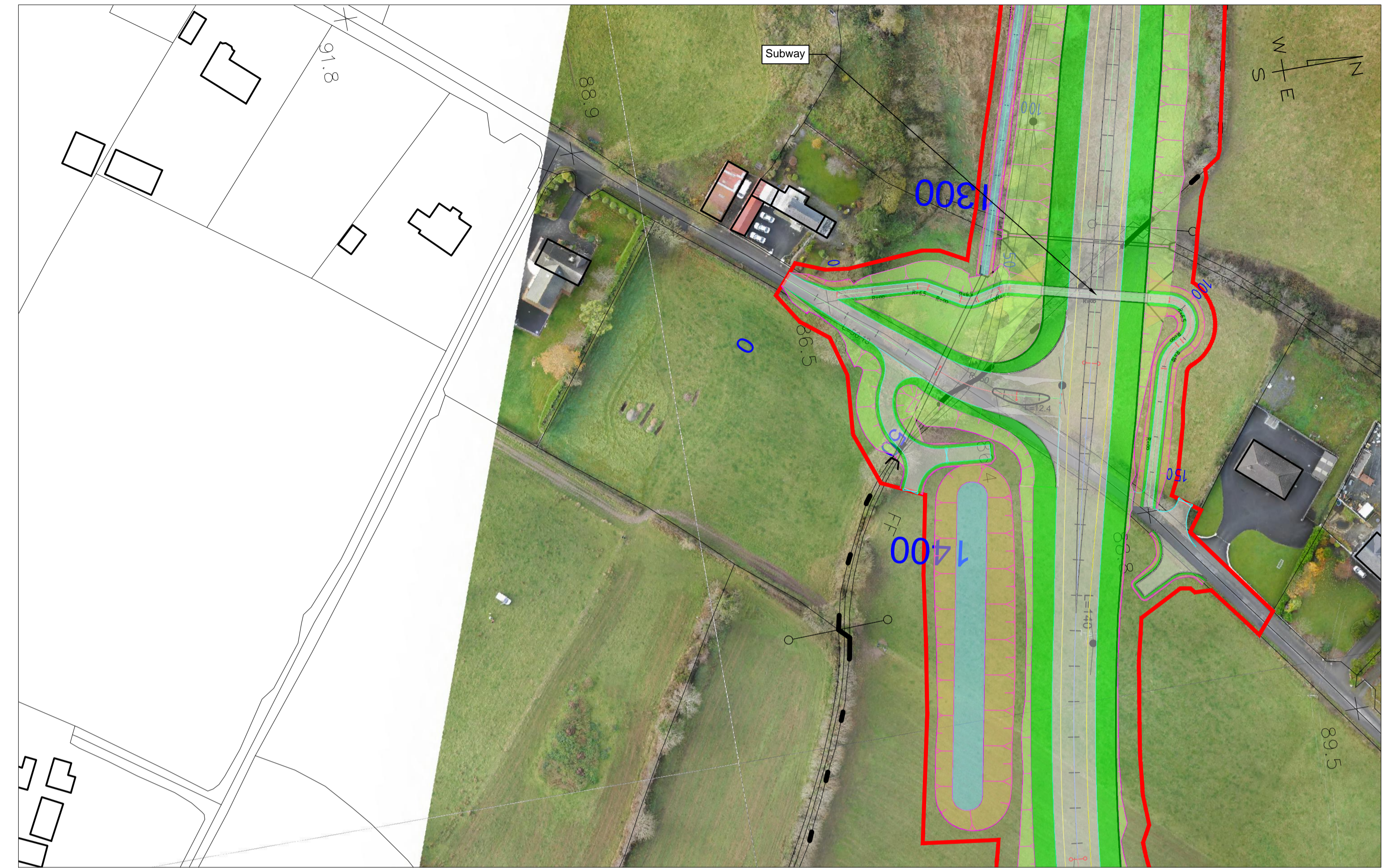
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Checked: TB	Date: 21 <sup>st</sup> May 2021	Drawing No: WH5302-04-005.3
Approved: AC	Printed: May 24, 2021 - 9:36am	Rev.







Typical Subway (Sample Photo)



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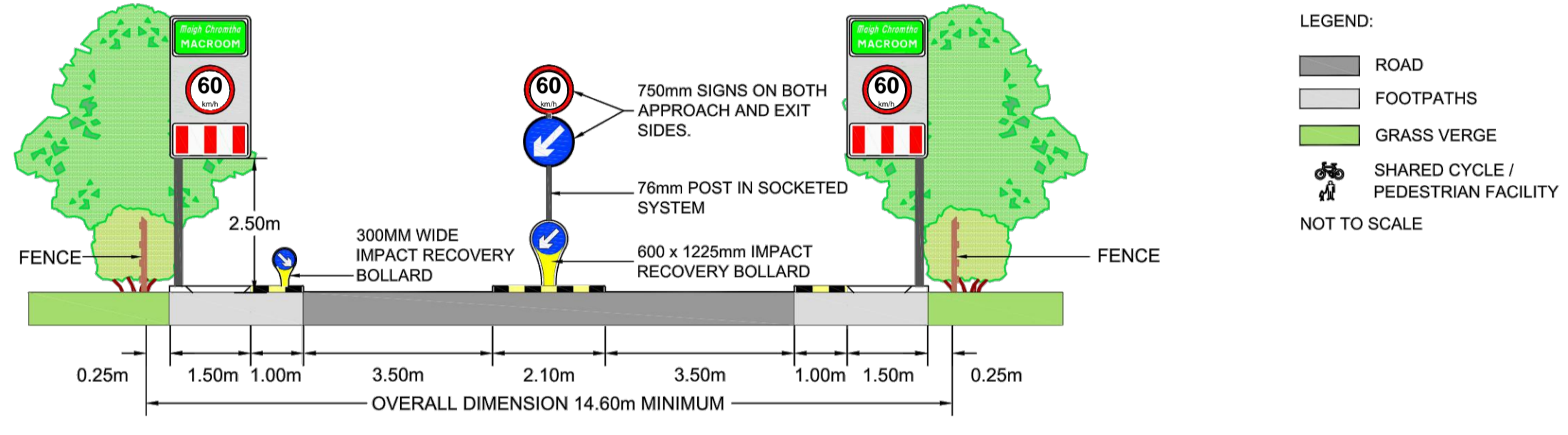
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Drawing Location: S:\WH5302 Hackballscross to Rassan\Drawings\04 Statutory Procedures\03 Part VIII\WH5302-04-005.dwg

