CUTLINE - SEE SHEET 2 OF 9

CUTLINE - SEE SHEET 2 OF 9

CUTLINE - SEE SHEET 4 OF 9

CUTLINE - SEE SHEET 6 OF 9

CUTLINE - SEE SHEET 8 OF 9

CUTLINE - SEE SHEET 8 OF 9

ACO CHANNEL AT THRESHOLD TO DISCHARGE THROUGH SHORT LENGTH OF PIPE THROUGH THE CONCRETE BEDDING TO A SOAKAWAY UNIT OF MINIMUM DIMENSIONS 500x500x500mm AND COMPRISING COARSE GRADING AGGREGATE (CGA) SUB BASE MATERIAL TO BS EN13242:2002 DESIGNATION TYPE 4/20 WRAPPED IN A FINE GEOTEXTILE MATERIAL TO STOP INGRESS OF FINE MATERIAL.

FOR CONNECTION OF LANDSCAPE DRAINAGE - FIRA

STUB

SW045

SW046

SW044

SW047

SW042

225 Ø

300 Ø

450 Ø

ACO PARKDRAIN CD00017

E=347907.886 N=391830.301

E=347913.084 N=391824.908

SW014

SW015

SW017

375 Ø

PIPE TO PICK UP EXISTING MANHOLE

PIPE TO PICK UP EXISTING MANHOLE

SW016

SSL 64.46

FSL 64.55

X=347967.589 Y=391795.332

E=347978.675 N=391790.013

FLOOR GULLIES TO DETAIL PD010

RODDING POINT TO DETAIL PD018

SW048

SW048A

600 Ø

FSL 63.35

PI

FG

RE

G

100 Ø

E=347933.420 N=391799.076

SW018

FSL 64.55

600 Ø

FLOOR GULLIES TO DETAIL PD010

FOR CONNECTION OF LANDSCAPE DRAINAGE - FIRA

MH 41A CL - 64.23 UTR

SW051

E=347976.219 N=391781.391

SW062

STUB

RWP

225Ø

RODDING POINT TO DETAIL PD018A

SW019

LOADING BAY

300 Ø

AT2 INLET

PIPE TO PICK UP EXISTING MANHOLE

FSL 63.18

ARTIC

7.5 TON

FOR LOADING DOCK DRAINAGE REFER TO DRAWING WH-AR-EX-ZZ-DR-D-002513

ACO S200 CHANNEL AND GRATING TO LOAD CLASS E600-CD007

PROPOSED PUMPING STATION AND RISING MAIN INTO EXISTING FOUL DRAIN - DESIGN TO BE CONFIRMED

E=347968.999 N=391764.570

SW049

FSL 63.65

TBC

MH 67B CL - 63.83 UTR

MH 67A CL - 63.57 UTR

MH 48A CL - 63.16 UTR

MH 47A CL - 62.91 UTR

MH 49B CL - 62.52 UTR

MH 49A CL - 62.30 UTR

SW063

SW065A

SW007 (AS BUILT LOCATION)

E=347874.474 N=391791.833

RE001

CANOPY R.W.P

ACO CHANNEL AT THRESHOLD TO DISCHARGE THROUGH SHORT LENGTH OF PIPE THROUGH THE CONCRETE BEDDING TO A SOAKAWAY UNIT OF MINIMUM DIMENSIONS 500x500x500mm AND COMPRISING COARSE GRADING AGGREGATE (CGA) SUB BASE MATERIAL TO BS EN13242:2002 DESIGNATION TYPE 4/20 WRAPPED IN A FINE GEOTEXTILE MATERIAL TO STOP INGRESS OF FINE MATERIAL.

SW020A

SW020B

SW021

AT2 OUTLET

SW024

ROOF R.W.P.

