SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

NOTES BELOW ARE ADDITIONAL TO HAZARDS/RISKS NORMALLY ASSOCIATED WITH THIS TYPE OF WORK. FOR DETAILS REFER TO: RAM-XX-XX-RA-D-00001

CONSTRUCTION (INCLUDING DEMOLITION AND REMOVAL OF EXISTING STRUCTURAL COMPONENTS)

- A1 SERVICES (IDENTIFIED AND UNIDENTIFIED) ARE PRESENT WITHIN AND ADJACENT TO THE REDLINE BOUNDARY.
- A2 LIVE GAS MAIN IDENTIFIED WITHIN THE SITE BOUNDARY.
- B1 DEEP EXCAVATIONS WILL BE REQUIRED FOR THE CONSTRUCTION OF THE EXTERNAL DRAINAGE ATTENUATION.
- B2 COMBINED WATER CONNECTION TO EXISTING DRAINAGE. DEEP EXCAVATIONS REQUIRED FOR CONNECTION.
- B3 GROUND WATER LIKELY TO BE ENCOUNTERED ON SITE DURING CONSTRUCTION OF ATTENUATION.
- B4 ALL BELOW GROUND DRAINAGE LOCATED WITHIN BASEMENT IS APPROXIMATELY 4m BELOW GROUND FLOOR LEVEL.

OPERATIONS, MAINTENANCE

- D1 MANHOLES LOCATED WITHIN INTERNAL SPACES AT BASEMENT LEVEL.
- D2 ACCESS TO ATTENUATION REQUIRED FOR MAINTENANCE.
- D3 ACCESS TO OIL SEPARATOR REQUIRED FOR MAINTENANCE.
- D4 ACCESS TO PUMP STATIONS REQUIRED FOR MAINTENANCE.

DISMANTLING / DEMOLITION (FUTURE)

NO SIGNIFICANT RESIDUAL RISK IDENTIFIED

REFER TO GENERAL NOTES AND THE PRINCIPAL CONTRACTOR FOR MORE INFORMATION ABOUT THE RISKS ASSOCIATED WITH THIS WORK.

THESE NOTES ARE BASED ON THE USE OF EXPERIENCED AND COMPETENT CONTRACTORS CARRYING OUT THE WORK USING AN APPROVED SAFE METHOD OF WORKING

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

RIVER STREET

MEDLOCK STREET

AREA OF HARD LANDSCAPING TO BE PERMEABLE PAVING UP TO EXISTING PAVEMENT LINE

7m EASEMENT OF EXISTING GAS MAIN. DISCUSSIONS TO BE HELD WITH CADENT REGARDING HIGH LEVEL DRAINAGE WORKS WITHIN EASEMENT AREA.

FLUSH KERB DRAIN UNIT REQUIRED ACROSS PROPOSED LAYBY

NEW KERB DRAIN REQUIRED TO DRAIN PROPOSED LAYBY & REPLACE EXISTING GULLIES

ASSUMED NEW ALIGNMENT OF PUBLIC SEWER TO BE DIVERTED UNDER S185 WORKS TO BE UNDERTAKEN AS A SEPARATE PACKAGE OF WORKS

ASSUMED NEW MANHOLE LOCATION FOLLOWING S185 WORKS AS PER SEPARATE WORKS PACKAGE TO BE UNDERTAKEN

SURVEY REQUIRED OF EXISTING RIVER STREET SEWER.

HIGH LEVEL CONNECTION REQUIRED TO VENT ATTENUATION TANK

NON RETURN VALVE TO BE INSTALLED TO PREVENT SURCHARGE OF PUBLIC SEWER. TWO OUTFALL LOCATIONS REQUIRED TO ACCOMMODATE FUTURE S185 WORKS ON PUBLIC SEWER. FORMAL CONNECTION TO BE UNDERTAKEN UNDER A S106 WITH UNITED UTILITIES.

A1 LIVE SERVICES

A2 GAS EASEMENT

PERFORATED PIPE AT BASE OF PERMEABLE SURFACING

B4 BASEMENT DRAINAGE

D1 INTERNAL MANHOLES

ROUTING OF ABOVE GROUND SURFACE WATER ROUTING IS INDICATIVE. REFER TO CUNDALL DRAWINGS FOR DETAILS INCLUDING RODDING POINTS.

B1 DEEP DRAINAGE

B3 HIGH GROUND WATER

INDICATIVE VENT OUTFALL LOCATIONS TO BE CONFIRMED

BYPASS SEPARATOR WITH HIGH LEVEL ALARM SYSTEM LINKED TO BMS VENT LOCATION TO BE CONFIRMED.

D4 PUMP STATIONS

PUMPING STATION TO PUMP BASEMENT CAR PARK DRAINAGE TO EXTERNAL WORKS LEVEL DUTY/STANDBY PUMP CONFIGURATION: DUTY @ 1 L/S STANDBY @ 1 L/S
ASSUMED 65mm Ø RISING MAIN LEVEL CONTROLLED PUMPS WITH LINK TO BMS BY MEP ENGINEER. CONTROL PANEL AND VENT TO SUIT ARCHITECTS POSITIONING (WITHIN 5m OF THE PUMP). ANCILLARY REQUIREMENTS TO BE CONFIRMED BY SPECIALIST PUMP MANUFACTURER.
NOTE: FINAL PUMP SELECTION, RISING MAN AND WET WALL DESIGN TO BE FINALISED BY CONTRACTOR AND PUMP SPECIALIST.

