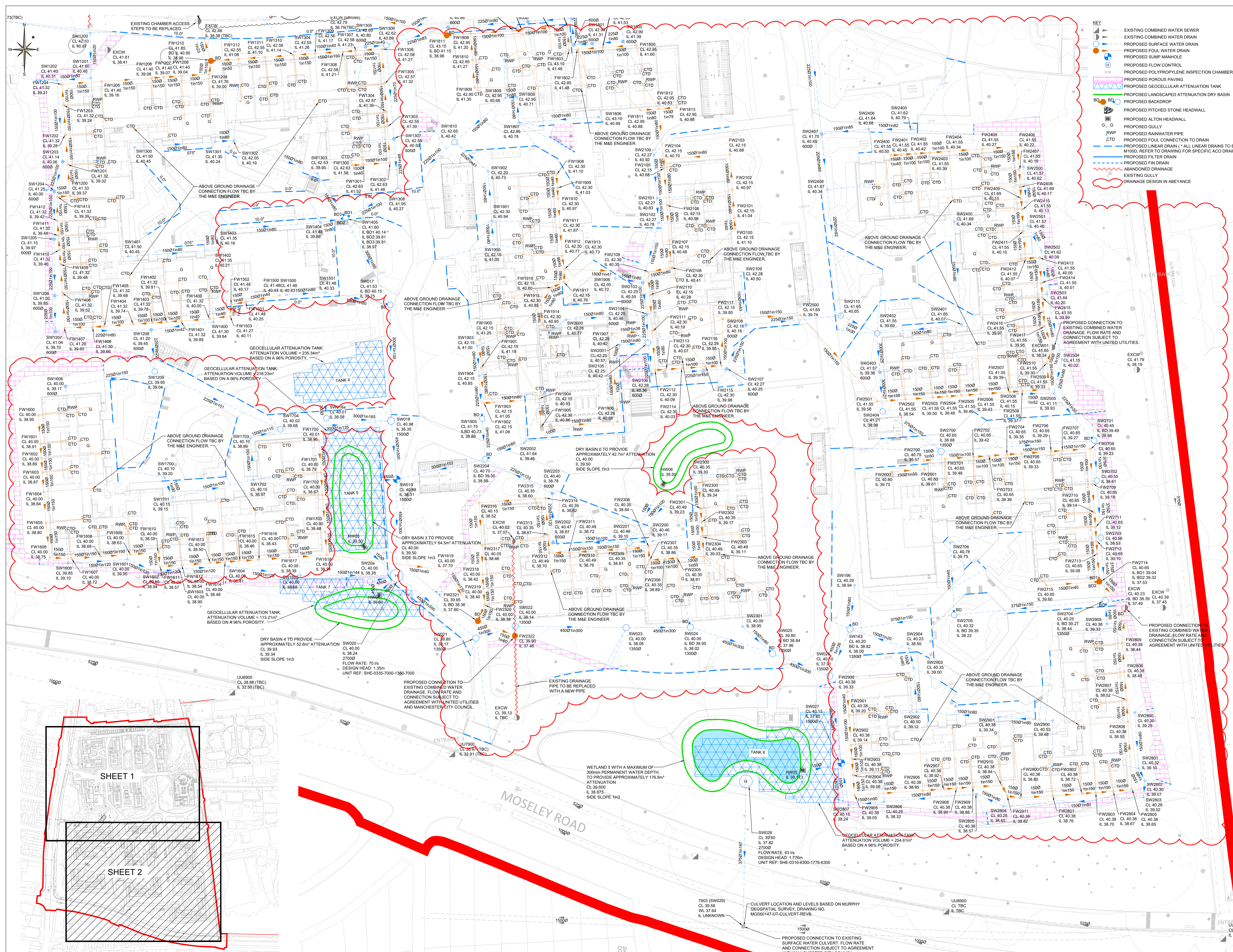




- ### NOTES
1. TO BE READ IN CONJUNCTION WITH ALL RELEVANT KENNEDY REDFORD DRAWINGS AND SPECIFICATIONS.
 2. TO BE READ IN CONJUNCTION WITH EXISTING ARCHITECTURAL, MEP, AND LANDSCAPE DESIGN DRAWINGS.
 3. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE STATED.
 4. ANY DISCREPANCIES IN THE DESIGN INFORMATION OR CONDITIONS FOUND ON SITE SHOULD BE RAISED TO THE ENGINEER IMMEDIATELY.
 5. REFER TO THE MANUFACTURERS INSTALLATION GUIDANCE FOR ALL SPECIFIED PRODUCTS.
 6. SHOULD THIS DRAWING BE NEEDED FOR COSTING YOU MUST CONTACT KENNEDY REDFORD IN THE FIRST INSTANCE TO DISCUSS UNKNOWN ASSUMPTIONS MADE AT THIS STAGE.
 7. THIS DRAWING IS BASED ON THE LANDSCAPE ARCHITECTS PROPOSED LANDSCAPE GA. DRAWING NO. UMRF-LAP-XX-00-00002, REV F11.
 8. ALL EXISTING SERVICES TO BE LOCATED PRIOR TO THE COMMENCEMENT OF ANY DRAINAGE WORKS WHERE NECESSARY PROTECTION OR DIVERSIONS TO BE UNDERTAKEN TO AVOID CONFLICT WITH THE PROPOSED WORKS.
 9. THE ENTIRE PROPOSED DRAINAGE SYSTEM AND ANY PART OF THE EXISTING DRAINAGE SYSTEM TO BE RETAINED AS PART OF THE NEW SCHEME SHALL BE CLEANED AND INSPECTED. ANY STRUCTURAL DEFECTS SHALL BE REPAIRED USING APPROPRIATE AND APPROVED MEANS CONTRACTOR TO ARRANGE ALL SEWERS AND DRAINS TO BE FLUSHED OUT BEFORE FINAL CCTV SURVEY IS CARRIED OUT ON COMPLETION OF WORKS.
 10. NO CONNECTION TO BE MADE TO THE PUBLIC SEWER UNTIL APPROVAL HAS BEEN RECEIVED FROM THE UNITED UTILITIES AND MANCHESTER CITY COUNCIL.
 11. EXISTING SEWER AND DRAINAGE LOCATIONS, LEVELS AND DIMENSIONS TO BE CONFIRMED BY CONTRACTOR ON SITE. PRIOR TO WORK COMMENCING DRAINAGE LAYOUT AND LEVELS SUBJECT TO CHANGE UNTIL EXISTING SEWERS/DRAINAGE HAVE BEEN SURVEYED.
 12. ALL REDUNDANT EXISTING DRAINAGE TO BE GRIPPED UP OR GROUDED, ANY EXISTING LIVE DRAINAGE SHOULD BE REPORTED TO THE ENGINEER AND RECONNECTED.
