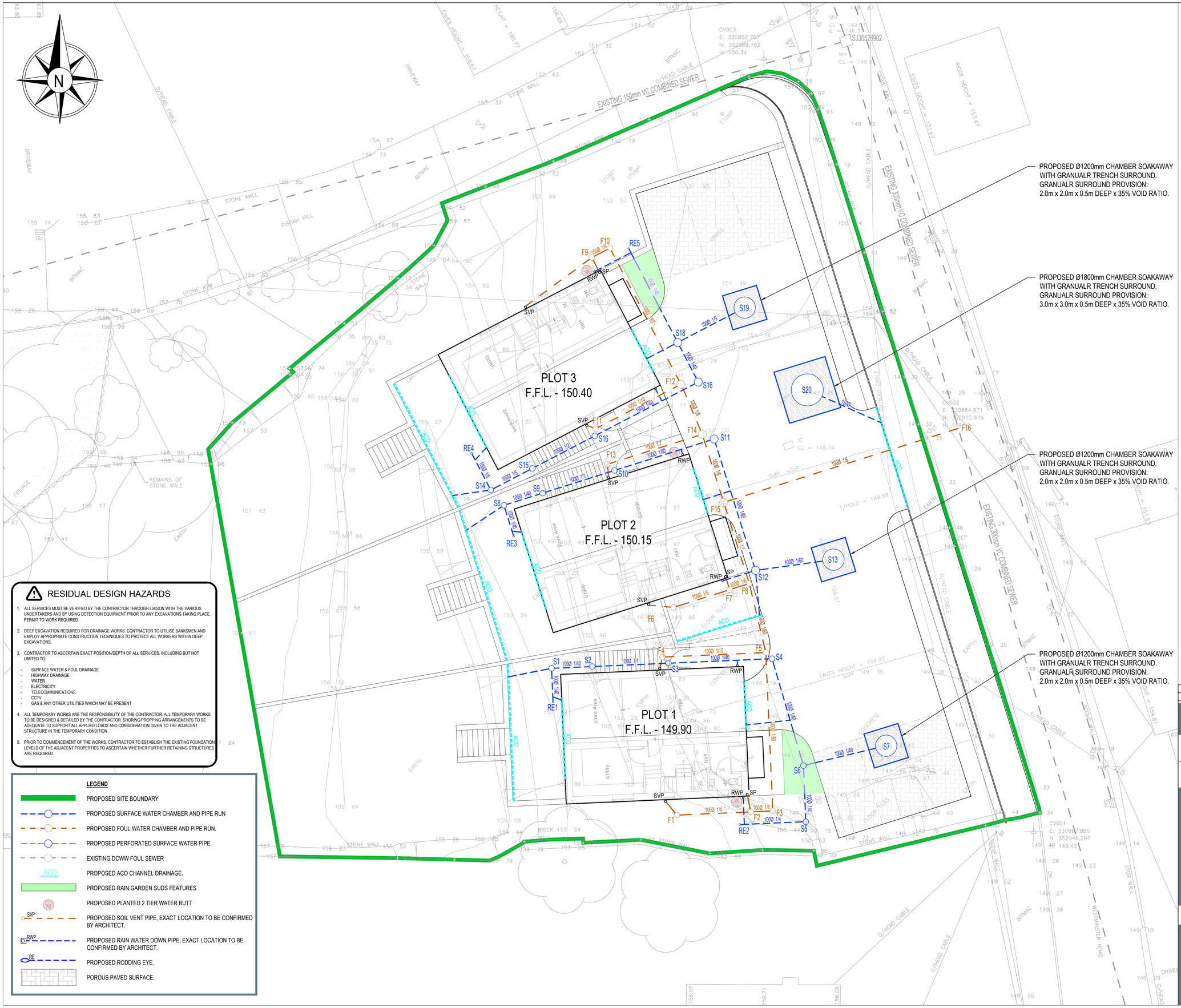


RESIDUAL DESIGN HAZARDS

1. ALL SERVICES MUST BE VERIFIED BY THE CONTRACTOR THROUGH LIAISON WITH THE VARIOUS UNDERTAKERS AND BY USING DETECTION EQUIPMENT PRIOR TO ANY EXCAVATIONS TAKING PLACE, PERMIT TO WORK REQUIRED.
2. DEEP EXCAVATION REQUIRED FOR DRAINAGE WORKS. CONTRACTOR TO UTILISE BANKSMEN AND EMPLOY APPROPRIATE CONSTRUCTION TECHNIQUES TO PROTECT ALL WORKERS WITHIN DEEP EXCAVATIONS.
3. CONTRACTOR TO ASCERTAIN EXACT POSITION/DEPTH OF ALL SERVICES, INCLUDING BUT NOT LIMITED TO:
   - SURFACE WATER & FOUL DRAINAGE
   - HIGHWAY DRAINAGE
   - WATER
   - ELECTRICITY
   - TELECOMMUNICATIONS
   - CCTV
   - GAS & ANY OTHER UTILITIES WHICH MAY BE PRESENT
4. ALL TEMPORARY WORKS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL TEMPORARY WORKS TO BE DESIGNED & DETAILED BY THE CONTRACTOR. SHORING/PROPPING ARRANGEMENTS TO BE ADEQUATE TO SUPPORT ALL APPLIED LOADS AND CONSIDERATION GIVEN TO THE ADJACENT STRUCTURE IN THE TEMPORARY CONDITION.
5. PRIOR TO COMMENCEMENT OF THE WORKS, CONTRACTOR TO ESTABLISH THE EXISTING FOUNDATION LEVELS OF THE ADJACENT PROPERTIES TO ASCERTAIN WHETHER FURTHER RETAINING STRUCTURES ARE REQUIRED.

