

Appropriate Assessment Screening for the Proposed Development 'Skenagun Infill Project' at Castledermot, Athy, Co. Kildare.



8th February 2024

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On behalf of: Kildare County Council.

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Introduction

An Appropriate Assessment is an assessment of the potential effects of a proposed project or plan, on its own, or in combination with other plans or projects, on one or more European sites (Special Areas of Conservation (SAC) or Special Protection Areas (SPA)).

The following Appropriate Assessment (AA) (Screening Stage) has been prepared by **Altemar Ltd.** at the request of Kildare County Council. The project relates to the proposed development 'Skenagun Infill Project' at Castledermott, Athy, Co. Kildare.

The AA Screening stage examines the likely significant effects of the proposed development, either on its own, or in combination with other plans and projects, upon a European site and considers whether, on the basis of objective scientific evidence, it can be concluded, in view of best scientific knowledge and the conservation objectives of the relevant European sites, that there are not likely to be significant effects on any European site.

Altemar Ltd.

Since its inception in 2001, Altemar has been delivering ecological and environmental services to a broad range of clients. Operational areas include residential, infrastructural, renewable, oil & gas, private industry, local authorities, EC projects and State/semi-State Departments. Bryan Deegan is the managing director of Altemar. Bryan is an environmental scientist and marine biologist with 30 years' experience working in Irish terrestrial and aquatic environments, providing services to the State, Semi-State and industry. Bryan Deegan (MCIEEM) holds a MSc in Environmental Science, BSc (Hons.) in Applied Marine Biology, NCEA National Diploma in Applied Aquatic Science and a NCEA National Certificate in Science (Aquaculture). Bryan Deegan carried out all elements of this Appropriate Assessment Screening.

Background to the Appropriate Assessment

The Habitats Directive 92/43/EEC (together with the Birds Directive (2009/1477/EC)) forms the cornerstone of Europe's nature conservation policy. The Directive protects over 1000 animals and plant species and over 200 "habitat types" which are of European importance. In the Habitats Directive, Articles 3 to 9 provide the legislative means to protect habitats and species of European Community interest through the establishment and conservation of an EU-wide network of conservation sites (NATURA, 2000). These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Birds Directive), Article 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect European sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment:

"Any plan or project not directly connected with or necessary to the management of the [EUROPEAN] site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implication for the site and subject to the provisions of paragraph 4, the component 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."

As outlined in "Managing European sites, The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC" (European Commission, 21 November 2018) "The purpose of the appropriate assessment is to assess the implications of the plan or project in respect of the site's conservation objectives, either individually or in combination with other plans or projects. The conclusions should enable the competent authorities to ascertain whether the plan or project will adversely affect the integrity of the site concerned. The focus of the appropriate assessment is therefore specifically on the species and/or the habitats for which the European site is designated."

As outlined in the EC guidance document on Article 6(4) (January 2007)1:

"Appropriate assessments of the implications of the plan or project for the site concerned must precede its approval and take into account the cumulative effects which result from the combination of that plan or project with other plans or projects in view of the site's conservation objectives. This implies that all aspects of the plan or project which can, either individually or in combination with other plans or projects, affect those objectives must be identified in the light of the best scientific knowledge in the field.

Assessment procedures of plans or projects likely to affect European sites should guarantee full consideration of all elements contributing to the site integrity and to the overall coherence of the network, both in the definition of the baseline conditions and in the stages leading to identification of potential impacts, mitigation measures and residual impacts. These determine what has to be compensated, both in quality and quantity. Regardless of whether the provisions of Article 6(3) are delivered following existing environmental impact assessment procedures or other specific methods, it must be ensured that:

- Article 6(3) assessment results allow full traceability of the decisions eventually made, including the selection of alternatives and any imperative reasons of overriding public interest.
- The assessment should include all elements contributing to the site's integrity and to the
 overall coherence of the network as defined in the site's conservation objectives and Standard
 Data Form, and be based on best available scientific knowledge in the field. The information
 required should be updated and could include the following issues:
 - Structure and function, and the respective role of the site's ecological assets;
 - Area, representativity and conservation status of the priority and nonpriority habitats in the site;
 - Population size, degree of isolation, ecotype, genetic pool, age class structure, and conservation status of species under Annex II of the Habitats Directive or Annex I of the Birds Directive present in the site;
 - Role of the site within the biographical region and in the coherence of the European network; and,
 - o Any other ecological assets and functions identified in the site.
- It should include a comprehensive identification of all the potential impacts of the plan or
 project likely to be significant on the site, taking into account cumulative impacts and other
 impacts likely to arise as a result of the combined action of the plan or project under
 assessment and other plans or projects.
- The assessment under Article 6(3) applies the best available techniques and methods, to estimate the extent of the effects of the plan or project on the biological integrity of the site(s) likely to be damaged.
- The assessment provides for the incorporation of the most effective mitigation measures into the plan or project concerned, in order to avoid, reduce or even cancel the negative impacts on the site.
- The characterisation of the biological integrity and the impact assessment should be based on the best possible indicators specific to the European assets which must also be useful to monitor the plan or project implementation."