D3 OIL SEPARATOR

ATTENUATION TANK REQUIRED FOR EXTERNAL WORKS SURROUNDING PLOT 9a (EXCLUDING THE SOUTH SIDE), THE RESTRICTED FLOW FROM ATTEN-1 AND RESTRICTED FLOW FROM PLOT 9a BLUE ROOF. TANK SIZE: 91.5m² X 1.2m (TOP OF TANK LEVEL 29.570), VOLUME CALCULATED TO INCLUDE REDLINE BOUNDARY AREA ONLY AT THIS STAGE. TOTAL STORAGE VOLUME REQUIRED: 105m³

D2 BELOW GROUND ATTENUATION

INDICATIVE VENT OUTFALL LOCATIONS TO BE CONFIRMED

PERFORATED PIPE IN BASE OF PLANTERS & PERMEABLE PAVING

EXISTING PUBLIC SEWER TO BE REMOVED IN FUTURE PHASES

HIGH LEVEL CONNECTION REQUIRED TO VENT ATTENUATION TANK

ATTENUATION TANK REQUIRED FOR EXTERNAL WORKS SOUTH OF PLOT 9a. TANK SIZE: 48m² X 1.2m (TOP OF TANK LEVEL 30.750), VOLUME CALCULATED TO INCLUDE REDLINE BOUNDARY AREA ONLY. DISCHARGE OF 4 l/s FROM FLOW CONTROL WITHIN SW04. TOTAL STORAGE VOLUME REQUIRED: 55m³

D2 BELOW GROUND ATTENUATION

FLOW CONTROL MANHOLE TO RESTRICT FLOW TO 7.5 L/S.

PERFORATED PIPE IN BASE OF PLANTERS

TO AVOID GAS EASEMENT PIPEWORK TO DRAIN EXTERNALS WORKS TO BE LOCATED AT ROOF LEVEL WITHIN THE BASEMENT. ACCESS POINTS REQUIRED AT LEVEL CHANGES WITHIN BASEMENT STRUCTURE. REFER TO CUNDALL DRAWING MN2A-CDL-ZZ-B1-DR-P-10990 FOR FURTHER DETAILS.

ROAD GULLIES TO CATCH ANY POSSIBLE RAINWATER THAT ENTERS BASEMENT LEVEL FROM VEHICLES OR ANY OIL SPILLS THAT MAY OCCUR

BLUE ROOF DOWNPIPE, REFER TO CUNDALL DRAWINGS FOR MORE DETAILS

BLUE ROOF DOWNPIPE, REFER TO CUNDALL DRAWINGS FOR MORE DETAILS

ASSUMED NO POSITIVE CONNECTION FROM LIFT SHAFTS REQUIRED

DC-1 TO BE LOCATED AT BASE OF ENTRANCE RAMP TO CAPTURE RAINWATER FROM EXTERNAL WORKS

NO MAIN DRAINAGE SYSTEMS CAN BE CONSTRUCTED IN THE AREA ADJACENT TO PLOT 9B DUE TO GAS EASEMENT. LEVELS NEED TO FALL TOWARDS PLOT 9A TO BE PICKED UP IN DRAINAGE SYSTEM BETWEEN PLOTS.

DRAINAGE CHANNEL TO EXTEND FULL LENGTH OF PLOT 9b. REFER TO RAM-XX-ZZ-DR-D-10101 FOR FURTHER DETAILS.

PROPOSED LOCATION OF CRANE BASE, LOCATION/LEVELS TO BE CONFIRMED

SURFACE WATER DRAINAGE TO PASS THROUGH OR BENEATH TOWER CRANE BASE DEPENDANT ON CRANE BASE REQUIREMENTS

CONTINUATION ON RAM-XX-ZZ-DR-D-10101

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Notes

1. DO NOT SCALE FROM THIS DRAWING
2. ALL DIMENSIONS ARE MILLIMETRES U.N.O.
3. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM U.N.O.
4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS
3. REFER TO PROPOSED DRAINAGE NOTES DRAWING RAM-XX-XX-DR-D-10001 FOR FURTHER DETAILS.

KEY

- PROPOSED SURFACE WATER MANHOLE
- PROPOSED FOUL WATER MANHOLE
- PROPOSED COMBINED MANHOLE
- PROPOSED PUMP CHAMBER
- PROPOSED CATCH PIT CHAMBER
- PROPOSED FLOW CONTROL CHAMBER
- PROPOSED FOUL WATER DRAIN
- PROPOSED SURFACE WATER DRAIN
- PROPOSED PERFORATED PIPEWORK
- PROPOSED RISING MAIN
- HIGH LEVEL PROPOSED SURFACE WATER DRAIN
- EXISTING COMBINED DRAIN & MANHOLE
- EXISTING SURFACE WATER DRAIN & MANHOLE
- PROPOSED CHANNEL DRAIN WITH SUMP UNIT
- BELOW GROUND ATTENUATION TANK
- PROPOSED PERMEABLE PAVING
- SU SUMP UNIT IN DRAINAGE CHANNEL
- AC ACCESS COVER FOR RODDING
- FG PROPOSED FLOOR GULLY
- RG PROPOSED ROAD GULLY
- SVP FOUL DISCHARGE PIPE
- RWP RAINWATER PIPE

Rev	Description	Date	By	App
P03	STAGE 3 ISSUE	01/04 2022	CO	LS CK
P02	UPDATED PLANNING ISSUE	20/12 2021	CO	LS CK
P01	STAGE 2 ISSUE	10/09 2021	CO	LS CK

STAGE 3

PLOT 9a
FIRST STREET
MANCHESTER

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PROPOSED DRAINAGE STRATEGY

SHEET 1 OF 2

Project No:	Scale (@A1):	Drawn:	Date:
1620002943	1:150	CO	SEPT 21

Drawing No: RAM-XX-ZZ-DR-D-10100 Rev: P02

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