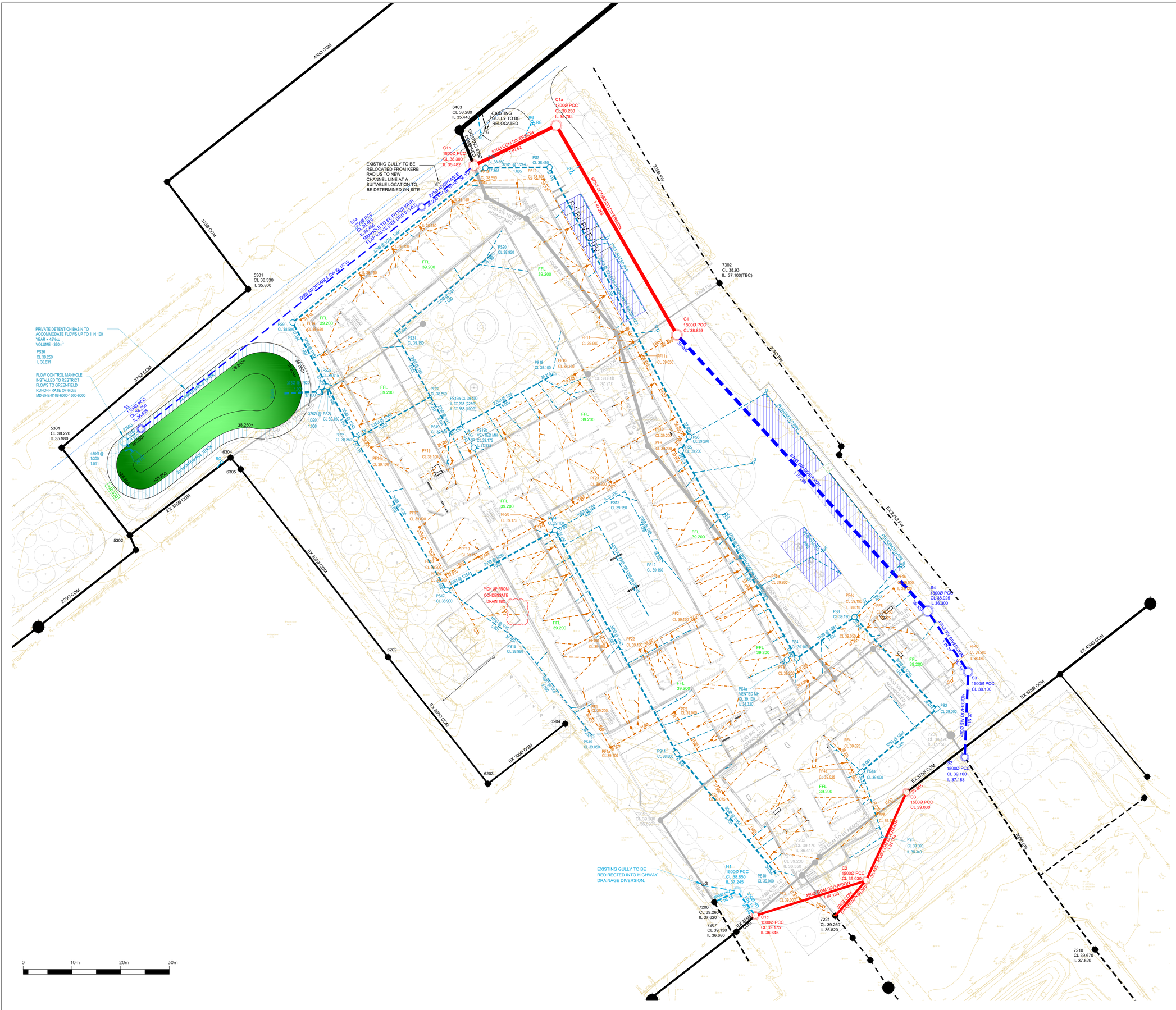

KEY

- EXISTING ADOPTED SEWER TO BE ABANDONED
- EXISTING ADOPTABLE STORM
- EXISTING ADOPTABLE FOUL
- PROPOSED SW DIVERSION
- PROPOSED FW DIVERSION
- PROPOSED PRIVATE SW
- PROPOSED PRIVATE FW
- RODDING EYE
- 300Ø PRIVATE INSPECTION CHAMBER. TO BE USED WHERE DEPTH TO INVERT IS 0.6m OR LESS.
- 450Ø (MIN) PRIVATE INSPECTION CHAMBER. TO BE USED WHERE DEPTH TO INVERT IS 1.2m OR LESS. REDUCED ACCESS FITTING REQUIRED AT DEPTHS GREATER THAN 1.2m
- CONCRETE MANHOLE DIAMETER TO SUIT DEPTH AND PIPE SIZE AS PER PART H OF THE BUILDING REGS
- SEWER EASEMENT
- PERMEABLE POROUS TARMAC

