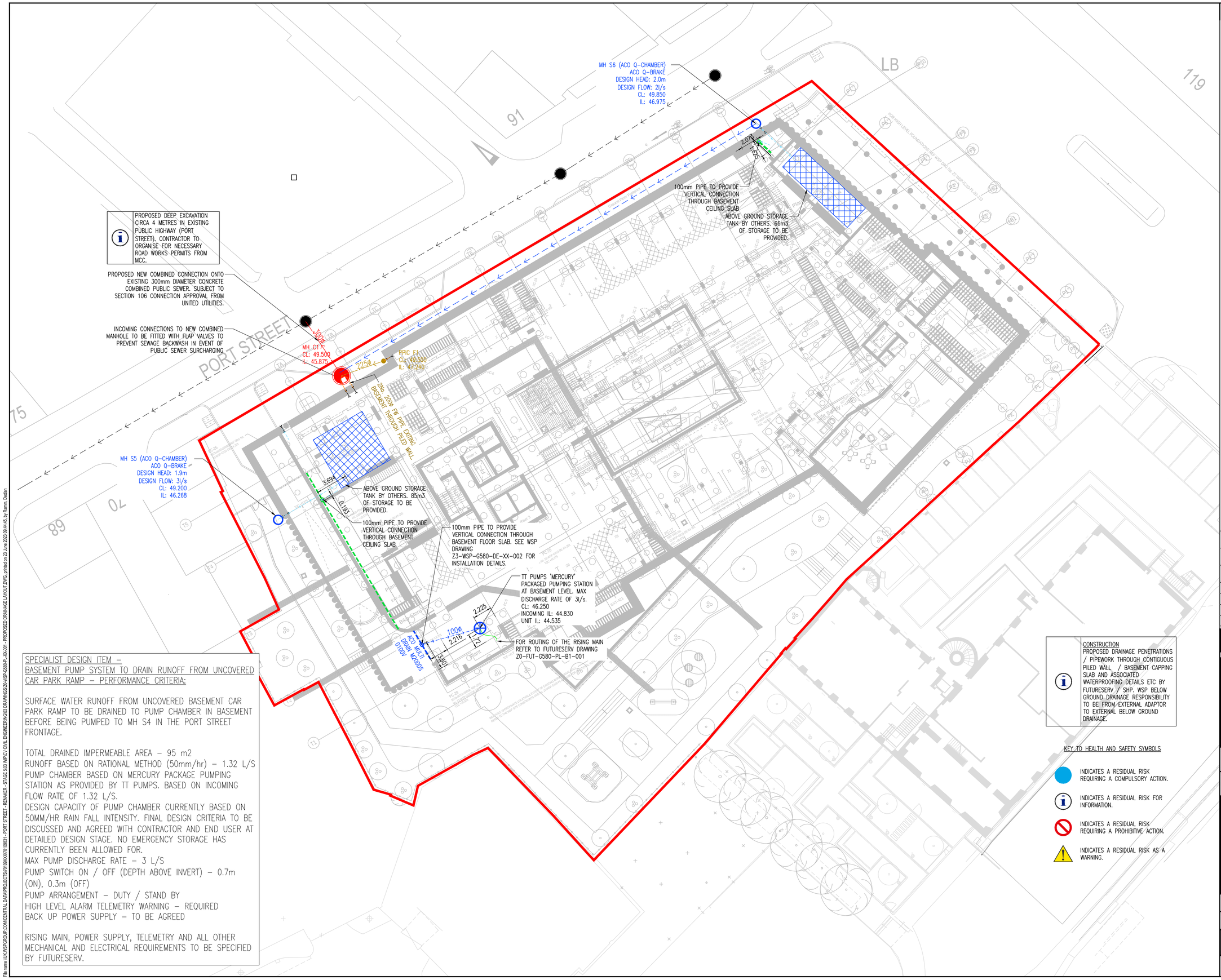

SPECIALIST DESIGN ITEM –
BASEMENT PUMP SYSTEM TO DRAIN RUNOFF FROM UNCOVERED CAR PARK RAMP – PERFORMANCE CRITERIA:

SURFACE WATER RUNOFF FROM UNCOVERED BASEMENT CAR PARK RAMP TO BE DRAINED TO PUMP CHAMBER IN BASEMENT BEFORE BEING PUMPED TO MH S4 IN THE PORT STREET FRONTAGE.

