PLAN SCALE 1 / 300

RISING MAIN
165 LINEAR METRES
DISCHARGE IL 98.300
PST 3 SUMP IL 92.000 TBC

CL 95.036 / IL 93.902

IL 93.660

1/86.71

IL 93.429

FILL TO COVER PIPE
AND RAISE
ACCESS ROAD

ACCESS
LINE

CL 94.333 / IL 93.198

IL 92.967

FILL TO COVER PIPE
GRADE TO STREAM
AT 1 IN 2 MAXIMUM

IL 92.736

MH 5
IL 92.934

PST 3

Wetland Two 600m2
Surface 92.350 ~ 92.270

Wetland One 600m2
Surface 92.500 ~ 92.400

SLOPE / MARGIN
1555 m2

NATURAL WATER
DETENTION AREA
790 m2 TO NWL

FILL / GRADE TO
STREAM 1 / 2.5 MAXIMUM SLOPE

IL 92.350

53.8 metres @ 1 / 300

WATER COURSE

91.40 FILL / GRADE TO
STREAM 1 / 2.5 MAXIMUM SLOPE

IL 92.500

MH6 DIVIDING CHAMER IL 92.529

91.60 OVERHEAD POWER LINES CLEARANCE TO EGL 11.620

R6000

0 10 20 30 40 50 60 70 80

1800MM WIDE ACCESS PATH
OVER PIPES / DUCT (91m2)

ATTENTION
POWER CABLE

SEWAGE WORKS
OUTFALL

NO EXCAVATION WITHIN 6 METRES OF 11kV POWER LINE
POLES / NOTIFY POWER SUPPLER

IL 92.505

IL 93.319

ATTENTION CABLE STAYS AND UNDERGROUND
ELECTRIC CABLES / GRADE FILL TO STREAM AT 1 IN 2 MAXIMUM

SAMPLE POINT EXTEND PIPE STUB
INTO CHAMBER OUTLET IL 92.205

SEALED PIPE = WATER FROM
CANAL CHECK LEVEL FOR
CONFLICTS WITH PROPOSED
PIPEWORK

IL 93.482

1800MM WIDE BRIDGE OVER
STREAM SECURE PIPES / DUCT
UNDER DRAWN 10.6 METRES
LONG LENGTH AND POSITION
TO SUIT

IL 92.570 FROM WETLAND
CELLS 5 / 6 CONFIRM INLET IL
TO CANAL BASIN / ADJUST
UPSTREAM GRADIENT / CAN
SERVE AS A SAMPLE POINT IF
LEVELS ALLOW

MH4 IL 93.547

EXISTING OUTFALL IL92.160
CHECK IF NON RETURN FLAP REQUIRED

DUCT FOR POWER
SUPPLY / SIGNAL CABLE

DUCT FOR POWER SUPPLY /
SIGNAL CABLE

MH3
IL 93.724

1800MM WIDE ACCESS PATH
OVER PIPES / DUCT (149m2)

BLANK OFF EXISTING
700Ø OUTLET / FORM
NEW HIGH LEVEL
OVERFLOW TO 700Ø

PST 1 / 2 NO PUMPS
RECIRCULATE TO INLET END OF
LAGOON 1 & 2 @ 25m3 / hour
INSTALL IN EXISTING 1500Ø
CHAMBER WITH 700Ø OUTLET
BLANKED OFF WITH NEW HIGH
LEVEL OVERFLOW TO 700Ø - *OR*
BUILD NEW STRUCTURE

PST 2 / 2 NO PUMPS OPERATE ALTERNATELY TO
WETLAND ONE AND WETLAND TWO ALSO TO
OPERATE ON DUTY / ASSIST BASIS
SUMP 91.500 SET BOTTOM STOP TO ENSURE
PUMPS ARE COVERED AT LOWEST WATER LEVEL
INSTALL IN EXISTING 1500Ø CHAMBER WITH 700Ø
OUTLET BLANKED OFF WITH NEW HIGH LEVEL
OVERFLOW TO 700Ø - *OR BUILD NEW STRUCTURE*

PST 1

PST 2

GRAVITY LINE LAGOON 3 TO WETLAND 1
200Ø @ 1/60.27
Capacity = 60 l/sec = 216m3 / hour
Note flow restricted to 27.7 l/sec 100m3 / hour
May regrade to 1 / 100

MH2
IL 94.314

INSTALL SURFSEP SCREEN
CHECK ACCESS FOR DESLUDGE

FIT HYDROBRAKE ~ REQUIRES A FLAT FACE
RESTRICTS FLOW TO 100m3 / hour ~ 27.7 L/ Sec
REQUIRES 400mm HEAD OVER IL = 95.305
CHECK AGAINST LAGOON OPERATION

NEW CONNECTION PIPE AND MOTOR
ACTUATED PENSTOCK TO ENABLE
GRAVITY DISCHARGE IL TBC

1800MM WIDE ACCESS PATH
OVER PIPES / DUCT (149m2)

CHECK DESTINATION OF PUMP PIPES

ALTERNATIVE
LOCATIONS FOR
PS1 / PS2

RETAIN 700Ø AS HIGH LEVEL
OVERFLOW

2 NO RISING MAINS
115 AND 170 LINEAR METRES
DISCHARGE IL 92.500 //92.260
PST 1 / PST 2 IL 91.500

2 NO RISING MAINS
121 AND 118 LINEAR METRES
DISCHARGE IL 94.100
PST 1 / PST 2 IL 91.500

700Ø OVERFLOW FROM
LAGOON 1 / 2 INLET (TBC)

Approximate
line of overflow
added by
Living Water
(TBC)

49 No PLANTED
RAFTS

Toe of slope
interpolated by
Living Water

LAGOON A
1,182m2 /
Capacity to TWL
2,022 m3

LAGOON **B**
1,279m2 /
Capacity to TWL
2,022 m3

Ultrasonic Level Sensors 1 per Lagoon

BREAK PRESSURE CHAMBERS
AND SURFSEP SCREENS
DISCHARGE TO INLET PIPES

3 metre wide slot IL 93.250

WL 95.080 = OUTLET IL if pipes set at 1 / 100 IL can
be set at 94.055 = 950mm freeboard CONFIRM
METHOD OF WATER LEVEL CONTROL: EITHER
MOTOR ACTUATED PENSTOCK ON TIMER /
FLOAT SWITCH OR USE (EXISTING?) PUMP

LAGOON C = 1,250m2
Capacity TBA

Toe of slope
position TBC

150Ø PRESENTLY TO
CANAL BASIN
(CONFIRM)

2 No RECIRCULATION LINES LAGOON
OUTLET / PS1 @ 25m3 / hour VIA 2 No
SURFSEP SCREENS VIA 600@ INLET
PIPES
124 / 126 metres

POSITION OF EXISTING 600Ø INLET
PIPES ADDED BY LIVING WATER

36 No PLANTED
RAFTS

0 10 20 30 40

Notes:

The position of electric cables shown on the plans has been inserted from information provided by the client.

Plans are to be used in in accordance with the Health & Safety Executive's Booklet HS(G)47, "Avoiding Danger From Underground Services".

Notes:

Design & Copyright of this drawing subsists with Living Water

Dimensions in millimetres.

All dimensions to be checked on site and not scaled from this drawing.

Read drawings in conjunction with specification document

Ref	Revision	Date

Drawn DMS
Scale AS SHOWN
Date 2014.05.01

Project ECOLOGICAL TREATMENT SYSTEM
Drawing LAGOONS / CONNECTING PIPES
Project Number 1037
Revision E
Drawing Number 002 (A1)

Checked JLS

Status -

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