¹ European Commission. (2007).Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission;

Stages of the Appropriate Assessment

This Appropriate Assessment screening was undertaken in accordance with the European Commission Methodological Guidance on the provision of Article 6(3) and 6(4) of the 'Habitats' Directive 92/43/EEC (EC, 2001), Part XAB of the Planning and Development Act 2000, as amended, in addition to the December 2009 publication from the Department of Environment, Heritage and Local Government; 'Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities' and the European Communities (Birds and Natural Habitats) Regulations 2011. In order to comply with the above Guidelines and legislation, the Appropriate Assessment process must be structured as follows:

1) Screening stage:

- Description of plan or project, and local site or plan area characteristics;
- Identification of relevant European sites, and compilation of information on their qualifying interests and conservation objectives
- Identification and description of individual in combination effects likely to result from the proposed project;
- Assessment of the likely significance of the effects identified above. Exclusion of sites where it can be objectively concluded that there will be no likely significant effects; and,
 Conclusions

2) Appropriate Assessment (Natura Impact Statement):

- Description of the European sites that will be considered further;
- Identification and description of potential adverse impacts on the conservation objectives of these sites likely to occur from the project or plan; and,
- Mitigation Measures that will be implemented to avoid, reduce or remedy any such potential adverse impacts
- Assessment as to whether, following the implementation of the proposed mitigation measures, it
 can be concluded, beyond all reasonable scientific doubt, that there will be no adverse impact on
 the integrity of the relevant European Site in light of its conservation objectives"
- Conclusions.

If it can be demonstrated during the AA screening phase (Stage 1), that the proposed project will not have a significant effect, whether alone or in combination with other plans or projects, on the conservation objectives of a European site, then no further AA (Stage 2) will be required. It is important to note that there is a requirement to apply a precautionary approach to AA screening. Therefore, where effects are possible, certain or unknown at the screening stage, AA will be required.

In addition, it should be noted that Article 6(3) of the Habitats Directive must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an AA of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site.

Stage 1 Screening Assessment

Management of the Site

The project is not directly connected with, or necessary to, the management of European sites.

Project Description

Extension to an existing cottage and also the construction of a new 3 bed house on a site at Skenagun, Castledermot, Athy, Co Kildare.

The proposed site outline, site location and architectural plans are demonstrated in Figures 1-8.

Drainage

A Civil Engineering Services Report has been prepared by Hays Higgins Partnership to accompany this planning application. It outlines the following drainage strategy for the proposed development:

'Surface Water Drainage

Local Authorities require that all developments must include a sustainable urban drainage system, SuDS. There are no surface water sewers in the public area accessible to this site. Permeable paving will be used in the parking areas. A soakaway system is to be used to deal with the surface from the developed site. A soakaway in the rear gardens will be provided for each dwelling. A gravity feed surface water system will fall to the soakaways. The permeable paving will allow natural infiltration within the parking areas. The roof areas will be served by the soakways. The main surface sewers in the proposed development are to consist of 150mm diameter uPVC pipes. Given there is no surface water line currently serving the site the surface run-off is naturally infiltrating, we will be maintaining this approach. The site investigation (contained in Appendix D) noted the site is not suitable for a soakaway however given the current surface run-off to the green areas this will be maintained. The soakways are designed with a low infiltration rate and oversized slightly to accommodate limited infiltration. To alleviate any possible risk of flood the storage is designed for a 1 in 100 year storm (+30%). A 30% increase in runoff due to global warming is included. All possible SuDs mechanisms have been explored, refer to the justification matrix for SuDs in Appendix E. The surface water drains have been designed in accordance with BS EN 752, Code of Practice for Drainage Outside Buildings. Details of the proposed surface water drainage system are shown in Hayes Higgins Partnership drawing within Appendix A and calculations within Appendix B.

Foul Water Drainage

The foul drainage system has been designed in accordance with Irish Water Code of Practice and Standard Details for Wastewater, BS 8301:1985, Code of Practice for Building Drainage and the current Building Regulations and Irish Water Code of Practice. The foul drainage system for the development is a gravity feed system falling to an existing foul manhole. The development will not result in a significant increase in foul discharge from the site on the public sewer and we do not anticipate any capacity problems. The main foul sewers in the proposed development are to consist of 100mm diameter uPVC pipes with fall to be chosen throughout to minimise the risk of blockages and to aid maintenance. A Pre-Connection Enquiry form was submitted to Irish Water and A Confirmation of Feasibility received. Refer to appendix C. Irish Water have confirmed the development is feasible without upgrade by Irish Water. 'The drainage plans are demonstrated in Figures 9 & 10.

Flood Risk Assessment

A flood-risk assessment was also undertaken by Hays Higgins Partnership which found the following:

'A flood risk assessment was undertaken to identify possible sources of flooding and the risk posed to the development, and separately the risk posed to surrounding areas as a result of the development. www.floodinfo.ie was reviewed and the site has not been subjected to previous flooding from the information contained. The site is situated far enough away from the sea not to be subjected to coastal or fluvial. The adjacent public sewers are running down the slope away from the site and have sufficient invert to alleviate the risk. It is intended that all surface water run off generated by the 1in100 year storm will be dealt with via the permeable paving and soakway. Due to all of these factors the risk of flooding is minimal. '



50 100 m

Project: Skenagun Infill Project Location: Castledermot, Co. Kildare Date: 6th February 2024 Drawn By: Bryan Deegan (Altemar)

