An Bord Pleanála

Inspector's Report ABP-317626-23

Development	The construction of 98 residential units and all ancillary site works. The application is accompanied with an EIAR and a Natura Impact Statement (NIS).
Location	Townland of Clonconane, between Old Cratloe Road (L3102) and Pass (Meelick) Road, Limerick
Planning Authority	Limerick City and County Council.
Planning Authority Reg. Ref.	22959
Applicant(s)	Riverpoint Construction Limited
Type of Application	Permission
Planning Authority Decision	Grant Permission
Type of Appeal	Third Party
Appellants	Lorraine Getlevog Denis Riordan Claire Boylan

Date of Site Inspection	20th September 2024
Senior Inspector	Paul O'Brien

1.0 Site Location and Description

1.1. The subject site contains a site with a stated area of 3.69 hectares is located on lands to the north of the Old Cratloe Road and to the west of the Pass Road. These lands are located to the north west of Limerick City and are located outside of the established urban area. Access to the site is from an existing roundabout junction that is a recent addition that includes a section of road joining the Pass Road and the Old Cratloe Road.

1.2. The subject site is irregular in shape and other than a short section of the site along the Old Cratloe Road, the rest of the site does not adjoin public roads. The site area includes lands required for access and for services to be provided to this site. The lands are in agricultural use and are under grass. The lands to the west and north west are also in agricultural use. To the south east of the public road is the Limerick County Club. Further to the east is the Coonagh to Knockalisheen Distributor Road (CKDR) which was in a partially constructed state on the day of the site visit though there was no evidence of any construction activity on that day.

1.3. There is a row of detached houses to the north east of the site and similar development is found to the south west along the Old Cratloe Road. Higher density urban development is found to the south east, approximately 220m from the subject site.

2.0 Proposed Development

2.1. The proposed development consists of the following:

- 98 houses in the form of:

  10 x 2 Bed

  44 x 3 Bed

  44 x 4 Bed
- 191 in curtilage car parking spaces.
- Footpath and vehicular connections to existing services. This includes access to the existing roundabout to the south east and which provides a connection between the Pass Road and the Old Cratloe Road.

- Public open space.
- A Natura Impact statement has been prepared in respect of the proposed development.
- All associated site works and service provision.
- Site area is 3.69 hectares. Gross Density is 26.5 units per hectare. The Net Development area is 2.86 hectares with a Net Density of 34 units per hectare.

2.2. The submitted proposal is the third phase of the development of these lands in accordance with a prepared masterplan.

3.0 Planning Authority Decision

3.1. Decision

The Planning Authority decided to grant permission subject to conditions, which are generally standard. The following are noted in summary:

Condition no. 5: Childcare facility permitted under PA Ref. 22/790 to be developed when 75 units have been sold/ occupied.

Condition no. 13: A 2-metre-high wall to form the rear/ side and dividing boundary between houses.

Condition no. 14: a) Provide as constructed drawing to the Planning Authority on completion of development and b) Submit to the Planning Authority certification from service providers.

Condition no. 16: Carry out all mitigation and monitoring requirement in the NIS.

Condition no. 17: Carry all mitigation requirements in the EIAR.

Condition no. 18: Details of a phasing plan to be provided, there shall be a minimum of three phases for this development.

Condition no. 21: Roads and pedestrian infrastructure details.

Condition no. 23: Details of additional SuDS measures.

Condition no. 25: Archaeological requirements.

Condition no. 27: Provision of a management plan for the Biodiversity Area, including details on access and site security.

3.2. Planning Authority Reports

3.2.1. Planning Report

The Planning Authority Case Officer's report reflects the decision to grant permission for the development. Further information was sought in relation to road/ pedestrian infrastructure details including a request for a Stage 1 & 2 Road Safety Audit, details of a public lighting design, surface water drainage details, archaeological testing on site with areas to be agreed, revised cul-de-sac details, concern about the lack of childcare facility, provision of bicycle parking, request to address the need for additional surveillance of the public open space areas, details on taking in charge, details on works to the Old Cratloe Road and further SuDS details. Request also to submit Schedule 7A details as provided in the Planning and Development Regulations 2001 as amended. The proposed unit mix was revised to consist of the following:

- 10 x 2 Bed
- 42 x 3 Bed
- 46 x 4 Bed

The applicant responded to each of these points to the satisfaction of the Planning Authority. The FI response will be referred to in my report.

3.2.2. Other Technical Reports

Council Archaeologist: Further information sought on archaeological test excavation and following the receipt of the requested information, conditions provided in the event that permission was to be granted.

Roads Department: Further information sought on traffic/ pedestrian safety, surface water and public lighting and following the receipt of the requested information, conditions provided in the event that permission was to be granted.

Fire & Emergency Services: Further information sought due to concern about the layout and the ability for fire engines to be able to turn safely. Following the receipt of the requested information, conditions provided in the event that permission was to be granted.

Senior Scientist - Planning, Environment & Place Making: Further information sought in relation to stormwater management – quality/ quantity, no information on

nature-based SuDS/ biodiversity and climate adaptation. On receipt of further information response, condition provided in the event that permission was to be granted.

Active Travel: No objection subject to conditions in relation to public transport/ cycling provision and bicycle parking. These issues were raised through the further information request and a condition in relation to bicycle storage was recommended.

Environment, Recreation & Climate Change – CFRAM: No objection.

Environment Department: No objection in relation to road traffic noise.

3.2.3. **Prescribed Bodies**

OPW: Drainage channel on site is not within the OPWs maintenance responsibility but recommend that it be conditioned that it be maintained as part of the management of the housing development into the future. Note that changes to the land drainage from one catchment to another may impact on flood risk of the area.

Irish Water: No objection subject to conditions. Water and foul drainage connections are feasible subject to upgrades.

3.2.4. **Objections/ Observations**

Fourteen submissions were received opposing the development/ concerned about aspects of the submitted proposal:

Issues raised, in summary, include:

- Concern about the impact of the development on residential amenity in terms of:
    - Overlooking leading to a loss of privacy. Can be addressed through a revised house design for those proposed on the eastern side boundary.
    - Uncertainty over the type and finish of the boundary treatment to be provided.
    - Concern about overshadowing form the proposed houses.
- Concern about the potential impact of the development on surface water drainage and the existing drainage channels that serve these and adjoining lands.

- Need to project waterbodies and there is a direct hydrological connection between the site and the Lower Shannon SAC.
- The submitted Masterplan does not extend to the entirety of the applicant's landholding – concern that this may impact on the area through the provision of additional residential units.
- There is a need for EIA for the development of these lands. There are 6 separate projects that would exceed a total of 10 hectares.
- Concern about the location of pumping stations and proximity to stream.
- No proposal to provide for a wastewater treatment plan for the area; existing houses are served by septic tanks.
- The development provides for two storey houses when the existing character is single storey bungalows.
- No childcare facility is proposed even though more than 75 units are proposed.
- Concern about an increase in traffic and congestion in the area.
- Traffic & Transport Assessment does not cover all the lands in the applicant's ownership.
- No provision is made for a bus stop to serve this development.
- The layout is considered to be sterile consisting of long straight roads, and a single type of housing dominates.
- Turning area is insufficient outside proposed houses no. 21 and 22.
- Public lighting should be designed to be shaded or dimmable in order to ensure the residential amenity of existing houses is protected.
- Concern about the lack of detail in the landscaping plans and these should be prepared by a Landscape Architect.
- Query over the trees in the rear gardens of the proposed houses, unsure if these will be provided.
- Lack of play equipment and amenities within the open space areas.
- No provision is made for broadband to serve this development.

- Insufficient storge capacity within the proposed houses.
- No detail as to where the site depot will be located during the construction phases of the over masterplan development.

Two submissions were received in relation to the submitted further information response and the following comments were made:

- Issues raised by third parties were not addressed in the further information response.
- Loss of privacy was raised and refers to Article 7 of the Charter of Fundamental Rights of the European Union. Case should be referred to the High Court.
- No childcare facility has been proposed.
- A creche proposed in a different phase of the development of these masterplan lands does not provide for adequate capacity.
- The proposed creche would not be safe for children using it, especially from the subject site.
- Reference to Chapter 7 – Hydrology of the EIAR. Concern that the proposed development/ proposed drainage would impact on existing surface water drainage in the area and give rise to flooding. The submission includes documentation and plans.

4.0 Planning History

There is a long history associated with this site and which is detailed in the Planning Authority Planner's report. I have summarised the more recent/ relevant applications here:

PA Ref. 22/790 refers to a May 2023 decision to grant permission for an increase in the size of a permitted creche from 413.1 sq m to 467.2 sq m thereby increasing the number of childcare places from 84 to 107. On lands to the south east and adjoining the access roundabout.

PA Ref. 22/817 refers to a July 2023 decision to grant permission for 86 residential units and site works. This is on lands to the south east and on the opposite side of the public road/ access roundabout.

PA Ref. 22/917 refers to an October 2023 decision to grant permission for 12 residential units and a mixed-use development comprising coffee shop, two retail units and a food store. This site is to the south of the subject site.

PA Ref. 21/1800/ ABP Ref. 315673-23 refers to an April 2024 decision to grant permission for 99 residential units and all associated site works. This is on lands to the south of the subject site.

PA Ref. 22/11114/ ABP Ref. 318378-23 refers to an application for the construction of 54 residential units and all ancillary site works. A Natura Impact Statement (NIS) and an Environmental Impact Assessment Report (EIAR) accompany this application. The appeal decision is pending. This site is to the west/ south west of the subject site.

PA Ref. 24/60956 refers to an application lodged on the 25th of September 2024 for alterations to housing development granted under planning permission ref number 21/1800.

5.0 Policy and Context

5.1. Development Plan

- The Limerick Development Plan 2022 - 2028 applies to these lands. The site is located within 'Settlement Tier- Level 1 – Limerick City and Suburbs (in Limerick), Mungret and Annacotty'
- Zoning: The subject site is zoned 'New Residential' which seeks to 'provide for new residential development in tandem with the provision of social and physical infrastructure'.
- Density: - Zone 3: Suburban Edge – 'A minimum net density of 35+ dwelling units per hectare are required at sites in suburban development areas that do not meet proximity or accessibility criteria of the Intermediate Urban Locations' as indicated on Map 4 of the Development Plan.
- The site is located outside of Flood Zone A and B – Map 5.
- Map 6: Limerick City and Suburbs (in Limerick), including Mungret and Annacotty - Transport Map includes 'Indicative Cycleways/ Walkways' on the Pass Road.

- The following are noted:
    - Chapter 7 – ‘Sustainable Mobility and Transport’.
    - Chapter 9 – ‘Climate Action, Flood Risk and Transition to Low Carbon Economy’.
    - Chapter 10 – ‘Sustainable Communities and Social Infrastructure’.
    - Chapter 11 – ‘Development Management Standards’. This includes Table DM 9(a) - Car and Bicycle Parking Standards Limerick City and Suburbs- site located within Zone 3
- Volume 6 – ‘Accompanying Strategies’ provides the Building Height Strategy for Limerick City’.

Note: Reference in this report to a Masterplan is one prepared by the applicant for the development of their landholding. This is provided on Drawing No. MP-01.

5.2. Section 28 Ministerial Guidelines

- Sustainable Residential Development and Compact Settlements – Guidelines for Planning Authorities (DHLGH, 2024).
- The Planning System and Flood Risk Management (including the associated Technical Appendices)
- Childcare Facilities – Guidelines for Planning Authorities (2001)

Other Relevant Guidance

- Design Manual for Urban Roads and Streets
- NTA - Permeability Best Practice Guide

5.3. Natural Heritage Designations

The Lower River Shannon SAC (Site Code 002165) and Knockalisheen Marsh pNHA (Site Code 002001) are located approximately 1.4 km to the east of the subject site and the River Shannon and River Fergus Estuaries SPA (Site Code 004077) is approximately 1.7 km to the west.

6.0 The Appeal

6.1. Grounds of Appeal

Three separate third party appeals have been lodged against the decision of Limerick City and County Council to grant permission for this development. Lorraine Getlevog and Claire Boylan raise specific issues that require consideration but do not recommend that permission be refused. Denis Riordan requests that permission be refused for this development.

I have summarised the appeals under the following headings as appropriate:

Impact on the Character of the Area:

- The masterplan does not respect the established character of the area – two storey houses in an area of bungalow type housing.

Impact on Residential Amenity:

- Concern about the two storey houses proposed to the west of the existing houses on Pass Road. Potential for overlooking leading to a loss of privacy due to the separation distances, type of houses and topography of these lands.
- Request that revised houses be provided on the east side of the development site, alternatively the orientation of the house may be revised to address issues of potential overlooking.
- The ridge height of the proposed houses at between 10.19 m and 9.925 m are considered to be excessive.
- Privacy of single storey units would be protected by an appropriate height of wall.
- Concern about loss of sunlight due to the proposed houses to the west of the existing houses/ existing gardens.
- The 'Sustainable Residential Development in Urban Areas Guidelines, 2009, are not applicable as they refer to new houses and not the impact on existing houses.
- No evidence that the Planning Authority considered the issue of impact on the existing houses from the proposed two storey units.
- Insufficient consideration of Article 7 of the Charter of Fundamental Rights of the European Union – Respect for private and family life.
- An Bord Pleanála are requested to state a case to the High Court on the interpretation of Article 7 of the Charter of Fundamental Rights.

- There is a need for solid brick walls to form the boundary between the existing and proposed houses.

Flooding – Surface Water Drainage:

- Concern expressed about potential flooding from the proposed development.
- The proposed development will connect to a private drain which in turn connects to an OPW arterial drain. This network is already at full capacity.
- Refers to OPW report and concern that the transfer of surface water to another catchment may increase flood risk in that area.

Foul Drainage:

- The opportunity exists to provide for a comprehensive drainage plan for the area and which would include the removal of the septic tanks serving the existing houses in the area.
- This should be undertaken in advance of any development on this site.
- The failure to do this has resulted in discrimination through the failure of Uisce Éireann and Limerick City and County Council to remove existing septic tanks.

Other Issues:

- The proposed development, which is in excess of 75 units, has failed to provide for a suitable childcare facility.
- The proposed childcare facility on the adjoining lands has insufficient capacity to serve the demands of this and associated development.
- The proposed childcare facility is considered to be a safety hazard in terms of its location and access to it.
- Concern raised about a number of aspects of the submitted EIAR.

The appeals are supported with plans, cross sections and photographs.

6.2. **Applicant's Response**

6.2.1. The applicant has made a response to the third-party appeals. The following points are made in support of the development:

- The background to the development and site layout is provided in detail.

- The revisions to the development as part of the further information response are outlined and the applicant demonstrates how the development complies with the indicative Masterplan.
- The subject development/ site area does not require EIA but considering that the Masterplan lands will exceed the area threshold, an EIAR has been provided to consider cumulative impacts etc. The Masterplan lands measure 22.53 hectares, Table 2.0 of the applicants appeal response provides a detail of the 'Phased Approach within Overall Masterplan'.

The following points are made in relation to the appeal, grouped under appropriate headings by the applicant:

- Overlooking and privacy: The land is zoned for residential development, density is at 35 units per hectare, and the provision of single storey houses would not meet this density standard. Revisions to the house design/ layout would not provide for proper planning. There are no mandatory requirements for garden depths in the Limerick Development Plan 2022 – 2028 or through national guidance. The proposed houses are provided with adequate private amenity space in accordance with the development plan. Separation distances of between 38 and 47 m are provided between the rear of the proposed houses and the existing houses on Pass Road. Full regard has been had to the topography of the site and adjoining lands. The proposed separation distance and boundary treatment will provide for suitable privacy for existing residents.
- Environment & Septic Tanks: The applicant refers to the duty of care of the homeowner to ensure that their treatment system is functioning properly. Foul drainage has been provided along the Pass Road and it is therefore a matter for the residents and Limerick City and County Council and Uisce Éireann to serve the houses here.
- Creche Facility: A creche will be provided to serve the needs of the entire masterplan lands and not just this site. It is intended that this will be developed in advance of the commencement of the subject proposal. The proposed creche capacity is adequate to serve the needs of the masterplan lands.
- EIAR: The submitted EIAR has considered the impact of the development on those living on the Pass Road and on the wider area. The Pass Road is

considered to be a sensitive receptor for the purposes of noise, air quality and the landscape. The development will integrate with the built-up suburban parts of Limerick city.

- Surface Water and Flooding: Surface water will be discharged within its own catchment, and it is not proposed to transfer water to another part of the catchment. No adverse effects are expected to occur to the downstream network. The report received from the OPW is noted and this raised no issues of concern. The OPW would have a concern if the surface water drainage proposal was changed to include the movement of drainage from one catchment to part of another. The EIAR addresses issues of Flooding in Chapter 9.0. the site is located within Flood Zone C, the lands are suitably zoned for residential development and have not been subject to flooding. A separate surface water drainage sewer network will be provided, and which will be separate to that of the foul drainage system. Climate change has been considered in the design. Full regard has been had to other developments in the area including the Coonagh – Knockalisheen Road scheme.

  Requests that permission be granted for the proposed development.

6.3. **Planning Authority Response**

- None made.

7.0 Assessment

7.1. The main issues that arise for consideration in relation to this appeal can be addressed under the following headings:

- Principle of Development
- Impact on Residential Amenity
- Impact on the Visual Amenity of the Area
- Drainage/ Water Supply
- Flooding Issues
- Other Issues

7.2. Principle of Development

7.2.1. The proposed development provides for the development of 98 houses on lands zoned for residential development to the north west of Limerick city. As outlined in the planning history, similar development has been permitted on the adjoining lands and in accordance with a masterplan that the applicant has prepared. The Planning Authority raised no issues of concern in relation to this masterplan or to the nature of the proposed development.

7.2.2. The proposed development provides for a net density of 34 units per hectare and this is in accordance with 'Zone 3: Suburban Edge' such as this with a density of 35 units per hectare acceptable. The density and scale of development has regard to the existing houses on the Pass Road, the considerations of impact on residential amenity will be considered further in this report. The site is located on the urban fringe of Limerick but where infrastructure works have occurred or are taking place at present. It is clear from the Limerick Development Plan and as evidenced on the day of the site visit that these lands are proposed for development of the nature submitted to the Planning Authority.

7.2.3. Whilst the density of 34 is just under the 35 units per hectare set out in the Development Plan, I am satisfied that the difference is marginal and does not give rise to a material contravention of the plan. The site forms part of a larger masterplan area and it should be accepted that there will be variations in the density ranges throughout the overall lands. The masterplan was prepared by the applicant as required by the Planning Authority and will remain in place until the land are fully developed. It is not a statutory requirement.

