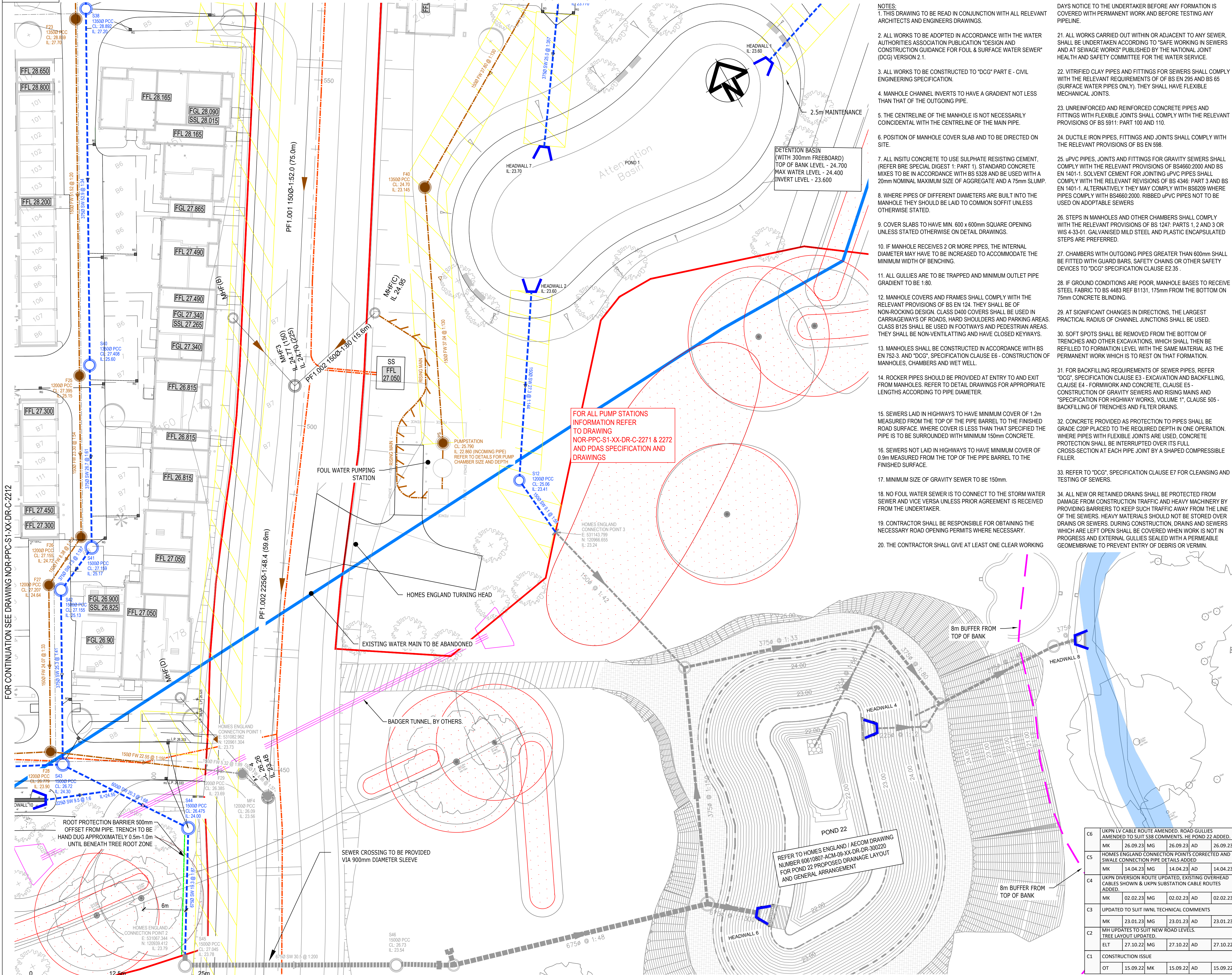


ORIGINAL SIZE A1

FOR CONTINUATION SEE DRAWING NOR-PPC-S1-XX-DR-C-2213

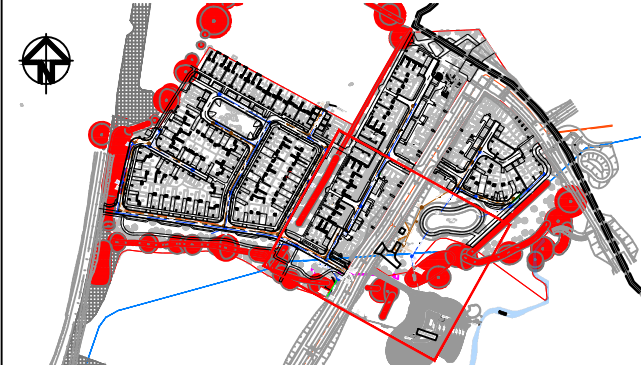


- NOTES:
1. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS.
 2. ALL WORKS TO BE ADOPTED IN ACCORDANCE WITH THE WATER AUTHORITIES ASSOCIATION PUBLICATION "DESIGN AND CONSTRUCTION GUIDANCE FOR FOUL & SURFACE WATER SEWER" (DCG) VERSION 2.1.
 3. ALL WORKS TO BE CONSTRUCTED TO "DCG" PART E - CIVIL ENGINEERING SPECIFICATION.
 4. MANHOLE CHANNEL INVERTS TO HAVE A GRADIENT NOT LESS THAN THAT OF THE OUTGOING PIPE.
 5. THE CENTRELINE OF THE MANHOLE IS NOT NECESSARILY COINCIDENTAL WITH THE CENTRELINE OF THE MAIN PIPE.
 6. POSITION OF MANHOLE COVER SLAB AND TO BE DIRECTED ON SITE.
 7. ALL INSITU CONCRETE TO USE SULPHATE RESISTING CEMENT, (REFER BRE SPECIAL DIGEST 1: PART 1). STANDARD CONCRETE MIXES TO BE IN ACCORDANCE WITH BS 5328 AND BE USED WITH A 20mm NOMINAL MAXIMUM SIZE OF AGGREGATE AND A 75mm SLUMP.
 8. WHERE PIPES OF DIFFERENT DIAMETERS ARE BUILT INTO THE MANHOLE THEY SHOULD BE LAID TO COMMON SOFFIT UNLESS OTHERWISE STATED.
 9. COVER SLABS TO HAVE MIN. 600 x 600mm SQUARE OPENING UNLESS STATED OTHERWISE ON DETAIL DRAWINGS.
 10. IF MANHOLE RECEIVES 2 OR MORE PIPES, THE INTERNAL DIAMETER MAY HAVE TO BE INCREASED TO ACCOMMODATE THE MINIMUM WIDTH OF BENCHING.
 11. ALL GULLIES ARE TO BE TRAPPED AND MINIMUM OUTLET PIPE GRADIENT TO BE 1:80.