Marine & Environmental Consultancy





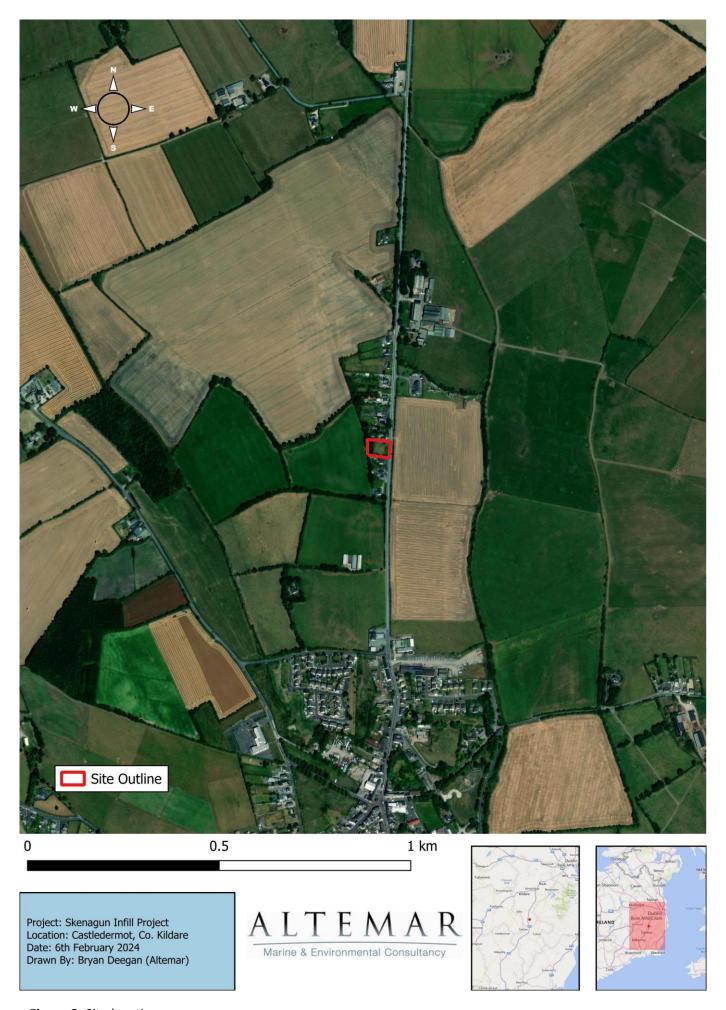


Figure 2. Site location

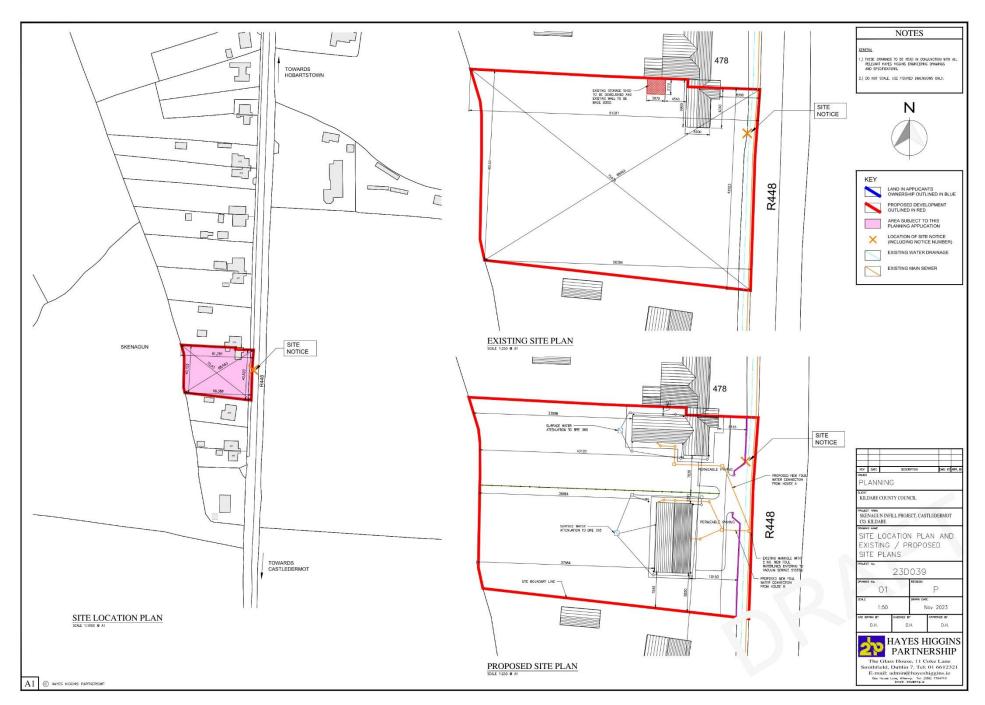


Figure 3. Site location plan

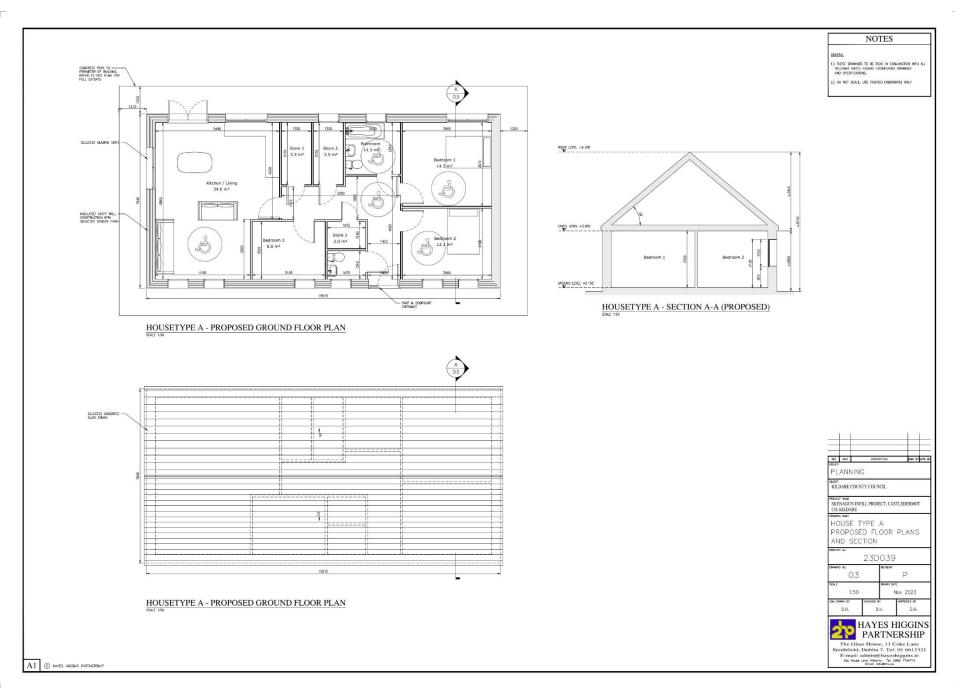


Figure 4. House type A proposed plan



Figure 5. House type A elevations

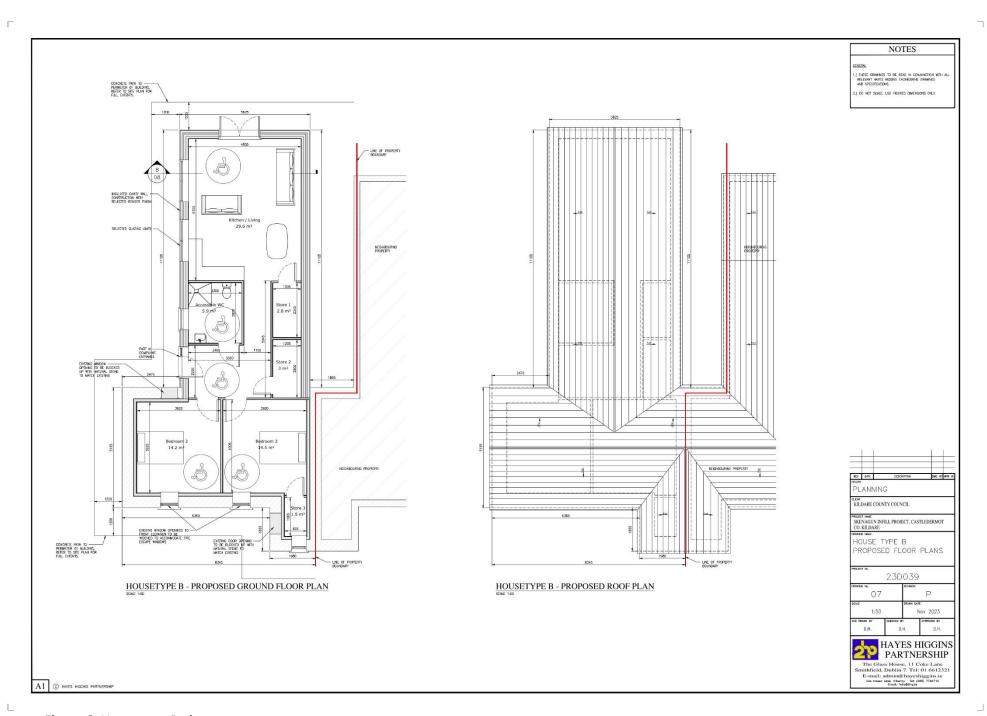


Figure 6. House type B plans

