

Application number: CDN/23/0556 Proposal: Discharge of planning conditions 10 (Drainage) and 14 (Piling) attached to planning permission 132489/FO/2021 Location: Port Street, Manchester, M1 2EQ		
	LLFA Comments 20/10/2023	WSP/RBL Reply 08/11/2023
	The following information has been considered: - Uploads to the Planning Portal 16th August 2023	
	The following information is required:	
1	With reference to drainage layout (drawings Z0-WSP-G580-PL-XX-001 C02 and Z3-WSPG580-PL-B1-001 C03): - Please clarify proposal at MH PPIC S12 – the drawing appears to show a proposal to connect the adjacent ‘Sam’s Yard’ existing drainage network into the proposed drainage layout. Is this correct? – Additional third-party flows will need to be included within any hydraulic modelling. - Storage volumes / dimensions need to be shown on the layout for all attenuation components. - Finalised layout of pumped solution for the basement ramp. – including connectivity to the main drainage system. - The proposed flows to Port Street now appear to be greater than covered in the UU agreement under 132489/FO/2021. Please present updated UU evidence of agreement to this proposal.	See attached updated drainage layouts (drawings Z0-WSP-G580-PL-XX-001 C04 and Z3-WSPG580-PL-B1-001 C05) Confirmed correct, that there is an existing drainage connection from Sams Yard into the proposed drainage layout. Also, confirmed that such run-off from Sams Yard has been accounted for within the capacity of our drainage system and hydraulic modelling. *Refer to attached email from WSP 08/06/2023 (issued to floodriskmanagement@manchester.gov.uk) confirming the above inclusions. (1.1) Storage volumes included on latest layout drawing Z3-WSPG580-PL-B1-001 C05 (attached). Pumped solution for the basement ramp included on WSP latest layout drawing Z3-WSPG580-PL-B1-001 C05 (attached), and connectivity to the main drainage system on Futureserv latest layout drawing Z0-FUT-G580-PL-B-001 C08 (attached). UU acceptance to proposals submitted, as email (from Graham Perry at UU) dated 24/03/2022 - UU Ref 4200042330. *Refer to attached email from UU Email 13Is Discharge (1.4) *WSP previously issued to Deloitte 03/05/2023 confirming the above inclusions.
2	Hydraulic Calculations	
	- Please provide hydraulic calculations of the proposed drainage system, including evidence that the drainage system has been designed (unless an area is designated to hold and/or convey water as part of the design) so that flooding does not occur during a 1 in 100-year rainfall event with allowance for 40% climate change in any part of a building. These need to include simulation manhole schedules & storage printouts for cross-reference to the proposed layout. - The pumped solution needs to demonstrate design in-line with the Condition. Evidence that the drainage system has been designed (unless an area is designated to hold and/or convey water as part of the design) so that flooding does not occur during a 1 in 100 year rainfall event with allowance for 40% climate change in any part of a building. - Evidence of consideration of the integrated proposal – main network and pumped solution – in the calculations. - Where flows rates <5 l/s are proposed, evidence of blockage risk assessment is required including evidence from flow control manufacturer where necessary.	Hydraulic Calculations attached. Calculations include 1 in 100 year rainfall event with allowance for 40% climate change. (2.1) *WSP previously issued to Deloitte 03/05/2023 with the above inclusions. Included in above calculations Included in above calculations Email from ACO Technologies Plc 13/04/2023 (attached) confirming conformance with regards flow control. (2.4) *WSP previously issued to Deloitte 03/05/2023 with the above inclusions.
3	Assessment of overland flow routes for extreme events that is diverted away from buildings (including basements). Overland flow routes need to be designed to convey the flood water in a safe manner in the event of a blockage or exceedance of the proposed drainage system capacity including inlet structures. A layout with overland flow routes needs to be presented with appreciation of these overland flow routes with regards to the properties on site and adjacent properties off site.	Overflow Routes included on WSP layout drawing 4548-WSP-DRA-004 P01 (attached). (3) *WSP previously issued to Deloitte 03/05/2023 with the above inclusions.
4	Construction details of flow control and SuDS elements:	Construction Issue Drawings attached; Z0-WSP-G580-DE-XX-001 P04 Z0-WSP-G580-DE-XX-002 C02 Z0-WSP-G580-PL-XX-001 C04 Z0-WSP-G580-SC-XX-001 C04 Z3-WSP-G580-PL-B1-001 C05
	- Please provide construction details for all flow controls (including evidence that the products support design down to 2 l/s). - Please provide details for tanks and pumping components.	ACO Technologies - Details attached for Q-Brake Vortex Flow Control & Q-Chamber (Available from 2-100 l/s) (4.1) Email from ACO Technologies Plc 13/04/2023 (attached) confirming conformance with regards flow control. (4.1) Pumping Station – Details attached for T-T Pumps Ltd, Mercury Plus Pumping Station Surface Water Attenuation Tanks – Tank 1 – SURFACE WATER ATTENUATION TANK. 6.3m x 6.5m x 2.08 = 83 m3 Tank 2 – SURFACE WATER ATTENUATION TANK. 11m x 2.5m x 2.3 = 63 m3