PHASE

1:200
4m 0 4m 8m 12m 16m 20m

PROVIDE NEW CHAMBER TO SUIT PIPELINE UPGRADE WORKS AND INSTALLATION OF FLOW CONTROL, DESIGN HEAD 1.0M, DESIGN FLOW 11.3L/S, HYDROBRAKE OPTIMUM REF SHE-0154-1130-1000-1130 (CHAMBER SIZE REQUIRED FOR CONTROL INSTALLATION)

EXISTING MANHOLE ASSUMED TO BE ON LINE OF PUBLIC SURFACE WATER SEWER (POSSIBLY UU CHAMBER 5501)

APPROXIMATE LOCATION OF EXISTING MANHOLES. COVER LEVELS AND INVERT LEVELS NOT RECORDED. CHAMBERS TO BE REMOVED AND REPLACED AS PART OF PIPELINE UPGRADE WORKS

EXISTING MANHOLE ASSUMED TO BE ON LINE OF PUBLIC SURFACE WATER SEWER (POSSIBLY UU CHAMBER 5502 OR 6503)

PROVIDE NON RETURN VALVE TO INCOMING 225MM DIA PIPE AT CHAMBER MH9

REMOVE EXISTING PIPELINE, REPLACE WITH NEW TO SUIT RELOCATION OF EXISTING MH1

EXISTING PIPELINE NOT SURVEYED (LOSS OF VISION) - REQUIRES INVESTIGATION TO CONFIRM CONNECTIVITY WITH PUBLIC SEWER

EXISTING DRAINAGE CHAMBER, POSSIBLY RELATING TO LAND DRAINAGE - REQUIRES FURTHER INVESTIGATION

NOTE. IT IS ASSUMED THAT EXISTING LAND DRAINAGE IS SEPARATE FROM THE BUILDING AND PAVED AREA DRAINAGE (AS APPEARS TO BE THE CASE FROM THE CCTV DRAINAGE SURVEY INFORMATION). HOWEVER, CONTRACTOR IS TO INVESTIGATE TO CONFIRM.

REPLACE MH8 WITH NEW CHAMBER AS PART OF PIPE UPGRADE WORKS

UPGRADE EXISTING PIPELINES FROM 150MM DIA TO 225MM DIA AND RE-LAY TO ACHIEVE FALLS SHOWN

ACO MONODRAIN CHANNEL: CH5 PD100D 0.0

PERFORATED PIPE

EXISTING BUILDING PARTIALLY DEMOLISHED

EXISTING CAR PARKING RETAINED

EXISTING PEDESTRIAN VEHICULAR ACCESS

PUBLIC RIGHT OF WAY RETAINED

EXISTING GOLF PROTECTION FENCING R

DRIVING SER

REPLACE MH9 WITH NEW CHAMBER AS PART OF PIPE UPGRADE WORKS

ROUTE OF PUMPED DISCHARGE NOT KNOWN

ACO MONODRAIN CHANNELS: CH1 PD100D 0.0, CH2 PD100D 0.0, CH3 PD100D 0.0, CH4 PD100D 0.0

EXG FW PUMP TO REMAIN CL 97.97 WL 96.32

Sewage Pump CL 97.97 WL 96.32 No Visible Exit

MH3 & EXG FW MH TO BE REPOSITIONED, INSTALL NEW 100MM DIA FW DRAIN BETWEEN MANHOLES & RECONNECT EXG INCOMING PIPES

EXISTING FW DRAINAGE TO BE REMOVED

CONNECT ROOF DRAINAGE FROM ROVERO STRUCTURE INTO NEW 300MM DIA PIPE (EXISTING 225MM DIA PIPE UPGRADED TO 300MM DIA)

