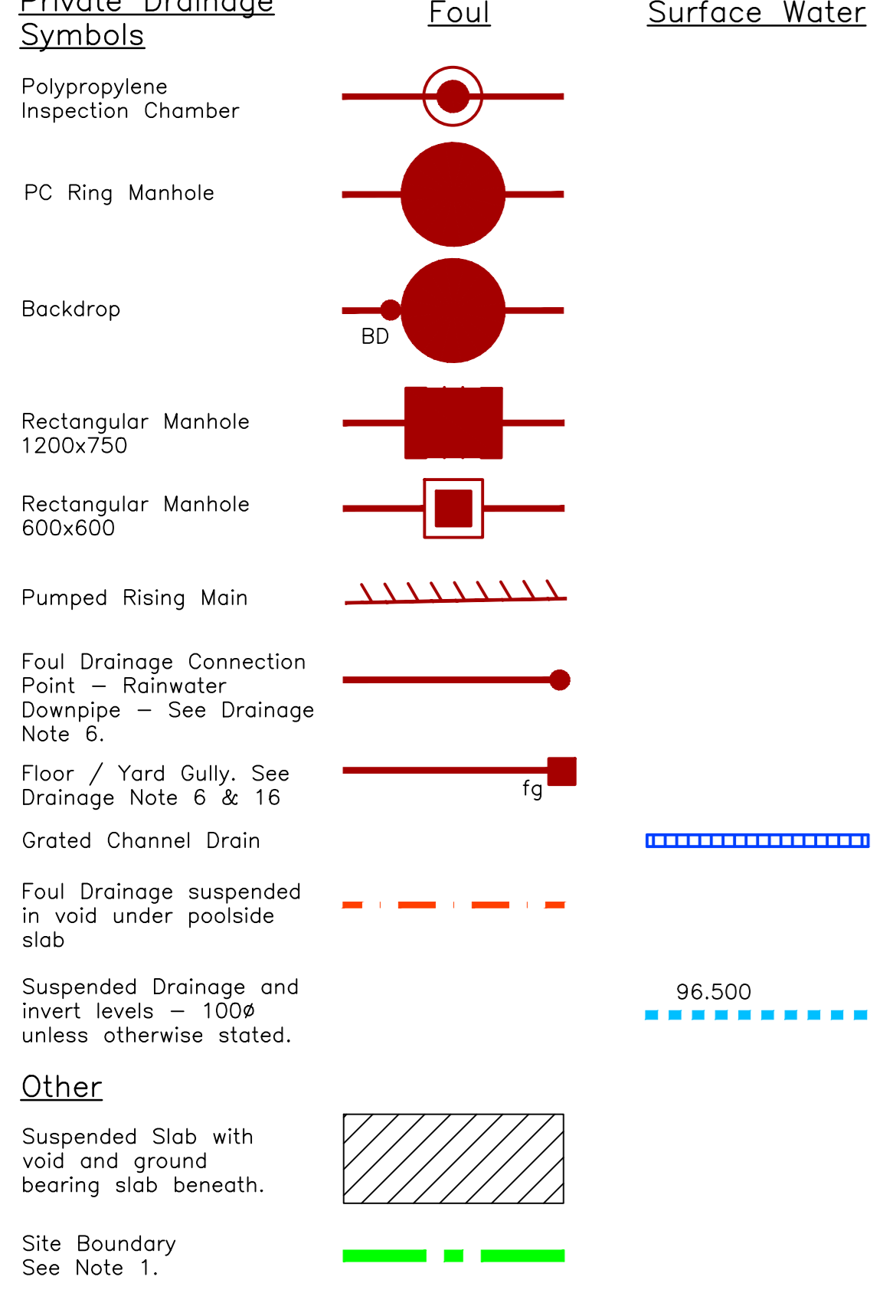


**Legend**  
**Private Drainage Symbols**  
 Polypropylene Inspection Chamber  
 FC Ring Manhole  
 Backdrop  
 Rectangular Manhole 1200x750  
 Rectangular Manhole 600x600  
 Pumped Rising Main  
 Foul Drainage Connection Point - Rainwater Downpipe - See Drainage Note E  
 Floor / Yard Gully, See Drainage Note 6 & 16  
 Grated Channel Drain  
 Foul Drainage suspended in void under outside slab  
 Suspended Drainage and invert levels - 100 $\phi$  unless otherwise stated.  
**Other**  
 Suspended Slab with void and ground bearing slab beneath.  
 Site Boundary See Note 1.



