



Comhairle Contae Mhaigh Eo
Mayo County Council

**PROVISION OF 12 NO. APARTMENTS/HOUSING
AT
KEELOGUES ROAD
BALLYVARY
CASTLEBAR
COUNTY MAYO**

SCREENING FOR APPROPRIATE ASSESSMENT

JUNE 2022

Mayo County Council,
Aras an Chontae,
The Mall,
Castlebar,
Co. Mayo
Ireland



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MAYO COUNTY COUNCIL
SCREENING FOR APPROPRIATE ASSESSMENT
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1. INTRODUCTION

1.1 BACKGROUND

Jennings O'Donovan & Partners Limited have been commissioned by Mayo County Council to carry out a Stage I Appropriate Assessment Screening under Article 6(3) of Council Directive 92/43/EEC (Habitats Directive) for the proposed provision of 12 No. Apartments/Housing at Keellogues Road, Ballyvary, Castlebar, Co. Mayo, hereafter referred to as the 'Proposed Development'.

The purpose of this report is to assess the various elements of the project in terms of potential impacts to European Sites within the Zone of Influence (Zoi) of the project site. Potential cumulative impacts of the overall Proposed Development, individually and in-combination with other plans and projects within the area of the waterbody catchment were also assessed in relation to existing, or proposed elements of the project. Locations where works will be carried out were surveyed for the presence of protected habitats and species as set out in the Birds and Habitats Directives.

This proposal is not necessary for the conservation management of a European site.

1.2 AUTHOR'S QUALIFICATION AND EXPERTISE

This Stage I Appropriate Assessment Screening has been prepared by Dr. Monica Sullivan, Principal Environmental Scientist and Lead Ecologist at Jennings O'Donovan & Partners Limited. She is a full member of the Chartered Institute of Ecology and the Environmental Management and a Chartered Environmentalist. Dr. Sullivan has over 35 years' experience in the natural sciences, specialising in fisheries management, aquatic ecology and freshwater invertebrate taxonomy. She has lectured since the mid 1990's – 2017 in invertebrate zoology, ecology and environmental pollution control to both masters and degree students. She was the examiner for the freshwater biology module for the Institute of Fisheries Management, England. Monica's experience includes invasive species surveys, management plans, ecological studies, Environmental Impact Assessment (EIA) screenings, Appropriate Assessment (AA) screenings, Natura Impact Statements (NIS), otter surveys, badger surveys, freshwater macroinvertebrate and instream flora surveys.

Qualified to doctorate level, Monica previously worked as a partner in an environmental consultancy, undertaking fieldwork and specialising in Environmental Assessments of medium to large scale infrastructural projects and the coordination and management of AA and Environmental Impact Assessment processes. She has a clear understanding of the legislative framework governing the extent of environmental investigations, assessments and reports required to secure the necessary approvals on all types of projects. She has extensive experience in management of specialist sub-consultants and working in a team environment and a history of collaborating with participants on research projects. Dr. Sullivan was author and researcher on an Environmental Government Program on invasive species. She is chief author of a chapter in the book Zebra Mussels in Europe and has published many papers on the topic. She spent several years working as both English and Scientific editor for international scientific journals. In 2017, she was expert advisor for 'horizon scan' invasive species workshop.

1.3 REGULATORY CONTEXT

Under Section 177U (1) of the Planning Acts, a Screening for AA of the Proposed Development shall be carried out by the competent authority (in this case, Mayo County Council) to assess in view of best scientific knowledge, if that Proposed Development, individually or in combination with other plans or projects, is likely to have a significant effect(s) on any European sites.

Collectively, Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are referred to as the Natura 2000 Sites. The legal basis on which SACs are selected and designated is the EU Habitats Directive, 92/43/EEC transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), as amended. The designation features of SACs are referred to as Qualifying Interests (QI) and include both species (excluding birds) and habitats. Similarly, Special Protection Areas (SPA's) are legislated in the Birds Directive 2009/147/EC. The designation features of SPAs are referred to as Special Conservation Interests (SCIs) which comprise bird species as well as wetland bird habitats.

In general terms, SACs and SPAs are considered to be of exceptional importance in terms of rare, endangered or vulnerable habitats and species within the European Community.

Article 6, paragraph 3 of the Habitats Directive states that:

“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in-combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public”.

The statutory agency responsible for the European sites is the National Parks and Wildlife Service of the Department of Culture, Heritage and the Gaeltacht.

This report has been prepared in accordance with current guideline documents:

- Assessment of plans and projects significantly effecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (EC, 2001)
- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (DEHLG 2009, Revised February 2010)
- Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government (DoEHLG, 2009, revised 2010)
- OPR Practice Note PN01: Appropriate Assessment Screening for Development Management, March 2021, Office of the Planning Regulator
- Communication from the Commission on the Precautionary Principle. Office for Official Publications of the European Communities, Luxembourg, (EC, 2000a)
- European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. No.477 of 2011).

- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission (EC, 2013).
- EU Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC (EC, 2007)
- Managing Natura 2000 Sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (EC, 2018)
- Strict Protection of Animal Species, NPWS, 2021

The following European Court and Irish High Court rulings have been considered:

- C-127/02 Waddenzee v Staatssecretaris
- C-258/11 Sweetman v An Bord Pleanála
- C-512/12 Briels
- C-387/12 & C388/15 Orleans and others v Vlaams Gewest
- C-142/15 Moorbug
- C-323/17 People Over Wind and Peter Sweetman v Coillte
- C-162/17 Grace and Sweetman
- C-883/18 Holohan and others v An Bord Pleanála
- IEHC 84 (2019) - Kelly v An Bord Pleanála

Relevant plans from national to local scales are critical to inform a robust assessment of in-combination impacts; these are listed below:

- National Biodiversity Action Plan, for the period 2017-2021
- River Basin Management Plan for Ireland 2018-2021
- Draft Mayo County Development Plan 2021-2027

1.4 THE STAGES IN AN APPROPRIATE ASSESSMENT

There are 4 stages in an Appropriate Assessment as outlined in the European Commission Guidance document (2001). The following is a brief summary of these steps:

Stage 1 - Screening: This stage examines the likely effects of a project either alone or in-combination with other projects upon a European site and considers whether it can be objectively concluded that these effects will not be significant.

Stage 2 - Appropriate Assessment: In this stage, the impact of the project on the integrity of the European site is considered, with respect to the conservation objectives of the site and to its structure and function.

Stage 3 - Assessment of Alternative Solutions: Should the Appropriate Assessment determine that adverse impacts are likely upon the European site, this stage examines alternative ways of implementing the project that, where possible, avoid these adverse impacts.

Stage 4 - Assessment where no alternative solutions exist and where adverse impacts remain: Where imperative reasons of overriding public interest (IROPI) exist, an assessment to consider whether compensatory measures will or will not effectively offset the damage to the European site will be necessary.

As part of this Screening for Appropriate Assessment, a desk-based study of the European site within the zone of influence (Zol) of the Proposed Development is required.

1.5 SCREENING METHODOLOGY

The function of the Screening Assessment is to identify whether or not the proposal will have a likely significant effect on any European Site. In this context “likely” refers to the presence of doubt with regard to the absence of significant effects (ECJ case C-127/02) and “significant” means not trivial or inconsequential but an effect that has the potential to undermine the site’s conservation objectives (ECJ case C-127/02). In other words, any effect that compromises the functioning and viability of a site and interferes with achieving the conservation objectives for the site would constitute a significant effect.

The nature of the likely interactions between the project and the integrity of a European Site will depend upon the sensitivity of the European Site’s qualifying features to potential impacts arising from the project; the current conservation status of the European Site and its qualifying features; and any likely changes to key environmental indicators (e.g. water quality) that underpin the conservation status of European Sites and their qualifying features, in-combination with other plans and projects.

The European Commission (2018) Guidelines outline the stages involved in undertaking a Screening Assessment of a project that has the potential to have likely significant effects on European Sites. The methodology adopted for this Screening Assessment is informed by these guidelines and was undertaken in the following steps:

1. Define the project and determine whether it is directly connected with or necessary for the conservation management of European Sites
2. Identify other plans or projects that, in-combination with the project, have the potential to effect European Sites
3. Assess whether or not the project is likely to have significant effects on European Sites in the view of its conservation objectives.

1.6 DESK STUDY

A desk study was carried out to collate the available information on the ecological environment of the proposed site. The National Parks and Wildlife Service (NPWS) database was consulted concerning designated conservation areas and records of rare and protected plant and animal species in the vicinity of the Proposed Development. The EPA Geoportal website was used when researching European designated sites and watercourses. Similarly, EPA Water Maps was accessed Jan 26th, 2022. The National Biodiversity Data Centre (NBDC) website was also consulted. One kilometre Grid square ‘M2494’ incorporated the majority of the Proposed Development site and supports records of Daubenton’s Bat (*Myotis daubentoniid*). It also supports records of protected species including the Common Frog (*Rana temporaria*), Eurasian Pygmy Shew (*Sorex minutus*) and the West European Hedgehog (*Erinaceus europaeus*) Adjacent and directly south of this Grid, a further 1km² area was

investigated (Grid 'M2493'). No records of any bat species or any other protected species were noted in this area.

The Draft Mayo County Development Plan 2021-2027 and the Mayo County Council planning enquiry website were reviewed to identify any proposed plans or projects which may have a direct, indirect or cumulative impact with this project.

1.7 FIELD STUDY

A site visits were carried out on Jan 7, 2022. The survey involved walking all aspects of the site and identifying habitats. Habitat classification followed Fossitt (2000) and the floral nomenclature used followed Parnell and Curtis (2012) and Scannell and Synnott (1987).

1.8 FLOODING

Office of Public Works (OPW) website and the CFRAM study were accessed (Jan 18, 2022) to determine flood areas within and near the Proposed Development. **Figure 1.1** shows the probability of flooding at the site, along with records of past flood events. The Proposed Development site itself has no surface or groundwater record of a flooding event (including winter 2015/2016 Geological Survey Ireland surface water flooding records). The nearest historical previous flood event occurred in the River Moy SAC located >500 m northwest of the Proposed Development site.

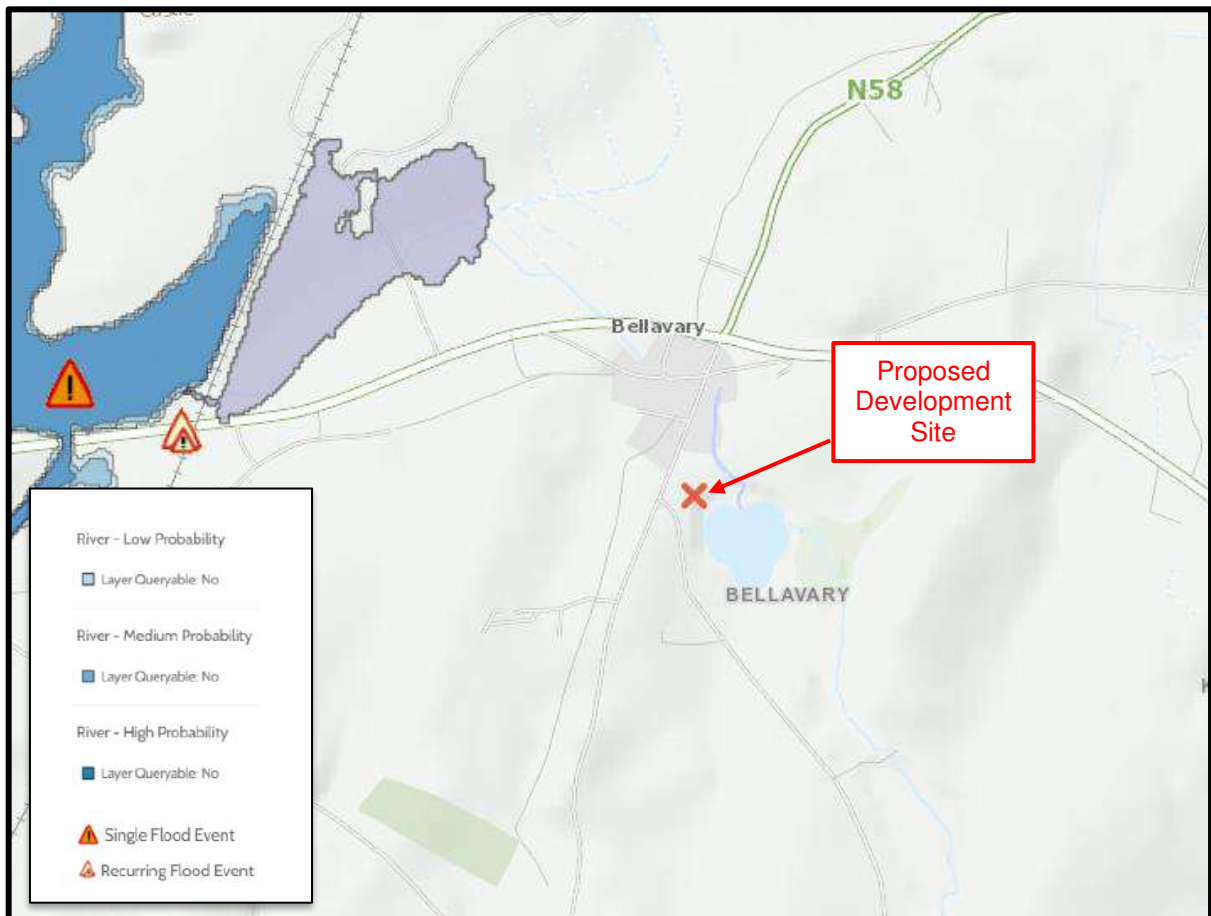


Figure 1.1 Flood Map for the Proposed Site (Source: FloodInfo.ie, 2022)

The OPW's groundwater flood mapping was examined to determine if there was an existing risk from groundwater flooding at the site. Given that the main bedrock is Dark fine-grained limestone and shale, with underlying limestone till (Carboniferous) soils, there is little or no risk from groundwater flooding. The groundwater flood mapping confirmed that the site is not at risk from groundwater flooding. In addition, there is no risk of tidal or pluvial flooding. The site is in an area of a regionally important aquifer that is noted as being highly vulnerable. The associated ground waterbody (GWB) is the Castlebar_SC_030 (34_20) which covers an area of approx. 115km². The Water Framework Directive (WFD) latest status for the Castlebar GWB (2013-2018) is 'Good', indicating no change from the previous 2007-2012 and 2010-2015 records held. Status for near surface and sub surface nitrate susceptibility (IE_WE_30A340980) at the Site is 6 and 7 respectively, while the status for near surface phosphate susceptibility (IE_WE_30A340980) at the Site is 3 and 4. There are no drinking water rivers or lakes in the local area and the Site is also not within a GSI public or group water scheme source protection area.

2. PROJECT DESCRIPTION

2.1 SITE LOCATION

The Proposed Development (0.91 ha) is located immediately to the south of the village of Ballyvary, Castlebar, Co. Mayo. The north western boundary of the site is located along local road L1706 travelling away from the village in the direction of Keelagues and Manulla. The shorter south west boundary of the site is located alongside local road L1712 in the direction of Balla. The site is very close to the village centre with its amenities such as a post office, shop, butcher and creche. The local national school is located less than a kilometre to the south, along the Keelagues road.

The site slopes from c.31m at its southern end to c.25m at its norther end (Drawing SL01; Existing Site Survey, Appendix A). The site also slopes generally from east to west with a dip in the centre at a drain which flows intermittently depending on the time of year and rainfall amounts.



Figure 2.1 Location of the Proposed Development Site

2.2 PROPOSED WORKS

The scheme consists of 12 units in total. The first six units are in three two storey blocks ranged parallel to the L1706 at the northern (village) end of the site. The car parking for the entire scheme is then grouped centrally with access from the Keelagues Road. There are two single storey units fronting onto the car parking area and overlooking the public green spaces beyond. The remaining four single storey units are aligned to both the Keelagues Road and Balla Roads. The houses step up in floor level from north to south to follow the topography of the public roadway. Much of the remainder of the site to the west adjoining historic feature such as an embankment and mill race will be left unmanaged for nature and biodiversity.

The units will consist of four (numbers 1, 2, 3 & 4) three bedroomed two storey units in two semi-detached blocks, two (numbers 5 & 6) one bedroomed apartments in a single two storey block and six (numbers 7, 8, 9, 10, 11 & 12) two bedroomed single storey houses in three semi-detached blocks.

Any works (Services Installation or Japanese Knotweed removal) in or around the existing open drain running through the centre of the site can only be carried out in dry weather conditions i.e. when there is no flow in the stream.

The central parking area and turning bay in the centre of the site is to be a shared surface and will be finished in permeable paving on a stone base, with full infiltration into the ground below.

Rainwater from the roofs is to be gathered and piped into individual soakaways constructed in the back gardens of the individual houses.

2.2.1 Site Drainage

Storm water run-off from the internal roads, parking bays and footpaths will be collected by precast concrete gullies including lockable cast iron grating and frames connected to a piped system. Surface water run-off from roof areas will be collected via downpipe connections to the main network. Gullies are located as shown on (Drawing 6786-JOD-XX-ZZ-DR-C-700-001). Gullies are positioned in accordance with the 'Recommendations for Site Development Works'. Gullies are provided at a minimum rate of one gully per 200m².

The road build up consists of a 300mm deep, geotextile strengthened capping layer under 300mm deep of CL.804 under 60mm of Dense Bitumen under 40mm Bitumen wearing course.

It is proposed to direct the foul sewer from the development to the existing foul sewer network located in the L1706 Road along the western boundary of the site. This existing network serves the Ballyvary area. The proposed foul sewer (Drawing 6786-JOD-XX-ZZ-DR-C-700-003, Appendix A) will discharge under gravity to the existing foul network, where it will then discharge to Bellavary Wastewater Treatment Plant.

2.2.2 Proposed Attenuation

It is proposed to install an attenuation tank after storm manhole S7 as per drawing number 6786-JOD-XX-ZZ-DR-C-700-001. The proposed attenuation tank dimensions of 8.8m wide X 8.8m long X 1.05m high are based on a GRAF EcoBloc maxx system comprising of 363 No. EcoBloc maxx units (Drawing 6786-JOD-XX-ZZ-DR-C-700-004 and -005, Appendix A). Alternative products can be submitted for approval prior to construction commencing.

A Hydro-Brake flow control device with a design depth of 0.5m and a design flow of 4.7 l/s, based on greenfield runoff rate, is proposed to be installed at the outlet of the attenuation tank. Alternative products can be submitted for approval prior to construction commencing.

The exact size and dimensions of the attenuation tank have been chosen in combination with the proposed Hydro-Brake to limit the discharge rate to an acceptable level and minimise the risk of flooding for all modelled flood events.

A class 1 petrol interceptor capable of a peak flowrate of 100 l/s is required to be installed upstream of the attenuation tank as per drawing 6786-JOD-XX-ZZ-DR-C-700-001. A Klargestor Bypass Separator NSEB010 or similar approved is proposed.

2.2.3 Water Main

The water main has been designed in accordance with the Code of Practice for Water Infrastructure. A 110mm Outside Diameter (OD) Polyethylene (PE) connection is proposed to be made to the existing water main located in L1706 Road at the western boundary of the site as shown on drawing 6786-JOD-XX-ZZ-DR-C-700-007 included in Appendix A. A 50mm PE connection will be made to each dwelling/unit.

Hydrants will be positioned within the site such that:

- The distance from each building is not less than 6m or more than 46m
- The distance from a hydrant to a vehicle access road or hard-standing area for fire appliances is not more than 30m
- They are distributed around the perimeter of the buildings, having regard to the provision of access for fire appliances (as per Building Regulations 2006 Technical Guidance Document B)

The hydrants shall be capable of delivering a minimum of 35 litres per second through any single hydrant as per Water UK – National Guidance Document on the Provision of Water for Fire Fighting.

In accordance with Irish Water standards a Water meter, Logging Device (Larson Type) and sluice valves are proposed at the connection into the Proposed Development site. All water mains will be commissioned and pressure tested to Irish Water Standards. The typical connection details and meter details are shown in Revision 4 of Irish Water standard details¹.

3. RECEIVING ENVIRONMENT

3.1 GEOLOGY AND SOILS

The quaternary sediments at the site of the Proposed Development are classified as '*marine shelf facies*' and '*limestone and calcareous shale*'.

The Proposed Development is located entirely within the Aille Limestone Formation. This bedrock formation is described by the Geological Survey of Ireland as '*Visean limestone*'.

3.2 HYDROLOGY AND HYDROGEOLOGY

The Proposed Development site is located within the Water Framework Directive (WFD) wider catchment area of Moy & Killala Bay, covering approx. 2353km² and the Castlebar_SC_030 sub catchment (c.114.76km²).

There is an order 3 watercourse (mill race) feature within the Proposed Development Site boundary. It is located in the northeast of the Proposed Development. No works are proposed near this watercourse, which is an order 3 stream, known as the Danganmore stream (Segment Code: 34_3810). It flows in a general northerly direction for approx. 54m before leaving the site and continues through Ballyvary village for approx. 618m, leaves the village and flows in a westerly direction for approx. 798m before merging into the order 5 Castlebar River (Segment Code: 34_297). This River flows north through the River Moy SAC for approx. 8.5km before entering the southern shores of Lough Cullin which is part of Lough Conn and Lough Cullin SPA. The Castlebar River (order 6) discharges from south Lough Cullin and flows into the order 7 River Deel (Crossmolina) (Segment Code:34_3741) and flows for approx. 735 metres before entering the order 7 River Moy 34 (Segment Code: 34_1925), part of the River Moy SAC.

The River Moy flows north for approx. 25km and enters the Moy Estuary which is part of Killala Bay/Moy Estuary SPA. The flow of water travels through the Moy Estuary for approx. 8km and discharges into Killala Bay between Enniscrone and Killala and subsequently into the Atlantic Ocean.

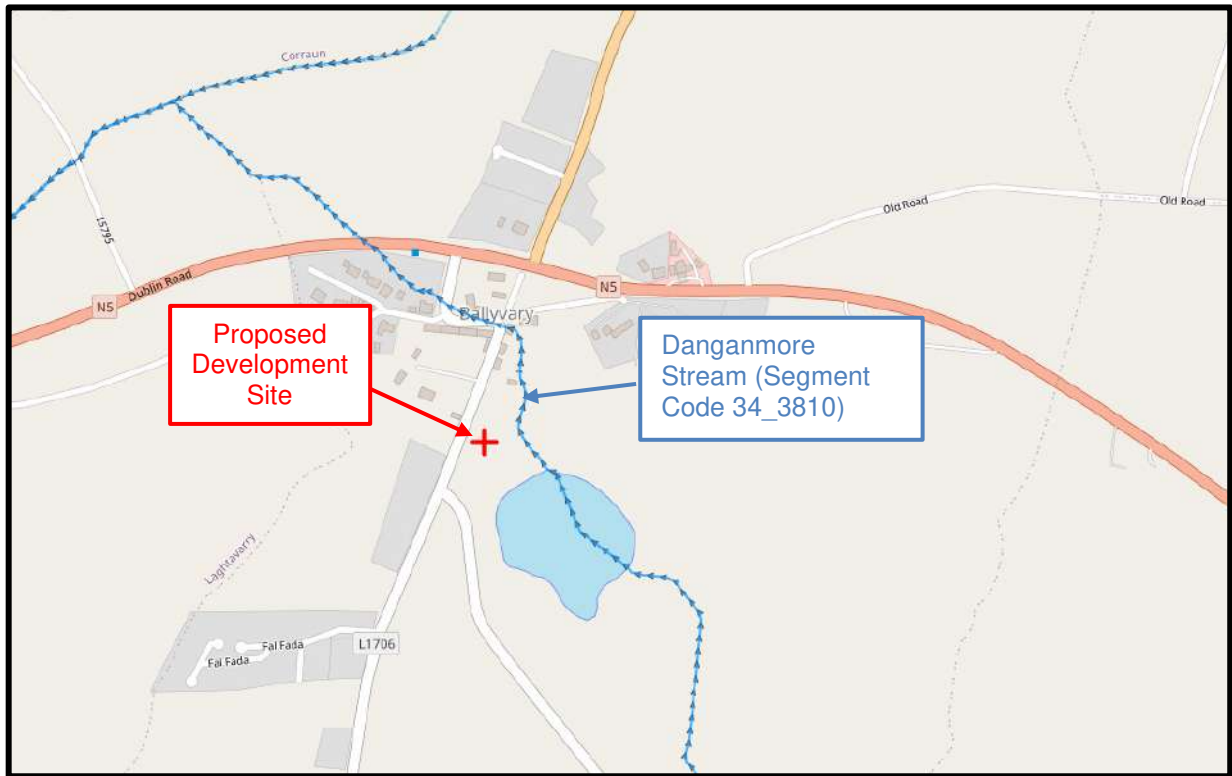


Figure 3.1 EPA watercourses and waterbodies adjacent to the Proposed Development

The site overlies bedrock which is classified as a '*Regionally Important Aquifer – Karstified (conduit)*'. The groundwater vulnerability at the site is classified as 'High' 'H'. The Swinford Waterbody (IE_WE_G_0033) which underlies the Proposed Development site currently has a water quality classification of 'Good'. There are no mapped springs or wells within the vicinity of the site.

3.3 HABITATS

Eight habitats (according to Fossitt, 2000) were noted in the vicinity of the Proposed Development area where construction activities will be undertaken, namely **FW4: Drain, FW1: River, ED2: Spoil or Bare Ground, BL1: Stone wall, BL3: Artificial Surface, WS1: Scrub/WS2: Immature woodland and BL2: Earth bank**. There is no Annex I habitat occurring within the area proposed for works.

No rare, threatened or protected species of plants as per the Red Data Book (Curtis and McGough, 1988) were found. No species listed in the Flora Protection Order (2015) were found growing within the site. No such species were recorded within the area of works.

For simplicity, the Proposed Development can be broadly divided into East and West as there is a drain meandering through the site in a general northeast to northerly direction, bisecting the Site. All proposed housing development works will be contained in the West. No housing development is currently proposed for the East section of the site (Drawing A621-5002 Proposed Site Layout with Boundary Treatments).

FW4: Drain

A narrow seasonal minor watercourse/drain (max 0.75m wide) flows through the Proposed Development in a general northeast to northerly direction (Drawings: A621-5001 Existing Site Survey and A621-5003 Site Plan and A621-5006 Streetscape Sketch, Appendix A). Waters are shallow and the substrate is comprised of fine silt, sand and also gravel/stones in places. Instream flora includes semi-aquatic watercress (*Nasturtium officinale*) which extends upward along adjacent embankments (**Plate 3.1**); the northern section of the drain is devoid of instream flora. Overall, drain embankments are poorly vegetated with dispersed areas of mosses and grasses amongst exposed clay, gravel and rocks; embankments range in slope with relatively flat gradient near the north to a moderate slope, reaching 1.5m high near the south. This drain merges with the order 3 watercourse (the Danganmore stream) which contours the north-eastern site boundary.



Plate 3.1 Drain (FW4) feature flowing through the southern section of the Proposed Development, showing semi-aquatic watercress. Insert shows the drain near the northern end of the site.

FW1: River

An order 3 stream, the Danganmore, contours the north-eastern site boundary (**Plate 3.2**). This watercourse is approx. 2-2.5m wide with a stony, gravel, rock substrate and was fast-flowing on the day of the site visit in January 2022. Embankments are heavily vegetated with lower vegetation dominated by ivy (*Hedera hibernica*), bramble (*Rubus fruticosus* agg.) and evergreen hart's-tongue ferns (*Asplenium scolopendrium*). Riparian areas support trees that are well-established and create a closed canopy over the river during the summer months, while other areas are devoid of trees or bushes and allow extensive light penetration to the riverbed.



Plate 3.2 Danganmore River flowing along the north-eastern site boundary beside the Mill Race; insert showing River further upstream along the site boundary.

ED2: Spoil or bare Ground

The majority of the site on the Western side of the drain (noted above) is uneven with mounds of deposited spoil and fill (Drawing: A621-5001 Existing Site Survey, Appendix A) amongst areas of bare ground (**Plate 3.3**). The mounds are largely comprised of unconsolidated, waste construction materials both organic and inorganic in origin and reach up to 4m in height in places. Natural colonisation of areas of spoil that have not been recently disturbed includes grasses, nettle (*Urtica dioica*), dandelion (*Taraxacum* spp.), wild radish (*Raphanus raphanistrum*), creeping buttercup (*Ranunculus repens*), willow-herbs (*Epilobium* spp.), ragworts (*Senecio* spp.), thistles (*Cirsium* spp), yarrow (*Achillea millefolium*), plantains (*Plantago* spp.) and docks (*Rumex* spp.) amongst others.



Plate 3.3 Spoil and bare ground within the site looking southward; note L1706 public road bordering the site on the right.