 12. MANHOLE COVERS AND FRAMES SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 124. THEY SHALL BE OF NON-ROCKING DESIGN. CLASS D400 COVERS SHALL BE USED IN CARRIAGEWAYS OF ROADS, HARD SHOULDERS AND PARKING AREAS. CLASS B125 SHALL BE USED IN FOOTWAYS AND PEDESTRIAN AREAS. THEY SHALL BE NON-VENTILATING AND HAVE CLOSED KEYWAYS.
 13. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH BS EN 752-3, AND "DCG", SPECIFICATION CLAUSE E6 - CONSTRUCTION OF MANHOLES, CHAMBERS AND WET WELL.
 14. ROCKER PIPES SHOULD BE PROVIDED AT ENTRY TO AND EXIT FROM MANHOLES. REFER TO DETAIL DRAWINGS FOR APPROPRIATE LENGTHS ACCORDING TO PIPE DIAMETER.
 15. SEWERS LAID IN HIGHWAYS TO HAVE MINIMUM COVER OF 1.2m MEASURED FROM THE TOP OF THE PIPE BARREL TO THE FINISHED ROAD SURFACE. WHERE COVER IS LESS THAN THAT SPECIFIED THE PIPE IS TO BE SURROUNDED WITH MINIMUM 150mm CONCRETE.
 16. SEWERS NOT LAID IN HIGHWAYS TO HAVE MINIMUM COVER OF 0.9m MEASURED FROM THE TOP OF THE PIPE BARREL TO THE FINISHED SURFACE.
 17. MINIMUM SIZE OF GRAVITY SEWER TO BE 150mm.
 18. NO FOUL WATER SEWER IS TO CONNECT TO THE STORM WATER SEWER AND VICE VERSA UNLESS PRIOR AGREEMENT IS RECEIVED FROM THE UNDERTAKER.
 19. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE NECESSARY ROAD OPENING PERMITS WHERE NECESSARY.
 20. THE CONTRACTOR SHALL GIVE AT LEAST ONE CLEAR WORKING

