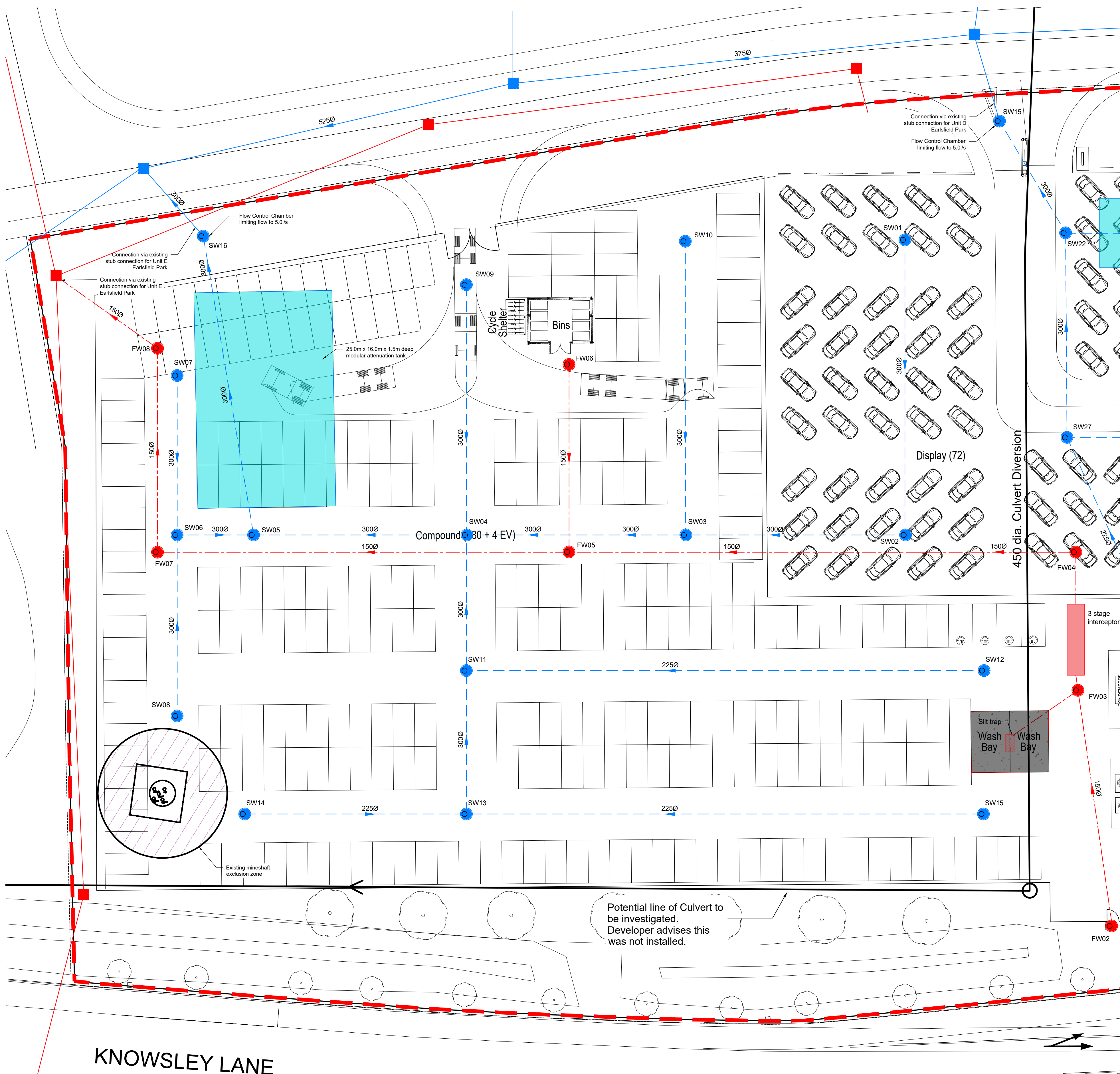




Legend	
Surface Water	Description
	New surface water drain
	New surface water manhole
	New modular storage tank
	Existing surface water sewer
	Existing surface water manhole
	Pipe diameter and fall gradient
1000 1/100	
Foul	Description
	New foul water drain
	New foul water manhole
	Existing foul water sewer
	Existing foul water manhole
	Pipe diameter and fall gradient
1500 1/150	
Site	Description
	Site Boundary