**Proposed Internal Layouts**  
 Internal layouts shown are the latest that we have available to us. Where the information is available we have reflected the drainage point information and floor levels as shown. In other instances where level information is not available, we have estimated the locations, number of drainage points and floor levels pending further clarification.

**Existing Drainage**  
 As shown it is proposed that certain lengths of existing drainage be retained. See Drg 240 for drainage repair specification.

**Pump Stations**  
 2No. foul pumping stations are shown located in plant room basement areas of Queen Mother Hall and Rosalind Franklin.

**Drainage of Light Wells**  
 The design shown is based upon surface water from many of the light-wells draining into the foul network in order to minimise surface water drainage depths. See Drainage Note 16.

**NOTE:**  
 All drain runs shown on this drawing will require protection against ground heave in accordance with the detail on 9100-DRG-34YY-DE280.

**ALL PIPES ARE TO BE 100 $\phi$  UNLESS OTHERWISE STATED.**

**IMPORTANT MAINTENANCE NOTE: SEE DRAINAGE NOTE 16.**

**Suspended Surface Water Pipe in Plant Room SW of The Pavilions**  
 Pipe diameter = 150 $\phi$ .

- Point A** - IL=93.250m Pipe drops from level BO above - See Drg 34YY-02023. Also collects 100 $\phi$  connection from gully G9.
- Point B** - IL=93.150m Pipe bends at 90 degrees.
- Point C** - IL=93.125m RWP drops from above and connects.
- Point D** - IL=93.050m pipe bends at 90 degrees.
- Point E** - IL=93.000m pipe bends at 90 degrees and exits through soft (female) pile in wall and connects via backdrop to manhole S14.

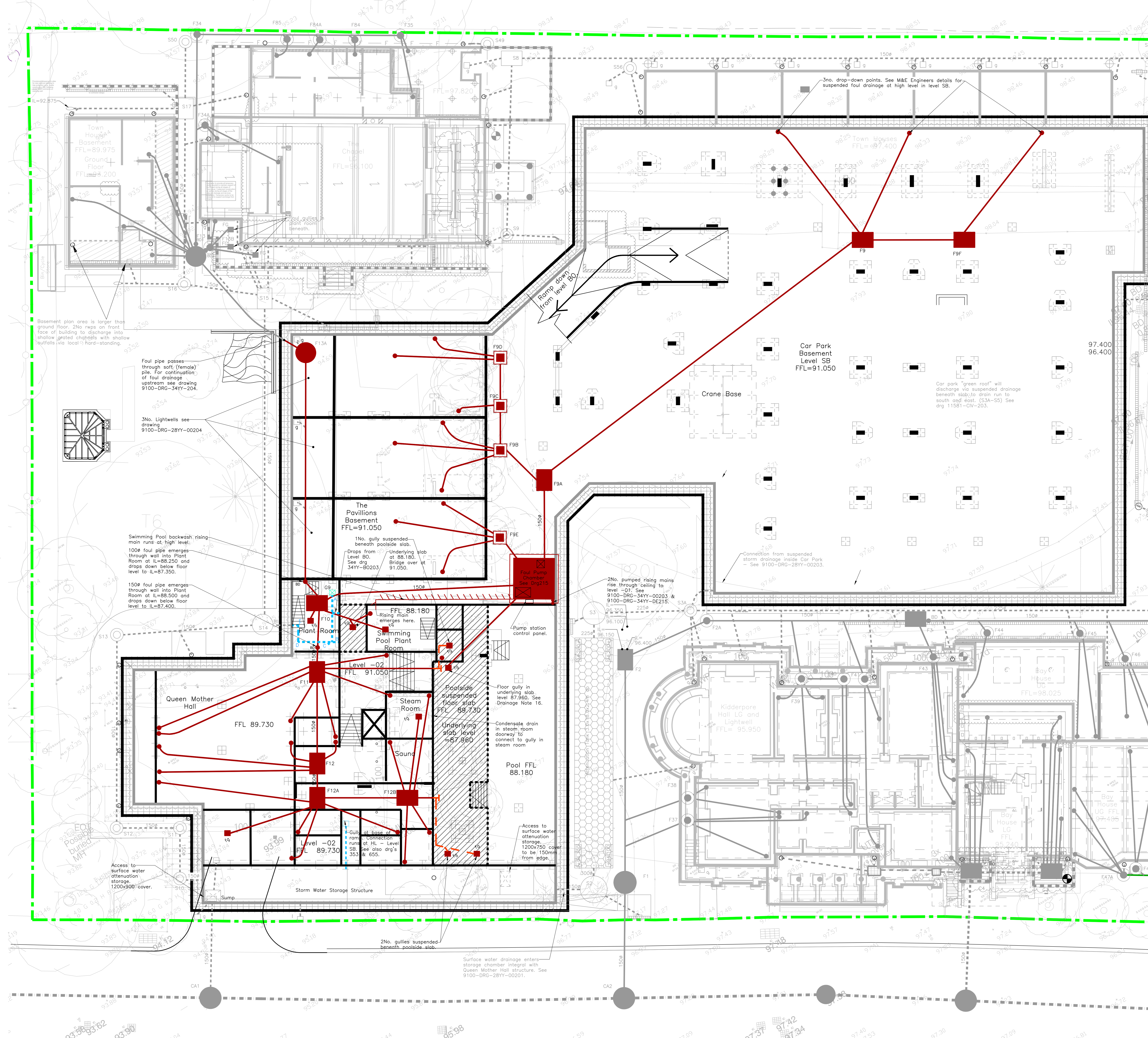
**Drawing Details and Related Drawings**