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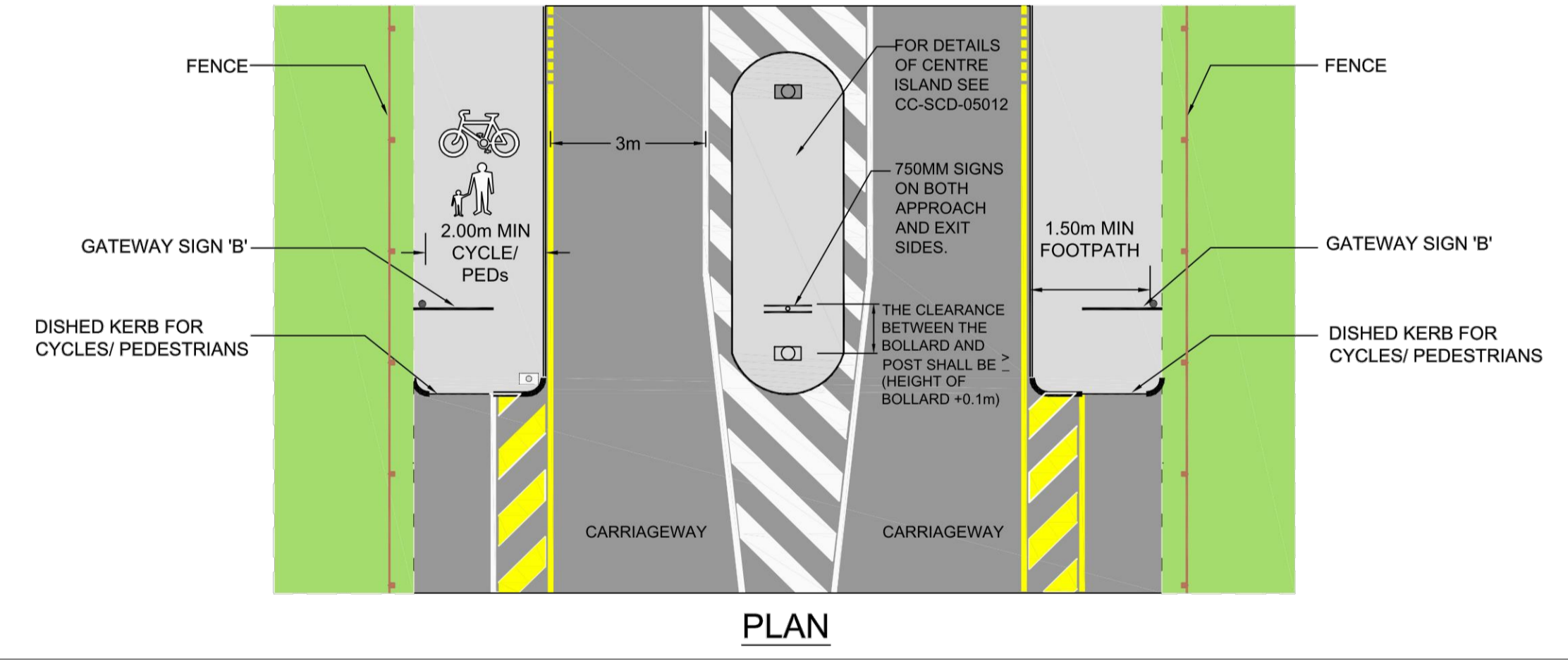
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2. ALL LIGHTING SHALL BE IN ACCORDANCE WITH THE TII LIGHTING STANDARD DN-LHT-03038.
3. SEE CC-SCD-05039 AND CC-SCD-05040 FOR DETAILS OF SIGNS FOR GATEWAY TYPE B.
4. SEE CC-SCD-05041 FOR FURTHER DETAILS OF POSITIONING OF RURAL FRINGE SIGNS.