7.2.4. I am therefore satisfied that the proposed development is acceptable in principle in terms of compliance with the site zoning, in terms of density and in general has regard to the established character of the area.

7.3. Impact on Residential Amenity

7.3.1. The appellants, who live to the east of the subject site have raised concern about the impact of the development on their privacy. I have considered this and other issues in relation to residential amenity under the following headings:

7.3.2. Insufficient separation distances: The appellants consider that the separation distance between the proposed development and the existing houses is inadequate,

giving rise to overlooking leading to a loss of privacy. The concern is primarily due to the fact that the proposed houses are two storey and the existing units along Pass Road are bungalow units.

7.3.3. Considering the existing character of the area, there will be an impact on the residential amenity of these houses, the rear gardens face west and there is no development beyond their boundaries. The proposed development will see the introduction of two storey houses to their rear. These lands are zoned for such development and as the applicant has outlined, there is a good level of separation between the existing and proposed houses.

7.3.4. Section 11.4.2 of the Limerick Development Plan provides details on 'Residential Quality Standards – Houses' and states 'An appropriate separation distance between directly opposing rear windows at first floor level in the case of detached, semi-detached and terraced units'. No specific measurement indicating an appropriate separation distance is provided in the Development Plan.

7.3.5. The minimum indicated separation distance is 38 m, and I consider this to be acceptable. 22m is considered appropriate between opposing first floor windows in many cases and the proposed separation is clearly well in excess of this. All of the gardens serving the proposed houses that adjoin the properties on Pass Road have rear gardens of at least 11m depth. There is no question that the existing houses are left to provide this separation distance, the proposed houses provide an appropriate portion. I refer to the Sustainable Residential Development and Compact Settlements Guidelines, and under SPPR 1 a separation distance of at least 16m between opposing windows on upper floor levels is specified. The separation provided is clearly in excess of the 16m specified in the guidelines.

7.3.6. Comment is made that these standards do not apply as the separation is between a single storey and a two-storey house. The angle of separation would impact on privacy and direct overlooking of the rooms of a house are reduced in the case of single storey/ two storey houses, however, the generous separation distance is the key determinant in protection of privacy in this case. The issue of topography referenced in one of the appeals is not significant to warrant concern and I note that the applicant has proposed the provision of a two-metre-high boundary wall augmented with landscaping to ensure further protection of privacy. I agree with the

applicant that revisions to the house types/ design/ layout on this section of the site would not be appropriate and would have consequences for the efficient development/ use of these lands.

7.3.7. I am therefore satisfied that the proposed development ensures that existing residential privacy is protected to an acceptable level. These lands have been zoned for residential development in accordance with the Limerick Development Plan 2022 – 2028 and there are no restrictions on the layout or scale of development on these lands.

7.3.8. Overbearing and overshadowing: No issues of overbearance arise due to the proposed separation distances. In terms of overshadowing and loss of daylight, I am satisfied that the development will not have an adverse impact. Any overshadowing will be restricted to evening time and would be limited to the rear/ western part of the gardens of the houses on Pass Road. No loss of daylight or sunlight to rooms within the existing houses is likely, again, due to the proposed separation distances and orientation of these houses.

7.3.9. Layout design: The layout of the proposed development is designed on the basis of long straight streets, with little indication of traffic calming designed into the scheme. The subject proposal forms only a small section of the overall masterplan lands and as already reported, the Planning Authority have accepted this masterplan. Permeability is good throughout the subject site lands and to/ from the adjoining areas of the masterplan lands. The submitted Site Layout Plan (Drawing no. PP-01E) does not indicate the provision of any trees in the rear gardens of proposed houses and there is extensive provision of trees along the streets and open space areas. I consider this to be acceptable.

7.3.10. Amenity lands: Open space is provided to the western side of the site and is one of a three large areas of open space provided the masterplan lands. The space is provided with good passive surveillance and is easily accessible by residents of this and other phases of development. A second area of open space is provided to the western side and this at 268 sq m is small but does provide for an amenity function, it is again well overlooked by adjoining units, ensuring appropriate levels of passive surveillance. An area of biodiversity lands was provided in response to the further

information request issued by the Planning Authority. This is located to the south of the subject site.

7.4. Impact on the Visual Amenity of the Area

7.4.1. Concern was expressed in the appeals about the visual impact of the development on the character of the area. I have already considered the issue of overbearing, and I am satisfied that the development will not have an adverse impact on the adjoining properties. The outlook from the houses on Pass Road will change due to the development of the proposed houses, but as already reported, this is in accordance with the zoning and nature of development of this area.

7.4.2. The proposed height of these houses is considered to be acceptable. Whilst the units that adjoin the houses on Pass Road are two storeys, it is appropriate that there is some variation in height and design of houses throughout the overall site.

7.5. Drainage/ Water Supply

7.5.1. An issue raised in the appeals was the possibility of connecting the houses on Pass Road to the proposed foul drainage system to be provided as part of this development. I would have no objection to this, and I can only assume that this is something that Uisce Éireann and Limerick City and County Council would support. However, it does not form part of this application, and it is not a requirement for the applicant/ developer to undertake such works. There is no indication that the proposed development would prevent or impede the future connection of the houses on Pass Road to the public foul drainage system.

7.5.2. Uisce Éireann did not raise any issues of concern in relation to the connection of the proposed development to the public foul drainage system or in the provision of a water supply to serve this development. No capacity or network constraints were identified by Uisce Éireann or the Planning Authority.

7.6. Flooding Issues:

7.6.1. The potential for flooding was raised as an issue of concern in the appeals. It was suggested that the proposed development may require the disposal of surface water from the site to another catchment area which in turn could give rise to flooding. A report from the OPW raised a level of concern that such could happen.

7.6.2. I note the issues raised in relation to flooding and also the reports from Limerick City and County Council and from the OPW. The applicant has addressed these issues in their appeal response in a clear manner. Surface water is to be addressed on site and the concerns of the OPW would only arise if this surface water was transferred to an adjoining catchment for disposal as that is not proposed this issue does not arise.

7.6.3. The site is located in Flood Zone C and there is no record of a flood event in this area. The design has had regard to climate change and the potential for development of other lands in the area for urban development. The applicant has provided information on flood risk in Section 6. of their Civil Engineer Report and there are no issues of concern raised here. I am satisfied that adequate provision has been made for surface water drainage and to address any concerns that may arise in relation to flooding generated as a result of this development.

7.7. **Other Issues**

7.7.1. Childcare Provision: The lack of dedicated childcare provision was raised in the appeals. The applicant has outlined that a childcare facility has been provided to serve this development and which has dedicated capacity to serve the needs of the residents of the subject application. Whilst it is a requirement for a childcare facility for every 75 units, the applicant has rightly proposed a large unit with capacity for 84 children. The Planning Authority were satisfied with this, and they included condition no.5 that seeks to provide this facility in accordance with the development of the overall masterplan lands. I am satisfied that the applicant has provided for adequate childcare to serve this development.

8.0 Appropriate Assessment (AA)

Stage 1 - Appropriate Assessment Screening

8.1. I have considered the proposed residential development of 98 units, and associated site works in light of the requirements of S177U of the Planning and Development Act 2000 as amended. A Screening report has been prepared by the applicant and the objective information presented in this report informs this screening determination.

8.2. Following an examination, analysis and evaluation of all available, relevant information and in view of best scientific knowledge, and applying the precautionary principle, it can be concluded that there is the possibility for significant effects on the following European sites, in the absence of mitigation either arising from the project alone or in combination with other plans and projects, as a result of hydrological impacts, during the construction/ operational phases of the development:

- Lower Shannon SAC (Site Code 002165)
- River Shannon and River Fergus Estuaries SPA (Site Code 004077)

8.3. A Stage Two Appropriate Assessment was required, and the applicant prepared/ submitted a Natura Impact Statement (NIS) in support of the development. Full details of my assessment are provided in Appendix 1 attached to this report.

Stage 2 – Appropriate Assessment:

8.4. I have had full consideration of the information, assessment and conclusions contained within the NIS. I have also had full regard to National Guidance and the information available on the National Parks and Wildlife Service (NPWS) website in relation to the identified designated Natura 2000 sites. I consider it reasonable to conclude that on the basis of the information submitted in the NIS report, including the recommended mitigation measures, and submitted in support of this application, that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of the Lower Shannon SAC and River Shannon and River Fergus Estuaries SPA.

Overall Conclusion- Screening Determination

8.5. In accordance with Section 177U of the Planning and Development Act 2000 (as amended) and on the basis of objective information,

I have had full consideration of the information, assessment and conclusions contained within the NIS. I have also had full regard to National Guidance and the information available on the National Parks and Wildlife Service (NPWS) website in relation to the identified designated Natura 2000 sites. I consider it reasonable to conclude that on the basis of the information submitted in the NIS report, including the recommended mitigation measures, and submitted in support of this application, that the proposed development, individually or in combination with other plans or

projects would not be likely to adversely affect the integrity of the Lower Shannon SAC and River Shannon and River Fergus Estuaries SPA.

8.6. This conclusion is based on:

- A full and detailed assessment of all aspects of the proposed project including proposed mitigation measures in relation to the Conservation Objectives of the Lower Shannon SAC and River Shannon and River Fergus Estuaries SPA
- Detailed assessment of in combination effects with other plans and projects including historical projects, current proposals and future plans.
- No reasonable scientific doubt as to the absence of adverse effects on the integrity of the Lower Shannon SAC and River Shannon and River Fergus Estuaries SPA.

Full details of the Appropriate Assessment are provided in Appendix 2 attached to this report.

9.0 Environmental Impact Assessment -

9.1. Statutory Provisions

9.1.1. This section sets out an EIA of the proposed project and should be read in conjunction with the planning and appropriate assessment sections of my report. The development provides for 98 residential units and associated site works on a site of 3.69 hectares located in Clonconane, Limerick. I note that reference is made to a site area of 9.45 hectares in the EIAR and which includes lands for a Biodiversity area. This is indicated on the revised site layout plan – Drawing RLB1/B and the revised Masterplan submitted by way of a further information response.

9.1.2. Item 10 of Part 2 to Schedule 5 of the Planning Regulations and section 172(1)(a) of the Act of 2000 provide that an EIA is required for infrastructure projects that involve:

(i) construction of more than 500 dwelling units;

(iv) urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere.

9.1.3. The current proposal is an urban development project that would be in the case of other parts of a built-up area. The applicants site area of 9.45 hectares would still be sub threshold as it is less than 10 hectares and would not exceed thresholds under Schedule 5 of the Planning Regulations. An EIAR was submitted with the application and the applicant's reasoning for submitting this was based on the fact the subject development was within a Masterplan area of 22.53 hectares and the cumulative area for development would be in excess of 10 hectares. The EIAR submitted considered the cumulative impact of the overall masterplan.

9.1.4. Under article 299A of the Planning Regulations, where a planning application for a sub-threshold development is accompanied by an EIAR and a request for a determination under section 7(1)(a)(i)(I) of the Act of 2016 was not made, the application shall be dealt with as if the EIAR had been submitted in accordance with section 172(1) of the Act of 2000.

9.2. **Compliance with the Requirements of Article 94 and Schedule 6 of the Planning Regulations:**

9.2.1. In the proceeding table, I assess compliance of the EIAR submitted with the requirements of Article 94 and Schedule 6 (paragraphs 1 and 2) of the Planning Regulations:

A description of the proposed development comprising information on the site, design, size and other relevant features of the proposed development, including the additional information referred to under section 94(b).
A description of the proposed development is contained in Section 1.6 of the EIAR. This is outlined under the following headings: Site Context, The Proposed Development, and The Masterplan. In each technical chapter of the EIAR details are provided on use of natural resources and the production of emissions and / or waste where relevant. I am satisfied that the development description provided is adequate to enable a decision.
A description of the likely significant effects on the environment of the proposed development, including the additional information referred to under section 94(b).

An assessment of the likely significant direct, indirect, and cumulative effects of the development is carried out for each of the technical chapters of the EIAR. I am satisfied that the assessment of significant effects is comprehensive and sufficiently robust to enable a decision on the project.
A description of the features, if any, of the proposed development and the measures, if any, envisaged to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment of the development, including the additional information referred to under section 94(b).
The EIAR includes designed in or embedded mitigation measures and measures to address potential adverse effects identified in technical studies. These measures and arrangements for monitoring, are summarised in Chapter 18.0 of the EIAR titled 'Summary of Mitigation Measures'. Mitigation measures comprise standard good practices and site-specific measures that are capable of offsetting significant adverse effects identified in the EIAR.
A description of the reasonable alternatives studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed development on the environment, including the additional information referred to under section 94(b).
Chapter 5.0 of the EIAR – 'Examination of Alternatives' provides a description of the range of alternatives considered, including a 'Rationale for the Proposed Development', 'Alternative locations', 'Do Nothing Alternative', 'Alternative Designs' – detailing the Masterplan process, 'Alternative Processes', and 'Alternative Mitigations Measures'. The proposed development is considered preferable over other considered designs and is in accordance with the overall masterplan for the development of these lands including the provision of suitable infrastructure. Key environmental considerations detailed in Section 5.2 of the EIAR included the need to achieve sustainable densities in accordance with local and national policy, regard to the topography of the site/ area, need for open space, protect trees and hedgerows,

quality of urban environment, access/ permeability and need for a balance in biodiversity.
A description of the baseline environment and likely evolution in the absence of the development.
The baseline environment is addressed in each technical chapter within the EIAR, and the likely evolution of this environment in the absence of the proposed development is described, with particular reference to 'do-nothing scenarios'.
A description of the forecasting methods or evidence used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information, and the main uncertainties involved.
The methodology employed in carrying out the EIA, including the forecasting methods, is set out in each of the individual chapters assessing the environmental effects. Section 1.6 addresses 'Technical Difficulties or Lack of Data' and no significant difficulties were encountered during the preparation of the EIAR. The report does state that 'some assumptions and projections were necessary for certain areas of this assessment, particularly the traffic and noise assessments'. Survey work was undertaken to provide the most up to date information and the EIAR was prepared in accordance with current best practice and the guidelines issued by the Environmental Protection Agency (EPA).
A description of the expected significant adverse effects on the environment of the proposed development deriving from its vulnerability to risks of major accidents and/or disasters which are relevant to it.
This is considered under Section 2.6 of the EIAR, any risks would be as expected for a development of this nature and further details are provided in each chapter of the EIAR where relevant.
Article 94 (c) A summary of the information in non-technical language.

The EIAR is supported with a Non-Technical Summary which is included as Part of the report. I have read the Non-Technical Summary, and I am satisfied that the document is concise and suitably comprehensive. It is written in a language that would be easily understood by a lay member of the public.
Article 94 (d) Sources used for the description and the assessments used in the report.
The sources and references used to inform the description, and the assessment of the potential environmental impacts are set out at the end of each individual chapter in the EIAR. I consider the sources relied upon are generally appropriate and sufficient in this regard.
Article 94 (e) A list of the experts who contributed to the preparation of the report.
A list of the experts is provided in Section 1.10 of the EIAR and details are provided in Table 1.4 – 'Table of Content and Authors' with the following section providing further details on the teams competencies. I am satisfied that the EIAR demonstrates the competence of the individuals who prepared each chapter of the EIAR, including details relating to expertise and qualifications.

9.3 Consultations

9.3.1 The application has been advertised and submitted in accordance with the statutory requirements. Direct and formal public participation in the EIA process was undertaken through the statutory planning application process. Schedule 7A information was requested by the Planning Authority by way of a further information request and with a specific request to consider the potential for cumulative impacts.

9.3.2 Several of the topics and issues raised in the appeal concern environmental matters that have already been addressed in the planning assessment above.

9.3.3 I am satisfied that appropriate consultations have been carried out and that third parties have had the opportunity to comment on the proposed development in advance of decision making.

9.4 Compliance

9.4.1 Having regard to the foregoing, I am satisfied that the information contained in the EIAR, and the associated supplementary information provided with this by the developer, is sufficient to comply with article 94 of the Planning Regulations. Matters of detail are considered in my assessment of likely significant effects below.

9.5 Likely Significant Direct and Indirect Effects

9.5.1 The EIAR describes and assesses the direct and indirect significant effects of the project on the following factors; (a) population and human health; (b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC; (c) land, soil, geology, water; air and climate; noise & vibration, (d) material assets, cultural heritage and the landscape. It also considers the interactions between factors (a) to (d).

9.5.2 A decommissioning phase for the project, has not been assessed due to the intended permanent residential nature of the development and nature of the associated development such as roads/ footpaths and service provision. Should the proposed buildings be demolished, further permission would be required, and it is assumed that the legislation, guidance and good practice at that time would be followed, and the effects are likely to be similar to the proposed construction effects.

9.6 Population and Human Health

Raised Issues:

9.6.1 The appeals did not raise any specific issues in relation to population and human health other than the development would give rise to a loss of privacy afforded to the residents of existing houses located to the west of the subject site. The Planning Authority raised no issues of concern, and the Environment Department reported no objection in relation to potential road traffic noise generated as a result of this development.

Context:

9.6.2 Impacts of the project on population and human health are addressed in chapter 6.0 of the EIAR. The methodology for the assessment is described, as well as the study area receiving environment and relevant documentation referenced. The assessment is undertaken having regard to the requirements set out in government and industry guidelines for EIA; particular reference is made to census data. The

assessment methodology includes site surveys, a desk-top survey on human health and the population baseline environment, assessment of mapping/ aerial photography and reference to relevant planning policy.

9.6.3 The approach undertaken to derive the significance of effects from the receptor value and the magnitude of impacts is outlined. There are certain limitations with respect to available health information at a county level, with National information used to inform the general health of the Limerick area. The Healthy Ireland Strategy provides a county profile and finds that Limerick is the most deprived Local Authority in Ireland with 36.8% of the population in either the disadvantaged or very disadvantaged categories. Section 6.3.7 – Risk of Major Accidents and Disasters reports that the development does not present a risk of such major accidents or disasters.

