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Bord  
Pleanála

## Addendum Report

### ABP-306304-20

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<b>Development</b>	Construction of 91 no. residential units and refurbishment of existing Rose Cottage.
<b>Location</b>	Red Barns Road, Dundalk, Co Louth
<b>Planning Authority</b>	Louth County Council
<b>Planning Authority Reg. Ref.</b>	19/413
<b>Applicant</b>	Wonderglade Unlimited Company
<b>Type of Application</b>	Permission
<b>Planning Authority Decision</b>	Grant permission (14 no. conditions)
<b>Type of Appeal</b>	Third Party
<b>Appellants</b>	Springfield Manor Residents Assoc. Brian and Anne Crombie
<b>Observers</b>	John Nugent (Willowdale Residents)
<b>Date of Site Inspection</b>	05/05/2020
<b>Inspector</b>	Conor McGrath

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## 1.0 Introduction

I refer to my original report dated 11/05/2020 in respect of this appeal. This addendum report arises on foot of responses received to a S.137 notice issued by the Board in respect of this case on 16th July 2020. This notice raised issues in relation to flood risk and surface water drainage.

## 2.0 S.137 Notice

2.1. A section 137 Notice was issued to the parties advising that the Board proposed to take the following matters into account:

1. The proposed development is located in an area which is at risk of flooding and is served by a single means of access via Red Barns Road. Having regard to the existing levels on this road and predicted flood levels in this area, the Board may not consider that safe access and egress to the development can be maintained for routine and emergency access during flood events. Notwithstanding the proposed increase in ground levels on the site, the Board may be of the view that the proposed development may present a risk to public health for this reason.
2. Having regard to the existing drainage characteristics of the appeal site and the surrounding area and the design of the surface water drainage system, including the design and capacity of proposed attenuation measures, the Board may not be satisfied that the development would not interfere with the drainage of the surrounding area and may consider that it would, therefore, negatively impact on the amenities of adjoining properties.

## 3.0 Responses to S. 137 Notice

### 3.1. First Party

Item no. 1:

- Further analysis has been conducted with reference to UK Document "Flood Risks to People" Phase 2 Methodology.

- The application site presents a low risk to public health for routine and emergency access / egress during flood events.
- Further analysis of floodwater depths was undertaken based on a topographic survey of Red Barns Road and a predicted 1:200-year coastal flood level of 2.965m OD.
- Emergency vehicular access to / from the development is via Red Barns Road to the roundabout junction at Long Avenue approx. 100m to the south
- The predicted floodwater depths over this road will range from 200-350mm with the centre of the road being higher (+90mm) than the edge.
- The deepest flood depth occurs adjoining the entrance to Springfield Manor.
- Flood events coincide with high tide in a 1:200 return period, and will be short-term, receding quickly with the tide, within <1 hour.
- Routine access can be maintained during this event with caution.
- Emergency vehicles can pass floodwaters up to depth 0.6m, significantly greater than the predicted flood levels.

Item no. 2:

- An improvement to the surface water drainage design is proposed, restricting peak flow discharge at the outfall to the drainage network in Springfield Manor from 15l/s to 7.5l/s, which will be less than pre-development levels.
- The flow control device will be located within the application site prior to discharge to the 225mm pipe in Springfield Manor.
- SUDS features include soakaways at the entrance to the development, attenuation storage, and land drains along the site perimeter.
- Attenuation storage is provided for up to a 1:100-year event, plus an allowance for climate change. Permeable paving provides additional contingency.
- Surface water to be intercepted by the land drains will be contained in the site by the retaining walls along the site boundary.
- An audit and assessment of the design and capacity of the solution is provided in appendix A, which concludes that:
  - The development does not increase / worsen flows within the 600mm culvert.

- The development will not negatively impact on the Springfield Manor / Bay Estate developments for 5 / 3-year return periods, in accordance with the GDSDS.
  - Drainage system capacity exceeds the minimum required for 1:100 return period.
  - Soakaway design accords with BRE Digest 365.
  - Peak flow from the lands drains during extreme events will not be significant due to the slow response to rainfall events and infiltration to ground within the development site.
- Notwithstanding the finding of no impact on the downstream drainage network, the further proposed restriction of discharge flows to 7.5l/s reduces discharge to below pre-development rates.
  - This restriction is accommodated on-site by upsizing pipes and attenuation storage capacity.

The response is accompanied by a report from consulting engineers and revised surface water drainage details.

### **3.2. Louth County Council**

The planning authority had no further comment to make on the S.137 notice.

### **3.3. Brian and Anne Crombie**

- The appellants share the concerns identified in the notice regarding the heightened risk of flooding.
- The surface water drainage system is untested and unproven in the prevailing conditions and will impact negatively on adjoining properties
- Concerns expressed in previous submissions remain valid.