BL1: Stone wall

There is a dry-stone wall in the south west corner of the site approx. 1-1.5m tall (**Plate 3.4**). The wall is heavily topped with overhanging grasses and is not visible from the western site boundary aspect. Overall, the wall supports a limited floral diversity but is relatively abundant in lichens.

Associated ferns include maidenhair spleenwort (*Asplenium trichomanes*) and rusty-back fern (*Asplenium ceterach*) on the eastern aspect, mixed with dense mosses and patches of herb-Robert (*Geranium robertianum*) (**Plate 3.4**).



Plate 3.4 Stone wall near south west corner of site

BL3: Artificial Surface

There is a footpath (approx. 1m wide) bordering the southwest boundary of the site which also contours the commencement of the Balla Road. This habitat is characterised by artificial surfaces of tarmac / gravel. It appears that this path is not used regularly as plants have begun to colonise the path, including grasses such as *Poa annua*, also dandelion (*Taraxacum* spp.), daisy (*Bellis perennis*), pineapple weed (*Matricaria discoidea*) and bittercress (*Cardamine* sp.) (**Plate 3.5**).



Plate 3.5 Artificial surface along footpath, southwest of Proposed Development

WS1: Scrub/WS2: Immature woodland

There is a cordoned area of Japanese knotweed (*Fallopia japonica*) central and west of the drain onsite (**Plate 3.6**). This area has been left untouched for some time and can be defined as a scrub area with impenetrable bramble (*Rubus fruticosus* agg.), grasses and Japanese knotweed dominating. Scrub transitions to a young immature woodland due east and bordering the drain, and is comprised of both young willow (*Salix* sp.) and sycamore (*Acer pseudoplatanus*) trees. There are other isolated areas of young trees (predominantly willow) on the site also.

An open area due east of the drain has recently been managed, with scrub removed and bramble cutback (**Plate 3.7**). The main colonising plants on the disturbed ground include grasses mixed with ruderals and include thistles, nettles, ragworts and docs, amongst others.



Plate 3.6 Scrub/Immature woodland central site: Note cordoned area of Japanese knotweed



Plate 3.7 Recently managed (bramble and scrub removed) area in northeastern end of site; earth bank (BL2) with *Polypody interjectum* in close proximity to Balla road in background.

BL2: Earth bank

There is an earth embankment (approx. 2m high) along the south-eastern site perimeter (**Plate 3.7**). It has an overhang that restricts direct sunlight despite its aspect. The bank is densely covered with western polypody (*Polypody interjectum*).

3.4 INVASIVE SPECIES

Japanese Knotweed as listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. No. 477 of 2011) Part 1 or 2 was recorded within the site under survey at Ballyvary at approx. Grid Reference ITM E 524387.72 and ITM N 794429.83.

4. SCREENING FOR APPROPRIATE ASSESSMENT

This AA Screening examined the likely significant effects of the Proposed Development, either alone or in-combination with other projects or plans on European sites, that were situated within a zone of influence (Zol), or a distance that has a potential source-pathway-receptor (SPR), both direct and indirect with the Proposed Development.

4.1 EUROPEAN SITES WITHIN THE ZONE OF INFLUENCE (ZOI) OF THE PROPOSED DEVELOPMENT

The European Sites identified as being within the Proposed Development's Zol's using the SPR principle will be assessed (**Table 4.1, Figures 4.1 and 4.2**) to examine the likelihood of significant effects of the Proposed Development either alone or in-combination with other plans or projects, on any European Sites.

The Zone of Influence (ZoI) of a proposed development is defined as the geographical area which could be affected by the development and in turn cause significant effects on Qualifying Interests (QI) in European Sites. To establish any possible significant effects the Source-Pathway-Receptor (SPR) framework is used. The Environmental Protection Agency (EPA) Maps was reviewed to identify any possible connections to European Sites from developments via pathways.

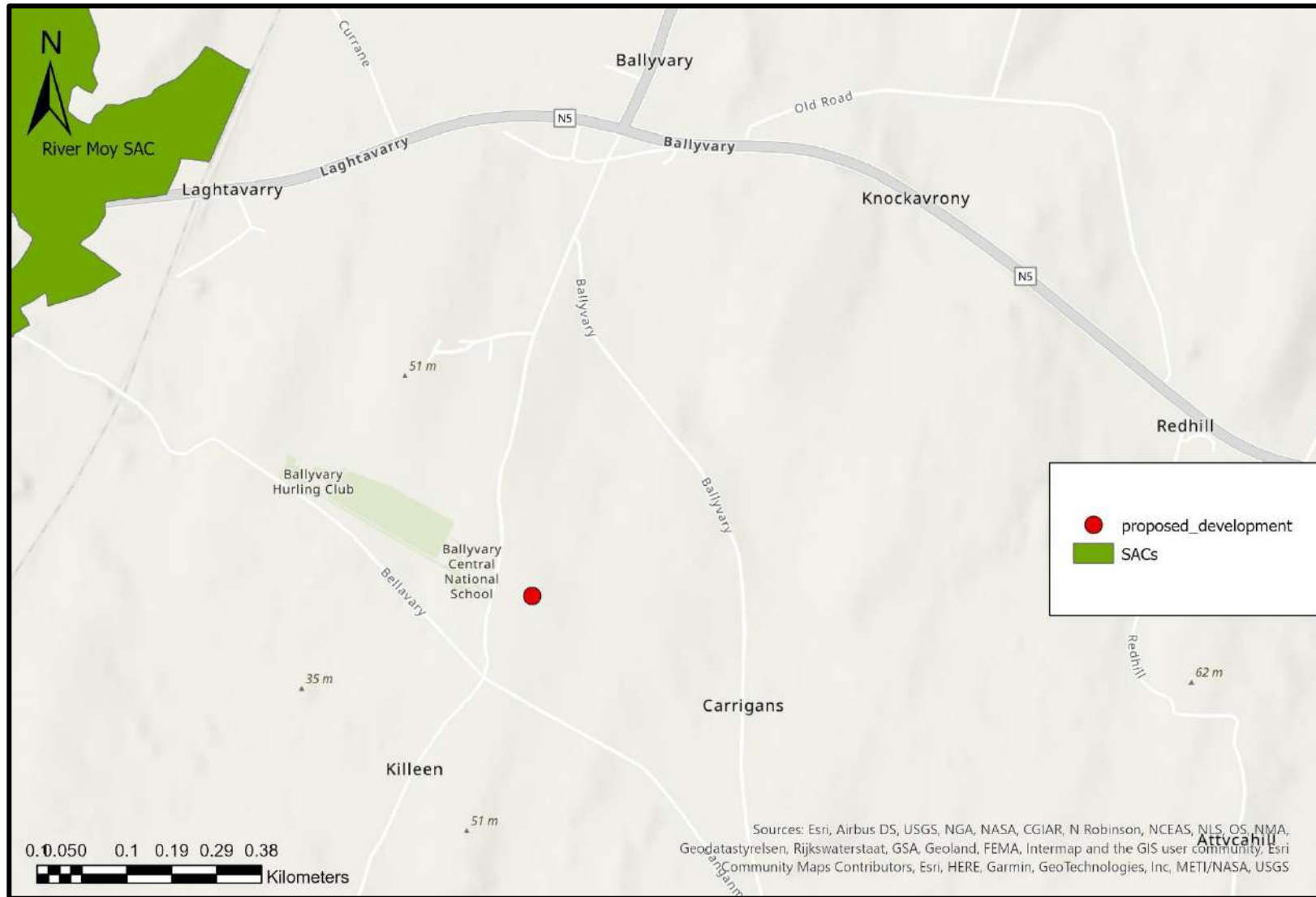


Figure 4.1 SACs within the Zone of Influence of the Proposed Development

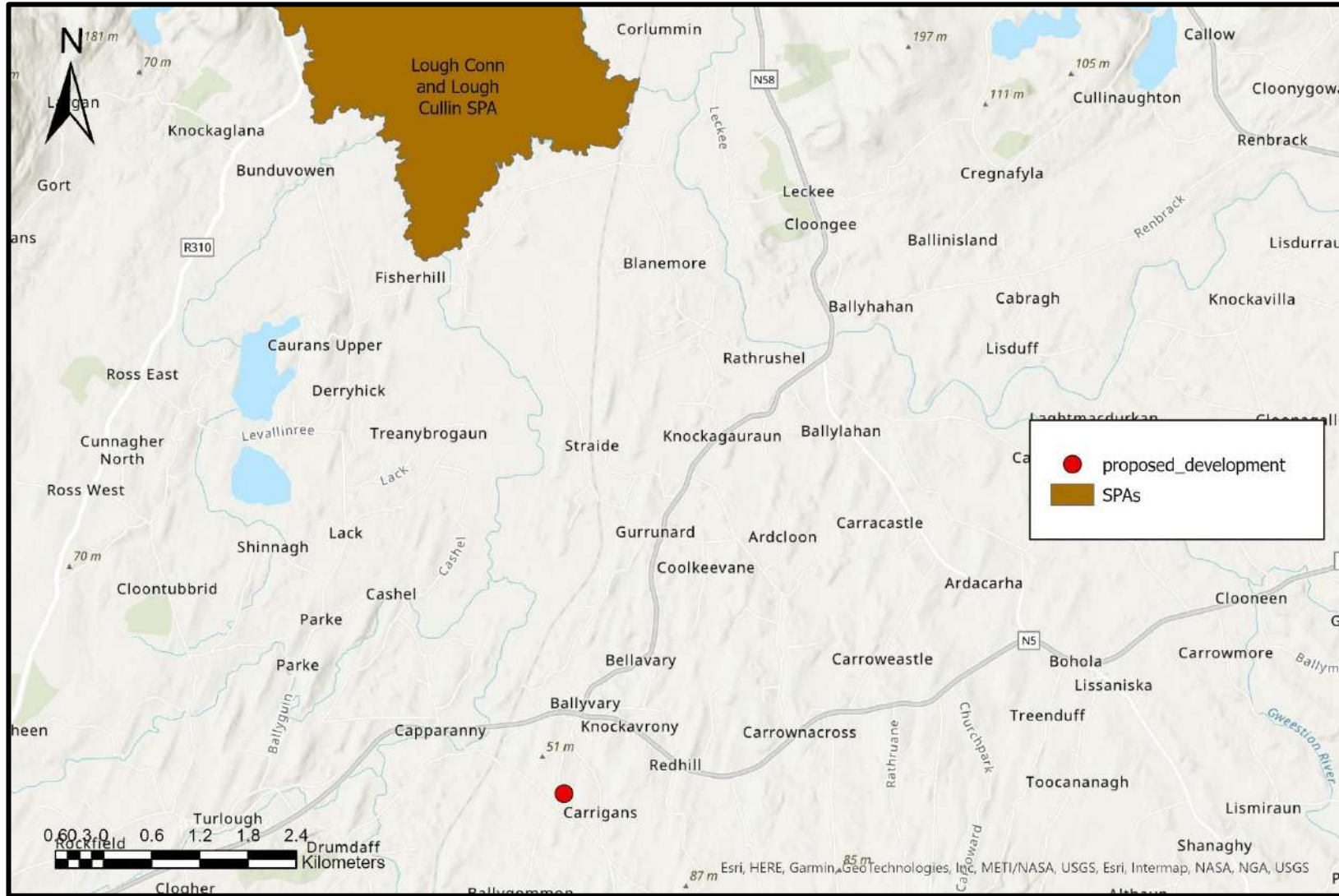


Figure 4.2 SPAs within the Zone of Influence of the Proposed Development

The Proposed Development is not located within the boundary of any European Site, with the nearest such site being the River Moy SAC (Site Code 002298), approximately 830 metres west of the Proposed Development (**Figure 4.2**). The Lough Conn and Lough Cullin SPA Site Code (004228) is located 6.2km north of the Proposed Development.

Table 4.2 provides an evaluation as to whether the European sites identified on **Table 4.1** occur within the projects zone of influence by a hydrological pathway and establishing a possible connection between them.

The evaluation has been undertaken in line with the following criteria:

- Is there a surface water pathway and groundwater pathway link between the Proposed Development and European Sites?
- Do the surface water pathway and/or groundwater pathways establish a connection between qualifying habitats of these European Sites and the Proposed Development?
- Do the surface water pathway and/or groundwater pathways establish a connection between qualifying species of these European Sites and the Proposed Development?

Table 4.1 List of Relevant European Sites within a 15km Zone of Influence radius

Designated Site	Distance from Development (km)
SACs	
River Moy SAC (002298)	approx. 0.83km west
SPAs	
Lough Conn and Lough Cullin SPA (004228)	approx. 6.2km north

Table 4.2 Relevant European Sites, reason for designation and data for Screening

Designated Site	Reasons for designation (information correct as of 12 th May 2021) (*denotes a priority habitat)	Distance from Proposed Development (km)	Potential adverse effect: Source-Pathway-Receptor Linkage
SPECIAL AREAS OF CONSERVATION (SACs)			
River Moy SAC (002298)	Species 1096 Brook Lamprey (<i>Lampetra planeri</i>) 1095 Sea Lamprey (<i>Petromyzon marinus</i>)	approx. 0.83km west from the project site	[1096], [1095], [1106], [1355] and [1092] There is no possibility for significant effects on brook lamprey, sea lamprey, salmon, otter or white-clawed crayfish due to: <ul style="list-style-type: none"> • no hydrological connection to this SAC from the Proposed Development site.

Designated Site	Reasons for designation (information correct as of 12 th May 2021) (*denotes a priority habitat)	Distance from Proposed Development (km)	Potential adverse effect: Source-Pathway-Receptor Linkage
	<p>1106 Salmon (<i>Salmo salar</i>)</p> <p>1355 Otter (<i>Lutra lutra</i>)</p> <p>1092 White-clawed Crayfish (<i>Austropotamobius pallipes</i>)</p> <p>Habitats</p> <p>7110 Active raised bogs*</p> <p>7120 Degraded raised bogs still capable of natural regeneration</p> <p>7150 Depressions on peat substrates of the <i>Rhynchosporion</i></p> <p>7230 Alkaline fens</p> <p>91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</p> <p>91E0 Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, <i>Alnion incanae</i>, <i>Salicion albae</i>)</p> <p>According to this SAC's site Conservation Objectives document (Version 1 Department of Housing, Local Government and Heritage, 2016), for the listed QIs, the Conservation Objective is to maintain the favourable conservation condition of the Annex I habitat(s) and/or the</p>		<ul style="list-style-type: none"> • a terrestrial separation distance of approx. 0.83km between the project site and this SAC • the Proposed Development will be contained within the project site • no potential for disturbance effects • the size and scale of the works within a project area of approx. 0.99 hectares <hr/> <p>[7110] There is no possibility for significant effects on Active raised bogs due to:</p> <ul style="list-style-type: none"> • a terrestrial separation distance of approx. 0.83km between the Proposed Development and this SAC • the terrestrial nature of this habitat, fed by rainwater • no potential for drainage effects • the Proposed Development will be contained within the project site • the size and scale of the project works within a project area of approx. 0.99 hectares <hr/> <p>[7120] There is no possibility for significant effects on Degraded raised bogs still capable of natural regeneration due to:</p> <ul style="list-style-type: none"> • a terrestrial separation distance of approx. 0.83km between the Proposed Development and this SAC • no potential for habitat loss or threat from invasive species • the Proposed Development will be contained within the project site • the size and scale of the project works within a project area of approx. 0.99 hectares

Designated Site	Reasons for designation (information correct as of 12 th May 2021) (*denotes a priority habitat)	Distance from Proposed Development (km)	Potential adverse effect: Source-Pathway-Receptor Linkage
	Annex II species for which the SAC has been selected.		<p>[7230] There is no possibility for significant effects on Alkaline fens due to:</p> <ul style="list-style-type: none"> • no hydrological connection to this SAC from the Proposed Development site. • no modification to existing drainage networks • no potential for diffuse groundwater pollution from the Proposed Development activities • no infilling of ditches, dykes, ponds, pools, marshes or pits in this SAC • a minimum terrestrial separation distance of approx. 0.83km between the project site and this SAC • no depletion of habitat or threat from invasive species • the Proposed Development will be contained within the project site • the size and scale of the works within a project area of approx. 0.99 hectares <p>[91A0] There is no possibility for significant effects on Old oak woodland due to:</p> <ul style="list-style-type: none"> • a minimum terrestrial separation distance of approx. 0.83km between the proposed development and this SAC (Map 6, River Moy SAC, NPWS, 2016) • no potential for loss of habitat or habitat fragmentation • no threat from invasive native or non-native species • the Proposed Development will be contained within the project site • the size and scale of the project works within a project area of approx. 0.99 hectares

Designated Site	Reasons for designation (information correct as of 12 th May 2021) (*denotes a priority habitat)	Distance from Proposed Development (km)	Potential adverse effect: Source-Pathway-Receptor Linkage
			<p>[91E0] There is no possibility for significant effects on Alluvial woodlands due to:</p> <ul style="list-style-type: none"> • no hydrological connection to this SAC from the Proposed Development site. • no changes to the hydrological regime supporting the habitat • no potential for water pollution impacts due to project works • a minimum terrestrial separation distance of approx. 0.83km between the Proposed Development and this SAC (Map 6, River Moy SAC, NPWS, 2016) • no potential for loss of habitat or habitat fragmentation, or threats from invasive native or non-native species • the Proposed Development will be contained within the project site • the size and scale of the works within a project area of approx. 0.99 hectares
SPECIAL PROTECTION AREAS (SPAs)			
<p>Lough Conn and Lough Cullin SPA (004228)</p>	<p>Birds Tufted Duck (<i>Aythya fuligula</i>) [A061] Common Scoter (<i>Melanitta nigra</i>) [A065] Common Gull (<i>Larus canus</i>) [A182] Greenland White-fronted Goose (<i>Anser albifrons flavirostris</i>) [A395]</p>	<p>approx. 6.2km north from the project site</p>	<p>[A061],[A065] &[A182] There is no possibility for significant effects on Tufted Duck, Common Scoter & Common Gull due to:</p> <ul style="list-style-type: none"> • no hydrological connection to the SPA from the Proposed Development site • a terrestrial separation distance of 6.2km between the proposed development and this SPA with intervening agricultural lands, residential dwellings, local roads, boglands, forestry etc. • unsuitability of the site to support this species

Designated Site	Reasons for designation (information correct as of 12 th May 2021) (*denotes a priority habitat)	Distance from Proposed Development (km)	Potential adverse effect: Source-Pathway-Receptor Linkage
	<p>Wetland and Waterbirds [A999]</p> <p>According to this SPA's site Generic Conservation Objectives document (Department of Arts, Heritage and the Gaeltacht, 2021) for the listed SCI, the Conservation Objective is to maintain or restore the favourable conservation condition of the bird species for which the SPA has been selected.</p>		<ul style="list-style-type: none"> • the Proposed Development will be contained within the project site • the size and scale of the works within a project area of approx. 0.99 hectares <hr/> <p>[A395] There is no possibility for significant effects on Greenland White-fronted Goose due to:</p> <ul style="list-style-type: none"> • no hydrological connection • a terrestrial separation distance of 6.2km between the proposed development works and this SPA (>2000m recommended disturbance distance (BES, 2020)) • unsuitability of the site to support this species • the proposed development works will be contained within the project site • the size and scale of the works within a project area of approx. 0.99 hectares

The storm drainage for the entire development will be designed in accordance with the *Recommendations for Site Development Works for Housing Areas* and also the recommendations of the *Greater Dublin Strategic Drainage Study (GDSDS)*. Waste water emanating from the construction works associated with the overall development will be directed from the development to the existing foul sewer network located in the L1706 Road at the western boundary of the site. The proposed foul sewer will discharge under gravity to the existing foul network, where it then discharges to Bellavary WWTP as per Drawing 6786-JOD-XX-DR-C-700-001, Foul and Storm Site Layout Plan, Appendix A.

There is no SPR direct or indirect linkage from the Proposed Development to any European site. Due to the scale and scope of the Proposed Development, lack of a hydrological link and intervening distances, it is considered that negative impacts would not occur on any European Site.

There will be no SPR linkage from the Proposed Development to any European Site during the construction and operation phases.

Therefore, with due consideration, impacts on the conservation objectives of the designated European Sites outlined above were not considered likely.

4.2 IN-COMBINATION EFFECTS

Planning Permission Applications

While effects on European Sites were not expected as a result of the construction and operation of the Proposed Development, the potential for cumulative effects on these designated sites due to other plans and projects acting in-combination with the Development were considered. The Mayo County Council on-line planning application portal was used to search planning applications close to the Proposed Development. A five-year search timeframe was assessed. Retention refused and withdrawn planning applications were excluded. **Table 4.3** shows the planning applications in close proximity to the Proposed Development (circa 1000m).

Table 4.3 Planning applications in close proximity to the Proposed Development.

Planning Reference	Description of Development	Site Address	Decision Date	Distance from Site
20142	Construct new dwelling house, domestic garage, sewage treatment unit and percolation system, together with ancillary site development works.	Breandrum, Ballyvary, Co. Mayo	29/06/2020	approx. 988 metres from proposed development
20604	Extension and alterations to an existing national school to include a recreation hall, a new classroom, toilets, hallways and all associated services including parking and traffic management, p12/259 refers.	Ballyvary, Castlebar, Co. Mayo	10/12/2020	approx. 810 metres from the proposed development
20801	Construct domestic garage.	Bridgevilla, Station Road, Laghtavarry Co. Mayo	14/12/2020	approx. 658 metres from the proposed development

There were no other planning applications in the area at the time of writing.

EPA Maps (Water) was accessed (Jan 2022) to examine the Proposed Development and local area for nitrate and phosphorus loading and Pollutant Impact Potential (PIP). PIP maps for Nitrogen (N) and Phosphorus (P) have been generated by the EPA to show the highest risk areas in the landscape for losses of N and P to waters. The PIP model estimates the annual nutrient losses from agricultural land at specific locations, using spatial data from farm management, soils and hydrogeology. This model estimates loads at an annual temporal resolution.

Currently, the groundwater in the area has no significant underlying pressures, including waste abstraction, agriculture, anthropogenic, aquaculture, atmospheric, extractive industry,

hydromorphology, invasive species, urban runoff or otherwise (EPA Water Maps, accessed Jan 18th 2022).

The Proposed Development is located in a landscape largely given to individual residential dwellings with accompanying improved agricultural grasslands and scrubland.

The grasslands associated with the Proposed Development have been intensely modified. The Site is denoted as having the following Phosphorus rankings of between 3 and 7 (7 is the lowest impact ranking) and the outer Development Site margins also have a PIP ranking of 3 and 7. The ranking likely reflects fertiliser use on the land ranked as 3 in the past with possible livestock. Adjacent lands due east are ranked 7 and 4 respectively, with a general consistency of a 7-4 ranking moving southward, as land has been modified over the years. Lands due west of the Development Site have also been grossly modified and rank also at 7. Further west, lands rank 3 and 1 near a local road.

PIP N of the Proposed Development has a ranking of a 6 and a 7. Adjacent lands moving southward are also generally low ranking, at 6-7. An area due west of the Proposed Development ranks a 2.

Overall, the Critical Source Areas Maps for the Development Site and adjacent lands do not indicate a Site where either phosphorus or nitrates are a significant issue and there is no focused delivery flow path from the site. There is a significant amount of scrubland along the eastern boundary of the Development Site.

As noted earlier in Section 3.2, the Proposed Development is within the WFD sub basin Castlebar_SC_030. Currently, there are no significant pressures from the Proposed Development on this River sub basin.

The AA Screening assessment has shown there will be no likely significant effects to any European Site during the construction or operations phases of the Proposed Development. Therefore, there will be no in-combination effects with local planning applications.

5. SCREENING ASSESSMENT – CONCLUSION

It can be objectively concluded that there are not likely to be significant effects on any European Site as a result of the Proposed Development, namely the development at Ballyvary, Co. Mayo. Therefore, an Appropriate Assessment is not required.

6. REFERENCES

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APPENDIX A
DRAWINGS

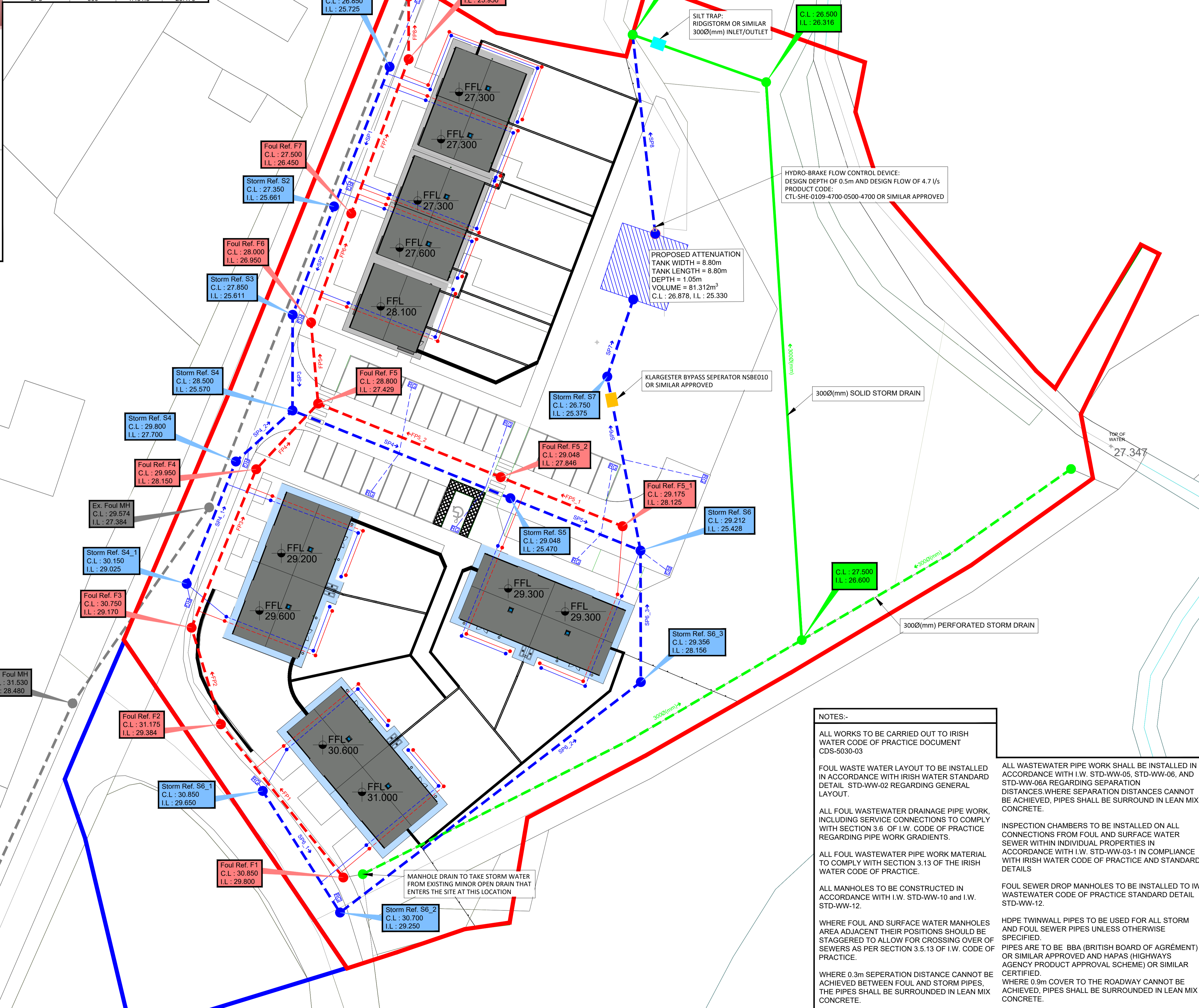
Wastewater Infrastructure Standard Details

Connections and Developer Services
Design and Construction Requirements for Self-Lay Developments
July 2020 (Revision 4)
Document No. CDS-5030-03



NOTE: CONTRACTOR IS TO REFER TO REVISION 4 OF THE IRISH WATER STANDARD DETAILS DATED JULY 2020 FOR WASTEWATER INFRASTRUCTURE DETAILS. THIS BOOKLET HAS BEEN INCLUDED IN PART OF THE CIVIL/STRUCTURAL PACKAGE.

