

File Note

Project title MECD
Job number 252173
File reference \\Global\europa\Manchester\Jobs\250000\252173-00 (MECD TA Role)\11_PlanningSupport
cc
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Date 21 June 2023
Subject Condition 22 - Evacuation Plan

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MECD – Planning Condition 22 – Flood Evacuation Plan

A flood risk assessment was completed for MECD in 2015 and this concluded that the main potential mechanism of flooding was from the culverted Corn Brook Watercourse, located to the south of the site. Having reviewed the technical investigations done for the FRA (*document 5983-ARP-00-XX-RP-C-000001 MECD_FRA_FINAL, termed the MECD FRA*), confirmed the recommendations made by this have been followed, and reviewed as-constructed site ground levels, we propose that the site does not require a Flood Evacuation Plan to be put in place for the reasons outlined below:-

1. **Fluvial Flood Risk** - There are no rivers or watercourses present on or immediately adjacent to the site. The Flood Zone 2 classification was due to the presence of a historically culverted watercourse, the Corn Brook, and its potential for surcharged floodwaters to affect the site – see Point 2 below.
2. **Fluvial Flood Risk** - The MECD FRA showed the level of fluvial flood risk at the site (and corresponding extents of Flood Zone 2) from Corn Brook is considerably less than the Environment Agency had illustrated on their Flood Zone maps, due to a discrepancy in historic EA modelling. In 2015, model testing and by re-running these models with updated ground levels confirmed there was a discrepancy within the hydraulic model upon which the Flood Zone 2 classification for the MECD site was based. A manhole cover level had been set approximately 2m lower than surrounding ground levels, and once corrected, significantly lower volumes of overland flood water was predicted to reach the site. A subsequent analysis of the revised model results and corresponding overland flow paths of flood water from Corn Brook concluded under the extreme 1:1000 year event, water from Corn Brook was unlikely to reach MECD and that consequently, the site is considered to be at low risk of fluvial flooding from Corn Brook. This work was issued and accepted by the EA as summarised below - refer to extract from MECD FRA Appendix C and Appendix B EA Letter dated 11 Aug 2015.
3. **Finished floor levels** and ground levels the building entrance locations are **38.35mAOD** and are above minimum finished floor level (FFL) of **37.80 mAOD**, as defined in the MECD FRA

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based on principals below. This criteria was defined. The EA accepted this level as acceptable on 11 August 2015¹.

Basis of defining minimum Finished Floor Levels extracted from Table 2 of MECD FRA.

Condition	Adjusted model outputs for Manhole 1
1 in 1000 year (Flood Zone 2) flood level	37.424 mAOD
1 in 100 year (Flood Zone 3) flood level + climate change	37.200 mAOD
Freeboard allowance	600 mm
1 in 100 year (Flood Zone 3) + freeboard + climate change	37.80 mAOD

The following final scheme ground levels plan drawings have been reviewed:

5983-BDP-MECD-EXG-DR-AL-90-10211_iss8_revFC01

5983-BDP-MECD-EXG-DR-AL-90-10212_iss8_revFC01

5983-BDP-MECD-EXG-DR-AL-90-10213_iss14_revFC01

These drawings show the minimum ground level along the site boundary to be **37.85mAOD**, above the minimum level defined in the MECD FRA. Based on this review, no part of the site would flood in the 1 in 100 year storm when accounting for freeboard and climate change. The lowest level along the site boundary is also 400mm higher than the predicted 1 in 1000 year level defined in the FRA, again showing the site also lies outside of Flood Zone 2.

There is a basement below the plaza in the south of the site, and a review of levels also shows that the entrance to the basement is unlikely to be affected by flooding from the Corn Brook, since this is at 38.18mAOD.

4. **Groundwater Flood Risk** - The site is considered to be at low risk of groundwater flooding.
5. **Surface Water Flood Risk** - The majority of the current site is considered to be at low risk of flooding from surface water and overland flow. Identified areas of low to medium flood risk reflected historic depressions within the ground levels on-site (pre-development). The site has been redeveloped to new ground levels, as per the project's Landscape Architect's design.

¹ EA Letter RE: Flood Risk Review, Manchester Engineering Campus, Oxford (ref SO/2014/114076/04-L01 dated 11 August 2015)