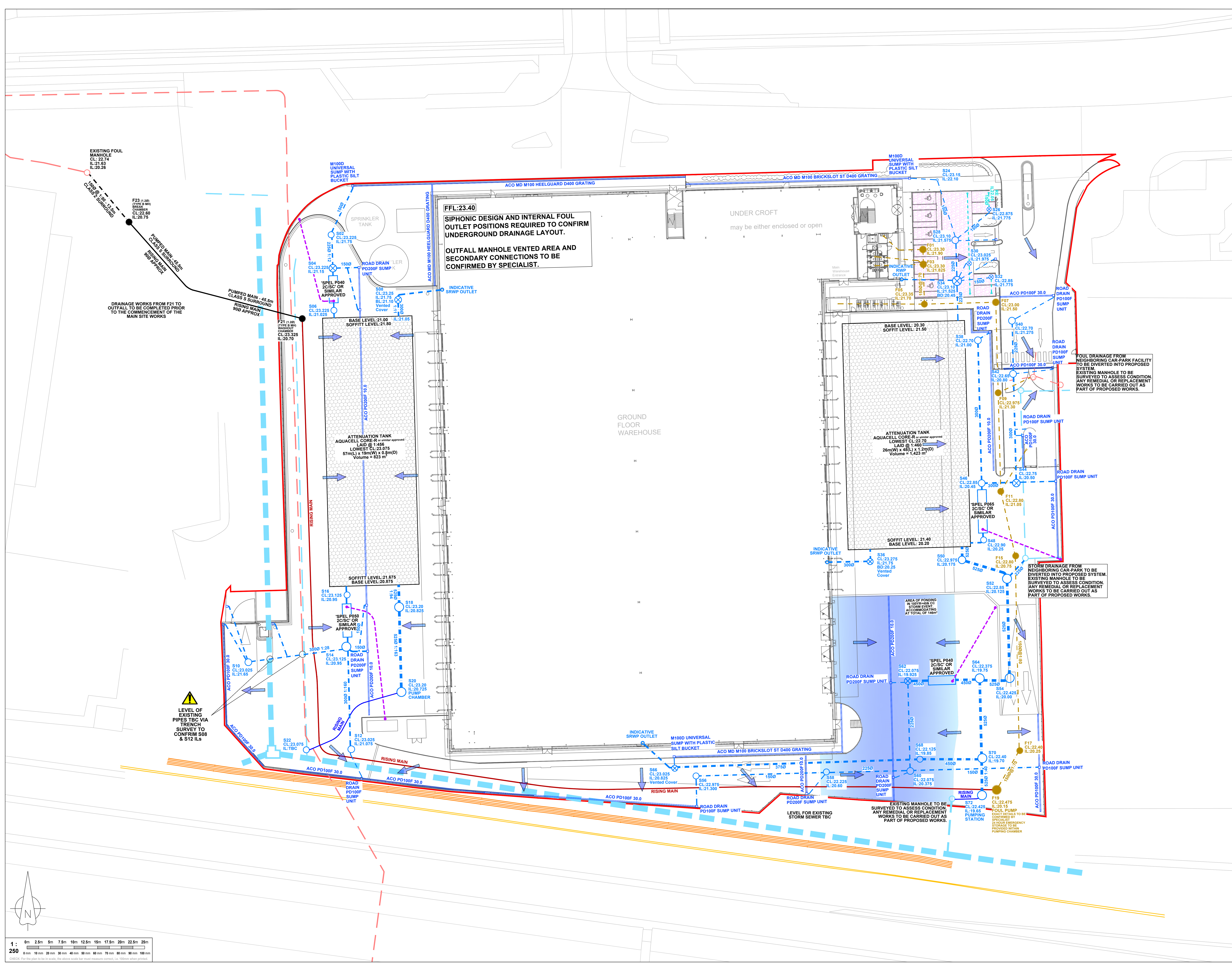




Notes

- Do not scale from this drawing. All dimensions must be checked & verified on-site. If in doubt ask.
- The Contractor is to check & verify all dimensions & levels before any work is started on-site.
- Existing site survey works have been carried out by others & no guarantee can be given by Baynham Meikle for their accuracy.
- Any discrepancies noted on-site are to be reported to Baynham Meikle immediately.
- This drawing is to be read in conjunction with all relevant Architects', Engineers' and other Specialists' drawings & specifications.
- For existing ground conditions, refer to Site Investigation reports.
- The drainage installation is to be compliant with Building Regs. (Part H).
- All adoptable drainage works shall comply with "Water UK - Design and Construction Guide".
- The following pipe strengths shall be adopted (unless noted otherwise):
 - Pipes up to and including 150mm Ø to be PVC-U to BS-EN 1329, or Clayware to BS-EN 205 Class 100.
 - Pipes 150mm Ø up to and including 225mm Ø to be Clayware to BS-EN 205 Class 160.
 - Pipes 300mm Ø to be Clay to BS-EN 295 Class 160 or Concrete to BS 5911 Class M.
 - Pipes over 300mm Ø to be Concrete to BS 5911 Class M.
- All pipes runs to be laid with flexible joints.
- All pipes entering and exiting manholes are to be connected to pipe soffits level unless noted otherwise.
- Pipe Bedding and surround to be as follows:

Location	Cover to Soffit	Pipe Bedding
Roads	Clay / Conc >1.2m	Flexible >0.9m
Hard and Soft Landscaping	<1.2m	<0.9m
		Class S
		Class Z
		Class 2
- The following Conc. mixes are to be used (in accordance with BS 5500):