STORM PIPE SCHEDULE				FOUL PIPE SCHEDULE			
PIPE REFERENCE	SIZE Ø (mm)	SLOPE	LENGTH (m)	PIPE REFERENCE	SIZE Ø (mm)	SLOPE	LENGTH (m)
SP1	225	1:298.5	19.107	FP1	150	1:59.9	24.931
SP2	225	1:294.9	14.745	FP2	150	1:60	12.831
SP3	225	1:296.6	12.161	FP3	150	1:59.9	21.750
SP4_1	225	1:47.9	16.760	FP4	150	1:15.9	11.468
SP4_2	225	1:29.8	9.890	FP5_1	150	1:59.9	16.705
SP4	225	1:298.6	29.857	FP5_2	150	1:60	25.016
SP5	300	1:424.6	17.832	FP6	150	1:21.6	10.357
SP6_1	300	1:45.8	18.316	FP7	150	1:29.5	14.760
SP6_2	300	1:44	48.169	FP7	150	1:41.9	20.929
SP6_3	300	1:116	16.706	FP8	150	1:59.9	7.984
SP6	300	1:425	22.523				
SP7	300	1:425.2	19.136				
SP8	300	1:431.8	25.476				



NOTES

GENERAL NOTES:

- FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
- ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE.
- ENGINEER/EMPLOYERS REPRESENTATIVE, AS APPROPRIATE, TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES.
- THE CONTRACTOR SHALL UNDERTAKE A THOROUGH CHECK FOR THE ACTUAL LOCATION OF ALL SERVICES/UTILITIES, ABOVE AND BELOW GROUND, BEFORE ANY WORK COMMENCES.
- ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS. CONTRACTOR TO VERIFY THE ACCURACY OF THIS PROPOSAL TO THE ENGINEER AND ALLOW FOR MINOR CORRECTIONS AS DEEMED NECESSARY WITH A REASONABLE TIMEFRAME.

LEGEND

SITE BOUNDARY shown thus	—
PROPOSED STORM MANHOLE shown thus	●
PROPOSED STORM WATER NETWORK shown thus	---
PROPOSED FOUL MANHOLE shown thus	●
PROPOSED FOUL NETWORK shown thus	---
PROPOSED SURFACE WATER CONNECTIONS shown thus	---
PROPOSED FOUL WATER CONNECTIONS shown thus	---
PROPOSED ROAD GULLIES shown thus	FCG
EXISTING FOUL MANHOLE shown thus	●
EXISTING FOUL NETWORK shown thus	---
300mm PROPOSED PERFORATED STORM DRAIN shown thus	---
300mm PROPOSED SOLID STORM DRAIN shown thus	---

Site Area:-
9,900 m², 2.44 Acres, 0.99 Hectares
ITM Co-Ordinates of site:-
524360, 794418
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OS Sheet No. 1908

D.02	Issued for Discussion	AP	MF	26.05.22
D.01	Issued for Discussion	AP	MF	20.05.22
rev.	modifications	by	chkd	date

Layout Ref.:
file: P:\Jod-jobs\6786 Ballyvary Housing\700 Drawings\703 Planning\01 WIP\6786-JOD-XX-ZZ-DR-C-700-001-003 Foul & Storm Site Layout Plan.dwg

client Comhairle Contae Mhaigh Eo
Mayo County Council

project
PROPOSED HOUSING AT BALLYVARY,
CO. MAYO.

stage
DRAFT

title
FOUL & STORM SITE LAYOUT PLAN

scale
1:250 @ A1

surveyed	drawn	checked	date
JOD	AP	MF	May 2022

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drawing no. **6786-JOD-XX-ZZ-DR-C-700-001** revision **D.02**

NOTES:-

ALL WORKS TO BE CARRIED OUT TO IRISH WATER CODE OF PRACTICE DOCUMENT CDS-5030-03

FOUL WASTE WATER LAYOUT TO BE INSTALLED IN ACCORDANCE WITH IRISH WATER STANDARD DETAIL STD-WW-02 REGARDING GENERAL LAYOUT.

ALL FOUL WASTEWATER DRAINAGE PIPE WORK, INCLUDING SERVICE CONNECTIONS TO COMPLY WITH SECTION 3.6 OF I.W. CODE OF PRACTICE REGARDING PIPE WORK GRADIENTS.

ALL FOUL WASTEWATER PIPE WORK MATERIAL TO COMPLY WITH SECTION 3.13 OF THE IRISH WATER CODE OF PRACTICE.

ALL MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH I.W. STD-WW-10 and I.W. STD-WW-12.

WHERE FOUL AND SURFACE WATER MANHOLES AREA ADJACENT THEIR POSITIONS SHOULD BE STAGGERED TO ALLOW FOR CROSSING OVER OF SEWERS AS PER SECTION 3.5.13 OF I.W. CODE OF PRACTICE.

WHERE 0.3m SEPERATION DISTANCE CANNOT BE ACHIEVED BETWEEN FOUL AND STORM PIPES, THE PIPES SHALL BE SURROUNDED IN LEAN MIX CONCRETE.

ALL WASTEWATER PIPE WORK SHALL BE INSTALLED IN ACCORDANCE WITH I.W. STD-WW-05, STD-WW-06, AND STD-WW-06A REGARDING SEPERATION DISTANCES WHERE SEPERATION DISTANCES CANNOT BE ACHIEVED, PIPES SHALL BE SURROUND IN LEAN MIX CONCRETE.

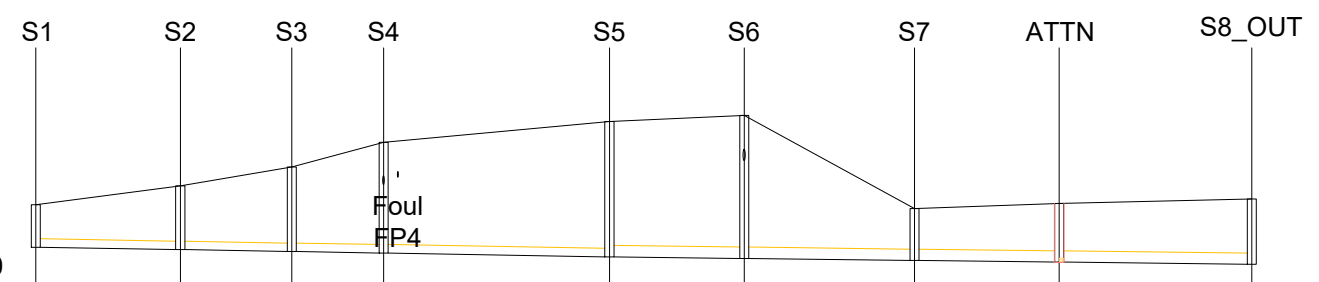
INSPECTION CHAMBERS TO BE INSTALLED ON ALL CONNECTIONS FROM FOUL AND SURFACE WATER SEWER WITHIN INDIVIDUAL PROPERTIES IN ACCORDANCE WITH I.W. STD-WW-03-1 IN COMPLIANCE WITH IRISH WATER CODE OF PRACTICE AND STANDARD DETAILS

FOUL SEWER DROP MANHOLES TO BE INSTALLED TO IW WASTEWATER CODE OF PRACTICE STANDARD DETAIL STD-WW-12.

HDPE TWINWALL PIPES TO BE USED FOR ALL STORM AND FOUL SEWER PIPES UNLESS OTHERWISE SPECIFIED.

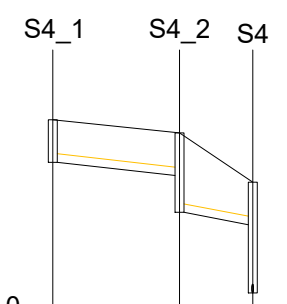
PIPES ARE TO BE BBA (BRITISH BOARD OF AGREMENT) OR SIMILAR APPROVED AND HAPAS (HIGHWAYS AGENCY PRODUCT APPROVAL SCHEME) OR SIMILAR CERTIFIED.

WHERE 0.9m COVER TO THE ROADWAY CANNOT BE ACHIEVED, PIPES SHALL BE SURROUNDED IN LEAN MIX CONCRETE.



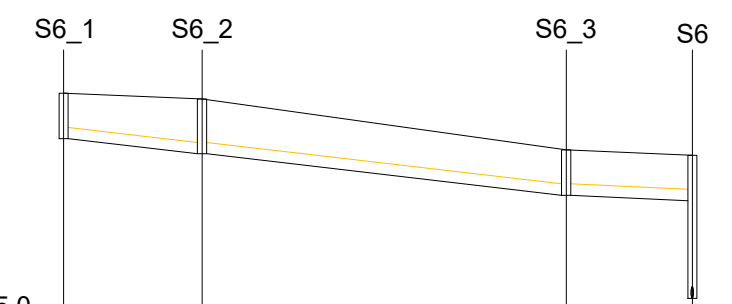
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Datum = 24.0

Link Name	SP1	SP2	SP3	SP4	SP5	SP6	SP7	SP8	
Section Type	225mm	225mm	225mm	225mm	300mm	300mm	300mm	300mm	
Slope	1:298.5	1:294.9	1:296.6	1:298.6	1:424.6	1:425.0	1:425.2	1:431.8	
Cover Level	26.850	27.350	27.850	28.500	29.048	29.212	26.750	26.878	27.000
Invert Level	25.725	25.661 25.661	25.611 25.611	25.570 25.570	25.470 25.470	25.428 25.428	25.375 25.375	25.330 25.330	25.271
Length	19.107	14.745	12.161	29.857	17.832	22.523	19.136	25.476	



Vert exaggeration = 5.0
Datum = 24.0

Link Name	SP4_1	SP4_2
Section Type	225mm	225mm
Slope	1:47.9	1:29.8
Cover Level	30.150	29.800 28.500
Invert Level	29.025	28.675 27.700 27.375
Length	16.760	9.690

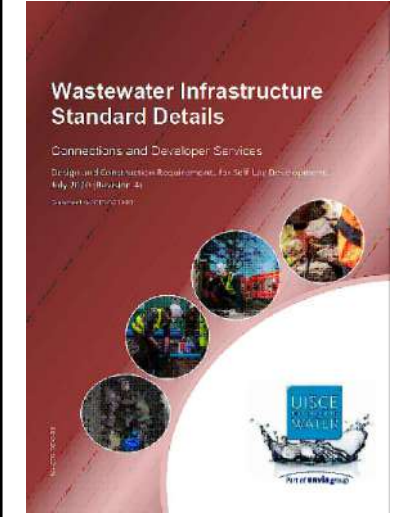


Vert exaggeration = 5.0
Datum = 24.0

Link Name	SP6_1	SP6_2	SP6_3
Section Type	300mm	300mm	300mm
Slope	1:45.8	1:44.0	1:116.0
Cover Level	30.850	30.700	29.356 29.212
Invert Level	29.650	29.250 29.250	28.156 28.156 28.012
Length	18.316	48.169	16.706

NOTES

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 - THE CONTRACTOR SHALL UNDERTAKE A THOROUGH CHECK FOR THE ACTUAL LOCATION OF ALL SERVICES/UTILITIES, ABOVE AND BELOW GROUND, BEFORE ANY WORK COMMENCES.
 - ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD.
 - THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS. CONTRACTOR TO VERIFY THE ACCURACY OF THIS PROPOSAL TO THE ENGINEER AND ALLOW FOR MINOR CORRECTIONS AS DEEMED NECESSARY WITH A REASONABLE TIMEFRAME.




NOTE: CONTRACTOR IS TO REFER TO REVISION 4 OF THE IRISH WATER STANDARD DETAILS DATED JULY 2020 FOR WASTEWATER INFRASTRUCTURE DETAILS.

D.02	Issued for Discussion	AP	MF	26.05.22
D.01	Issued for Discussion	AP	MF	20.05.22
rev.	modifications	by	chkd	date
Layout Ref.:				
file	P:\jod-jobs\6786 Ballyvary Housing\700 Drawings\703 Planning\01 WIP\6786-JOD-XX-ZZ-DR-C-700-001-003 Foul & Storm Site Layout Plan.dwg			

client	MAYO CO.CO.		
project	PROPOSED HOUSING AT BALLYVARY, CO. MAYO.		
stage	DRAFT		
title	PROPOSED STORM SEWER SECTIONS		
scale	HORIZ: 1:1000, VERT: 1:200 @ A3		
surveyed	drawn	checked	date
	AP	MF	May 2022

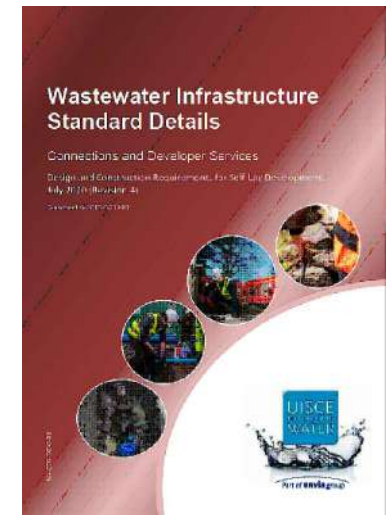
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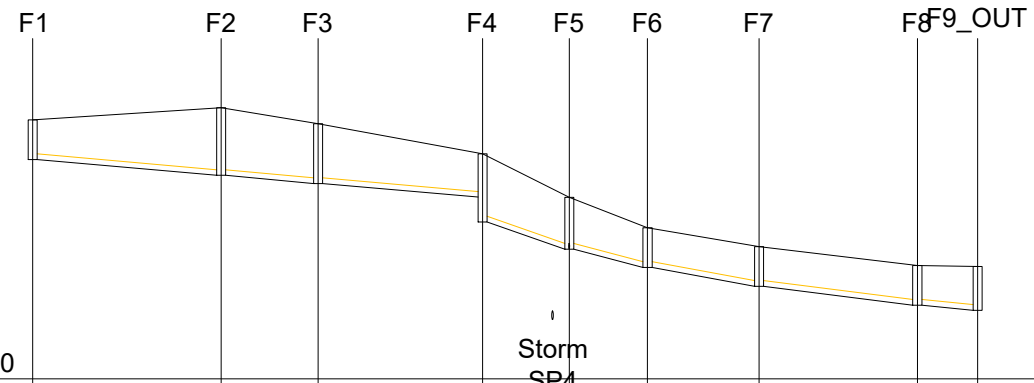
drawing no.	6786-JOD-XX-ZZ-DR-C-700-002	revision	D.02
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NOTES

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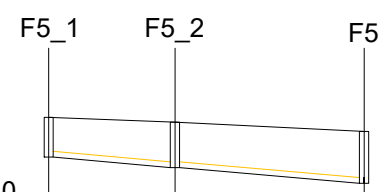


NOTE: CONTRACTOR IS TO REFER TO REVISION 4 OF THE IRISH WATER STANDARD DETAILS DATED JULY 2020 FOR WASTEWATER INFRASTRUCTURE DETAILS.



Vert exaggeration = 5.0
Datum = 24.0

Link Name	FP1	FP2	FP3	FP4	FP5	FP6	FP7	FP8
Section Type	150mm	150mm	150mm	150mm	150mm	150mm	150mm	150mm
Slope	1:59.9	1:60.0	1:59.9	1:15.9	1:21.6	1:29.5	1:41.9	1:59.9
Cover Level	30.850	31.175	30.750	29.950	28.800	28.000	27.500	27.000
Invert Level	29.800	29.384	29.170	28.807	27.429	26.950	26.450	25.950
Length	24.931	12.831	21.750	11.468	10.357	14.760	20.929	7.964



Vert exaggeration = 5.0
Datum = 26.0

Link Name	FP5_1	FP5_2
Section Type	150mm	150mm
Slope	1:59.9	1:60.0
Cover Level	29.175	29.048
Invert Level	28.125	27.846
Length	16.705	25.016

D.02	Issued for Discussion	AP	MF	26.05.22
D.01	Issued for Discussion	AP	MF	20.05.22
rev.	modifications	by	chkd	date
Layout Ref.:				
file	P:\Jod-jobs\6786 Ballyvary Housing\700 Drawings\703 Planning\01 WIP\6786-JOD-XX-ZZ-DR-C-700-001-003 Foul & Storm Site Layout Plan.dwg			

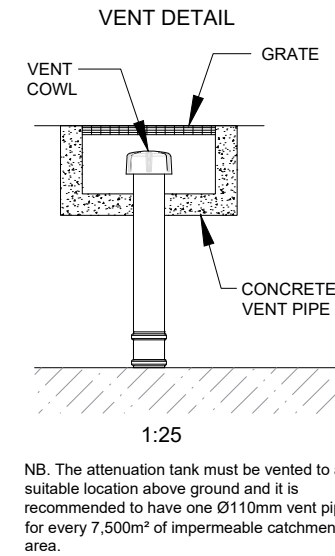
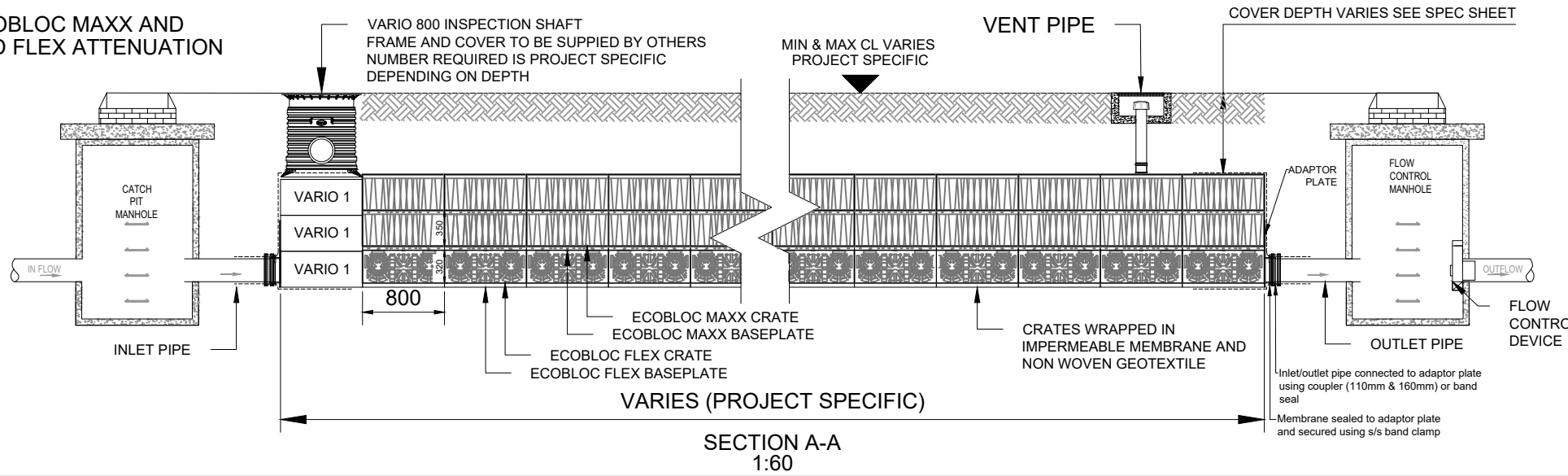
client	MAYO CO.CO.		
project	PROPOSED HOUSING AT BALLYVARY, CO. MAYO.		
stage	DRAFT		
title	PROPOSED FOUL SEWER SECTIONS		
scale	HORIZ: 1:1000, VERT: 1:200 @ A3		
surveyed	drawn	checked	date
	AP	MF	May 2022

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drawing no.	6786-JOD-XX-ZZ-DR-C-700-003	revision	D.02
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ECOBLOC MAXX AND FLEX ATTENUATION

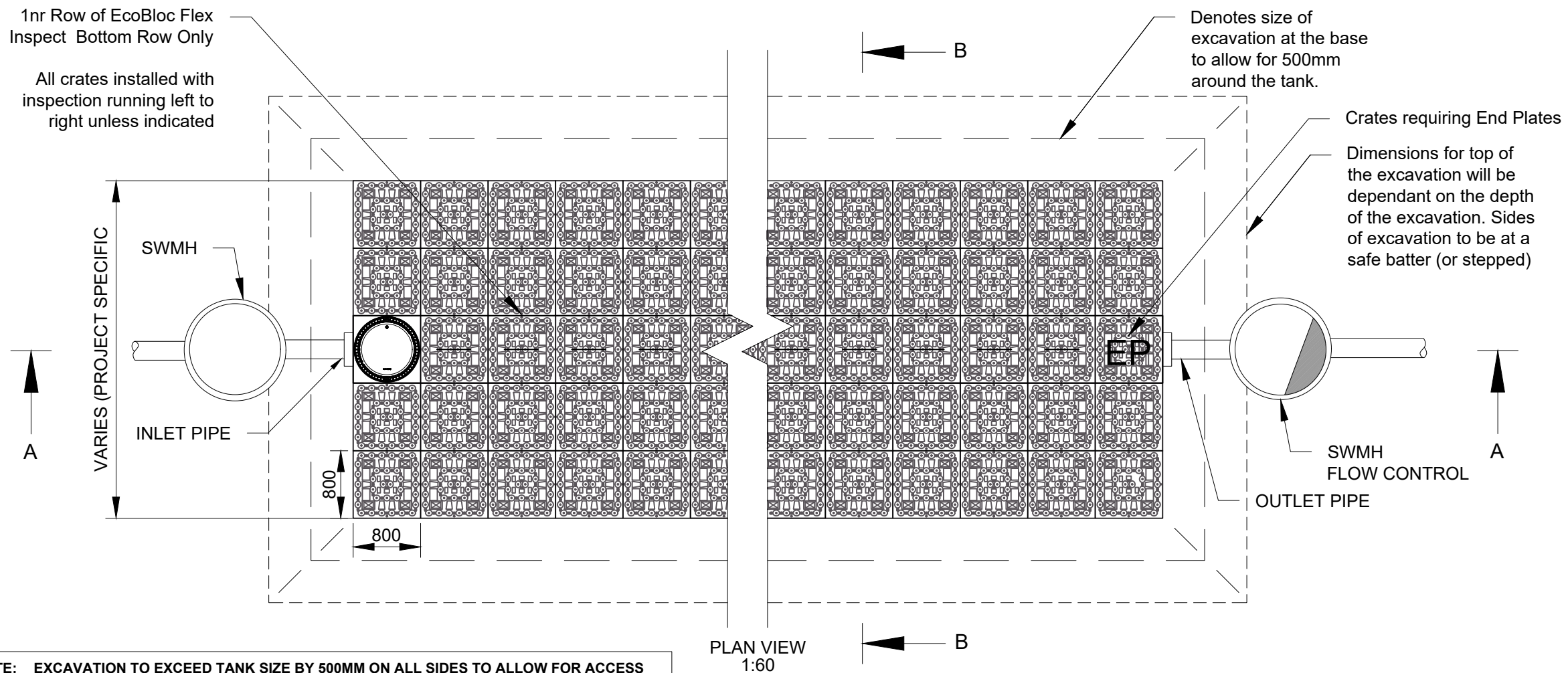


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- NOTES:-
- All dimensions in mm, unless otherwise stated.
 - All dimensions are nominal and may vary within manufacturing tolerances.
 - All site temporary enabling works by others.
 - Graf products to be installed in strict accordance with Graf recommendations.
 - This drawing is intended for guidance only. Confirmation of the suitability for a particular project should be sought from the consulting engineers prior to final design or commencement of any construction works.

1nr Row of EcoBloc Flex Inspect Bottom Row Only

All crates installed with inspection running left to right unless indicated

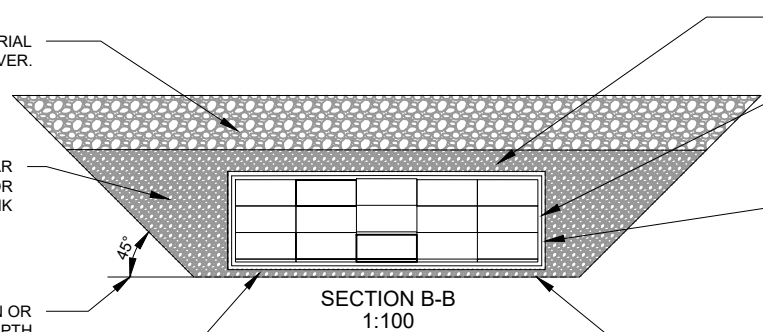


NOTE: EXCAVATION TO EXCEED TANK SIZE BY 500MM ON ALL SIDES TO ALLOW FOR ACCESS

BACKFILL UP TO FINISHED GROUND LEVEL USING SUITABLE MATERIAL AS REQUIRED FOR FINISHED COVER.

MIN 500mm OF 8 TO 16mm SINGLE SIZED NON-ANGULAR STONE AROUND SIDES OF TANK TO BE COMPLETED PRIOR TO ANY FILL MATERIAL BEING PLACED ON TOP OF TANK

ANGLE TO SUIT SAFE EXCAVATION OR SURROUNDING GROUND AND DEPTH
BASE LAYER TO BE 8 TO 16mm SINGLE SIZED NON-ANGULAR STONE MIN DEPTH 80mm



LAYER IMMEDIATELY ABOVE TANK TO BE 10 TO 16mm SINGLE SIZED NON-ANGULAR STONE MIN 100mm BEFORE BACKFILLING AS PER FINISHED GROUND COVER

INNER LAYER TO BE 1MM THICK EXCELINER LDPE IMPERMEABLE MEMBRANE. SHEET WIDTHS OF 5.8M AND SUPPLIED IN LENGTHS TO SUIT INSTALLATION. ALL JOINTS TO BE WEDGE WELDED TO FORM A WATERTIGHT SEAL.

OUTER LAYER TO BE 300g/m² (SNW40) NON-WOVEN GEOTEXTILE. INSTALLED WITH A MIN. OVERLAP OF 300mm

UNDISTURBED EARTH BASE OF EXCAVATION. EXCAVATED AREA TO BE SMOOTH, FIRM AND LEVEL, FREE FROM LUMPS AND DEBRIS AND SUITABLE TO CARRY ANTICIPATED LOADS.

ECOBLOC MAXX

	Crate	Baseplate
Dimensions (mm)	800 x 800 x 350	800 x 800 x 40
Gross Volume (m3)	0.225m ³	0.025m ³
Net Volume (m3)	0.217m ³	0.020m ³
Material	Polypropylene	Polypropylene
Weight	9kg	4kg
Void Ratio	>96% depending on number of layers	
Inspectable	Yes, when combined with EcoBloc Flex	



D.01	Issued for Discussion	AP	MF	20.05.22
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file	P:\jod-jobs\6786 Ballyvary Housing\700 Drawings\703 Planning\01 WIP\6786-JOD-XX-ZZ-DR-C-700-004-006 Atten Tank Detail.dwg			

client **MAYO COUNTY COUNCIL**

project **PROPOSED HOUSING AT BALLYVARY, CO. MAYO.**

stage **DRAFT**

title **ATTENUATION TANK - GRAF ECOBLOC MAXX - SHEET 1**

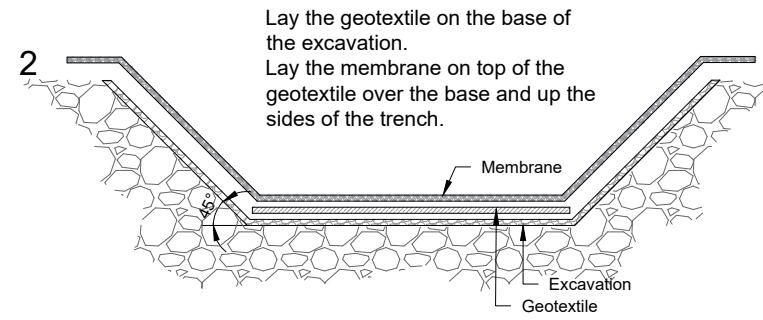
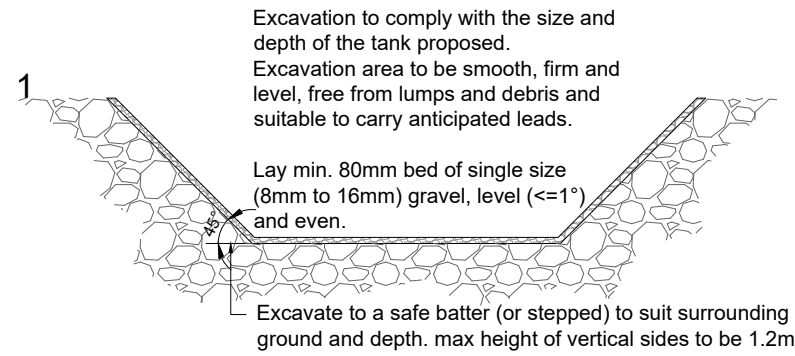
scale **AS SHOWN @ A3**

surveyed	drawn	checked	date
--	AP	MF	May 2022

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drawing no.	revision
6786-JOD-XX-ZZ-DR-C-700-004	D.01



Geomembrane:
1mm Thick LLDPE Geomembrane with a density of at least 0.939g/m².