C10

SW023

SW022

E=347877.699 N=391777.218

E=347884.013 N=391773.196

SW008

CW001

CW002

FOR FOUL DRAINAGE REFER TO NOTE 6

E=347879.185 N=391770.134

SW033

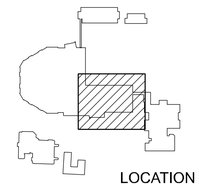
NOTES

1. THIS SCHEME IS BASED ON FIRA MASTERPLAN DRAWING WH-FI-WS-ZZ-M2-L-940001 REV P22.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE WHISTON DRAINAGE STRATEGY REPORT WH-AR-EX-ZZ-RP-D-002004, MANHOLE SCHEDULES WH-AR-EX-ZZ-RP-D-002002 AND ATTENUATION TANK SPECIFICATION WH-AR-EX-ZZ-SP-D-002001
3. ALL GULLY AND DRAINAGE CHANNEL CONNECTION PIPES TO BE 150mm Ø UNLESS SHOWN OTHERWISE.
4. LANDSCAPE ARCHITECT TO SHOW GULLIES AND CONNECTIONS IN LANDSCAPE AREAS WHERE NOT ALREADY INDICATED.
5. LANDSCAPE ARCHITECT TO SPECIFY MANHOLE COVER TYPES IN LANDSCAPE AREAS.
6. FOR INTERNAL BUILDING DRAINAGE REFER TO THE UNDERSLAB BUILDING DRAINAGE DRAWINGS SERIES: U-5101 TO U-5109
7. REFER TO PHASING DRAWINGS: WH-AR-EX-ZZ-DR-D-002512, WH-AR-EX-ZZ-DR-D-002557 AND WH-AR-EX-ZZ-DR-D-002558
8. EXISTING DRAINAGE BASED ON EDS SURVEY DRAWING: 1242/01/02 DATED 28/02/05.
9. ISSUED AS FIT FOR CONSTRUCTION FOR PHASE 1 ONLY.
10. SEE: WH-AR-EX-ZZ-DR-D-002570 FOR ATTENUATION TANK 1 PLAN AND SECTIONS.
11. SEE: WH-AR-EX-ZZ-DR-D-002571 FOR ATTENUATION TANK 2 PLAN AND SECTIONS.
12. DRAINAGE RUN SW012 TO SW017 TO PICK UP ANY ORPHANED BUILDING DRAINAGE FROM OUTSIDE THE HOARDING LINE.
13. ALL PHASE 1 STEP 1 DRAINAGE TO BE INSTALLED AS PART OF THE EARLY WORKS PACKAGE UNLESS INDICATED OTHERWISE
14. FOR DETAILS OF ADDITIONAL DRAINAGE ON SERVICE YARD LOADING DOCK, REFER TO DRAWING WH-AR-EX-ZZ-DR-D-002513.

KEY

- EXISTING DRAINAGE TO BE RETAINED AS SURFACE WATER
- EXISTING DRAINAGE TO BE RETAINED AS FOUL WATER
- EXISTING UU FOUL SEWER
- EXISTING UU COMBINED DRAINAGE
- EXISTING COMBINED DRAINAGE
- PROPOSED SURFACE WATER DRAINAGE PHASE ONE STEP ONE
- PROPOSED FOUL DRAINAGE PHASE ONE STEP ONE
- PROPOSED COMBINED DRAINAGE PHASE ONE STEP ONE
- PROPOSED GULLY CONNECTION PHASE ONE STEP ONE
- PROPOSED SURFACE WATER DRAINAGE PHASE ONE STEP FIVE
- PROPOSED GULLY CONNECTION PHASE ONE STEP FIVE
- PROPOSED SURFACE WATER DRAINAGE PHASE TWO STEP ONE
- PROPOSED GULLY CONNECTION PHASE TWO STEP ONE
- PROPOSED FOUL DRAINAGE PHASE TWO STEP ONE
- PROPOSED SURFACE WATER DRAINAGE PHASE TWO STEP FOUR
- PROPOSED GULLY CONNECTION PHASE TWO STEP FOUR
- CD004 — PROPOSED SURFACE WATER CHANNEL DRAIN TYPE AS SHOWN WITH REFERENCE NUMBER (SEE MANHOLE SCHEDULE)
- PI/FI — PROPOSED PETROL INTERCEPTOR/ FORECOURT INTERCEPTOR
- AT 1 — PROPOSED ATTENUATION TANK WITH REFERENCE NUMBER
- SITE BOUNDARY
- DRAINAGE TO BE ABANDONED, COLOUR INDICATES DURING WHICH PHASE
- G — EXISTING GULLY TO BE RETAINED
- G — PROPOSED NEW GULLY
- PROPOSED MANHOLE
- BACKDROP MANHOLES
- O RE — PROPOSED RODDING EYE
- E=347852.026 N=391511.891 — SETTING OUT COORDS INDICATE CENTRELINE INTERSECTION OF MAIN PIPELINES

