

Response to An Bord Pleanála's Opinion ABP-308945-20

Coolagad SHD

March 2022



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Prepared by: SB		Checked by: RML
Project Title: Response to An Bord Pleanála's Opinion ABP-308945-20		
Project No:		
Rev No.	Comments	Date
0	Draft	01/03/22
1	Final	29/03/22

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1 Introduction

The report has been prepared on behalf of Cairn Homes Properties Ltd in response to Item 12(f) of the Application Form.

This report accompanies a Strategic Housing Development (SHD) application to An Bord Pleanála under the Planning and Development (Housing) and Residential Tenancies Act, 2016 on lands c.26.03 ha at Coolagad, Greystones, Co. Wicklow. It also addresses the additional documentation requested by An Bord Pleanála.

This response should be read in conjunction with the accompanying documentation prepared by MacCabe Durney Barnes, McCrossan and O'Rourke Architects, AECOM, Kevin Fitzpatrick Landscape Architects, Altemar, Saber Lighting, Waterman Moylan, EnviroGuide, Red Kite and IES. A statement of consistency, planning report and material contravention statement has also been prepared and may be read in conjunction with this response as they also address issues raised.

The structure of this report follows the order in which the points have been raised by the Board.

2 Opinion

2.1 Design and Layout

2.1.1 Opinion

1. Further consideration / amendment or justification of the design and layout of the proposed scheme having regard to the following: -
 - a. the linear approach to the scheme, in particular the internal road network and the central area of public open space.
 - b. the potential negative impact on residential amenities, in terms of overlooking, overshadowing or overbearing impact, due to the topography of the site and the potential requirement for retaining features.
 - c. Roads Objective RO1 of the Local Area Plan to provide a new road from the R761 to the N11, through the northern portion of the site.
 - d. the dominance of the road network within the scheme and consideration of the provision of homezones and a reduction in the number of cul-de-sacs.
 - e. the location of existing watercourses on the site which currently run off to a culvert with limited capacity.
 - f. future connectivity to adjoining lands and the impact of the proposed scheme on the development potential of adjoining landholdings.

The revised documentation should provide a clear rationale or justification for the proposed design and layout and have regard to the 12 criteria set out in the Urban Design Manual.

2.1.2 Response

The items are responded to in the order they appear in the opinion.

a) the linear approach to the scheme, in particular the internal road network and the central area of public open space.

We refer the Board to the figures 1 and 2 below.

Figure 1: PL03 as submitted to ABP in December 2020



Figure 2: PL03 as submitted in the final SHD application



The design team has taken on board the comments from the Board with a view to make the development ‘less linear’. In particular, we would bring the Board’s attention to the following layout modifications.

Internal road network:

At the outset, it is important to reiterate that the site avails of a challenging topography as noted in the Greystones-Delgany and Kilcoole LAP and in various documentation submitted as part of this application. We make particular reference to engineering drawing numbers 0610 to 6015 Cut and Fill Analysis sheets 1 to 6. The internal network essentially achieves the following:

- It addresses topography and seeks to avoid insofar as practical excessive cut and fill.
- It achieves acceptable road gradients and corner radii in accordance with the relevant standards.
- It complies with DMURS.

Where possible, additional measures have been applied to avoid straight road runs which may entice speeding. We particularly refer the Board to the proposed north-south spine which was proposed to bound the spinal open space. This space was moved for reasons outlined below in

relation to the open space. As a result, the need to follow the natural curvature of the archaeological feature has resulted in a less straight road. In general, the design team has sought to provide a less linear approach to the road layout which is in part due to the need to address topography.

It is important to note that all internal roads have been designed as streets with the exception of the distributor road. Owing to its status as a potential link to the N11, the distributor road cannot be designed to have a 'street feel' in its entirety. Nonetheless, owing to the need a) provide for the road within the application site and b) maintain appropriate distances with the root protection zones of the trees and hedgerows forming the northern boundary, the road is not linear. It should also be noted that the road has been designed to follow the topography of the site to allow for future connections with the northern landbank.

Central area of open space:

Extracts of the open space design are presented below. The northern part of the open space spine has been modified and retains hedgerows as can be seen in arborist drawings. The central part of the open space (referred to as open space 1 in the documentation accompanying this application) shows that this modification was carried out for a number of reasons:

1. During the geophysical and test trenching surveys, an archaeological feature was identified at the location. While its southern part is proposed to be excavated, the northern part will remain in situ.
2. In addition, this specific area is ecologically sensitive. As a result, natural features were retained as far as possible and incorporated into the design of open space 1 to ensure a more cohesive approach to the ecological network of the application site.

Given the particular sensitivity of this area, a different design approach was required to address biodiversity and archaeology. As a result, a larger and more natural layout is proposed for open space 1. In the pre-application layout, the distance between the road and the centre of the stream was 59m. With the redesign, the closest apartment block is located 116m away from the centre of the stream. The need to maintain the area in a more natural manner as a result of the archaeological area also impacted the surrounding road network. The more southern sections of the spinal open space were subsequently divided to be more enclosed and provide for character to the areas. The reconfigured open space is more of a necklace type layout and provides focus and to the various parts of the site. All areas are well overlooked with natural surveillance from surrounding units.

Figure 3: PL03 as submitted to ABP in December 2020



Figure 4: PL03 as submitted in the final SHD application



In addition, a perpendicular open space spine run east-west across the site. This spine follows the watercourse which is incorporated into the design proposals. Appropriate separation buffers have been applied on its north and south to the exception of the crossing points which are necessary to access the southern portion of the site (refer to figure 5 below).

Figure 5: Extract from landscape drawing 101 – Landscape Masterplan



In addition, as discussed in more detail below, the built element of the scheme has been pulled back from both the eastern and western boundaries to provide for landscape buffers. These buffers now form an intrinsic part of the overall open space proposals and will be significant contributors to the ecological quality of the site.

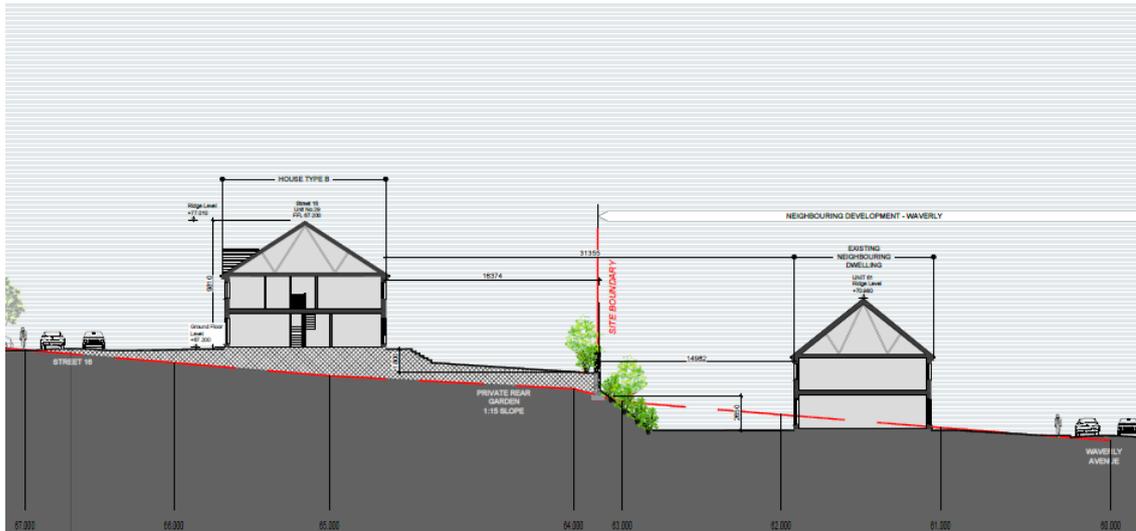
We refer the Board to the Landscape design report prepared by Kevil Fitzpatrick Landscape Architects for further details on the landscape rationale.