Geotextile:
300g/m² Non-woven, needle punched geotextile

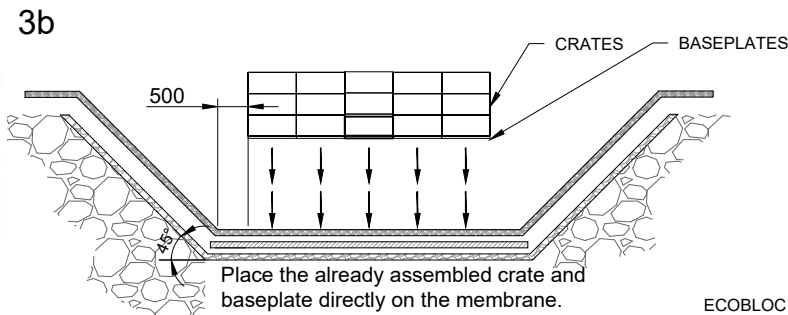
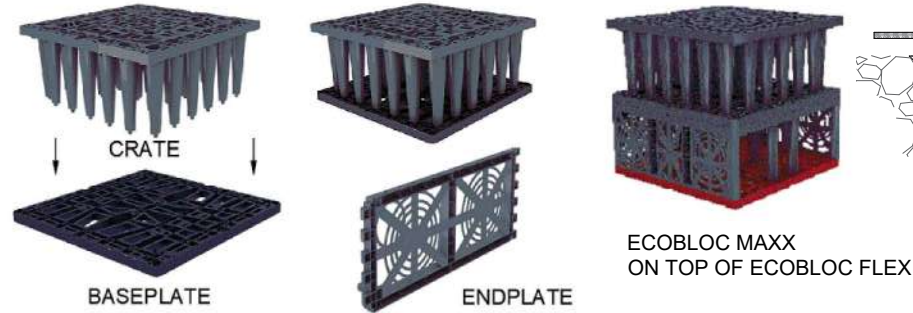
Geomembranes and Geotextiles with characteristics less than those specified are unlikely to be suitable and are therefore not recommended for use with Graf UK systems for this application

DO NOT SCALE - IF IN DOUBT ASK

INSTALLATION METHOD:-

1. a) Excavate the trench with a safe batter (or stepped) ensuring the footprint allows for sufficient space between tank and the sides. (minimum 500mm around all sides of the tank).
b) Mark out the position of the tank including inlets and outlets.
c) Lay min. 80mm of single sized non angular stone (8 to 16mm) as a base for the tank. This can be laid to a maximum fall of 1°.
2. a) Lay the Geotextile over the base the excavation, overlapping any joins by a minimum of 300mm
b) Lay the Membrane on top of the Geotextile over the base and up the sides of the trench.
c) Membrane must be joined by thermal fusion heated wedge welding. It is recommended that the Dual Seam method is used as this generates an unwelded channel which can be pressured with air to check the integrity of the weld.
d) The membrane and geotextile used must meet the specification stated on the drawing.
3. a) Assemble EcoBloc Maxx Crate and Baseplate, position leg ends into corresponding holes in the Baseplate. The crate will only fit in the correct orientation. Push down firmly to ensure Crate is located correctly. Assemble the row of EcoBloc Flex Crate with baseplates where inspection run is required. If a Vario shaft is to be included within the tank make sure the Vario Shaft base is in position located (Vario Shaft bases do not require a crate baseplates).
b) Install already assembled Crates and Baseplates onto the membrane until the first layer is complete. Insert retaining clips into each adjacent Crate.
c) Check and make sure the Row of EcoBloc Flex Crates are in the correct located position where inspection run is required.
d) To install the next layer of Crates remove from the stack and turn 90° and position directly above the Crate below. Push down firmly to ensure Crate is located correctly.
NOTE: You will need to place an additional row of EcoBloc Maxx Baseplates directly on top of the EcoBloc Flex crates **only**. No more base plates are required.
e) Continue until all Crates have been installed, ensuring clips are used to secure each Crate.
f) Fit Endplates to the sides of each Crate by positioning the bottom in place then pushing firmly on the top section to locate into place.
4. a) Fix adaptor plates to the sides of the crates in the required position for the inlet and outlet pipes.
b) Cut a hole in the Membrane and pull over the adaptor plate sealing the membrane around the spigot of the adaptor plate.
c) Pull Membrane up around the sides and fully wrap the crates, securing the lid in place by heated wedge welding to the side panels.
d) Cover top and sides with the Geotextile covering the entire tank to protect the Membrane.
e) Install vent pipe connection into the top of the tank at a suitable location.
f) Backfill around the tank and for 100mm above with non-angular stone. Backfill to finished ground level with suitable material in layers.
g) Connect inlet/outlet pipes using appropriate bandseals.
h) In order to prevent silt from entering the tank it is recommended that silt traps or catchpit manholes are installed upstream of any inlet. These should be regularly maintained to avoid the buildup of any silt.

3a Assemble Baseplate and Ecobloc Maxx crate as shown below.

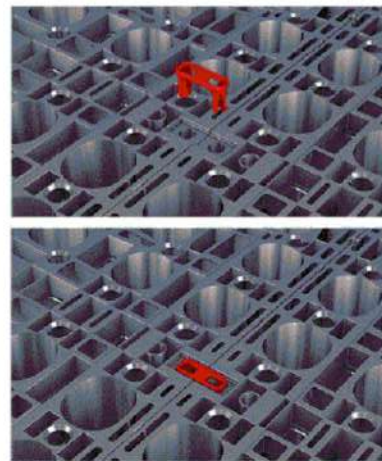


Mixed crates to be constructed as labeled below

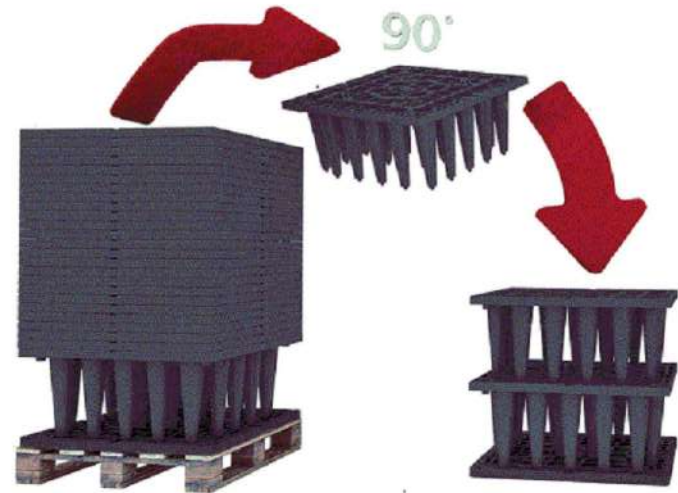
MAXX	MAXX	MAXX	MAXX	MAXX
MAXX	MAXX	MAXX	MAXX	MAXX
MAXX	MAXX	FLEX	MAXX	MAXX

ECOBLOC MAXX CRATE
ECOBLOC MAXX BASEPLATE
ECOBLOC FLEX CRATE
ECOBLOC FLEX BASEPLATE
ECOBLOC MAXX BASEPLATE

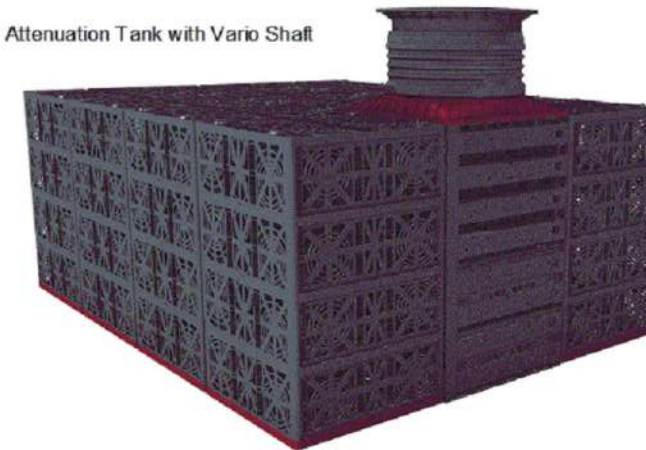
Remove a crate from the stack, rotate it 90° and place on top of the previously placed crate ensuring the connector clips are clipped locking the crates together.



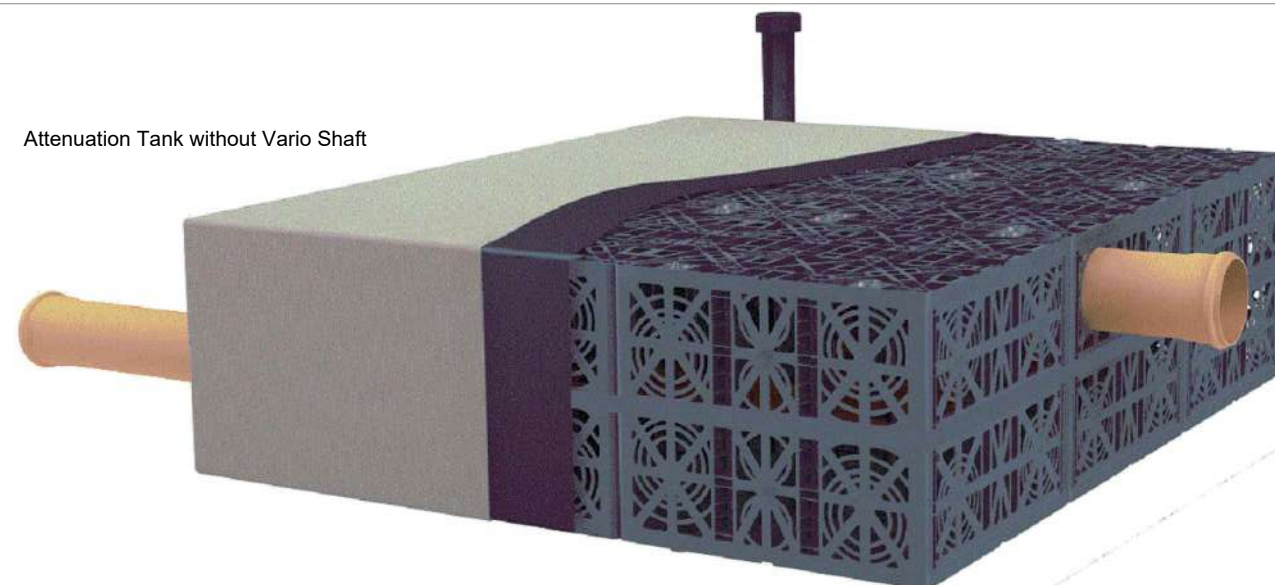
Connector clips are Red for illustration purposes only and are Grey in colour



Attenuation Tank with Vario Shaft

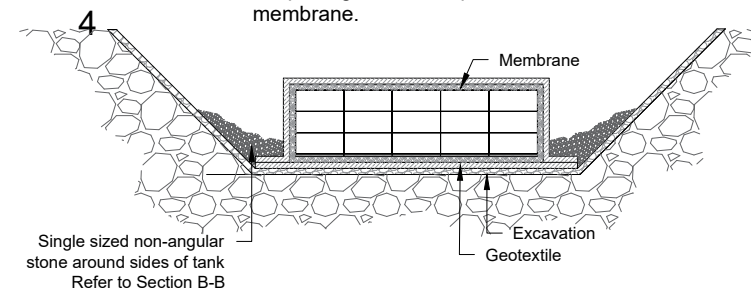


Attenuation Tank without Vario Shaft



Endplates are then clipped to the tank where required.

Wrap the crates with the geomembrane ensuring it is heat welded/sealed then wrap the geotextile to protect the membrane.



D.01	Issued for Discussion	AP	MF	20.05.22
rev.	modifications	by	chkd	date

file P:\jod-jobs\6786 Ballyvary Housing\700 Drawings\703 Planning\01 WIP\6786-JOD-XX-ZZ-DR-C-700-004-006 Atten Tank Detail.dwg

client MAYO COUNTY COUNCIL

project PROPOSED HOUSING AT BALLYVARY, CO. MAYO.

stage DRAFT

title ATTENUATION TANK - GRAF ECOBLOC MAXX - SHEET 2

scale AS SHOWN @ A3

surveyed	drawn	checked	date
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drawing no.	revision
6786-JOD-XX-ZZ-DR-C-700-005	D.01

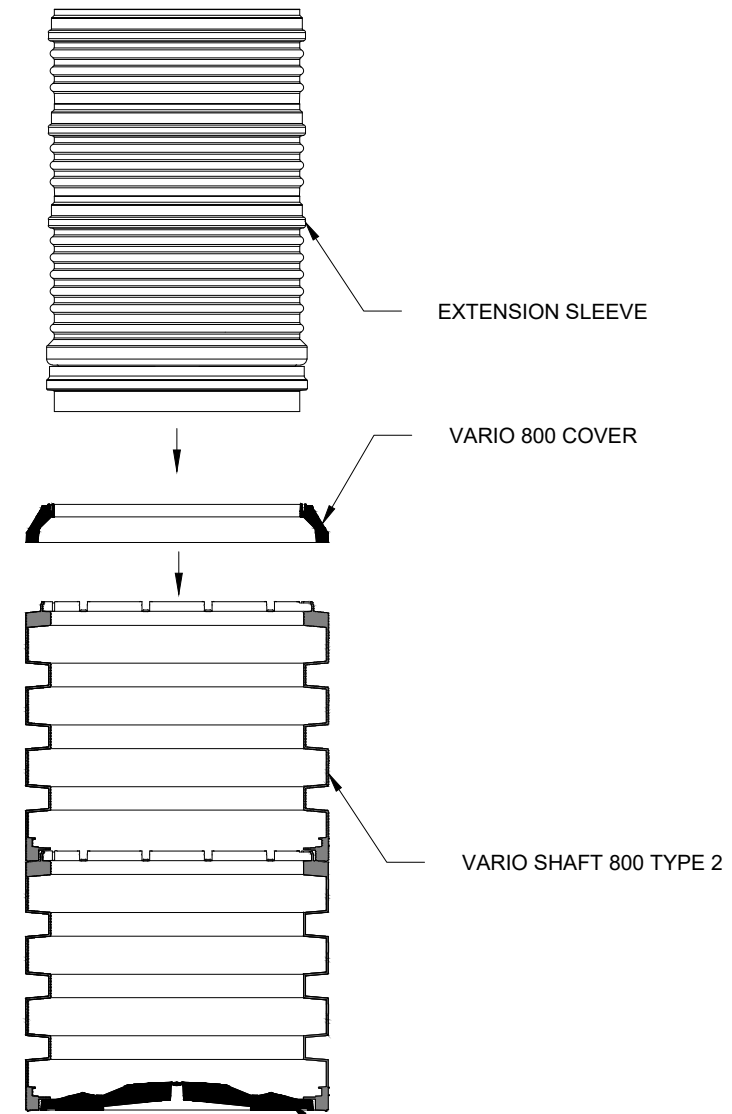
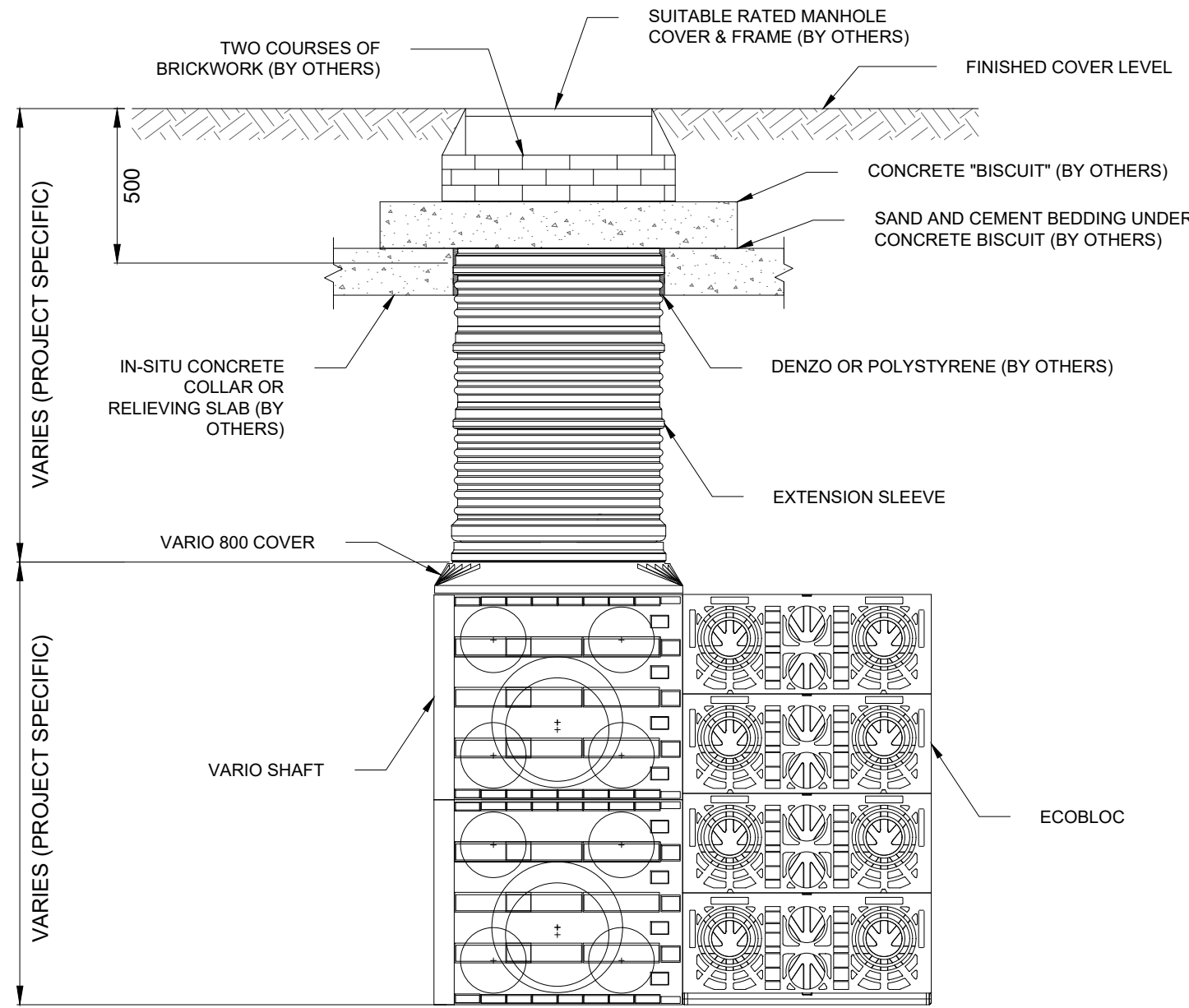
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Notice: This drawing is issued only as a guideline and is an estimate of the materials required to construct the drainage system, it should not be used for construction purposes.
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4. Graf products to be installed in strict accordance with Graf recommendations.
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EXTERNAL VIEW

INTERNAL VIEW

VARIO 800 TYPE 1

Dimensions (mm) 800 x 800 x 355
 Weight 14kg
 Volume 230 (litres)

VARIO 800 TYPE 2

Dimensions (mm) 800 x 800 x 660
 Weight 24kg
 Volume 420 (litres)

VARIO 800 BASE/COVER SET

Dimensions (mm) 800 x 800 x 100
 Weight 11kg

rev.	modifications	by	chkd	date
D.01	Issued for Discussion		AP MF	20.05.22

file P:\jod-jobs\6786 Ballyvary Housing\700 Drawings\703 Planning\01 WIP\6786-JOD-XX-ZZ-DR-C-700-004-006 Atten Tank Detail.dwg

client MAYO COUNTY COUNCIL

project PROPOSED HOUSING AT BALLYVARY, CO. MAYO.

stage DRAFT

title ATTENUATION TANK - GRAF VARIO SHAFT - SHEET 3

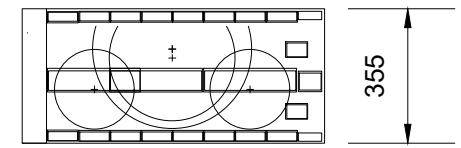
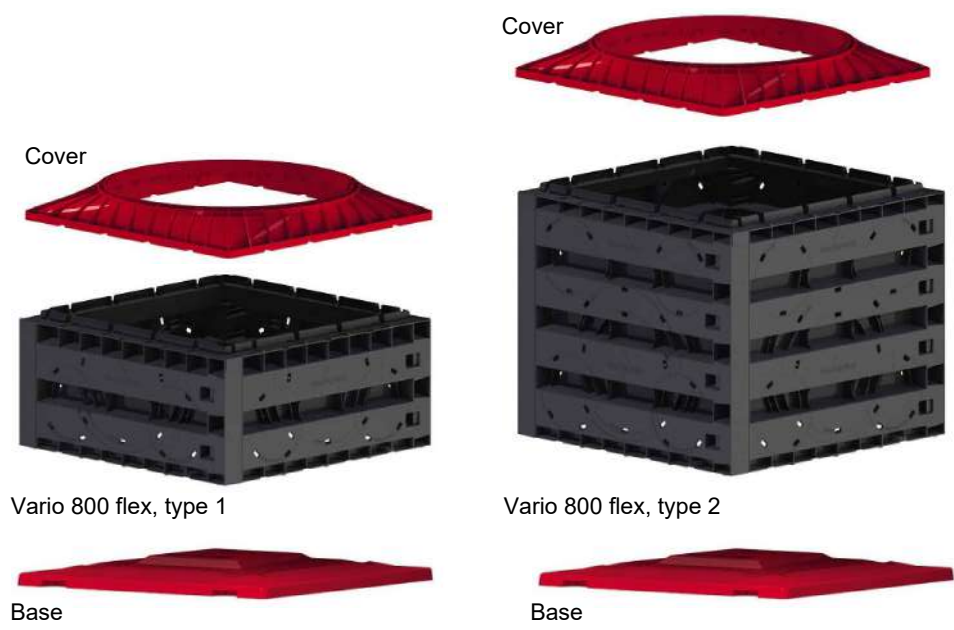
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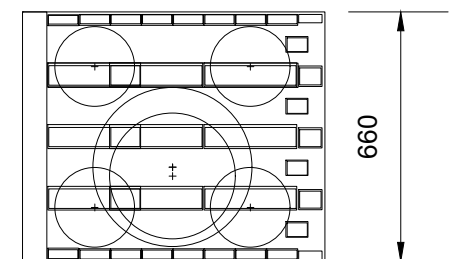
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Vario 800 flex, type 1



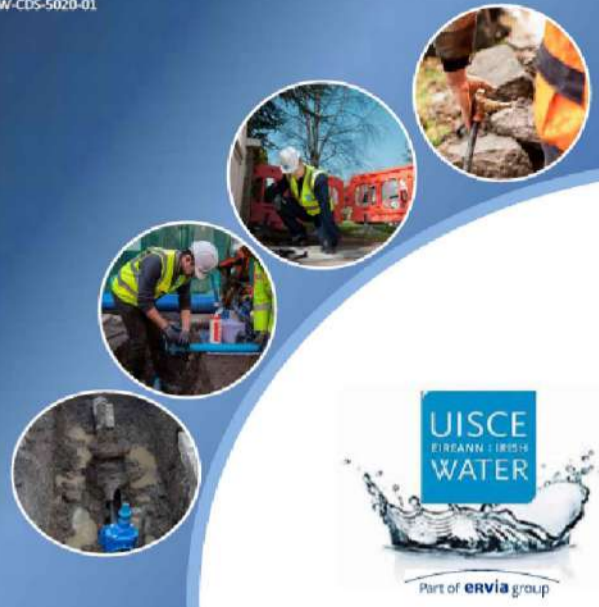
Vario 800 flex, type 2



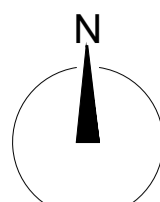
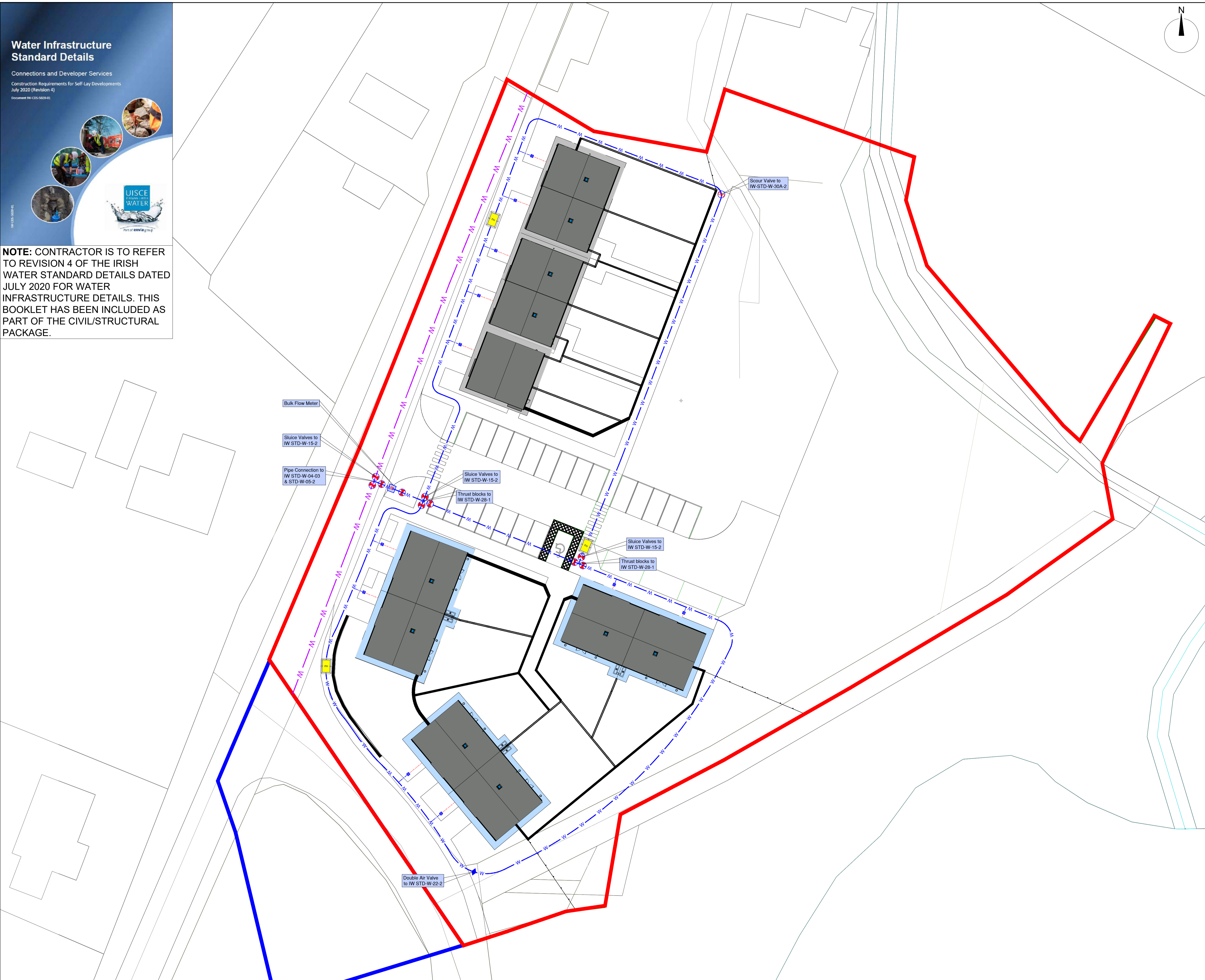
Vario 800 are modular and are easily assembled in a push fit manner.

Water Infrastructure Standard Details

Connections and Developer Services
Construction Requirements for Self-Lay Developments
July 2020 (Revision 4)
Document No. CIS-560201



NOTE: CONTRACTOR IS TO REFER TO REVISION 4 OF THE IRISH WATER STANDARD DETAILS DATED JULY 2020 FOR WATER INFRASTRUCTURE DETAILS. THIS BOOKLET HAS BEEN INCLUDED AS PART OF THE CIVIL/STRUCTURAL PACKAGE.



