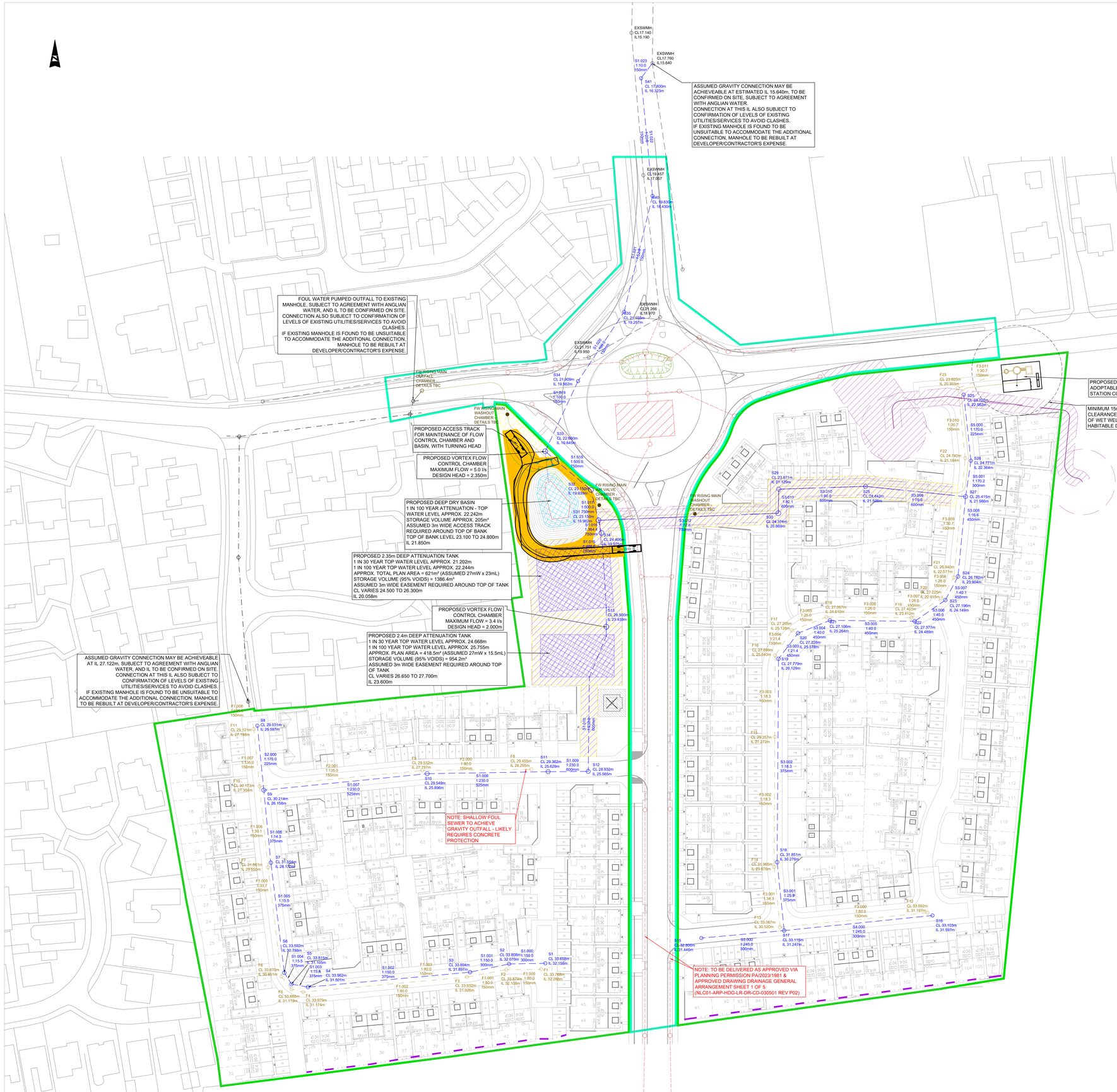

KEY

- BOUNDARY INDICATING PROPOSED ADJACENT ROUNDABOUT/SPINE ROAD CONSTRUCTION PHASE
- BOUNDARY INDICATING PROPOSED RESIDENTIAL DEVELOPMENT PHASE
- EXISTING OR PREVIOUS PHASE SURFACE WATER SEWER
- EXISTING FOUL WATER SEWER
- PROPOSED SURFACE WATER SEWER
- PROPOSED SURFACE WATER ATTENUATION
- PROPOSED ATTENUATION BASIN
- PROPOSED FOUL WATER SEWER
- PROPOSED FOUL WATER RISING MAIN
- DRAINAGE INFRASTRUCTURE TO BE DELIVERED BY NORTH LINCOLNSHIRE COUNCIL AS APPROVED VIA PLANNING PERMISSION PA/2023/1981
- PROPOSED DRAINAGE EASEMENT
- PROPOSED MAINTENANCE ACCESS TRACK
- PROPOSED OVERLAND FLOW CUT OFF DRAIN EXACT LOCATION & CONFIGURATION TO DETERMINED AT DETAILED DESIGN