This drawing refers to the drainage details within the Car Park, Queen Mother Hall and The Pavilions at level sub-basement (SB).

**Related Drawings**

Drawing No:	9100-DRG-28YY-02022
Drawing Title:	Detailed Site Layout Eastern Section of Site
Drawing No:	9100-DRG-34YY-02023
Drawing Title:	Suspended storm Drainage Level BO Western Section of Site
Drawing No:	9100-DRG-34YY-GF204
Drawing Title:	Engineering Layout External Areas Western Section of Site
Drawing No:	9100-DRG-34YY-DE215
Drawing Title:	Engineering Layout External Areas Western Section of Site
Drawing No:	9100-DRG-34YY-SE654
Drawing Title:	Drainage Sections (QM & KH)
Drawing No:	9100-DRG-34YY-SE655
Drawing Title:	Drainage Sections (QM)
Drawing No:	9100-DRG-34YY-SE656
Drawing Title:	Queen Mother Hall Long Sections
Drawing No:	9100-SCH-240
Drawing Title:	Manhole Schedules

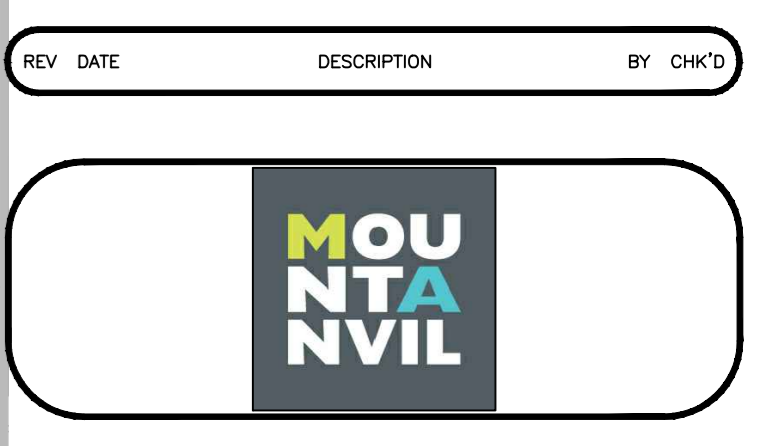
Also refer to Landscaping Architect's Layouts for more details.  
 For suspended foul drainage details refer to M&E Engineers Details.