*b) the potential negative impact on residential amenities, in terms of **overlooking**, **overshadowing** or **overbearing** impact, due to the topography of the site and the potential requirement for **retaining features**.*

A landscape buffer is now proposed between the proposed development and the Waverly estate which lies lower to the east of the application site. This removes any concern of overshadowing, overlooking, overbearing and other impacts to existing residential amenities.

It was envisaged that 607 units would be proposed to include a row of houses to the west of Waverly. This would have required a substantial cut and fill exercise which would have given rise to a number of environmental issues, particularly in relation to soils. Houses at the location would have required the provision of retaining structures between the application site and Waverly which, in turn, could have given rise to concerns of impact on the residential amenities of Waverly.

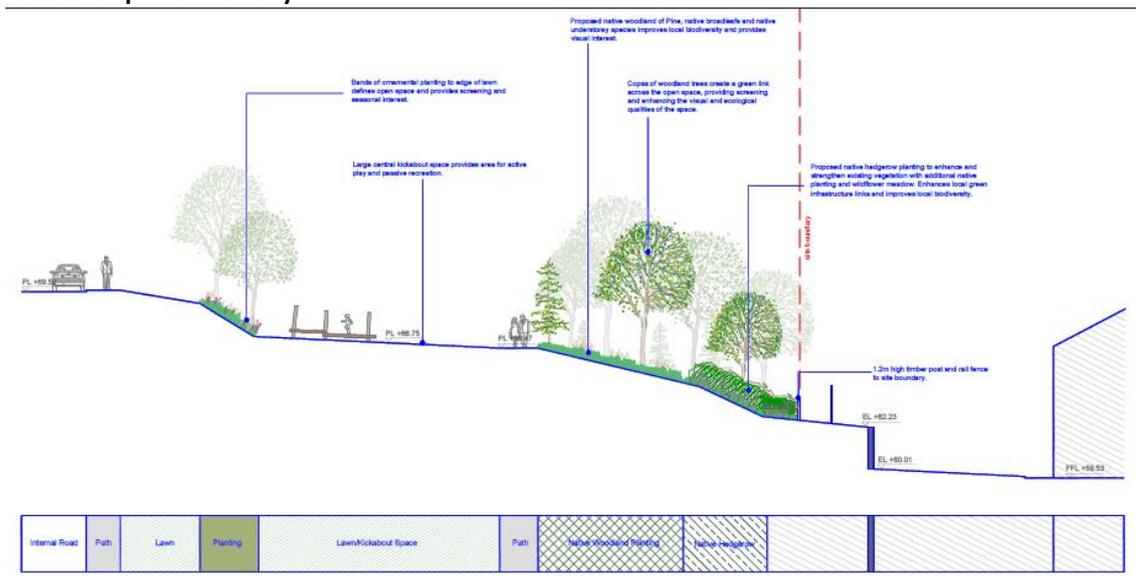
Figure 6: Extract from Contextual Site Section Y-Y (PL0501) showing the relationship with Waverly at the pre-application stage



As the site falls steeply west to east, the development strategy evolved owing to a cut-fill rebalancing of the profile of the site. Had the eastern strip been developed, the quantum of soils to be moved would have significantly greater and would have resulted in the provision of retaining structures between Waverly and Coolagad.

As a result of the design iteration and the opinion of the Board, houses backing onto Waverly were removed and the treatment of the strip as a landscape buffer was determined to be more appropriate. As can be seen in landscape drawing 105 – Landscape masterplan – Detail Area 4, it is now proposed to provide tree planting on along the eastern boundary. This will also contribute to the provision of an appropriate visual transition between lands lying at different levels.

Figure 7: Extract from Landscape Masterplan – Detail Area (drawing no. 104) showing the proposed relationship with Waverly.



Section H-H | 1:200

We also refer the Board to the Daylight, Sunlight and Overshadowing Study which analyses the impact of the most eastern apartment blocks on the residential amenities of the proposed units in housing cells 1 and 6, located immediately east. The report shows there is no overshadowing from the apartment blocks on the units located in cells 1 and 6. In addition, we refer the Board to architect's drawing no. PL05 Site Layout Plan – Sheet 02 which shows that the proposed distance between the blocks and the cells is at least 34 m.

c) Roads Objective RO1 of the Local Area Plan to provide a new road from the R761 to the N11, through the northern portion of the site.

Roads Objective R01 of the LAP requires the provision of a new road from the R761 to the N11 through the northern portion of the site. The applicants have redesigned the alignment of that road so that it forms part of the lands in their ownership. They will deliver the entire extent of the road insofar as it is on their lands in Phase 1 of the development. Please refer to the figure 2 above which shows the realigned road and to the engineering drawing 0002- Proposed General Arrangement Sheet 1 of 5

The applicants are proposing to deliver the road subject to the road objective R01 from the junction with the R761 to the east, all the way to the western boundary of their landholding. It will be delivered in one phase.

d) the dominance of the road network within the scheme and consideration of the provision of homezones and a reduction in the number of cul-de-sacs.

A traffic calming approach has been extended to the overall layout, designing a network of internal shared-surface streets and homezones that open out to pocket parks and edging landscaped corridors. Cul-de-sacs have been reduced and the proposed layout aims to dissuade non-local crossing traffic through the development.

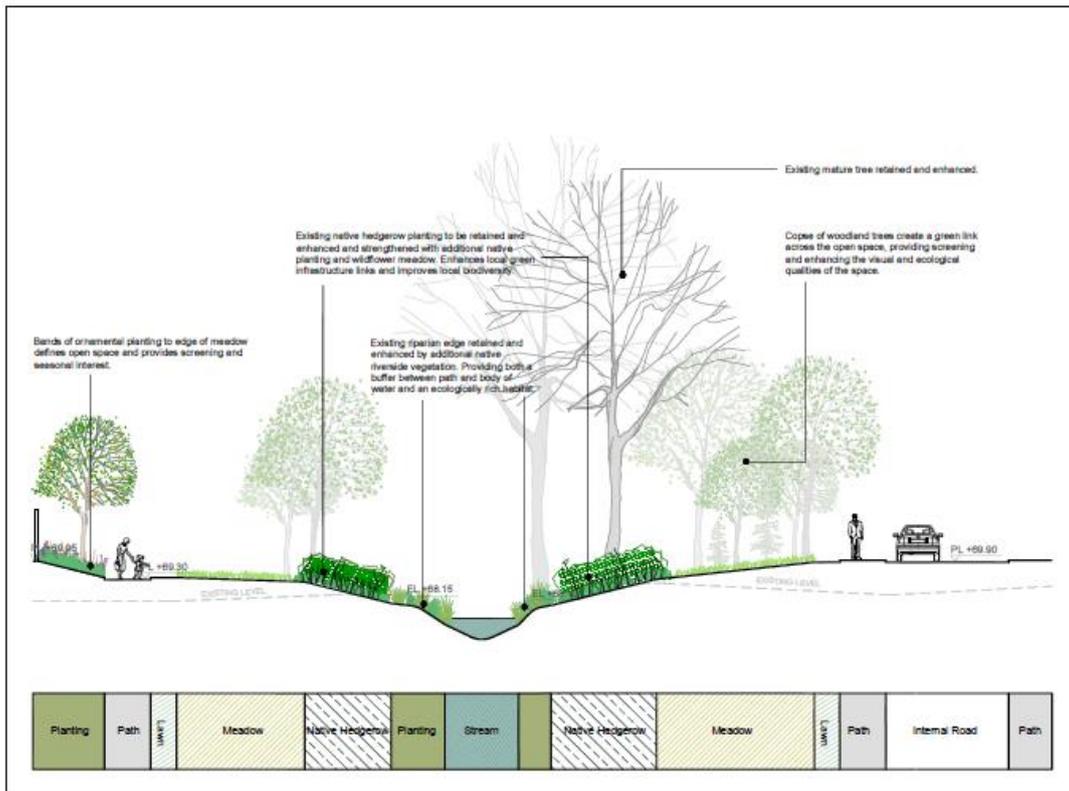
e) the location of existing watercourses on the site which currently run off to a culvert with limited capacity.

