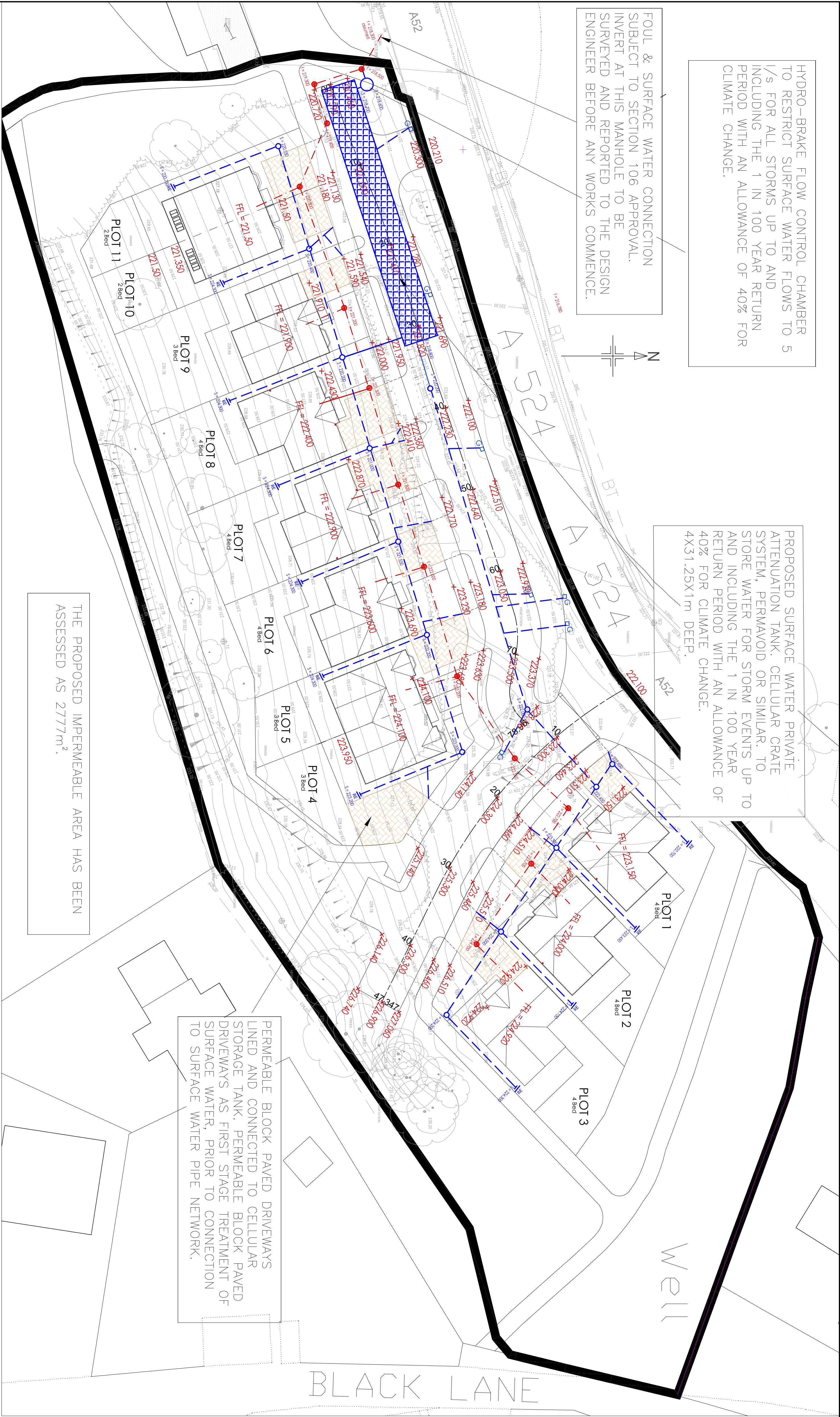


HYDRO-BRAKE FLOW CONTROL CHAMBER TO RESTRICT SURFACE WATER FLOWS TO 5 l/s FOR ALL STORMS UP TO AND INCLUDING THE 1 IN 100 YEAR RETURN PERIOD WITH AN ALLOWANCE OF 40% FOR CLIMATE CHANGE.

FOUL & SURFACE WATER CONNECTION SUBJECT TO SECTION 106 APPROVAL. INVERT AT THIS MANHOLE TO BE SURVEYED AND REPORTED TO THE DESIGN ENGINEER BEFORE ANY WORKS COMMENCE.

PROPOSED SURFACE WATER PRIVATE ATTENUATION TANK. CELLULAR CRATE SYSTEM, PERMAVOID OR SIMILAR. TO STORE WATER FOR STORM EVENTS UP TO AND INCLUDING THE 1 IN 100 YEAR RETURN PERIOD WITH AN ALLOWANCE OF 40% FOR CLIMATE CHANGE. 4X31.25X1m DEEP.



PERMEABLE BLOCK PAVED DRIVEWAYS LINED AND CONNECTED TO CELLULAR STORAGE TANK. PERMEABLE BLOCK PAVED DRIVEWAYS AS FIRST STAGE TREATMENT OF SURFACE WATER, PRIOR TO CONNECTION TO SURFACE WATER PIPE NETWORK.

THE PROPOSED IMPERMEABLE AREA HAS BEEN ASSESSED AS 2777m².