NOTES

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LEGEND

- SITE BOUNDARY shown thus
- WATERMAIN SUPPLY Ø 110mm OUTSIDE DIAMETER PE100 JDR1. PIPE MATERIAL SHALL BE IN COMPLIANCE WITH IRISH WATER SECTION 3.9 OF THE CODE OF PRACTICE.
- PROPOSED WATER SUPPLY CONNECTION WITH BOUNDARY BOX TO I.W. STD-W-03 shown thus
- FIRE HYDRANT TO I.W. STD-W-18/19 shown thus (3 No. Hyd)
- SLUICE VALVE TO I.W. STD-W-15-2 shown thus (10 No. SV's)
- SCOUR VALVE TO I.W. STD-W-30A-2 shown thus (1 No. SC.v's)
- BULK FLOW METER To Incl. Kiosk to STD-W-36 AND METER CHAMBER TO STD-W-26 shown thus
- EXISTING WATERMAIN

Site Area:-
9,900 m², 2.44 Acres, 0.99 Hectares
ITM Co-Ordinates of site:-
524360, 794418
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OS Sheet No. 1908

D.01	Issued for Discussion	AP	MF	20.05.22
rev.	modifications		by	chkd date
Layout Ref.:				
file	P:\Jod-jobs\6786 Ballyvary Housing\700 Drawings\703 Planning\01 WIP\6786-JOD-XX-ZZ-DR-C-700-006 Watermain Site Layout Plan.dwg			

client Comhairle Contae Mhaigh Eo
Mayo County Council

project
PROPOSED HOUSING AT BALLYVARY,
CO. MAYO.

stage
DRAFT

title
WATERMAIN SITE LAYOUT PLAN

scale
1:250 @ A1

surveyed	drawn	checked	date
JOD	AP	MF	May 2022

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drawing no.	revision
6786-JOD-XX-ZZ-DR-C-700-007	D.01



NOTES

GENERAL NOTES:

1. FIGURED DIMENSIONS ONLY TO BE TAKEN FROM THIS DRAWING.
2. ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR ON SITE.
3. ENGINEER/EMPLOYERS REPRESENTATIVE, AS APPROPRIATE, TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES BEFORE ANY WORK COMMENCES.
4. THE CONTRACTOR SHALL UNDERTAKE A THOROUGH CHECK FOR THE ACTUAL LOCATION OF ALL SERVICES/UTILITIES, ABOVE AND BELOW GROUND, BEFORE ANY WORK COMMENCES.
5. ALL LEVELS SHOWN RELATE TO ORDNANCE SURVEY DATUM AT MALIN HEAD.
6. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATIONS. CONTRACTOR TO VERIFY THE ACCURACY OF THIS PROPOSAL TO THE ENGINEER AND ALLOW FOR MINOR CORRECTIONS AS DEEMED NECESSARY WITH A REASONABLE TIMEFRAME.

LEGEND

STOP SIGN shown thus	
SIGN AND POST shown thus	RUS 027
PRIORITY CONTROLLED JUNCTION REFER TO TSM FIG 7.35.	
PROPOSED ROADWAY - REFER TO DRAWING 6795-JOD-009 FOR ROAD BUILD UP DETAIL	
PROPOSED FOOTPATH shown thus	
PROPOSED PARKING shown thus	
PROPOSED LANDSCAPING shown thus	
PRECAST DROP KERBING shown thus	
PROPOSED ROAD GULLY shown thus	RG
EXISTING SPOT LEVEL shown thus	81.865m
PROPOSED ROAD LEVEL shown thus	81.00m

Site Area:-
9,900 m², 2.44 Acres, 0.99 Hectares
ITM Co-Ordinates of site:-
524360, 794418
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OS Sheet No. 1908

D.01	Issued for Discussion	AP	MF	20.05.22
rev.	modifications	by	chkd	date
Layout Ref.:				
file	P:\Jod-jobs\6786 Ballyvary Housing\700 Drawings\703 Planning\01 WIP\6786-JOD-XX-ZZ-DR-C-700-008 Road Layout Plan.dwg			

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Mayo County Council

project
PROPOSED HOUSING AT BALLYVARY,
CO. MAYO.

stage
DRAFT

title
ROAD LAYOUT PLAN

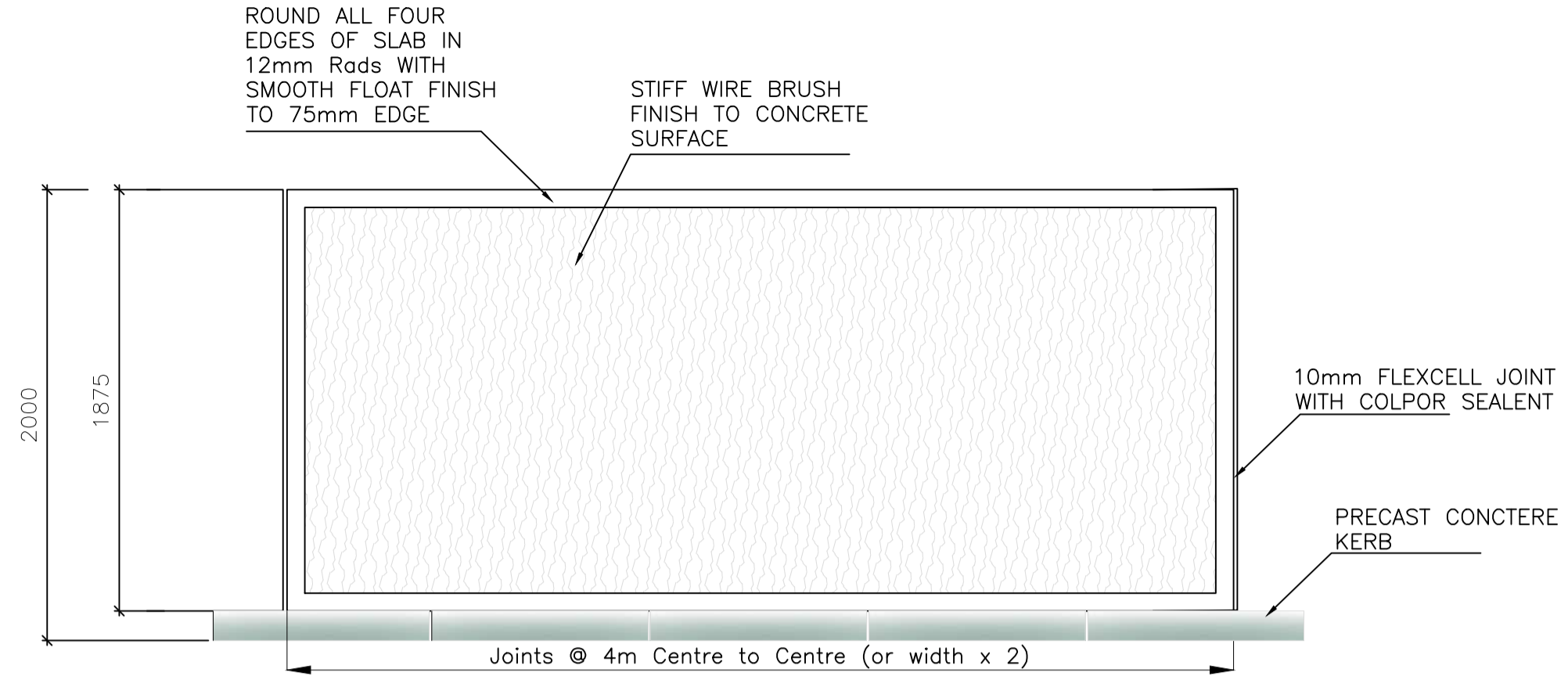
scale
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surveyed	drawn	checked	date
JOD	AP	MF	May 2022

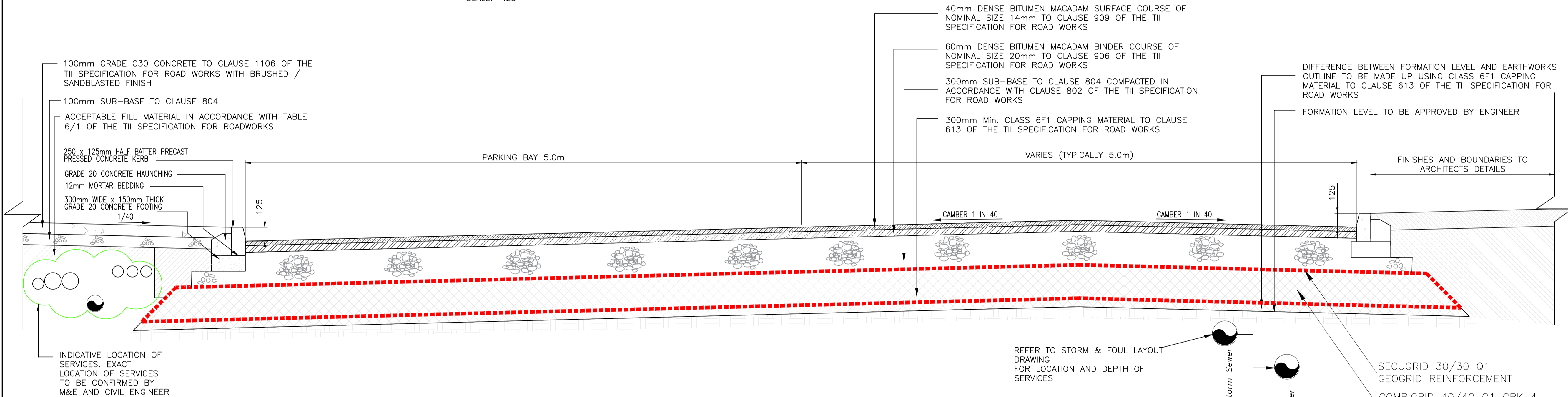
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drawing no.	revision
6786-JOD-XX-ZZ-DR-C-700-008	D.01

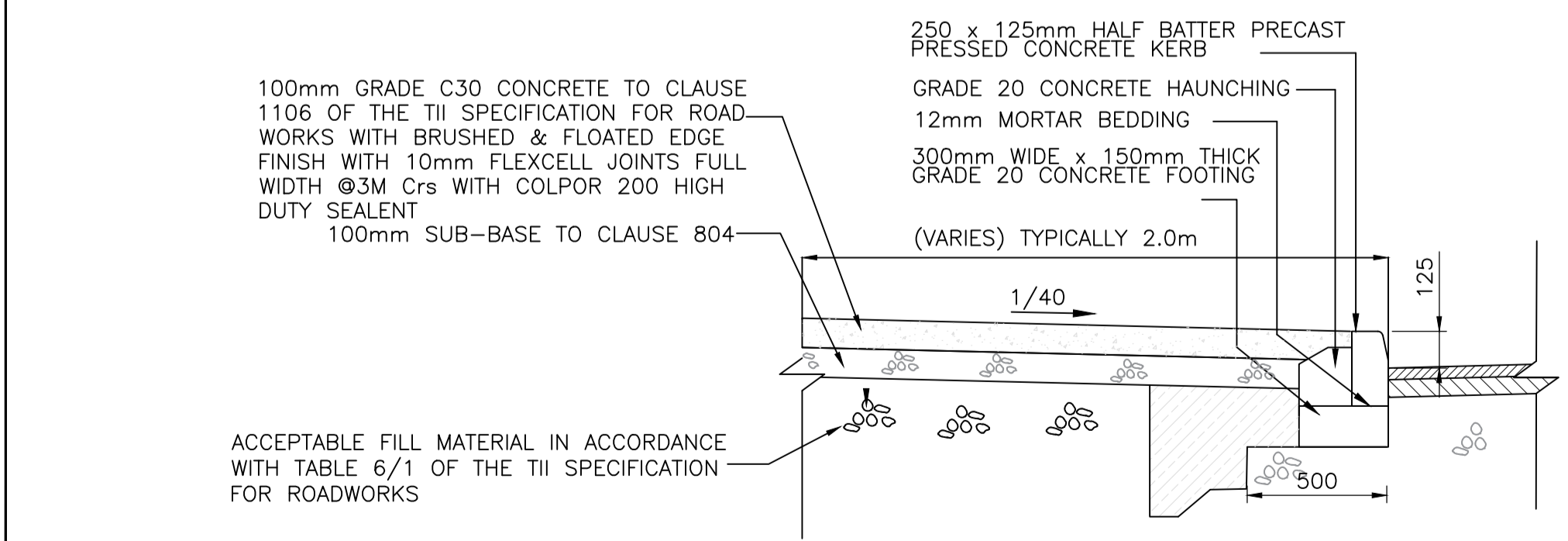
- NOTES:**
- Road construction details, paving, footpaths and surface water infrastructure shall comply with TII Specifications for Roadworks
 - Footpath construction shall comply with Series 1100 of the TII Specifications.
 - The footways shall be a minimum 150mm depth throughout with reinforcing mesh at all driveway entrances - as per TII SCD 01103.
 - Roadway construction shall comply with Series 900 of the TII Specifications.
 - Footpaths shall be a minimum 2m wide.
 - Public lighting shall be all LED type and comply with public lighting requirements for housing developments as specified under IS EN13201-Class S4.
 - Provision of dropped kerbing and tactile paving shall be made at all pedestrian crossing points.



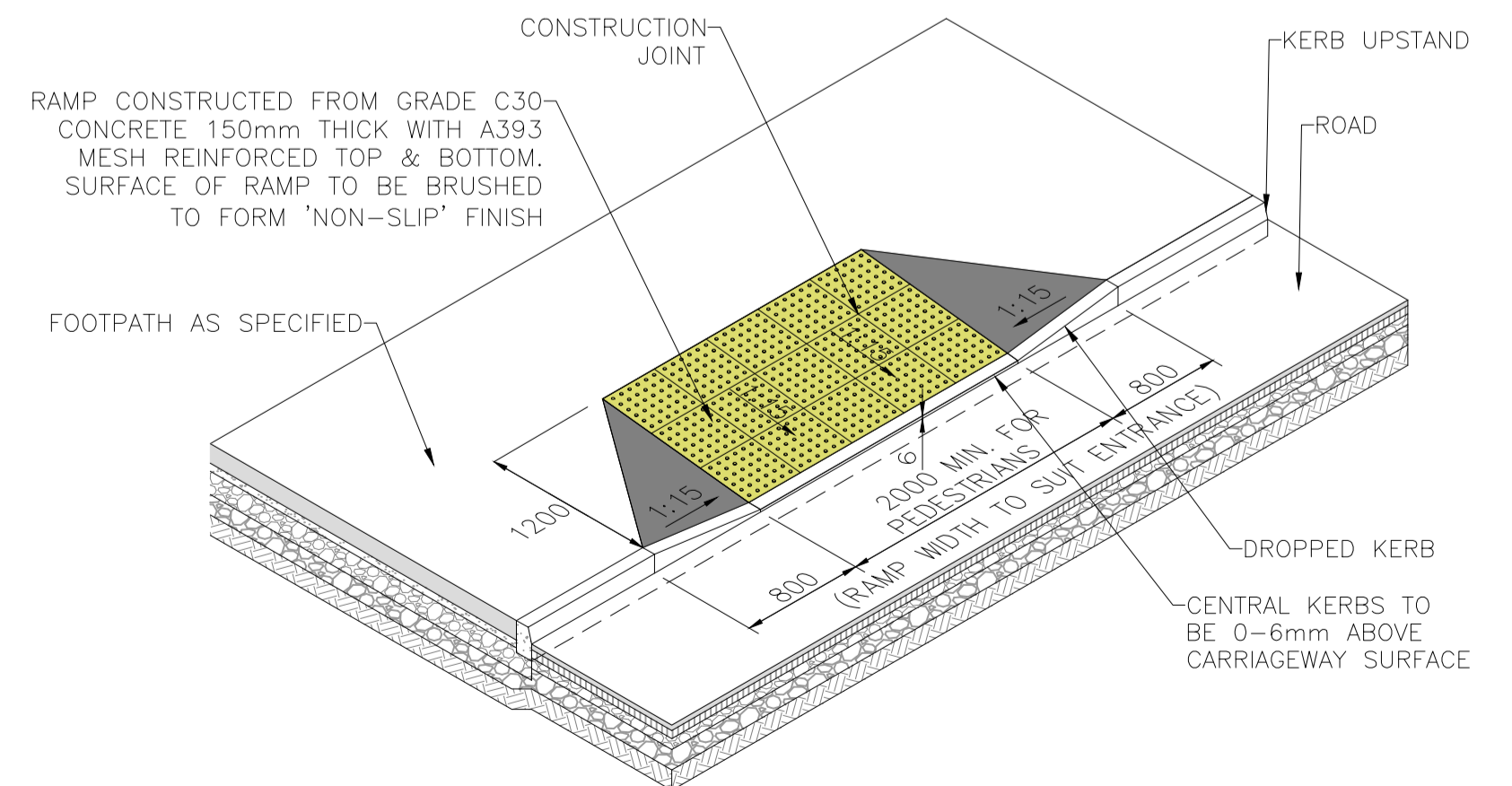
TYPICAL FOOTPATH PLAN CONCRETE
SCALE: 1:25



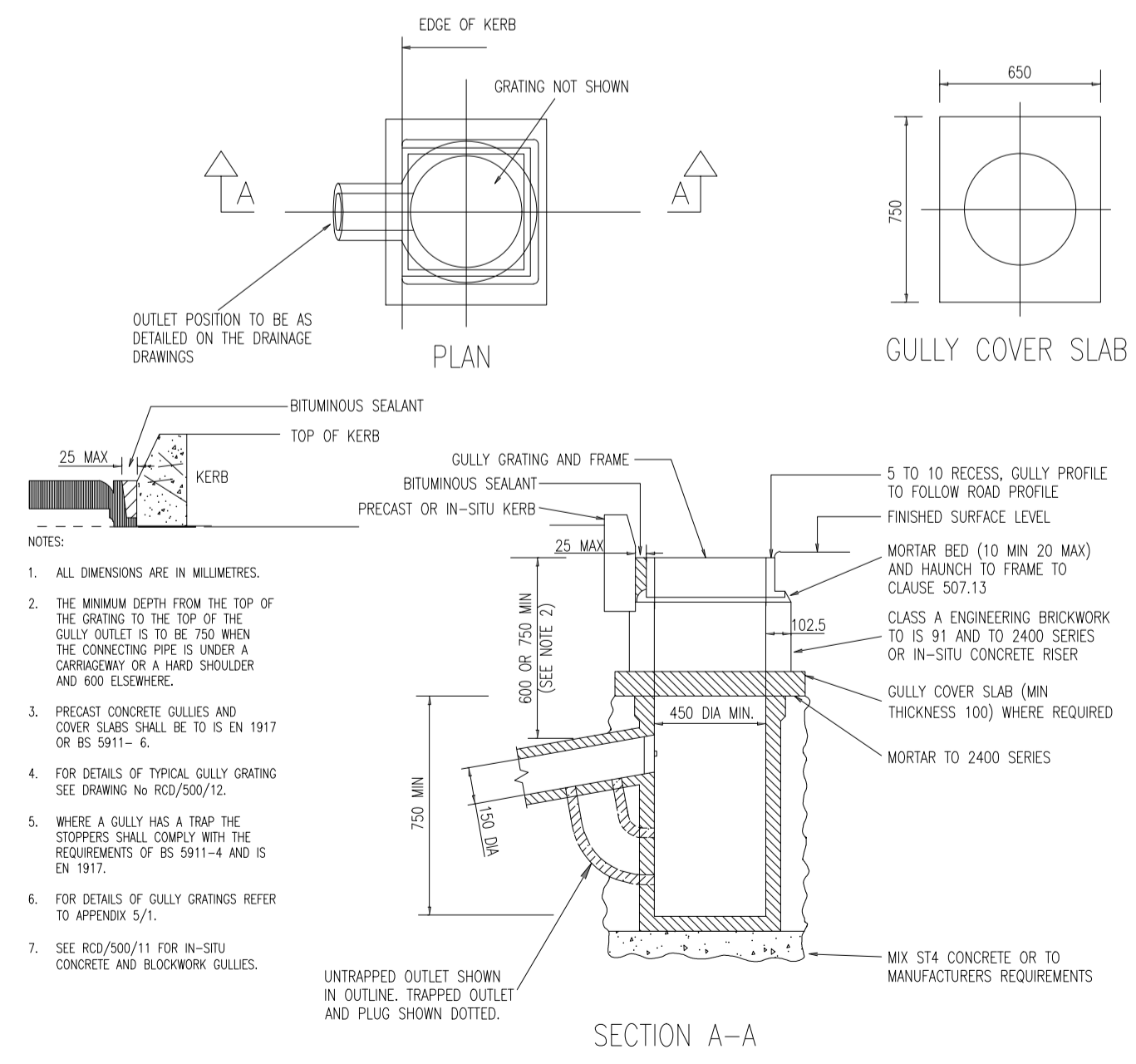
TYPICAL ROAD CROSS SECTION: SECTION A-A
SCALE: 1:20



TYPICAL CONCRETE FOOTPATH CROSS SECTION
SCALE: 1:20

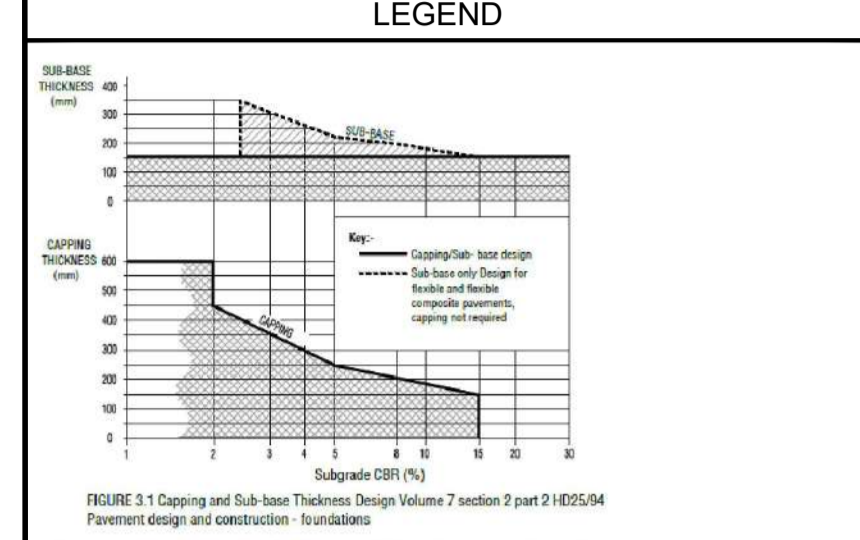


DROP KERB GEOMETRY
SCALE: 1:50



TYPICAL ROAD GULLY DETAIL IN ACCORDANCE WITH TII DETAIL RCD 500/10
SCALE: NOT TO SCALE

- NOTES**
- GENERAL NOTES:**
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Capping and Sub-base Thickness Design

The thickness of sub-base and capping shall be obtained from Figure 3.1. The sub-base may be omitted where the CBR is above 20%.

Where the sub-grade CBR is greater than 15%, the thickness of sub-base required is 150mm. When the sub-grade CBR is between 2.5% and 15% for flexible and flexible composite construction, there are two options available:

- 150mm of sub-base can be used over a varying thickness of capping which depends on the CBR value.
- An increasing thickness of sub-base shall be used with the decreasing CBR, with no requirement for capping.

For all pavements and sub-grades with CBR values below 2.5%, 150mm of sub-base on the varying thickness of capping must be used.

When the sub-grade CBR is below 2% even after proof rolling, seek the advice of the engineer. The design should be based on the lowest CBR value and not amended unless there is significant increase in the CBR along the road.

Soils liable to frost heave should have at least 450 mm of construction cover.

D.01	Issued for Discussion	AP	MF	20.05.22
rev.	modifications	by	chkd	date
Layout Ref.:	P:\Jod-jobs\6786 Ballyvary Housing\700 Drawings\703 Planning\01 WIP\6786-JOD-XX-ZZ-DR-C-700-009 Road Construction Details.dwg			

client
Comhairle Contae Mhaigh Eo
Mayo County Council

project
PROPOSED HOUSING AT BALLYVARY,
CO. MAYO.

stage
DRAFT

title
ROAD & FOOTPATH
CONSTRUCTION DETAILS

scale
AS SHOWN @ A1

surveyed	drawn	checked	date
JOD	AP	MF	May 2022

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drawing no.	revision
6505-JOD-XX-ZZ-DR-C-700-009	D.01

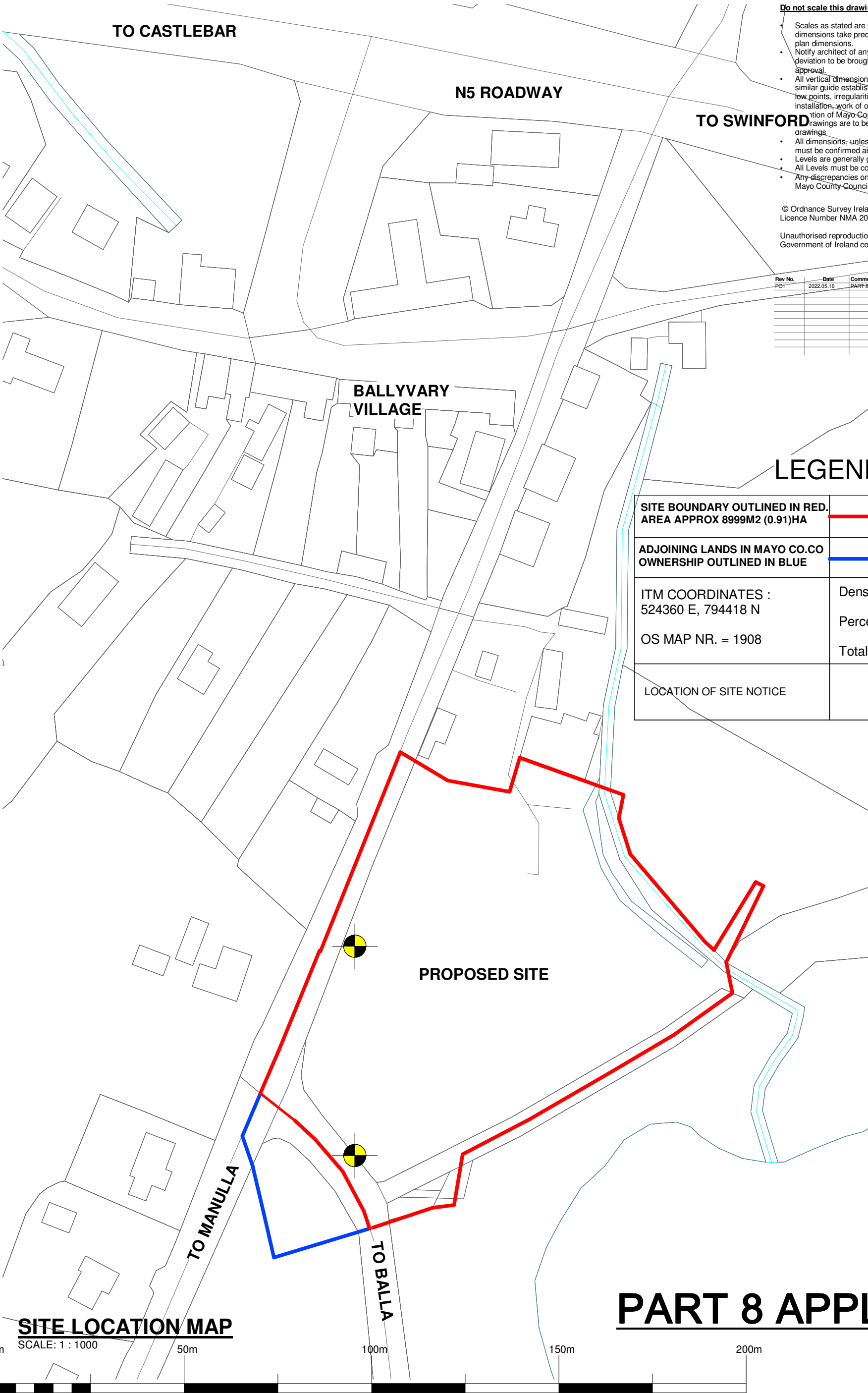
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Rev No.	Date	Comment
PO1	2022.05.16	PART 8 SUBMISSION

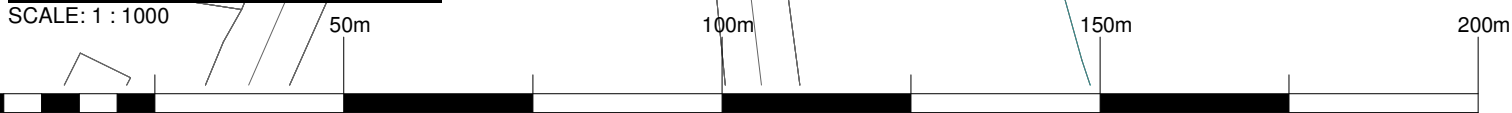


LEGEND

SITE BOUNDARY OUTLINED IN RED. AREA APPROX 8999M2 (0.91)HA	
ADJOINING LANDS IN MAYO CO.CO OWNERSHIP OUTLINED IN BLUE	
ITM COORDINATES : 524360 E, 794418 N	Density = 12.1 units per Hectare
OS MAP NR. = 1908	Percentage Green Area = 15%
	Total No Units 12
LOCATION OF SITE NOTICE	

PROPOSED SITE

SITE LOCATION MAP



PART 8 APPLICATION

SHARED / FOR INFORMATION	
S0	WORK IN PROGRESS
S1	COORDINATION
S2	INFORMATION
S3	REVIEW / COMMENT
S4	CONST APPROVAL
D1	COSTING
D2	TENDER
D3	CONTRACTOR DESIGN
PUBLISHED	
A1	PTB / FSC / DAC
A2	CONSTRUCTION
AB	AS BUILT



