

**Environment and Transportation Department,
Block 2, Floor 6,
Civic Offices,
Dublin 8.**

22nd February 2017.

**To Each Member of the
Environment Strategic Policy Committee**

Re: Naniken Flooding of James Larkin Road on 27th May 2017

It is impossible to prevent road flooding completely in any part of the City it is only possible to reduce this risk. The Dollymount S2S cycle way is designed to cope with normal road way, cycleway and footpath rainfall once the tide is not too high and the flow in the Naniken River is at a reasonable flow rate. This was not the case on Saturday 27th May last.

Very heavy rain fell in this area from 11am. The Naniken River burst its banks in St. Annes Park near the upstream end of the duck pond and flooded around 400m of the park pathway beside the road and the adjoining field. River water then came out onto the road way through three gaps in the low park wall as shown on figure 1. This caused road flooding to a depth of around 250mm in places as shown on figure 2. The rain continued to be heavy in this area till around 2pm. The road drainage was performing as shown on figure3.

The flooding was exacerbated by a high tide which was approximately 1.8m Malin at 12noon, approx 2.15m Malin at 1.15pm (peak) and 1.4m approx at 3.15pm. The road level close to the duck pond is around 3.0m Malin.

Some debris was also washed out of the park which partially blocked the road gullies from 50m north of the pond to around 350m south of it. These were cleared by the Gardai and later by the drainage division and the roadway was then re-opened to traffic. The flood subsidence would have taken longer if the surface water drainage for the roadway had not been recently augmented.

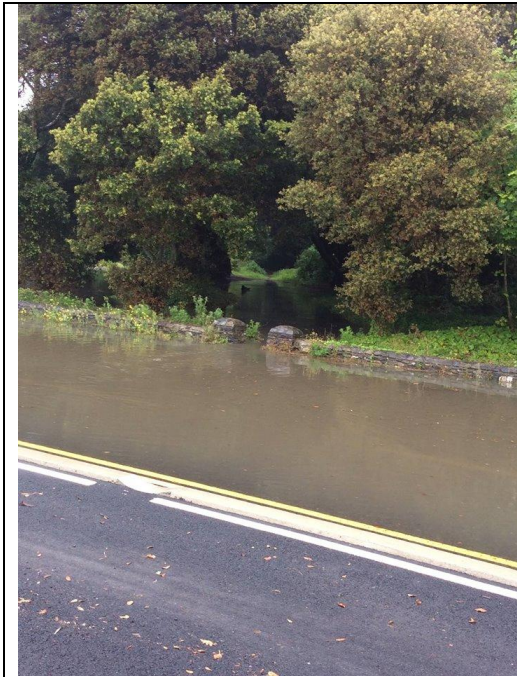


Figure 1

Gaps on wall; which was originally 2m high with no gaps; resulted in water entering on to the James Larkin road way.

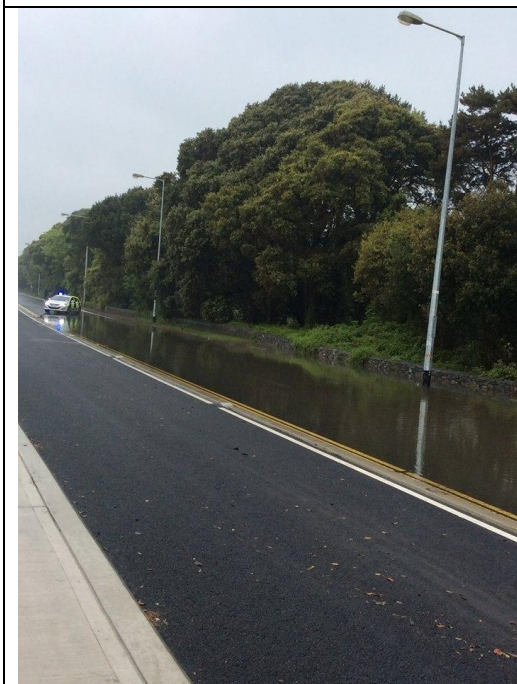


Figure 2

Flooding of roadway along frontage of St Annes' Park for a period of around two hours.

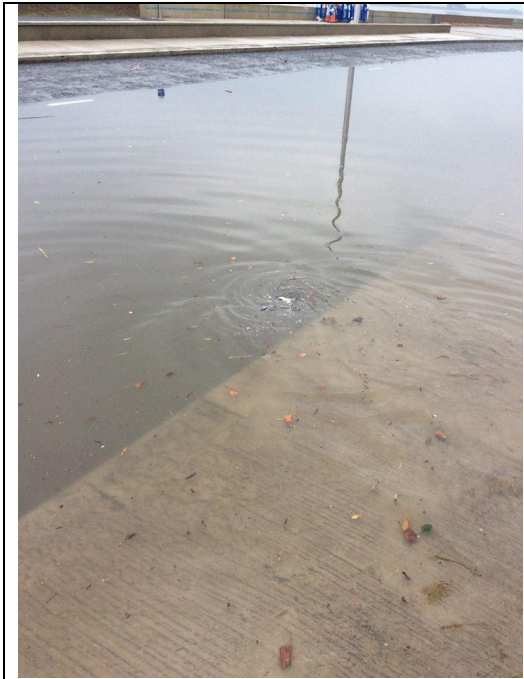


Figure 3

Swirl in the water shows that the newly installed road drainage was working in spite of some debris blockages.

In conclusion very heavy rain combined with a high tide and debris from St. Annes Park resulted in the flood event. The objective of the recently completed project was to reduce the risk of coastal flooding and to improve road drainage and those objectives have been achieved. This will currently happen every 2-5 years, increasing in frequency into the future.

Approximately 1500m³ of extra storage in St. Anne's Park would have been required to stop road flooding on this occasion. Approximately 150m³ of this volume came out on to the James Larkin road way.

A study of the lower Naniken River, procured earlier this year, is currently underway and its recommendations are due in two months time. These are likely to comprise of blocking openings from the parkway on to the James Larkin Road, new methods of dealing with the large quantities of river debris in a flood event and possibly very large storage areas in St. Annes Park.

A meeting with Dublin City Councils Landscape and Parks Services Division is scheduled for next for preliminary discussion of possible mitigating options.

Dick Brady
Assistant Chief Executive