Addendum Inspector's Report
ABP-306339-20

Development	Construction of 3 part single storey part 1 ½ storey houses and new vehicle entrance, new connection to public sewer along with all associated site works.
Location	Kirikee, Greenane, Co. Wicklow.
Planning Authority	Wicklow County Council
Planning Authority Reg. Ref.	19356
Applicant(s)	S. McGleenan
Type of Application	Permission
Planning Authority Decision	Grant subject to conditions
Type of Appeal	Third Party v. Decision
Appellant(s)	Tom Byrne & Michelle De Lacey
Observer(s)	None.
Date of Site Inspection	5th May, 2020
Inspector	Robert Speer

1.0 **Introduction**

1.1. This addendum report has been prepared in response to the Board Direction issued on 29th May, 2020 which sought the submission of additional information from the applicant with respect to the proposed development. It should be read in conjunction with the information which accompanied the initial planning application, the grounds of appeal, the submissions received, and my earlier inspector's report.

1.2. By way of background, and in the interests of clarity, it should be noted that whilst a report was previously discharged in respect of the subject application (as originally lodged with the Board) which recommended that permission be refused for the proposed development for a single reason, the Board opted to defer consideration of the application and issued a Section 132 Notice on 23rd June, 2020 which advised the applicant that the submission of certain additional information was necessary to enable the Board to determine the appeal.

1.3. The Section 132 Notice issued by the Board invited the applicant to submit (on or before 14th September, 2020) the following information:

- Having regard to the proximity of the subject site to the Avonbeg River, and to the submissions made as part of the application and appeal, and having regard to the planning history of the subject site under planning authority register reference number 17/998 (and in particular reason number 2 of that refusal), it is considered that the proposed development may be at risk of flooding (including pluvial flooding) and/or that the proposed development may have a detrimental impact on the existing flood regime in the area, or pose a risk of flooding to adjoining lands.

  You are required to submit the following:

  A site-specific Flood Risk Assessment, in accordance with the principles set out in the Planning System and Flood Risk Management, Guidelines for Planning Authorities, issued by the Department of the Environment, Heritage and Local Government and the Office of Public Works in November 2009 (including Technical Appendices). Such assessment shall be prepared by a suitably qualified hydrologist or civil engineer with specific experience and/or qualifications in this area, and shall include a full examination not only of the

flood risk to the proposed development but also an assessment of the impacts of the proposed development in relation to flood risk to adjoining lands and to the general area.

2.0 First Party Response to Section 132 Notification

2.1. On 14th & 15th September, 2020, Dreyer Associates, Architecture / Urban Design, on behalf of the applicant, submitted additional information to the Board in response to the Section 132 Notice which included the following documents:

- A covering letter compiled by Dreyer Associates, Architecture / Urban Design
- A Flood Risk Assessment Report (prepared by Irish Hydrodata Limited)
- Proposed Site Plan (Drg. No. 543-01 Rev. B)
- Proposed Plans (Drg. No. 543-02 Rev. B)

2.2. The principle purpose of this documentation is to provide the Board with sufficient information to enable it to assess the flood risk management implications of the proposed development.

2.3. By way of summation, the site-specific flood risk assessment provides for an examination of the flood risk to the proposed development and any impacts arising from the proposal in relation to the flood risk posed to adjoining lands and the general area. At the outset, it states that following an initial assessment, it was evident that parts of the development (as originally submitted) lay within an area at risk of flooding and as such would not be in keeping with the requirements of the *'Planning System and Flood Risk Management, Guidelines for Planning Authorities, 2009'* and, therefore, the decision was made to alter the site layout and to move the proposed dwellings closer to the public road and in line with the existing buildings on either side. Accordingly, it is of importance to note that the flood risk assessment has considered this revised site layout.

2.4. The FRA proceeds to identify fluvial flooding as the only significant risk by reference to the site location bounding the Avonbeg River and as the lower part of the site is likely to flood on a regular basis. Although there is no detailed flood mapping available for the area with the OPW website having no record of flooding events within the site itself, it is acknowledged that there are recorded instances of recurring

flooding along the public road c. 1km further east and that the appellants presented photographs of flooding within parts of the site and on surrounding lands in their submission to the Planning Authority dated 2nd May, 2019. The report then identifies the following proposed works within the site as being relevant to flooding:

1. The construction of 3 No. dwellings on the elevated part of the site.
2. The construction of a raised garden / deck area to the rear of the proposed dwellings.
3. The provision of underground geo-cellular storage (300m^3) to compensate for the loss of floodplain storage arising from the construction of the rear garden / deck areas (please refer to Figure 1.4 of the FRA).
4. The provision of a cleared grassed area with post and rail fencing on the remainder of the site.