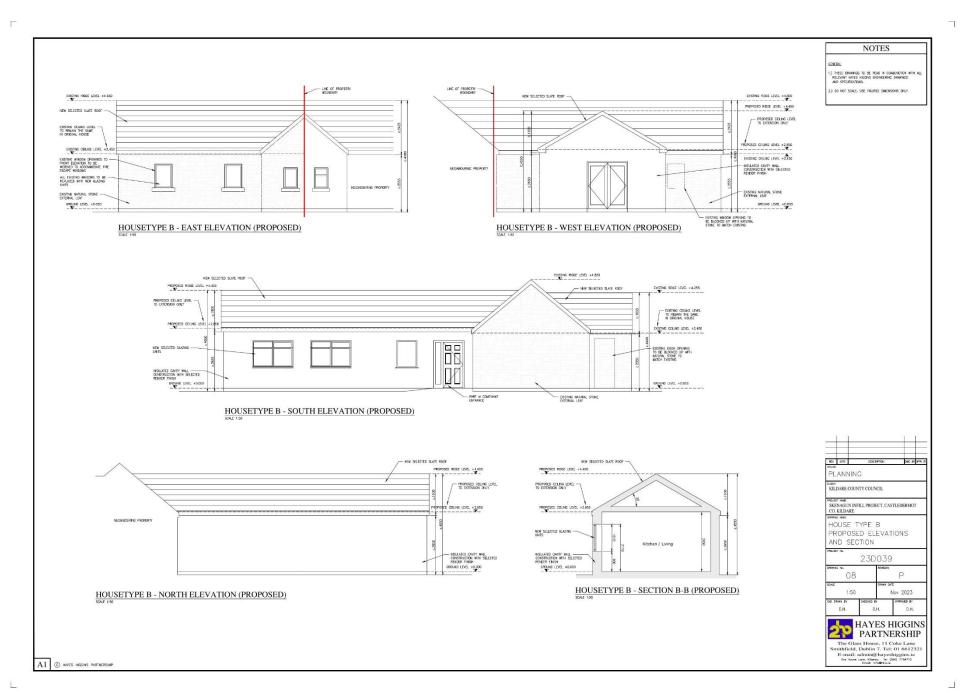


Figure 7. House type B elevations

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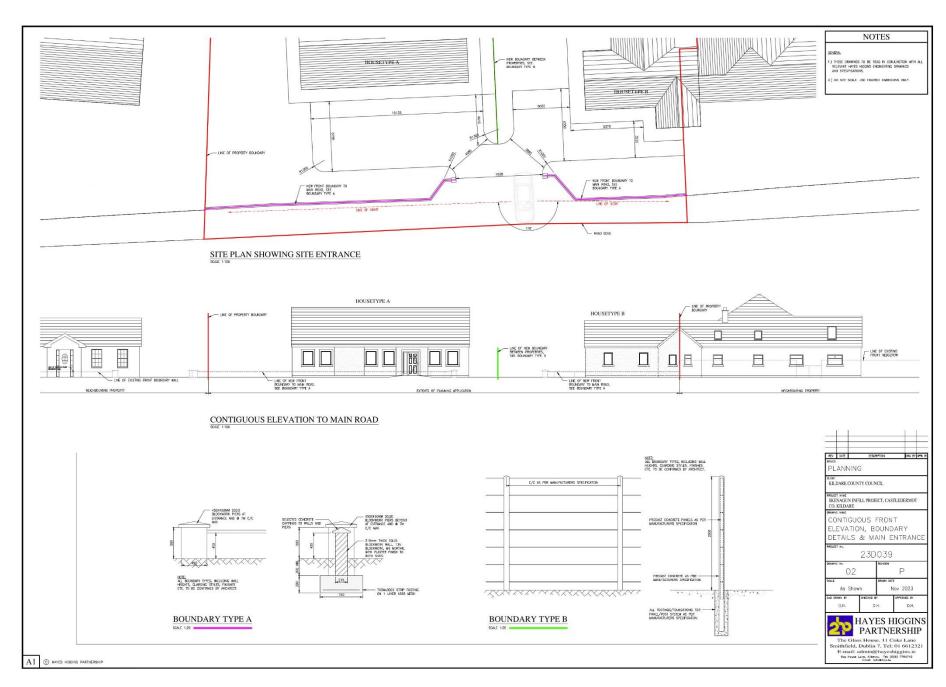
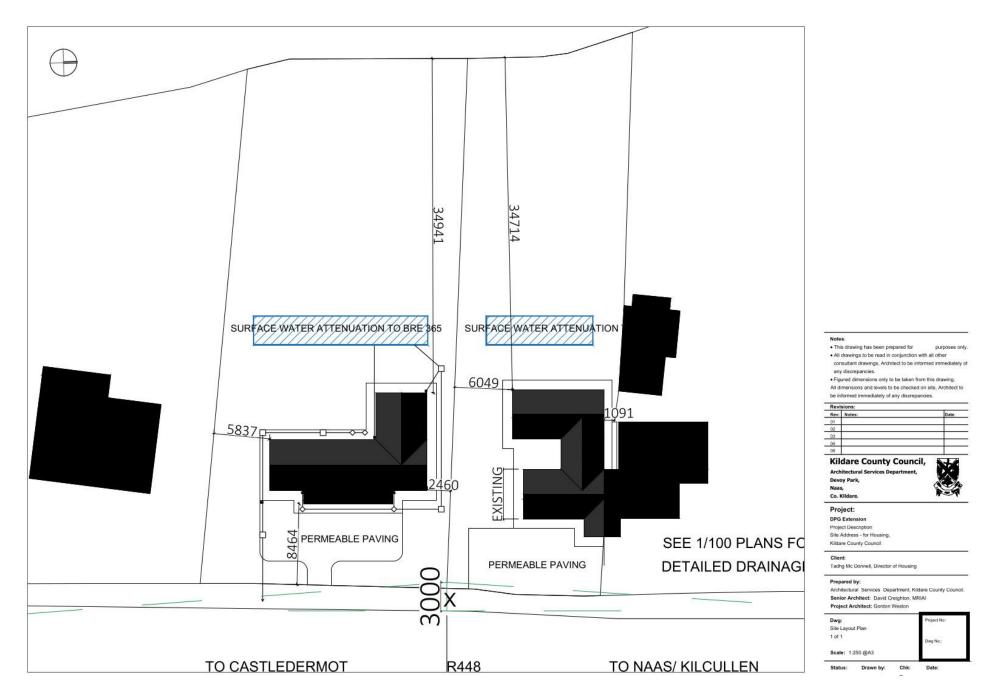


Figure 8. Entrance and boundaries



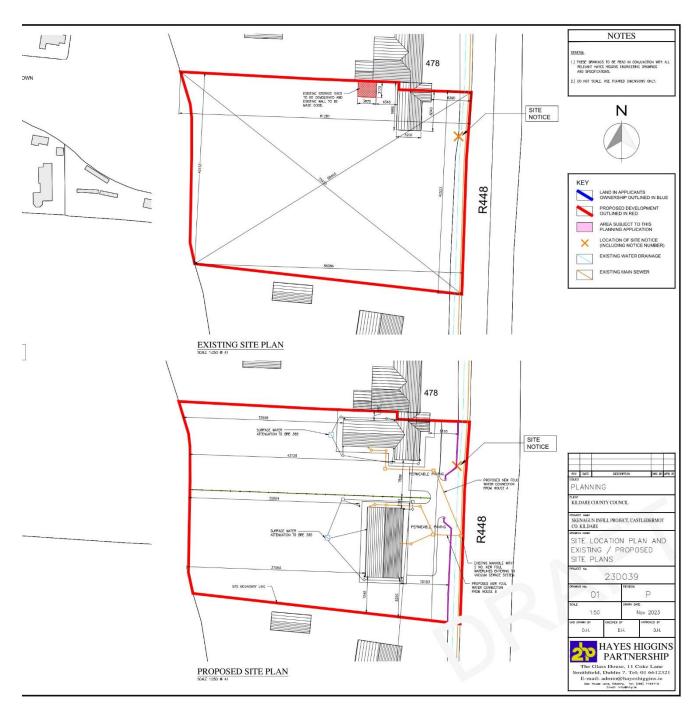


Figure 10. Existing and proposed drainage network

Identification of Relevant European Sites

The proposed development site is not within a European site. As outlined in Office of the Planning Regulator (2021) "The zone of influence of a proposed development is the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. This should be established on a case-by-case basis using the Source- Pathway-Receptor framework and not by arbitrary distances (such as 15 km)."