## **4.0 Further submissions on S. 137 Responses**

### **4.1. Louth County Council**

No further comment to make.

#### 4.2. **Springfield Manor Residents Association:**

The appellants make the following comments on the first party response:

- The attenuation storage requirement is underestimated and does not take account of variation in the rate of discharge which will not always be at the maximum rate.
- An additional allowance of 25% in this regard is recognised in the consulting engineers' design calculations but is not taken into account in the design, which will lead to overflow from the drainage network.
- Land drains connect to the network downstream of the proposed hydrobrake and the design has not taken account of uncontrolled flow into the downstream network.
- The flood assessment reports are based on a current coastal flood level of 2.965m OD with no allowance for climate change.
- The calculated depths on Red Barns Road should therefore be increased by 500mm and will therefore exceed the 600mm maximum depth for emergency vehicles referenced by the first party.
- It has not been demonstrated that infilling of the lands will not result in the displacement of floodwaters onto adjoining lands.
- Similar issues arose under PA ref. 17/786 ABP-301271-18, at Redcow, Old Newry Road, Dundalk.

#### 4.3. **Brian and Anne Crombie**

- It is not clear that the proposed containment and drainage systems have been used successfully on other developments.
- Infiltration testing on the site was undertaken during summer months rather than during more realistic measurement periods.
- Adequate provision should be made for climate change in the flood assessment.
- Building on a floodplain should be avoided.
- Adjoining landowners cannot obtain flood insurance for their homes.

- Raising ground levels will worsen flood impacts on adjoining lands.
- The status of this area as a development area should be reviewed on foot of the OPW flooding surveys.

#### 4.4. **First Party**

The First Party make the following comments on the response of Brian and Anne Crombie to the S.137 notice.

- The proposed drainage system is widely used and regarded as good practice.
- Surface water will be fully contained and managed within the site prior to controlled discharge to the public sewer.
- An independent audit of the system found it to be compliant with relevant guidance and approved methodologies.

### 5.0 **Assessment**

#### 5.1. **Item no. 1:**

- 5.1.1. I refer to my original report on this appeal dated 11/05/2020. The key issue raised in respect of flood risk therein related to predicted coastal flood levels and the means of access to the development site.
- 5.1.2. The topographic survey drawings accompanying the application identify levels on Red Barns Road of approx. 2.4 – 2.7m OD along the frontage of the site. The application was accompanied by a Flood Risk Assessment prepared by RPS consulting engineers, which was subject to revision during the course of the application. Section 5.2 of the report dated 27<sup>th</sup> September 2019, identified tidal flood levels in this area of 3.72m OD and 3.95m OD for the 0.5% and 0.1% flood events respectively. These flood levels were reiterated in the applicant's consulting engineer's memo accompanying the further information response dated 23/08/2019. In terms of the potential effects of climate change, section 5.3 identifies levels of 4.22m OD and 4.44m OD for the midrange scenarios for the 0.5% and 0.1% events respectively. I note that the Neagh Bann Flood Risk Management Plan describes

Dundalk and Blackrock South AFA as being highly vulnerable from midrange and high-end future climate change scenarios.

- 5.1.3. These levels were used to inform the project design and the mitigation measures set out in section 6.2 of the FRA. In this regard I note that finished floor levels are set >4.52m OD and development road levels will be > 3.72m OD to “ensure that emergency vehicles can access the site and residents can be evacuated in the event of 0.5% flood event.”
- 5.1.4. The first party response to the Board’s S.137 notice, assesses the risk of flooding on Red Barns Road based on a cited OPW CFRAMS 1:200 coastal flood level of 2.965m OD. This level of 2.965m OD is clearly significantly lower than the design flood level referenced in previous flood risk assessment reports. Existing levels on Red Barns Road are confirmed as 2.74 opposite the proposed site entrance, on dwg. MDW0835SK0001 *Predicted Floodwaters Depth Map*. It is not clear why a lower coastal flood level is used in the S.137 response and no explanation for the change from the original Flood Risk Assessment, prepared by the same consultants, is provided. A level of 2.965m OD, if applicable, would not necessitate the extent of flood mitigation measures identified in the application.
- 5.1.5. The first party argue that the predicted maximum flood levels will occur for only a short period coinciding with high tide and will recede quickly. I note, however, that the duration of restrictive flooding on Red Barns Road will depend on the maximum level of the flood waters and having regard to the uncertainty above, it is not possible to arrive at a firm conclusion in respect of duration at this time.
- 5.1.6. Having regard to the foregoing, there does not appear to be sufficient basis to depart from the original recommendation in relation flood risk and access to the development site set out in my original report.
- 5.1.7. In section 6.4.8 of my original report, I refer to the prematurity of development pending relief works of the nature identified in the Neagh Bann Flood Risk Management Plan or other works to ensure safe access to the site in a flood event. In this regard I note that contracts for the design of the Dundalk, Blackrock Flood Relief Scheme were signed on July 30, 2020. These works are described as *“the construction of a series of hard defences, including flood embankments and walls, rock armour coastal protection, demountable barriers, road raising, a sluice*