- General Notes**
1. Any proposed construction is to be considered diagrammatic. This Engineering Layout is based upon layouts prepared by others and our services do not constitute an assurance intended to be any definition of land ownership.
  2. The underlying top survey information has been provided by Mount Anvil Surveyors. Tully De'Ath cannot be held responsible for any inaccuracies therein.
  3. The Contractor shall check all levels and dimensions. Any errors or omissions are to be reported to the Engineer immediately.
  4. All information regarding below ground obstructions has been made available to our attention. The Contractor shall be responsible for any obstructions not shown. The Contractor shall be responsible for any obstructions not shown. The Contractor shall be responsible for any obstructions not shown.
  5. Allowance to be made for diversion/maintenance of existing services as required.
  6. For details of landscaping and boundary fences refer to Architects drawings.
  7. In accordance with NHBC Technical Standards Chapter 9.2 appropriate action should be taken to suitably restore the ground characteristics of the soil once construction activities around the building have stopped. Garden areas shall be free from obstructions beneath the surface and should adequately prepared for completion. For detailed specification refer to landscape specialist details.
- Drainage Notes:**
1. All foul and roof water rest bends to have a minimum radius of 200mm about their central axis. Rest-bend invert levels for soil vent pipe connections shall be a minimum of 450mm above the finished ground level where they extend to the second floor of the building or below and 750mm below the finished ground level where they extend above the second floor of the building. Where slip and rap covers are used, the building way outlet shall be 100mm above the finished ground level.
  2. Cover levels of manholes and inspection chambers are for information only and must not be used for setting out purposes. Covers to be set flush with existing manholes and service chambers that are to be retained shall be adjusted to match proposed levels.
  3. Where two pipes cross each other beneath a trafficked area with a separation of less than 150mm - both pipes shall have Class 2 (concrete) surround 300mm within side of crossing point.
  4. Private drainage construction to comply with NHBC requirements and BS EN 752 Parts 1 to 4.
  5. Drainage from units to be in plastic pipe-work to BS EN 1452 & BS EN 13288. See also note 18.
  6. Foul drainage pipe runs upstream of the referenced manhole network referred to in the manhole schedules shall be laid to a minimum gradient of 1:50 where they serve soil vent pipes and 1:40 for all other foul connections.
  7. Surface water drainage pipe runs upstream of the referenced manhole network referred to in the manhole schedules shall be laid to a minimum gradient of 1:50.
  8. Drainage beneath suspended floor slab shall be bedded on approved acceptable materials as defined in the specification for highway works. Where drainage gully bed & surround is required greater than 300mm, Class 5 bed and surround to be used.
  9. Drainage runs beneath ground bearing slabs shall not have a cover of less than 200mm to underside of slab. They shall have a Class 5 bed and surround.
  10. Existing drains to be abandoned shall be grubbed out in the appropriate locations. Where drainage gully bed & surround is required greater than 300mm, Class 5 bed and surround to be used.
  11. Where connecting into existing drainage invert levels and locations/alignments are to be checked and results reported back to Engineer 5 days prior to work commencing.
  12. The proposed connections into the adopted sewer network will all be subject to approval and inspection by Thames Water under the terms of a Section 106 Agreement. The information required in accordance with Thames Water policy, including the proposed connections at CA1 (west) and downstream of S17 (east) for 1013821508 also the connection from CA3 8415582351.
  13. The contractor shall take the necessary measures required to avoid damage to the existing drains and services that are to be retained. Cover levels of retained manholes to be adjusted as required to suit the proposed level regime.
  14. Depth to pipe invert of rodding eyes to be 600mm unless otherwise stated.
  15. All works involving adopted sewers to be carried out in accordance with Sewers for Adoption 7th Ed.
  16. It is important that the water level in the traps within the internal floor (low) gullies and within the traps above the reverse interceptors is regularly checked and maintained in order to prevent the escape of foul gases from the sewer network. This is particularly important regarding the proposed sub-serving the confirmed space beneath the suspended slab adjacent the swimming pool in Queen Mother Hall.

**AS BUILT DRAWING**  
 This drawing has been provided as an 'As Built' drawing based on information provided by MOUNT ANVIL.

REV	DATE	DESCRIPTION	BY	CHKD
A81	18.09.18	Issued 'As Built'	JW	SFK
C521	08.17	Gully outlet added to base of QMH car park ramp.	JSR	SFK
C410	07.17	Drainage Note 16 amended. FFL's updated in Queen Mother Hall.	JSR	SFK
C326	06.17	Location C in plant room amended. SWF added to QMH Store room. Latest QMH foundations added.	JSR	SFK
C202	05.17	Suspended drainage within Queen Mother Hall updated. Refer to this drawing and 910023.	JSR	SFK
C128	03.17	Drainage point added in QM for sink.	JSR	SFK
C022	17	Drainage updated in accordance with 9100-DRG-28YY-02023. Drainage Note 16 amended. Full gully diameter within Car Park moved to correct location. Note regarding ground heave added. Note regarding the suspended surface water added.	JSR	SFK



**Engineering Layout**  
 Western Section of Site  
 Sheet 1 of 3 - Level SB

PROJECT:  
 Project No:11581  
 Kidderpore Avenue

SCALE: 1:10000 DATE: June 2016 DRAWN: JSR CHKD: SFK  
 DRG NO. 9100-DRG-34YY-02021 AB1