As there is a stream crossing the site in an east-west manner, the design had no option but to cross it to allow for access to the southern section of the landholding. The team was cognisant of requirements to a) apply a buffer in accordance with the CDP and b) avoid in-stream works. As a result of the design amendments discussed above, two crossings are proposed. No instream works are proposed.

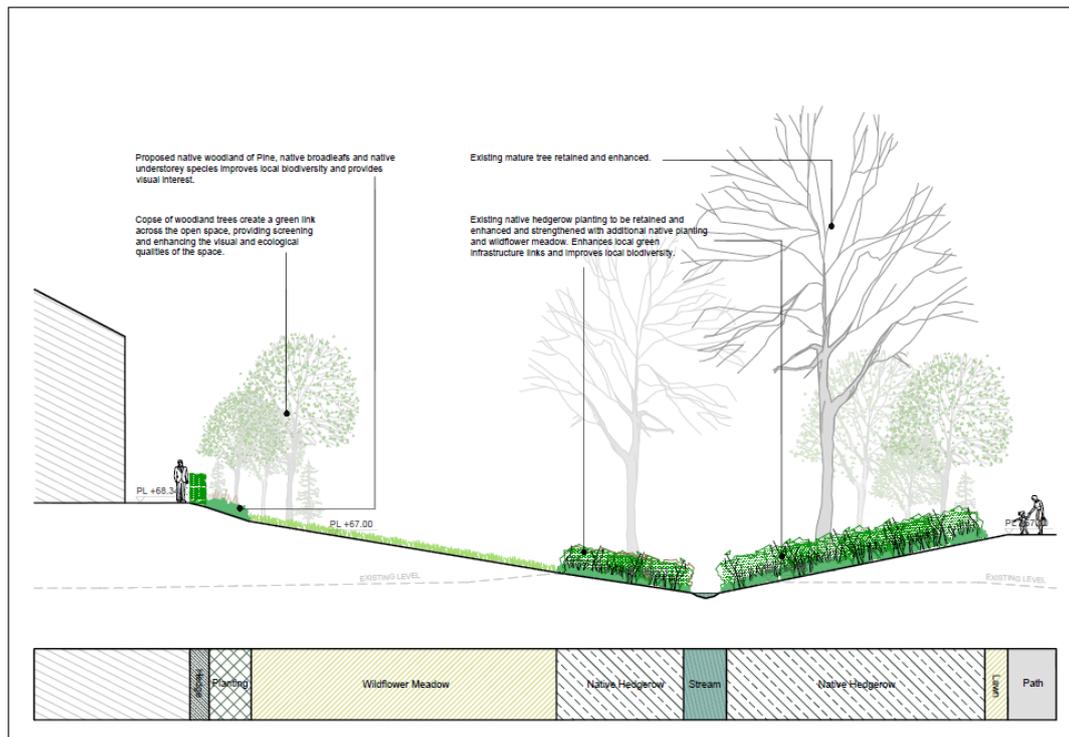
The design of the stream crossings (bridges) consists of pre-fabricated structures which reduces the risk of any direct impact to water quality in the stream as can be seen in Engineering drawings no. 1701 – Structure ST01 General Arrangement and no.1702 Structure ST02 General Arrangement. We also refer the Board to the EIAR Chapter on water which considers impacts to the stream.

We also refer the Board to Section J-J and Section K-K (both on landscape drawing 103 – Landscape Sections III) which shows the relationship between the development and the stream.

Figure 8: Extracts from Landscape Sections III



Section J-J | 1:200



Section K-K | 1:200

f) future connectivity to adjoining lands and the impact of the proposed scheme on the development potential of adjoining landholdings

The proposed development has incorporated provisions to connect to adjoining lands for connectivity purposes as follows:

North: The levels of the proposed distributor road follow the existing levels for the vast majority. This will allow for any future connections from the lands to the north of the site to be connected in a relatively straightforward manner.

South: The proposed levels for Street 18, at the southern end of the site have been designed such that this roadway can be extended into the lands to the south should these be developed in the future. Levels for Street 18 tie back to existing levels at the boundary for ease of future connection.

South: Furthermore, Street 16 and Street 17, if extended in the future to the boundary to create additional connections, are only 3m and 1.5m respectively lower than the existing levels at the boundary. Given the gradient of the existing lands to the south is similar to the existing gradient within the subject site, it would be envisaged that excavation would be required as part of this future development, similar to Coolagad, and that the level difference of the future development to Street 16 and Street 17 would therefore be much less than 3m and 1.5m respectively.

East: Proposed levels along the eastern boundary, west of the existing school site, are proposed to remain as per the existing site levels. The area along here is allocated as open space and the landscape design has proposed a pathway down to the boundary which includes sets of stairs. The existing gradient of this area is 1:10.

We also wish to point to the Board that the applicants can only develop on lands under their control. As seen above they have accommodated proposed roads at gradient that would allow for the constructability of the road network on adjacent landholdings.

We refer the Board to the following drawings in particular which show how the roads would connect:

- 0002- Proposed General Arrangement Sheet 1 of 5 which shows the distributor road built to the boundary to allow for its continuation toward the west in the future.
- 0006- Proposed General Arrangement Sheet 5 of 5 which shows how road 16 will terminate at the boundary.
- We also refer the Board to landscape drawing 106 Landscape Masterplan – Detail area 5 which shows how the pedestrian link ends at the boundary with the landholding to the east.
- Engineer drawings showing the levels of the distributor road.

2.2 Water Services

2.2.1 Opinion

2. Further consideration / amendment of the design of storm water management proposals. A site-specific Flood Risk Assessment should be submitted. Further consideration of the concerns outlined in the report of Wicklow County Councils Greystones Municipal District Engineer dated the 20th January 2021.

3. Further consideration / amendments of the documents as they relate to foul water drainage proposals to service the development. The documents should provide details of necessary upgrade works required to facilitate the development to include, *inter alia*: plans and particulars, having regard to the wastewater network constraints raised by Irish Water in their report dated 18th January 2021.

2.2.2 Response

2. We refer the Board to the Flood Risk Assessment submitted as part of this application. Concerned have been addressed in full, please refer to section 4 of this report. The flood risk assessment concludes the following:

'The lowest proposed level on site is circa 39mOD over the Irish Sea level. It is also noted that as part of the CFRAM Map Study, 2 No. predicted future scenarios are available for the Greystones area, showing that the proposed development is not subject to risk of coastal flooding.

With regard to Fluvial Flooding, the CFRAM maps show the presence of a stream within the site, providing the estimated flood water levels for the 0.1% AEP Flood Event in two locations. Given the predicted water level (for the 0.1% AEP) of 70.21m and 64.79m and the lowest proposed level on site in these locations (71.96m and 66.89m respectively, which is 1.75m and 2.10m higher than the predicted water levels), it is concluded that the subject site is not at risk from fluvial flooding.

The CFRAM maps did not develop a study for the subject area for pluvial flooding, showing only the Dublin City area. However, the pluvial flood risk will be mitigated through an effective surface water and SuDS strategy. Similarly, a series of swales will intercept and collect the surface water runoff from the Kindlestown Hill and discharge it, at a control rate, into the existing stream within the site. The proposed discharge flow rate will be limited to what is currently being discharged to the stream such that existing flows within the stream are not increased as this could potentially create downstream impacts.'

We also refer the Board to the SUDs proposals drawings.

3. This application is accompanied by a design acceptance and confirmation of feasibility from Irish Water. Please refer to the Civil Infrastructure Report by AECOM for details relating to foul water drainage and relevant drawings 501 – Proposed Drainage Layout Sheet 1 of 5 and 506 – Proposed Drainage Connections to Existing Services.