9.6.4 Section 6.4 provides a 'Description of Effects'. A number of likely impacts have been designed out of the development proposal and relevant measures are detailed elsewhere throughout the EIAR and in this assessment. The development will be undertaken on a phased basis though it is possible that two phases may take place together or at different stages of the process. Overall impacts are unlikely to be different. I have summarised the effects in the following table:

Project Phase	**Potential Direct, Indirect and Cumulative Effects**
Do-Nothing	• Site remains in a greenfield state, lands are undeveloped and development takes place in a piecemeal manner considering the grants of permission on the other masterplan lands adjoining the subject site. • The lands would be underutilised and would represent poor planning in terms of the site zoning and infrastructure provision in the area. • Limited change in the local population.
Construction	• Direct, medium, temporary adverse effects for human health predicted to arise from nuisance associated with construction activity (noise,

	vibration, air quality and traffic – further details in other sections of the EIAR). • Positive economic effects predicted to arise from the employment and economic activity during the construction phase. • Potential impacts on hydrology due to inadequate site management – likelihood of this is considered to be low. • Changes to Landscape – further detailed later in the EIAR. • Overall impact of this phase is considered to be short-term, moderate and likely to be neutral.
Operation	• Positive impact through the development of the site for housing in accordance with the objectives of the Limerick Development Plan 2022 – 2028. • Proposed creche, not part of this development, will support the developing area and other residential development outside of the masterplan lands. • Population increases of approximately 1,210 people due to the development of the masterplan lands for 448 units. Impact would be significant, permanent and positive. • Health benefits through the highly permeable layout and amenity spaces.
Cumulative	• Regard is had to the planning history of the area and the masterplan. No other significant developments have been permitted in the area. • The Coonagh to Knockalisheen Distributor Road need to be considered, and it has undergone

	EIA. Noise and dust impacts from this road are considered further in this EIAR.

Likelihood of Significant Effects:

9.6.5 The following table identifies specific direct and indirect impacts that the development may have during the construction and operational phases.

Phase/ Effect	**Impact**
Construction Phase – Water	Provision of water services to serve the development. • Construction works including trench excavations – Impact would be short term, imperceptible and insignificant. • Potential for silt and discharge to watercourses. Berm to be constructed to the western side of the site.
Operational Phase - Water	• Increased demand on supply – capacity is available. • Scheme is designed to Uisce Éireann standards. • Demand on wastewater – capacity is available. • Increase in surface water run-off – SuDS measures to be provided.
Construction Phase – Noise	• Machinery, plant and vehicles on site during daytime hours. Short-term increase in noise levels for limited time.

Operational Phase – Noise	• Increased road traffic in the area. Effect is negligible and imperceptible impact. • Other activity is not considered noise – children at play, use of open space and pedestrians.
Construction – Air Quality & Noise	• Dust emissions due to operation and movement of plant – potential impact on human health. • Some increase in CO2 though this will not be significant and will be imperceptible. • Impact on ambient air quality would not be adverse.
Operational Phase – Air Quality & Noise	• Slight impact through new buildings and traffic. • Landscaping etc. will reduce CO2 and increase O2 though this would be minor. • No adverse impact on local air quality or on human health.
Construction Phase - Landscape & Visual Impact	• Impact will be short term and will be a perceptual visual change on the landscape. Works are temporary in nature. • Screening is proposed around the development and each phase. • Landscaping to be provided.

Operational Phase - Landscape & Visual Impact	• Positive impacts through the development of amenity lands and encourage walking. • Positive impact on human beings.
Construction Phase – Economic Activity	• Positive impact through employment and improvement in the economic activity in the area. • Spin off impacts through retail, aggregate sector and professional/ technical services. • Slight negative impact through traffic and nuisance.
Operational Phase – Economic Activity	• Provision of new homes. • Increase in economic activity in the area.
Construction Phase – Social Patterns	• Unlikely to have any significant impact on social patterns in the area though some temporary additional populations during the construction phase. • Some short-term negative impacts on local residents – these are assessed later in the EIAR. • Beneficial impacts for local business and locals through additional work.
Operational Phase – Social Patterns	• Increase in local population. • Local services are available and can be augmented if necessary.

Construction Phase – Land-Use & Settlement Patterns	• Some short term negative impacts during this phase of the development. • Provision of suitable screening to protect existing residents. • Increase in use of quarries in the area, will increase traffic but will not be significant and temporary in nature.
Operational Phase – Land-Use & Settlement Patterns	• Provision of much needed housing. • Positive impact on land use and the implementation of the Limerick Development Plan 2022 – 2028.
Construction Phase – Health and Safety	• Some short-term impacts through construction traffic, dust, noise and littering. Secondary impacts from increased traffic hauling materials. Likely to be short term impacts and will be properly monitored. • Various Health and Safety Plans will be developed and implemented throughout the course of the development. Potential impact will be reduced.
Operational Phase – Health and Safety	• Unlikely to give rise to any impacts nor to negative impacts on human health and population.
Construction Phase – Risk of Major Accidents or Disasters	• Unlikely for a disaster to occur. Flood risk is ruled out.

Operational Phase – Risk of Major Accidents or Disasters	• No significant risk of flooding and no significant risk related to major accidents or disasters.

Remedial and Mitigation Measures

9.6.6 Mitigation measures are set out in relation to each of the potential effects of the project and are outlined throughout the relevant chapters of the EIAR.

Construction Phase – The proposed remedial and mitigation measures are not likely to result in any adverse impacts on human health and population during this phase of development. No mitigation measures by avoidance/ deign are proposed. In terms of Mitigation by Prevention, two measures are identified:

- A Construction and Environmental Management Plan, which includes traffic management will be development and implemented.
- A berm will be constructed to the western boundary of the site to prevent any flow of surface water into the drainage ditch during the construction phase.

Operational Phase – Positive impacts on human beings through the provision of housing and amenity lands.

Residual Effects

9.6.7 There will be a positive socio-economic benefit through employment and associated economic activity.

Monitoring

9.6.8 Measures will be outlined in the chapters under water, air quality and climate and noise, and which are considered to be sufficient to ensure that adequate monitoring is put in place.

Direct and Indirect Effects Assessment

9.6.9 I have examined, analysed and evaluated chapter 6 of the EIAR, all of the associated documentation and submissions on file in respect of human health and population. I am satisfied that the applicant's presented baseline environment, is comprehensive and that the key impacts in respect of likely effects on human health and population, as a consequence of the development, have been identified.

9.6.10 Suitable Mitigation measures have been proposed and which will ensure that there are no significant impacts on human beings and health. The cumulative impact of the development of the distributor road has been raised and no issues of concern arise.

Direct and Indirect Effects on Population and Human Health Conclusion

9.6.11 Having regard to the examination of environmental information in respect of human health and population, in particular the EIAR provided by the applicant and the reports of the Planning Authority and appeals/ observations in the course of the application, it is considered that the main significant direct and indirect effects on human health and population are, and will be mitigated as follows:

• significant direct positive impacts for population, due to the substantive increase in the housing stock during the operational phase.

• direct negative effects arising for human health during the construction phase, which would be mitigated by a suite of appropriate construction phase management measures, including dust management, noise minimisation measures and monitoring, resulting in no residual impacts on human health.

9.7 Biodiversity

Raised Issues:

9.7.1 The appeals did not raise any specific issues in relation to impacts on biodiversity. The Planning Authority raised no issues of concern.

Context:

9.7.2 Impacts of the project on Biodiversity are addressed in chapter 7.0 of the EIAR. The methodology for the assessment is described, as well as the study area – 15 km, receiving environment and relevant documentation referenced. The assessment is undertaken having regard to the requirements set out in government and industry guidelines for EIA. The assessment methodology includes site surveys, desk-top surveys on biodiversity, assessment of mapping/ aerial photography and reference to relevant planning policy.

9.7.3 A detailed site description is provided and includes the character of the adjoining area. It is reported that hedgerows are of a good quality in the area. A drainage

ditch on site flows into the OPW developed flood relief network and in turn discharges to the River Shannon. Details of other watercourses and landscape are provided.

9.7.4 Section 7.2 provides the Assessment Methodology and includes relevant guidance and legislative context. Details of the Desktop Study are provided in Section 7.2.3. Table 7.3 identifies the European Sites within 15 km of the subject site and Table 7.4 for the Natural Heritage Areas. Details of Filed Surveys are provided in Section 7.2.4 of the EIAR and which were undertaken in November 2021 and June 2022. Section 7.3 – Receiving Environment details Field Results and results of a Desktop Study.

9.7.5 The following sites were identified as having a potential for risk from the development and would have a potential hydrological connection:

- Lower Shannon SAC – 1.14 km to the north/ north east and 1.74 km to the south west
- River Shannon and River Fergus Estuaries SPA – 1.74 km to the south west
- Fergus Estuary and Inner Shannon North Shore pNHA – 1.7 km to the south west
- The Inner Shannon Estuary South Shore pNHA – 3.4 km to the south east

9.7.6 There were no protected or rare flora species, listed in Annex II and IV of the EU habitats directive, recorded during the site survey, no invasive species were identified either and there are no habitats listed under Annex I within the study/ masterplan area. Full details of the habitats in the area are provided in Section 7.3.4 of the EIAR with supporting location plans and photographs. Table 7.6 lists these habitats, Table 7.7 lists birds recorded in the survey and Table 7.8 lists bats recorded within 2 km of the masterplan lands. It is likely that a range of mammals may be found in the area but none were recorded during the EIAR site surveys.

9.7.7 Section 7.4 provides a ‘Description of Effects’. I have summarised the effects in the following table:

Project Phase	**Potential Direct, Indirect and Cumulative Effects**

Do-Nothing	• Site remains in a greenfield state, lands are undeveloped and biodiversity is left undisturbed. • Human activity has already modified many of the existing habitats on site, though bare ground may develop into grasslands and into woodland over time. • If undeveloped, the land is likely to remain in agricultural use.
Construction	• Potential impact to the listed SAC, SPA and two pNHAs. An AA Screening, provided in support of the application, has identified potential significant effects on the QIs of the designated sites – primarily from emissions to surface water during the construction phase. • Potential for habitat loss during the construction phase.
Operation	• Encroachment by development and human activity which would disturb birds and other wildlife. • Potential for hydrological impacts due to surface water drainage and storm water drainage. A range of SuDS measures have been developed to address this and are listed in Section 7.4.3 of the EIAR.
Cumulative	• Development is part of a larger masterplan scheme and the cumulative impacts have been considered such as an increased loading on the foul drainage system/ treatment system. • Surface water is subject to SuDS and this reduces the potential cumulative impact. • The Coonagh to Knockalisheen Distributor Road need to be considered, and it has undergone EIA. Noise and dust impacts from this road are considered further in this EIAR, work had stopped on this road at the time of the site survey.

	• The proposed development will not have a significant adverse effect on the natural environment.

Likelihood of Significant Effects:

9.7.8 The following table identifies specific direct and indirect impacts that the development may have during the construction and operational phases of the proposed scheme.

Phase/ Effect	**Impact**
Construction Phase – Habitats	• Habitats to be affected are mostly modified with a reasonable ecological value and classified as of a Local Importance (Lower Value). Impact will be short term and imperceptible subject to the implementation of mitigation measures. • Effect from dust generation will be short term and imperceptible.
Construction Phase – Non-Native Invasive Species	• Buddleia was recorded outside of the site, Indian Balsam and Japanese knotweed were recorded within the 2km squares adjacent to the subject site. • If found on site during the construction phase, measures will be put in place as appropriate.
Construction Phase – Impact on Water Quality and Aquatic Ecology	• No watercourses of high sensitivity in close proximity to the site. • There are hydrological connections to European and National sites.

	• Appropriate mitigation measures have been prepared. • Impacts on water quality and aquatic ecology would be imperceptible.
Operational Phase – Impact on Water Quality and Aquatic Ecology	• SuDS measures will be implemented on site. Development to have a neutral, long-term impact on water and hydrology. • No significant residual impact on hydrology or water quality. • Impact will be imperceptible.
Construction/ Operation – Bats and Otter	• Impact on bats would be localised and will not significantly impact on their populations. • Potential for otters to forage in adjacent drainage ditch – impacted by disturbance and noise, though this will have a limited significance considering their ability to relocate and nocturnal nature. Impact on otters would not be significant in the short term and imperceptible in the long term.
Construction/ Operation - Birds	• Potential for impact on feeding patters however they have the ability to move away from such disturbance. Impact would not be significant during the construction phase and imperceptible in the

	operational phase of the development. • Measures will be taken to ensure the protection of surface and groundwater quality.
Construction/ Operation – Other fauna	• No habitats of significant value in terms of amphibians or reptiles will be impacted by this development. • Impact on common invertebrate species would not be significant in the short term and imperceptible in the long term.
Construction Effects	• Activity may generate noise and dust emissions. Measures will be deployed to address any such issues – details provided in Chapter 7 of the EIAR. • Rock breaking will be limited to daytime only. • Works and disturbance will be limited to the site area. • A Construction Environmental Management Plan will be prepared prior to the commencement of development and implemented during the construction phase. • Measures to protect drainage ditches and water courses will be deployed. Reference is made to the provision of a lined attenuation pit to

	capture any surface water during the construction phase.
Operational Effects – Surface Water	• SuDS and suitable surface water drainage measures will ensure that there is no impact to aquatic habitats. • Potential operational phase impacts in relation to surface water would be imperceptible and neutral.
Operational Effects – Habitats	• A list of habitats that would be lost in part or in total is provided in Table 7.10 of the EIAR. These are generally of a local importance and lower value and impacts would be long term. • There would be no loss of habitat in the case of Drainage Ditch habitats, and Wet Grassland, with impacts short term. • Some hedgerows would be removed as part of the development and impact would be negative, significant and long term. Those lost would be replaced with native species. • Table 7.11 of the EIAR provides a list of 'Habitats to be removed and resultant biodiversity net loss/ net gain'. Impacts would be either positive or neutral. Figure 7.12 indicate the 'Habitats to be retained or created within the MS.'

Bats

9.7.9 No roosts were located on the masterplan lands, but it is known that they do forage in the area. Careful control will be put on lighting during the construction phase in terms of type and use of lights. Similarly, an appropriate public lighting scheme has been developed for this site. There is no predicted significant effect on fauna as a result of disturbance associated with the operational phase of the development and the impact would be imperceptible and neutral.

Other Impacts

9.7.10 There are no potential impacts on designated sites during the operational phase and measures will be undertaken to ensure that water quality is protected.

Remedial and Mitigation Measures

9.7.11 Mitigation measures are set out in relation to each of the potential effects of the project and are outlined here.

Construction Phase. Mitigation by Avoidance/ Design is not proposed. The following are to be implemented as necessary:

- Mitigation by Prevention – listed as BIO CONST 1 to BIO CONST 8 in section 7.6.1.2 of the EIAR. Covers measure to prevent flow into drainage ditches, lined attenuation pit, phasing of ground works, construction in daylight hours, control of lighting, mammal surveys, bat survey and lighting details in relation to bats. BIO CONST 9 refers to surface water drainage installation.
- Mitigation by Reduction – Listed as BIO CONST 10 to 14 and includes guidance from IFI on protection of aquatic habitats, control of oil, fuels etc, training in site control/ pollution, role of site manager and limiting the site area.

Operational Phase: The following are to be implemented as necessary:

- Mitigation by Avoidance/ Design: Implement the SuDS strategy – BIO OPER 1.
- Mitigation by Prevention: BIO OPER 2 – fence off habitats that are outside of the site.

- Mitigation by Reduction: Not proposed.

Residual Effects

9.7.12 The site will be changed through the development of housing; however, the proposed mitigation measures will reduce the potential impact markedly. There is a need for such housing and impacts are unavoidable. Open space/ green space is proposed to be provided as part of this development. Tree felling will take place outside of peak nesting season, therefore no impact on nesting birds. Appropriate lighting will be provided in the operational phase to ensure that there is no significant change to bat activity.

Monitoring

9.7.13 Construction Phase: Water will be tested prior to construction to ascertain the baseline information on water quality. Control, monitoring and recorded of spills, leaks and accidents will be undertaken. If any of the QIs identified in the Stage 2 AA occupy the site, work shall cease and the NPWS will be contacted.

9.7.14 Operational Phase: Water to be assessed to ascertain if there is any change in its quality. An Ecologist will ensure that all SuDS measures are provided as proposed. Details will be provided to Limerick City and County Council. Subject to the implementation of these measures the development will not cause any significant negative impacts on designated sites, habitats, protected species or any features of an ecological importance.

Direct and Indirect Effects Assessment

9.7.15 I have examined, analysed and evaluated chapter 7 of the EIAR, all of the associated documentation and submissions on file in respect of Biodiversity. I am satisfied that the applicant's presented baseline environment, is comprehensive and that the key impacts in respect of likely effects on all relevant aspects of Biodiversity, as a consequence of the development, have been identified.

9.7.16 Suitable Mitigation measures have been proposed and which will ensure that there are no significant impacts on Biodiversity.

Direct and Indirect Effects on Biodiversity Conclusion

9.7.17 Having regard to the examination of environmental information in respect of Biodiversity, in particular the EIAR provided by the applicant and the reports of the

Planning Authority and appeals/ observations in the course of the application, it is considered that the main significant direct and indirect effects on biodiversity are, and will be mitigated as follows:

- direct negative effects arising for aquatic habitat during the construction phase, which would be mitigated by a suite of appropriate construction phase surface water management measures, including sediment and pollution control measures, resulting in no residual impacts on biodiversity. A suitable SuDS scheme will be implemented on this site.
- direct negative impacts on bats that may forage on this site, which would be addressed through suitable lighting provision and control during the construction and operational phases.

9.8 Land & Soils, Geology and Hydrogeology

Raised Issues:

9.8.1 The appeals did not raise any specific issues in relation to impacts on Land & Soils, Geology and Hydrogeology. The Planning Authority raised no issues of concern.

Context:

9.8.2 Impacts of the project on Land & Soils, Geology and Hydrogeology are addressed in chapter 8.0 of the EIAR. The assessment is undertaken having regard to the requirements set out in government and industry guidelines for EIA. The assessment methodology includes desktop surveys, review of site investigation data and interpretation of data and reports.

9.8.3 The methodology for the assessment is described in Section 8.2, and the Receiving Environment is detailed in Section 8.3; the site forms part of a larger masterplan area. Full details of the Bedrock, Soils and Subsoils are provided. Section 8.3.4 outlines the 'Site Investigation' which is historic as it comes from a civil engineering project in the area and this section of the EIAR is supported with plans/ relevant figures.

9.8.4 A single well was identified, approximately 450 m to the south east of the site. The subject lands are located in an aquifer classified as Lm – Locally important Aquifer which is generally moderately productive. GIS mapping indicates that the area has a moderate to high vulnerability classification in terms of groundwater. The lands

consist of made ground and were in use in the past as a golf course. Groundwater details are provided, and it is noted that waters flow eventually into the River Shannon. Groundwater status in terms of the Water Framework Directive is assigned a 'good' status.