2.5. In assessing the flood risk, the analysis has adopted the following methodologies:

- An estimation of the peak 1% AEP river flood flows;
- The application of an uplift for mid-range (MRFS) and high end (HE) climate change; and
- The calculation of the water (flood) levels at various locations within and adjacent to the site for the existing situation and for the proposed development scenario.

2.6. In estimating the Avonbeg River Peak Flood levels, the peak flows were established by way of methodologies outlined in the OPW's Flood Studies Update. In this regard, the catchment characteristics were determined from the OPW FSU web portal (and are listed in Table 2.1 for a river node location just downstream of the site) and these parameters were used to calculate a median flood of 42.33m^3/s. Given that the Avonbeg catchment is ungauged, the report continues by stating that an appropriate adjustment factor needs to be derived from a similar gauged catchment so as to improve the accuracy of the estimate and thus it proceeds to apply a catchment adjustment factor (CAF) derived from the nearby Laragh catchment due to the nature of the site which produces a $Qmed_{adj}$ of 76.9m^3/s. A growth factor of 2.26 for the 1% AEP is then applied on the basis of data presented in the Eastern CFRAM Hydrology Report which results in a current climate scenario (CS) peak flow of 173.3m^3/s. By

applying an increase of 20% to this figure, the Mid-Term Climate Change 1% peak flow is calculated as 208.4m^3/s whilst a further increase of 20% will give an estimate of the High-End future climate flow (250.1m^3/s).

2.7. Section 2.3 of the FRA subsequently develops 2 No. terrains for the study area by combining a Digital Terrain Model with topographical survey data thereby resulting in the following models:

1. The existing terrain incorporating the DTM data, the site survey and interpolated river channel;
2. The proposed developed terrain which includes the addition of the proposed dwellings with a floor level of 118.75m and the geo-cellular storage underneath the rear deck area.

2.8. Following on from the foregoing, hydraulic modelling of the river was undertaken over an area extending c. 300m upstream and downstream of Strand Bridge (with the site itself located in the approximate centre of the model) which applied the flow hydrographs at the upstream boundaries with a normal depth condition at the downstream boundary whilst utilising Manning coefficients to describe the roughness of the river channel and the floodplain terrain.

2.9. Regrettably, as there is no high flow data available for this section of the river, it has not been possible to calibrate the river model, however, it has been asserted that the validity of the modelling has been ensured through the selection of appropriate model parameters and conservative peak flood values.

2.10. By utilising the aforementioned data sets, Section 3 of the FRA proceeds to detail a series of modelled simulations for various peak flood scenarios (i.e. 'Current Climate', 'Mid-Range Future Climate' & 'High End Future Climate') for both the existing terrain situation and with the proposed development in place for comparison purposes.

2.11. Figure 3.1 details the flood extent for the 'Existing Terrain' and illustrates the area impacted at the maximum flood level for the 1% AEP Current Climate Scenario flood flows in the Avonbeg River. Widespread inundation is predicted in the general Kirikee area and within the application site, although none of the proposed buildings are shown to be impacted (on the basis of the revised site layout whereby the proposed dwellings have been moved northwards onto more elevated lands closer to

the public road). In the 1% AEP(MRFS) & 1% AEP(HE) simulations presented in Figures 3.2 & 3.3 respectively, it is submitted that the increasing of the peak flows will not significantly increase the overall inundation of the wider area although flood waters will extend c.10m further north into the subject site.

2.12. Figures 3.4, 3.5 & 3.6 detail the flood extent model simulations with the proposed development in place for the 1%AEP(CS), 1%AEP(MRFS) & 1%AEP(HE) scenarios respectively. The underground geocell compensatory storage will be provided below the deck area to the rear of the three dwellings. This area is now able to flood commencing at a water level of about 116.3m and continuing up to 117.3m. The flood waters are shown as extending further into the site for the 1%AEP(CS) flood scenario and the entire storage plan area is inundated during the higher flood events.