In summary, the proposals now consist of foul sewer which will fall by gravity into the existing 375 mm combined sewer via a new 300mm pipe to be laid along the R761 and Victoria Road roadways.

2.3 Transportation

2.3.1 Opinion

4. Further consideration / amendment of the documents as they relate to the potential impact of the proposed development on the surrounding road network.

The revised documentation should include details of the proposed new access onto the R761, the capacity of the road network, available sightlines, pedestrian and cycle facilities, car parking requirements and should provide recommendations for potential improvements to the public road, if required. Further consideration of the concerns raised in the report of Wicklow County Councils Greystones Municipal District Engineer dated the 20th January 2021.

2.3.2 Response

There are two elements to item 4 of the opinion, and they are addressed in order below.

Further consideration / amendment of potential impact of the proposed development on the surrounding road network and details

The new access on the R761, including the proposed pedestrian and cycle facilities and the recommendations for improvements to the public road has been shown in detail on engineering drawings 0004 Proposed General Arrangement Sheet 3 of 5 and 0700 Proposed Signalised Junction General Arrangement.

The proposed internal road network has been shown on engineering drawing 0007 Road Hierarchy Plan. Further details such as the proposed pedestrian and cycle facilities, and the proposed car parking throughout the development have been shown on the Proposed General Arrangement Sheets 0002 to 0006.

The sightline analysis undertaken for the development is shown on drawings 0101 to 0104.

The TTA also provides further details on the proposed signalised intersection and internal road network.

We also refer the Board to the TTA which sets out the cumulative assessment of the proposed development with other permitted and under construction developments.

The TTA's network and junction analysis highlights that the assessment of the phasing scenarios shows that the surrounding road network can support development for all design years without significant impacts on the road network or the requirement for mitigation measures. This is shown in greater detail in the TTA Chapter 6 Network Analysis where industry standard Linsig Results are shown and discussion on the modelling results and impacts on the network can be found.

The report of Wicklow County Councils Greystones Municipal District Engineer

Please see section 4 below which responds in detail to the Engineer's report as summarised.

2.4 Additional Documentation

Item No.	Documentation	Response
1	A report that addresses and provides a clear design rationale for the proposed design and character of residential units and details of the materials and finishes of the proposed	We refer the Board to the Architecture and Urban Design Statement and to the Landscape Visual Impact Assessment (LVIA) chapter of the EIAR.

Item No.	Documentation	Response
	development. Particular regard should be had to the requirement to provide high quality, robust and sustainable finishes and details which seek to create a distinctive character for the development, having regard to the highly visible location of the site.	
2	Clarification as to how the net density is being calculated. Details should include what areas are to be excluded (if any) in the density calculation and a justification for any such exclusions having regard to, inter alia, the Sustainable Residential Development in Urban Areas (2009).	<p>We refer the Board to the Statement of Consistency, Part A, section 2.4.1 which clearly sets out how density is calculated and the areas to be excluded.</p> <p>In relation to justifying the exclusions, these are addressed below:</p> <ul style="list-style-type: none"> • area zoned open space: 20,051 sqm • area zoned active open space: 23,554 sqm • Linear P1, which is the landscape buffer to the west: 20,248 sqm • Linear P2, which the landscape buffer to the east: 13,441 sqm • Public road (for drainage connection): 11,579 sqm • Proposed Coolagad Link Road: 8,096 sqm <p>We refer the Board to appendix A of the Sustainable Residential Development in Urban Areas which provides indication as to what can be excluded as follows:</p> <ul style="list-style-type: none"> • <i>major and local distributor roads;</i> • <i>primary schools, churches, local shopping etc.;</i> • <i>open spaces serving a wider area;</i> • <i>and</i> • <i>significant landscape buffer strips</i> <p>We make particular reference to Linear P1 and Linear P2. These two areas of land bounding the site to its east and to its west are excluded from development owing to their topography. Development is not possible on either of these two. We refer the Board to Figure 9 below which</p>

Item No.	Documentation	Response
		shows the area used to calculate the net density in blue.
3	A report that addresses and provides a clear rationale for the provision of a single building to accommodate both the creche and community facility. Revised documentation should include details of the long-term management of this building.	<p>The community facility and the creche have now been separated as desired by the Planning Authority.</p> <p>The community facility will be transferred to the council. The Community and Playing Field WCC Letter of Support is also submitted.</p>
4	Childcare demand analysis, including but not restricted to the justification for size and location of the proposed crèche, having regard to existing childcare facilities in the vicinity of the site and the likely demand for childcare places resulting from the proposed development.	<p>A Childcare Demand Analysis has been carried out as part of the application. The development would give rise to a need for 135 childcare spaces applying a childcare need of 20 spaces for every 75 units and omitting the one-bed units.</p> <p>We have also consulted with the Wicklow County Childcare Committee which identified the need for childcare spaces in North Wicklow and welcomed the provision of a new creche at Coolagad. It also noted the phasing for the delivery of the creche and that on foot of an operator taking over the facilities these may have their own requirements in terms of size which may result in subsequent amendments made to the facility should that be necessary.</p> <p>The creche is proposed to the north east of the site entrance. It was selected as the best location for such facility for a number of reasons:</p> <ul style="list-style-type: none"> ▪ It is the most accessible location of the site and any spare capacity that may arise would be easily accessible to any child leaving in north Wicklow. This would prevent additional vehicular movements into the site. ▪ As it includes parking spaces, those may be made available to other neighbouring uses outside the

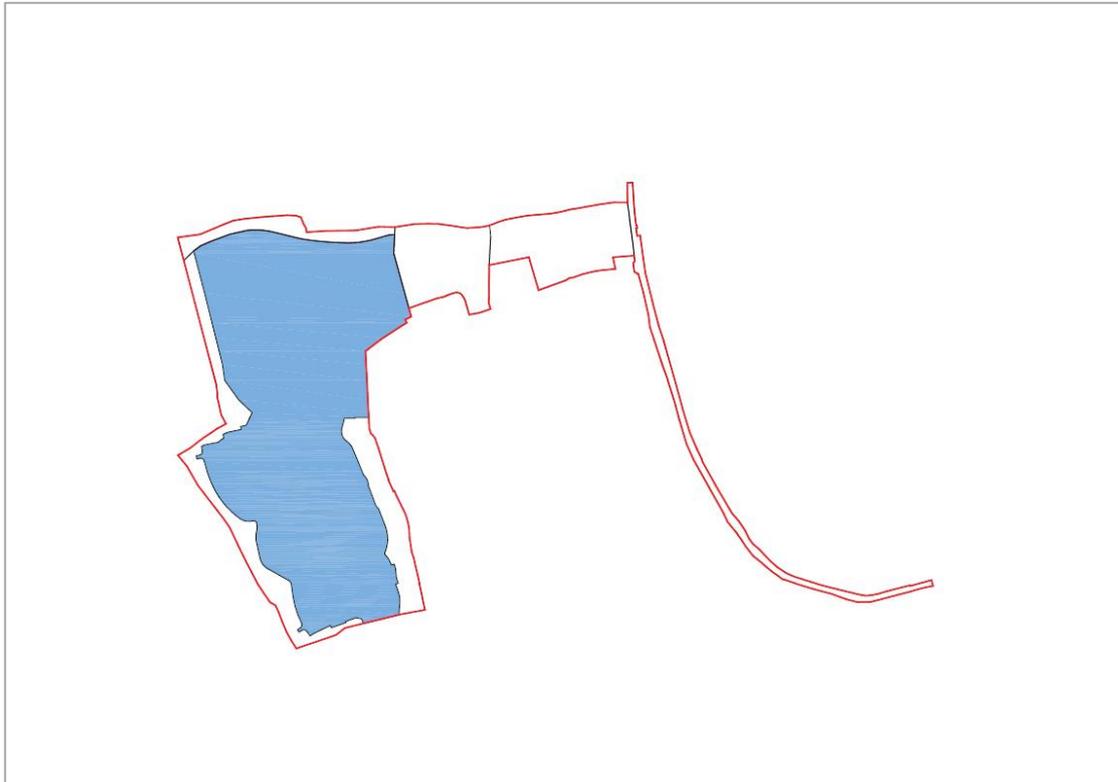
Item No.	Documentation	Response
		<p>operating days/hours of the creche, specifically the proposed playing field and MUGA and the existing cemetery located immediately east of the site entrance.</p>
5	<p>A landscape and permeability plan, with associated drawings including cross sections, clearly indicating the sites relationship with adjoining landholdings and how areas of public open space integrate with and enhance the development. Documentation should also include details of all boundary treatments.</p>	<p>We refer the Board to the landscape report prepared by KFLA which discusses the overall landscape strategy. The layout provides usable open space for future residents. Areas of open space and parkland are connected by linear green links which are based on existing landscape features.</p> <p>Desire lines through the landscape spaces are reflected in the path layout and will integrate with the general street layout to provide a high level of pedestrian permeability. Pedestrian permeability throughout the site and to adjoining sites has been provided linking with the existing and future proposed footpath network and passive surveillance has been considered throughout all the open spaces.</p> <p>We also refer the Board to the Architectural & Urban Design Statement which also addresses connectivity with adjacent landholdings as discussed in response to item 1e above.</p> <p>Further, we refer the Board to the following drawings: 110 – Boundary Treatment Plan North 111 – Boundary Treatment Plan South & Boundary Details Landscape Masterplan – Detail Area (drawing no. 104)</p>
6	<p>A report that addresses and provides a justification for the proposed housing mix.</p>	<p>The proposed housing mix includes 586 units as follows: 351 houses (207 no. 3-beds; 140 no. 4-beds and 4 no. 5-bed) 235 apartments to include duplex units (65 no. 1-bed; 123 2-bed; 15 no. 3-bed; 16</p>

