

DRAINAGE STATEMENT

CHORLTON BATHS MANCHESTER ROAD, CHORLTON MANCHESTER M21 9PG

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1. Introduction and Brief

2.

Reid Jones Partnership Ltd has been commissioned to undertake a drainage statement on behalf of Caddick Construction relating to the proposed two 5-storey residential blocks of apartments with associated access, drainage services and parking infrastructure.

Site Location

The site is located on the east side of Manchester Road, Chorlton approximately 4.5km south west of Manchester City Centre at postcode M21 9PG. The centre of site is at National Grid Reference 381710, 394520. The site has maximum dimensions of approximately 80m x 40m, narrowing to the north. The eastern boundary is formed by a railway cutting, to the west is Manchester Road and to the south is a retail building. The short northern boundary is formed by an aqueduct bridging the railway. Existing surrounding development is a mix of uses including residential and commercial.

Site Location Plan



3. Existing Development

The existing site contains a former swimming baths and leisure centre, dating from the 1920's and awaiting demolition

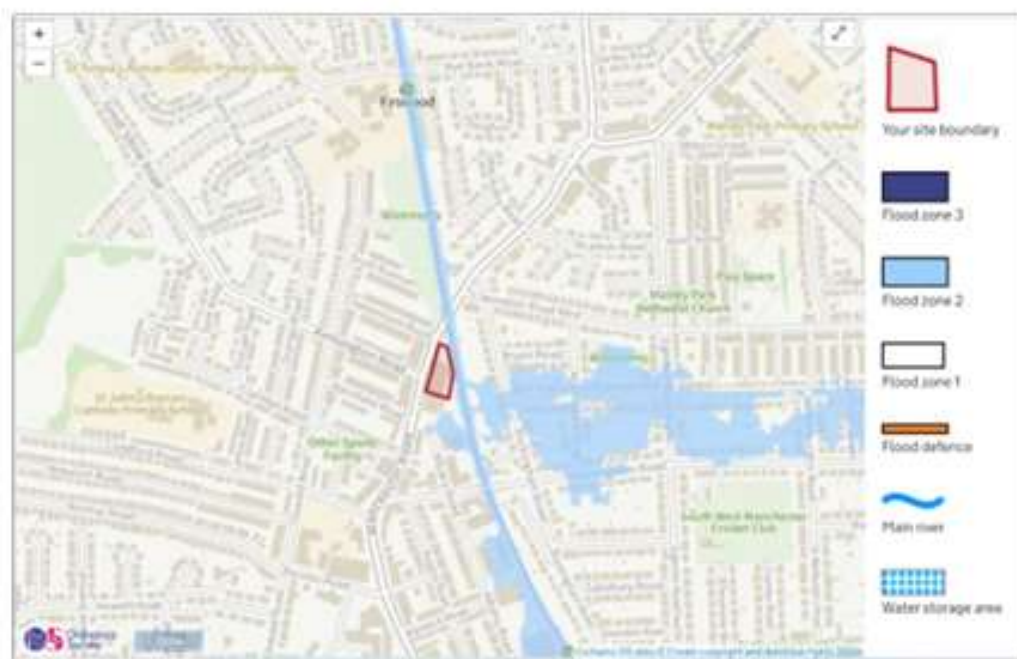
4. Proposed Development

The application is for full planning approval for the erection of a proposed two 5-storey residential blocks of apartments with associated access, drainage services and parking infrastructure.

5. Potential sources of flooding

The EA's flood maps have been reviewed and these show that the development is in Flood Zone 1 and is considered to have a low risk of flooding, less than 1:1000 annual probability. There is no requirement to apply the sequential test as the site lies within Flood Zone 1.

Environment agency flood map



Environment Agency Flood Map

Based on the Environment Agency Flood zone map (extract above), the Site is located within Flood Zone 1 (less than 1 in 1000 annual probability of river or sea flooding in any year) which is defined as having a low (or lowest possible) probability of flooding in the Planning Practice Guidance to the National Planning Policy Framework (NPPF).

Flood Zone 1 - land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1%)

Flood Zone 2 - land assessed as having between a 1 in 100 and 1 in 1,000 annual probability of river flooding (1% – 0.1%), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% – 0.1%) in any year

Flood Zone 3 - land assessed as having a 1 in 100 or greater annual probability of river flooding (>1%), or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year

The local sewerage and water undertaker is United Utilities and the Local Planning Authority and Lead Local Flood Authority (LLFA) for the site is Manchester City Council.

The Hierarchy of Drainage – National Planning Practice Guidance

The National Planning Practice Guidance sets out The Hierarchy of Drainage to promote the use of Sustainable Drainage Systems, by aligning modern drainage systems with natural water processes. The aim of the Hierarchy of Drainage is to drain surface water run-off as sustainable, and as reasonably practicable.

The increase in infrastructure and the use of traditional drainage networks (pipes and culverts) are resulting in downstream flooding and a deterioration in water quality of controlled waters, due to foul sewer overflow. Therefore, sustainable drainage systems aim to alleviate these problems by storing or re-using surface water at the source. This decreases the flow rates to watercourses and improves water quality.

SuDS designs control surface water run-off by closely resembling that of natural drainage. SuDS features include the use of soakaways, swales, ponds, etc

The Hierarchy of Drainage

As stated in the National Planning Practice Guidance, the aim should be to discharge surface water run-off as high up the drainage hierarchy, as reasonably practicable:

1. Into the ground (infiltration)
2. To a surface water body
3. To a surface water sewer, highway drain, or another drainage system
4. To a combined sewer

6. Drainage Strategy

Surface Water:

Unfortunately, infiltration isn't considered feasible on this development due to the underlying nature of the founding strata so soak aways will not be a viable option.

There are no suitable watercourses or ponds within the vicinity of the development.

There are also no surface water or highway drains in the surrounding area.

The surface water will therefore be controlled onsite to a maximum discharge rate (5.0 litres/sec) as agreed with United Utilities prior to connection to the existing 450mm dia combined sewer within Manchester Road to ensure that there is no increase in the risk of flooding to areas downstream of the development.

SW Network All storms up to and including the 1:100yr+45%CC will be accommodated within an oversized pipes and geo-cell storage crates. There will be no flooding in any storms up to and including the 1:100yr+45%CC, therefore, a flood exceedance routing plan will not be required.

Foul Water:

The Foul Water drainage system will drain via gravity to the existing 450mm dia combined public sewer within Manchester Road as agreed with United Utilities.

Existing Sewer Records



Phasing Of The Development

The site will be constructed in one phase and there will be no phasing of the development.

Management Of Surface Water During Construction

The surface water during the construction will be monitored and controlled by the Contractor.

7. Conclusion

This statement provides an initial assessment of the surface water discharge proposals based on the maximum pass forward rate of 5.0 litres/sec as agreed with United Utilities

- There is no flood risk posed to the development from Fluvial sources and the site lies entirely within Flood Zone 1 (Lowest risk flood zone).
- The SW from the site will be restricted to 5.0 litres/sec prior to draining into the existing drainage network via an existing manhole located within the site boundary.
- Soakaways are not a viable option due to ground conditions.
- There will be no flooding in any storm up to and including the 1:100yr+40%CC.
- Foul water flows from the development will be discharged to the existing drainage network via an existing manhole located within the site boundary.

In summary, based on the above it is concluded that the development is at low risk of flooding and a viable means of drainage for the site is available.