UPGRADE EXISTING PIPELINE BETWEEN EX MH10 AND EXMHB FROM 225MM DIA TO 300MM DIA

EX MH10 TO BE RETAINED IF CONDITION IS ADEQUATE, COVER LEVEL TO BE ADJUSTED TO SUIT FINISHED GROUND LEVELS

REPOSITION MH4 WITH NEW CHAMBER AS PART OF PIPE UPGRADE WORKS

NEW 150Ø PIPE FROM MH10 TO CONNECT INTO NEW MH4

NEW 100Ø PIPE FROM EXG MH5 TO CONNECT INTO NEW MH4

EXG PIPE TO BE REMOVED

EXISTING MANHOLES MH6 - APPEARS TO RELATE TO SOME FORM OF LAND DRAINAGE

PERFORATED PIPE

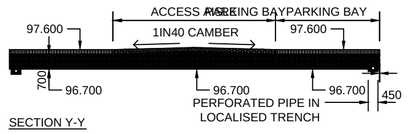
BOWLEE DRIVING RANGE

EXISTING CAR PARKING RETAINED

42 SPACES

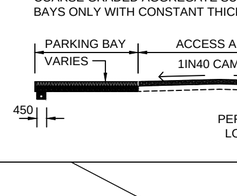
SECTION X-X

PERMEABLE SURFACING TO PARKING BAYS
ACCESS AISLE CAN BE SEALED (IMPERMEABLE) SURFACING
COARSE GRADED AGGREGATE SUB-BASE TO BE CONTIGUOUS ACROSS FULL PARKING AREA AS SHOWN BELOW WITH FORMATION AT 69.7M, MIN 0.7M THICK



SECTION Y-Y

PERMEABLE SURFACING TO PARKING BAYS
ACCESS AISLE CAN BE SEALED (IMPERMEABLE) SURFACING
COARSE GRADED AGGREGATE SUB-BASE BELOW PARKING BAYS ONLY WITH CONSTANT THICKNESS



SECTION Z-Z

PERMEABLE SURFACING TO PARKING BAYS
ACCESS AISLE CAN BE SEALED (IMPERMEABLE) SURFACING
COARSE GRADED AGGREGATE SUB-BASE BELOW PARKING BAYS ONLY WITH CONSTANT THICKNESS

DRAINAGE SCHEDULE:-

CHAMBER REF.	CHAMBER DIAMETER (mm)	CHAMBER TYPE	COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH TO SOFFIT (m)	DEPTH TO INVERT (m)	COVER GRADE
EX MHA	1350	TYPE C	97.750	96.470	1.055	1.280	D400
EX MHB	1500	FLOW CTL	97.880	96.400	1.255	1.480	D400
MH1	1350	TYPE C	97.600	96.260	1.040	1.340	D400
MH3	500	SILT TRAP	97.600	96.450	1.000	1.150	D400
MH4	1350	TYPE C	97.990	96.760	0.930	1.230	D400
MH8	1350	TYPE C	97.710	96.520	0.965	1.190	D400
MH9	1350	TYPE C	97.830	96.820	0.785	1.010	D400
S1 ST	500	SILT TRAP	97.960	97.210	0.600	0.750	D400
S2 ST	500	SILT TRAP	97.960	97.210	0.600	0.750	D400
S3	1350	TYPE C	98.060	96.930	0.905	1.130	D400
S4 ST	500	SILT TRAP	97.700	96.740	0.810	0.960	D400
S5 CP	1350	CATCHPIT	97.700	96.543	0.857	1.157	D400

TYPE C = SHALLOW ACCESSIBLE CHAMBER, DEPTH FROM COVER TO SOFFIT LESS THAN 1.5M, TO WATER UK DESIGN AND CONSTRUCTION GUIDANCE DETAIL
CATCHPIT = PCC CHAMBER WITH 300MM SUMP BELOW LOWEST PIPE INVERT
FLOW CTL = PCC CHAMBER WITH SUMP, MOUNTING BLOCK AND BENCHING TO SUIT INSTALLATION OF FLOW CONTROL (DESIGN HEAD 1.00M, DESIGN FLOW 11.3L/S, HYDROBRAKE OPTIMUM REF SHE-0154-1130-1000-1130)
SILT TRAP = 500Ø WAVIN CHAMBER REF 6LB600 (150Ø PIPES) 6LB625 (225Ø PIPES) OR SIMILAR

rev	date	revisions	initials
A	07.05.25	DRAINAGE REVISED TO SUIT COMMENTS.	D.J.W

client
BOWLEE PARK

project
BOWLEE PARK GOLF RANGE, HEYWOOD OLD RD, BIRCH, MIDDLETON, M24 4TH

drawing
DRAINAGE LAYOUT

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