Item No.	Documentation	Response
		<p>no 2-bed ground-floor duplex units and 16 no. 3-bed upper floor duplex units).</p> <p>In other words, the breakdown is as follows:</p> <ul style="list-style-type: none"> ▪ 1-bed units: 11.1% ▪ 2-bed units: 23.7% ▪ 3-bed units: 40.6% ▪ 4-bed units: 23.8% ▪ 5-bed units: 0.8% <p>The proposed mix is cognizant of:</p> <ul style="list-style-type: none"> ▪ The NPF which states: <i>‘currently, 7 out of 10 households in the State consist of three people or less, with an average household size of 2.75 people. This is expected to decline to around 2.5 people per household by 2040. Yet, the stock of housing in Ireland is largely comprised of detached and semi-detached houses with three to four bedrooms’</i> ▪ The Building Heights Guidelines 2018, specifically SPPR 4; ▪ The Greystones – Delgany and Kilcoole LAP 2013-2019, specifically RES13 which requires the provision of 3 to 4-bed houses. <p>The applicants also note observations in the Housing Strategy accompanying the Wicklow CDP which states (Appendix 3, p14):</p> <p><i>‘With respect to household composition, there is clearly a trend towards smaller households, and provision should be made in housing plans for more 1 and 2 bedroomed units. However, it needs to be borne in mind that c. 70% of all 2 person households (or 40% of all 1 and 2 person households) are either a husband and wife or cohabitating couple household with no children and while a proportion of these may be ‘empty nesters’, there is a strong likelihood that many of such</i></p>

Item No.	Documentation	Response
		<p><i>households could expand to 3 or 4 person households within the lifetime of this strategy.</i></p> <p>Over a third of the proposed units will be 1 and 2-bed units and the rest consists of 3+ bed units. Data from the 2016 census of population shows that, in Greystones, 43% of households consist of married/cohabiting couple with children and 21% of married/cohabiting couples without children.</p> <p>The housing strategy recognises that some of the 21% may go on to have children therefore requiring larger housing.</p> <p>It should also be noted, the location of the site is in close proximity to three schools.</p> <p>The applicants have been cognisant of:</p> <ul style="list-style-type: none"> ▪ The need to cater for smaller units for smaller households as envisaged in the NPF; ▪ The need to cater for larger units for larger households as envisaged in the LAP; ▪ The evidence arising from the census ▪ The location of the site. <p>As a result, they consider that the proposed housing mix is adequate.</p>
7	A building life cycle report in accordance with section 6.13 of the Sustainable Urban Housing: Design Standards for New Apartments (2020).	A building lifecycle report is provided.
8	A site layout plan indicating what areas, if any, are to be taken in charge by the planning authority, and the phased delivery of such public open spaces.	Please refer to PL09 Site Layout Plan Taking in Charge. We also refer to PL10 Site Layout Phasing Plan which shows the phased delivery of public open spaces.
9	A phasing plan for the proposed development which includes the phasing arrangements for the delivery of the public open spaces, community uses and Part V provision and	Please refer to PL10 Site Layout Phasing Plan. Infrastructure is delivered in the sequence as envisaged by the LAP.

Item No.	Documentation	Response
	demonstrates the requirement for a 7-year permission.	The applicants expect construction staging of 5 phases over approximately 3 years, and potentially extending to 7 years. The pace and timing of the phasing is highly dependent on unpredictable market conditions. The overall site design and phasing strategy takes account of the infrastructure and open space provisions together with the proportional provision of Part V dwellings, creche and community facility. However, it is feasible that market conditions would require alterations to any programme which is specified at this time and it is likely that it will be reviewed in the course of construction, if required.
10	School Demand and Concentration Report, which identifies demand for school places likely to be generated by the proposal and the capacity of existing schools in the vicinity to cater for such demand	A School Demand and Concentration Report accompanies this application.
11	Where the applicant considers that the proposed strategic housing development would materially contravene the relevant development plan or local area plan, other than in relation to the zoning of the land, a statement indicating the plan objective (s) concerned and why permission should, nonetheless, be granted for the proposed development, having regard to a consideration specified in section 37(2)(b) of the Planning and Development Act 2000. Notices published pursuant to Section 8(1)(a) of the Act of 2016 and Article 292 (1) of the Regulations of 2017, shall refer to any such statement in the prescribed format. The notice and statement should clearly indicate which Planning Authority statutory plan it is proposed to materially contravene.	A Statement of Material Contravention can be found in Part C of the Planning Report, Statement of Consistency and Material Contravention prepared by MacCabe Durney Barnes.

Figure 9: Extract from the Architect’s Urban Design Statement – area for the purpose of calculating density



3 Consultations

The Board requested the following be notified in the event of making an application:

- Irish Water
- Department of Education and Skills
- Wicklow County Childcare Committee

The above mentioned have been notified, please refer to the copy of correspondence.

4 Greystones Municipal District Engineer’s Report Dated 20th January 2021

This section provides a response to the Greystones Municipal District’s Senior Executive Engineer’s report on the pre-application made to An Bord Pleanála.

4.1 Waste Water

4.1.1 Engineer’s Report

The report raises the issue of deficiencies within the Irish Water public sewer network of Greystones, that that no upgrades to the network have been undertaken by Irish Water and that a pumping station cannot be considered as a viable alternative for this development.

4.1.2 Response

The applicants have secured a design acceptance letter from Irish Water. Connection to the Irish Water sewer network will be subject to a connection agreement. Due to capacity issues, the proposed foul water network will avoid the existing 300mm foul water sewer located in the R761. The proposed foul sewers have been designed in accordance with Irish Water's code of practice for wastewater infrastructure and will fall by gravity into the existing 375mm combined sewer via a new 300mm pipe to be laid along the R761 and Victoria Road roadways. For further details please refer to the Civil Infrastructure Report by AECOM.