NOTES:

1. ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE WATER SERVICES ASSOCIATION "DESIGN AND CONSTRUCTION GUIDANCE FOR FOUL AND SURFACE WATER SEWERS" CURRENT EDITION AND LL/FA REQUIREMENTS AND SPECIFICATIONS.
ALL PRIVATE DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BUILDING REGULATIONS 2010 EDITION.
2. POSITION SIZE AND DEPTH OF ALL EXISTING SEWERS AND SERVICES SHALL BE ESTABLISHED BY MAIN CONTRACTOR PRIOR TO COMMENCEMENT ON SITE.
3. THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT DIVERSION, TEMPORARY AND PERMANENT DIVERSION WORKS, AS NECESSARY TO ALL EXISTING SERVICES.
4. THE CONTRACTOR SHALL ALLOW FOR ALL TRAFFIC MANAGEMENT IN CONNECTION WITH ROAD AND SEWER WORKS.
5. THE CONTRACTOR SHALL ALLOW FOR KEEPING SEWER TRENCHES AND EXCAVATIONS AS DRY AS PRACTICABLE BY PUMPING FROM TEMPORARY SUMPS AND DEWATERING AS APPROPRIATE. THE POINT AND METHOD OF DISCHARGE TO BE AGREED WITH THE DRAINAGE AUTHORITY.
6. PIPES UP TO AND INCLUDING 225mm Ø TO BE EXTRA STRENGTH V.CLAY OR UNPLASTICISED PVC. VITRIFIED CLAY PIPES AND FITTINGS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN295 AND BS 65 RESPECTIVELY. PIPES 300mm Ø AND GREATER TO BE IN ACCORDANCE WITH BS EN 1916 CLASS 120.
7. VITRIFIED CLAY PIPES AND FITTINGS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN295 AND BS 65 RESPECTIVELY AND BE KITEMARKED. ALL PIPES SHALL BE EXTRA STRENGTH TO BS 65 OR EQUIVALENT BS EN295 PIPE CRUSHING STRENGTH.
8. WHERE COVER TO PIPE BARREL IS LESS THAN 0.9m IN VEHICULAR TRAFFICKED AREAS, PIPEWORK TO BE DUCTILE IRON.
9. ALL PIPEWORK TO BE 100mm DIAMETER UNLESS NOTED OTHERWISE.
10. INSITU AND PRECAST CONCRETE UNITS SHALL HAVE SULPHATE RESISTING PORTLAND CEMENT TO BS 4027, UNLESS AGREED OTHERWISE WITH THE ADOPTING AUTHORITY.
11. PRECAST CONCRETE PRODUCTS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS 5911 AND BE KITEMARKED.
CONCRETE PIPES TO BE CLASS H UNLESS NOTED OTHERWISE.
12. MANHOLE COVERS AND FRAMES SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN124, HAVE MINIMUM 675 x 675 CLEAR OPENINGS WITH 150 DEEP FRAMES UNLESS OTHERWISE SPECIFIED. MANHOLE COVERS AND FRAMES TO BE OF A NON-RODDING DESIGN WITHOUT CUSHION INSERTS AND BE KITEMARKED. LOAD CLASS D400 IN CARRIAGEWAY TRAFFICKED AREAS AND LOAD CLASS B125 IN FOOTWAYS AND PEDESTRIAN AREAS.
13. GULLY GRATES AND FRAMES SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN124 AND BE OF A NON-RODDING DESIGN WITH CAPTIVE HINGE ACCESS AND BE KITEMARKED. LOAD CLASS D400.
14. BED TYPE A BEDDING DETAIL SHALL BE PROVIDED WHERE COVER TO THE PIPE BARREL IS LESS THAN 1.2m IN VEHICULAR TRAFFICKED AREAS AND 0.9m IS ELSEWHERE. TO ALL ROAD GULLY CONNECTIONS AND WITHIN AREAS OF DEEP ROOTING VEGETATION.
15. WHERE TYPE A TRENCH BEDDING DETAIL IS USED, THE CONCRETE BED AND SURROUND SHALL BE DISCONTINUED AT EACH PIPE JOINT OVER THE FULL CROSS SECTION BY MEANS OF A SHAPED COMPRESSIBLE FILLER.
16. SELECTED BACKFILL MATERIAL SHALL CONSIST OF UNIFORM MATERIAL FREE FROM STONES LARGER THAN 40mm, CLAY LUMPS LARGER THAN 75mm, TREE ROOTS, ORGANIC MATTER AND FROZEN SOIL. SELECTED BACKFILL MATERIAL SHALL BE PLACED IN LAYERS NOT EXCEEDING 225mm, EACH LAYER COMPACTED TO FORM A STABLE TRENCH BACKFILL.
17. GENERAL BACKFILL MATERIAL TO BE FREE FROM STONES LARGER THAN 40mm. GENERAL BACKFILL MATERIAL IS TO BE PLACED IN LAYERS NOT EXCEEDING 150mm THICKNESS AND EACH LAYER COMPACTED BY HAND. NO MECHANICAL COMPACTION OF FILL MATERIAL SHALL BE PERMITTED WITHIN 300mm ABOVE THE CROWN/BARREL OF THE PIPE.
18. BACKFILLING AND REINSTATEMENT TO TRENCHES IN PUBLIC HIGHWAYS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE ADOPTING AUTHORITY. IN THE ABSENCE OF SUCH, IN ACCORDANCE WITH THE REQUIREMENTS OF THE STREET WORKS REGULATIONS 1992 AND RELEVANT PROVISIONS OF H.A.U.C. "SPECIFICATION FOR HIGHWAY WORKS" CURRENT EDITION AND SECTION 2 JAN 1992, BOTH UNDER SECTION 71 OF THE NEW ROADS AND STREET WORKS ACT 1991.
19. BACKFILL TO DRAINAGE TRENCHES IN HARD PAVED AREAS SHALL BE G.S.B. TYPE 1.
20. ALL RW DOWNCOMERS TO DISCHARGE TO TRAPPED GULLIES
21. ALL ROAD GULLIES ARE TO BE TRAPPED GULLIES.
22. ALL GULLY LEADS TO BE 150mm DIAMETER.
23. ALL REDUNDANT EXISTING DRAINAGE TO BE GRUBBED UP OR GROUTED. ANY EXISTING LIVE DRAINAGE SHOULD BE REPORTED TO THE ENGINEER AND RECONNECTED.
24. ALL ROAD GULLIES & LEADS TO BE CLEARED OF DEBRIS UPON COMPLETION OF WORKS.
25. ANY EXISTING DRAINAGE WHICH BECOMES UNDER TRAFFICKED AREAS IN THE NEW SCHEME SHOULD BE SUBJECT TO THE FOLLOWING REMEDIAL/DIVERSIONS. WHERE DEPTH OF COVER IS LESS THAN 1200mm, THE EXISTING PIPEWORK SHALL BE EXPOSED & SURROUNDED WITH 100mm CONCRETE AS BED TYPE A. WHERE THE EXISTING MANHOLE COVER & FRAME IS NOT AS MANHOLE DETAIL A OR B, OR TO BS497 GRADE A, OR EN124 CLASS D, THEN IT SHOULD BE CHANGED FOR SUCH.
26. THE CONTRACTOR MUST ENSURE THAT ANY OF THE EXISTING DRAINAGE WHICH IS LIVE IS KEPT CLEAN OF DEBRIS AND SHOULD ALLOW FOR JETTING THROUGH THE NEW & EXISTING DRAINAGE UPON COMPLETION.
27. CONTRACTOR TO TAKE MEASURES TO PROTECT HIS OPERATIVES WITH RESPECT TO THE PRESENCE OF GAS IN SEWER TRENCHES AND MANHOLES THROUGH THE USE OF GAS MONITORING EQUIPMENT AND BREATHING APPARATUS AS REQUIRED.
28. CONTRACTOR TO APPLY FOR SEWER PERMITS AND ROAD OPENING PERMITS AS NECESSARY FROM THE APPROPRIATE AUTHORITIES, PRIOR TO COMMENCING WORKS.

