

**CDM WARNING - 5.02**  
 DEEP EXCAVATIONS NEAR TO EXISTING SERVICES.  
 TEMPORARY WORKS MAY BE REQUIRED.

FOR WASTE COMPOUND & ACCESS  
 ROAD DRAINAGE REFER TO  
 WCHPH2-CUR-VV-XX-DR-C-92002

LOCATION AND NUMBER OF FOULED UP  
 UP AND RAIN WATER PIPES HAVE BEEN  
 SHOWN INDICATIVELY AND ARE TO BE  
 CONFIRMED AND REPAIRED BY OTHERS.  
 ALL INTERNAL FOUL DRAINAGE TO BE  
 1000 FALLING AT 1:100 MINIMUM.

ALL INTERNAL SURFACE WATER  
 DRAINAGE TO BE 1000 AT 1:100  
 MINIMUM.

SHALLOW SANDSTONE  
 DRAINAGE NOT TO NORTH-EAST HALF OF  
 BUILDING VY SUBJECT TO REVISIONS FOLLOWING  
 BUT TRENCH SURVEY OF SANDSTONE LEVELS  
 TO MINIMISE EXCAVATION IN ROCK.

INCOMING PIPE FROM NORTH  
 ACCESS ROAD  
 TO TAKE SURFACE WATER FLOW  
 RESTRICTED TO GREENFIELD  
 CHOUROU ACCESS ROAD AND FUTURE  
 CHECK OFF ROAD MARK  
 SEE DRAWING  
 WCHPH2-CUR-VV-XX-DR-C-92002

FRENCH DRAIN WITH  
 BASE OF SLOPE.

INTERNAL DRAINAGE TO  
 BE COORDINATED WITH  
 FOUNDATIONS - SOME  
 SEPTIC & PIPE  
 LOCATIONS MAY CHANGE

LIFT PIT WALL TO INCLUDE PERFORATED  
 PIPE TO PERIMETER, OUTLET IL 90.00m

ATTENUATION TANK 1  
 VOLUME 1.0m<sup>3</sup> (1000L)  
 TOP 1.8m (1800mm)  
 USE THROUGH BASE

LIFT PIT WALL TO INCLUDE PERFORATED  
 PIPE TO PERIMETER, OUTLET IL 90.00m

ATTENUATION TANK 2  
 VOLUME 1.0m<sup>3</sup> (1000L)  
 TOP 1.8m (1800mm)  
 USE THROUGH BASE

DRAINAGE REQUIREMENTS IN REPAIR  
 AREAS ARE UNKNOWN. ALLOWANCE  
 SHOULD BE MADE FOR ADDITIONAL  
 PIPES AND CHAMBERS TO DRAIN  
 THESE AREAS.

HYDROFRAME - S7  
 LIMITS FLOW TO GREENFIELD  
 0.90m<sup>2</sup> IN 1.50m (1500mm)  
 MANHOLE 51 - 37mm  
 DEPTH 1.50m  
 REF: SHE:0256.3700.1450.3700

HYDROFRAME - S10  
 LIMITS FLOW TO GREENFIELD  
 0.90m<sup>2</sup> IN 1.50m (1500mm)  
 REF: SHE:0124.8000.1500.8000

ATTENUATION TANK 2  
 VOLUME 1.0m<sup>3</sup> (1000L)  
 TOP 1.8m (1800mm)  
 USE THROUGH BASE

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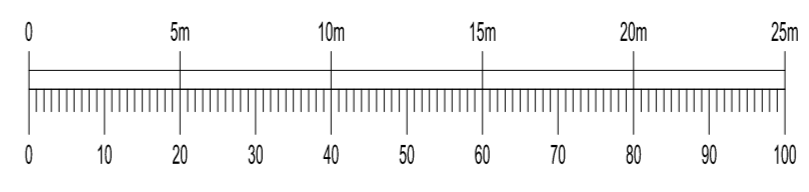
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 REF: SHE:0124.8000.1500.8000

- LEGEND**
- PROPOSED SURFACE WATER DRAIN WITH MANHOLE
  - PROPOSED FOUL WATER DRAIN WITH MANHOLE
  - INSPECTION CHAMBER
  - PROPOSED ATTENUATION TANK
  - PROPOSED PERMEABLE PAVING WITH TYPE 3 SUB-BASE - IMPERMEABLE BASE
  - PROPOSED LINEAR DRAINAGE CHANNEL
  - PROPOSED PERFORATED PIPE
  - PROPOSED GULLY
  - PROPOSED RODDING EYE
  - EXISTING SURFACE WATER PRIVATE DRAINAGE APPROXIMATE ROUTE
  - EXISTING FOUL WATER PRIVATE DRAINAGE APPROXIMATE ROUTE
  - EXISTING DRAINAGE TO BE RETAINED
  - EXISTING DRAINAGE TO BE ABANDONED

- THIRD PARTY INFO REQUIRED**
1. CCTV SURVEY OF EXISTING DRAINAGE TO CONFIRM EXTENT OF ABANDONMENT AND CONDITION.
  2. CONFIRMATION OF DRAINAGE REQUIREMENTS WITHIN REPAIRMENT AREAS.