4.2 Storm Water

4.2.1 Engineer's Report

The report, in summary, raises issues that the proposed development would present as a flood hazard to properties downstream and that the existing culvert from the stream, is of limited capacity and poor-quality construction. Flooding has occurred in Redford and Rathdown Parks. The report considers that not all sources of surface water have accurately been accounted for and volumes of surface water runoff are received by this site from Coolagad Hill and from the agricultural lands to the north. These lands to the north have not been considered in the drainage design calculations.'

4.2.2 Response

We refer to section 3 of the Civil Infrastructure Report by AECOM which specifically responds to concerns arising from the Engineer's Report. In summary:

- A catchment analysis of Kindlestown Hill was undertaken.
- An upstream attenuation strategy has been devised to prevent flooding occurring within the site and to minimise the risk of impact on further downstream locations.
- A number of mitigation measures are proposed to include swales and upstream attenuation systems

We also refer the Board to the Site-Specific Flood Risk Assessment prepared by AECOM which addresses any flood risks arising within and outside the site. The site-specific flood risk in particular states:

'the pluvial flood risk will be mitigated through an effective surface water and SuDS strategy. Similarly, a series of swales will intercept and collect the surface water runoff from the Kindlestown Hill and discharge it, at a control rate, into the existing stream within the site. The proposed discharge flow rate will be limited to what is currently being discharged to the stream such that existing flows within the stream are not increased as this could potential create downstream impacts.'

4.3 Roads

4.3.1 Engineer's Report

The report in relation to the pre-application submission raised issues of connectivity with the remainder of Greystones, sustainable transport, and traffic in the town centre. The report considers that the following needs to be addressed:

- Consideration of The Greystones Transport Study to assist in assessing development on the application site.
- Upgrading of the R761 Bray to Greystones Cycle route.
- Upgrading the R761 Blacklion cycle track provision
- Provision of the Chapel Road Upgrade Scheme
- Upgrading of the R761 Redford Junction.

4.3.2 Response

- a) At the time of submission of this application, the Greystones Transport Study had not been completed. We wish to note at the outset that this proposed development is plan-led. The application lands have been zoned through the Greystones – Delgany and Kilcoole LAP which was the subject of Strategic Environmental Assessment (SEA). This SEA assessed the Coolagad AP1 under material assets, particularly traffic. We note that it was given a green scoring. Importantly, the application includes the first phase of an important LAP road objective along the northern boundary, which will in due course link to the N11. The application includes a detailed traffic assessment. We refer the Board to the TTA which states that: *‘based on the analysis of junction, it is clear that with the inclusion of the inclusion of the development traffic would not result in unsatisfactory operation. The junction will continue to operate within capacity throughout the 2023 (opening year) to the 2038 (opening year + 15) assessment with the development in place.’* The applicants have also assessed public transport capacity as evidenced in the *Coolagad – Bus Service Occupancy and Public Transport Capacity Assessment* note submitted as appendices of the TTA. These identify spare capacity in the public transport network. We refer the Board on particular to the *‘Public Transport Capacity Assessment’* in the appendices of the TTA, particularly tables 4 and 5 which show capacity in public transports of over 60% in both directions. The report also which states in s.6.7 *‘the surveys and analysis clearly shows that there is a significant level of spare capacity in the current bus service in the peak hour in both directions at the point in the network adjacent to the Coolagad site.’* We also refer the Board to s. 6.10 of the same report which considers the impacts of Covid-19 on bus patronage. This section notes *‘The artificially low volumes of commuters due to the impacts of Covid -19 are partly reflected in the survey data. The extent to which they will recover back to “normal” levels is unclear. Bus patronage generally in Ireland is at approximately 70 - 75% of pre-Covid levels. This is similar to the trend in the Uk also. Factoring up the survey, increasing numbers by 33%, to get them to approximate “normal” levels, does not suggest any capacity impact of any consequence.’*
- b) In relation to the upgrade of the R761 Bray to Greystones Cycle Route, the applicants are proposing to undertake works to include for a section of the R761 Bray to Greystones Cycle Route. They have discussed and agreed the proposed works with the Council.
- c) It is our understanding that the upgrade of the R761 Blacklion cycle track provision is associated with the Redford junction upgrade. Proposed works on the R761 forming part of this application align with the planned works by the Council as can be seen on Proposed Arrangement Sheet 3 of 5 (Engineering drawing 0004).
- d) The provision of the Chapel Road scheme would have no significant impact on key transport desire lines between the subject site and Greystones town and therefore it is not envisioned that it should have a significant impact on the scheme and its accessibility options, as the Chapel Road scheme will not affect provisions along the R761 into Greystones.
- e) There is a planned upgrade for the R761 Redford junction, adjacent the Lidl store. AECOM has extended the traffic analysis for the proposed site entrance to include the upgraded R761 Redford Junction. The provision of cycle facilities has also been included in the design

and coordinated with the latest R761 Redford junction design, as provided by WCC on 1st March 2022. This helps improve cycle accessibility to the application site.

4.4 Schools

4.4.1 Engineer's Report

The report in summary considers that Greystones and its environs are severely deficient in school capacity while new schools are occupying temporary accommodation. The report considers that whilst sites are earmarked for development by the Department of Education and Skills the proposed development is premature and would force children in this development to travel a great distance to access schools, increasing car journeys.

4.4.2 Response

The response to these comments is two-fold. In the first instance, we refer the Board to the aforementioned School Demand and Concentration Report which states:

'The research undertaken identifies 9 primary schools, 4 post-primary schools located within c.5km distance from the proposed development site. Additional capacity has been identified and is planned for the area in the coming years according to the Department of Education's school building programme.'

It is estimated that the proposed development of 586 residential units will generate, at most, demand for 211 primary school places (aged 5-12 years) and 116 post-primary school places (13-18 years). However, it should be noted that these demands will not be generated instantaneously given that the scheme will be developed over several phases.

Having regard to the analysis of current school capacity and demographic data in the study area, together with the projected decline in student enrolments, it is concluded that there is capacity within the catchment area to cater for the school aged population generated by the proposed development in existing and planned schools within the area.'

It may also be noted that the role of school provision is the responsibility of the Department of Education and Skills to plan and coordinate the delivery of schools in tandem with new development. There is no objective on the residential, community and open space site for a school. The application site is adjacent a school campus of three schools. Further, the provision of a school has not been raised by the Planning section of the Council in the submission to the Board.

We also note that a number of schools enter agreements with public transport providers with a view to organise buses to and from schools. A number of schools in Greystones already avail of such schemes.

4.5 Employment

4.5.1 Engineer's Report

In summary, the Engineering report points to lack of employment opportunities and that the proposed development would lead to a huge increase of car journeys towards Bray on the R761 and Dublin along the N11/M11 and M50.

4.5.2 Response

The provision of employment of the application lands falls outside the scope of this SHD application, as there is no zoning that would allow for significant employment opportunities on the site. We refer the Board to the TTA prepared by Aecom which has undertaken a proposed trip generation assessment (s.5.3.2) which has assessed the proposed development site's receiving road network along with the existing and proposed public transport network.

The assessment has shown that the public transport network has adequate capacity for the peak hour, even for the sensitivity test assessed scenario of 15% of total trips from the site being undertaken by bus in the peak hour, as shown in the Coolagad Bus Capacity assessment (appendix E of the TTA), the bus services still operated with significant peak hour capacity available. The assessment of the overall site using Linsig and the industry standard TRICS database to determine peak hour vehicular trips to be expected onto the network, providing a robust assessment of vehicular and public transport trips on the network. The Linsig output files, shown within the TTA, provide information that the site's receiving environment will operate within capacity for the proposed development.

In addition to the traffic and transport report prepared by Aecom, the Board may note the Department of Enterprise, Trade and Employment (DETE) Draft Scheme of the Right to Request Remote Working Bill 2022. This Bill has *“been published as part of the government vision to make remote working a permanent feature of Ireland's workforce in a way that can benefit all – economically, socially and environmentally”* (DETE). The term remote work refers to the arrangement where work is fully or partly carried out at an alternative worksite other than the default place of work. The General Scheme has been informed by the public consultation and significant engagement from both employer and employee representative groups, and also a review of international best practices. As Ireland emerges from the Covid pandemic, the working from home concept has significantly changed and new patterns of commuting to work are emerging and are yet to be assessed over an appropriate period.