LEGEND

- PROPOSED SITE BOUNDARY
- PROPOSED SURFACE WATER CHAMBER AND PIPE RUN
- PROPOSED FOUL WATER CHAMBER AND PIPE RUN.
- PROPOSED PERFORATED SURFACE WATER PIPE.
- EXISTING DCWW FOUL SEWER
- PROPOSED ACO CHANNEL DRAINAGE.
- PROPOSED RAIN GARDEN SUDS FEATURES
- PROPOSED PLANTED 2 TIER WATER BUTT
- SVP — PROPOSED SOIL VENT PIPE, EXACT LOCATION TO BE CONFIRMED BY ARCHITECT.
- RWP — PROPOSED RAIN WATER DOWN PIPE, EXACT LOCATION TO BE CONFIRMED BY ARCHITECT.
- RE — PROPOSED RODDING EYE.
- POROUS PAVED SURFACE.

GENERAL

G1 DO NOT SCALE FROM THIS DRAWING.

G2 ALL LEVELS IN METRES UNLESS NOTED OTHERWISE ON DRAWING.

G3 THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEER'S AND ARCHITECT'S DRAWINGS AND RELEVANT SPECIFICATION CLAUSES.

G4 PLEASE REFER TO ARCHITECTS DRAWINGS FOR FINAL BUILDING LOCATION.

G6 ALL PROPOSED LEVELS ARE TO BE CONFIRMED BY THE ARCHITCT.

G7 FINAL LOCATIONS AND DETAILS OF SOIL VENT PIPES, STUB STACKS, RAINWATER DOWN PIPES, GULLIES ETC. TO BE CONFIRMED BY REFERENCE TO ARCHITECT' DRAWINGS.

G8 ALL THRESHOLD DRAIN DETAILS TO BE TO ARCHITECT' DETAILS.

G9 ALL LEVELS ARE TO BE CHECKED ON SITE.

DRAINAGE

D1 ALL DRAINAGE COMPONENTS ARE TO COMPLY WITH CURRENT BRITISH STANDARDS.

D2 DRAIN PIPE THROUGH WALLS OR BENEATH FOUNDATIONS (SPREAD ONLY) TO HAVE REINFORCED CONCRETE BRIDGE LINTELS OVER AND PIPE SURROUNDED IN FLEXIBLE MATERIAL (50mm).

D3 ALL PIPES INTO CHAMBERS TO SOFFIT TO SOFFIT U.N.O.

D4 AT ALL OUTFALL POINTS TO AN EXISTING NETWORK, THE POSITION AND INVERT LEVEL OF EXISTING DRAINS MUST BE CONFIRMED WELL IN ADVANCE OF THE PROGRAMMED DATE FOR INSTALLING ANY OF THE UPSTREAM DRAINAGE, OR ORDERING OF ANY MATERIALS IN ORDER TO ALLOW TIME FOR ANY NECESSARY REVISIONS TO THE HYDRAULIC DESIGN.

D5 ALL GRAVITY UPVC PIPEWORK TO BE TO BS 4660 OR BS 5481 WHERE RELEVANT UNLESS NOTED OTHERWISE.

D6 ALL NON ADOPTABLE DOMESTIC FOUL AND SURFACE WATER PIPE RUNS SHALL CONSIST OF 100mm DIA. PIPES LAID AT NO FLATTER THAN 1 IN 80 FALLS U.N.O.

D7 A SEWER OR LATERAL DRAIN WITH A NOMINAL INTERNAL DIAMETRE OF 100mm, OR A LATERAL DRAIN SERVING TEN OR LESS PROPERTIES IS LAID TO A GRADIENT NOT FLATTER THAN 1:80, WHERE THERE IS AT LEAST ONE WC CONNECTED AND 1:40 IF THERE IS NO WC CONNECTED.

D8 THERMOPLASTIC PIPES, JOINTS & FITTINGS FOR GRAVITY SEWERS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 1401-1, BS EN 1852 & BS EN 12666-1.