 13. ANY EXISTING DRAINAGE WHICH BECOMES UNDER TRAFFICKED AREAS IN THE NEW SCHEME SHOULD BE SUBJECT TO THE FOLLOWING REMEDIATION/REVISIONS: WHERE DEPTH OF COVER IS LESS THAN 1200mm, THE EXISTING PIPES SHALL BE EXPOSED, SURROUNDED WITH 150mm CONCRETE SURROUND, WHERE THE EXISTING MANHOLE COVER & FRAME IS NOT AS MANHOLE DETAIL A 300 CL 41.55 OR TO BS87 GRADE 4 OR EN153 CLASS D, THEN IT SHOULD BE CHANGED FOR SUCH.
 14. EXISTING CHAMBERS BEING CONNECTED INTO SHALL BE INSPECTED BY CONTRACTOR, CHAMBER BENCHING/ACCESS TO BE MODIFIED TO PROVIDE SAFE ACCESS. NEW CHAMBER WILL BE REQUIRED IF THERE IS INSUFFICIENT ROOM FOR NEW CONNECTION.
 15. PRIVATE DRAINS TO BE CONSTRUCTED IN ACCORDANCE WITH BUILDING REGULATIONS PART H, BS EN 18933 AND BS EN 753.
 16. ALL MANHOLE LEVELS ARE APPROXIMATE ONLY AND MAY NEED TO BE ADJUSTED TO THE IN TO SURROUNDING LEVELS.
 17. ROCKER PIPES TO BE REQUIRED AT ALL CONNECTIONS WITH STRUCTURES.
 18. ALL MANHOLE AND PIPE POSITIONS ARE APPROXIMATE.
 19. ALL MANHOLE SIZES ARE 1000mm UNLESS INDICATED OTHERWISE.
 20. ALL INSPECTION CHAMBER SIZES ARE 4500 UNLESS INDICATED OTHERWISE.
 21. ALL SIZES MORE THAN 1.2m DEEP TO BE FITTED WITH A REDUCER RING.
 22. ALL PIPES TO BE LAID SOFFIT TO SOFFIT UNLESS INDICATED OTHERWISE.
 23. PROPOSED PIPEWORK WITH LESS THAN THE FOLLOWING DEPTHS TO SOFFIT REQUIRES A CONCRETE SURROUND:
 - 1.2m IN ROADS AND OTHER TRAFFICKED AREAS
 - 0.9m UNDER LIGHTLY TRAFFICKED FOOTPATHS
 - 0.6m IN LANDSCAPE AREAS
 24. RECYCLED MATERIAL MAY BE USED AS REPLACEMENT BACKFILL MATERIAL WITHIN PIPE TRENCHES PROVIDED IT IS SUITABLY SCREENED, GRADED AND CRUSHED TO SWH SERIES 600.
 25. PIPE TRENCHES TO HAVE SELECTED BACKFILL AS DUG MATERIAL FREE FROM VEGETABLE MATTER, RUBBISH, FROZEN SOIL & MATERIALS RETAINED BEHIND 40mm SIEVE. TO BE COMPACTED IN 100mm LAYERS BY HAND.