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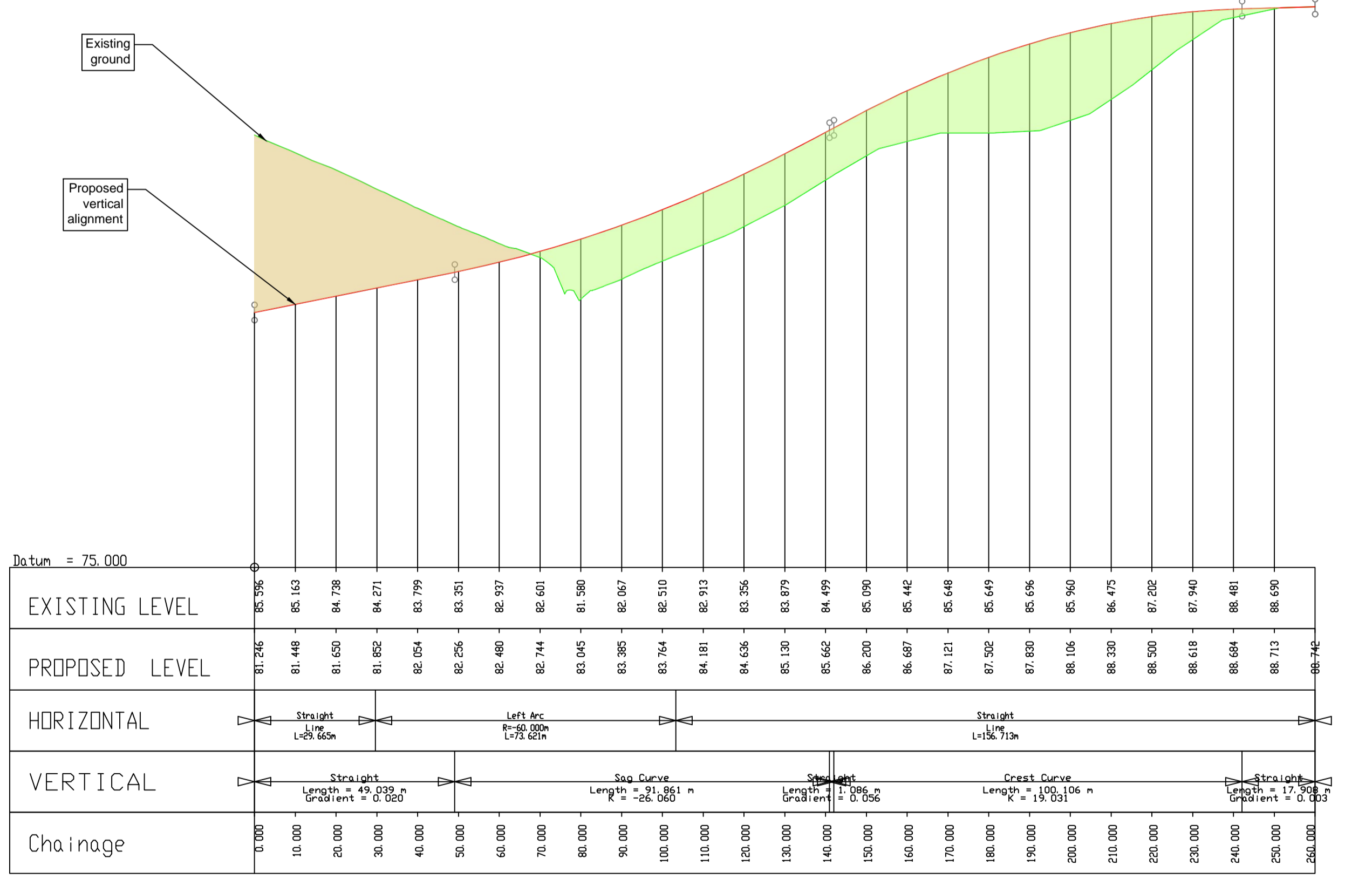
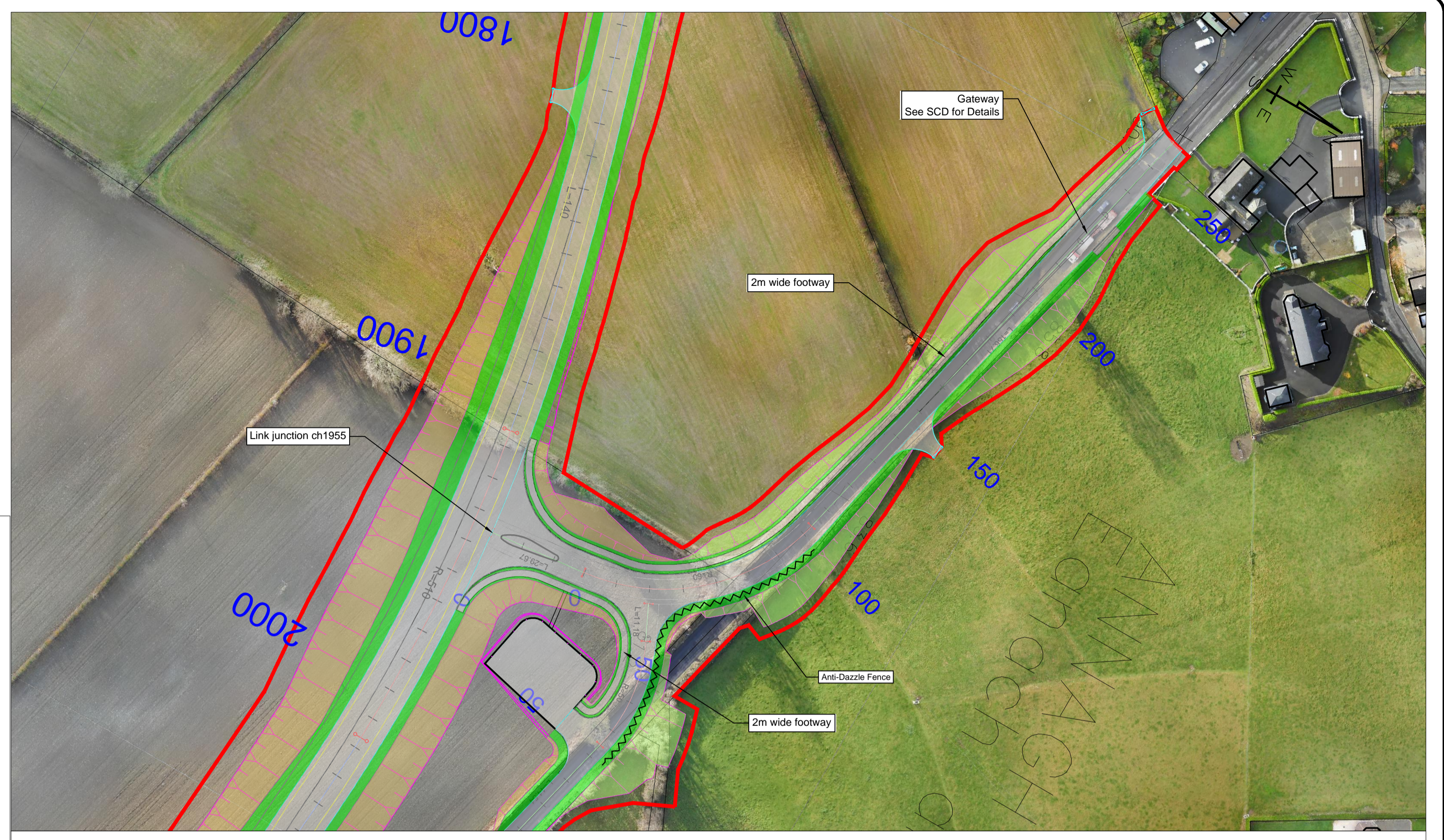
- ROAD
- FOOTPATHS
- GRASS VERGE
- SHARED CYCLE / PEDESTRIAN FACILITY