KEY PLAN



LOCATION PLAN
NOT TO SCALE

Excavation for tanks/deep manholes and drainage Existing services	Work in confined spaces Working in tanks odours and explosive atmosphere Working at depth, falls from height	Damage to existing drainage Striking live services
Construction Risks	Maintenance/cleaning Risks	Demolition/adaptation Risks

In addition to the hazard/risks normally associated with the types of work detailed on this drawing take note of the above.
It is assumed that all works on this drawing will be carried out by a competent contractor working, where appropriate, to an appropriate method statement.

SAFETY HEALTH AND ENVIRONMENTAL INFORMATION BOX

NOTES

THE POSITIONS OF EXISTING DRAINAGE HAS BEEN REPRODUCED FROM AVAILABLE INFORMATION AND ARE GIVEN IN GOOD FAITH. NO GUARENTEE IS GIVEN FOR THE ACCURACY OF THE INFORMATION AND IT IS INTENDED FOR GENERAL GUIDANCE ONLY. OTHER DRAINAGE / SERVICES MAY ALSO BE PRESENT.

THE INFORMATION MUST NOT BE RELIED ON FOR EXCAVATION OR OTHER WORKS. THE ONUS FOR SAFELY LOCATING THE DRAINAGE BEFORE EXCAVATION OR OTHER WORKS REST ENTIRELY WITH THE CONTRACTOR.

REV	COMMENT	DR	CH	AP	DATE
C10	GAS STORE R.W.P. ADDED	DW	PS	SIL	09/10/09
C9	THRESHOLD DRAINAGE AMENDED	AS	PS	SIL	30/01/09
C8	AMENDED TO SERVICE YARD JOINTING LAYOUT	DC	PS	SIL	07/08/08
C7	REVISED DRAINAGE IN SERVICE YARD, NOTE 14 ADDED	DW	PS	SIL	10/01/08
C6	AMENDED DRAINAGE TO A&E CANOPY AND SERVICE TRENCH SERVICE YARD DRAINAGE AMENDED	DW	PS	SIL	23/11/07
C5	UPDATED TO ALIGN WITH LATEST INTERNAL DRAINAGE LAYOUT	AJ	PS	SIL	11/12/06
C4	SW014 RELOCATED	DC	PS	SIL	29/06/06
C3	UPDATED TO MATCH LATEST UNDERSLAB DRAINAGE LAYOUTS	DW	ANJ	SIL	13/06/06
C2	UPDATED TO INCLUDE AT2 BYPASS	DW	ANJ	MTCW	12/05/06
C1	UPDATED TO REFLECT PHASE 1 CHANGES	DC	ANJ	SIL	03/03/06
P2	FOR FINAL COMMENT	DO	ANJ	SIL	06/02/06
P1	FIRST ISSUE	DW	KJO	SIL	22/12/05

DRAWN BY	CHECKED BY	APPROVED BY	DATE
DC	KJO	SIL	22/12/05

SCALES @ A1	ISSUING OFFICE	PROJECT NUMBER
1:200	Arup Manchester	115500

CLIENT APPROVAL

- A - APPROVED
- B - APPROVED WITH COMMENTS
- C - AMMEND WITH COMMENTS AND RE-SUBMIT
- D - DO NOT USE

STATUS	PURPOSE OF ISSUE
A	FOR CONSTRUCTION

ARUP

PROJECT

Whiston Hospital

TITLE

PROPOSED DRAINAGE LAYOUT SHEET 5 OF 9

CLIENT

St Helens & Knowsley Hospitals NHS Trust

New Hospitals
New Directions in Healthcare Facilities

DRAWING NUMBER	REV
WH-AR-EX-ZZ-DR-D-002506	C10

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