- General Drainage Specification**
- All private drains shall be constructed and commissioned in accordance with the relevant sections of the Building Regulations Approved Documents and relevant British Standards.
 - All pipework to be 1000 minimum unless noted otherwise.
 - Private surface water drains shall be laid at a minimum gradient of 1 in 100 or to the gradients and invert levels shown.
 - Private foul water drains shall be laid at a minimum gradient of 1 in 80 or to the gradients and invert levels shown.
 - Foul pipework connections to first access point shall be laid at a minimum gradient of 1 in 40 or to the levels shown.
 - All connections to be made soffit to soffit unless noted otherwise.
 - Pipe bedding to be Class 'B' bedding for rigid pipes and Class 'T' bedding for flexible pipes (100 mm granular bed and surround).
 - Where cover to soffit of pipe is less than 600 mm in private areas, the following shall apply:-
 - Vitrified clay pipes - provide a 100 mm min. thick concrete bed and surround (instead of class 'B' & 'T' bedding) and a 13 mm thick compressible filler at each joint.
 - uPVC pipes - provide a concrete bridging (in addition to class 'B' or 'T' bedding) in accordance with appendix A15, Building Regulations part 'H'.
 - All concrete indicated in the construction of drainage infrastructure (pipe bedding, bridging, manholes etc) shall be standardised prescribed concrete ST2 and is to conform to BS EN 206-1 and BS 8500-2. The maximum aggregate size shall be 20mm.
 - Foundations adjacent to pipe runs or manholes are to have their formation level set above the invert level no higher than the equivalent of the horizontal distance between the pipe/excavation trench and the foundation, minus 500mm.
 - Excavations for manholes, pipe runs etc located within a 45 degree load distribution splay from any adjoining existing foundations, are to be adequately supported for the duration of the works and pipe runs protected as note 8 above.
 - Where excavations for pipe runs are parallel and in close proximity to each other and/or other service trenches, The Contractor shall ensure that adequate safety measures, including temporary shoring, are provided in line with current health & safety legislation and good practice. Particular attention is to be paid to adjacent trenches of differing invert levels.
 - All existing drainage found on site during the works shall be investigated, its operational status confirmed and the following applied:-
 - Inoperative drainage shall be cut back and pipe runs filled with concrete grout.
 - 'Live' drainage shall be advised to the engineer.

Health & Safety - CDM Regulations

It is the responsibility of the client to fulfil their duties under CDM regulations and ensure all work is carried out by suitably qualified and competent organisations and personnel. HTE are appointed as designers. All other CDM roles must be fulfilled by the others.

Residual hazards specific to the design presented on the drawing are noted below. Anyone carrying out this or associated work must be aware of and manage all the risks, including those typically associated with the type of work being carried out. Hazards should also be taken into account in the maintenance, operation, decommissioning and demolition of the works.

- Buried Services**
Before excavation, conduct a full utility survey and verify service locations using CAT scanning and trial pits. Follow HSG47 guidelines to avoid damaging buried services, which may pose risks of injury or disruption. Stop work immediately if unexpected services are found and contact the utility provider.

General:

- 1.1 This drawing is to be read in conjunction with all Architect's, Engineer's and Services Engineer's drawings and specifications.
- 1.2 Do not scale from any of the structural drawings. All dimensions to be verified on site and any discrepancies should be highlighted.
- 1.3 The contractor is responsible for the stability of the building and adjoining structures during construction and shall design, install, adapt and maintain all necessary propping and temporary works. A method statement for the temporary works must be submitted to the contractor administrator for comment before work begins.
- 1.4 All materials to comply with the relevant British Standard.

NOTE: Further supported information to be provided to determine location of existing drainage and services including CCTV surveys prior to completion of drainage design.

NOTE: Proposed foul and surface water discharge locations and connections are subject to approval from the local water authority.

NOTE: The locations of foul and surface water pop ups to be confirmed. Further supported information is to be provided prior to completion of drainage design.

NOTE: Existing drainage outfall locations to be further investigated prior to finalisation of drainage design.

NOTE: No allowance for permeable surfaces has been allowed. Exact paving specification to be confirmed prior to finalisation of drainage design.