2.13. Hydrographs were also generated for the existing and proposed development scenarios at locations deemed to be representative of the existing municipal wastewater treatment plant, Proposed House Sites A, B & C, and the adjacent (appellants) dwelling house to the east of the site. These calculations determined that there would be no measurable change in water levels at any of the locations as would be expected given that the floodplain storage volumes are to be maintained through the provision of compensatory storage. The predicted water levels for the 1%AEP(MRFS) design event are just above 117m at the rear of Site A and just below it at Site C.

2.14. Similarly, no differences are noted to be evident between the simulation results for the existing and proposed scenarios as regards the predicted maximum water levels along the centreline of the river channel (Section 3.5: '*Longitudinal Water Surface Profile Comparison'*).

2.15. With regard to the velocity mapping generated for two of the peak flood scenarios, 'Existing 1%AEP(MRFS)' & 'Proposed 1%AEP(MRFS)', no significant differences are recorded between the simulation results for the existing and proposed situations at the wastewater treatment plant or at the appellants' house to the east, although a small increase is evident at Proposed Site B due to the localised inflow into the storage area (in reference to the compensatory storage).

2.16. Therefore, in summarising the results of the hydraulic modelling, the analysis indicates that the proposed development (based on the revised site layout) will not impact on flood water levels on site or within the surrounding area. It is also stated that the proposed rear garden / decking areas will not project significantly into the floodplain and will not alter the flow patterns (noting that the floodplain during the design flood event is c. 130m wide at this location). Furthermore, the provision of the compensatory storage under the garden / deck area will offset any loss of floodplain storage (although it is also suggested that even without this provision the impact on flood storage would be negligible).

2.17. Having modelled the various flood scenarios, Section 3.8 of the FRA notes that the proposal primarily comprises '*highly vulnerable'* development as per the '*Planning System and Flood Risk Management, Guidelines for Planning Authorities, 2009'* and proceeds to apply the 'Justification Test' (Box 5.1) applicable within Flood Zones 'A' & 'B' as set out in the Guidelines. It then makes the case for the proposal as follows:

1. The site is located within an existing development boundary.
2.

    i) The proposed buildings will be located on the elevated part of the site while the rear deck incorporates a compensatory geo-cellular storage area thereby maintaining the floodplain storage volumes. There will be no impact on adjoining properties and the development will not increase flood risk elsewhere.

    ii) The buildings with a finished floor level of 118.75m will be well above the 1%AEP(MRFS) flood level of 117m and, therefore, there will be minimal additional risk to people or property.

    iii) There will be no residual risk to the structures.

    iv) The development is compatible with the wider planning objectives for the area.

2.18. Section 4 of the FRA concludes by reasserting that whilst the development as initially submitted encompassed an area of floodplain, the revised layout ensures that the proposed dwellings are located outside of the flood zone. Furthermore, although the rear garden / deck areas of the proposed housing will be within a potential flood

zone, compensatory flood storage has been provided to offset any impact on the floodplain. It is further stated that the hydraulic modelling has predicted that there will be no changes to water levels either within the site or on adjacent properties consequent on the development and that levels along the river channel will also remain unchanged. In addition, flood water velocities will be unchanged save for in the area adjacent to the compensatory storage where a small increase is predicted.

2.19. Accordingly, the FRA has concluded that the proposed development (as revised) will not alter the river hydraulics and will not pose an increased flood risk to adjoining properties.

2.20. The covering correspondence provided in response to the Section 132 notice broadly reiterates the aforementioned findings, however, it also states that whilst the preference is to make no changes to ground levels and to construct raised decking to the rear of each house, should the Board deem it preferable to raise the ground levels to the rear of the housing to provide for higher level garden spaces, the flood risk report has detailed the methodology for the provision of compensatory flood storage in such a scenario.

3.0 Responses to the Circulation of the Applicant's Submission

3.1. *Response of the Planning Authority:*

None.