HEALTH & SAFETY
1. CONTRACTOR SHOULD BE AWARE OF GENERAL CONSTRUCTION RISKS TO PREVENT SLIPS, TRIPS AND FALLS AND TAKE NECESSARY PRECAUTIONS WITHOUT SPECIAL INSTRUCTION.

ROADS & DRAINAGE
2. CONTRACTOR TO PROVIDE TRENCH SUPPORTS AS APPROPRIATE AND ENSURE THAT PLANT REMAINS A SAFE DISTANCE FROM TRENCHES PRIOR TO INSTALLING DRAINAGE
3. THE TRENCH EXCAVATIONS ARE LEFT OPEN ON SITE SHOULD BE KEPT TO A MINIMUM AND ALL TRENCHES SHOULD BE SUITABLY BARRICADED.
4. CONTRACTOR TO MAKE OPERATIVES AWARE OF ASSOCIATED DANGERS TO HEALTH SUCH AS LEPTOSPIROSIS (WEIL'S DISEASE) AND RECOMMENDED PRECAUTIONS. ADEQUATE WELFARE FACILITIES AND PROTECTIVE CLOTHING TO BE PROVIDED AS REQUIRED.
5. UNFINISHED MANHOLES MUST BE COVERED WITH LOAD BEARING MATERIALS AND SURROUNDED WITH BARRIER.