 26. WHERE PROPOSED DRAINS ARE WITHIN THE LOADING ZONE OF INFLUENCE OF PROPOSED FOUNDATIONS, THE DRAINS SHALL BE TAKEN DEEPER TO BELOW THE DRAINS OR THE DRAIN SHOULD BE PROTECTED WITH A FULL CONCRETE SURROUND.
 27. ALL BENCHING IN PIPEWORK SHALL BE LONG RADIIUS AND BE IN CONCRETE.
 28. SETTING OUT OF RAINWATER PIPES, WASTEWATER CONNECTIONS AND POPUP POSITIONS OF ABOVE GROUND DRAINAGE BY OTHERS.
 29. ALL UNDERSLAB FLOOR PIPES TO BE 100mm LAID AT 1:40 GRADIENT OR STEEPER UNDO.
 30. AT LEAST ONE SOIL PIPE AT THE HEAD OF EACH FLOOR RUN SHALL VENT TO THE ATMOSPHERE.
 31. REFER TO THE MAINTENANCE SCHEDULE FOR THE ONGOING MAINTENANCE REQUIREMENTS AND FREQUENCY ON THE DRAINAGE SYSTEM.
 32. SURFACE WATER ATTENUATION PROVIDED WITH POROUS PAVING CONSTRUCTION. IN THE EVENT POROUS PAVING IS REMOVED, ALTERNATIVE ATTENUATION MUST BE PROVIDED.
 33. ALL PROPOSED TREES TO HAVE APPROPRIATE TREE BARRIERS TO ENSURE ROOTS ARE DIRECTED AWAY FROM DRAINAGE.
 34. A SEWER OR LATERAL DRAIN SHOULD NOT BE LOCATED CLOSER TO TREES/SHRUBS THAN THE CANOPY WIDTH AT MATURE HEIGHT, EXCEPT WHERE SPECIAL PROTECTION MEASURES ARE PROVIDED. A TREE SHOULD NOT BE PLANTED DIRECTLY OVER SEWERS OR WHERE EXCAVATION ONTO THE SEWER WOULD REQUIRE REMOVAL OF THE TREE.
 35. MANHOLE COVERS AND FRAMES SHALL BE TO BS EN 124 AND SHALL BE KITEMARKED. COVERS AND FRAMES SHALL BE HEAVY DUTY D400 IN CARRIAGEWAYS AND VEHICULAR AREAS AND MEDIUM DUTY B125 IN FOOTWAYS AND SOFT LANDSCAPING. IN BLOCKED CONNECTIONS, PAVED AREAS COVERS SHALL BE RECESSED FABRICATED STEEL. ALL RECESSED COVERS SHALL BE IN ACCORDANCE WITH THE FACTA ASSOCIATION GRADING AND DRAINAGE SPECIFICATION.
 36. MANHOLE COVERS IN PAVED AREAS TO HAVE COVER & FRAME ORIENTED 'SQUARE' WITH PAVING TO MINIMISE CUT SLABS OR BLOCKS.
 37. MANHOLE COVERS AND FRAMES SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 124 AND HAVE MINIMUM 600 X 600 CLEAR OPENINGS OR LARGER AS SPECIFIED IN APPROVED DOCUMENT PART H OR SEWERAGE SECTOR GUIDANCE.