NOT TO SCALE



**Gateway Type B Design (CC-SCD-05005)**

Scale 1:1,000 horizontal  
1:100 vertical  
10x vertical exaggeration



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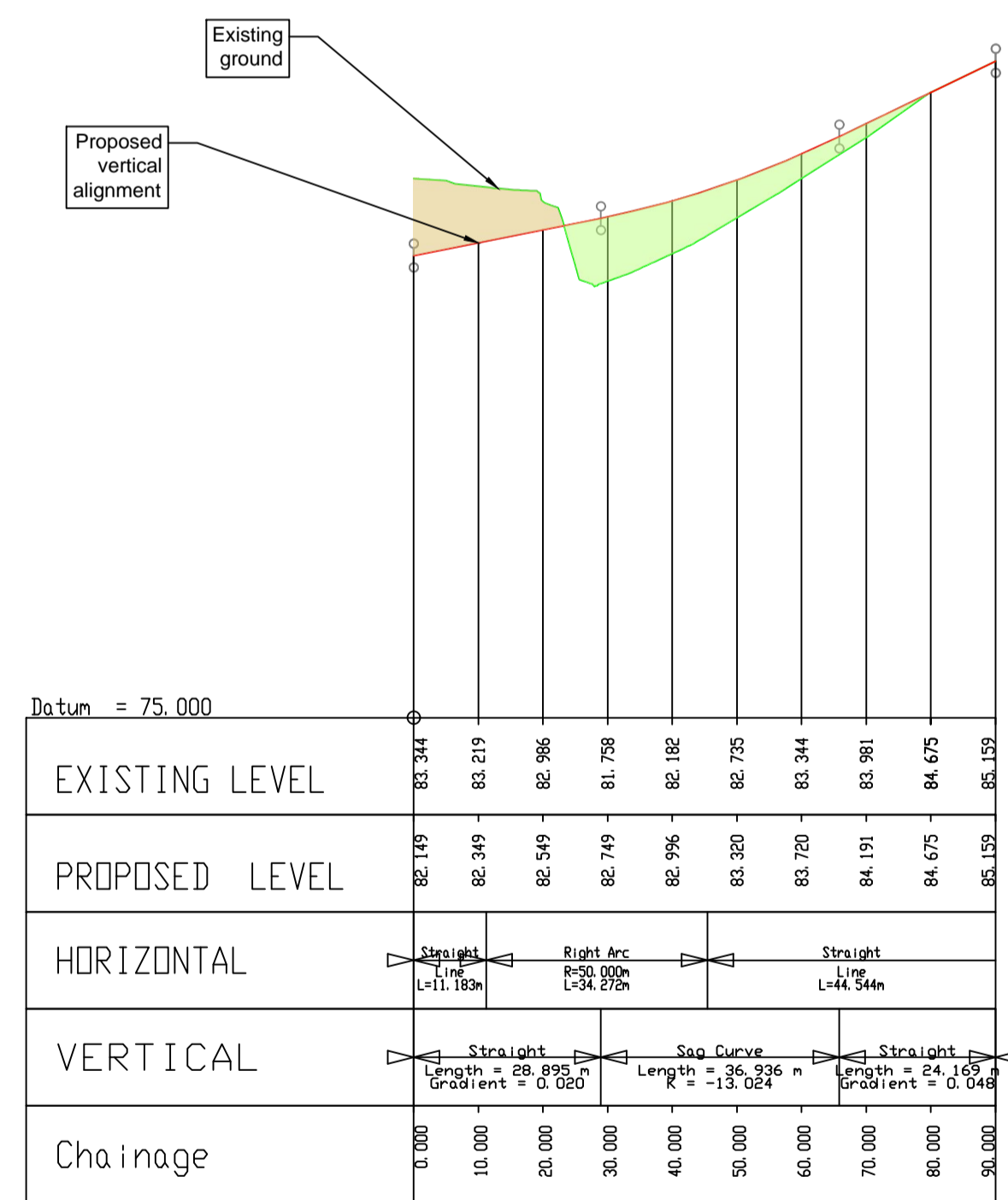
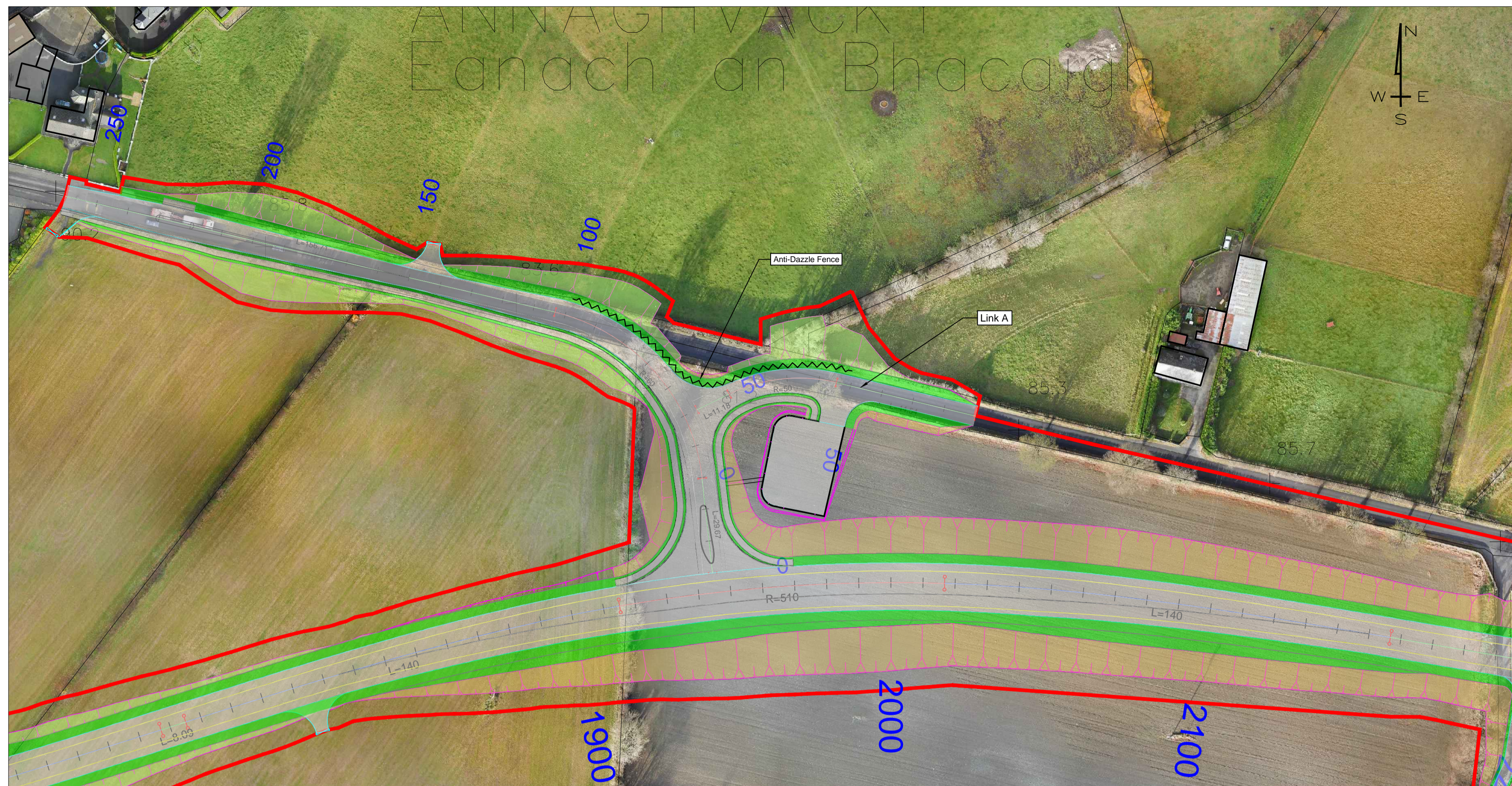
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Project: **N53 Hackballcross to Rasan**