3.2. *Response of the Third Party Appellants (Tom Byrne & Michelle De Lacey):*

- It is noted that the proposed dwellings have been redesigned so as to ensure they are located at a higher elevation closer to the public road and thus further away from the floodplain. However, despite the assertion that the houses are '*completely clear of the maximum extent of the extreme high water line'*, it is apparent from the flood level mapping included in the Flood Risk Assessment that the predicted water levels will come right up to the rear of the dwellings and that the individual housing plots are within a floodplain.
- Whilst the Flood Risk Assessment states that the layout of the proposed development was revised so as to ensure that the dwelling houses would be outside of the floodplain, the proposed decking areas will nevertheless remain

within the area subject to flooding. Considering the small margins involved, the appropriateness of the development is therefore questioned.

- The proposal to offset any flood impact by way of compensatory storage is unworkable as the subject lands act as a natural swale where waters flood and recede naturally. The storage of flood waters by way of attenuation will serve to exacerbate the existing situation (with the appellants having regularly witnessed flooding of the site).
- Although the applicant's agent and hydrologist have stated that there will be no increased risk of flooding to adjoining properties, these statements have been made for the benefit of obtaining planning permission and, therefore, the appellants will hold both these parties responsible should permission be granted.
- Concerns remain that the proposed development and its associated drainage arrangements will alter the existing flooding regime and will divert floodwaters onto the appellants' property.
- The foul sewerage pipework is shown on the revised site layout plan as having been relocated to the front of the proposed dwellings, presumably to ensure that the sewer manholes do not flood, and it is considered that this revision lends weight to the appellants' concerns as regards the flooding implications of the overall development.
- The proposed sewer line will drain to a manhole at a lower level, which would appear to be either in or on the periphery of the flood zone, before connecting to the local sewerage treatment plant. The existing municipal treatment plant regularly floods with the pumphouse and treatment unit submerged by flood waters when the river bursts its banks which results in pollution of the river.
- An accompanying photograph (Photo No. 2) details the timber framework of a stable block being built towards the rear of the site. This shows the depth of flooding that occurs.
- Photo No. 3 shows recent flooding along the laneway to the west of the site and if these floodwaters were to enter the proposed housing sites the foul

sewer manholes would be surcharged giving rise to the release of untreated effluent.

- The residential zoning of the site does not guarantee planning permission should other considerations arise, such as floodplains. It appears that the site was zoned without a proper assessment of the topography and the implications for flood risk management.

4.0 Further Third Party Observations

None.

5.0 Further Assessment

5.1. This addendum report has been prepared in response to the Board Direction dated 29th May, 2020 and the Section 132 Notice issued to the applicant on 23rd June, 2020. Accordingly, the following assessment has been confined to consideration of those issues raised by the additional information provided by the first party and the submissions received from other interested bodies / persons. It should be read in conjunction with the information that accompanied the initial planning application, the grounds of appeal, all other submissions received, and my earlier inspector's report.

5.2. Flooding Implications / Flood Risk Assessment

5.2.1. From a review of the additional information, it is of relevance at the outset to note that the site-specific Flood Risk Assessment has acknowledged that the initial proposal, as lodged with the Planning Authority (and subsequently considered on appeal in my earlier inspector's report), would have entailed development within an area at risk of flooding. Accordingly, in response to the foregoing concerns, the applicant has submitted a revised site layout (Drg. No. 543-01 Rev. B: '*Proposed Site Plan'*) whereby the proposed dwelling houses have been moved closer to the public road onto a more elevated part of the site and it is this revised plan which has been the subject of the site-specific Flood Risk Assessment (FRA).

5.2.2. Whilst I would acknowledge the rationale for revising the site layout in order to address the potential flooding implications that would otherwise be associated with the proposed development, in my opinion, fundamental difficulties arise in the

assessment of the amended proposal given certain deficiencies in the information provided. I would further suggest that the Board may wish to consider whether or not the revised layout amounts to a material departure from the original application which would give rise to new planning considerations and thus would constitute significant further information thereby warranting the publication of new public notices.