ARCHITECTS DEPARTMENT
MAYO COUNTY COUNCIL

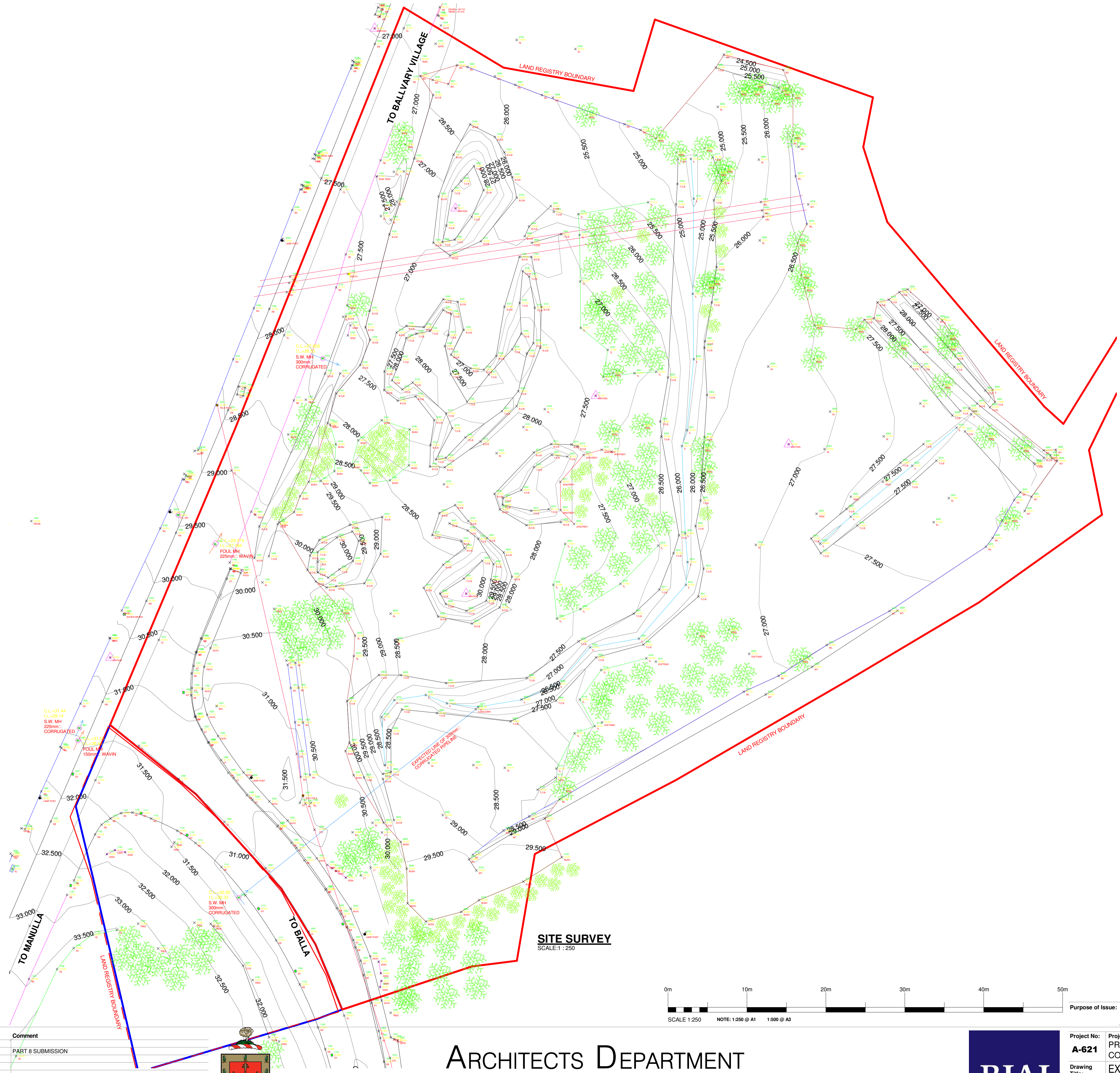
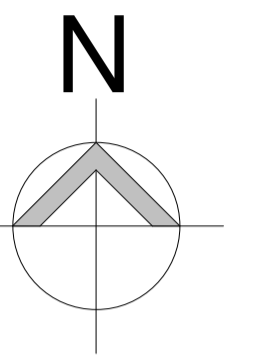


Project No: A-621	Project Title: PROPOSED HOUSING AT BALLVARY CO.MAYO.	Dwg Type 90	Status: A1
Drawing Title: SITE LOCATION MAP	Drawing No. 5000	Revision: PO1	First Issue:
Drawn By: Checked By:	Author Checker	No. A-621 - MCC - 90 - XX - DR - A - 5000 - A1	Scale: 1 : 1000
			2022.05.16

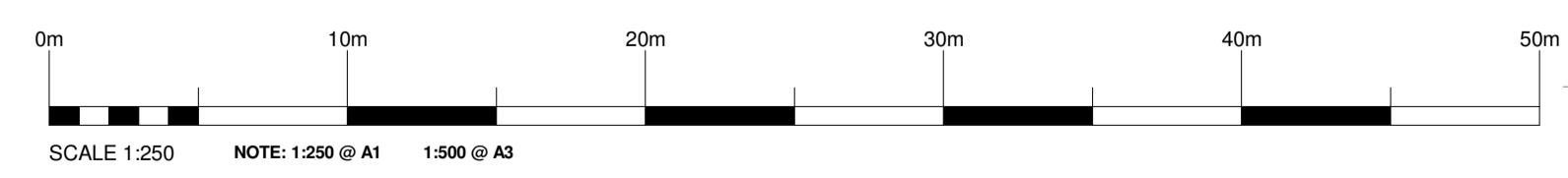


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SITE SURVEY
SCALE: 1 : 250



Purpose of Issue: **PART 8 APPLICATION**

Rev No.	Date	Comment
PO1	2022.05.16	PART 8 SUBMISSION

STATUS KEY	
SHARED FOR INFORMATION	
SI	WORK IN PROGRESS
S2	COORDINATION
S3	INFORMATION
RI	REVIEW COMMENT
DI	CONSENT APPROVAL
CI	COSTING
TI	TENDER
DI	CONTRACTOR DESIGN
PUBLISHED	
A1	PIB / FISC / DAC
A2	CONSTRUCTION
AB	AS BUILT



ARCHITECTS DEPARTMENT

MAYO COUNTY COUNCIL



Project No:	A-621	Project Title:	PROPOSED HOUSING AT BALLVARY CO.MAYO.	Dwg Type:	(90)	Status:	A1
Drawing Title:	EXISTING SITE SURVEY	Drawing No.:	5001	Revision:	PO1	First Issue:	
Drawn By:	GC	No. - Orig - Cat - Lvl - Type - Role - No. - Status					
Checked By:	PP	A-621 - MCC - (90) - XX - DR - A - 5001 - A1	Scale:	1 : 250			
				2022.05.16			



PROPOSED BOUNDARY TREATMENT & SURFACE FINISH LEGEND

- LANDSCAPING**
ALLOW FOR PLANTING OF DECIDUOUS NATIVE TREES VARIOUS SPECIES AND SIZES AS INDICATED (TO LATER CONFIRMATION BY ARCHITECTS)
- S1 SURFACE FINISH S1: GRASS**
GRASS SEED ON 300MM IMPORTED TOPSOIL. ALL GARDENS TO BE ROTAVATED, RAKED, CLEANED, GRADED, ROLLED AND SEEDED.
- S2 SURFACE FINISH S2: VEHICULAR ROADWAY**
TARMACADAM FINISH ON BASE LAYERS TO STRUCTURAL ENGINEERS SPECIFICATION AND DETAILS.
- S3 SURFACE FINISH S4: FOOTPATHS**
IN-SITU CONCRETE FOOTPATH ON BASE LAYERS TO STRUCTURAL ENGINEERS SPECIFICATION AND DETAILS.
- S4 SURFACE FINISH S4: PAVED AREAS**
240 X 160 X 60MM SELECTED PAVING LAID IN A HERRINGBONE PATTERN AND 160 X 160 X 60MM SELECTED PAVING TO EDGES WHERE ILLUSTRATED ON BASE LAYERS TO STRUCTURAL ENGINEERS SPECIFICATION AND DETAILS. REFER TO SITEWORKS BOOKLET FOR DETAILS
- S5 SURFACE FINISH S5 : IN-SITU COLOURED CONCRETE / BAUXITE SURFACES ON BASE LAYERS TO STRUCTURAL ENGINEERS SPECIFICATION AND DETAILS.**
- G3 GATE**
PROPOSED TIMBER PEDESTRIAN ACCESS GATE. REFER TO SITEWORKS BOOKLET FOR DETAILS
- B1 BOUNDARY TYPE B1**
PROPOSED 2000MM HIGH SELECTED STONE WALL WITH CONCRETE CAPPING ON CONCRETE STRIP FOUNDATION TO ENGINEERS SPECIFICATION AND DETAILS. REFER TO SITEWORKS BOOKLET FOR DETAILS
- B2 BOUNDARY TYPE B2**
PROPOSED 700MM HIGH SELECTED STONE WALL WITH CONCRETE CAPPING ON CONCRETE STRIP FOUNDATION TO ENGINEERS SPECIFICATION AND DETAILS. REFER TO SITEWORKS BOOKLET FOR DETAILS
- B7 BOUNDARY TYPE B7**
PROPOSED 2000MM HIGH BLOCK SCREEN WALL WITH PLASTER FINISH AND PRECAST CONCRETE CAPPING ON CONCRETE STRIP FOUNDATION TO ENGINEERS SPECIFICATION AND DETAILS. REFER TO SITEWORKS BOOKLET FOR DETAILS
- B8 BOUNDARY TYPE B8**
PROPOSED 2000MM TIMBER PALLISADE FENCE ON CONCRETE PAD FOUNDATIONS TO ENGINEERS SPECIFICATION AND DETAILS. REFER TO SITEWORKS BOOKLET FOR DETAILS
- B10 BOUNDARY TYPE B10**
PROPOSED 1800MM HIGH CHAINLINK FENCE ON CONCRETE PAD FOUNDATIONS TO ENGINEERS SPECIFICATION AND DETAILS. REFER TO SITEWORKS BOOKLET FOR DETAILS

HOUSE TYPE KEY :

	2No. 1 Bedroom Apartment
	4No. 3 Bedroom 2 Storey
	6No. 2 Bedroom Bungalow
	12 No. Total

SITE LAYOUT
SCALE: 1 : 250

STATUS KEY

Rev No.	Date	Comment
PO1	2021.11.16	POSSIBLE PHASE 2 INDICATED
PO2	2021.12.20	REVISED SITE LAYOUT
PO3	2022.01.14	STAGE 2 REVISED SITE LAYOUT

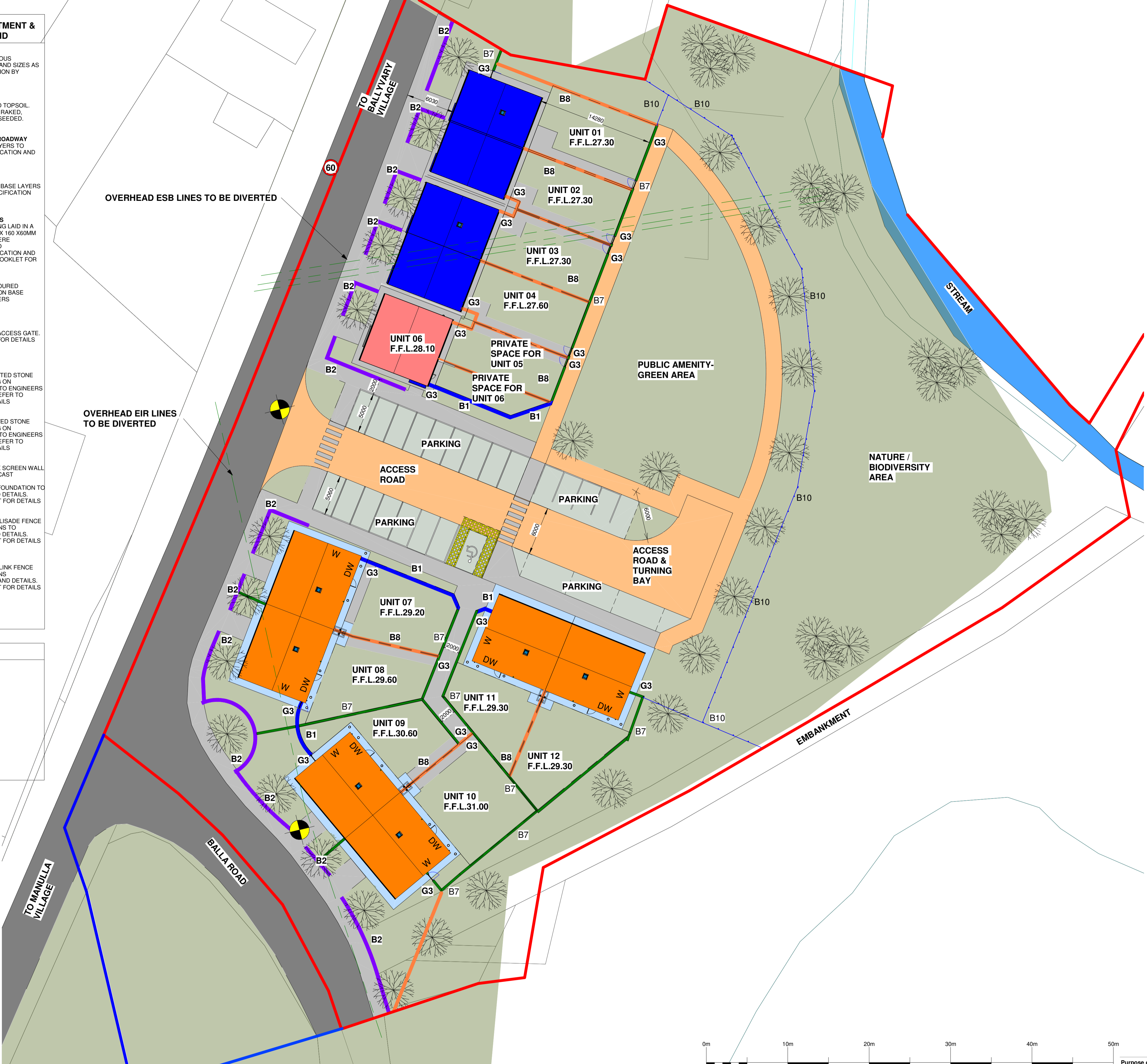


ARCHITECTS DEPARTMENT
MAYO COUNTY COUNCIL



Purpose of Issue: PART 8 APPLICATION

Project No: A-621	Project Title: PROPOSED HOUSING AT BALLVARY CO.MAYO.	Dwg Type: 90	Status: A1
Drawing Title: PROPOSED SITE LAYOUT WITH BOUNDARY TREATMENTS	Drawing No. 5002	Revision: PO3	First Issue: 2022.05.16
Scale: As indicated	Author: No. - Orig - Cat - Lvl - Type - Role - No. - Status	Checked By: Checker A-621 - MCC - 90 - XX - DR - A - 5002 - A1	



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LEGEND

SITE BOUNDARY OUTLINED IN RED. AREA APPROX 8999M2 (0.91)HA	
ADJOINING LANDS IN MAYO CO.CO OWNERSHIP OUTLINED IN BLUE	
ITM COORDINATES : 524360 E, 794418 N	Density = 12.1 units per Hectare
OS MAP NR. = 1908	Percentage Green Area = 15%
LOCATION OF SITE NOTICE	Total No Units 12

PART 8 DEVELOPMENT NOTES

SITE:
THE SITE IS 0.91HA (2.25 ACRES) IN AREA AND IS LOCATED ON THE SOUTH SIDE OF BALLVARY VILLAGE. IT SLOPES UP FROM NORTH TO SOUTH AWAY FROM THE VILLAGE CENTRE, AND FROM WEST TO EAST AWAY FROM THE PUBLIC ROAD.

THE PROPOSED SCHEME IS SEEN AS AN EXTENSION OF THE VILLAGE WITH A MIXTURE OF DWELLING TYPES. THE 6 NO. DWELLINGS CLOSEST TO THE VILLAGE CENTRE ARE TWO STOREY IN SCALE AND RUN PARALLEL TO OLD MILL ROAD / KEELOGUES ROAD, EXTENDING ON THE VILLAGE STREET SCHEME.

THE CAR PARKING IS PROPOSED TO BE GROUPED CENTRALLY AND DISTINGUISHED IN TERMS OF ITS MATERIALS FROM THE PUBLIC ROADWAY AS A HOMEZONE.

THE 6 NO. UNITS LOCATED FURTHEST FROM THE VILLAGE CENTRE ARE SINGLE STOREY AND MORE WIDELY SPACED TO REFLECT A LESS URBAN SETTLEMENT PATTERN.

A PUBLICLY ACCESSIBLE CENTRAL LANDSCAPED OPEN GREEN SPACE IS PROPOSED WHICH IS 15% OF THE TOTAL SITE AREA. IT IS ACCESSED DIRECTLY FROM THE HOMEZONE AND OVERLOOKED BY THE PROPOSED NEW DWELLINGS.

A FLOOD RISK ASSESSMENT HAS BEEN CARRIED OUT FOR THE DEVELOPMENT AND CONCLUDED THAT THERE IS NO RISK TO THE DEVELOPMENT AS PROPOSED.

PROPOSAL:
12 NO. ONE AND TWO STOREY DWELLINGS WITH ENCLOSED PRIVATE GARDENS TO REAR AS FOLLOWS:

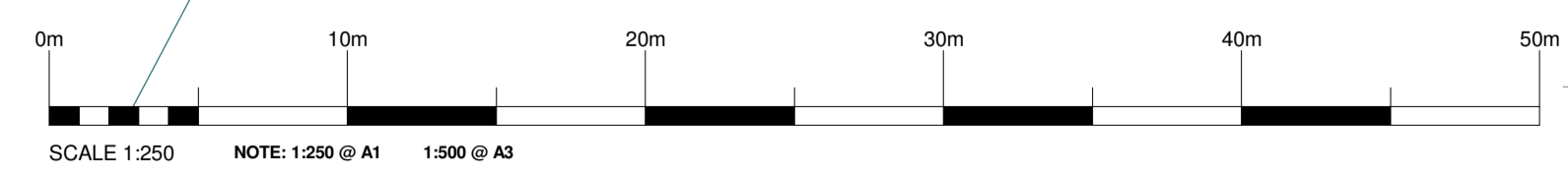
- 4 NO. THREE BEDROOMED TWO STOREY DWELLINGS IN TWO SEMI DETACHED BLOCKS
- 2 NO. ONE BEDROOMED APARTMENTS IN A SINGLE TWO STOREY BLOCK
- 6 NO. TWO BEDROOMED SINGLE STOREY DWELLINGS IN THREE SEMI DETACHED BLOCKS

THE SCALE, MASSING, ARCHITECTURAL EXPRESSION AND DETAILING OF THE PROPOSED SCHEME HAS BEEN DESIGNED TO BE IN HARMONY WITH THE EXISTING TRADITIONAL BUILDINGS IN THE VILLAGE CENTRE AND IN THE RURAL LOCALITY

EXTERNALLY THE UNITS WILL BE PLASTERED AND PAINTED, WITH COMPOSITE WINDOW AND DOOR SYSTEMS AND SLATED ROOFS. ALL DWELLINGS WILL HAVE PRIVATE GARDEN SPACE TO THE REAR AND SOME FRONT GARDEN SPACE ALSO TO PROVIDE PRIVACY ALONG THE PUBLIC ROADS AND FOOTPATHS.

PRIVATE AMENITY SPACES

UNIT No.	BED No.	AREA
UNIT 01-REAR GARDEN	3 BED	113 m²
UNIT 02-REAR GARDEN	3 BED	95 m²
UNIT 03-REAR GARDEN	3 BED	98 m²
UNIT 04-REAR GARDEN	3 BED	98 m²
UNIT 05-PRIVATE AMENITY SPACE	1 BED	37 m²
UNIT 06-PRIVATE AMENITY SPACE	1 BED	79 m²
UNIT 07-REAR GARDEN	2 BED	107 m²
UNIT 08-REAR GARDEN	2 BED	106 m²
UNIT 09-REAR GARDEN	2 BED	91 m²
UNIT 10-REAR GARDEN	2 BED	130 m²
UNIT 11-REAR GARDEN	2 BED	84 m²
UNIT 12-REAR GARDEN	2 BED	102 m²



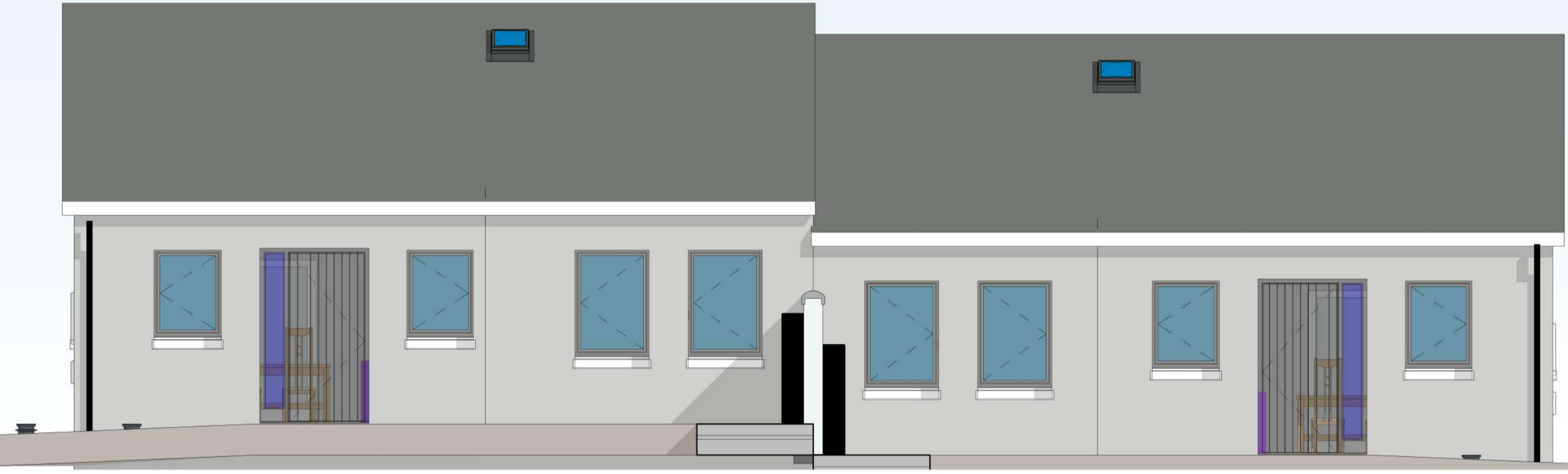
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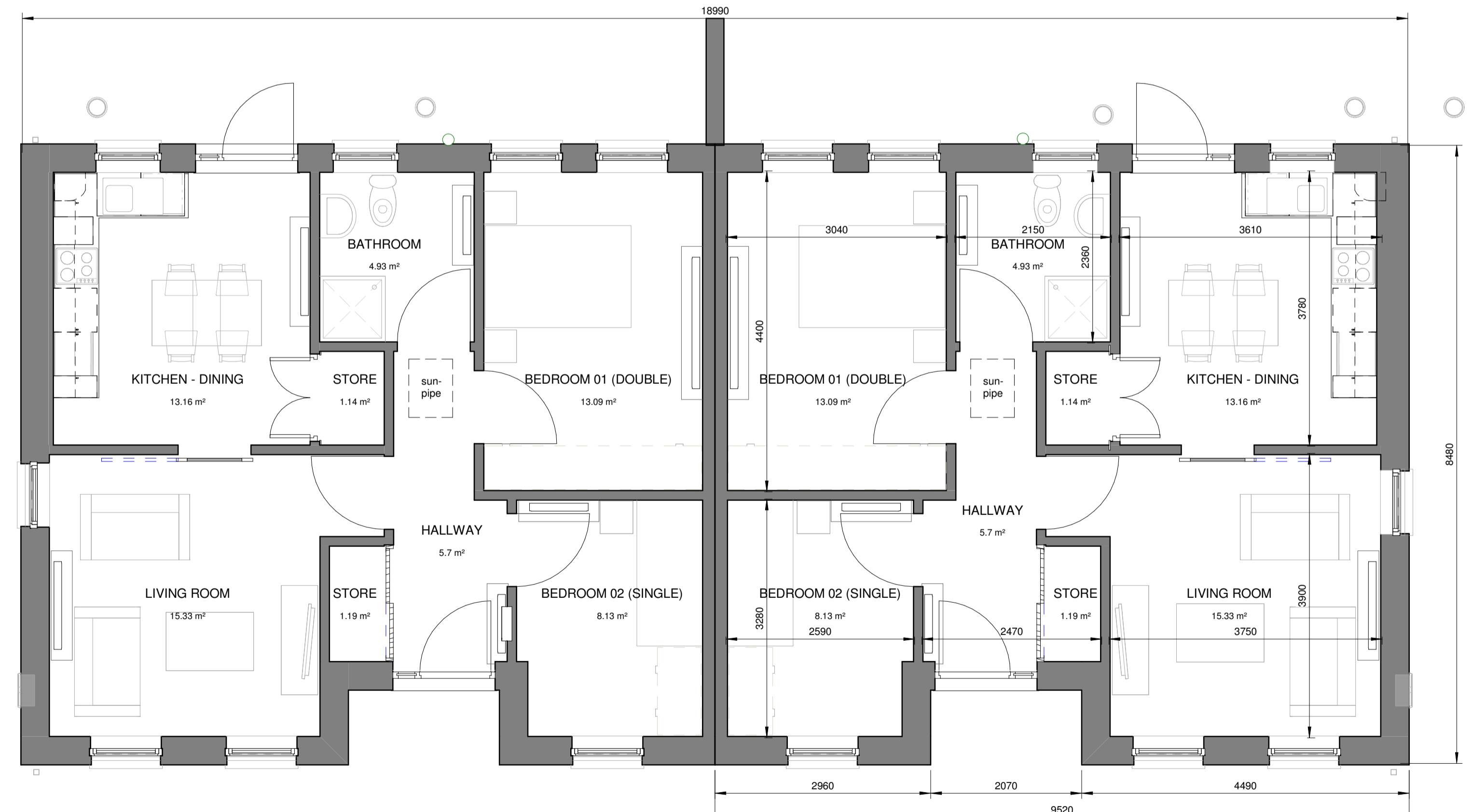
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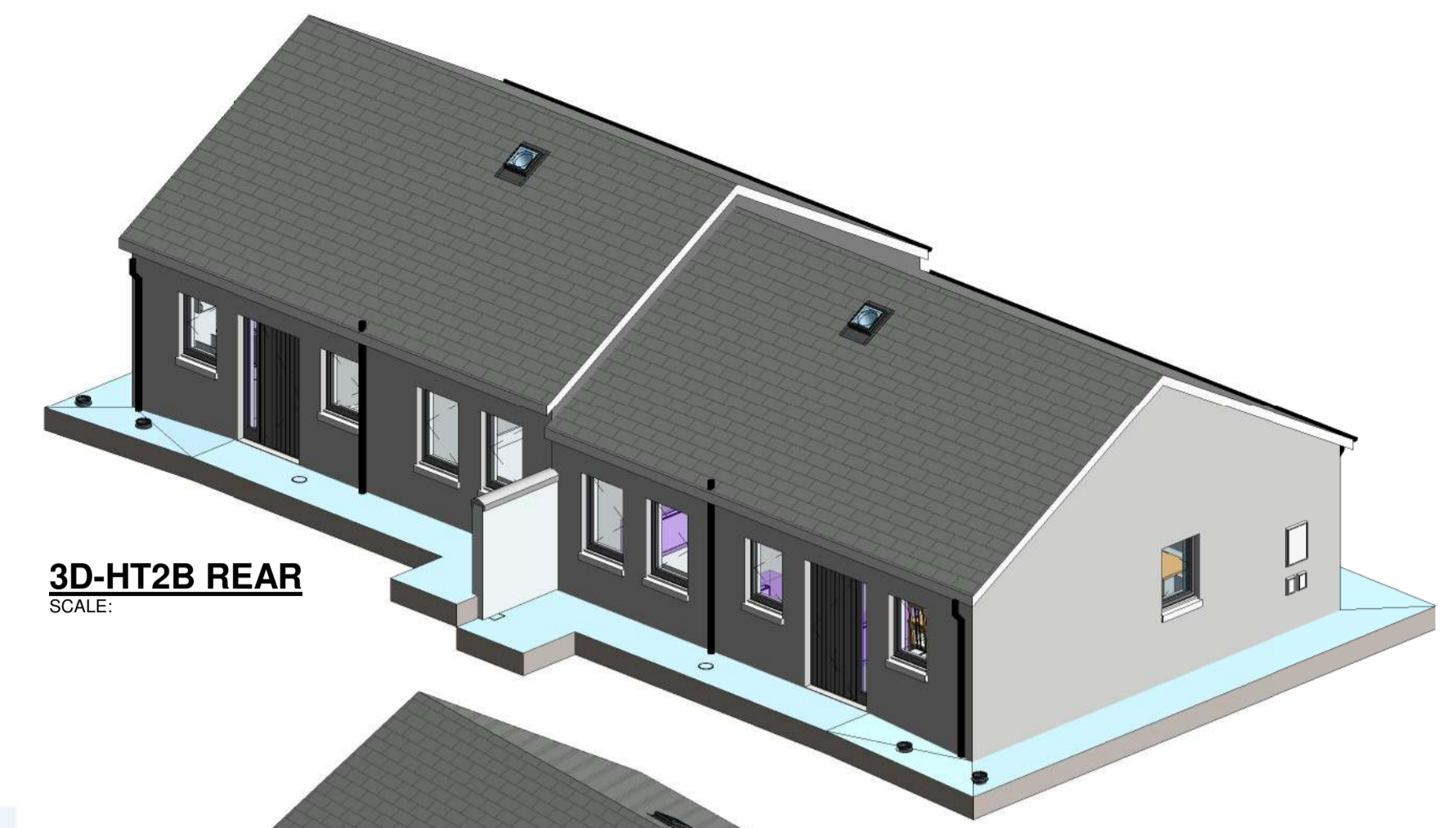
2B-FRONT ELEVATION
SCALE: 1 : 50