TOTAL DRAINED IMPERMEABLE AREA – 95 m2
RUNOFF BASED ON RATIONAL METHOD (50mm/hr) – 1.32 L/S
PUMP CHAMBER BASED ON MERCURY PACKAGE PUMPING STATION AS PROVIDED BY TT PUMPS. BASED ON INCOMING FLOW RATE OF 1.32 L/S.
DESIGN CAPACITY OF PUMP CHAMBER CURRENTLY BASED ON 50MM/HR RAIN FALL INTENSITY. FINAL DESIGN CRITERIA TO BE DISCUSSED AND AGREED WITH CONTRACTOR AND END USER AT DETAILED DESIGN STAGE. NO EMERGENCY STORAGE HAS CURRENTLY BEEN ALLOWED FOR.
MAX PUMP DISCHARGE RATE – 3 L/S
PUMP SWITCH ON / OFF (DEPTH ABOVE INVERT) – 0.7m (ON), 0.3m (OFF)
PUMP ARRANGEMENT – DUTY / STAND BY
HIGH LEVEL ALARM TELEMETRY WARNING – REQUIRED
BACK UP POWER SUPPLY – TO BE AGREED

RISING MAIN, POWER SUPPLY, TELEMETRY AND ALL OTHER MECHANICAL AND ELECTRICAL REQUIREMENTS TO BE SPECIFIED BY FUTURESERV.

CONSTRUCTION
PROPOSED DRAINAGE PENETRATIONS / PIPEWORK THROUGH CONTIGUOUS PILED WALL / BASEMENT CAPPING SLAB AND ASSOCIATED WATERPROOFING DETAILS ETC BY FUTURESERV / SHP. WSP BELOW GROUND DRAINAGE RESPONSIBILITY TO BE FROM EXTERNAL ADAPTOR TO EXTERNAL BELOW GROUND DRAINAGE.

KEY TO HEALTH AND SAFETY SYMBOLS

- INDICATES A RESIDUAL RISK REQUIRING A COMPULSORY ACTION.
- INDICATES A RESIDUAL RISK FOR INFORMATION.
- INDICATES A RESIDUAL RISK REQUIRING A PROHIBITIVE ACTION.
- INDICATES A RESIDUAL RISK AS A WARNING.

DO NOT SCALE

NOTES:

1. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT SCHEME DRAWINGS.
3. FOR THE ASSOCIATED MANHOLE SCHEDULE REFER TO WSP DRAWING Z0-WSP-G580-SC-XX-001.
4. REFER TO WSP DRAWING Z0-WSP-G580-PL-XX-001 FOR THE DRAINAGE LAYOUT AT GROUND FLOOR LEVEL.
5. PUMP AND PPIC TO BE INSTALLED IN BASEMENT TO BE CO-ORDINATED WITH BASEMENT SLAB BY STRUCTURAL ENGINEER. MANHOLE COVERS TO SIT IN RECESS IN SLAB DETAILED BY STRUCTURAL ENGINEER.

KEY:

- SITE BOUNDARY
- PROPOSED ACO DRAIN
- PROPOSED ACO DRAIN AT GROUND FLOOR LEVEL
- PROPOSED SURFACE WATER PIPE + MH
- PROPOSED FOUL PIPE + MH
- PROPOSED COMBINED PIPE + MH
- EXISTING UU COMBINED SEWER + MH
- INDICATIVE RISING MAIN ROUTE
- PUMP STATION
- ABOVE GROUND ATTENUATION TANK DESIGNED BY OTHERS
- INDICATIVE ABOVE GROUND SURFACE/FOUL WATER PIPE & SLEEVING
- 450mm INSPECTION CHAMBER

REV	DATE	BY	DESCRIPTION	CHK	APP
C03	22/06/2023	DR	AMENDMENTS AROUND TT PUMP	SM	SM
C02	05/06/2023	JEB	BASEMENT DRAINAGE UPDATED	SM	SM
C01	23/05/2023	JEB	UPDATED PUMP POSITION. ISSUED FOR STAGE 5	SM	SM
P03	03/05/2022	JEB	UPDATED TO SUIT PLANNING CONDITIONS	SM	SM
P02	15/12/2022	JEB	UPDATED FOLLOWING INCLUSION OF TANK	SM	SM
P01	19/08/2022	JEB	STAGE 4 ISSUE	SM	SM

DRAWING STATUS: STAGE 5

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CLIENT: RENAKER

ARCHITECT: SIMPSON HAUGH

SITE/PROJECT: PORT STREET, MANCHESTER

TITLE: PROPOSED DRAINAGE LAYOUT BASEMENT LEVEL

SCALE @ A1:	CHECKED:		APPROVED:
1:200	SM		SM
PROJECT NO: 70084548	DESIGNED: JEB	DRAWN: JEB	DATE: June 23

DRAWING No: Z3-WSP-G580-PL-B1-001 REV: C03

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File name \\UK.WSPGROUP.COM\CENTRAL DATA\PROJECTS\70100XXX\70100831 - PORT STREET - RENAKER - STAGE 5\03 WIP\CV CIVIL ENGINEERING\03 DRAWINGS\Z0\WSP-G580-PL-XX-001 - PROPOSED DRAINAGE LAYOUT.DWG, printed on 23 June 2023 09:44:45, by Rammi, Dedan