5.2.3. My primary concern as regards the appropriateness of assessing the merits of the revised site layout derives from the corresponding proposal evident from the site plan to replace the 3 No. house types originally proposed with an entirely new series of house designs, the details of which (including suitably scaled floor plans, elevations & sectional drawings) have not been provided in response to Section 132 Notice. In the absence of a full set of plans and particulars relating to the new house designs, it is not possible to undertake a fair and balanced assessment of the wider implications of the revised proposal, including the suitability of the submitted designs and their potential to impact on the amenities of neighbouring properties. This is of particular note in that the proposed houses have not only been moved closer to the public road onto more elevated lands thereby increasing their visual impact but have also been positioned closer to the appellants' private residence. In my opinion, these changes give rise to planning considerations that necessitate clear and comprehensive assessment which cannot be carried out on the basis of the details submitted. Furthermore, in light of the need for clarity as regards the design and layout of any development that may be permitted on site, and given the complications arising from a flood risk management perspective, I am not satisfied that it would be appropriate to simply substitute the new house designs with those originally proposed or to address the matter by way of condition (Section 5.21 of the *'Planning System and Flood Risk Management, Guidelines for Planning Authorities, 2009'* states that only in very limited circumstances should conditions be imposed which require major alterations, flood related structural works, or the significant relocation of development).

5.2.4. Therefore, as insufficient information has been provided to allow for the proper assessment of the revised proposal submitted in response to the Section 132 notice, and as the site-specific flood risk assessment has confirmed that the proposal as originally submitted would entail the construction of ('highly vulnerable') residential

development within an area at risk of flooding contrary to the provisions of the Guidelines, I would revert the Board to the assessment and recommendation set out in my earlier inspector's report.

5.2.5. Without prejudice to the foregoing, I nevertheless propose to analyse the merits of the revised site layout and the associated FRA as submitted in response to the Section 132 notice.

5.2.6. Having reviewed the site-specific flood risk assessment submitted in support of the amended site layout / proposal, I am generally satisfied that it would appear to provide for a reasonably robust analysis of the flooding implications of the proposed development. It has established the Median Annual Flood (Return Period: 2 years) and has used this Q_{med} value to map the extent of the corresponding current 50%AEP peak flood level at the existing site and in the surrounding area through the use of modelling as illustrated in Figure 2.7. By applying a growth factor of 2.26 to this value (on the basis of data presented in the Eastern CFRAM Hydrology Report), it has been submitted that the 1%AEP current climate scenario (CS) peak flow can be calculated as 173.3m^3/s and in this regard I would refer the Board to Figure 3.1 which details the extent of the Current Climate (CS) 1 in 100 or 1%AEP maximum flood level for the existing terrain / site (and the amended positioning of the proposed houses relative to same). It is clear from this mapping that a significant majority of the wider site area as outlined in red would fall within the existing 1%AEP maximum flood and thus would theoretically be subject a 1 in 100 year flood event. More particularly, it can also be ascertained that almost all of the rear garden areas and a considerable proportion of the construction of the dwelling houses as originally proposed in the subject application would be within 1%AEP maximum flood (CS) level i.e. Flood Zone 'A' as defined by the '*Planning System and Flood Risk Management, Guidelines for Planning Authorities'.* Therefore, the initial proposal (as distinct from the revised layout submitted in response to the Section 132 notice) would involve the construction of a 'highly vulnerable' form of development (i.e. dwelling houses) within Flood Zone 'A' on lands where there is a high probability of flooding and where development should be avoided in the first instance and only considered following application of the 'Justification Test'. In this regard, I would suggest that given the site context, the initial development proposal would not adhere to the precautionary approach or the key principles of the risk-based

sequential approach to managing flood risk advocated in the Guidelines and, more specifically, that it would give rise to the displacement of floodwaters to the detriment of downstream lands / properties by reference to the proposal to raise ground / floor levels within the identified floodplain.

5.2.7. With respect to the revised site layout / proposal submitted in response to the Section 132 Notice, I would again refer the Board at the outset to Figure 3.1 which illustrates the amended positioning of the proposed houses relative to the extent of the Current Climate (CS) 1 in 100 or 1%AEP maximum flood level for the existing terrain / site. This mapping serves to establish that virtually all of the rear garden areas of the proposed housing would be on lands likely to be inundated during a 1 in 100 year flood event and that the floodwaters would almost reach as far as the houses themselves.