PIPES & CABLES
6. SERVICE RECORDS TO BE REFERRED TO PRIOR TO WORK COMMENCING. CONTRACTOR TO PROCEED WITH CAUTION AND SERVICES TO BE LOCATED BY HAND DIG AND PROTECTED ACCORDINGLY.

EXCAVATIONS
7. CONTRACTOR TO ENSURE RELEVANT MEASURES ARE TAKEN TO KEEP PLANT AND PEOPLE A SAFE DISTANCE FROM STEEP SLOPES DURING THE WORKS.
8. CONTRACTOR TO ENSURE THAT PROCEDURES ARE IN PLACE TO KEEP PEOPLE A SAFE DISTANCE FROM WORKING PLANT WHERE NECESSARY.
9. CONTRACTOR TO REFER TO GROUND INVESTIGATION REPORT FOR CONTAMINATION TESTS AND TO PROVIDE ADEQUATE WELFARE FACILITIES AND PROTECTIVE CLOTHING AS REQUIRED.

Rev.	Description	By	Chk	App	Date
AE	Layout amended and gully position amended	KC	SH	LRB	22/05/25
AD	Position of gully amended at site entrance.	KC	SH	LRB	22/05/25
AC	Central linear drain added in southern private courtyard	KC	SH	LRB	15/04/25
AB	ACOs added in southern private courtyard. IL added for foul PRV, between PF13&PF14	KC	SH	LRB	15/04/25
AA	Private foul rear southern bin stores amended	KC	SH	LRB	03/02/25
Z	Levels amended from PF1a to PF3 and PS11 to PS14	KC	SH	LRB	21/01/25
Y	Gully added for southern bin store and further co-ordination	KC	SH	LRB	10/01/25
X	Pop-ups amended following co-ordination with architect	KC	SH	LRB	02/01/25
W	Internal drain runs amended to suit rebar cage	KC	SH	LRB	13/12/24
V	Diversion changed to highway drainage	KC	SH	LRB	12/12/24
U	Gully near basin, combined diversion to the south and foul drainage downstream of PF3a amended	KC	SH	LRB	11/12/24
T	Co-ordination between foundations and latest architect plans for internal drainage, foul gullies added at bin store and ASHP areas, surface gullies added at low point of permeable asphalt. Existing connection removed at S4.	KC	SH	LRB	18/11/24
S	Approved S104 route added.	KC	SH	LRB	18/11/24
R	Revcloud show changes to internal pop-ups following revised architect's layout. S104 route amended.	KC	SH	LRB	05/11/24
Q	Head of run levles for private foul amended. 450Ø PRVC added in lieu of 300 PRVC. Combined and surface diversion manholes amended.	KC	SH	LRB	25/10/24
P	Gradient of S4 to C1 amended	KC	SH	LRB	10/09/24
N	Internal connections amended as per ZOOK construction drawing. Foul levels amended to allow for space with underside void former.	KC	SH	LRB	01/08/24
M	Construction Issue	KC	SH	LRB	01/08/24
L	Co-ordinated between external levels and MH schedule	KC	SH	LRB	04/06/24
K	Existing gully on existing road near basin relocated	KC	SH	LRB	02/05/24
J	Private foul route amended	KC	SH	LRB	05/04/24
H	Drainage amended as per new site plan and new road levels	KC	SH	LRB	16/02/24
G	Diversion amended as per comments from NWL	KC	SH	LRB	04/12/23
F	Drainage amended to suit new pop up & RWP locations	GB	KC	MT	26/10/23
E	Drainage along Glen Street amended	KC	MT	LRB	23/10/23
D	Drainage amended to suit new layout at site entrance. Scale bar added.	SH	SH	LRB	09/08/23
C	Pipe gradient, cover and invert levels added	KC	SH	LRB	12/07/23
B	Route to outfall amended	KC	SH	LRB	14/04/23
A	Basin slope adjacent to door on north west corner fo the building adjusted to suit door level	KC	SH	LRB	13/04/23
Ø	Initial Issue	KC	SH	LRB	31/03/23

Portland consulting engineers
10 Bankside, The Watermark, Gateshead, Tyne & Wear, NE11 9SY
T: 0191 4619770 W: www.portlandconsulting.co.uk
F: 0191 4603028 E: info@portlandconsulting.co.uk

Client
Karbon Homes

Project
STC Extra Care Scheme
Hebburn

Drawing Title
Proposed Drainage Layout

Scale	Sheet Size		
1:250	A0		
Drawn By	Checked By	Approved By	Date
KC	SH	LRB	31/03/23

Drawing Status
Construction

Project No.	Drawing No.	Revision
2022092	010-01	AE

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