Title: **Sideroad location map - horizontal and vertical link ch1955 & SCD**

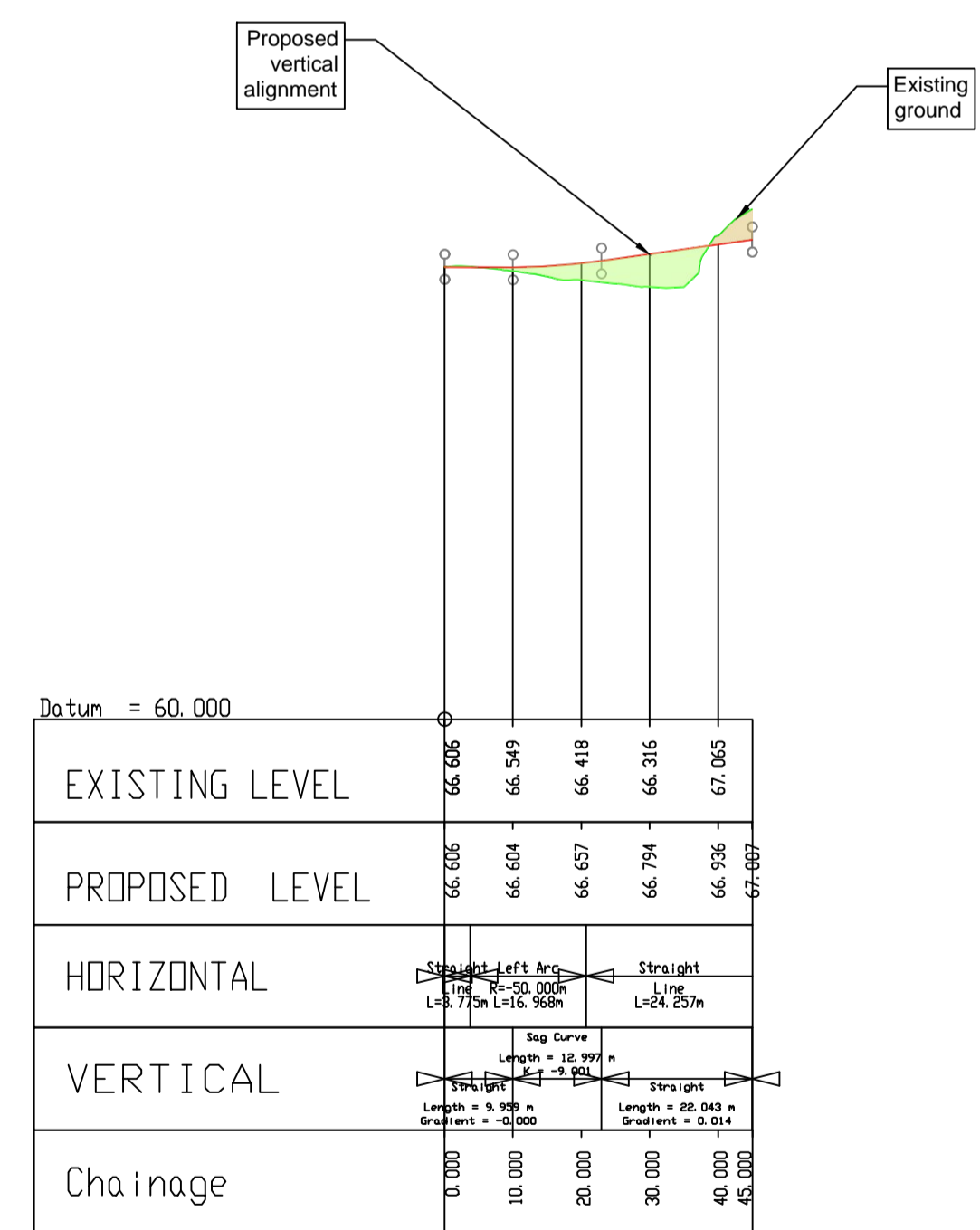
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Checked: TB	Date: 21 <sup>st</sup> May 2021	Drawing No: WH5302-04-005.7
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Link A