- DAYS NOTICE TO THE UNDERTAKER BEFORE ANY FORMATION IS COVERED WITH PERMANENT WORK AND BEFORE TESTING ANY PIPELINE.
21. ALL WORKS CARRIED OUT WITHIN OR ADJACENT TO ANY SEWER, SHALL BE UNDERTAKEN ACCORDING TO "SAFE WORKING IN SEWERS AND AT SEWAGE WORKS" PUBLISHED BY THE NATIONAL JOINT HEALTH AND SAFETY COMMITTEE FOR THE WATER SERVICE.
 22. VITRIFIED CLAY PIPES AND FITTINGS FOR SEWERS SHALL COMPLY WITH THE RELEVANT REQUIREMENTS OF BS EN 295 AND BS 65 (SURFACE WATER PIPES ONLY). THEY SHALL HAVE FLEXIBLE MECHANICAL JOINTS.
 23. UNREINFORCED AND REINFORCED CONCRETE PIPES AND FITTINGS WITH FLEXIBLE JOINTS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS 5911: PART 100 AND 110.
 24. DUCTILE IRON PIPES, FITTINGS AND JOINTS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 598.
 25. uPVC PIPES, JOINTS AND FITTINGS FOR GRAVITY SEWERS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS4660:2000 AND BS EN 1401-1. SOLVENT CEMENT FOR JOINTING uPVC PIPES SHALL COMPLY WITH THE RELEVANT REVISIONS OF BS 4346: PART 3 AND BS EN 1401-1. ALTERNATIVELY THEY MAY COMPLY WITH BS6209 WHERE PIPES COMPLY WITH BS4660:2000. RIBBED uPVC PIPES NOT TO BE USED ON ADAPTABLE SEWERS.
 26. STEPS IN MANHOLES AND OTHER CHAMBERS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS 1247: PARTS 1, 2 AND 3 OR WS 4-33-01. GALVANISED MILD STEEL AND PLASTIC ENCAPSULATED STEPS ARE PREFERRED.
 27. CHAMBERS WITH OUTGOING PIPES GREATER THAN 600mm SHALL BE FITTED WITH GUARD BARS, SAFETY CHAINS OR OTHER SAFETY DEVICES TO "DCG" SPECIFICATION CLAUSE E2.35.
 28. IF GROUND CONDITIONS ARE POOR, MANHOLE BASES TO RECEIVE STEEL FABRIC TO BS 4483 REF B1131, 175mm FROM THE BOTTOM ON 75mm CONCRETE BLINDING.
 29. AT SIGNIFICANT CHANGES IN DIRECTIONS, THE LARGEST PRACTICAL RADIUS OF CHANNEL JUNCTIONS SHALL BE USED.
 30. SOFT SPOTS SHALL BE REMOVED FROM THE BOTTOM OF TRENCHES AND OTHER EXCAVATIONS, WHICH SHALL THEN BE REFILLED TO FORMATION LEVEL WITH THE SAME MATERIAL AS THE PERMANENT WORK WHICH IS TO REST ON THAT FORMATION.
 31. FOR BACKFILLING REQUIREMENTS OF SEWER PIPES, REFER "DCG", SPECIFICATION CLAUSE E3 - EXCAVATION AND BACKFILLING, CLAUSE E4 - FORMWORK AND CONCRETE, CLAUSE E5 - CONSTRUCTION OF GRAVITY SEWERS AND RISING MAINS AND "SPECIFICATION FOR HIGHWAY WORKS, VOLUME 1", CLAUSE 505 - BACKFILLING OF TRENCHES AND FILTER DRAINS.
 32. CONCRETE PROVIDED AS PROTECTION TO PIPES SHALL BE GRADE C20/25 PLACED TO THE REQUIRED DEPTH IN ONE OPERATION. WHERE PIPES WITH FLEXIBLE JOINTS ARE USED, CONCRETE PROTECTION SHALL BE INTERRUPTED OVER ITS FULL CROSS-SECTION AT EACH PIPE JOINT BY A SHAPED COMPRESSIBLE FILLER.
 33. REFER TO "DCG", SPECIFICATION CLAUSE E7 FOR CLEANSING AND TESTING OF SEWERS.
 34. ALL NEW OR RETAINED DRAINS SHALL BE PROTECTED FROM DAMAGE FROM CONSTRUCTION TRAFFIC AND HEAVY MACHINERY BY PROVIDING BARRIERS TO KEEP SUCH TRAFFIC AWAY FROM THE LINE OF THE SEWERS. HEAVY MATERIALS SHOULD NOT BE STORED OVER DRAINS OR SEWERS. DURING CONSTRUCTION, DRAINS AND SEWERS WHICH ARE LEFT OPEN SHALL BE COVERED WHEN WORK IS NOT IN PROGRESS AND EXTERNAL GULLIES SEALED WITH A PERMEABLE GEOMEMBRANE TO PREVENT ENTRY OF DEBRIS OR VERMIN.