9.8.5 There are no records of contamination in the area and the site is not in or adjacent to any designated protection areas – the site is approximately 1.5 km north of the River Shannon and River Fergus Estuaries SPA, the Lower River Shannon SAC and the Fergus Estuary and Inner Shannon, North Shore pNHA. There are no recorded geological heritage sites in close proximity to the subject site. Between 1 and 5% of houses within a 10km grid square are above the Radon Reference Level. There are no quarries in the vicinity of the subject site.

9.8.6 Section 8.3.11 of the EIAR considers 'Potential Sources of Water and Contamination' and a number of data sources were consulted including historical mapping. A gold course was located on these lands and the topography was altered to facilitate the development of this.

9.8.7 Section 8.4 provides a 'Description of Effects'. I have summarised the effects in the following table:

Project Phase	**Potential Direct, Indirect and Cumulative Effects**
Construction Effects	Excavation Works: • Bedrock – Localised impacts to the upper sections. • Site Subsoils – Stripping of soils, impact will be short-term and slight. Soils may be stored and reused on site. • Groundwater – Increase in vulnerability to groundwater, especially as bedrock will be exposed. Excavation Works leading to soil erosion: • Site Subsoils – Earthworks and removal of subsoil may lead to the exposure of soils and in turn may be impacted by weathering/ erosion. • Geomorphology – Minor effects.

	Fuel Storage: • Subsoils & Groundwater – Accidental spillages may cause short to long term, moderate impacts to subsoils. Could impact groundwater. Constrution Traffic: • Subsoils/ Groundwater – Risk of pollution from traffic and accidental release of fuel/ oils. Could impact on groundwater. Contaminated land/ buried waste: • Subsoils – Potential for contaminants, is a possibility though unlikely. • Groundwater – Release of materials could impact groundwater. Contaminated Infill: • Subsoils/ Groundwater – Imported soils etc. may pose a risk and could impact groundwater. Waste Arisings: • Subsoils/ Groundwater - Waste may need to be removed off site. Storage could give rise to impacts to exposed soils and could impact groundwater especially during periods of heavy rainfall. Vandalism: • Subsoils/ Groundwater - Pollution due to vandalism of storage areas/ materials could result in impacts to soils and groundwater. Hydrocarbon runoff: • Subsoils/ Groundwater - Potential contamination of soils and groundwater.

	Excavation Dewatering Works: Groundwater: Works to bedrock may impact on aquifer and in turn localised dewatering for the local groundwater flow is anticipated.
Operation	Hydrocarbon runoff: • Subsoils/ Groundwater - Potential contamination of soils and groundwater. Reduction in Groundwater Replenishment: • Groundwater – Green areas on site will ensure that rainwater will continue to percolate into the ground.

Likelihood of Significant Effects:

9.8.8 The following table identifies specific direct and indirect impacts that the development may have during the construction and operational phases of the proposed scheme.

Phase/ Effect	**Construction Activity**	**Attribute**	**Impact**		
'Do-Nothing' Effects			• If development did not take place, there would be no impact on soils or hydrogeology.		
Construction Phase			**Importance**	**Magnitude of Impact**	**Signifi-cance of impact**
	Excavation	Bedrock	Medium	Small/ Adverse	Slight
	Excavation	Subsoils	Medium	Moderate/ Adverse	Moderate
	Excavation	Ground-water	Medium	Moderate/ Adverse	Moderate

	Excavation leading to soil Erosion	Subsoils	Medium	Small/ Adverse	Slight
	Construction Works	Geomorpho logy	Medium	Small/ Adverse	Slight
	Fuel Storage/ use on site	Subsoils	Medium	Small/ Adverse	Slight
		Ground-water	Medium	Small/ Adverse	Slight
	Constrution Traffic	Subsoils	Medium	Small/ Adverse	Slight
		Ground-water	Medium	Small/ Adverse	Slight
	Contaminated Land	Subsoils	Medium	Small/ Adverse	Slight
		Ground-water	Medium	Small/ Adverse	Slight
	Contaminated Infill	Subsoils	Medium	Moderate/ Adverse	Moderate
		Ground-water	Medium	Moderate/ Adverse	Moderate
	Waste Arising	Subsoils	Medium	Moderate/ Adverse	Moderate
		Ground-water	Medium	Moderate/ Adverse	Moderate
	Vandalism	Subsoils	Medium	Small/ Adverse	Slight
		Ground-water	Medium	Small/ Adverse	Slight
	Hydrocarbon runoff	Subsoils	Medium	Small/ Adverse	Slight
		Ground-water	Medium	Small/ Adverse	Slight

	Concrete Wash Wate	Ground-water	Medium	Small/ Adverse	Slight
	Excavation Dewatering	Ground-water	Medium	Moderate/ Adverse	Moderate
Operational	Hydrocarbon runoff	Subsoils	Medium	Small/ Adverse	Slight
		Ground-water	Medium	Small/ Adverse	Slight
	Reduction in Groundwater Replenish-ment	Ground-water	Medium	Small/ Adverse	Slight

Cumulative Effects

9.8.9 There would be a slight and long-term impact on the underlying land, soil, geology and hydrogeology as a result of the cumulative development of the masterplan lands. Suitable mitigation measures will be put in place to ensure that unexpected, buried waste and or contaminated materials do not impact on other receptors; the impact on the site/ regional geology would be slight to imperceptible. The proposal needs to be considered in the context of the Coonagh to Knockalisheen Distributor Road, but which has been subject to EIAR.

Remedial and Mitigation Measures

9.8.10 Mitigation measures are set out in relation to each of the potential effects of the project and are outlined here.

Construction Phase.

- Mitigation by Avoidance/ Design are listed under L & S CONST 1 to CONST 6 of the EIAR.
- Mitigation by Prevention – listed as L & S CONST 7 to BIO CONST 14 in section 8.6.1.2 of the EIAR. Covers measures such as runoff/ sediment control, storage of fuels/ waste, operation/ control of plant/ machinery, reuse of soils where possible, and assess materials for soils of contamination.
- Mitigation by Reduction – Listed as L & S CONST 15 to 18 and includes disposal of excess soil, landscaping, use of materials and provision of a wheel wash.

Operational Phase: The following are to be implemented as necessary:

- Mitigation by Avoidance/ Design: L & S OPER 1 – Provision of a suitable SuDS system and control of runoff.
- Mitigation by Prevention: Nothing additional proposed.
- Mitigation by Reduction: Not proposed.

Residual Effects

9.8.11 Section 8.7.1 of the EIAR outlines the residual effects for the Construction Phase and the Operational Phase of this development. Impacts range from slight to moderate and their significance is imperceptible to slight.

Monitoring

9.8.12 Construction Phase: Site testing will be undertaken prior to the commencement of development. Soil will be stored and reused where possible and suitable dust control measures will be put in place.

9.8.13 Operational Phase: Ongoing monitoring/ maintenance of surface water treatment systems and interceptors as appropriate.

Direct and Indirect Effects Assessment

9.8.14 I have examined, analysed and evaluated chapter 8 of the EIAR, all of the associated documentation and submissions on file in respect of Land & Soils, Geology and Hydrogeology. I am satisfied that the applicant's presented baseline environment, is comprehensive and that the key impacts in respect of likely effects on all relevant aspects of Land & Soils, Geology and Hydrogeology, as a consequence of the development, have been identified.

9.8.15 Suitable Mitigation measures have been proposed and which will ensure that there are no significant impacts on Land & Soils, Geology and Hydrogeology.

Direct and Indirect Effects on Land & Soils, Geology & Hydrogeology Conclusion

9.8.16 Having regard to the examination of environmental information in respect of Land & Soils, Geology & Hydrogeology, in particular the EIAR provided by the applicant and the reports of the Planning Authority and appeals/ observations in the course of the

application, it is considered that the main significant direct and indirect effects on Land & Soils, Geology and Hydrogeology are, and will be mitigated as follows:

- direct negative effects arising during the construction phase, which would be mitigated by a suite of appropriate construction phase management measures. Controlled exposing of rock and ensuring the protection of groundwater. Protection of soils and reuse of soil where possible.
- Appropriate SuDS measures will be put in place that will ensure that groundwater is protected.

9.9 Hydrology – Surface Water & Flooding

Raised Issues:

9.9.1 The appeals did raise concern about impact on the surface water drainage system and in turn a concern about flooding in the wider area. The Planning Authority raised no issues of concern in relation to surface water and flooding.

Context:

9.9.2 Impacts of the project on Surface Water & Flooding are addressed in chapter 9.0 of the EIAR. The methodology for the assessment is described, and the site is located within the North Ballycannan sub-basin, which has an area of 27 km^2, forming a subsection of the Lower Shannon catchment, and directly feeds into the River Shannon. It is therefore expected that surface water from the site will flow into the River Shannon. The EIAR also reports that the site is outside of the Crompaun East Sub-Basin but is within 200m of its boundary and is considered as part of the EIAR area. This has a catchment area of 18 km^2 and is a subsection of the Shannon North catchment.

9.9.3 There are a number of watercourses in the area, and which connect into an OPW maintained channel. The lands have been impacted by the construction of the Coonagh to Knockalisheen Distributor Road and required the provision of new drains to serve the area. Flood Risk Assessment indicates that the site is outside of a flood risk zone and flooding in the area would be from the Crompaun River and not directly from the River Shannon. Coastal flooding extends to the southern boundary of the site. The site is considered to be within Flood Zone C. Site levels are between 5 m and 18 m AOD. The River Shannon has a water quality/ Q rating of 3-4 (Moderate

WFD status) and the River Crompaun has a rating of 3 (Poor WRD status). Section 9.3.5 provides details on 'Proposed Surface Water Drainage'.

9.9.4 Section 9.4 provides a 'Description of Effects'. I have summarised the effects in the following table:

Project Phase/ Activity	**Potential Direct, Indirect and Cumulative Effects**
Construction	
Excavation Activities	• Surface Water: Removal of topsoil and excavations will potentially increase the vulnerability of open streams/ watercourses including the Rivers Shannon and Crompaun East.
Excavation Dewatering Works	• Surface Water: No impact is foreseen therefore risk is imperceptible.
Fuel Storage/ use	• Surface Water: Potential impact from run-off/ leaks especially during times of heavy rainfall.
Waste Arisings	• Surface Water: Contaminated waste may need to be removed off-site. Materials stored on site may impact on watercourses.
Contaminated land/ buried waste	• Surface Water: No evidence of such materials on site. There is a risk of unknown materials which if disturbed may impact on surface waters.
Vandalism	• Surface Water: Damage to stores may result in pollution risk to surface waters.
Contaminated imported fill	• Surface Water: Unsuitable/ contaminated materials may give rise to pollution risk to surface waters.
Construction Works	• Surface Water: Risk from accidental release of oils, fuels and other contaminants.

Concrete Wash Water	• Surface Water: Pollution risk from inappropriate/ uncontrolled runoff of wash water.
Operational Phase	
Hydrocarbon run-off	• Surface Water: Accidental spills could discharge to watercourses.
Increased surface water flows	• Surface Water: Risk to existing streams and rivers from surface water discourage, however, the development will include SuDS measures.
Wastewater Disposal	• All foul water is to be treated and not discharge to surface/ ground waters.
Contaminated land/ waste	• Potential for unfound materials to discharge leading to pollution over time.

Likelihood of Significant Effects:

9.9.5 The following table identifies specific direct and indirect impacts that the development may have during the construction and operational phases of the proposed scheme.

Phase/ Effect	**Construtio n Activity**	**Attribute**	**Impact**		
'Do-Nothing' Effects			• If development did not take place, there would be no impact on soils or hydrogeology.		
Construction Phase			**Importance**	**Magnitude of Impact**	**Significance of impact**
	Excavation	Surface Water	Extremely High	Small/ Adverse	Significant
	Excavation - Dewatering	Surface Water	Extremely High	Negligible	Imperceptible
	Fuel Storage/ use on site	Surface Water	Extremely High	Small Adverse	Significant

	Waste Arising	Surface Water	Extremely High	Small/ Adverse	Significant
	Contaminated Land	Surface Water	Extremely High	Small/ Adverse	Significant
	Vandalism	Surface Water	Extremely High	Small/ Adverse	Significant
	Contaminated Imported Fill	Surface Water	Extremely High	Small/ Adverse	Significant
	Constrution works	Surface Water	Extremely High	Small/ Adverse	Significant
	Concrete Wash Water	Surface Water	Extremely High	Small/ Adverse	Significant
	Contaminated Land	Surface Water	Medium	Small/ Adverse	Significant
Operational	Hydrocarbon runoff	Surface Water	Extremely High	Small/ Adverse	Significant
	Increased Surface Water Runoff	Surface Water	Extremely High	Small/ Adverse	Significant
	Wastewater Disposal	Surface Water	Extremely High	Small/ Adverse	Significant
	Contaminated Land/ Waste	Future site users/ Surface Water	Extremely High	Small/ Adverse	Significant

Cumulative Effects

9.9.6 Full regard has been had to the potential for cumulative impacts associated with the development of the masterplan lands. The long-term cumulative impact is expected to be imperceptible and long term. Suitable mitigation measures will be put in place to ensure that there are no impacts from unexpected, buried waste and or contaminated materials; the impact on the site/ regional geology would be slight to imperceptible.

9.9.7 The proposal needs to be considered in the context of the Coonagh to Knockalisheen Distributor Road, but which has been subject to EIAR as part of its planning permission.

Other Impacts

9.9.8 There are no potential impacts on designated sites during the operational phase and measures will be undertaken to ensure that water quality is protected.

Remedial and Mitigation Measures

9.9.9 Mitigation measures are set out in relation to each of the potential effects of the project and are outlined here.

Construction Phase.

- Mitigation by Avoidance/ Design – Listed as Hydrology CONST 1 to CONST 4 in the EIAR under Section 9.6.1.1. Measures address potential fuel spills, dealing with unexpected contamination, chemical analysis to assess any potential impacts on human/ environmental receptors and control on imported fill etc.
- Mitigation by Prevention – listed as Hydrology CONST 5 to Hydrology CONST 13 in section 9.6.1.2 of the EIAR. Covers measures to prevent accidental spills, control of spills, drainage, storage of materials and procedures on site/ in relation to the use of plant, vehicles and machinery.
- Mitigation by Reduction – None proposed.

Operational Phase: The following are to be implemented as necessary:

- Mitigation by Avoidance/ Design: Hydrology OPER 1 refers to the provision of a suitable SuDS system on site.
- Mitigation by Prevention: Not proposed.
- Mitigation by Reduction: Not proposed.

Residual Effects

9.9.10 Section 9.7.1 of the EIAR outlines the residual effects for the Construction Phase and the Operational Phase of this development. Impacts range from imperceptible to significant and their significance is imperceptible in each case for both the construction and operational phases of this development.

Monitoring

9.9.11 Construction Phase: Surface and groundwater will be tested prior/ during and post construction to ascertain the quality of water and to ascertain any potential disturbance in water quality. Monitoring measures are also proposed in relation to any hazardous materials that may be stored on site.

9.9.12 Operational Phase: Ongoing monitoring/ maintenance of surface water treatment systems and interceptors as appropriate.

Direct and Indirect Effects Assessment

9.9.13 I have examined, analysed and evaluated chapter 9 of the EIAR, all of the associated documentation and submissions on file in respect of Surface Water and Flooding. I am satisfied that the applicant's presented baseline environment, is comprehensive and that the key impacts in respect of likely effects on all relevant aspects of Surface Water and Flooding, as a consequence of the development, have been identified.

9.9.14 Suitable Mitigation measures have been proposed and which will ensure that there are no significant impacts on Surface Water and Flooding.

Direct and Indirect Effects on Surface Water and Flooding Conclusion

9.9.15 Having regard to the examination of environmental information in respect of Surface Water and Flooding, in particular the EIAR provided by the applicant and the reports of the Planning Authority and appeals/ observations in the course of the application, it is considered that the main significant direct and indirect effects on Surface Water and Flooding are, and will be mitigated as follows:

- Direct negative effects arising during the construction phase, which would be mitigated by a suite of appropriate construction phase management measures.
- Appropriate SuDS measures will be put in place that will ensure that surface water and groundwater is protected.

9.10 Air Quality and Climate

Raised Issues:

9.10.1 The appeals did not raise any specific issues in relation to impacts on air quality, other than from dust during the construction phase and no specific comment on the

impact on climate. The Planning Authority raised no issues of concern in relation to impact on air quality and climate.

Context:

9.10.2 Impacts of the project on Air Quality and Climate are addressed in chapter 10.0 of the EIAR. The methodology for the assessment is described, detailing ambient air quality standards and noting that there are no specific guidelines in Ireland for dust generation, the German TA-Luft Standard was used in relation to dust deposition and regard had to relevant EU standards. The EIAR comments on the various Climate Agreements & Policies relevant to air quality and climate. Table 10.2 of the EIAR outlines the CO2 reductions in the 5-Year Carbon Budgets between 2021 and 2035 with 'Sectoral Emissions Ceilings 2030' provided in Table 10.3.

9.10.3 Details of the Construction Phase Methodology are provided in Section 10.2.2 of the EIAR and reports the main dust generating activities to be:

- Demolition
- Earthworks
- Construction
- Trackout – movement of heavy vehicles

Each of these is divided into large/ medium or small scale depending on the nature of the activities undertaken on site. Regard is had to the impact on traffic with an expected increase of 153 AADT and 46 HDV ADDT on the Old Cratloe Road during the construction phase of this development. These figures are less than the standards set by TII, and which set a figure that would trigger the need for consideration in terms of being affected by increased traffic as a result of a development. A detailed assessment of construction stage traffic emission has been scoped out from further assessment as there is no potential for significant impacts to air quality.

9.10.4 Section 10.2.3 of the EIAR outlines the Operational Phase Methodology. Traffic is likely to increase during the operational phase and in turn could impact on local air quality. TII standards are again considered and although there will not be a change in traffic of 1000 AADT, cumulative traffic impacts are considered. TII require that receptors within 200m of the site should be identified and assessed. Four such

receptor sites have been identified and are located on Figure 10.1 of the EIAR. Modelling to be undertaken for NO_2 and PM_{10} for the base, opening and design years for both do nothing and do something scenarios. Table 10.4 provides the 'Air Quality Significance Criteria'. Traffic data is outlined in Table 10.5 of the EIAR.

9.10.5 Section 10.3 of the EIAR details the Receiving Environment including the site area description, meteorological data, baseline air quality data and climate baseline. Section 10.3.5 details the Sensitivity of the Receiving Environment. Sensitive Receptors within 50m of the Site are located on Figure 10.3.