**GENERAL NOTES:**

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
2. DO NOT SCALE THIS DRAWING. ANY AMBIGUITIES, OMISSIONS AND ERRORS ON DRAWINGS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IMMEDIATELY. ALL DIMENSIONS MUST BE CHECKED / VERIFIED ON SITE.
3. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

**PRIVATE DRAINAGE NOTES:**

1. ALL DRAINAGE WORK TO BE IN ACCORDANCE WITH THE BUILDING REGULATIONS, BS EN 752 AND TO THE SATISFACTION OF THE BUILDING INSPECTOR.
2. ALL PROPRIETARY ITEMS ARE TO BE INSTALLED STRICTLY IN ACCORDANCE WITH MANUFACTURERS DETAILS, INSTRUCTIONS & SPECIFICATIONS.
3. ALL EXISTING DRAINS AND SERVICES (LINE AND LEVELS) TO BE CHECKED BY THE CONTRACTOR ON SITE PRIOR TO FINALISING NEW DRAINAGE LINES AND LEVELS.
4. ALL COVER LEVELS ARE APPROXIMATE. EXACT LEVELS TO BE DETERMINED FROM THE EXTERNAL WORKS LAYOUT.
5. INVERT LEVELS QUOTED AT MANHOLES AND INSPECTION CHAMBERS ARE THOSE OF THE LARGEST CONNECTED PIPE DIAMETER. PIPES AT CHAMBERS TO BE LAID WITH SLOTTED LEVEL. UNLESS NOTED OTHERWISE.
6. PIPE GRADIENTS WHERE STATED ARE APPROXIMATE.
7. REFER TO ARCHITECT'S DRAWINGS FOR PRECISE LOCATION OF ALL RAINWATER PIPES, INTERNAL CONNECTIONS ETC.
8. ALL INTERNAL CONNECTIONS ARE TO HAVE AN ABOVE-FLOOR ACCESS POINT TO ENABLE FUTURE ACCESS FOR MAINTENANCE.
9. PIPES AND FITTINGS TO BE:
  - CONCRETE PIPES AND ANCILLARY PRODUCTS TO BS 5911:2002+AR:2010 AND BS EN 1916:2002.
  - VITRIFIED CLAY PIPES AND FITTINGS TO BS 295:2013 (ALL PARTS).
  - DUCTILE IRON TO BS EN 598:2007 & BS ISO 4175:2005.
  - PLASTIC PIPES FOR LAND DRAINAGE TO BS 4962:1982.
  - PLASTIC PIPING SYSTEMS FOR NON-PRESSURE UNDERGROUND DRAINAGE AND SEWAGE TO BS EN 1401 & BS 4680 - SOLID WALL ONLY. STRUCTURED WALL PIPES ARE NOT ACCEPTABLE FOR USE IN DRAINAGE SYSTEMS UNLESS AGREED.
  - PRECAST CONCRETE MANHOLE UNITS TO BS EN 1917:2002.
  - PLASTIC INSPECTION CHAMBERS FOR DRAINS AND SEWERS TO BS EN 13598-1:2010.
  - GULLY AND MANHOLE TOPS FOR VEHICULAR AND PEDESTRIAN AREAS TO BS EN 124:1994.
  - DRAINAGE CHANNELS FOR VEHICULAR AND PEDESTRIAN AREAS TO BS EN 1433:2002.
10. ALL MANHOLE COVERS, ROAD GULLY COVERS AND FRAMES TO COMPLY WITH BS EN 124 NON ROCKING TYPE UNLESS NOTED OTHERWISE. USE:
  - CLASS A15 AREAS INACCESSIBLE TO VEHICLES, ACCESSED ONLY BY PEDESTRIANS AND PEDAL CYCLISTS.
  - CLASS B125 FOOTPATHS, FOOTWAYS, PEDESTRIAN AREAS WITH ONLY OCCASIONAL LIGHT VEHICULAR ACCESS INCLUDING DOMESTIC DRIVEWAYS & SMALL CAR PARKS.
  - CLASS C250 GULLY TOPS IN CARRIAGEWAY WITH 500mm OF KERB AND UP TO 200mm INTO THE FOOTWAY.
  - CLASS D400 CARRIAGEWAYS, HARD SHOULDERS, PARKING AREAS AND PEDESTRIAN AREAS ACCESSED BY ALL TYPES OF VEHICLES.
  - CLASS E600 AREAS IMPOSING HIGH WHEEL LOADS SUCH AS INDUSTRIAL ESTATES AND SERVICE YARDS.
11. MANHOLES IN INTERNAL AREAS REQUIRE DOUBLE SEALED COVERS WITH LOCKING SCREWS, RECESSED WHERE REQUIRED TO ACCOMMODATE FLOOR FINISHES TO ARCHITECT'S SPECIFICATION.
12. PIPE BEDDING:
  - USE CLASS 5 BEDDING UNLESS NOTED OTHERWISE. NB PROTECT AGAINST CONSTRUCTION TRAFFIC AS NECESSARY.
  - USE CLASS 2 CONCRETE BED & SURROUND OR CONCRETE SLAB PROTECTION AS FOLLOWS:
    - 100 - 600mm (CLASS 120 CLAYWARE OR CLASS M CONCRETE) FIELDS AND GARDENS - LESS THAN 600mm COVER TO CROWN.
    - ROADS - LESS THAN 1200mm COVER TO CROWN.
    - 100 - 300mm (PLASTIC) FIELDS AND GARDENS - LESS THAN 600mm COVER TO CROWN.
    - ROADS - LESS THAN 900mm COVER TO CROWN.
13. PIPES BELOW CONCRETE GROUND FLOOR SLABS:
  - WHERE THE CROWN OF THE PIPE IS WITHIN 300mm OF THE UNDERSIDE OF SLAB, SPECIAL PROTECTION TO BE PROVIDED IN ACCORDANCE WITH BUILDING REGULATIONS H1 2.44 OR 150mm CONCRETE BED AND SURROUND CAST INTEGRALLY WITH SLAB.
  - OTHERWISE USE CLASS 5 BEDDING.
14. MAIN BACKFILL TO BE WELL COMPACTED IN 150mm LAYERS OF SELECTED BACKFILL MATERIAL IN ALL SOFT LANDSCAPED AREAS TYPE 1 GRANULAR MATERIAL IN ALL HARDSTANDING AREAS & PUBLIC HIGHWAYS.
15. BACKFILL TO DRAINS NEAR FOUNDATIONS IS TO BE IN ACCORDANCE WITH BUILDING REGULATIONS H1 DIAGRAMS 8 & 12.
16. SURFACE WATER MANHOLE SIZE TO BE MAXIMUM PIPE SIZE +900mm (ASSUME 1500mm).
17. ALL CHAMBERS DOWNSTREAM OF PERFORATED PIPES TO BE A SILT TRAP