 38. PIPE CONNECTIONS NOT TO INSPECTION CHAMBERS SHALL BE VIA PREFORMED BOLLARDS, JOINTS SWEPT IN THE DIRECTION OF FLOW.
 39. ALL FLOOR WATER COVERS TO BE SEALED.
 40. LINEAR DRAIN AND GULLY LOCATIONS ARE SHOWN INDICATIVELY.
 41. ALL CHANNEL DRAINAGE TO HAVE SILT BUCKETS ON OUTLETS.
 42. * ALL LINEAR DRAINS TO BE ACO 1000, REFER TO DRAWING FOR SPECIFIC ACO DRAIN SIZE.
 43. ALL ROAD GULLIES ARE TO BE TRAPPED AND ROADABLE.
 44. ALL GULLY LEADS TO BE 150mm DIAMETER.
 45. GULLY GRATES AND FRAMES SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 124 AND BE OF A NON-ROCKING DESIGN WITH CAPTIVE HINGE ACCESS AND BE KITEMARKED. LOAD CLASS D400 FOR ROADS REGULARLY CARRYING FAST MOVING HEAVY VEHICLES, CLASS C250 TO BE USED IN LESSER TRAFFICKED AREAS E.G. ESTATE ROADS, CUL-DE-SACS, RESIDENTIAL CAR PARKING AREAS ETC.
 46. CONTRACTOR TO APPLY FOR SEWER PERMITS AND ROAD OPENING PERMITS AS NECESSARY FROM THE APPROPRIATE AUTHORITIES, PRIOR TO COMMENCING WORKS.
 47. THE CONTRACTOR SHALL ALLOW FOR ALL TRAFFIC MANAGEMENT IN CONNECTION WITH ROAD AND SEWER WORKS.
 48. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY WORKS AND CONSTRUCTION PROCEDURES.
 49. CONTRACTOR TO INCLUDE FLEXIBLE JOINTS & LINTELS WHERE DRAINAGE IS CROSSING FOUNDATIONS.

REV	DATE	DESCRIPTION	ISSN	CHK	APP
C02	29.04.24	TANKS 4-7, SWALES 3 & 4 & 5, POND UPDATED	NH	JH	PV
C01	27.03.24	BLOCKS 20, 21 & 44 CONSTRUCTION ISSUE	NH	JH	PV
P15	10.03.24	BLOCKS 20, 22 & 23 DRAINAGE	NH	JH	PV
REV	DATE	DESCRIPTION	ISSN	CHK	APP
1	29.04.24	THIS DRAWING IS THE PROPERTY OF KENNEDY REDFORD AND THE INFORMATION CAN ONLY BE REPRODUCED WITH THEIR PRIOR PERMISSION.	NH	JH	PV

Kennedy Redford
MANAGING VISION

CLIENT

UoM RESIDENCES DBFO

DRAWING TITLE

PROPOSED DRAINAGE LAYOUT
SHEET 2 OF 2

DATE	SCALE	SHEET SIZE	REV
08.03.24	1:250	A0	C02

DRAWING STATUS

FOR CONSTRUCTION

DRAWING NUMBER

UMRF - KR0 - XX - XX - DR - C - 00502