

Report to Central Area Committee for meeting on 14th of May 2024.

Re: Flooding Alleviation Schemes within the Central Area.

Overview:

We have no reports of building flooding in the Central area from 10th October 2023 to 3rd May 2024. The existing flood defences have performed well during this period.

Currently the Flood Defence Projects Office has no major ongoing construction projects in the area. The last major project was the Tolka Flood Alleviation Scheme 2003-2009. This was designed to protect buildings to a 1 in 100 year level from fluvial flooding and a 1 in 200 year level from tidal flooding including a 300-500mm freeboard (safety margin) to both. A further study of the Tolka catchment by the OPW is underway mainly relating to climate change adaptability. The existing flood defences on this scheme are monitored once a year or following requests to do so for individual sections. These defences have prevented a large number of buildings flooding since their construction.

The feasibility of increased tidal flood defences on the North Campshires between Butt Bridge and the East Link Bridge is being considered by the Flood Defence Projects Office. A 200 year standard of protection plus freeboard is in place for Spencer Dock following the flooding on 1st February 2002. A higher tide than this record high tide for Dublin occurred on the 3rd January 2014 with no flooding reported in the North Inner City from it. Some areas north of the Campshires have a slightly lower standard of flood protection. This higher level of flood protection is currently being incorporated into the new DDDA offices including a provision for climate change.

The Parks Department in conjunction with the Flood Defence Projects Office completed a Sustainable Urban Drainage Scheme (SuDS) in February 2024 in Arbour Hill, picture set out in **figure 1**. Below. This scheme takes rainwater from around 2,000m² of roadway, footpath and local roofs and stores most of it under ground for trees and plants to feed on, thus reducing the risk of pluvial flooding locally and downstream. Local rainfall and underground water levels are monitored remotely. There is an option to expand the contributing area in the future following reviews of this project. This pilot will help to assess how effective future SuDS projects may be in the City. As well as flood alleviation there are obvious environmental, amenity and safety benefits to this scheme.

Fig 1: Sustainable Urban Drainage Scheme Arbour Hill, Dublin.



Another SuDS project in conjunction with the Parks Department was completed on Diamond Square, Sean McDermott Street in June 2022. It takes around 1,000M2 of road, footpath and roof rainfall runoff to a small green area with associated planting. It is working well with no reported rainfall runoff from it into the local combined sewer drainage network.

There are a number of local flood retention ponds in the Cabra area installed over 10 years ago which are functioning well in reducing local flood risk.

Gerard O'Connell, Senior Engineer, Flood Defence Projects Office. 14th May 2024.

James Nolan, Executive Manager, Environmental Protection Division