GENERAL NOTES

- 1.1. THIS DRAWING IS COPYRIGHT AND SHOULD NOT BE REPRODUCED IN WHOLE OR PART WITHOUT THE WRITTEN CONSENT OF PATRICK PARSONS LTD.
- 1.2. DO NOT SCALE FROM THIS DRAWING.
- 1.3. ALL DIMENSIONS TO BE CHECKED ON SITE AND CO-ORDINATE WITH RELEVANT ARCHITECT'S DRAWINGS. ANY DISCREPANCIES TO BE REPORTED TO ENGINEER PRIOR TO CONSTRUCTION.
- 1.4. ALL DIMENSIONS IN mm UNLESS NOTED OTHERWISE.
- 1.5. ALL LEVELS IN METERS.
- 1.6. STRUCTURAL SIZES HEREON SHALL NOT BE MODIFIED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS DRAWINGS & SPECIFICATIONS.
- 1.7.



LEGEND

- SURFACE WATER TO BE GIVEN FOR ADOPTION
- FOUL WATER TO BE GIVEN FOR ADOPTION
- SURFACE WATER TO BE GIVEN FOR HIGHWAYS ADOPTION
- HIGHWAYS ADOPTION
- ADOPTABLE MANHOLE
- PROPOSED 6m WIDE SEWER EASEMENTS
- ROAD GULLY
- SEWER RISING MAIN
- 8m ORDINARY WATERCOURSE BUFFER
- FOUL SEWER BY OTHERS FOR ENGLAND HOMES CONSTRUCTION PHASE
- DRAINAGE HEADWALL. FOR DETAILS REFER TO DRAWING NOR-PPC-S2-XX-DR-C-2285
- SOUTH EAST WATER MAIN AND 6m WIDE EASEMENT
- SITE BOUNDARY
- TREE ROOT PROTECTION
- UKPN SUBSTATION CABLE ROUTES

SEE BELOW FOR LATEST REVISIONS

T3	DRAINAGE LAYOUT AMENDED FOLLOWING VE AND CLIENT COMMENT				
MK	31.08.22	MG	31.08.22	AD	31.08.22
T2	SITE BOUNDARY, HEADWALLS AND DRAINAGE LAYOUT AMENDED				
AY	07.07.22	BF	07.07.22	AD	07.07.22
T1	ISSUED FOR TENDER				
ELT	24.06.22	AD	24.06.22	AD	24.06.22
P2	DRAINAGE LAYOUT AMENDED.				
GSD	16.05.22	GSD	16.05.22	AD	16.05.22
P1	INITIAL ISSUE.				
GSD	06.05.22	GSD	06.05.22	AD	06.05.22
REV.	REVISION NOTE/COMMENT				
DRW BY	DATE	CHK BY	DATE	APP BY	DATE



34 Candler Mews
Amyard Park Road
Twickenham
TW1 3JF
United Kingdom
T. +44 (0)208 538 9555
E. info@patrickparsons.co.uk
W. www.patrikparsons.co.uk



Project
NORTHERN ARC,
BURGESS HILL

Drawing
SECTION 104 LAYOUT
SHEET 4 OF 4 - PARCELS 1.5 & 1.6

Drawn GSD	Date 01.04.22
Patrick Parsons Project No. 10282	Scale @ A1 1:250m
Status Description CONSTRUCTION	Status A
Drawing No. (project-ordinator-volume-level-type-role-number) NOR-PPC-S1-XX-DR-C-2214	Revision C6