Scale 1:1,000 horizontal  
1:100 vertical  
10x vertical exaggeration



LT-31253

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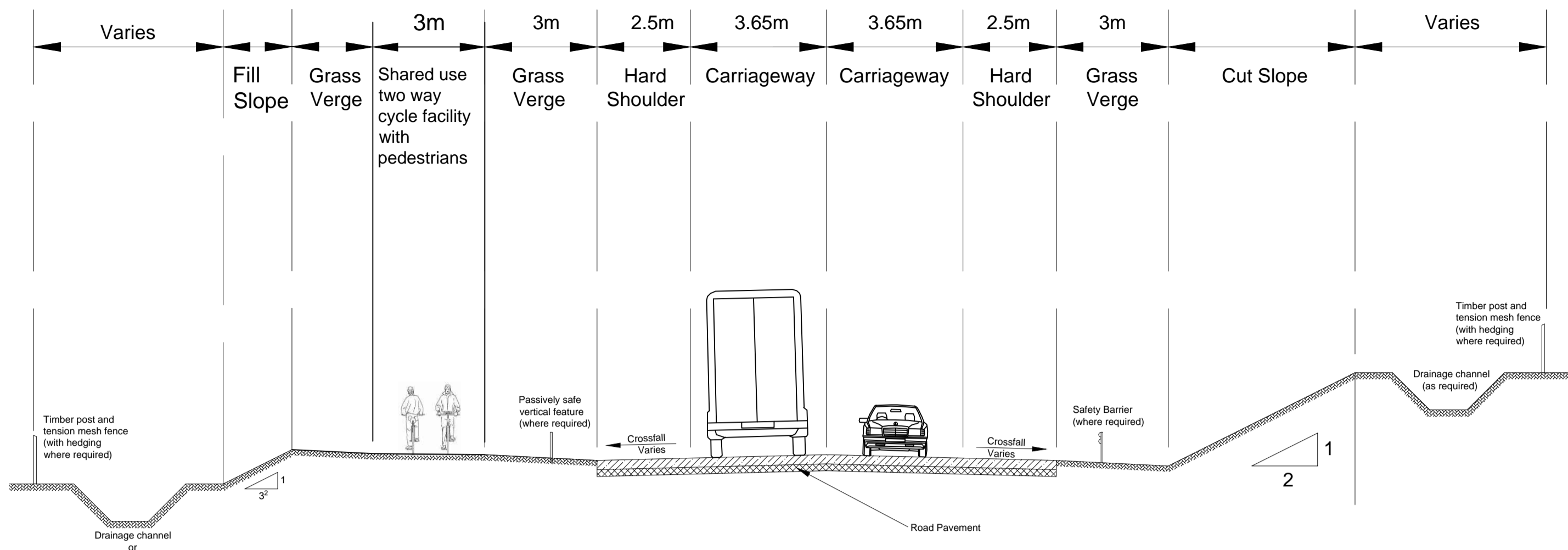
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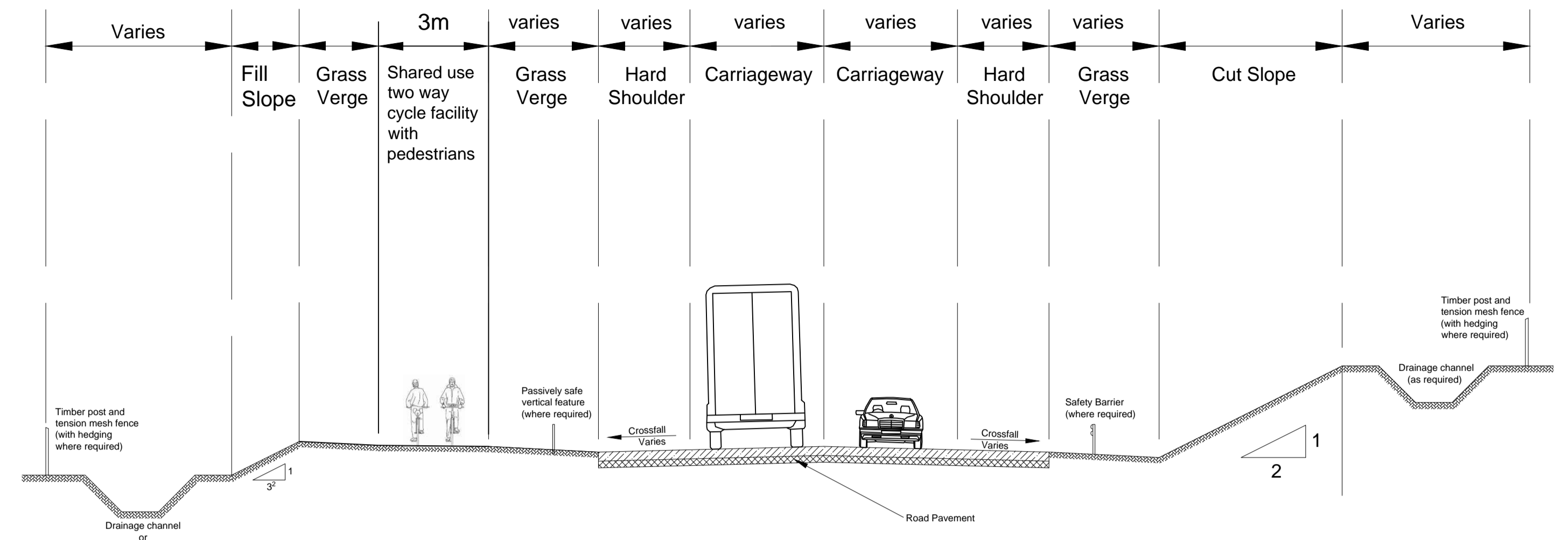
Project		Title	
N53 Hackballscross to Rassan		Sideroad location map - horizontal and vertical Link A & LT-31253	
Designed: KL	Job No: WH5302	Status: Information	
Drawn: KL	Scale: As shown (@A1)	Checked: TB	Date: 21 <sup>st</sup> May 2021
Approved: AC	Printed: May 24, 2021 - 9:38am	Drawing No: WH5302-04-005.8	Rev.