9.10.6 Section 10.4 provides a Description of Effects for the construction and operational phases. I have summarised the effects in the following table:

Project Phase/ Activity	**Potential Direct, Indirect and Cumulative Effects**
Construction	
Excavation Activities	• Increase in dust emissions – Short-term impacts, not significant.
Movement of vehicles	• Increase in dust emissions – Short-term impacts, not significant.
Vehicle movements and use of machinery	• Potential to impact on climate through the release of CO2 and GHGs – Short-term impacts, not significant.
Operational Phase	
Vehicle movements giving rise to engine emissions.	• Potential to impact on climate through the release of CO2 and GHGs – Long-term impacts, not significant.

Likelihood of Significant Effects:

9.10.7 Section 10.5 of the EIAR considers the Likelihood of Significant Effects and I have summarised this as follows:

'Do-Nothing' Effects: If development did not take place, there would be no change to the site, though it does form part of a larger masterplan area. Traffic impacts

would be imperceptible in terms of the development of the masterplan lands and the impact would be neutral in terms of air quality and climate.

Construction Phase Effects:

- Air Quality – Earthworks Magnitude is Large
- Air Quality – Construction Magnitude is Medium
- Air Quality – Trackout Magnitude is Medium
- Construction Traffic – Impact would be imperceptible, neutral and short-term.
- Climate – Impact would be imperceptible, direct neutral and short-term.
- Human Health – Impact would be short-term, negative and imperceptible.

Operational Phase Effects:

- Air Quality – Traffic impacts would be long-term, localised, neutral, imperceptible and non-significant.
- Climate – Increase in traffic is possible but impacts would be neutral, long-term and imperceptible.
- Climate – potential to alter weather and rainfall – impact would be long-term, localised, neutral and imperceptible.
- Human Health – Impact would be long-term, neutral, direct and imperceptible.

Cumulative Effects:

- Construction Phase - Guidance indicates that other development within 350m of the site should be considered in terms of cumulative impact. The Coonagh to Knockalisheen Distributor Road was under construction at the time of the preparation of the EIAR and most of the dust generating construction works would be complete before development commences on the subject site. There is potential for different elements of the masterplan to overlap with each other, though the phasing plan should overcome this. Cumulative impacts would be short-term, negative, slight and not significant.
- Operational Phase: Impacts would be long-term, neutral and imperceptible to air quality and climate during this phase of the development.

Remedial and Mitigation Measures

9.10.8 Mitigation measures are set out in relation to each of the potential effects of the project and are outlined here.

Construction Phase.

- Mitigation by Avoidance/ Design – Not proposed.
- Mitigation by Prevention – listed as AIR QLTY & C CONST 1 and AIR QLTY & C CONST 2 in section 10.6.1.2 of the EIAR. Covers measures to prevent excess dust generation, suitable dust management plan to be put in place and prevent significant GHG and impacts on the climate.
- Mitigation by Reduction – None proposed.

Operational Phase: The following are to be implemented as necessary:

- Mitigation by Avoidance/ Design: AIR QLTY & C OPER 1 and 2. Residential units will be nearly zero energy building (NZEB) rated with appropriate BER. Use of renewable technologies, suitable layout and siting to reduce energy demand.
- Mitigation by Prevention: Not proposed.
- Mitigation by Reduction: Not proposed.

Residual Effects

9.10.9 Section 10.7.1 of the EIAR outlines the residual effects for the Construction Phase and the Operational Phase of this development. Impacts will be short term and imperceptible, though ranging from neutral to negative in the case of human health during the construction phase. Operational phase impacts are similar.

Monitoring

9.10.10 Construction Phase: Monitoring of dust deposition during the construction phase will take place and details of appropriate monitoring equipment are provided.

9.10.11 Operational Phase: Not required as impacts to air and climate would be imperceptible.

Direct and Indirect Effects Assessment

9.10.12 I have examined, analysed and evaluated chapter 10 of the EIAR, all of the associated documentation and submissions on file in respect of Air Quality and

Climate. I am satisfied that the applicant's presented baseline environment, is comprehensive and that the key impacts in respect of likely effects on all relevant aspects of air quality and climate, as a consequence of the development, have been identified.

9.10.13 Suitable Mitigation measures have been proposed and which will ensure that there are no significant impacts on air quality and climate. Further details are provided in Appendix 10.1 – 'Dust Management Plan' in support of this chapter of the EIAR.

Direct and Indirect Effects on Air Quality and Climate Conclusion

9.10.14 Having regard to the examination of environmental information in respect of air quality and climate, in particular the EIAR provided by the applicant and the reports of the Planning Authority and appeals/ observations in the course of the application, it is considered that the main significant direct and indirect effects on air quality and climate are, and will be mitigated as follows:

- Direct negative effects arising during the construction phase due to the emission of dusts, which would be mitigated by a suite of appropriate construction phase management measures.
- Direct negative effects on human health during the construction phase through the generation of dust.

9.11 Noise and Vibration

Raised Issues:

9.11.1 The appeals did mention concern about nuisance during the construction phase of this development including noise generated from the site. The Planning Authority raised no issues of concern.

Context:

9.11.2 Impacts of the project on Noise and Vibration are addressed in chapter 11.0 of the EIAR. The methodology for the assessment is described, as well as the study area – which is the greater masterplan lands, receiving environment and relevant documentation referenced. The assessment reports that there are no published statutory Irish guidance for noise and British Standard BS 5228 – 1:2009 +A1:2014 is used to inform this assessment. The assessment methodology details how noise

impacts are rated, the methods used for ascertaining acceptable noise levels with particular reference to Construction Noise Thresholds (CNTs) and also how vibration is rated. This section of the EIAR is supported with a number of tables providing guidance and recommended standards for noise and vibration. A particular emphasis is placed on construction phase traffic.

9.11.3 Operational phase noise guidance is outlined in Section 11.2.3 of the EIAR and has regard to mechanical services plant, the impact of the development on the Limerick Country Club located to the south east of the subject lands and the impact of additional traffic on the local road network. In terms of vibration during the operational phase, none is anticipated due to the nature of the development. Inward Noise Impact Assessment is detailed in Section 11.2.5 of the EIAR. The receiving environment is described in Section 11.3 and include details of the nearest Noise Sensitive Locations (NSLs) that adjoin the site, these are indicated on Figure 11.2. Survey details are provided in Section 11.3.2 with Survey Results in 11.3.3. EPA Noise Mapping is assessed in Section 11.3.4.

9.11.4 Section 11.4 outlines the 'Potential Impacts of the Proposed Development' for the Construction and Operational phases of this development. I have summarised the effects in the following table:

Project Phase	**Potential Direct, Indirect and Cumulative Effects**
Construction	Noise: • Noise generated by construction vehicles, plant and machinery. Hoarding will be provided on site to reduce the impact. • Houses within 30 – 35m of the site boundary may be in the range of +2 dB above recommended noise levels therefore the impact would be negative, moderate – significant and short term. • Houses over 40m away would have an impact of negative, moderate and short term. Rock Breaking:

	• Impact would be moderate to significant for NSLs within 30-40m of these works and for those over 50m away the impact would be negative, moderate and temporary. Rock breaking would be short term over a period of weeks. Construction Traffic: • Up to 120 vehicle movements a day. Change in decibel level of 0.4 db. Magnitude of change would be negligible and overall impact is not significant. Vibration: • Due to rock breaking and excavations on site, impact would be negative, not significant and temporary.
Operation	Noise: • Increase in traffic generated noise, impact would be neutral, imperceptible and long term. The EIAR provides full details for individual roads in the area of the site. Mechanical Plant and Services: • Details will be provided during the construction phase but no negative impacts to NSLs are foreseen. Impact on operation, where located, would be negative, imperceptible and long term. Inward Noise Impact Assessment • The development can be categorised as lows to medium risk. Acoustic Design Statement • Detailed in the EIAR and no additional mitigation measures are required.

Likelihood of Significant Effects:

9.11.5 The following table identifies specific direct and indirect impacts that the development may have during the construction and operational phases of the proposed scheme.

Phase/ Effect	**Impact**
Do-Nothing	• No significant effects
Construction Phase	• High likelihood of negative, moderate to significant and short-term impact due to plant noise.
Operational Effects	• None expected
Cumulative Effects – Construction	• Potential for several phases to take place at once, though this is unlikely. • Construction noise expected to be moderate impact, moderate significance and short-term.
Cumulative Effects – Operation	• Due to increase in traffic and a potential for an increase by +3dB and would be moderate impact, moderate significance and long-term.

Remedial and Mitigation Measures

9.11.6 Mitigation measures are set out in relation to each of the potential effects of the project and are outlined here.

Construction Phase.

- Mitigation by Avoidance/ Design is not proposed.
- Mitigation by Prevention – listed as N & V CONST 1 to 3 and refers to screening, use of quiet plant and phasing of the project.

- Mitigation by Reduction – Listed as N & V CONST 4 to 6 and refers to control of noise levels and liaising with the public.

Operational Phase:

- Inward Impact Conclusion – Use of plant that are within the recommended noise limits. Provision of suitable insulation in the residential unit design as well as the use of appropriate façade treatment.

Residual Effects

- Construction Phase: Noise levels may rise by +2dB above the recommended level and therefore the works would have a negative, moderate to significant and short-term effect
- Operational Phase: Mechanical plant may have a neutral, imperceptible, long-term impact and the additional vehicular traffic may give rise to a negative, moderate, long-term effect.

Monitoring

9.11.7 Construction Phase: Will take place in appropriate locations at periodic times as necessary.

Direct and Indirect Effects Assessment

9.11.8 I have examined, analysed and evaluated chapter 11 of the EIAR, all of the associated documentation and submissions on file in respect of Noise and Vibration. I am satisfied that the applicant's presented baseline environment, is comprehensive and that the key impacts in respect of likely effects on all relevant aspects of Noise and Vibration, as a consequence of the development, have been identified.

9.11.9 Suitable Mitigation measures have been proposed and which will ensure that there are no significant impacts on sensitive receptors nearby due to Noise and Vibration.

Direct and Indirect Effects on Noise and Vibration Conclusion

9.11.10 Having regard to the examination of environmental information in respect of Biodiversity, in particular the EIAR provided by the applicant and the reports of the Planning Authority and appeals/ observations in the course of the application, it is considered that the main significant direct and indirect effects due to noise and vibration are, and will be mitigated as follows:

- Noise from plant and equipment on site. Equipment will be chosen on the basis of low noise generation.
- Increase in traffic during the construction and operation phase. This will be long-term but imperceptible.
- Potential for vibrations during the excavation/ rock breaking phase but this will be short term in duration.

9.12 Material Assets – Traffic and Transport

Raised Issues:

9.12.1 The appeals did not raise any specific issues in relation to impacts on traffic and transport. The Planning Authority raised no issues of concern.

Context:

9.12.2 Impacts of the project on Traffic and Transport are addressed in chapter 12.0 of the EIAR. A Traffic and Transport Assessment (TTA) was provided in support of the application and is included as Appendix 12.1 of the EIAR. The methodology for the assessment is described in Section 12.2 and the Receiving Environment is provided in Section 12.3. This includes details on the local road network, proposed roads in the area including the Coonagh to Knockalisheen Distributor Road as well as details on the existing/ future traffic volumes in the area. Future volumes consider the impact of provision/ non provision of road improvements in the area including the Northern Distributor Road. A number of supporting maps are provided indicating the location of roads and junctions referred to in the EIAR.

9.12.3 Section 12.3.6 provides 'Existing Travel Patterns' as per CSO data. Details on Walking are provided in Section 12.3.7, Cycling in Section 12.3.8, and Public Transport in Section 12.3.9. Details are also provided on the Limerick Shannon Metropolitan Area Transport Strategy (LSMATS) and on Bus Connects for Limerick.

9.12.4 Section 12.4 provides a 'Description of Effects' and full regard has been had to the entire masterplan lands where relevant. I have summarised the effects in the following table:

Project Phase	Potential Direct, Indirect and Cumulative Effects

Do-Nothing	• No additional construction or operational generated traffic, and therefore no additional trips. • No additional cycle or pedestrian infrastructure would be provided in this area. • Lands would remain as a greenfield site.		
Construction	**Activity**	**Attribute**	**Likely Impact**
	• Heavy Traffic for Construction Purposes	• Existing road network/ junctions	• Increased movements leading to congestion
	• Constrution trips leading to congestion/ delays	• Existing road network/ junctions	• Increased vehicle movements due to construction staff/ management travelling to/from the site.
	• Construction trips resulting in reduced levels of road safety.	• Existing road network/ junctions	• Increase in conflict between pedestrians/ cyclists and vehicular traffic.
	• Construction works leading to temporary	• Existing roads/ footpaths and cycle paths	• Increase in need to cross roads and

	severance of pedestrian/ cycle routes & delays		perceived delay/ discomfort in crossing a road.
	• Creation of construction trips	• Air pollution	• Considered in Chapter 10 of the EIAR.
	• Creation of construction trips	• Noise	• Considered in Chapter 11 of the EIAR.
Operation	• Increased in peak hour development trips resulting in congestion/ delays	• Existing and proposed road network/ junctions.	• Increased movements to access the development leading to traffic congestion/ increased queue lengths.
	• Increased in peak hour development trips resulting in reduction in road safety	• Existing and proposed road network/ junctions.	• Increased conflict between pedestrians/ cyclists and vehicular traffic.

	• Change of pedestrian/ cycle routes, increased route sections and more connectivity	• Existing and proposed road network/ junctions.	• More road crossing increased difficulty and discomfort. • Increased route choice/ connections for pedestrians/ cyclists.
	• Increase in daily development trips	• Air Pollution.	• Considered in Chapter 10 of the EIAR.
	• Increase in daily development trips	• Noise	• Considered in Chapter 11 of the EIAR.
Cumulative	Impact would be moderate, long term on the surrounding environment.		

Likelihood of Significant Effects:

9.12.5 The following table identifies specific direct and indirect impacts that the development may have during the construction and operational phases of the proposed scheme.

Phase/ Effect	**Impact**
Construction Phase – Deliver approximately 99 units per year –	• Temporary to short term, and then replaced with the operational phase.

Approximately 170 vehicle movements per day during the construction phase.	
Construction Phase – Constrution Trips	• Increase in traffic on the road network – would be medium term, minor adverse magnitude, moderate impact and short-term.
Construction Phase – Congestion/ journey delays	• Congestion/ delays on the road network – would be medium term, minor adverse magnitude, moderate impact and short-term.
Construction Phase – Reduction in safety levels on road network	• Reduction in safety levels on the road network – would be medium term, minor adverse magnitude, moderate impact and short-term.

Operation Phase:

Section 12.5.2 of the EIAR provides full details on this phase of the development and considers the effects following post construction of the overall masterplan lands. Consideration was given to the impacts on a priority 'T' junction between the upgraded Old Cratloe Road/ Meelick road and a second junction which is a roundabout at the proposed site access and the Meelick Road. Full regard is had to relevant TII guidance. These junctions operate significantly below capacity and post construction this would remain the case. The proposed development would have a negligible impact on the Coonagh to Knockalisheen Distributor Road (CKDR). The following table summarises the operational impacts.

Operational	**Activity**	**Attribute**	Importance/ Magnitude/ Signficance/ Duration
	• Increase in Peak Hour Development Trips giving	• Existing road	• Medium/ Negligible/ Slight/ Long Term

	rise to congestion/ delays	network/ junctions	
	• Increase in Peak Hour Development Trips resulting in reduction in safety levels	• Existing road network/ junctions	• Medium/ Negligible/ Imperceptible/ Long Term
	• Change of Pedestrian/ Cycle Routes – More route sections and increase in connectivity	• Existing road network/ junctions	• Low/ Minor Beneficial/ Slight/ Long-Term

Remedial and Mitigation Measures

9.12.6 Mitigation measures are set out in relation to each of the potential effects of the project and are outlined here.

Construction Phase. T & T CONST 1: A Construction Traffic Management Plan (CTMP) is to be prepared in conjunction with Limerick City and County Council and will outline a number of traffic impact mitigation measures including control of delivery times, route selection, provision of suitable compounds, vehicle control/ and provision of banksmen as required.

Operation Phase: None proposed.

Residual Effects

9.12.7 Construction phase impact will result in a temporary increase in traffic but this will be negligible, temporary in nature and will be less than the operational phase of the development. No measures in addition to the CTMP are proposed.

9.12.8 Operational phase impact will result in a change in the hourly traffic flows on the adjoining road network; these are expected to result in a slight to imperceptible impacts. There will be improvement in terms of infrastructure for pedestrians/ cyclists and these will be long-term impacts. Other impacts are considered in Chapter 10 – Air Quality and Climate and Chapter 11 – Noise and Vibration. The completion of the CKDR will result in 'Major Beneficial' 'Permanent' impacts for road users in the area.

Monitoring

9.12.9 Construction Phase: The contractor will appoint a traffic liaison officer/ traffic manager to monitor the performance of the CTMP, will meet with relevant stakeholders and remedying any issues that may arise.

9.12.10 Operational Phase: Facilities on site will be maintained by a management company until they are taken in charge.

Direct and Indirect Effects Assessment

9.12.11 I have examined, analysed and evaluated chapter 12 of the EIAR, all of the associated documentation and submissions on file in respect of Traffic and Transport. I am satisfied that the applicant's presented baseline environment, is comprehensive and that the key impacts in respect of likely effects on all relevant aspects of Traffic and Transport, as a consequence of the development, have been identified. The chapter is supported with a number of documents including a Traffic and Transport Assessment Report made in response to further information requested by Limerick City and County Council, Stage 1 and 2 Road Safety Audits, details of local public transport and junction traffic details.

9.12.12 Suitable Mitigation measures have been proposed and which will ensure that there are no significant impacts on Traffic and Transport.

Direct and Indirect Effects on Traffic and Transport Conclusion

9.12.13 Having regard to the examination of environmental information in respect of Traffic and Transport, in particular the EIAR provided by the applicant and the reports of

the Planning Authority and appeals/ observations in the course of the application, it is considered that the main significant direct and indirect effects on Traffic and Transport are, and will be mitigated as follows:

- Short term increase in traffic during the construction phase with increased congestion at junctions.
- Increase in traffic in the local road network.
- Improved infrastructure for cyclists and pedestrians.
- Not part of this development but the completion of the CKDR will provides for improvements for all road users in the area.

9.13 Material Assets – Built Services

Raised Issues:

9.13.1 The appeals did not raise any specific issues in relation to impacts on built services. The Planning Authority raised no issues of concern.