5.2.8. From a review of Figure 3.4 which details the extent of the Current Climate (CS) 1 in 100 year or 1%AEP maximum flood level for the proposed development site (i.e. with the development in place) it remains evident that the rear garden areas of the proposed dwelling houses will be inundated during a 1 in 100 year flood event, however, whilst the mapping itself suggests that floodwaters will reach the rear of Houses 'B' & 'C' it should be noted that the amended proposal includes for the installation of underground geo-cellular compensatory storage below a decked area to the rear of the three dwellings. This compensatory storage area will be allowed to flood from a water level of about 116.3m and up to 117.3m whereas the finished floor levels of the proposed houses will be set at 118.75m. The effect of this compensatory storage will serve to modify the extent of the 1%AEP flood level to the rear of the housing (including a moderate reduction in levels to the rear of House 'A') although it is primarily intended to compensate for the loss of floodplain storage arising from the construction of the rear garden / deck areas and the associated supporting wall / structure. At this point, the inclusion of the proposed raised garden / decking area (no details of which have been shown on the revised site layout plan) would seem to be in an effort to provide some form of clear and usable private amenity space to the rear of the housing which will be free from flooding during a 1 in 100 flood event.

5.2.9. The FRA also includes the maximum 1%AEP (Mid Range Future Climate) & 1%AEP (High End Future Climate) flood levels for the existing site / terrain in Figures 3.2 &

3.3 (with the revised positioning of the proposed housing superimposed over same) when account is taken of climate change which details that the floodwaters will extend c. 10m further north into that area to be occupied by the proposed housing and their respective gardens and decked areas. Figures 3.5 & 3.6 map the flood extent model simulations with the proposed development in place for the 1%AEP(MRFS) & 1%AEP(HE) scenarios respectively when the geo-cellular compensatory storage below the raised garden / decking areas will be utilised for all three houses (the 1%AEP(MRFS) flood level is stated to be c. 117m and the geo-cellular storage can seemingly accommodate flooding up to a level of 117.3m).

5.2.10. At this point, it should be noted that whilst the FRA includes predicted flood mapping / modelling for the 1%AEP(CS), 1%AEP(MRFS) & 1%AEP(HE) scenarios for both the existing terrain and with the proposed development (as revised) in place, I am cognisant that these estimations relate solely to flood events with a 1 in 100 year return period and thus only serve to define Flood Zone 'A'. No estimations have been provided of the extents of the 0.5%AEP (1 in 1,000) flood events under either current or future climatic conditions which is of relevance as the 0.5%AEP maximum flood level will serve to define Flood Zone 'B' pursuant to the *'Planning System and Flood Risk Management, Guidelines for Planning Authorities'*. Therefore, it is likely that a greater extent of the site area includes lands which have a moderate probability of flooding and where 'highly vulnerable' development such as dwelling houses will similarly have to satisfy the 'Justification Test' of the Guidelines. In my opinion, there is a reasonable likelihood that Flood Zone 'B' encompasses a higher proportion of the site area and extends further into the site than Flood Zone 'A' and thus the proposed development (as revised) could potentially displace a correspondingly greater volume of floodwaters in both the current and future climatic conditions. Whilst it is possible that this could be compensated by the geo-cellular storage proposed, I am not in a position to definitely comment on this aspect of the proposal or the extent to which any displacement of waters arising could impact on downstream lands.

5.2.11. On the basis of the information provided in the FRA, in my opinion, it is clear that the proposed development (both as initially proposed and as subsequently revised in response to the Section 132 notice) will entail some degree of works within the current estimated 1 in 100 year floodplain and that additional works will likely be

undertaken on lands within the 0.5%AEP maximum flood level. Furthermore, whilst efforts have been made to ensure that the proposed dwelling houses will be sited outside of the predicted 1%AEP maximum flood levels (including the Mid-Range & High-End future scenarios accounting for climate change) with the finished floor levels providing for adequate freeboard, it is clear that almost all of the rear garden areas of the proposed housing will be inundated during a 1 in 100 year flood event thereby necessitating the provision of the raised garden / decked area and associated compensatory flood storage (this is of some concern given the likelihood that future residents of the proposed housing will want to fully enjoy the amenities of their properties, including the rear garden areas, and may wish to construct storage sheds and other such structures as would be expected given the rural location).