HEALTH & SAFETY RISKS

IN ADDITION TO THE STANDARD HAZARDS AND RISKS NORMALLY ASSOCIATED WITH THE TYPE OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING RESIDUAL HEALTH AND SAFETY RISKS

CONSTRUCTION RISKS

CR 01	CARE TO BE TAKEN AROUND DEEP EXCAVATIONS. PLANT TO BE KEPT AT SAFE DISTANCE.
CR 02	EXISTING DRAINAGE AND SERVICE INFRASTRUCTURE NOT TO BE COMPROMISED. OVERHEAD POWER CABLES
CR 03	CONSTRUCTION ADJACENT LIVE TRAFFIC
CR 04	CARE TO BE TAKEN IN VICINITY OF OVERHEAD CABLES.
CR 04	CONTRACTOR TO TAKE MEASURES TO PROTECT HIS OPERATIVES WITH RESPECT TO THE PRESENCE OF POTENTIAL GAS IN SEWER TRENCHES AND MANHOLES THROUGH THE USE OF GAS MONITORING EQUIPMENT AND BREATHING APPARATUS AS REQUIRED.
CR 05	CONTRACTOR TO TAKE MEASURES TO PROTECT HIS OPERATIVES WITH RESPECT TO POTENTIAL UNKNOWN GROUND CONTAMINATION DURING EXCAVATION. CONTAMINATED MATERIAL TO BE REMOVED TO A LICENSED TIP.

IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING IN ACCORDANCE WITH THE REQUIREMENTS DEFINED IN THE CDM REGULATIONS.

NOTES:

1. THESE NOTES ARE INTENDED TO AUGMENT DRAWINGS AND SPECIFICATIONS. WHERE CONFLICT OF REQUIREMENTS EXIST THE ORDER OF PRECEDENCE SHALL BE AS SHOWN IN THE SPECIFICATION, OTHERWISE THE STRICTEST PROVISION SHALL GOVERN.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEERS AND ARCHITECTS DRAWINGS.
3. DRAWINGS NOT TO BE SCALED. ALL DIMENSIONS TO BE CHECKED ON SITE BY THE CONTRACTOR. ANY DISCREPANCIES TO BE NOTIFIED TO THE ENGINEER AND FURTHER INSTRUCTIONS OBTAINED BEFORE WORK IS COMMENCED.
4. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO DETERMINE THE ERECTION PROCEDURE AND SEQUENCE AND ENSURE THAT THE BUILDING AND ITS COMPONENTS ARE SAFE DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS OR TIE-DOWNS WHICH MAY BE NECESSARY. SUCH MATERIAL REMAINING THE THE PROPERTY OF THE CONTRACTOR ON COMPLETION, AND FOR ENSURING THAT THE WORKS AND ANY ADJACENT PROPERTIES ARE SAFE IN THE TEMPORARY CONDITION.

GENERAL NOTES:

G01. ALL WORKS SUBJECT TO SECTION 38, SECTION 278 AND SECTION 104 AGREEMENTS TO BE APPROVED BY THE RELEVANT AUTHORITY PRIOR TO COMMENCEMENT OF WORKS.

G02. ALL LEVELS ARE IN METRES AOD (ABOVE ORDNANCE DATUM) UNLESS NOTED OTHERWISE.

G03. ALL WORKS TO BE UNDERTAKEN IN COMPLIANCE WITH BS 8000 FOR WORKMANSHIP ON BUILDING SITES.

