

File name: \\UK.VSPGROUP.COM\CENTRAL DATA\PROJECTS\0109000\0109001 - PORT STREET - RENAKER - STAGE 503.WPD\0109000\0109001 - PROPOSED DRAINAGE LAYOUT.DWG, printed on 13 October 2023 15:12:14, by: Birmahorne, Jask

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

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

PROPOSED DEEP EXCAVATION
CIRCA 4 METRES IN EXISTING
PUBLIC HIGHWAY (PORT
STREET), CONTRACTOR TO
ORGANISE FOR NECESSARY
ROAD WORKS PERMITS FROM
MCC.

PROPOSED NEW COMBINED CONNECTION ONTO
EXISTING 300mm DIAMETER CONCRETE
COMBINED PUBLIC SEWER, SUBJECT TO
SECTION 106 CONNECTION APPROVAL FROM
UNITED UTILITIES.

INCOMING CONNECTIONS TO NEW COMBINED
MANHOLE TO BE FITTED WITH FLAP VALVES TO
PREVENT SEWAGE BACKWASH IN EVENT OF
PUBLIC SEWER SURCHARGING

KENON KRIZ INTERCEPTOR TRAP TO BE
INSTALLED ON OUTGOING CONNECTION FROM
MH3 AS AGREED WITH RENAKER-AND
FUTURESERV.

MH S5 (ACO Q-CHAMBER)
ACO Q-BRAKE
DESIGN HEAD: 1.9m
DESIGN FLOW: 3 l/s
CL: 49.200
IL: 46.288

100mm PIPE TO PROVIDE
VERTICAL CONNECTION THROUGH
BASEMENT FLOOR SLAB. SEE WSP
DRAWING
Z3-WSP-G580-DE-XX-002 FOR
INSTALLATION DETAILS.

ABOVE GROUND STORAGE
TANK BY OTHERS. 83m³
OF STORAGE TO BE
PROVIDED.

100mm PIPE TO PROVIDE
VERTICAL CONNECTION THROUGH
BASEMENT CEILING SLAB

FOR ROUTING OF ABOVE GROUND
RISING MAIN REFER TO
FUTURESERV DRAWING
Z0-FUT-G580-PL-B1-001
TT PUMPS 'MERCURY'
PACKAGED PUMPING STATION
AT BASEMENT LEVEL. MAX
DISCHARGE RATE OF 3 l/s.
CL: 46.250
INCOMING IL: 44.830
UNIT IL: 44.535

100mm TO 150mm TAPER
REQUIRED TO SUIT
PREFORMED PUMP INLETS

MH S6 (ACO Q-CHAMBER)
ACO Q-BRAKE
DESIGN HEAD: 2.0m
DESIGN FLOW: 2 l/s
CL: 49.850
IL: 46.975

100mm PIPE TO PROVIDE
VERTICAL CONNECTION
THROUGH BASEMENT
CEILING SLAB

ABOVE GROUND STORAGE
TANK BY OTHERS. 63m³
OF STORAGE TO BE
PROVIDED.

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:

- ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM. ALL
DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL
OTHER RELEVANT SCHEME DRAWINGS.
- FOR THE ASSOCIATED MANHOLE SCHEDULE REFER TO WSP
DRAWING Z0-WSP-G580-SC-XX-001.
- REFER TO WSP DRAWING Z0-WSP-G580-PL-XX-001 FOR THE
DRAINAGE LAYOUT AT GROUND FLOOR LEVEL.
- 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

C05	13/10/2023	JEB	RISING MAIN AND PUMP DETAIL ADDED	SM	SM
C04	24/08/2023	JEB	PUMP LOCATION AMENDED	SM	SM
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
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS:	STAGE 5
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CLIENT:	RENAKER
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ARCHITECT:	SIMPSON HAUGH
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SITE/PROJECT:	PORT STREET, MANCHESTER
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TITLE:	PROPOSED DRAINAGE LAYOUT BASEMENT LEVEL
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SCALE @ A1:	1:200	CHECKED:	SM	APPROVED:	SM
PROJECT NO:	70084548	DESIGNED:	JEB	DRAWN:	JEB
				DATE:	October 23

DRAWING No:	Z3-WSP-G580-PL-B1-001	REV:	C05
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