NOTES:

1. ALL DIMENSIONS IN MILLIMETRES UNLESS STATED OTHERWISE.
2. ALL DRAINAGE WORKS ARE TO COMPLY WITH THE REQUIREMENTS OF BS 752 BUILDING DRAINAGE AND BUILDING REGULATIONS 2000 APPROVED DOCUMENT H 2002 EDITION.
3. ALL MATERIALS, UNLESS SPECIFIED OTHERWISE, SHALL COMPLY WITH THE RELEVANT BRITISH STANDARD SOURCES OF INFORMATION. THE DESIGNER HAS NOT VISITED THE SITE PRIOR TO THE COMMENCEMENT OF ANY DRAINAGE WORKS.
4. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER ENGINEERING DRAWINGS AND DETAILS AND CONTRACT DOCUMENTATION.
5. ANY DISCREPANCIES IN THE DETAILS SHOWN TO BE PRIOR TO CONSTRUCTION.
6. LOCATION AND LEVELS OF EXISTING DRAINAGE RUNS ARE BASED UPON SEWER RECORD PLANS AND MUST BE CHECKED ON SITE PRIOR TO THE COMMENCEMENT OF ANY DRAINAGE WORKS.
7. ALL EXISTING SERVICES TO BE LOCATED PRIOR TO THE COMMENCEMENT OF ANY DRAINAGE WORKS WHERE UNDERGROUNDED.
8. ALL DRAINAGE AND FITTINGS TO BE FLEXIBLY JOINTED. OR FLEXIBLY JOINTED UPVC PIPES AND FITTINGS TO WIS 10 4-13.05.
9. TYPICAL PIPE BENDING TO DRAINAGE WHERE DEPTH TO SOFFIT IS GREATER THAN 800mm IN LANDSCAPED AREAS AND GREATER THAN 1200mm IN TRAFFICKED AREAS IS TO BE CLASS 2 SURROUND FOR PIPES UP TO 250 AND 20 AND GRADED IMPORTED GRANULAR BED AND SURROUND FOR PIPES GREATER THAN 250.
10. WHERE DEPTH TO SOFFIT OF DRAINAGE PIPEWORK IS LESS THAN 800mm IN LANDSCAPED AREAS AND LESS THAN 1200mm IN TRAFFICKED AREAS, THE PIPEWORK SHALL BE SURROUNDED WITH 150mm MINIMUM THICK CONCRETE BED & SURROUND.
11. BACKFILL TO DRAINAGE TRENCHES UNDER CARPARKWAYS TO BE FREE DRAINING REGULARLY COMPATIBLE MATERIAL, FREE FROM RUBBISH AND ORGANIC MATTER, FROZEN SOIL, CLAY LUMPS AND LARGE STONES. TO BE COMPACTED IN LAYERS.
12. MANHOLE DIAMETERS SHOULD BE IN ACCORDANCE WITH THE TABLE BELOW.
13. A FLEXIBLE JOINT SHALL BE PROVIDED AS CLOSE AS IS FEASIBLE TO OUTSIDE FACE OF ANY STRUCTURE INTO WHICH A PIPE IS BUILT. COMPATIBLE WITH THE SATISFACTORY COMPLETION AND NEXT PIPE (ROCKER PIPE) AWAY FROM THE STRUCTURE SHALL BE AS SHOWN IN THE TABLE BELOW.
14. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM.
15. ALL DRAINAGE HAS BEEN DESIGNED NOT TO ATTENUATE FLOWS IN EXCESS OF THE 1 IN 100 YEAR RETURN STORM PERIOD WITH AN ALLOWANCE OF 30% FOR CLIMATE CHANGE.
16. ROUTE AND DEPTH OF PUBLIC SEWERS IS TO BE CONFIRMED.
17. ROUTE AND CONDITION OF EXISTING ON SITE PRIVATE DRAINAGE SHOULD BE CONFIRMED AND ASSESS POTENTIAL TO RE-USE AS PART OF THE PROPOSED DRAINAGE NETWORK.

DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE (mm)
LESS THAN 375	1200
375-450	1500
500-700	1500
750-900	1800
950-1200	2100

NOMINAL DIAMETER (mm)	EFFECTIVE LENGTH (m)
150-600	0.6
675-750	1.0
825 AND OVER	1.25

KEY

- PROPOSED HYDRO-BRAKE FLOW CONTROL CHAMBER
- PROPOSED FM DOMESTIC POLYPROPYLENE INSPECTION CHAMBER WITH INVERT LEVEL
- PROPOSED FOUL WATER DOMESTIC DRAIN RUN
- PROPOSED 2M DOMESTIC POLYPROPYLENE INSPECTION CHAMBER WITH INVERT LEVEL
- PROPOSED SURFACE WATER DOMESTIC DRAIN RUN
- PROPOSED ADAPTABLE ROAD GULLY
- PROPOSED DOMESTIC RODDING EYE
- PROPOSED UNDER CHANNEL DRAIN
- PROPOSED PRIVATE CELLULAR ATTENUATION TANK PERMAVOID OR SIMILAR

Drawing No. **K663-101** Revision.



Contract
RESIDENTIAL DEVELOPMENT
BLACK LANE
WHISTON

Client/Architect
HLW DEVELOPMENTS LTD

Issue
PRELIMINARY

Rev	Description	Chk'd/Iss'd	Date
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