*gate and tanking of two properties and channel conveyance improvements. The defences would be required along with improvement of channel conveyance on the Blackrock River and Dundalk Blackwater River, along with Storage on the Castletown River. This proposed measure would protect to the 0.5% coastal events and the 1% AEP fluvial flood event. Hard defences required have an average height of 1.4m and a total length of between approximately 17 and 20km (there are two options for the route of the defences).”*

5.1.8. No timeframe has yet been identified for completion of the design or consent processes associated with such works, and I note that there are recognised sensitivities in respect of potential residual impacts on European sites associated with the proposed project. Having regard to such uncertainty, I do not consider that permission could reasonably be granted at this time based on the implementation of this flood relief scheme.

## 5.2. **Item no. 2**

5.2.1. I refer to my previous report on the appeal case, wherein I identified a number of issues relating to;

- Potential interference with drainage from lands to the west.
- Potential interference with the existing 600⊙ sewer to the west.
- Impact of unattenuated discharge from the proposed land drains.

5.2.2. With regard to impact on lands to the west, I note that the first party indicate that the perimeter land drains and retaining walls will serve to contain surface waters within the site and avoid flows onto adjoining lands. I previously noted the poor drainage characteristics of this area and queried the potential impact of the retaining boundary walls on the natural drainage of the adjoining lands in Willow Dale to the west. This was not specifically raised in the S.137 request and the first party response has not considered such impacts. In the event of a decision to grant permission in this case, consideration could be given to the installation of an interceptor drain on the western side of any proposed boundary wall, without significant impacts on the proposed development.

- 5.2.3. As previously noted, the line of the 600mm sewer to the west is not identified on the application drawings. The available information suggests, however, that this drain runs alongside the western side of the current field boundary. Proposed development works involve excavation along this boundary to construct retaining walls, while proposed house no. 33 is also sited in proximity to the boundary. No analysis of potential impacts on this drain arising from such works has been undertaken. This matter could possibly be addressed by way of condition in the event of a decision to grant permission, requiring surveys to identify the precise line of the sewer and final construction methodology to be agreed with the planning authority.
- 5.2.4. The proposed surface water drainage design retains a connection from the perimeter land drains to the surface water network downstream of the proposed flow control device. The first party S.137 response indicates that discharge from the land drains to the network will not be significant due to the slow response during a rainfall event and infiltration to ground contained within the site by the retaining walls. Notwithstanding these comments, the flow from these land drains and impact on downstream sewers has not been quantified.
- 5.2.5. The reduced discharge rate, to 7.5l/s, and increased on-site storage proposed as part of the S.137 response will create additional capacity, however, the additional flow from the land drains has not been factored into the capacity calculations. I would consider, however, that in the event of a decision to grant permission these matters would be amenable to resolution within the confines of the site in discussions with the planning authority and that a final combined discharge rate could be subject to agreement.
- 5.2.6. Third parties have identified an issue with regard to the capacity of the extended attenuation storage solution and a failure to make an allowance for variable discharge rates in the form of account of factored storage (+25%). I note, however, that the consulting engineers' design approach in this regard has been consistent and specifies the use of a Hydroslide flow control device which is designed to maintain a constant discharge flow and addresses this particular provision of the GDSDS.

## 6.0 Recommendation

- 6.1. The response of the first party to the concerns raised by the Board has not provided sufficient clarity or adequate basis for the Board to overcome the concerns raised. In particular, having regard to the lack of consistency in the assessed flood levels at this location and the failure to adequately address the potential impact on access to the development site, I recommend that permission be refused for the proposed development in line with my previous recommendation as set out below.

While other issues relating to the drainage of the lands have been identified, I consider that these are amenable to resolution by design and may not be considered to warrant a refusal of permission in this case.

## 7.0 Reasons and Considerations

1. The proposed development is located in an area which is identified as being at risk of coastal flooding and which is served by a single means of access via Red Barns Road. Having regard to the existing levels on this road and predicted flood levels in this area as identified in the submitted Flood Risk Assessment, the Board is not satisfied based on the information submitted that safe routine or emergency access and egress to the development can be maintained during flood events. Notwithstanding the proposed increase in ground levels on the site, the proposed development would present a risk to public health and would therefore be contrary to the proper planning and sustainable development of the area.

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Conor McGrath  
Planning Inspector

22/12/2020