The Central Statistics Office (CSO), *Frontier Series Output Snapshot of Results*, indicates the following valuable insight to attitudes to remote working.

“Remote Work

- *Of those who could work remotely, 88% said they would like to work that way all (28%) or some (60%) of the time when all pandemic restrictions are lifted*
- *For those who currently work remotely, 98% of them do so from home*
- *More than four in ten (45%) of those in employment would consider a house move if they could work remotely, some having moved already*
- *On days that people work remotely compared to days they are in the office, 74% said they made less trips by car, with 47% saying their trips on foot had increased*
- *Of those who said they would consider using a remote-work hub, 44% said they would travel up to 15 minutes to get to one, with an additional 45% saying they would travel up to double that time*
- *Almost three-quarters (74%) of remote workers feel they have more time on their hands, because of their ability to work remotely, to do things they never got the chance to do before the pandemic. They are mainly doing more domestic tasks, exercising, and spending more time with family and friends*
- *For those not in employment nearly six in ten (58%) said they would consider taking a job if their work could be done remotely*

- *Just under half (46%) of workers felt that working remotely would not affect their opportunities for promotion, 4% said it would affect these opportunities in a positive way, 22% in a negative way with the remainder (28%) saying they did not know.”*

<https://www.cso.ie/en/releasesandpublications/FP/FP-PSOLO/pulsesurvey-november2021-ourlivesonline-snapshotofresults/snapshotofresults/>

A new census will be carried out in April 2022 that will demonstrate the changes that are occurring in commuting patterns, but it is reasonable to assume that more people will have the option to work from home than was available in the past and will avail of new patterns of working.

It may also be noted that the application site is zoned for residential, open space and community uses and not for employment. The Eastern and Midlands Regional Spatial Strategy 2019-2031 includes planned development of strategic development areas in Donabate, Dunboyne, Leixlip and Greystones.

4.6 Comments on the Specific Design as summarised

The summarised comments are provided in table format as below.

4.6.1 Roads

Comment	Response
No DMURS Street Design Audit has been provided as required.	Please refer to Section 4 of the TTA.
The level of detail of the proposed main access road junction with the R761 is poor.	Please refer to: <ul style="list-style-type: none"> ▪ proposed general arrangement sheet 3 of 5 ▪ proposed road and site levels sheet 3 of 5 ▪ proposed signalised junction general arrangement
No cycle facilities have been provided for through the junction of the R761 with the proposed main access road.	Cycle facilities are now provided. Please refer to proposed general arrangement sheet 3 of 5 and proposed signalised junction general arrangement.
Justification for the location of the proposed junction of the main access road to the R761 should be provided. The Council has concerns that; <ul style="list-style-type: none"> ▪ Proximity to the junction with the L97612 Seaview Cottages. ▪ Funeral parking in the proposed car park of the development may not use the pedestrian crossing at the junction. 	The junction has been moved south approximately 10m. The proposed left turn lane into the site required a widening of the roadway and so the junction was relocated as far south as possible without impacting on third party lands, as there is an existing residential property opposite the Redford cemetery which could not be impacted. The proposed site entrance junction is now circa. 40m from the existing entrance to the cemetery.

Comment	Response
<p>Traffic data provided for in Section 5.2 of the Aecom Traffic and Transport Assessment is flawed. Wicklow County Council's data shows differing peak hours /peak traffic volumes.</p>	<p>The traffic data has been updated and extended to include the Redford junction data.</p> <p>TTA uses updated WCC counts and information from Redford junction. Data is November 2019.</p>
<p>No cycle facilities have been provided for along the main access road.</p>	<p>An off-road cycle path was deemed more appropriate to serve the development at this point in time. It provides for shorter distance travelled.</p> <p>Notwithstanding this, the applicants are cognisant of future needs so they also propose a reservation to the north of the distributor road. This reservation can accommodate a cycle path. The road and the reservation will be taken in charge by the Council.</p>
<p>The main access road is too straight and will lead to undesirably high speeds.</p>	<p>The main access roadway has been realigned to include additional curvatures to promote lower speeds.</p>
<p>The main access road being Road Objection ROI of the Greystones, Delgany and Kilcoole LAP should be realigned so as to be contained entirely within the site and not have a portion of it off site as shown.</p>	<p>The applicants have redesigned the alignment of that road so that it now forms part of the lands in their ownership. They will deliver the entire extent of the road insofar as it is on their lands in Phase 1 of the development. Please refer to figure 1 which shows the realigned road and to engineering drawing 0002- Proposed General Arrangement Sheet 1 of 5</p> <p>The applicants are proposing to deliver the road subject to the road objective R01 from the junction with the R761 to the east, all the way to the western boundary of their landholding. It will be delivered in one phase.</p>
<p>There are two future road connections shown to the north of the main access road which should be omitted as the lands to the north are not zoned for development.</p>	<p>These have been omitted as part of the final application. It may be noted that these lands are zoned for development</p>
<p>Road and footpath widths and junction radii values have not been shown on any drawings.</p>	<p>Please refer to engineering drawing 0007 Road Hierarchy Plan for the proposed road hierarchy and respective road widths.</p>

Comment	Response
	<p>Refer to engineering drawings 0002 to 0006 Proposed General Arrangement Sheets for the proposed road and footpath widths and radii.</p> <p>Refer to engineering drawing 0700 Proposed Signalised Junction General Arrangement for the proposed junction road and cycle lane widths.</p>
<p>Many of the roads are too long and straight, e.g. Street 11, which will encourage higher traffic speeds.</p>	<p>The internal layout for the proposed development has been totally revised to reduce the linearity of the internally roadways. The road layout has been development through close liaison with the WCC Road department, incorporating their feedback.</p>
<p>The junctions of street 13 to 15 as well as streets 14 to 15 and 16 are very poor in layout which will cause confusion for drivers as to who has the right of way.</p>	<p>This part of the site has undergone significant redesign.</p> <p>The new road layout has been developed through close liaison with the WCC Road department, incorporating their feedback.</p>
<p>The proposed future pedestrian access to the school at the eastern boundary adjoins private property that separates the school from the development. The applicant should ensure a pedestrian/cyclist link can be provided with the development. How is this connection envisaged to be completed?</p>	<p>The developer will work in conjunction with the Council and adjoining landowners toward providing a link to the school campus. The applicants have made all reasonable efforts to provide connections as far they fall within lands under their control.</p> <p>Cairn Homes Properties will support initiatives to deliver this link in a feasible and timely manner as deemed fit by the Council and the Board.</p>
<p>The feasibility of future road and footpath connections to adjoining lands should be fully designed including the vertical plane.</p>	<p>Refer to engineering drawing 0607, Section T2 showing the longitudinal section of the proposed access roadway where it ends at the western boundary, tying into existing levels to facilitate future extension of this roadway.</p> <p>Refer to engineering drawing 0609, Section T8 showing the longitudinal section of the proposed Street 18 where it ends at the southern boundary, tying into existing levels to facilitate future extension of this roadway.</p> <p>All proposed road longitudinal sections are shown on engineering drawings 0616 to 0622.</p>
<p>The road crossings over the stream should be by way of road bridges and not</p>	<p>The road crossings over the stream have been designed to be bridge crossings, as requested,</p>

Comment	Response
culverts in order to minimise the impact on the existing stream ecology.	refer to engineering drawings 1701 and 1702 for the bridge crossing general arrangement.
The proposed Taking in Charge drawing is not acceptable.	Please refer to PL09 Site Layout Plan Taking in Charge.