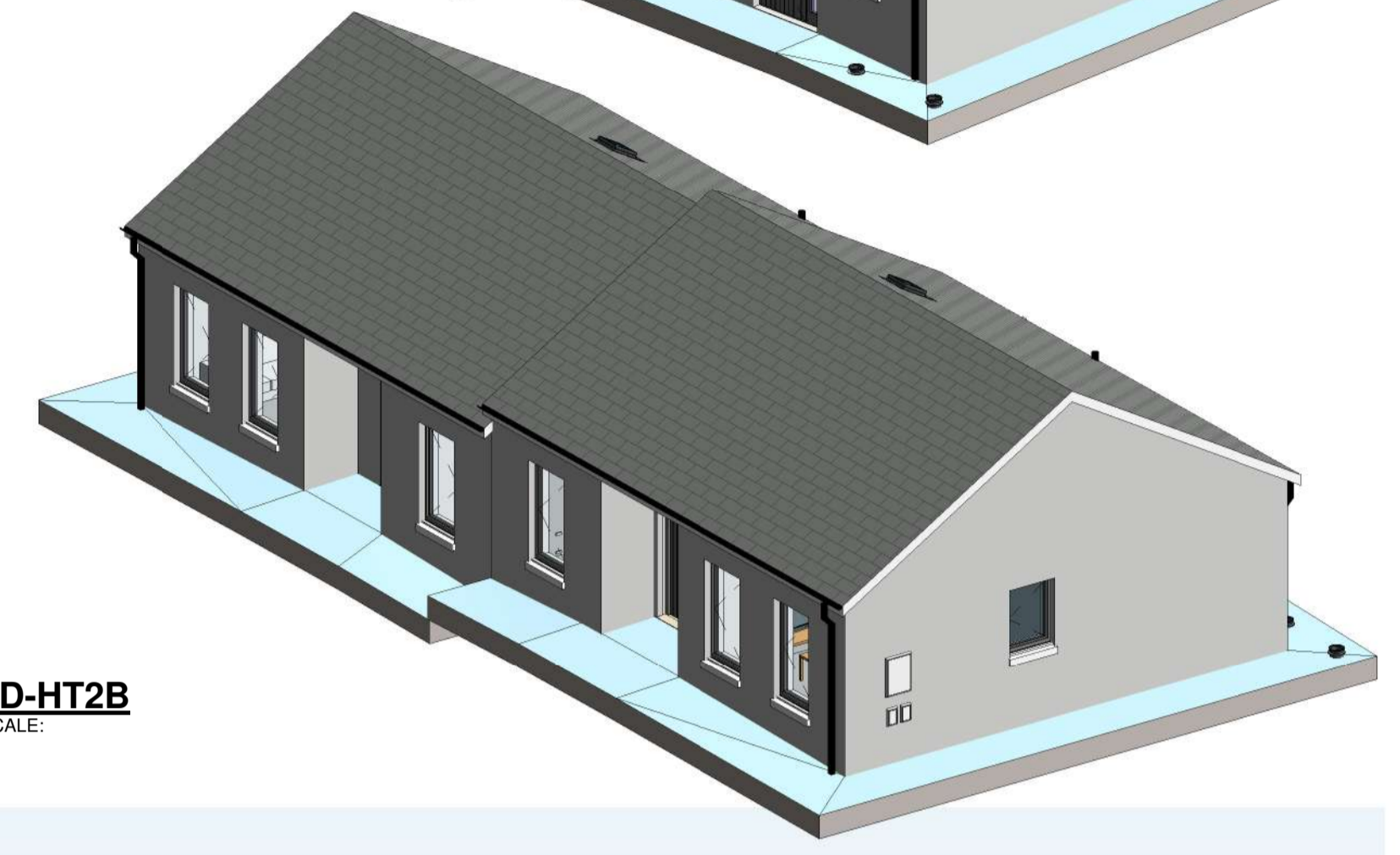
2B-REAR ELEVATION
SCALE: 1 : 50



GENERAL ARRANGEMENT PLAN
SCALE: 1 : 50



3D-HT2B REAR
SCALE:



3D-HT2B
SCALE:

ELEMENT DESCRIPTION

EXTERNAL WALL FINISH: SAND CEMENT RENDER PAINTED TO SELECTED COLOUR.

PITCHED ROOF FINISH: SLATE FINISH BLUE/ BLACK IN COLOUR.

WINDOWS/ DOORS: ALU CLAD TRIPLE GLAZED IN TIMBER FRAMES PAINTED TO SELECTED COLOUR.

GUTTERS & DOWNPIPES: SELECTED POWDER COATED ALUMINIUM HALF ROUND GUTTERS & DOWNPIPES GREY IN COLOUR.

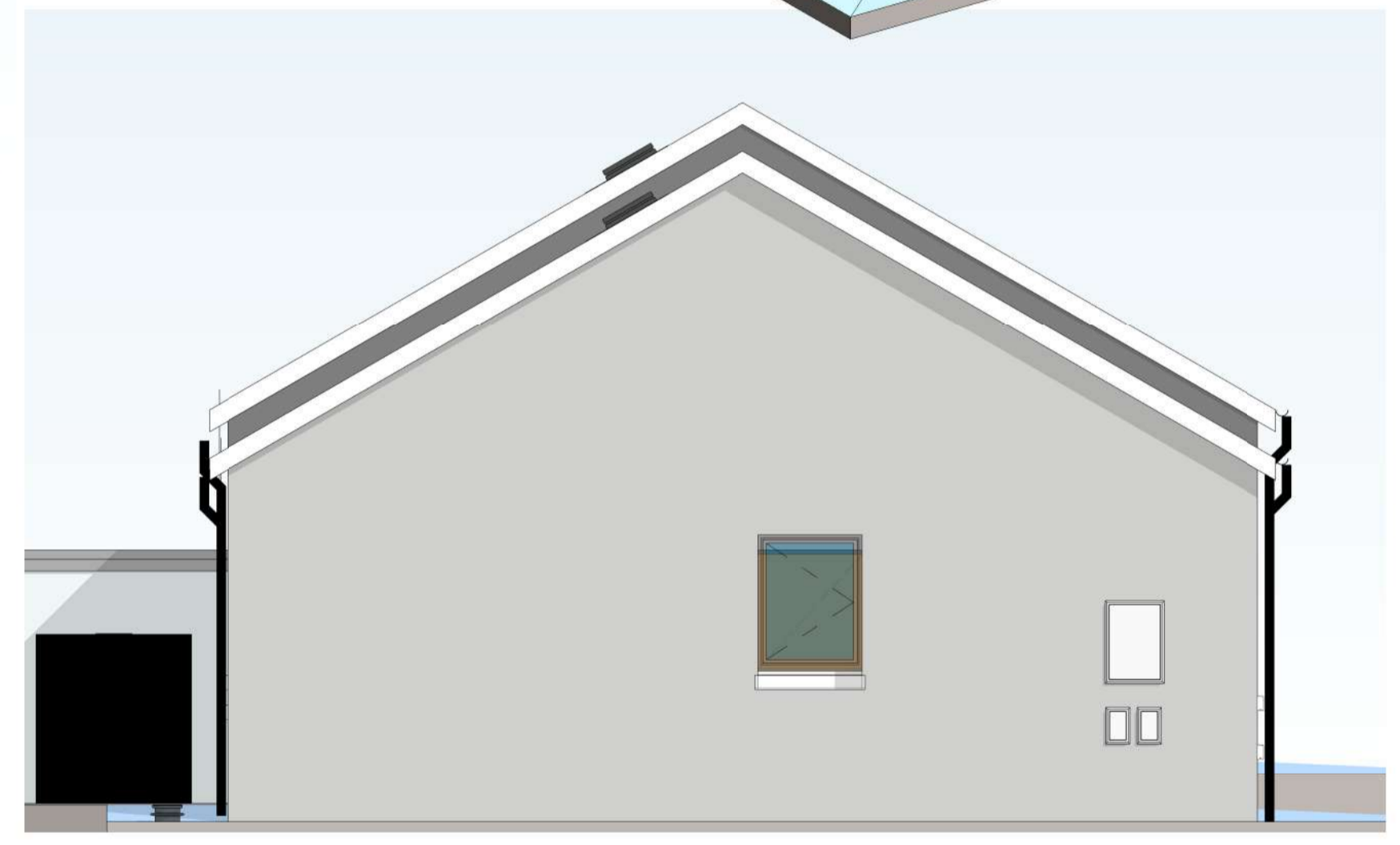
FASCIA & SOFFIT TO MATCH RAINWATER PRODUCTS.

PRE-CAST CONCRETE CILLS TO WINDOWS.

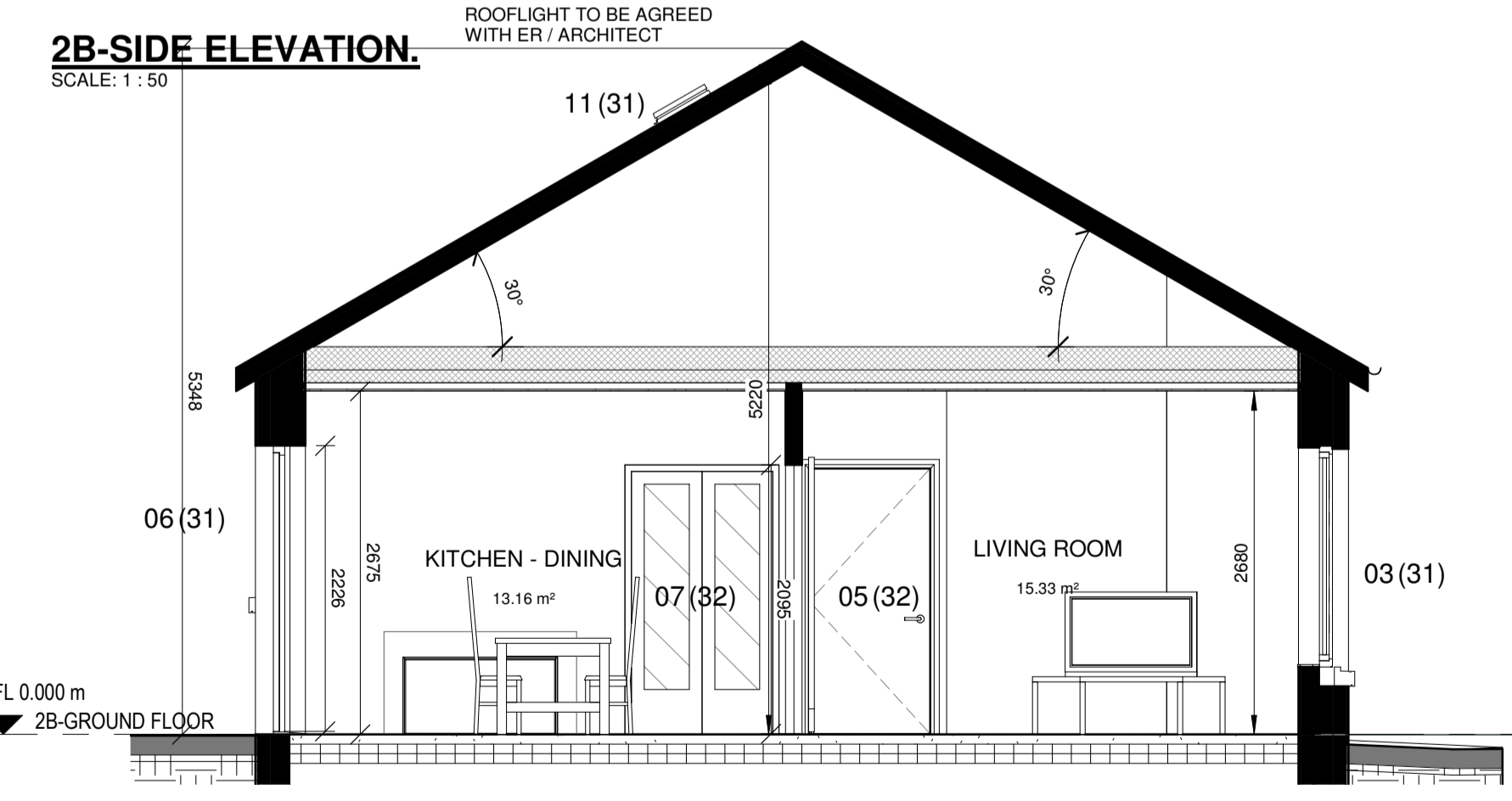
CONCRETE FOOTPATHS TO PERIMETER-BRUSH FINISH.

FLUSH DOOR THRESHOLD TO FRONT DOOR, WITH DRAINAGE CHANNEL TO ENTRANCE.

(4-)EXTERNAL FINISHES
SCALE: 1 : 100



2B-SIDE ELEVATION.
SCALE: 1 : 50

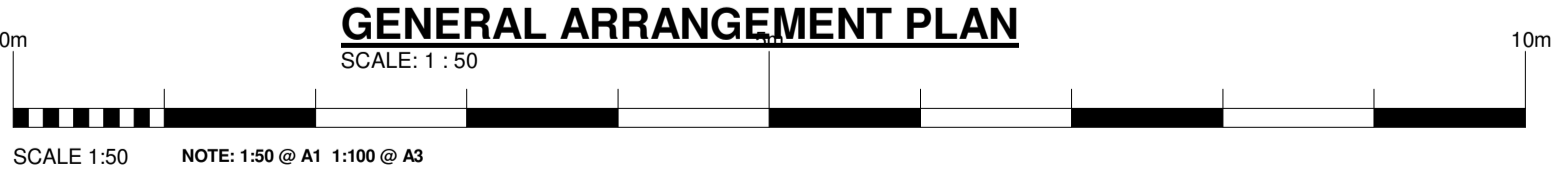


SECTION L (-)01
SCALE: 1 : 50

HOUSE TYPE 2B - 2-BED BUNGALOW (3 PERSON)

ROOM NUMBER	ROOM NAME	AREA
2B.01	HALLWAY	5.7 m ²
2B.02	LIVING ROOM	15.33 m ²
2B.03	KITCHEN - DINING	13.16 m ²
2B.04	BEDROOM 01 (DOUBLE)	13.09 m ²
2B.06	BEDROOM 02 (SINGLE)	8.13 m ²
2B.07	BATHROOM	4.93 m ²
2B.08	STORE	1.19 m ²
2B.09	STORE	1.14 m ²

TOTAL FLOOR AREA OF HT 2B = 66.34Msq



STATUS KEY

Rev No.	Date	Comment
PO1	2021.08.05	STAGE 2 DRAFT

SHARED - FOR INFORMATION

- S0 WORK IN PROGRESS
- S1 COORDINATION
- S2 INFORMATION
- S3 REVIEW / COMMENT
- D0 COST APPROVAL
- D1 COSTING
- D2 TENDER
- D3 CONTRACTOR DESIGN

PUBLISHED

- A1 P/B / F/S/C / D/C
- A2 CONSTRUCTION
- A3 AS BUILT



ARCHITECTS DEPARTMENT
MAYO COUNTY COUNCIL



Purpose of Issue: **PART 8 APPLICATION**

Project No: A-621	Project Title: PROPOSED HOUSING AT BALLVARY CO.MAYO.	Dwg Type: 99	Status: A1
Drawing Title: HT-2B BUNGALOW - PROPOSED PLAN,ELEVATIONS & SECTION	Drawing No. 5003	Revision: PO1	First Issue: 2022.05.16
Drawn By: Author	No. - Orig - Cat - Lvl - Type - Role - No. - Status	Scale: As indicated	
Checked By: Checker	A-621 - MCC - 99 - XX - DR - A - 5003 - A1		



Do not scale this drawing. Use written dimensions only

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3A-FRONT ELEVATION
SCALE: 1 : 50



3A-REAR ELEVATIONS
SCALE: 1 : 50

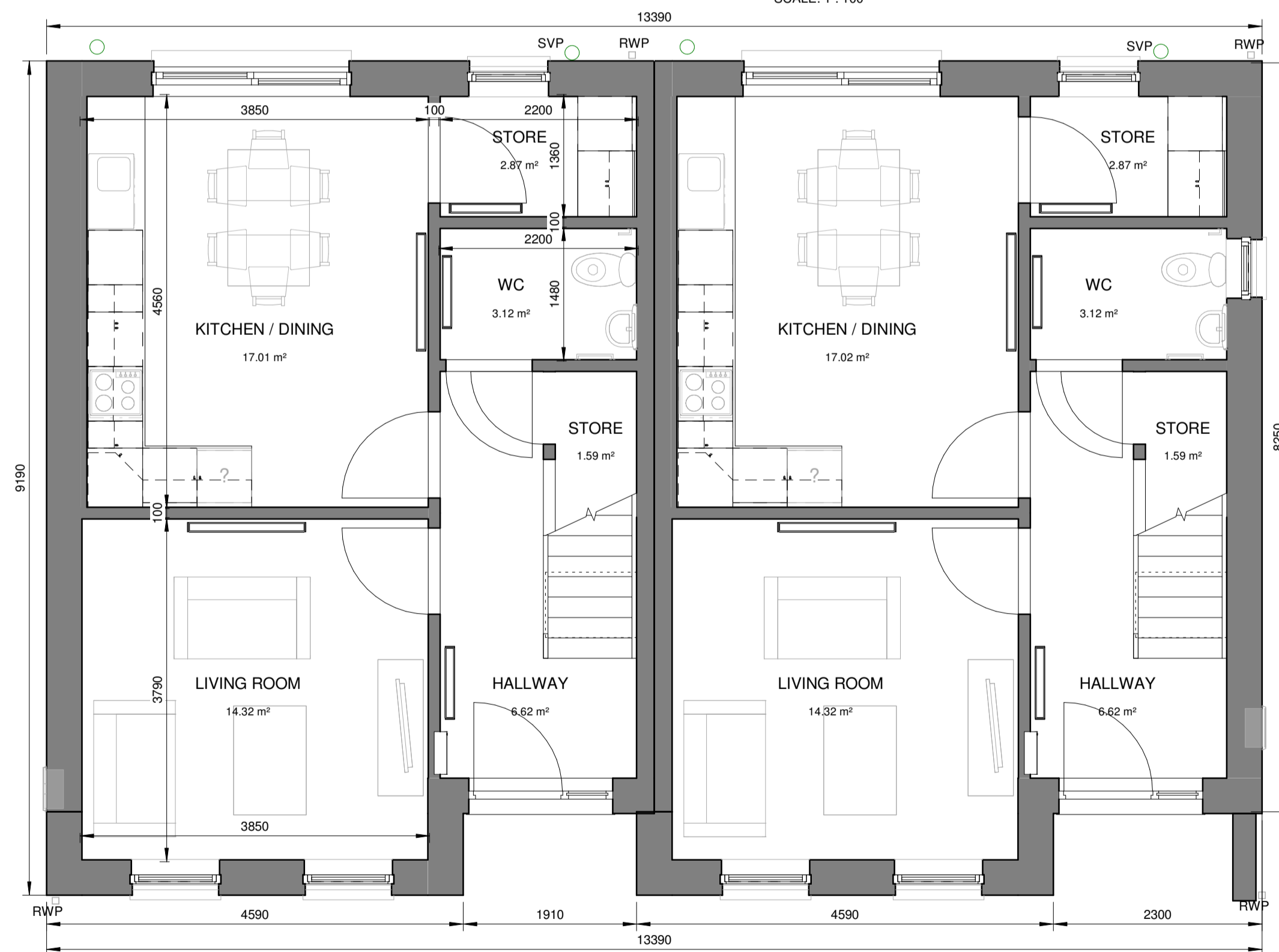
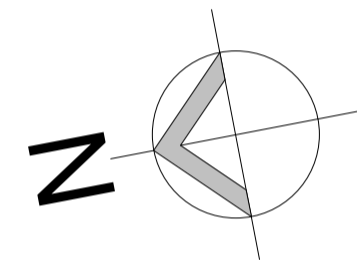


3A-SIDE ELEVATION
SCALE: 1 : 100

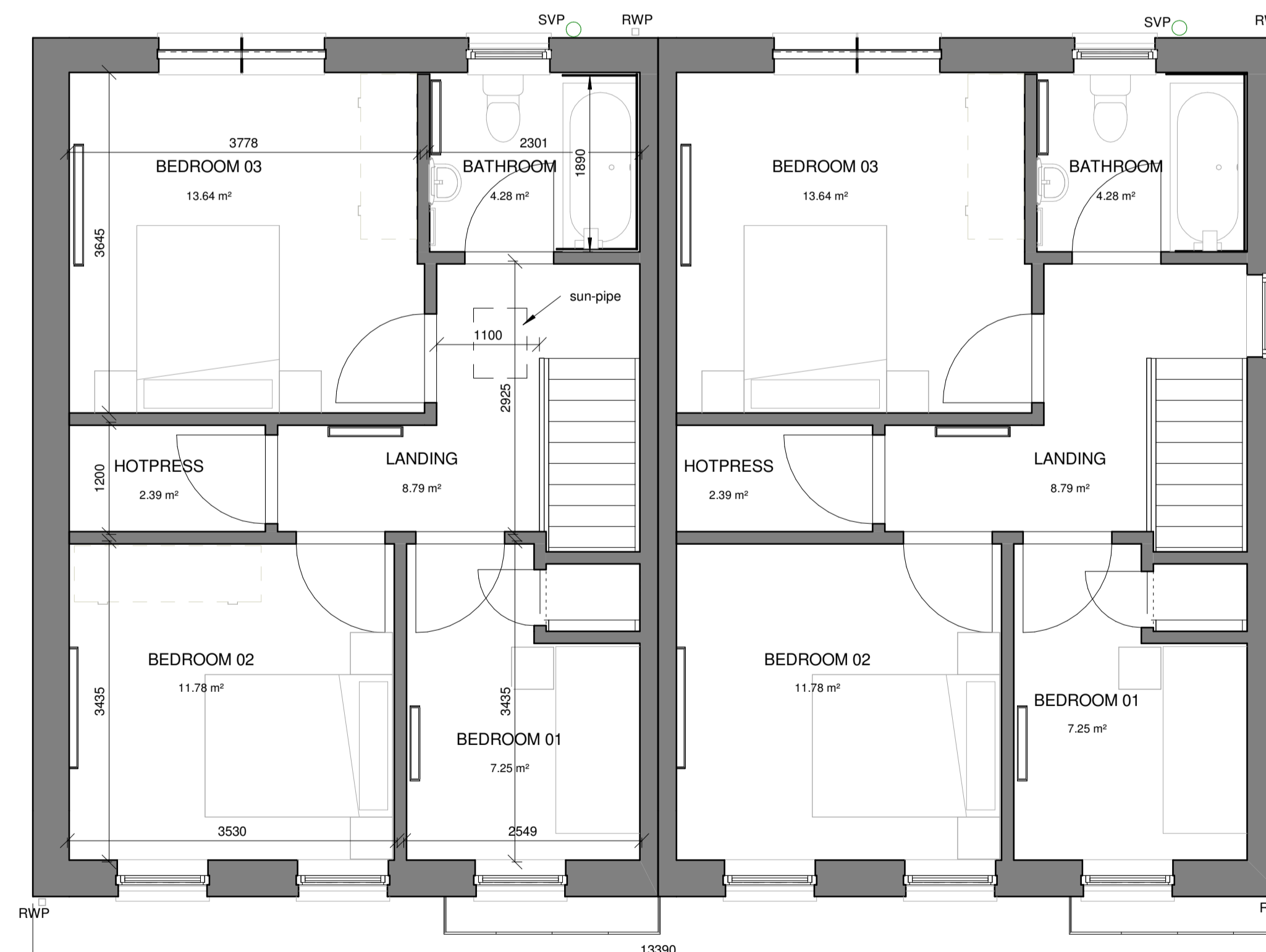
ELEMENT	DESCRIPTION
EXTERNAL WALL FINISH:	SAND CEMENT RENDER PAINTED TO SELECTED COLOUR.
PITCHED ROOF FINISH:	SLATE FINISH BLUE/ BLACK IN COLOUR.
WINDOWS/ DOORS:	ALU CLAD TRIPLE GLAZED IN TIMBER FRAMES PAINTED TO SELECTED COLOUR.
GUTTERS & DOWNPIPES:	SELECTED POWDER COATED ALUMINIUM HALF ROUND GUTTERS & DOWNPIPES GREY IN COLOUR.
FASCIA & SOFFIT TO MATCH RAINWATER PRODUCTS.	
PRE-CAST CONCRETE CILLS TO WINDOWS.	
CONCRETE FOOTPATHS TO PERIMETER-BRUSH FINISH.	
FLUSH DOOR THRESHOLD TO FRONT DOOR, WITH DRAINAGE CHANNEL TO ENTRANCE.	