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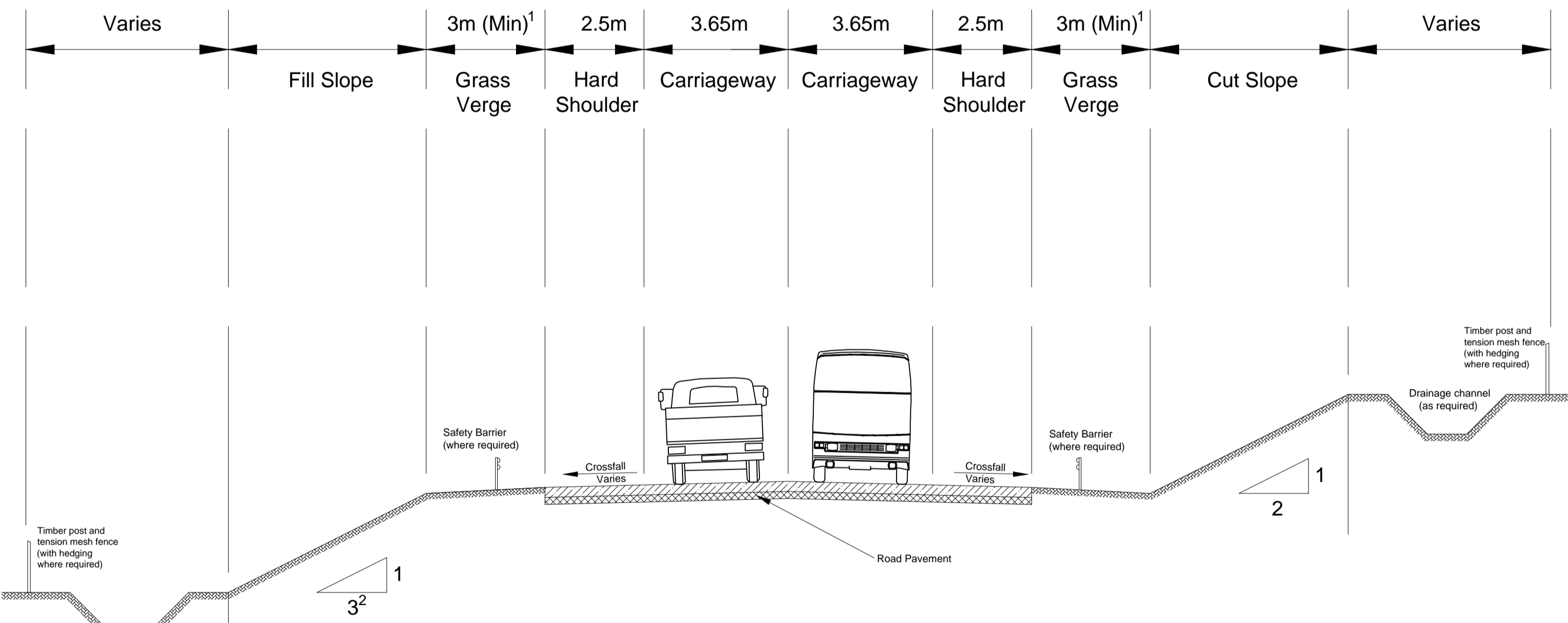
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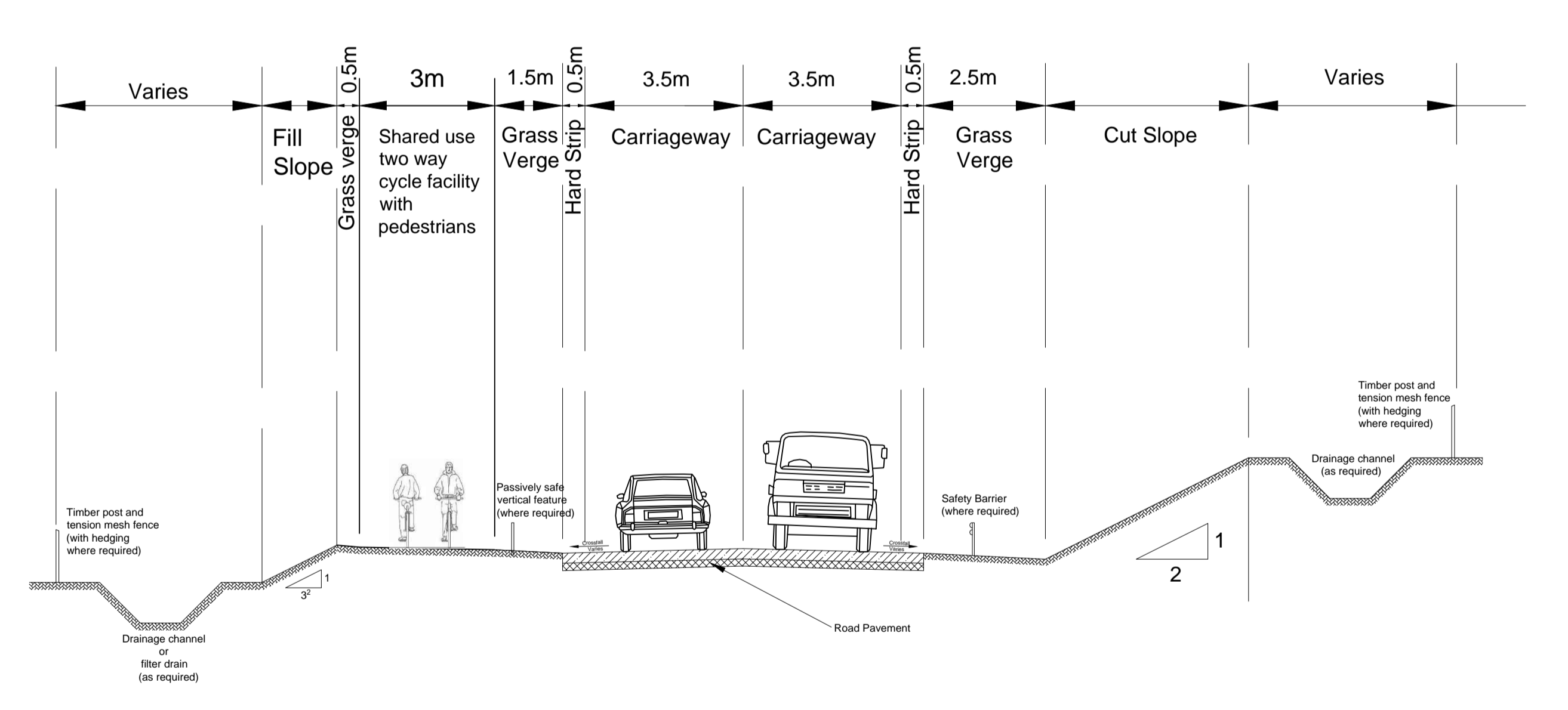
Typical Road Cross Section  
 (Standard Single Carriageway - Type 1 with shared cycleway between chainage 2530 and chainage 2980)



Typical Road Cross Section  
 (Transition between - Type 1 and Type 2 carriageway between chainage 2980 and chainage 3100)



Typical Road Cross Section  
 (Standard Single Carriageway - Type 1 between chainage 0 and chainage 2530)



Typical Road Cross Section  
 (Standard Single Carriageway - Type 2 between chainage 3100 and chainage 3360)

Note:

1. Verges may be greater than 3 metres to allow for sightlines.
2. Slopes may be 1 in 5 to provide clear zones



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Rev.	Description	Date	By	Chk'd	App'd



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Project		N53 Hackballscross to Rassan	
Title		Typical Mainline Road Cross Section	
(Sheet 01 of 01)			
Designed: KL	Job No: WH5302	Status: Information	
Drawn: KM	Scale: 1:100 (@A1)		
Checked: TB	Date: 21 <sup>st</sup> May 2021	Drawing No: WH5302-04-005.9	Rev.:
Approved: AC	Printed: May 24, 2021 - 9:38am		

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