Location	Mix Reference
Concrete Surround to Pipes	ST4
Concrete Base and Surround to Manholes	ST4
- All precast-concrete products (i.e. pipes, manhole rings, etc.) shall be of suitable concrete mix to cater for Class 2 Sulphates.
- Pre-formed channels are to be used in manholes where applicable.
- Granolithic Concrete benching to be steel trowelled to a dense smooth face neatly shaped and finished to all branch connections and laid in accordance with the Specification.
- All connections to be turned in direction of flow using pipe bends.
- Manhole covers and frames to be Ductile Iron Medium Duty grade B125 rectangular to BS-EN 124 positions outside vehicular trafficked areas, and Heavy Duty grade D400 in vehicular trafficked areas.
- Manhole covers and frames to be Ductile Iron Medium Duty grade A15 covers in Soft Landscaping.
- First flexible joint in pipes adjacent to a manhole shall be a maximum of 600mm from inside face of manhole, connecting to rocker pipe.
- The length of Rocker Pipe is as follows:

Pipe Diameter	Length of Rocker Pipe
150mm - 600mm	600mm
675mm - 750mm	1000mm
825mm & Over	1250mm
- Manholes with outgoing pipes greater than 600mm Ø shall be fitted with guard bars, safety chains or other safety devices.
- The Principle Contractor shall be responsible for checking the existing lines and invert levels of any connection points for both the Foul and Surface Water systems, prior to undertaking installation of any new drainage works. Any deviation to the levels and positions indicated on the drawing should be brought to the attention of the Engineer.
- All invert levels specified are outgoing (except Backdrop connections).
- All foul connections to be 150mm Ø laid at a minimum gradient of 1:40 unless noted otherwise. Surface Water pipe sizes are as indicated.
- Foul pipes to be externally vented (SVP) at head of run.
- For location of internal SVP, SS, etc., refer to Architect's latest layouts.
- Internal Foul drainage connections / positions and setting-out information to be confirmed by the M&E Consultant / Architect.
- Where manholes are within block paved areas, manhole how covers are to be recessed to maintain a consistent finish.

LEGEND:

- STORM SEWER AND MH / IC
- PROPOSED CATCH PIT
- FOUL SEWER AND MH / IC
- EXISTING FOUL SEWER AND MH (Heathrow / private asset)
- EXISTING STORM SEWER AND MH
- FOUL RISING MAIN
- STORM RISING MAIN
- PERFORATED PIPE
- VENT PIPE
- KERB DRAIN
- ACO / DRAINAGE CHANNEL
- ATTENUATION TANK
- POROUS BLOCK PAVING WITH TANKED POROUS SUB-BASE
- ESSO ASSET - FUEL PIPELINE
- BP ASSET - FUEL PIPELINE
- DEVELOPMENT BOUNDARY
- FLOOD ROUTE ARROWS

DISCHARGE RATES FOR SURFACE WATER NETWORK HAVE BEEN LIMITED TO Q-BAR GREENFIELD RATES. TOTAL SURFACE WATER DISCHARGE RATE FOR PROPOSED SITE = 41/s

REDUNDANT DRAINAGE PIPE WORK TO BE REMOVED AS NECESSARY AND CUT OFF / CAPPED AT SUITABLE LOCATIONS.

FULL RETENTION INTERCEPTORS TO BE INSTALLED WITH BASE SLAB AND COVER SLAB

ANY MANHOLES WITHIN RESIN BOUND GRAVEL AND BLOCK PAVING AREAS ARE TO HAVE D400 RECESSED COVERS.

Rev	Date	Description	By	Chk'd
T05	11/09/2020	New layout inserted	C.S.	T.B.
T04	02/09/2020	Flood route arrows added	C.S.	T.B.
T03	11/07/2020	Updated to suit the latest layout.	A.C.	T.B.
T02	10/07/2020	New layout inserted	C.S.	T.B.
T01	06/06/2020	Updated to include trench	C.S.	T.B.
P15	06/05/2020	Design updated following latest survey.	J.T.	T.B.
P14	23/02/2020	Updated to suit latest architect site layout.	J.T.	T.B.
P13	17/02/2020	Updated to suit latest architect site layout.	J.T.	T.B.
P12	23/02/2020	Pump positions moved	C.S.	T.B.
P11	19/02/2020	Details of foul drainage added	C.S.	T.B.
P10	05/02/2020	Updated to suit latest architect site layout.	C.S.	T.B.
P09	05/02/2020	Updated to suit latest architect site layout.	C.S.	T.B.
P08	04/01/2020	Site Layout Updated to suit.	A.S.B.	C.S.
P07	25/11/2020	Updated to amended Q-bar rates. Storm outfall location located for Western network.	C.S.	T.B.
P06	10/11/2020	Updated to show latest proposals	C.S.	T.B.
P05	11/11/2020	Updated to show latest proposals and updated site layout.	C.S.	T.B.
P04	24/10/2020	New layout inserted	C.S.	T.B.
P03	14/10/2020	Existing Thames Water sewer added to drawing.	C.S.	T.B.
P02	13/10/2020	Further information added to drawing in line with the supporting drainage calculations.	C.S.	T.B.
P01	10/10/2020	First issue	C.S.	T.B.

For Tender

Building 1071, Southampton Road East, London Heathrow Airport, Hounslow, TW6 3AQ

Drawing Title: **Drainage Strategy Plan**

Drawing Number	Revision
13822 - 200	T05

Rev	Date	Scale	Drawn by	Checked by	Project Eng.
RM Ref	13822	Scale @ A0 1 : 250	C.S.	T.B.	T.B.

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