Context:

9.13.2 Impacts of the project on Built Services are addressed in chapter 13 of the EIAR. The methodology for the assessment is described, as well as details provided on the Receiving Environment. The site is approximately 3.5 km form Limerick City Centre and is served by an existing road network with additional roads under construction. The surrounding area is rural in character and the lands have been proposed to be developed in accordance with a masterplan prepared by the developer. The EIAR makes clear that the applicant is the landowner of the masterplan lands, including the subject site, and adjoining lands in the area. Full details on ownership and access to the masterplan lands are provided in Section 13.3.2 of the EIAR.

9.13.3 Details are provided on services in the area, summarised as follows:

- Foul Water: New network to be provided as part of the Old Cratloe Road upgrade. Pre-connection enquiry was made to Uisce Éireann and proposal was considered to be feasible. Daily foul loading for the subject development is 39.7 m^3/ day.
- Surface Water: There is an existing system that drains to an OPW channel, and a new stormwater network is proposed as part of the Old Cratloe Road upgrade.

The design allows for 30% climate change and 10% urban creep of the housing area. Full details of the proposed network and capacity are provided in Section 13.3.4 of the EIAR. Details are also provided of the SuDS measures to be deployed on site.

- Water Supply: There is an existing 200mm diameter watermain in the area which is to be upgraded as part of the Old Cratloe Road upgrade. It is proposed to serve the site with a new 150mm diameter watermain and the daily demand will be 39.7 m^3/ day. Measures will be provided to reduce the demand on water supply.
- Natural Gas Supply: There is a gas supply in the area.
- Electrical Supply: Low Voltage and Medium Voltage powerlines are located in the area.
- Information and Communications Technology (ICT): Services are available in the area and can be extended to the subject site/ masterplan lands.

9.13.4 Section 13.4 provides a 'Description of Effects'. I have summarised the effects in the following table:

Project Phase	**Potential Direct, Indirect and Cumulative Effects**
Do-Nothing	• Site remains in a greenfield state, lands are undeveloped and there would be no additional demand on services. • Land is zoned for residential development and in the absence of development, the site would be underutilised.
Construction	• Will require connections to services including water supply, drainage, electricity and telecoms. • Temporary loss of service may occur when service connection is underway. Surface water details are provided in Chapter 9 of the EIAR. • 50-60 service personnel will be on site during the peak construction phase. Will result in an

	increase in demand for water, power and an in increase in foul drainage discharge.
Operation	• Increase in demand in services. Masterplan lands may provide up to 448 residential units. • Population potential of 1,210 people and is in accordance with the Limerick Development Plan 2022 – 2028. • Development will increase impermeable areas on site and reduce the permeable greenfield areas. Measures will be taken to reduce impact.
Cumulative	• Development will increase demand on services in the area. • There are no significant permitted developments in the area that would result in a cumulative impact on services. • The development is considered in the context of the under construction CKDR. The individual and combined impacts are likely to have a negative, not significant and temporary impacts on services subject to implementation of mitigation measures.

Likelihood of Significant Effects:

9.13.5 The following table identifies specific direct and indirect impacts that the development may have during the construction and operational phases of the proposed scheme.

Phase/ Effect	**Impact**

Construction Phase – Foul Water	• Connection will be made to existing foul drainage infrastructure, prior to the occupation of units. • Impact is likely to be neutral, imperceptible and temporary. • Temporary connection to site compound – impact is likely to be neutral, imperceptible and temporary.
Construction Phase – Surface Water	• Provision of a new outfall to an existing drain. No impact on existing surface water drainage and overall impact is neutral. • Requirement for temporary soakaways for the site compound and impact will be neutral, imperceptible and temporary.
Construction Phase – Potable Water Supply	• Provision of connection to the existing potable water supply. • Short term impacts to facilitate connections. • Impact on the local water supply network is likely to be negative, not significant and temporary. • Requirement for temporary connection for the site compound. Impact will be negative, not significant and temporary.
Construction Phase – Natural Gas Supply	• Provision of connection to the existing gas network.

	• Short term impacts to facilitate connections. • Impact will be negative, not significant and temporary.
Construction Phase – Electrical Supply	• Need to reroute low voltage powerlines through the site, which may have a short-term impact on the local network. • Impact will be negative, not significant and temporary.
Construction – ICT	• Provision of connection to the existing networks as relevant. • There would be negligible impacts on nearby residences and buildings.
Operation – Foul Water	• Increase in the quantity of wastewater discharging to the Bunlicky Waste Water Treatment Plant, Limerick. • Uisce Éireann reported the connection to be feasible. • Impact on system is likely to be negative, slight and long term.
Operation – Surface Water	• SuDS/ Surface water drainage will limit runoff to pre-development greenfield rates • Impact is likely to be neutral.
Operational – Water Supply	• Increase in demand on water supply. • Uisce Éireann reported the connection to be feasible.

	• Impact is likely to be negative, slight and long term.
Operational – Natural Gas Supply	• Increase in demand on gas supply, though will be designed to reduce the energy demand.
Operation – Energy Supply	• Increase in demand in electricity supply and impact is likely to be negative, slight and long term.
Operation – ICT	• Increase in demand on the existing services. • There is capacity to meet the demand, with availability from a number of services providers.

Remedial and Mitigation Measures

9.13.6 Mitigation measures are set out in relation to each of the potential effects of the project and are outlined here.

Construction Phase. Mitigation measures are listed under BUILT SERV CONST 1 to 4 and include provision of utilities in accordance with statutory bodies requirements, check to ensure that adequate measures are provided to protect services, connections to be made off-peak to reduce impact and water metering to be provided to monitor water usage. Further details on water are provided in Chapter 9.

Operational Phase: Services to be provided in accordance with the statutory requirements and operational phase use will be monitored by appropriate body.

Residual Effects

9.13.7 Construction Phase: Residual impacts on services will be temporary, occasional in nature and not significant.

9.13.8 Operational Phase: Residual impacts would be long term with a positive impact subject to implementation of appropriate mitigation and monitoring measures.

Monitoring

9.13.9 The following to be undertaken:

- Construction Phase: Water to be metered to provide data on consumption and identify potential leaks. Water and foul drainage pipes to be provided in accordance with Uisce Éireann requirements/ standards, prior to connection to the public system.
- Operational Phase: All new infrastructure to be routinely inspected. Any necessary monitoring of built services will be advised by relevant services providers.

Direct and Indirect Effects Assessment

9.13.10 I have examined, analysed and evaluated chapter 13 of the EIAR, all of the associated documentation and submissions on file in respect of Built Services. I am satisfied that the applicant's presented baseline environment, is comprehensive and that the key impacts in respect of likely effects on all relevant aspects of Built Services, as a consequence of the development, have been identified.

9.13.11 Suitable Mitigation measures have been proposed and which will ensure that there are no significant impacts on Built Services.

Direct and Indirect Effects on Built Services Conclusion

9.13.12 Having regard to the examination of environmental information in respect of Built Services, in particular the EIAR provided by the applicant and the reports of the Planning Authority and appeals/ observations in the course of the application, it is considered that the main significant direct and indirect effects on biodiversity are, and will be mitigated as follows:

- Direct negative effects arising through an increase demand on services in the area.
- Direct benefit through the provision of services which may benefit adjoining lands/ properties with upgraded and new services in the area.

9.14 Waste Management

Raised Issues:

9.14.1 The appeals did not raise any specific issues in relation to impacts on waste management. The Planning Authority raised no issues of concern.

Context:

9.14.2 Impacts of the project on waste management are addressed in chapter 14.0 of the EIAR. The methodology for the assessment is described in Section 14.2, and full details on relevant guidance/ legislation are provided. The Receiving Environment is described in Section 14.3 and details are provided on the Southern Region Waste Management Plan. This seeks to reduce household waste by 1% per annum, achieve a recycling rate of 55% of managed municipal waste by 2025 and reduce to 0% the direct disposal of unprocessed waste to landfill.

9.14.3 The Masterplan lands will require the excavation of 33,500 m^3 of subsoil material and the importation of 25,500 m^3 of imported fill. 42,000 m^3 of top soil stripping will occur but 15,000 m^3 of this will be reused. The subject site will require the excavation of 14,000 m^3 of subsoil material and the importation of 1,200 m^3 of imported fill. 10,500 m^3 of top soil stripping will occur but 4,000 m^3 of this will be reused.

9.14.4 Section 14.4 provides a 'Description of Effects'. I have summarised the effects in the following table:

Project Phase	**Potential Direct, Indirect and Cumulative Effects**
Construction	• Waste will be produced through surplus materials such as packaging, broken building materials and off cuts. Control on material use and reuse where possible. • Materials to be classified in accordance with EPA guidance and disposed appropriately. • Table 14.1 of the EIAR provides details on waste type, quantities and disposal/ reuse.
Operation	• Strategy to be developed for the segregation, storage and collection of all wastes on site. The

	development will give rise to an increase in waste generated. • A suitable bin management system will be put in place to serve this site. • The development is to demonstrate how it would comply with the Southern Region Waste Management Plan.
Cumulative	• Construction Phase: Could be overlap of development with other schemes and the CKDR. • Sufficient number of waste collection firms in the area to handle the waste generated on site. Cumulative impact for the construction phase would be short-term, imperceptible and neutral. • Operational Phase: Waste generated would be similar for residential developments. There would be efficiencies in the waste collection system in the area through an increase in residential development. Cumulative impact for the operational phase would be long-term, imperceptible and neutral.

Likelihood of Significant Effects:

9.14.5 The following table identifies specific direct and indirect impacts that the development may have during the construction and operational phases of the proposed scheme.

Phase/ Effect	**Impact**
'Do-Nothing' Impact	• Would be a neutral impact on the environment.

	• As the land is zoned for residential development, it is likely that a similar development would be proposed here.
Construction Phase –	• Development will generate a range of non-hazardous and hazardous waste materials. Poor management of waste could lead to litter and pollution issues. In the absence of mitigation, the effect would be short-term, significant and negative. • Use of non-permitted waste collectors/ unauthorised waste facilities could give rise to negative environmental impacts. In the absence of mitigation, the effect would be long-term, significant and negative. • Adequate provision is in place to process, segregate, reuse, recycle, recover and dispose of waste. In the absence of mitigation, the effect would be short-term, significant and negative. • Accepted that a quantity of material would require to be excavated to facilitate the development, additional details are provided in Chapter 8.0 of the EIAR. Some materials could be used on site. In the absence of mitigation, the effect would be short-term, significant and negative.

Operational Phase –	• Need for suitable waste management during this phase of the development. In the absence of mitigation, the effect would be indirect, long-term, significant and negative. • Waste will be generated by this development. Waste recovery, recycling and segregation is available in the area. In the absence of mitigation, the effect would be indirect, long-term, significant and negative. • Appropriate waste collection and disposal contractors will be required. In the absence of mitigation, the effect would be long-term, significant and negative.

Remedial and Mitigation Measures

9.14.6 Mitigation measures are set out in relation to each of the potential effects of the project and are outlined here.

- Construction Phase. Mitigation by Avoidance/ Design is proposed under WM CONST 1. Cut and fill on site has been minimised through the design process.
- Mitigation by Prevention – listed as WM CONST 2 – provision of Resource Waste Management Plan (RWMP), WM CONST 3 – appointment of a Resource Manager to manage waste/ provide training and WM CONST 4 – Control on the use and quantity of materials.
- Mitigation by Reduction – Listed as WM CONST 5 to 9 and refers to controls on excavated materials, reuse of left over materials, storage of materials, reuse/ recycle/ recover materials and record waste to be disposed of, off site.

Operational Phase: The following are to be implemented as necessary:

- Mitigation by Avoidance/ Design: Not proposed.
- Mitigation by Prevention: Not proposed.
- Mitigation by Reduction: Listed as RES & WM OPER 1 to 3 and refers to clear identification of waste receptacles, reuse/ recycle/ recovery of waste and removal of waste by authorised contractors.

Residual Effects

9.14.7 Measures outlined in 9.14.6 should be sufficient, however the following are provided:

- Construction Phase: Careful approach to waste management and adherence to the RWMP will ensure that the environmental impact would be short-term, imperceptible and neutral.
- Operational Phase: Appropriate implementation of the mitigation measures will ensure that the impact would be long-term, imperceptible and neutral.

Monitoring

9.14.8 This will be undertaken by the contractors appointed Resource Manager during the construction phase.

Direct and Indirect Effects Assessment

9.14.9 I have examined, analysed and evaluated chapter 14 of the EIAR, all of the associated documentation and submissions on file in respect of Waste Management. I am satisfied that the applicant's presented baseline environment, is comprehensive and that the key impacts in respect of likely effects on all relevant aspects of Waste Management, as a consequence of the development, have been identified.

9.14.10 Suitable Mitigation measures have been proposed and which will ensure that there are no significant impacts on Waste Management.

Direct and Indirect Effects on Waste Management Conclusion

9.14.11 Having regard to the examination of environmental information in respect of Waste Management, in particular the EIAR provided by the applicant and the reports of the Planning Authority and appeals/ observations in the course of the application, it

is considered that the main significant direct and indirect effects on Waste Management are, and will be mitigated as follows:

- direct negative effects through the generation of waste, off cuts and broken materials during the construction phase. A suitable Resource Waste Management Plan can mitigate these issues.
- direct negative through the generation of waste during the operational phase however appropriate segregation, recycling and reuse can address this.

9.15 Cultural Heritage

Raised Issues:

9.15.1 The appeals did not raise any specific issues in relation to impacts on cultural heritage. The Planning Authority raised no issues of concern in relation to impact on Cultural Heritage from the proposed development.

Context:

9.15.2 Relevant guidance is provided in Section 15.1 of the EIAR and the methodology for the assessment is described in Section 15.2. Information collected through a desktop study is provided in Section 15.2.1 of the EIAR and Section 15.2.2 details what was observed on a Site Inspection. This is supported with further information/ photographs provided in Appendix 15.1 of the EIAR. Archaeological investigations were undertaken in January 2023, with a small number of potential features identified at the northern end of the site.

9.15.3 The receiving environment is described in Section 15.3 of the EIAR. The site was in use as a golf course according to aerial photographs from 1995 but reverted back to agricultural use in the form of grazing by 2000. A former children's burial ground is located on the masterplan lands but outside of the subject area but does encroach within the Zone of Notification. All archaeological sites within 1km of the site are provided in Table 15.5 of the EIAR.

9.15.4 Relevant legislation is outlined in Section 15.3.2 of the EIAR and also included are objectives of the Limerick Development Plan 2022 – 2028. Two protected structures, detailed in Table 15.6, are located within 1 km of the site; these are also recorded monuments but are outside of the 500m Zone of Notification. Details of a Cartographic Review are provided in Section 15.3.3.3 of the EIAR. Field surveys

were undertaken in November 2021, November 2022 and on the subject site in March 2023. Table 15.7 provided the 'Results from archaeological investigations within the overall proposed development site'.

9.15.5 Section 15.4 provides a 'Description of Effects'. I have summarised the effects in the following table:

Project Phase	**Potential Direct, Indirect and Cumulative Effects**
Construction	• No impact on any known archaeological resource. • There may be other features on site; impact would be permanent, direct and negative and will require mitigation. • No protected structures within 500m of the site therefore there will be no predicted impact on such features.
Operation	• An overgrown children's burial ground (LI005-007) is visible from the site and therefore the development will have a slight, indirect, permanent effect on its setting. • A former settlement to the east retains no surface remains and much of it was built on. No predicted impacts on this. • There are six other recorded archaeological monuments within 1km of the study area, though known are within 450m of the site. No operational impacts are predicted.

Likelihood of Significant Effects:

9.15.6 The following table identifies specific direct and indirect impacts that the development may have during the construction and operational phases of the proposed scheme.

Phase/ Effect	**Impact**
'Do-Nothing' Impact	• Would be a neutral impact on any features in the area.

Construction Effects –	• No potential effects are identified.
Operational Effects –	• No potential effects are identified.
Cumulative Effects -	• Site forms part of a larger masterplan area/ development lands. Individual phases of the development will each consider the impact on recorded features. • No predicted significant cumulative effects on cultural heritage are foreseen.

Remedial and Mitigation Measures

9.15.7 Mitigation measures are set out in relation to each of the potential effects of the project and are outlined here.

- Construction Phase. Mitigation by Avoidance/ Design is proposed under CH CONST 1: Children's Burial Ground will be preserved in-situ and a 20m buffer zone provided around it prior to the commencement of construction here.
- Mitigation by Prevention – listed as CH CONST 2: Details provided on the buffer zone and protection measures for the area around the Children's Burial Ground.
- Mitigation by Reduction – Listed as CH CONST 3: Archaeological features found on site will be preserved by record under licence from the National Monuments Service. Full details are provided in Section 15.6.1.3 of the EIAR.

Operational Phase: The following are to be implemented as necessary:

- Mitigation by Avoidance/ Design: There are no recorded monuments on these lands. The Children's Burial Ground will be preserved in situ within a green space area – CH OPER 1. Full details are provided as to how this will be designed, monitored and protected in the EIAR.
- Mitigation by Prevention: No additional mitigation measures are proposed.
- Mitigation by Reduction: No additional mitigation measures are proposed for the site.

Residual Effects

9.15.8 Measures outlined in 9.15.7 (15.6 of the EIAR) should be sufficient, however the following are provided:

- Construction Phase: Full archaeological excavation would result in a high magnitude of impact and would give a potential moderate range of significance of effect in the context of residual impacts on the unrecorded archaeological resource.
- Operational Phase: Appropriate implementation of the mitigation measures will ensure that the impact would not be significant, indirect, permanent, negative impact on the setting of the children's burial ground.

Monitoring

9.15.9 Construction Phase: This will be undertaken in accordance with a number of obligatory processes in accordance with the requirement of the National Monuments Service.

Operational Phase: None are required other than bi-annual maintenance and inspection of the area in and around the burial ground.

Direct and Indirect Effects Assessment

9.15.10 I have examined, analysed and evaluated chapter 15 of the EIAR, all of the associated documentation and submissions on file in respect of Cultural Heritage. I am satisfied that the applicant's presented baseline environment, is comprehensive and that the key impacts in respect of likely effects on all relevant aspects of Cultural Heritage, as a consequence of the development, have been identified.

9.15.11 This section of the EIAR is supported with a number of labelled photographs that clearly identify features on site, Appendix 15.2 which provides 'Cultural Heritage Inventories', Appendix 15.3 which includes a number of figures identifying the location of recorded features in the vicinity of the subject site and the location of test trenches in the area and which are detailed in Appendix 15.4 – Previous Excavations.