Rev	Description	Date	By	Chk
P06	CONNECTION POINT OF WASTE COMPOUND UPDATED. DRAINAGE AMENDED AND PROPOSED BUILDING, FRENCH DRAIN AMENDED AND SLOT DRAINS ADDED	31/03/22	DM	AMB
P05	DRAFT RIBA STAGE 4 ISSUE	03/03/22	DM	AMU
P04	ADDED INFLOW AT MH S3 AND INCREASED FLOW CONTROL AT MH S8 ACCORDINGLY.	01/10/21	AMB	PT
P03	EXISTING DRAINAGE RELOCATION ADDED	24/06/21	DM	PT
P02	LAYOUT AND PHASING ALLIANCES UPDATED. IMPERMEABLE AREAS ADDED	18/06/21	DM	PT
P01	FIRST ISSUE	28/05/21	DM	PT

**curtins**  
 Lines 24 & 25 Riverside Place, K Waigo, Loud Road, Kowloon, HONG KONG  
 01338 72482  
 www.curtins.com

Partially Signed-Off - Stage 4

**GRAHAM**  
 Project: WEST CUMBERLAND HOSPITAL PHASE 2 DEVELOPMENT

**DRAINAGE LAYOUT**

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
072419	A0	MAY 21	DM	DM	PT

Project Code: Originator: Zone: Level: Type: Discipline: Category/Number: Rev

WCHPH2 CUR - VV - XX - DR - C - 92001 - P06