5.2.12. Having considered the foregoing, and following a review of the available information, it is my opinion that the submitted proposal does not adhere to the broader principles of the risk-based sequential approach advocated by the *'Planning System and Flood Risk Management, Guidelines for Planning Authorities*' in that development in flood-risk areas should be avoided in the first instance i.e. the subject site is located within the 1 in 100 year floodplain in an area which can be categorised as 'Flood Zone A' where the probability of flooding is highest. There are alternative development lands within the settlement boundary for Kirikee which are not at risk of flooding and, therefore, justifying the subject proposal is somewhat problematic and does not sufficiently consider the precautionary approach to flood-risk management.

5.2.13. In applying the requirements of the 'Justification Test' set out in the Guidelines, it is clear that the original proposal (as initially submitted to the Planning Authority) would necessitate considerable works within the floodplain (in Flood Zone 'A' in particular) thereby potentially giving rise to the displacement of floodwaters and increasing the risk of flooding elsewhere. Similarly, it is apparent that the revised site layout submitted in response to the Section 132 Notice will also involve works within the floodplain thereby necessitating the provision of compensatory flood storage (although I would reiterate that it is not possible to undertake a fair and balanced assessment of this proposal in the absence of a full set of plans and particulars). Notably, in both development scenarios, a considerable expanse of the rear garden areas of the proposed dwelling houses will be inundated during a 1%AEP maximum flood (CS) event which would seem to be contrary to the intent of the Guidelines

whereby ‘highly vulnerable’ forms of development should be avoided in areas where there is a high probability of flooding.

5.2.14. Whilst I note the applicant’s proposals to mitigate the impact of the proposed development on flood events in the surrounding area, I would refer the Board to the core principles of the *‘Planning System and Flood Risk Management, Guidelines for Planning Authorities*’ in that a risk-based sequential approach should be employed as regards the management of flood risk. In this respect, development in areas at risk of flooding should be avoided, and in instances where this is not possible, consideration should be given to substituting a land use that is less vulnerable to flooding. Only when both avoidance and substitution cannot take place should consideration be given to mitigation and management of risks. In my opinion, the provision in the Guidelines that development in Flood Zone ‘A’ should only be permitted in ‘exceptional circumstances’ places an onus on any such development to be of critical or strategic importance or that it clearly accords with the proper planning and sustainable development of the area.

5.2.15. Therefore, on balance, in view of the site location and the risk of flooding, and having regard to the policies and objectives of the County Development Plan in conjunction with the precautionary approach advocated by the ‘*Planning System and Flood Risk Management, Guidelines for Planning Authorities, 2009’,* I am not satisfied that the submitted proposal accords with the provisions of the Guidelines or that it will not have a detrimental impact on the flood regime of the area.

5.3. **Appropriate Assessment:**

5.3.1. With respect to the proposed development as initially submitted to the Planning Authority, I would reiterate that, having regard to the nature and scale of the proposed development, the site location outside of any protected site, the availability of services, the nature of the receiving environment, and the proximity of the lands in question to the nearest European site, it is my opinion that no appropriate assessment issues arise and that the proposed development would not be likely to have a significant effect, either individually or in combination with other plans or projects, on any Natura 2000 site.

5.3.2. However, in light of the deficiencies in the information provided as regards the revised site layout plan and house types submitted in response to the Section 132

Notice, it is not possible to issue a screening determination with respect to the amended proposal for the purposes of appropriate assessment. Therefore, on the basis of the information provided with the application and appeal, it is my opinion that the Board cannot be satisfied that the proposed development individually, or in combination with other plans or projects, would not be likely to have a significant effect on a European site. In such circumstances the Board is precluded from granting permission.

6.0 Recommendation

6.1. Having regard to the foregoing, I recommend that the decision of the Planning Authority be overturned in this instance and that permission be refused for the proposed development for the reasons and considerations set out below

7.0 Reasons and Considerations

1. Having regard to the location of the proposed development in an area liable to flood events and to the provisions of 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' issued by the Department of the Environment, Heritage and Local Government in November 2009, the Board is not satisfied, on the basis of submissions made in connection with the planning application and the appeal, that the subject site is an appropriate location for the scale and type of development proposed. It is considered that the proposed development would negatively impact on the flood regime of the surrounding area and the amenities of surrounding properties and would, therefore, be contrary to the proper planning and sustainable development of the area.

Robert Speer
Planning Inspector

4th December, 2020