9.15.12 Suitable Mitigation measures have been proposed and which will ensure that there are no significant impacts on Cultural Heritage with particular reference to a children's burial ground.

Direct and Indirect Effects on Cultural Heritage Conclusion

9.15.13 Having regard to the examination of environmental information in respect of Cultural Heritage, in particular the EIAR provided by the applicant and the reports of the Planning Authority and appeals/ observations in the course of the application, it is considered that the main significant direct and indirect effects on Cultural Heritage are, and will be mitigated as follows:

- direct negative effects through the excavation of previously unrecorded archaeological remains located on site.

9.16 The Landscape

Raised Issues:

9.16.1 The appeals did not raise any specific issues in relation to impacts on the landscape. The Planning Authority raised no issues of concern.

Context:

9.16.2 The methodology for the assessment is described in Section 16.2 and site surveys were undertaken in February 2022, having regard to the Limerick Development Plan 2022 – 2028, aerial photography and various cartographic sources. From the sources of information, appropriate viewpoints were selected, both close-range and long-range.

9.16.3 The receiving environment is described in Section 16.3 of the EIAR with a detailed Site Area Description in Section 16.3.1 and the Site Area Context is provided in Section 16.3.2. Under the Limerick Development Plan the site is described as Urban Character Area 5 and further details are provided in Section 16.3.3 with supporting photographs. The EIAR describes the site character to be primarily that of an 'agricultural field' with hedgerows within/ around the site. The site does not consist of any landscape protection, European or national designated lands and there are no Tree Preservation Orders here.

9.16.4 The 'Categories or Landscape Sensitivity' are provided in Table 16.1, Figure 16.5 provides the 'Location of Potential Sensitive Visual Receptors as listed in table 16.3', Table 16.2 the 'Sensitivity Categories for Visual Receptors' and Table 16.4 provides the 'Sensitive Visual Receptors'.

9.16.5 Section 16.4 provides a 'Description of Effects'. I have summarised the effects in the following table:

Project Phase	Potential Direct, Indirect and Cumulative Effects
Construction	• Visual change due to the introduction of construction related equipment, structures, compounds and parking areas. • Visual impacts due to change in ground levels and earthworks. • Visual change due to removal of vegetation.
Operation	• Change due to introduction of new buildings, structures, and associated buildings/ structures. • Change in character due to the change in use. • New planting, lighting, hard surfaces. • Removal of existing vegetation and introduction of new trees/ vegetation.

Likelihood of Significant Effects:

9.16.6 The following table identifies specific direct and indirect impacts that the development may have during the construction and operational phases of the proposed scheme.

Phase/ Effect	Impact
'Do-Nothing' Impact	• The lands would remain in their current use and may grow wild over time with scrub vegetation dominating the site.
Construction Effects –	Landscape Character: • Due to construction on these lands, there would be a temporary or short

	term impacts on the landscape character. • Loss of greenfield nature would give rise to short term impact that would be significant, negative loss of the landscape character especially for those who live in the immediate area. • Negative impact through the loss of vegetation. • Some of the existing vegetation is to be retained as part of the landscaping of the site. Impact on landscape character would be moderate in magnitude and impacts would be short-term in duration. Visual: • The activities listed above under Landscape Character will give rise to negative visual impacts for users of the public realm. This impact will change over the course of the construction works. • Negative impact on visual receptors 1,2 and 3 listed in the EIAR Table 16.4 due to the subject development. The impact on VR2 will be significant but short-term in duration.

	• Negative impact on visual receptors 1,2, 3, 5, 6 and 7 listed in the EIAR Table 16.4 due to the development of the overall masterplan though the impact on VR2, 6 and 7 is likely to be significant but short-term in duration.
Operational Effects –	Landscape Character: • Change from agricultural to residential in character. As the lands are zoned for such development, the current state is considered to be temporary. • Existing hedgerows will be incorporated into the landscaping plan. • Impact may be perceived by some to be negative, but this will be moderate in significance and long term in duration. Visual: The impact of the development (subject site and overall masterplan) on seven identified view locations is considered, their locations are provided on Figure 16.6 of the EIAR. I have summarised the impact as follows: View 01: Site: Not Significant, long-term, negative visual impact.

	Masterplan: Not Significant, long-term, negative visual impact. View 02: Site: Not Visible from this location. Masterplan: Imperceptible, long-term negative visual impact. View 03: Site: Not Visible from this location. Masterplan: A Significant, long-term, negative visual impact. View 04: Site: Not Visible from this location. Masterplan: A moderate, long-term, negative visual impact. View 05: Site: Not Visible from this location. Masterplan: A moderate, long-term, negative visual impact. View 06: Site: Not Visible from this location. Masterplan: A moderate, long-term, negative visual impact. View 07: Site: Not Visible from this location. Masterplan: A moderate, long-term, negative visual impact.
Cumulative Effects -	• Site forms part of a larger masterplan area/ development lands

	which will be developed over seven phases. • This phase will be screened by the development of adjoining phases. • The development of the overall masterplan lands will increase the effect on the landscape slightly though is mitigated through the landscaping proposals. • The CKDR and other road improvements in the area may impact on the visual character of the area. Restoration of roadside vegetation will reduce the impact.

Remedial and Mitigation Measures

9.16.7 Mitigation measures are set out in relation to each of the potential effects of the project and are outlined here.

- Construction Phase. Mitigation by Avoidance/ Design is proposed under LVA CONST 1: Strategy to retain hedgerows and trees as part of the landscaping plan.
- Mitigation by Prevention – listed as LVA CONST 2 and LVA CONST 3: Site hoarding to be erected and tree protection measures put in place.
- Mitigation by Reduction – None.

Operational Phase: The following are to be implemented as necessary:

- Mitigation by Avoidance/ Design: LVA OPER 1, 2 and 3: Design of buildings aim to reduce visual mass, retention of hedgerows and provision of landscaping details.
- Mitigation by Prevention: LVA OPER 4: Implementation of site landscaping during the first planting season after construction of the houses.

- Mitigation by Reduction: LVA OPER 5 and 6: Periodic tree surveys and tree management plan to be undertaken and monitoring of the landscaping plan over the full duration of the defect's liability period.

Residual Effects

9.16.8 Measures outlined in 9.16.7 (16.6 of the EIAR) should be sufficient, however the following are provided:

- Construction Phase: As already provided in 16.6 of the EIAR.
- Operational Phase:

  View 3: Hedgerow along the Old Cratloe Road will reduce the visual impact of this development. Impact for Visual Receptors 5 & 6 reduced from significant/ negative to moderate/ negative.

  View 6: Hedgerow on the edge of the new road infrastructure will reduce the visual impact. Impact on view from the road and Visual Receptor 1 will be reduced but will remain moderate/ negative.

  View 7: Hedgerow on the edge of the new road infrastructure will reduce the visual impact. Impact on view from the road and Visual Receptor 1 & 2 will be reduced but will remain moderate/ negative.

- Table 16.4 of the EIAR provides a summary of the residual effects of the overall masterplan development on sensitive visual receptors post prevention/ reduction mitigation measures.

Monitoring

9.16.9 Construction Phase: Good working practices put in place to control the extent of development/ use of equipment and storage of materials. Monitoring of extent of development, reinstatement of areas post construction and monitoring of tree protection measures by a qualified Arborist during this phase of the development.

Operational Phase: Provision of a suitable landscaping plan and ensure that this is undertaken to its full design intent.

Direct and Indirect Effects Assessment

9.16.10 I have examined, analysed and evaluated chapter 16 of the EIAR, all of the associated documentation and submissions on file in respect of The Landscape. I

am satisfied that the applicant's presented baseline environment, is comprehensive and that the key impacts in respect of likely effects on all relevant aspects of The Landscape, as a consequence of the development, have been identified.

9.16.11 Suitable Mitigation measures have been proposed and which will ensure that there are no significant impacts on The Landscape with particular reference to the planting of hedgerows and the protection of trees/ hedgerows that are already found on site.

Direct and Indirect Effects on The Landscape Conclusion

9.16.12 Having regard to the examination of environmental information in respect of The Landscape, in particular the EIAR provided by the applicant and the reports of the Planning Authority and appeals/ observations in the course of the application, it is considered that the main significant direct and indirect effects on the landscape are, and will be mitigated as follows:

- direct negative effects through the change in character of the area from agricultural/ rural to residential/ urban development.
- Loss of hedgerows and trees though this will be reduced through appropriate tree protection measures and the provision of a suitable landscaping plan for this site.

9.17 The Interaction between the above factors

9.17.1 Chapter 17 of the EIAR includes table 17.1 addressing the interactions between each of the environmental disciplines assessed in the EIAR. This table clearly indicates the interactions for the Construction and Operational phases of the development. The various potential interactions between the assessed disciplines at different phases of the project are considered in the EIAR. Where necessary, mitigation was employed to ensure that there would be no cumulative effects as a result of the interaction of the various elements of the development with one another, with the applicant referring to the measures in each chapter of the EIAR and the supporting documents as primarily addressing any potential significant residual impacts of the project.

9.17.2 Section 17.3 provides a Description of the Interactions, and this is supported with Table 17.2 of the EIAR. The information provided in this table is comprehensive and I am satisfied with the details provided.

9.17.3 I have considered the interrelationships between the factors and whether these may as a whole affect the environment, even though the effects may be acceptable on an individual basis. Having considered the embedded design and the mitigation measures that are proposed to be put in place, I am satisfied that there is no residual risk of significant negative interaction between any of the different environmental aspects considered that would arise and no further mitigation measures to those already provided for in the EIAR, or as conditions of the permission, would arise. I am satisfied that the various interactions were accurately described in the EIAR.

9.18 Cumulative Impacts

9.18.1 Comment was made in the appeal about the impact of the development on the visual character of the area and also on water quality, with also a potential for flooding of lands in the immediate area. This was in the context of the development of the entire masterplan lands. I am satisfied that the submitted EIAR has adequately addressed these issues in full. The lands are suitably zoned for residential development of the nature proposed and the Limerick Development Plan 2022 – 2028 has been subject to Strategic Environmental Assessment (SEA) as part of the plan making process. I am therefore satisfied that the EIAR has had full regard to the subject proposal in the context of the development of the entirety of the indicated masterplan lands.

9.18.2 Refence in the appeals was made to the EIAR not including all of the lands within the applicant's ownership. I am not aware of what the proposal is for these lands. These may come available for development in the future or may remain in their current use. If there is an issue with this, it may be addressed through a planning application lodged with the Planning Authority.

9.19 Summary of Mitigation Measures

9.19.1 Chapter 18 of the EIAR has provided a summary of the mitigation measures for each of the environmental factors outlined. This includes measures for both the construction and operational phases. Monitoring is outlined in Section 18.5. This summary collates all of the mitigation measures and monitoring for each of the chapters of the EIAR.

9.20 Reasoned Conclusion on the Significant Effects

9.20.1 Having regard to the examination of environmental information set out above, to the EIAR and other information provided by the applicant, and to the submissions from the Planning Authority, prescribed bodies and observers during the course of the application, it is considered that the main potential direct, indirect, secondary and cumulative effects of the proposed development on the environment are as follows:

- significant direct positive impacts for population and material assets, due to the substantive increase in housing stock during the operational phase of this development;
- significant direct positive impacts for population and material assets, due to the provision of additional and upgraded infrastructure in the area for use during the operational phase of this development;
- direct negative effects arising for human health, air quality, traffic, noise and vibration during the construction phase, which would be mitigated by a suite of appropriate construction phase management measures, including dust management, the control of construction hours, implementation of a construction traffic management plan, noise minimisation measures and monitoring, resulting in no residual impacts on human health, air quality, traffic, noise and vibration;
- direct negative effects arising for water and aquatic habitat during the construction phase, which would be mitigated by a suite of appropriate construction phase surface water management measures, including sediment and pollution control measures, resulting in no residual impacts on water and biodiversity;
- significant direct negative effects arising for land, soils and geology during the construction phase, which would be mitigated by on site investigations to address potential for dewatering, resulting in no residual impacts on land, soils and geology;
- direct negative effects arising for land, soils and geology during the construction phase, which would be mitigated by a suite of appropriate construction phase management measures, including method statements to handle and control any unknown contaminated materials, resulting in no residual impacts on land, soils and geology;

- direct negative effects arising for undiscovered archaeological remains during the construction phase, which would be mitigated by monitoring and recording by a suitably qualified archaeologist under an appropriate licence, resulting in no residual impacts for archaeological, architectural and cultural heritage.
- direct negative effects arising for the visual amenities and landscape of the area during the construction phase, which would not be significant and would be of temporary duration and direct effects arising for landscape during the operation of the proposed development, which would have slight to moderate and positive effects for the appearance of the area, resulting in no residual impacts for landscape and visual amenities.

9.20.2 Arising from my assessment of the project, including mitigation measures set out in the EIAR and the application, and as conditions in the event of a grant of planning permission for the project, the environmental impacts identified would not be significant and would not justify refusing permission for the proposed development.

10.0 Recommendation

10.1. I recommend that permission be granted subject to the following conditions and reasons.

11.0 Reasons and Considerations

Having regard to the provisions of the Limerick Development Plan 2022 – 2028 and the zoning of the site for residential purposes which allows for housing of the nature proposed, to the location of the site within a serviced, urban area within walking distance of public transport and to the nature, form, scale, density and design of the proposed development, it is considered that, subject to compliance with the conditions set out below, the proposed development would not seriously injure the residential or visual amenities of the area.

The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

12.0 **Conditions**

1.	The development shall be carried out and completed in accordance with the plans and particulars lodged with the application on the 5th of September 2022, as amended by the further plans and particulars received by the planning authority on the 8th day of May 2023, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority prior to commencement of development and the development shall be carried out and completed in accordance with the agreed particulars. Reason: In the interest of clarity.
2.	The mitigation measures contained in the submitted Natura Impact Statement (NIS), shall be implemented. Reason: To protect the integrity of European Sites.
3.	The mitigation measures contained in the submitted Environmental Impact Assessment Report (EIAR), shall be implemented. Reason: To protect the environment.
4.	The following shall be submitted for the written agreement of the Planning Authority prior to the commencement of development: a) Full details as to how the Biodiversity Area will be managed including details on access and site security. b) Full details to be provided on the provision of the berm on the western side of the site. **Reason**: In the interest of protection of Biodiversity.
5.	No more than 75 residential units within the Masterplan lands as identified on Drawing No. MP-01, received by the planning authority on the 5th of December 2022 shall be made available for occupation, until such time as

	the creche permitted under Register Reference No. 22/790 has been completed and is in operation, unless agreed otherwise with the Planning Authority. **Reason:** In the interest of orderly development.
6.	The following shall be submitted for the written agreement of the Planning Authority prior to the commencement of development: a) Details of the materials, colours and textures of all the external finishes to the proposed buildings shall be submitted to, and agreed in writing with, the Planning Authority prior to commencement of development. Render shall not be used as an external finish on the front elevations. b) A 2-metre-high privacy wall shall be constructed along the rear/ side and dividing boundary between houses. The wall shall consist of solid blocks, be capped and rendered. Where there is a difference in ground levels between the subject site and adjoining lands, the level shall be taken as the average level. c) Screen walls abutting open space and estate roads shall be 2-metre high, capped and plastered with appropriate provision of pillars. **Reason**: In the interest of visual amenity and in the interest of residential amenity.
7.	Each dwelling shall be used as a single dwelling unit only and shall not be sub-divided in any manner or used as two or more separate habitable units. **Reason:** In the interests of sustainable development and proper planning.
8.	(a) The development shall be carried out on a phased basis, in accordance with a phasing scheme which shall be submitted to, and agreed in writing with, the Planning Authority prior to commencement of any development. A minimum of three (3) phases shall be provided. (b) Work on any subsequent phases shall not commence until such time as the written agreement of the planning authority is given to commence the next phase. Details of further phases shall be as agreed in writing with the Planning Authority.

	Reason: To ensure the timely provision of services, for the benefit of the occupants of the proposed dwellings.
9.	The developer shall comply with all requirements of the Planning Authority in relation to roads, access, lighting and parking arrangements, including facilities for the recharging of electric vehicles. In particular: (a) The roads and traffic arrangements serving the site (including signage) shall be in accordance with the detailed requirements of the Planning Authority for such works and shall be carried out at the developer's expense. (b) The roads layout shall comply with the requirements of the Design Manual for Urban Roads and Streets, in particular carriageway widths and corner radii; (c)The materials used in any roads/ footpaths provided by the developer shall comply with the detailed standards of the Planning Authority for such road works, (d) A detailed construction traffic management plan shall be submitted to, and agreed in writing with, the Planning Authority prior to commencement of development. The plan shall include details of arrangements for routes for construction traffic, parking during the construction phase, the location of the compound for storage of plant and machinery and the location for storage of deliveries to the site **Reason:** In the interests of traffic, cyclist and pedestrian safety and to protect residential amenity.
10.	The proposed development shall make provision for the charging of electrical vehicles. All car parking spaces serving the development shall be provided with electrical connections, to allow for the provision of future charging points. Details of how it is proposed to comply with these requirements, including details of design of, and signage for, the electrical charging points and the provision for the operation and maintenance of the charging points shall be submitted to, and agreed in writing with, the Planning Authority prior to commencement of development.