G04. ABBREVIATIONS:
MH = MANHOLE
CL = COVER LEVEL
IL = INVERT LEVEL
S / SW = SURFACE WATER
F / FW = FOUL WATER
SD = DEMARCATION CHAMBER
FD = FLOW CONTROL CHAMBER
CONC = CONCRETE
VC = VITRIFIED CLAY
FFL = FINISHED FLOOR LEVEL
DWG = DRAWING

SECTION 104 ADOPTION NOTES:

1. ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "CODE FOR ADOPTION", THE RELEVANT BRITISH/EUROPEAN AND THE ADOPTING WATER AUTHORITY'S STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED.
2. MANHOLE COVERS SHALL/MUST HAVE A CLEAR OPENING OF 600mm AND SHALL BE CLASS D400 TO BS EN 124 WITH 150mm DEEP FRAMES IN HIGHWAYS.
3. FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF THE ADOPTING WATER AUTHORITY BEFORE ANY SEWER WORKS ARE CARRIED OUT.
4. THE ADOPTING WATER AUTHORITY IS **NOT** OBLIGED TO ACCEPT FILTER DRAIN/LAND DRAINAGE RUN-OFF INTO THE PUBLIC SEWER NETWORK OR ADOPTABLE DRAINAGE SYSTEM **(DIRECTLY OR INJDIRECTLY)**, AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUN-OFF WILL THEREFORE BE REQUIRED AND YOU WILL HAVE TO LIAISE WITH THE LOCAL AUTHORITY. LAND DRAINAGE SECTION REGARDING THE DISPOSAL OF THE FILTER DRAIN/LAND DRAINAGE RUN-OFF.
5. THE ADOPTABLE SEWERS SHOULD BE A MINIMUM OF 1m AND MANHOLES 0.5m FROM KERB FACES AND SERVICE MARGINS.
6. SEWERS MUST HAVE 5 METRES CLEARANCE FROM TREES AND HEDGES OR THE WIDTH OF THE CANOPY AT MATURE HEIGHT.
7. SEWERS TO BE LAID IN CLASS 'S' BEDDING **(150mm GRANULAR BED AND SURROUND)**, WHERE DEPTH OF COVER TO TOP OF THE SEWER IS LESS THAN 1.2m IN HIGHWAYS AND VERGES **(OR LESS THAN 900mm IN NONE VEHICULAR ACCESS AREAS)** THEN A CONCRETE SLAB SHOULD BE PROVIDE ABOVE GRANULAR BED AND SURROUND.
8. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 **(TABLE A2)**.
9. TYPE "C" BRICK MANHOLES AND 1050mm DIAMETER MANHOLE RINGS ARE NOT PREFERRED. INSTEAD, IT IS PREFERRED THAT YOU USE A TYPE "B" MANHOLE WITH 1200mm DIA OR 1500mm DIAMETER RINGS, WITH THE OPENING SITED OVER THE CHANNEL WHERE DEPTH OF COVER TO PIPE SOFFIT IS 1 - 1.5m.
10. ADOPTABLE PLASTIC SEWER PIPES TO BE BSI KITEMARKED **(CERTIFIED TO WIS 4-35-01** AND BS/EN13476). ADOPTABLE PLASTIC SEWER PIPES TO BE LAID IN MAXIMUM 3 METRE LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS. PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND YORKSHIRE WATER WOULD REQUIRE CLAYWARE CHANNEL IN MANHOLES.
11. THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS: 100mm DIA. 40kN/m, 150mm DIA. 40kN/m, 225mm DIA. 49kN/m AND 300mm DIA. 72kN/m. THE MINIMUM CRUSHING STRENGTH FOR CONCRETE PIPES SHOULD BE - (CLASS 120 TO EN 1916/BS5911-1:2002). PLASTIC PIPES SHOULD CONFORM TO WIS 4-35-01 AND BS EN13476.
12. WHERE A B125 COVER AND FRAME HAS BEEN APPROVED, THIS **MUST NOT** BE COATED IN PLASTIC AND MUST HAVE LIFTING EYES SUITABLY SIZED TO ACCOMMODATE STANDARD LIFTING KEYS. SCREW DOWN COVERS ARE NOT ACCEPTABLE.
13. THERE MUST BE ENOUGH CLEARANCE AT CROSSOVERS TO ACCOMMODATE BEDDING TO BOTH PIPES, APPROX. 300mm. IF CROSSOVER IS NEAR THE ROOKER THEN THE CLEARANCE NEEDED MAY NEED TO BE INCREASED.

THE INFORMATION ON THIS DRAWING IS FOR APPROVAL PURPOSE'S ONLY. NO CONSTRUCTION WORKS ARE TO BE UNDERTAKEN UNTIL WRITTEN APPROVAL IS RECEIVED FROM THE ADOPTING WATER AUTHORITY.