A key factor in the consideration as to whether or not a particular European site is likely to be affected by the proposed development is its distance from the development location. It is generally, but not necessarily, the case that the greater the distance from the plan or project the smaller the likelihood of impacts. The nearest Natura 2000 site is the River Barrow and River Nore SAC, located approximately 250m east of the subject site (Figures 11 & 13). There are no Special Protection Areas (SPAs) within 15km of the proposed development. The nearest watercourse is the River Lerr which is a tributary of the River Barrow and is designated as part of the River Barrow and River Nore SAC (Figure 13). Although near to the River Barrow and River Nore SAC (250m), it is considered that there is no direct or indirect hydrological connection between the subject site and this SAC as surface water is to be retained on site and foul water will enter the public treatment system.

A soakaway system is to be used to deal with the surface water drainage from the proposed development. Given there is no public surface water line currently serving the site, the surface run-off is naturally infiltrating and this approach will be maintained for the proposed development. Excess surface water from gullies and roofs will drain to a soakaway in the rear garden of each dwelling and permeable paving will allow natural infiltration within the parking areas. Foul water from the proposed development will flow to an existing manhole on the R448 road where it will be treated within the public system at Castledermot WwTP. A confirmation of feasibility has been provided by Irish water for the proposed development.

The ZoI of the proposed project would be seen to be restricted to the site outline, with potential for minor localised noise and lighting impacts during construction which do not extend significantly beyond the site outline nor are they likely to have any significant effects on any European sites. The proposed works are minor in nature and any airborne dust or pollutants will not reach the nearby River Barrow and River Nore SAC due to the terrestrial buffer (250m) between the site and this SAC. Despite a lack of direct hydrological connection to European Sites, but in the interest of carrying out a thorough assessment in line with both the Habitats Directive, and the precautionary principle, the area of assessment was expanded beyond the ZoI to include designated sites within 15km of the proposed development site, and sites beyond 15km with the potential for a hydrological connection. This was done in the interest of ensuring that any pathways, however indirect or remote, were considered. All European sites within 15km are listed in Table 1. The qualifying interests, and the potential impact of the proposed development on each European site and qualifying interest, are screened out in Table 2. No potential impacts are foreseen on European sites beyond 15km as there is no direct or indirect pathways to these sites.

Natura 2000 sites within 15km of the proposed development and those with potential pathway are demonstrated in Figures 11. Waterbodies and European sites located in proximity to the proposed development are demonstrated in Figures 12 & 13. There is no direct pathway from the proposed development to Natura 2000 sites.

Table 1. Natura 2000 sites within 15km of the subject site

Site Code	NATURA 2000 Site			
Special Areas of Conservation				
IE002162	River Barrow and River Nore SAC 250 m			
IE000781	Slaney River Valley SAC 8.6 km			
IE001757	Holdenstown Bog SAC 9.9 km			

Table 2. Initial screening of European sites within 15km and European sites beyond 15km with potential of hydrological connection to the proposed development

NATURA	Name	Screened	Details/Reason
Code		IN/OUT	
002162	as of Conservat River Barrow and River Nore SAC	OUT	Conservation Objectives To maintain or restore the favourable conservation condition of Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.
			Qualifying Interests Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Reefs [1170] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410] Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260] European dry heaths [4030] Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430] Petrifying springs with tufa formation (Cratoneurion) [7220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0] Desmoulin's Whorl Snail (Vertigo moulinsiana) [1016] Freshwater Pearl Mussel (Margaritifera margaritifera) [1029] White-clawed Crayfish (Austropotamobius pallipes) [1092] Sea Lamprey (Petromyzon marinus) [1095] Brook Lamprey (Lampetra planeri) [1096] River Lamprey (Lampetra fluviatilis) [1099] Twaite Shad (Alosa fallax fallax) [1103] Salmon (Salmo salar) [1106] Otter (Lutra lutra) [1355] Killarney Fern (Trichomanes speciosum) [1421] Nore Pearl Mussel (Margaritifera durrovensis) [1990]
			Potential Impact The subject site is located approximately 250m from this SAC. There is no direct hydrological pathway between the subject site and this SAC.
			A soakaway system is to be used to deal with the surface water drainage from the proposed development. Given there is no surface water line currently serving the site, the surface run-off is naturally infiltrating and this approach will be maintained for the proposed development. Excess surface water will drain to a soakaway in the rear garden of each dwelling and permeable paving will allow natural infiltration within the parking areas. Foul water from the proposed development will flow to an existing manhole on the R448 road where it will be treated within the public system at Castledermot WwTP under licence.

NATURA	Name	Screened	Details/Reason
Code		IN/OUT	The Zol of the proposed works is restricted to the site outline with potential for minor localised noise and lighting impacts during construction which do not extend significantly beyond the site outline nor are they likely to have any significant effects on this SAC. The works are minor in nature and any airborne dust or pollutants will not reach the nearby River Barrow and River Nore SAC due to the terrestrial buffer (250m) including a road between the site and this SAC. No potential impact is foreseen. There is no direct or indirect pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site.
IE000781	Slaney River Valley SAC	OUT	Conservation Objectives To maintain or restore the favourable conservation condition of Annex I habitat(s) and/or the Annex II species for which the SAC has been selected. Qualifying Interests Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Mediterranean salt meadows (Juncetalia maritimi) [1410] Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0] Margaritifera margaritifera (Freshwater Pearl Mussel) [1029] Petromyzon marinus (Sea Lamprey) [1095] Lampetra planeri (Brook Lamprey) [1096] Lampetra fluviatilis (River Lamprey) [1099] Alosa fallax fallax (Twaite Shad) [1103] Salmo salar (Salmon) [1106] Lutra lutra (Otter) [1355] Phoca vitulina (Harbour Seal) [1365] Potential Impact The subject site is located approximately 8.6km from this SAC. There is no direct or indirect hydrological connection between the subject site and this SAC. No potential impact is foreseen. There is no direct or indirect pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site.
			No significant effects are likely.