	Reason: in the interests of sustainable transportation.
11.	Public lighting shall be provided in accordance with a scheme, which shall include lighting along pedestrian routes through open spaces details of which shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. Such lighting shall be provided prior to the making available for occupation of any dwelling. **Reason:** In the interests of amenity and public safety.
12.	Water supply and drainage arrangements, including the attenuation and disposal of surface water, shall comply with the requirements of the planning authority for such works and services. **Reason:** In the interest of public health and to ensure a satisfactory standard of development.
13.	The applicant shall enter into water and wastewater connection agreements with Uisce Éireann, prior to commencement of development. **Reason:** In the interest of public health.
14.	The site shall be landscaped in accordance with the detailed comprehensive scheme of landscaping, which accompanied the application submitted, unless otherwise agreed in writing with, the Planning Authority prior to commencement of development. The developer shall retain the services of a suitably qualified Landscape Architect throughout the life of the site development works. The approved landscaping scheme shall be implemented fully in the first planting season following completion of the development or each phase of the development and any plant materials that die or are removed within 3 years of planting shall be replaced in the first planting season thereafter. **Reason**: To ensure a satisfactory completion and maintenance of the development in the interests of residential amenity and in the interests of protecting the environment

15.	Site development and building works shall be carried out only between the hours of 0700 to 1900, Mondays to Fridays inclusive, between 0800 to 1400 hours on Saturdays and not at all on Sundays and public holidays. Deviation from these times will only be allowed in exceptional circumstances where prior written approval has been received from the Planning Authority. **Reason:** In order to safeguard the residential amenities of property in the vicinity.
16.	The management and maintenance of the proposed development following its completion shall be the responsibility of a legally constituted management company, or by the local authority in the event of the development being taken in charge. Detailed proposals in this regard shall be submitted to, and agreed in writing with, the planning authority prior to the commencement of development. **Reason**: To ensure the satisfactory completion and maintenance of this development
17.	The developer shall facilitate the archaeological appraisal of the site and shall provide for the preservation, recording and protection of archaeological materials or features which may exist within the site. In this regard, the developer shall: (a) notify the planning authority in writing at least four weeks prior to the commencement of any site operation (including hydrological and geotechnical investigations) relating to the proposed development, and (b) employ a suitably-qualified archaeologist prior to the commencement of development. The archaeologist shall assess the site and monitor all site development works. The assessment shall address the following issues: (i) the nature and location of archaeological material on the site, and (ii) the impact of the proposed development on such archaeological material. A report, containing the results of the assessment, shall be submitted to the planning authority and, arising from this assessment, the developer shall agree in writing with the planning authority details regarding any further archaeological requirements (including, if necessary, archaeological excavation) prior to commencement of construction works. In default of

	agreement on any of these requirements, the matter shall be referred to An Bord Pleanála for determination. **Reason:** In order to conserve the archaeological heritage of the area and to secure the preservation (in-situ or by record) and protection of any archaeological remains that may exist within the site.
18.	That all necessary measures be taken by the contractor to prevent the spillage or deposit of clay, rubble or other debris on adjoining roads during the course of the works. **Reason**: To protect the amenities of the area.
19.	All service cables associated with the proposed development (such as electrical, communal television, telephone and public lighting cables) shall be run underground within the site. **Reason:** In the interest of orderly development and the visual amenities of the area.
20.	A Construction and Environmental Management Plan (CEMP) shall be submitted to and agreed in writing with the planning authority prior to the commencement of development. The CEMP shall include but not be limited to construction phase controls for dust, noise and vibration, waste management, protection of soils, groundwaters, and surface waters, site housekeeping, emergency response planning, site environmental policy, and project roles and responsibilities. **Reason**: In the interest of environmental protection, residential amenities, public health and safety and environmental protection.
21.	Prior to commencement of development, a Resource Waste Management Plan (RWMP) as set out in the EPA's Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction and Demolition Projects (2021) shall be prepared and submitted to the Planning Authority for written agreement. The RWMP shall include specific proposals as to how the RWMP will be measured and monitored for effectiveness. All records (including for waste and all resources) pursuant

	to the agreed RWMP shall be made available for inspection at the site office at all times. **Reason**: In the interest of reducing waste and encouraging recycling.
22.	Proposals for the development name, house numbering scheme and associated signage shall be submitted to, and agreed in writing with, the planning authority prior to commencement of development. Thereafter, all signs, and apartment numbers, shall be provided in accordance with the agreed scheme. The proposed name(s) shall be based on local historical or topographical features, or other alternatives acceptable to the planning authority. No advertisements/marketing signage relating to the name(s) of the development shall be erected until the developer has obtained the planning authority's written agreement to the proposed name(s). **Reason**: In the interest of urban legibility and to ensure the use of locally appropriate placenames for new residential areas.
23.	Prior to commencement of development, the applicant or other person with an interest in the land to which the application relates shall enter into an agreement in writing with the planning authority in relation to the provision of housing in accordance with the requirements of section 94(4) and section 96(2) and (3) (Part V) of the Planning and Development Act 2000, as amended, unless an exemption certificate shall have been applied for and been granted under section 97 of the Act, as amended. Where such an agreement is not reached within eight weeks from the date of this order, the matter in dispute (other than a matter to which section 96(7) applies) may be referred by the planning authority or any other prospective party to the agreement to An Bord Pleanála for determination. **Reason**: To comply with the requirements of Part V of the Planning and Development Act 2000, as amended, and of the housing strategy in the development plan of the area.
24.	Prior to commencement of development, the developer shall lodge with the Planning Authority a cash deposit, a bond of an insurance company, or

	other security to secure the provision and satisfactory completion and maintenance until taken in charge by the local authority of roads, footpaths, watermains, drains and other services required in connection with the development, coupled with an agreement empowering the local authority to apply such security or part thereof to the satisfactory completion or maintenance of any part of the development. The form and amount of the security shall be as agreed between the planning authority and the developer or, in default of agreement, shall be referred to An Bord Pleanála for determination. **Reason**: To ensure the satisfactory completion and maintenance of the development until taken in charge.
25.	The developer shall pay to the planning authority a financial contribution in respect of public infrastructure and facilities benefiting development in the area of the planning authority that is provided or intended to be provided by or on behalf of the authority in accordance with the terms of the Development Contribution Scheme made under section 48 of the Planning and Development Act 2000, as amended. The contribution shall be paid prior to commencement of development or in such phased payments as the planning authority may facilitate and shall be subject to any applicable indexation provisions of the Scheme at the time of payment. Details of the application of the terms of the Scheme shall be agreed between the planning authority and the developer or, in default of such agreement, the matter shall be referred to An Bord Pleanála to determine the proper application of the terms of the Scheme. **Reason:** It is a requirement of the Planning and Development Act 2000, as amended, that a condition requiring a contribution in accordance with the Development Contribution Scheme made under section 48 of the Act be applied to the permission.

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has

influenced or sought to influence, directly or indirectly, the exercise of my professional judgement in an improper or inappropriate way.

Paul O'Brien

Inspectorate

7th November 2024

Appendix 1: Screening for Appropriate Assessment

Description of the Project:

14.1 I have considered the proposed Development, of 98 residential units and all associated site works, in light of the requirements of S177U of the Planning and Development Act 2000 as amended. A Screening report has been prepared by Russell Environmental and Sustainability Services on behalf of the applicant and the objective information presented in that report informs this screening determination.

14.2 The subject site is located on lands located to the west of the Pass Road, and to the north east of the Old Cratloe Road approximately 3.5 km to the north west of Limerick city centre. The site with an area of 3.69 hectares has an irregular shape, forming part of a larger development area and was in use by grazing horses on the day of the site visit. Adjoining lands were in similar use or in residential use.

14.3 The River Shannon & River Fergus Estuaries SPA (Site Code 004077) is approximately 1.7 km to the south west. The River Shannon SAC (Site Code 002165), which meanders considerably in this area, is also 1.7 km to the south west but also 1.2 km to the north east.

Submissions and Observations:

14.4 No specific concerns were raised about the AA Screening.

14.5 Limerick County Council reported no concerns about the submitted AA/ NIS subject to conditions.

Potential Impact Mechanisms from the Project

14.6 The subject lands are not under any wildlife or conservation designation. The following sites are identified within the zone of influence, as detailed in Table 1 of the applicant's report:

- River Shannon & River Fergus Estuaries SPA (Site Code 004077)
- River Shannon SAC (Site Code 002165)

As there is no hydrological connection/ pathway between the site and Glenomra Wood, Askeaton Fen Complex SAC and Danes Hole Poulnalecka SAC, they do not require further consideration.

14.7 The following impacts could occur because of this development:

- Potential for indirect effects through impact to water quality and resource for the construction and operational phases of the development – Effect 1

Likely significant effects on European Sites –

14.8 The following table identifies European Sites that may be at risk of impact due to the proposed development, full details of the qualifying features at risk are provided in the applicant's report:

Table 1 – European Sites at risk of impacts from the proposed development

Effect Mechanism	Impact Pathway/ Zone of Influence	European Site	Qualifying Interest features at risk
Potential for impact to water quality and resource	The proposed development lies approx. 1.7 km to the south west.	River Shannon & River Fergus Estuaries SPA (Site Code 004077)	Cormorant [A017] Whooper Swan [A038] Light-bellied Brent Goose [A046] Shelduck [A048] Wigeon [A050] Teal [A052] Pintail [A054] Shoveler [A056] Scaup [A062] Ringed Plover [A137] Golden Plover [A140] Grey Plover [A141] Lapwing [A142]

			Knot [A143] Dunlin [A149] Black-tailed Godwit [A156] Bar-tailed Godwit [A157] Curlew [A160] Redshank [A162] Greenshank [A164] Black-headed Gull [A179] Wetland and Waterbirds [A999]
Potential for impact to water quality and resource	The proposed development lies approx. 1.2 km to the north east and also 1.7 km to the south west.	River Shannon SAC (Site Code 002165)	Sandbanks which are slightly covered by sea water all the time [1110] Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Coastal lagoons [1150] Large shallow inlets and bays [1160] Reefs [1170] Perennial vegetation of stony banks [1220] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]

			Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows [1330] Mediterranean salt meadows [1410] Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260] Molinia meadows on calcareous, peaty or clayey-silt-laden soils [6410] Alluvial forests with Alnus glutinosa and Fraxinus excelsior [91E0] Freshwater Pearl Mussel [1029] Sea Lamprey [1095] Brook Lamprey [1096] River Lamprey [1099] Salmon [1106] Common Bottlenose Dolphin [1349] Otter [1355]

All other European sites can be excluded from further assessment due to distance, nature of development and lack of ecological connection between the designated site and the subject lands.

Likely significant effects on the European sites 'alone' –

14.9 This section of the assessment considers if there are significant effects alone and whether it is possible that the conservation objects might be undermined from the effects of only this project.

14.10 The following table provides the relevant information:

Table 2 – Could the project undermine the Conservation Objectives 'alone'		
European Site and qualifying feature	**Conservation Objective**	**Could the Conservation Objectives be undermined (Y/N)?**
		Effect A
River Shannon & River Fergus Estuaries SPA (Site Code 004077)	• Maintain the favourable conservation Condition of the listed Qualifying Interests.	Y
Reason:	Potential indirect risk through runoff into a drainage ditch during periods of high rainfall/ storms – hydrological connection.	
River Shannon SAC (Site Code 002165)	• Maintain the favourable conservation Condition of Brook Lamprey, River Lamprey, Sandbanks, Estuaries, Mudflats & sandflats,	Y

	Coastal Lagoons, Inlets & Bays, Reefs, vegetation of stony banks, Sea Cliffs, Salicornia & other annuals, Atlantic Salt Meadows, Bottlenose Dolphin, Water courses of plain to montane levels, Molinia meadows. • Restore the favourable conservation condition of Freshwater Pearl Mussel, Sea Lamprey, Atlantic Salmon, Otter, Mediterranean Salt Meadows, Alluvial forests.	
Reason:	Potential indirect risk through runoff into a drainage ditch during periods of high rainfall/ storms – hydrological connection.	

I conclude that the proposed development would have a likely significant effect 'alone' on QIs associated with the River Shannon & River Fergus Estuaries SPA and the River Shannon SAC due to potential impact on water quality/ resource. An Appropriate Assessment is required on the basis of the effects of the project 'alone'. Further assessment in-combination with other plans and other projects is not required at this time.

Appendix 2: Stage 2 – Appropriate Assessment

15.1 The applicant has provided a Natura Impact Statement (NIS), prepared by Russell Environmental and Sustainability Services, in accordance with the requirements of the Stage 2 Appropriate Assessment process.

14.11 I am satisfied that the submitted NIS is in accordance with current guidance/ legislation/ best practice and the information included within the report in relation to baseline conditions and potential impacts are clearly set out and supported with sound scientific information and knowledge. The NIS examines and assesses the potential adverse effects of the proposed development on the River Shannon & River Fergus Estuaries SPA and the River Shannon SAC, where it has been established that there is a possibility for significant indirect effects on these European sites, in the absence of mitigation as a result of hydrological impacts, habitat degradation/ loss/ fragmentation. As reported in the AA Screening, all other European designated sites can be excluded from the need for further assessment.

15.2 Table 2 lists those habitats/QIs that there may be potential for significant effects for the River Shannon SAC. The development may provide a potential for significant effects to the following qualifying features:

Qualifying Feature	**Potential for Significant Effects**	**Cause of Effect**
Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation.	Yes	Changes to water quality
Bottle-nosed dolphin	Yes	Changes to water quality. Habitat is downriver, though there is one record in the River Shannon, water quality is an issue and therefore

		there is an indirect pathway for impacts.
Otter	Yes	There are a number of records in the vicinity of the subject site.

15.3 Table 3 lists those habitats/ QIs that there may be potential for significant effects for the River Shannon & River Fergus Estuaries SPA. None of the listed species were found on site and there is a long-term trend for stable or increased population within the SPA. The proposed development would be unlikely to have a significant impact, both directly/ indirectly as there are no direct pathway for potential impact.

15.4 There is no potential for significant effects on the Conservation Objective attributes and targets of the other qualifying features within the SAC and SPA.

15.5 The potential pressures/ threats on each of the QIs are considered in Section 3.1 of the NIS and I have summarised the main points as follows:

Qualifying Feature	**Potential Risk**	**Mitigation Measures**
Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation.	• Urban Water discharge could pollute ground or surface water. • Pollution from discharge of surface water during the construction phase.	Yes
Bottle-nosed dolphin	• Indirect impacts on water quality and in turn food sources.	Yes
Otter	• Indirect impacts on water quality and in turn food sources.	Yes

15.6 Section 4.0 provides details on 'Preventative Measure to Avoid Impacts' and this includes for the construction and operational phases of the development. The primary impact is from emissions to surface water during the construction phase and during heavy rainfall/ storm events during the operational phase. Section 4.4 lists the Mitigation Measures for both phases. The following mitigation measures are summarised, but are detailed in Section 4.4 of the NIS:

- Site Based Work – Earth works, dust suppression, machine use and operation, fuel control measures, concrete use control measures and the assignment of role as an environmental officer.
- Monitoring of works by a qualified ecologist.
- Suggested that a berm be provided to the western boundary of the site to prevent flows of surface water into the drainage ditch during the construction phase.
- Operational Phase – Provision of attenuation areas and SuDS measures to intercept surface water.
- Provision of petrol interceptors
- SuDS proposals are listed including water butts for the houses, permeable paving, porous asphalt for the roads and tree pits designed to accommodate surface water.

15.7 The report outlines how the various measures will address surface water drainage and prevent pollutants entering the SAC and SPA. The NIS reports in Section 4.5 that 'The proposed development will not prevent the QIs/ SCIs of the European Sites from achieving favourable conservation status in the future as defined in Article 1 of the EU Habitats Directive'. Cumulative impacts are considered in Section 5.0. Noted are proposed development on adjoining lands, similar measures will be undertaken to prevent impacts, and the development of the Distributor Road which was virtually completed at the time of preparation of the NIS. I note that this road was not open on the day of the site visit.

15.8 The NIS concludes: 'It can be excluded, on the basis of objective scientific information, that the project, individually or in combination with other plans or projects, will not affect the integrity of the European Sites (Lower Shannon SAC and River Shannon and River Fergus Estuaries SPA).'

15.9 NIS Assessment:

15.10 I have relied on the following guidance: Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities, DoEHLG (2009); Assessment of plans and projects significantly affecting Natura 2000 sites. Methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EC, EC (2002); Managing Natura 2000 sites, The provisions of Article 6 of the Habitats Directive 92/43/EEC, EC (2018).

15.11 The Lower Shannon SAC and River Shannon and River Fergus Estuaries SPA are subject to appropriate assessment. A description of the sites and their Conservation Objectives and Qualifying Interests are set out in the submitted NIS and have already been outlined in this report as part of my assessment. I have also examined the Natura 2000 data forms as relevant and the Conservation Objectives supporting documents for these sites available through the NPWS website.

15.12 **Aspects of the Development that could adversely affect the designated site**s: The main aspect of the development that could impact the conservation objectives of the European sites is through deterioration of water quality, through surface water runoff/ pollution of watercourses.

15.13 Mitigation: A range of mitigation measures are provided in the NIS, and these are noted. These refer to the construction and operational phases of the development as provided in the applicant's report. Water quality issues are addressed a range of measures to control surface water runoff and potential for pollution. I note the suggestion of the provision of a berm on the western boundary of the site and this would be very specific measure to mitigate against impacts.

15.14 Overall, I consider that the proposed mitigation measures are clearly described, and precise, and definitive conclusions can be reached in terms of avoidance of adverse effects on the integrity of designated European sites based on the outlined mitigation measures. I consider that the mitigation measures are necessary having regard to the proximity of the site to the Lower Shannon SAC and River Shannon and River Fergus Estuaries SPA. Overall, the measures proposed are effective, reflecting current best practice, and can be secured over the short and medium term and the method of implementation will be through a detailed management plan and appropriate monitoring.

15.15 In Combination Effects: No issues of concern are raised subject to the full implementation of mitigation measures outlined in the NIS.

15.16 Appropriate Assessment Conclusion:

15.17 The proposed residential development at Clonconane, Co. Limerick has been considered in light of the assessment requirements of Sections 177U and 177V of the Planning and Development Act 2000 as amended.

15.18 Having carried out screening for Appropriate Assessment of the project, it was concluded that it may have a significant effect on the Lower Shannon SAC and River Shannon and River Fergus Estuaries SPA. Consequently, an Appropriate Assessment was required of the implications of the project on the qualifying features of the site in light of its conservation objectives.

15.19 Following an Appropriate Assessment, it has been ascertained that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of the Lower Shannon SAC and River Shannon and River Fergus Estuaries SPA subject to the implantation in full of appropriate mitigation measures.

15.20 This conclusion is based on:

- A full and detailed assessment of all aspects of the proposed project including proposed mitigation measures and monitoring in relation to the Conservation Objectives of the Lower Shannon SAC and River Shannon and River Fergus Estuaries SPA.
- Detailed assessment of in combination effects with other plans and projects including historical projects, plans and current proposals.
- No reasonable scientific doubt as to the absence of adverse effects on the integrity of the Lower Shannon SAC and River Shannon and River Fergus Estuaries SPA.

15.21 I have had full consideration of the information, assessment and conclusions contained within the NIS. I have also had full regard to National Guidance and the information available on the National Parks and Wildlife Service (NPWS) website in relation to the identified designated Natura 2000 sites. I consider it reasonable to conclude that on the basis of the information submitted in the NIS report, including

the recommended mitigation measures, and submitted in support of this application, that the proposed development, individually or in combination with other plans or projects would not be likely to adversely affect the integrity of the Lower Shannon SAC and River Shannon and River Fergus Estuaries SPA.