NOTES ON PROTECTION OF EXISTING WATER MAINS APPARATUS

1. ALL EXCAVATION WORKS NEAR TO EXISTING WATER MAINS APPARATUS SHOULD BE BY HAND DIGGING ONLY.
2. BACKFILLING WITH A SUITABLE MATERIAL TO A MINIMUM 300mm ABOVE EXISTING WATER MAINS APPARATUS IS REQUIRED.
3. WHERE SURFACE LEVELS ARE TO BE INCREASED OR DECREASED, ALL SURFACE BOXES MUST BE ADJUSTED AS PART OF THE SCHEME.
4. ADEQUATE SUPPORT MUST BE PROVIDED WHERE ANY WORKS PASS UNDER EXISTING WATER MAINS APPARATUS.
5. JOINTING CHAMBERS, LIGHTING COLUMNS AND OTHER STRUCTURES MUST BE INSTALLED IN SUCH A WAY THAT FUTURE REPAIR OR MAINTENANCE WORKS TO WATER MAINS APPARATUS WILL NOT BE HINDERED.
6. APPARATUS SUCH AS RAILINGS, SIGN POSTS, ETC. MUST NOT BE PLACED IN SUCH A WAY THAT THEY PREVENT ACCESS TO OR FULL OPERATION OF CONTROLLING VALVES, HYDRANTS OR SIMILAR APPARATUS. CHAMBER LIDS MUST NOT BE BURIED OR COVERED.
7. EXPLOSIVES SHALL NOT BE USED WITHIN 100 METRES OF ANY WATER MAINS APPARATUS OR INSTALLATIONS.
8. VIBRATING PLANT SHOULD NOT BE USED DIRECTLY OVER ANY APPARATUS.
9. UNDER NO CIRCUMSTANCES SHOULD TRUST BORING OR SIMILAR TRENCHLESS TECHNIQUES COMMENCE UNTIL THE ACTUAL POSITION OF WATER MAINS AND SERVICES ALONG THE PROPOSED ROUTE HAVE BEEN CONFIRMED BY TRIAL HOLES.
10. IMPACT PILING MUST NOT TAKE PLACE WITHIN 10m OF WATER MAINS APPARATUS. CORE DRILLING MUST NOT TAKE PLACE WITHIN 5m OF WATER MAINS APPARATUS.
11. ANY DAMAGE CAUSED OR OBSERVED TO WATER MAINS APPARATUS MUST BE IMMEDIATELY REPORTED TO THE RELEVANT AUTHORITIES.
12. SHOULD THE AUTHORITIES INCUR ANY COSTS AS A RESULT OF NON-COMPLIANCE WITH THE ABOVE, COSTS MAY BE RECHARGEABLE.

Rev	Description	Date	By	Chk	App
P10	ROUNDABOUT & LINK ROAD DRAINAGE ADDED	03.07.25	JP	SPG	JAG
P9	RISING MAIN ROUTE ADJUSTED SLIGHTLY, ATTENUATION WATER LEVELS NOTED	30.06.25	JP	SPG	JAG
P8	REVISED TO SUIT UPDATED SITE LAYOUT	15.05.25	JP	SPG	JAG
P7	FOUL OUTFALL IL (CORNHILL DRIVE) UPDATED	07.02.25	JP	JAG	JAG
P6	UPDATED SITE LAYOUT AND ADJACENT SPINE ROAD DRAINAGE	13.12.24	JP	JAG	JAG
P5	UPDATED TO INCLUDE PHASING	17.11.23	ERD	JP	JAG
P4	UPDATED TO SHOW PUMPED FW	16.11.23	JP	JAG	JAG
P3	SITE LAYOUT UPDATED	21.08.23	JP	JAG	JAG
P2	LAYOUT UPDATED	09.02.23	HD	AD	JAG
P1	FIRST ISSUE	01.02.23	JP	JAG	JAG

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Project: Proposed Residential Development at Barrow Road, Barton Upon Humber

Client: Strata Homes Ltd

Drawing: Proposed Drainage Layout

Role: CIVIL ENGINEER

Drawing Status: FOR APPROVAL | Suitability Code: S3

Job. no. 47658 | Scale@ A0 1:500 | Rev. P10

Project Originator Volume Level Type Role Number
BRBH - AWP - ZZ - XX - DR - C - 3000