(4-) EXTERNAL FINISHES
SCALE: 1 : 100

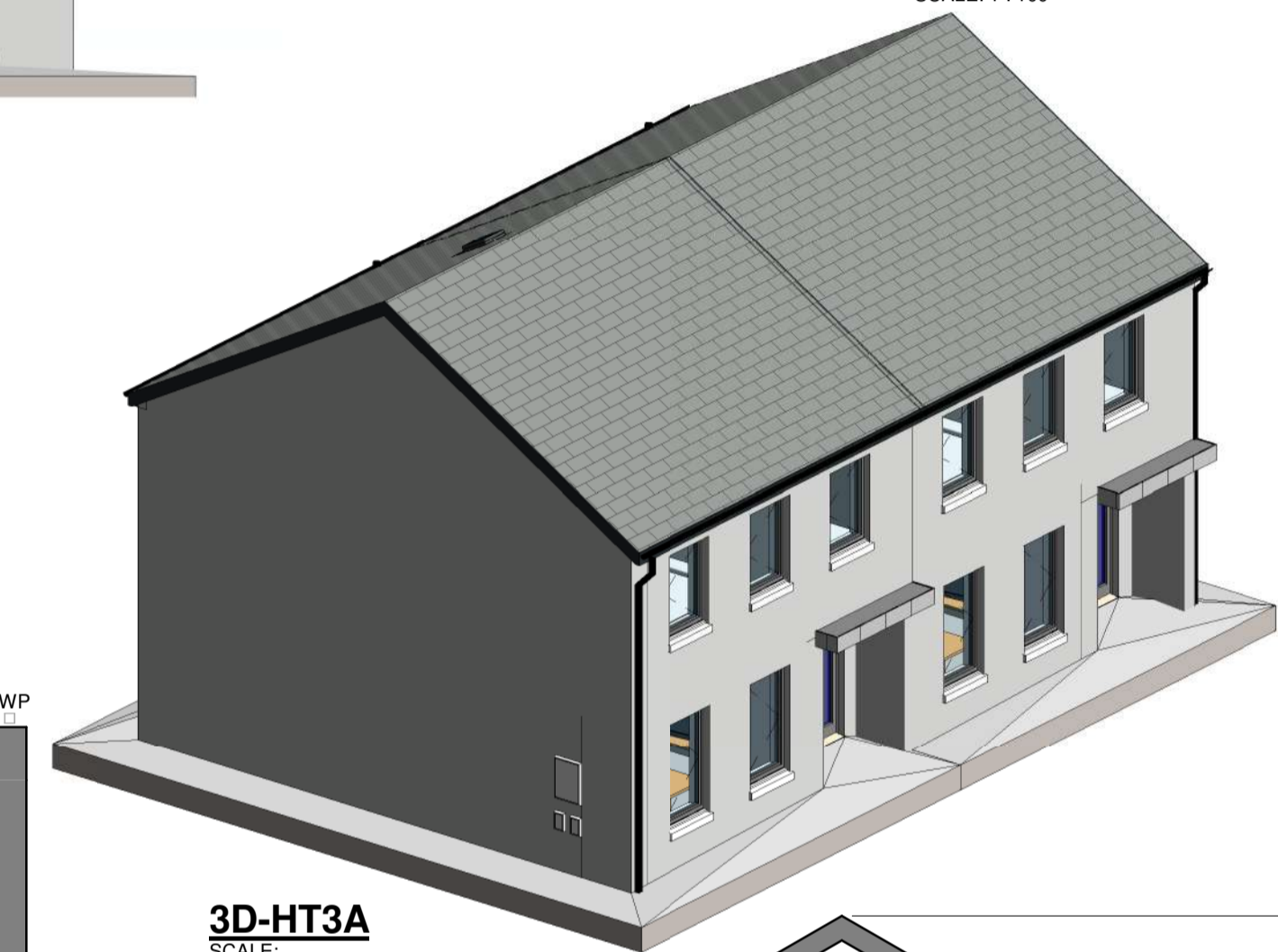
(A)-GROSS AREA	
Level	Area
1BED APT-GROUND FLOOR	45 m ²
1 BED APT-FIRST FLOOR	59 m ²
	104 m ²



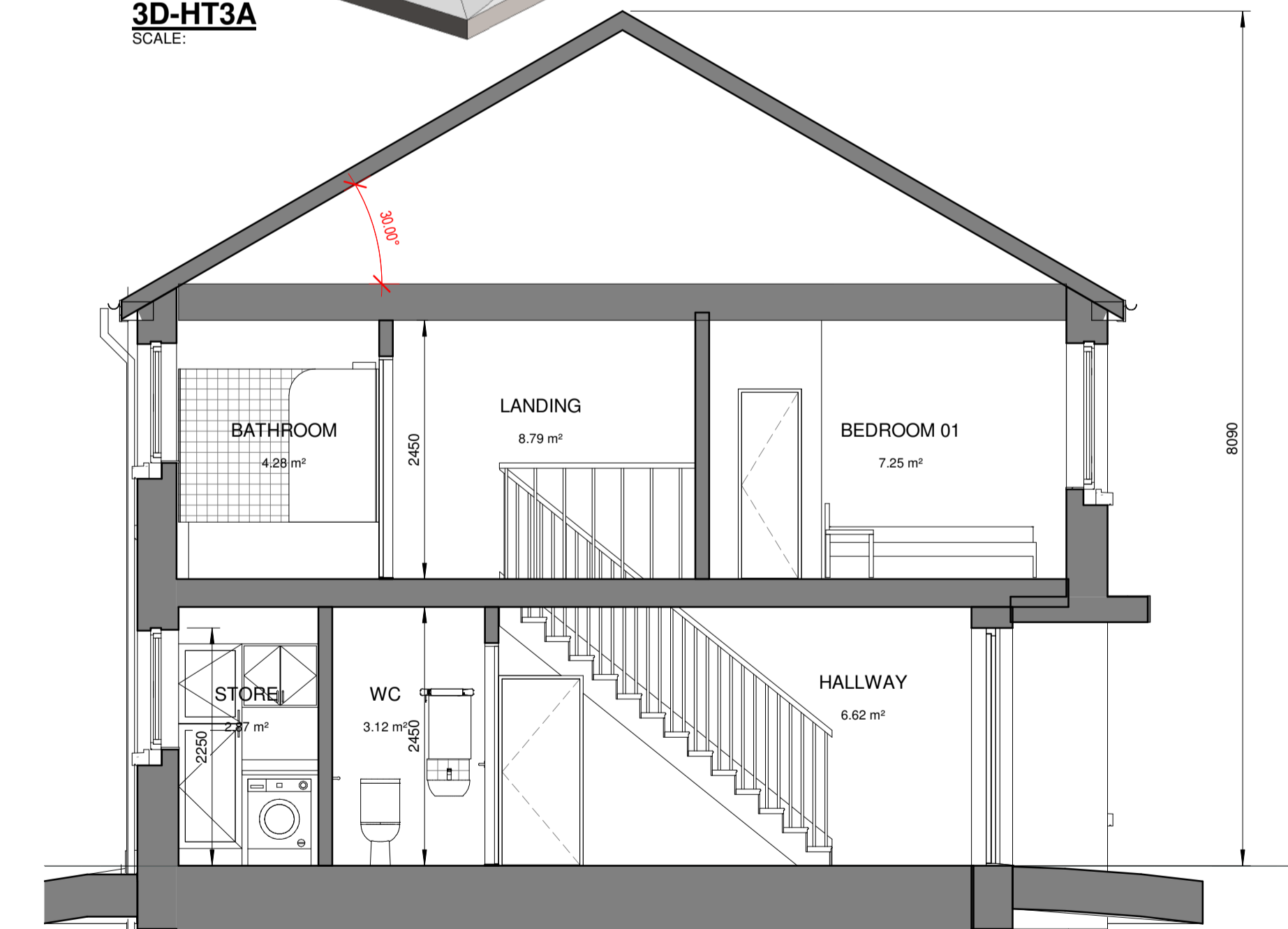
3A-GROUND FLOOR
SCALE: 1 : 50



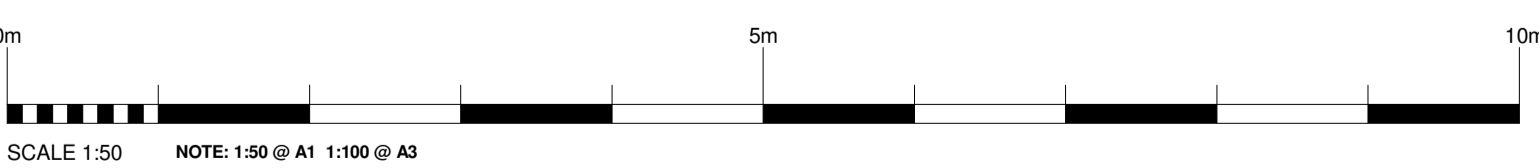
99-3A-FIRST FLOOR
SCALE: 1 : 50



3D-HT3A
SCALE:



SEC 1-1
SCALE: 1 : 50



STATUS KEY	Rev No.	Date	Comment
SHARED - FOR INFORMATION	PO1	2021.08.05	STAGE 2 DRAFT
S0			WORK IN PROGRESS
S1			COORDINATION
S2			INFORMATION
S3			REVIEW/ COMMENT
D1			CLIENT APPROVAL
D2			COSTING
D3			TENDER
D4			CONTRACTOR DESIGN
PUBLISHED			
A1			PT8 / FISC/ DAC
A2			CONSTRUCTION
A3			AS BUILT



ARCHITECTS DEPARTMENT
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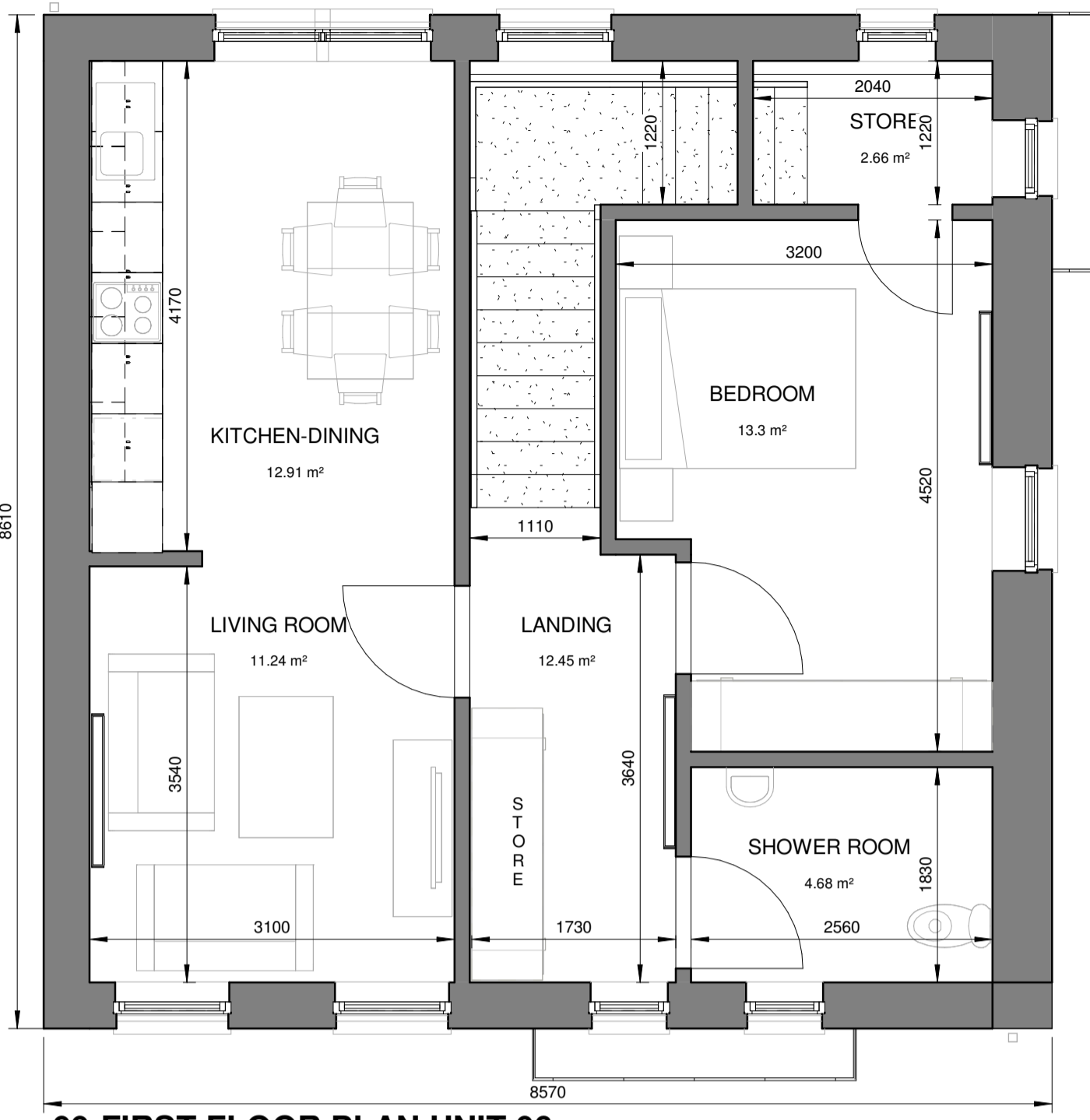
Purpose of Issue: **PART 8 APPLICATION**

Project No: A-621	Project Title: PROPOSED HOUSING AT BALLVARY CO.MAYO.	Dwg Type: 99	Status: A1
Drawing Title: HT-3A TWO STOREY		Drawing No. 5004	Revision: PO1
Drawn By: Author	No. - Orig - Cat - Lvl - Type - Role - No. - Status	Scale: As indicated	First Issue: 2022.05.16
Checked By: Checker	A-621 - MCC - 99 - XX - DR - A - 5004 - A1		



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99-FIRST FLOOR PLAN UNIT 06
SCALE: 1 : 50



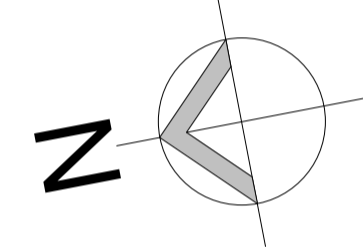
APT-FRONT ELEVATION
SCALE: 1 : 50



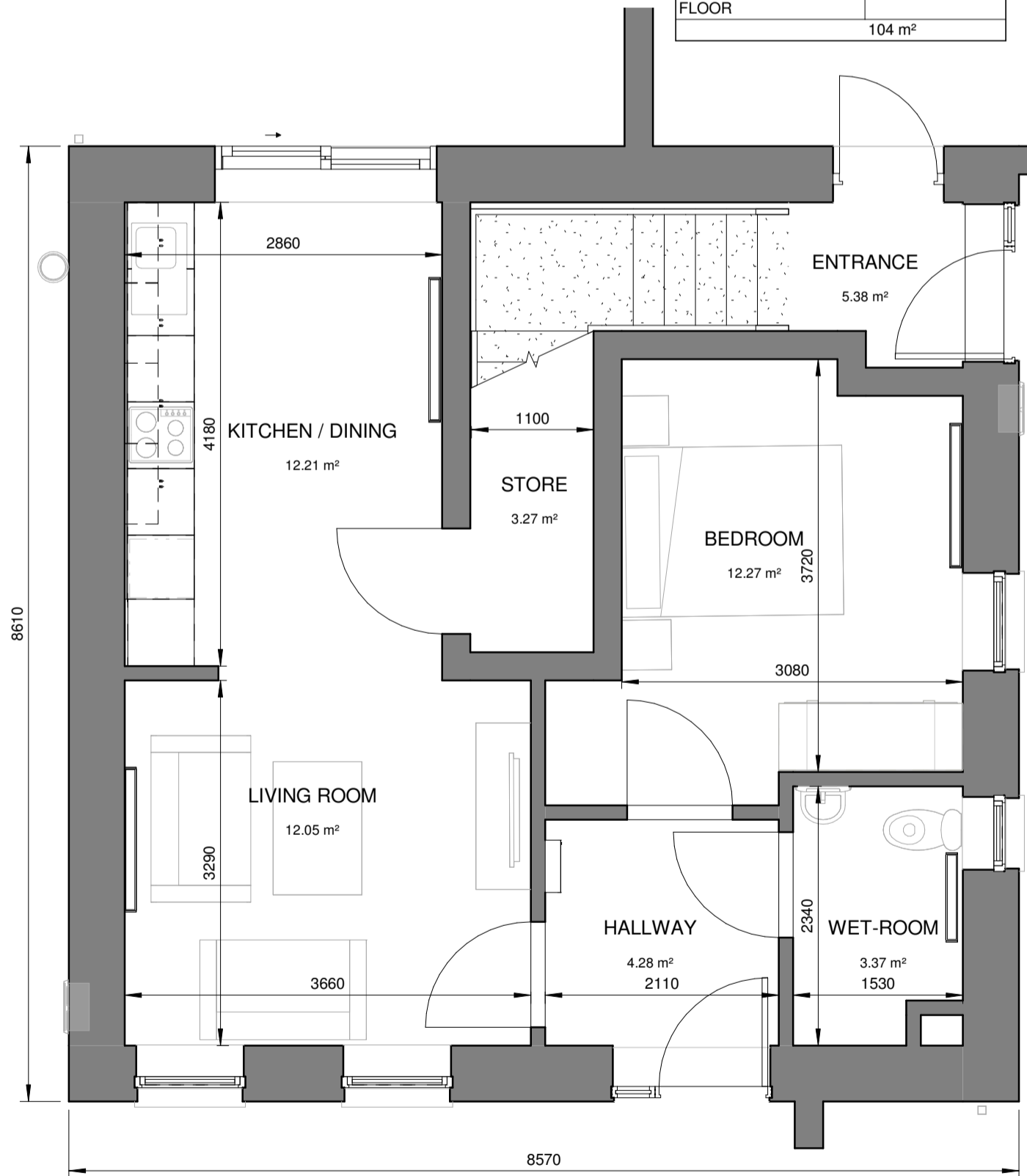
APT-REAR ELEVATION
SCALE: 1 : 50



1-BED APT 3D VIEW
SCALE:



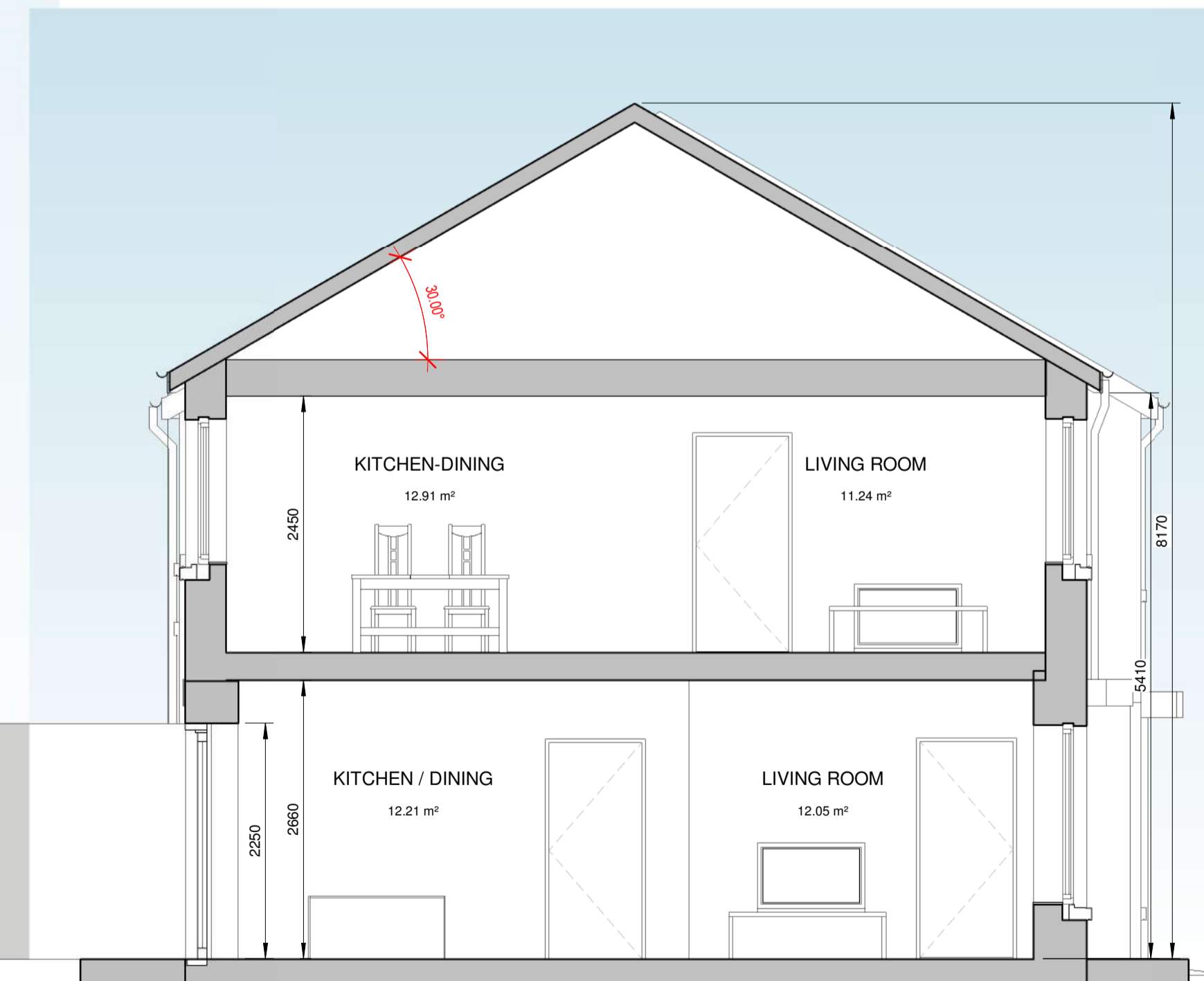
(A)-GROSS AREA	
Level	Area
1BED APT-GROUND FLOOR	45 m²
1 BED APT-FIRST FLOOR	59 m²
	104 m²



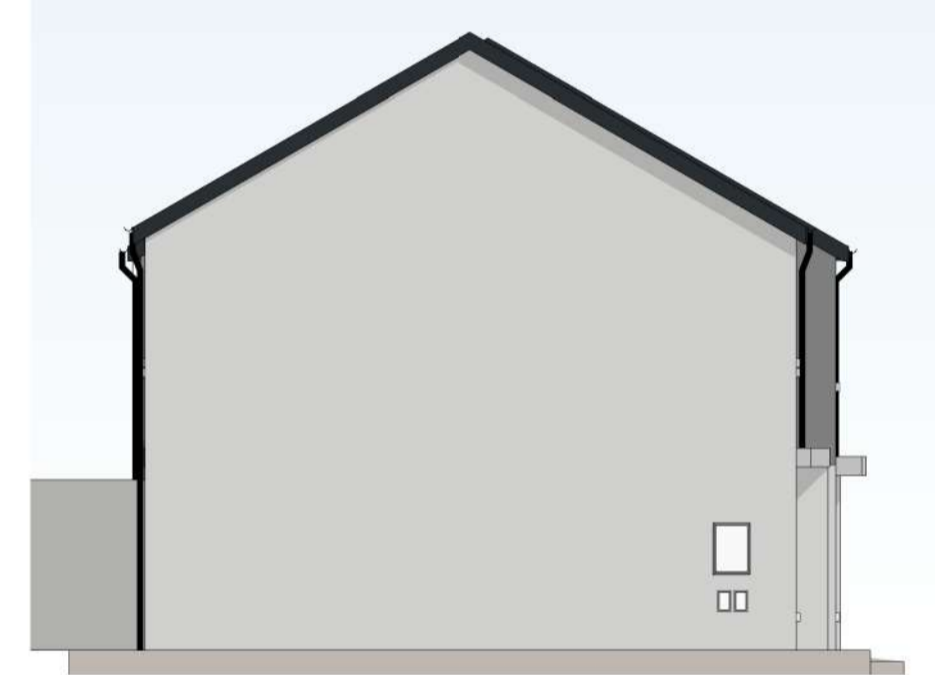
GROUND FLOOR PLAN UNIT 05
SCALE: 1 : 50



APT-SIDE ELEVATION
SCALE: 1 : 50



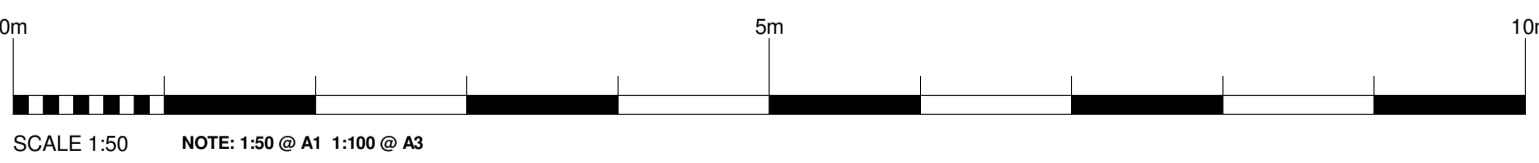
HT-1 BED APT
SCALE: 1 : 50



APT-SIDE ELEVATION.
SCALE: 1 : 100

- | ELEMENT | DESCRIPTION |
|--|---|
| EXTERNAL WALL FINISH: | SAND CEMENT RENDER PAINTED TO SELECTED COLOUR. |
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| FASCIA & SOFFIT TO MATCH RAINWATER PRODUCTS. | |
| PRE-CAST CONCRETE CILLS TO WINDOWS. | |
| CONCRETE FOOTPATHS TO PERIMETER-BRUSH FINISH. | |
| FLUSH DOOR THRESHOLD TO FRONT DOOR, WITH DRAINAGE CHANNEL TO ENTRANCE. | |

(4)-EXTERNAL FINISHES
SCALE: 1 : 100



SCALE: 1:50 NOTE: 1:50 @ A1 1:100 @ A3

STATUS KEY	Rev No.	Date	Comment
SHARED - FOR INFORMATION	PO1	2022.05.16	PART 8 SUBMISSION
S0			WORK IN PROGRESS
S1			COORDINATION
S2			REVISION
S3			REVIEW/ COMMENT
S4			CLIENT APPROVAL
S5			COSTING
S6			TENDER
S7			CONTRACTOR DESIGN
PUBLISHED			
A1			PT8 / FISC/ DAC
A2			CONSTRUCTION
AB			AS BUILT



ARCHITECTS DEPARTMENT
MAYO COUNTY COUNCIL



Purpose of Issue: **PART 8 APPLICATION**

Project No: A-621	Project Title: PROPOSED HOUSING AT BALLVARY CO.MAYO.	Dwg Type: 99	Status: A1
Drawing Title: HT-1 BED APT		Drawing No. 5005	Revision: PO1
Scale: As indicated		First Issue: 2022.05.16	
Drawn By: Author	No. - Orig - Cat - Lvl - Type - Role - No. - Status	Checked By: Checker	A-621 - MCC - 99 - XX - DR - A - 5005 - A1



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3D-PART 8 SITE 03
SCALE:



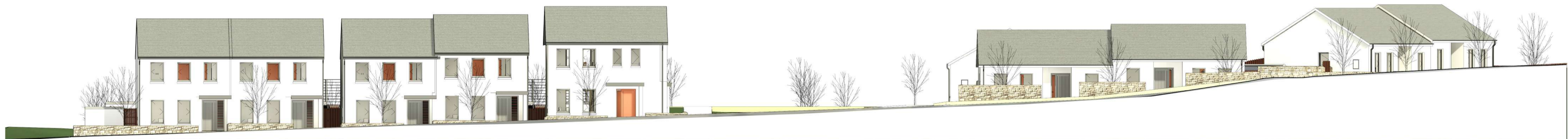
3D-PART 8 SITE 01
SCALE:



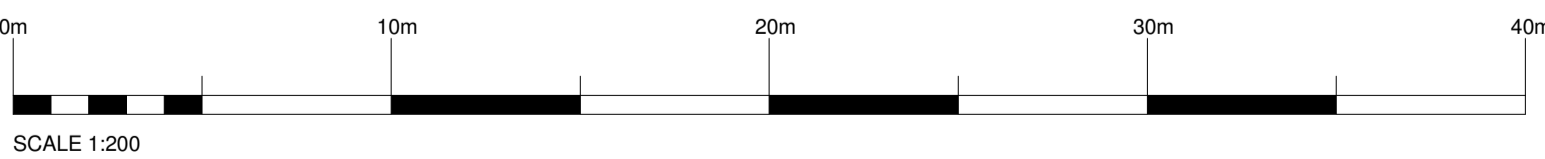
3D-PART 8 SITE 02
SCALE: 1 : 100



PROPOSED STREET 8 TO 10
SCALE:

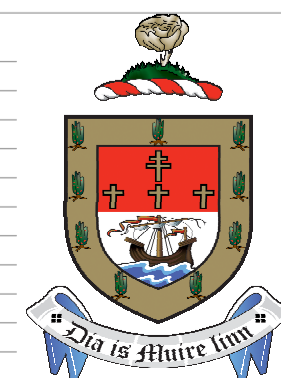


PROPOSED STREET-SCAPE 2
SCALE: 1 : 150



SCALE 1:200

STATUS KEY																																																											
Rev No.	Date	Comment																																																									
PO1	2022.05.16	PART 8 SUBMISSION																																																									
<table border="1"> <thead> <tr> <th colspan="4">SHARED / FOR INFORMATION</th> </tr> <tr> <th>Code</th> <th>Description</th> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>S0</td> <td>WORK IN PROGRESS</td> <td></td> <td></td> </tr> <tr> <td>S1</td> <td>COORDINATION</td> <td></td> <td></td> </tr> <tr> <td>S2</td> <td>INFORMATION</td> <td></td> <td></td> </tr> <tr> <td>S3</td> <td>REVIEW / COMMENT</td> <td></td> <td></td> </tr> <tr> <td>S4</td> <td>CLIENT APPROVAL</td> <td></td> <td></td> </tr> <tr> <td>D1</td> <td>COSTING</td> <td></td> <td></td> </tr> <tr> <td>D2</td> <td>TENDER</td> <td></td> <td></td> </tr> <tr> <td>D3</td> <td>CONTRACTOR DESIGN</td> <td></td> <td></td> </tr> <tr> <th colspan="4">PUBLISHED</th> </tr> <tr> <td>A1</td> <td>PT8 / FISCAL DAC</td> <td></td> <td></td> </tr> <tr> <td>A2</td> <td>CONSTRUCTION</td> <td></td> <td></td> </tr> <tr> <td>AB</td> <td>AS BUILT</td> <td></td> <td></td> </tr> </tbody> </table>				SHARED / FOR INFORMATION				Code	Description	Code	Description	S0	WORK IN PROGRESS			S1	COORDINATION			S2	INFORMATION			S3	REVIEW / COMMENT			S4	CLIENT APPROVAL			D1	COSTING			D2	TENDER			D3	CONTRACTOR DESIGN			PUBLISHED				A1	PT8 / FISCAL DAC			A2	CONSTRUCTION			AB	AS BUILT		
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Purpose of Issue: **PART 8 APPLICATION**

Project No: A-621	Project Title: PROPOSED HOUSING AT BALLVARY CO.MAYO.	Dwg Type	Status: A1
Drawing Title:	PROPOSED STREETSCAPES	Drawing No. 5006	Revision: PO1
Drawn By: Author	No. - Orig - Cat - Lvl - Type - Role - No. - Status	Scale: As indicated	First Issue: 2022.05.16
Checked By: Checker	A-621 - MCC - XX - A - 5006 - A1		



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