NOTE: Topographical survey of existing site to be undertaken in order to finalise drainage design

P02 Preliminary 19.06.25 NH
P01 First Issue 20.09.24 NH

Rev.	Comments	Date	Chkd
Status			

For Coordination

HTE HARDY-TUNSTALL
ENGINEERING LTD

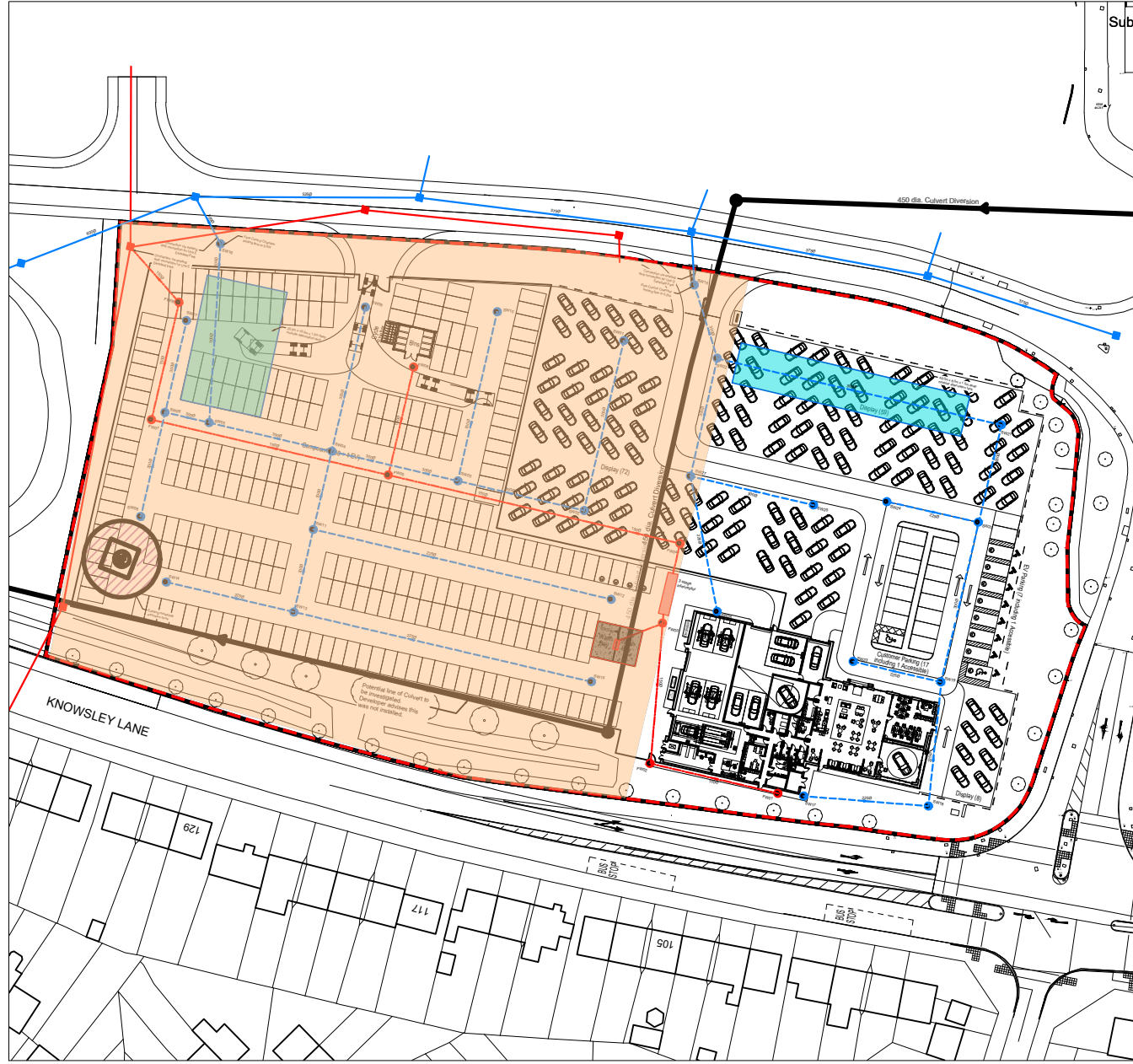
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Client
ARNOLD CLARK

Project
**EARLSFIELD PARK
UNIT D AND E**

Drawing Title
**DRAINAGE STRATEGY
SHEET 1 DETAILS**

Scale as noted @ A1	Drawn By TM	Date SEP '24
HTE Project No. 224048	Status Code S1	Revision P01
Drawing No. 224048-HTE-XX-XX-DR-C-900		



LOCATION PLAN
Scale: 1:1250

DRAINAGE STRATEGY VIEW 1
Scale: 1:250