4.6.2 Storm Drainage

Comment	Response
It is unclear from the details submitted how the swales operate, i.e. how is the run off diverted to the swales.	The drainage design has been revised for the proposed development and these large swales, once shown in the centre of the site within open space areas, have been removed from the proposal. Refer to engineering drawings 0501 to 0507 for further detail on the proposed drainage network.
The proposed pond shown on the Aecom drainage drawings does not correlate on drawings.	The drainage design has been revised for the proposed development and is coordinated across all discipline drawings.
The existing drainage ditch along the northern boundary is not shown on the existing drainage drawing. It is understood that the pipe flows in a southerly direction towards the existing drainage ditch. The northern boundary drainage ditch does not, as far as the Council is aware, flow in an easterly direction across the R761 towards the cemetery as is described in Section 3.1 of the Aecom Engineering Design Report. The actual route of this outfall should be fully surveyed and verified in order to make a proper assessment.	An additional survey was undertaken across the site and it has been confirmed that the drainage ditch drains to an existing culvert which drains south. Refer to engineering drawing 0503 for further details.
The proposed storm sewer section S82 to S89 is shown to be all in the rear of private residential properties with no access for the local authority for maintenance purposes should be	The drainage design has been revised for the proposed development. No drainage is proposed in the rear of private properties.

Comment	Response
redesigned so that the sewer is not in private property.	
<p>There is also a proposed cut off ditch running the length of the south eastern boundary with the Waverly development in rear gardens of private properties and it is more likely that residents would simply fill it in. It would also mean openings in side boundaries between private properties which would be highly irregular.</p> <p>The proposed storm sewer section S105A to S105B to S105 should be rerouted so as to avoid the unnecessary stream crossing.</p>	<p>Refer to engineering drawings 0521 to 0524 and 0527 for further detail on the proposed swale which will deal with the overland flow from the upstream catchments.</p> <p>No swales are proposed in the rear of private properties.</p>
The proposed cut off ditch along the western boundary shows no measures to reduce the runoff rate to the stream.	The revised drainage proposal now includes attenuation for the upstream catchment to limit discharge to the existing stream. Refer to Section 3.1 of the Civil Infrastructure report which details the upstream catchment analysis and attenuation strategy.
The existing piped spring along the south eastern boundary is shown to remain piped. This should be reopened and integrated into the open space.	The existing spring to the east of the development within the large open space is proposed to be enhanced and integrated into the open space, refer to the landscape architectural drawing package for details.

4.6.3 Waste Water

Comment	Response
The proposed foul sewer F67 to F68 should be rerouted to avoid an unnecessary stream crossing.	<p>Considering the proposed levels for development which ensure adequate flood exceedance routes, the foul sewer drainage network requires two stream crossings to avoid the need for pumping. The foul sewer crossings will be suspended over the existing stream.</p> <p>The pipe invert levels for foul sewer stream crossings will be circa. 1.155m and 1.602m above the existing stream invert levels, for the western and eastern crossings, respectively.</p>

Comment	Response
<p>Should a connection into the Redford Park foul sewer be permitted by Irish Water it should be done so on the existing 300mm diameter pipe on the north western side of the Redford Junction and the sewer from the site should be laid along the western edge of the R761 and not down the centre of it as shown.</p>	<p>The applicants have secured a design acceptance letter from Irish Water. The proposed foul sewers have been designed in accordance with Irish Water’s code of practice for wastewater infrastructure and will fall by gravity into the existing 375mm combined sewer via a new 300mm pipe to be laid along the R761 and Victoria Road roadways. For further details please refer to the Civil Infrastructure Report by AECOM</p>

4.6.4 Outline Mobility Management Plan

Comment	Response
<p>Section 7.2 states that it will be an objective to discourage private car as a means of travel to and from the development. Given the location of the development at the far extents of the town of Greystones and the poor linkages provided by the development, the development itself would result in nothing else other than increased private car use within the town and surrounding area.</p>	<p>The car parking provision for the development is in line with the WCC requirements and the Apartment Design Guidelines. WCC’s parking policy aims to encourage alternative use to the car where public transport options are available.</p> <p>In order to encourage active travel full provision of the WCC/New Apartment Guidelines has been applied to the site. The site is approximately 1.6km from Greystones town centre and is approximately 2.1km from Greystones station. this is not considered an unreasonable distance to walk and is easily cycled.</p> <p>Cycle parking including improved connectivity for cyclists is proposed as part of the development. Pedestrian and cyclist access has been provided throughout the development as part of the proposal.</p> <p>Cycle lanes have been provided to connect into the existing Redford junction cycle facilities and northbound as far as the existing bus stops to the north, which further tie into the R761 Bray to Greystones cycle route.</p> <p>Further to this, existing trends in the area suggest that 39% of people in the area use private car for travel to school/work with 33% of people travelling by public transport or active travel modes, without any form of mobility management measures in place.</p> <p>As the area already shows active travel trends and uptake within the local area, it is not an</p>

Comment	Response
	unreasonable assumption to make that with the promotion of active travel that a significant amount of sustainable travel can occur from the proposed development site.
<p>Many of the initiatives suggested place too much merit on their potential success in the mobility management plan.</p> <p>Of note, to install good quality cycle parking provision on site initiative is welcome, the detail of these is not provided nor are the locations shown on any drawings. Bike parking for residents should be in a covered and secure lockup only accessible by residents. Visitor bike parking should be covered.</p>	<p>A revised mobility management plan is submitted as part of this application.</p> <p>Cycle provision is in accordance with the County Development Plan in secured and covered locations.</p>
<p>As part of any Mobility Management Plan targets should be set and legally imposable financial penalties should be created for the developer for any targets not met.</p>	<p>This is a matter for the Board and the Planning Authority. However, traditionally an MMP is undertaken utilising the Outline MMP after a year of occupancy, when residents’ travel trends are more established and accurate baseline data can be determined, and then subsequently realistic and appropriate targets can be set.</p> <p>Using these established targets, the MMP can address any excessive private car occupancy reliance by promoting and providing good sustainable travel alternatives and highlighting their benefits over private car usage.</p>
<p>The developer should be conditioned to provide a private bus service to and from the town centre, i.e. the train station at peak periods.</p>	<p>There are adequate public transport services and walking and cycling routes to facilitate reasonably easy access to Greystones town centre. In addition, a Public Transport Occupancy survey was carried out to determine that significant capacity was available within the local network for travel to Greystones and Bray. Accordingly, as the public transport network has available reserve capacity, it is not deemed necessary to provide additional bus services to Greystones, located approximately 2.1km from the development, especially considering the plethora of cycle parking and infrastructure provided by the proposed development, and existing comments regarding the intensification</p>

Comment	Response
	<p>of the existing network with additional unnecessary vehicular trips.</p> <p>We refer the Board to the Coolagad – Bus Service Occupancy and the Coolagad Capacity Assessment both in the appendices of the TTA which review the capacity of public transport.</p>

4.7 Outline Construction Traffic Management Plan (OCTMP)

4.7.1 Engineer’s Report

In summary, the proposed alternative route proposed is not considered feasible. An alternative route may be feasible in the future pending the completion of the Chapel Road Upgrade Scheme.

4.7.2 Response

The TTA presents an Outline Construction Traffic Management Plan. This plan outlines the expected construction traffic impact for the proposed development, including likely, but not committed construction traffic routes. These routes are subject to contractor design and the completion of a Construction Management Plan.

The Primary Route outlined used the R761 going to/coming from the north for access to the site, as this provides the least impact onto the town of Greystones and its residents in an urban area. The secondary route proposed was an alternative option for access to the site which did not access via the north and R761, as this was included for in the Primary route, and this secondary route aimed to not travel via Greystones town, as this would likely cause significant traffic impacts on the town centre of an urban area.

Both the primary and secondary routes however, are not fixed and would be further explored and determined by contractors upon submission of a Construction management plan. Notwithstanding this, the applicants would accept a condition to that effect.