NATURA Code	Name	Screened IN/OUT	Details/Reason
IE001757	Holdenstow n Bog SAC	OUT	Conservation Objectives To maintain or restore the favourable conservation condition of Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.
			Qualifying Interests Transition mires and quaking bogs [7140]
			Potential Impact The subject site is located approximately 9.9km from this SAC. There is no direct or indirect hydrological connection between the subject site and this SAC.
			No potential impact is foreseen. There is no direct or indirect pathway from this site to the SAC. The construction and operation of the proposed development will not impact on the conservation interests of the site.
			No significant effects are likely.

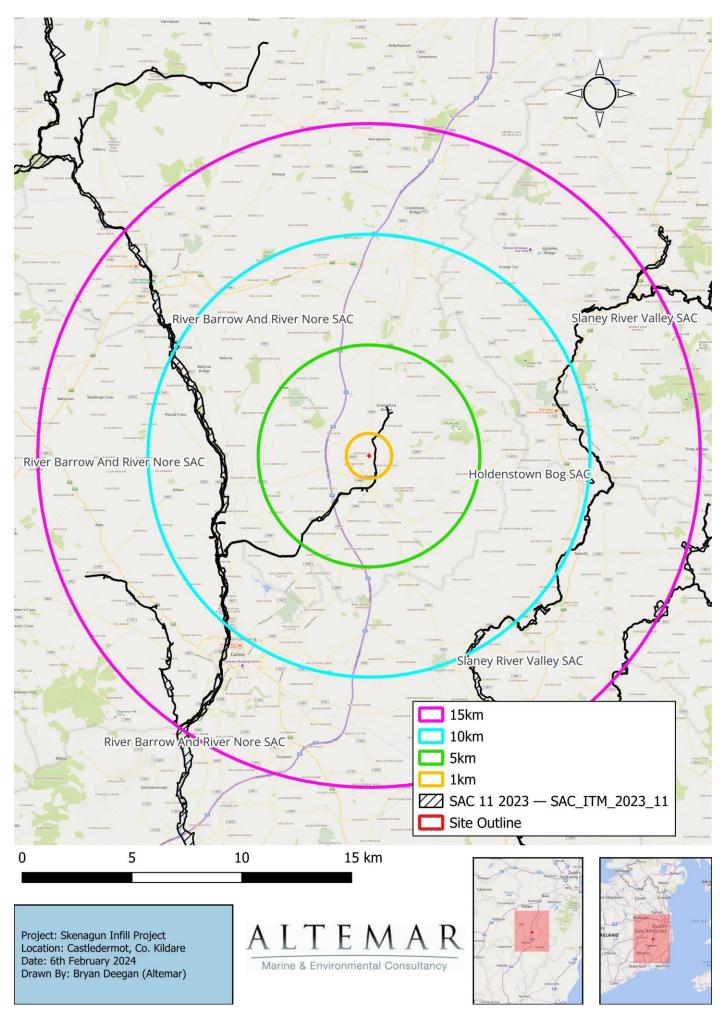


Figure 11. SACs within 15km of the subject site



Figure 12. Watercourses within 1km of the subject site

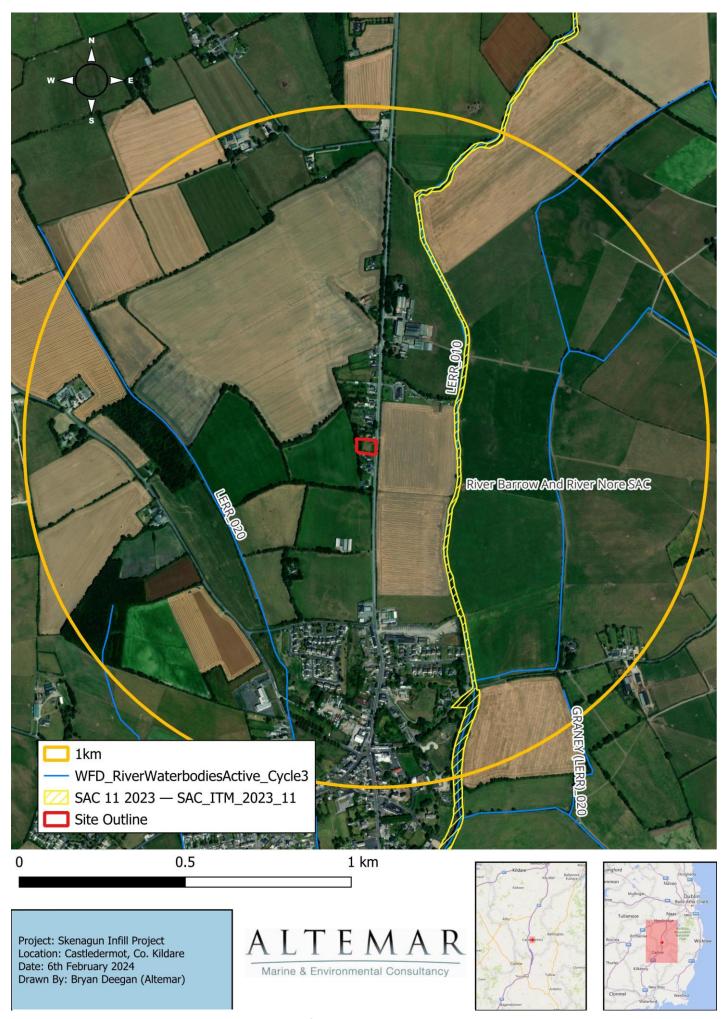


Figure 13. Watercourses and SACs within 1km of the subject site

In-Combination Effects

The following is a list of planning applications (last five years) as identified on the Department of Housing, Local Government and Heritage's 'National Planning Application Database' portal:

Table 3. In-combination effects considered

Ref. No.	Address	Proposal
221114	309 Skenagun, Castledermot, Co. Kildare	Change of use from existing detached single storey garage to a home office and a single storey extension to the rear for a garden room and storage area and all associated site works
2054	No. 478 Skenagun, Castledermot, Co. Kildare.	A single storey extension to the side of existing single storey dwelling, 2 no. roof lights to the front façade, use of existing onsite services and all associated site works
2360011	475 Skenagun, Castledermot, Co. Kildare	Single storey extension to the side of existing cottage comprising entrance hall, kitchen/dining room, utility, Wc and including upgrading and widening of existing vehicular entrance and all ancillary site works

Following an analysis of development proposals proximate to the subject site, it is considered that incombination effects with other existing and proposed developments in proximity to the application area would be unlikely, neutral, not significant and localised. It is concluded that no significant effects on Natura 2000 sites are likely as a result of the proposed development in combination with other projects. No in-combination effects are foreseen.

No projects in the vicinity of the proposed development would be seen to have a significant in-combination effect on Natura 2000 sites.

Conclusions

The proposed development site is located within a suburban agricultural environment. The nearest Natura 2000 site is the River Barrow and River Nore SAC, located approximately 250m east of the subject site. There are no Special Protection Areas (SPAs) within 15km or with a direct pathway to the proposed development. The nearest watercourse is the River Lerr which is a tributary of the River Barrow and is designated as part of the River Barrow and River Nore SAC. Although near to the River Barrow and River Nore SAC (250m), it is considered that there is no direct hydrological connection between the subject site and this SAC as surface water is to be retained on site and foul water will enter the public treatment system and treated under licence at Castledermot WWTP.

A soakaway system is to be used to deal with the surface water drainage from the proposed development. Given there is no surface water line currently serving the site, the surface run-off is naturally infiltrating and this approach will be maintained for the proposed development. Excess surface water from gullies and roofs will drain to a soakaway in the rear garden of each dwelling and permeable paving will allow natural infiltration within the parking areas. Foul water from the proposed development will flow to an existing manhole on the R448 road where it will be treated within the public system at Castledermot WwTP.

The ZoI of the proposed works is restricted to the site outline with potential for minor localised noise and lighting impacts during construction which do not extend significantly beyond the site outline nor are they likely to have any significant effects on this SAC. The proposed works are minor in nature and any airborne dust or pollutants will not reach the nearby River Barrow and River Nore SAC due to the terrestrial buffer (250m) between the site and this SAC. In the absence of mitigation, no significant effects on European sites are likely. No specific mitigation is required to prevent impacts on Natura 2000 sites.

Having taken into consideration the foul and surface water drainage from the proposed development, the distance between the proposed development to designated conservation sites, lack of hydrological pathway or biodiversity corridor link to conservation sites, it is concluded that the proposed development would not give rise to any significant effects to designated sites. The construction and operation of the proposed development will not impact on the conservation objectives of qualifying interests of European sites.

This report presents a Stage 1 Appropriate Assessment Screening for the Proposed Development, outlining the information required for the competent authority to screen for appropriate assessment and to determine whether the Proposed Development, either alone or in combination with other plans and projects, in view of best scientific knowledge, is likely to have a significant effect on any European or European site.

Based on the content of this report, the competent authority is enabled to conduct a Stage 1 Screening for Appropriate Assessment and consider whether, in view of best scientific knowledge and in view of the conservation objectives of the relevant European sites, the Proposed Development, individually or in combination with other plans or projects is likely to have a significant effect on any European site.

Data Used for AA Screening

NPWS site synopses and Conservation objectives of sites within 15km were assessed. The most recent SAC and SPA boundary shapefiles were downloaded and overlaid on Bing Road maps and satellite imagery.

References

- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government 2009; http://www.npws.ie/publications/archive/NPWS 2009 AA Guidance.pdf
- 2. Assessment of Plans and Projects Significantly Affecting EUROPEAN Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC;
- 3. Department of Environment Heritage and Local Government Circular NPW 1/10 and PSSP 2/10 on Appropriate Assessment under Article 6 of the Habitats Directive Guidance for Planning Authorities March 2010.
- 4. Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission;
- Guidance document on the implementation of the birds and habitats directive in estuaries and coastal zones with particular attention to port development and dredging; http://ec.europa.eu/environment/nature/Natura2000/management/docs/guidance_doc.pdf
- 6. Managing EUROPEAN Sites: the provisions of Article 6 of the Habitats Directive 92/43/EEC, European Commission 2000;
- 7. The Status of EU Protected Habitats and Species in Ireland.

 http://www.npws.ie/publications/euconservationstatus/NPWS_2007_Conservation_Status_Report.pd

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- 8. NPWS (2011) Conservation Objectives: River Barrow and River Nore SAC 002162. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- 9. NPWS (2011) Conservation Objectives: Slaney River Valley SAC 000781. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- 10. NPWS (2019) Conservation Objectives: Holdenstown Bog SAC 001757. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.