D9 THERMOPLASTIC STRUCTURED WALL PIPE:
THERMOPLASTIC STRUCTURED WALL SEWER PIPE SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 13476-1 & WIS 4-35-01 AND BS EN 13476-2 OR BS EN 13476-3. PIPES SHALL BE BSI KITEMARKED OR HAVE EQUIVALENT THIRD PART CERTIFICATION. PIPES LESS THAN OR EQUAL TO 500mm IN DIAMETRE SHALL HAVE NOMINAL SHORT-TERM RING STIFFNESS NOT LESS THAN 8KN/m² (SN8) OR BE SUBJECT TO A QUALITY SYSTEM FOR STORAGE & EMBEDMENT.

Nom. SHORT TERM RING STIFFNESS OF 2KN/m² (SN2) IS ACCEPTABLE FOR PIPES GREATER THAN Ø 500mm, SUBJECT TO SUPPORTING STRUCTURAL DESIGN LOAD CALCULATIONS BEING PROVIDED.

TRANSPORTATION, HANDLING, STORAGE AND LAYING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTION.

WHERE A FITTING IS INSTALLED ON A SEWER LENGTH, IT SHALL HAVE THE SAME INTERNAL BORE AS THE SEWER. Max. LENGTH OF PIPE FOR LAYING IS 3.0m OR Ø x 10, WHICHEVER IS THE GREATER, UNLESS WELDED JOINTS ARE USED.

D10 OPTIMUM TRENCH WIDTH = PIPE + 300mm. CONTRACTOR TO ENSURE TRENCH WALLS ARE SUITABLY PROPPED.

D11 BACKFILLING TO PIPE TRENCHES BENEATH ROADS, CAR PARKING AND STRUCTURES TO BE M.O.T. TYPE 1 GRANULAR MATERIAL UP TO FORMATION LEVEL FROM THE TOP OF THE SPECIFIED PIPE SURROUND (WELL COMPACTED IN 150mm LAYERS).

D12 BACKFILLING TO PIPE TRENCHES BENEATH LANDSCAPED AREAS TO BE SELECTED EXCAVATED MATERIAL FREE FROM LARGE STONES GREATER THAN 75mm, LUMPS OF CLAY OVER 100mm, ANY TIMBER, FROZEN MATERIAL OR VEGETATION MATTER UP TO FORMATION / GROUND LEVEL FROM THE TOP OF THE SPECIFIED PIPE SURROUND (WELL COMPACTED IN 150mm LAYERS).

D13 GRANULAR MATERIAL NOMINAL SIZE 10mm SINGLE SIZED OR 14mm TO 5mm GRADED.

D14 BACKFILL MUST NOT BE LACED ON CONCRETE BEDDING OR SURROUND UNTIL THE CONCRETE COMPRESSIVE STRENGTH HAS REACHED 15N/mm².

D15 BRICKS OR BLOCKS MUST NOT BE PLACED IN THE BEDDING MORTAR FOR SETTING THE PIPES TO LEVEL .

D16 ROCKER PIPES TO BE PROVIDED AT TYPE 2 CONCRETE CHAMBERS AND AT TRANSITION FROM CONCRETE SURROUND (TYPE Z) TO GRANULAR SURROUND (TYPE S).ALL ROCKER PIPE LENGTHS TO BE 600mm.

D17 MAX DISTANCE FROM FACE OF CONCRETE SURROUND TO FIRST FLEXIBLE JOINT TO BE 150mm.

D18 MANHOLE COVERS AND FRAMES
MANHOLE COVERS AND FRAMES SHALL COMPLY WITH THE RELEVANT PROVISIONS OF THE BS EN 124,M BS 7903 AND HIGHWAYS AGENCY GUIDANCE DOCUMENT HA 104/09. THEY SHALL BE OF NON ROCKING DESIGN WHICH DOES NOT RELAY TO THE CUSHION INSERTS.

MANHOLE COVER ON FOUL ONLY SEWERS SHALL BE OF LOW LEAKAGE TYPES IN ORDER TOP PREVENT EXCESSIVE SURFACE WATER INGRESS

AS A MINIMUM, CLASS D400 SHALL BE USED IN CARRIAGEWAYS OR ROADS (INCLUDING PEDESTRIAN STREETS), HARD SHOULDERS AND PARKING AREAS USED BY ALL TYPES OF VEHICLES.

REV	DATE	DESCRIPTION	BY	CHK	APP
P01	22.08.2025	FIRST ISSUE	KB	KB	BT

DRAWING STATUS: **PRELIMINARY**

CLIENT: ROSS FREER

ARCHITECT: MATISCHOK & ROSS - ARCHITECTURAL SERVICES

PROJECT: WESTMINSTER ROAD, MOSS, WREXHAM

TITLE: PROPOSED DRAINAGE LAYOUT

STATUS:	PROJECT No.	DRAWING No.	REV:
S2	477	004	P01

SCALE @ A1:	DESIGNED:	DRAWN:	CHECKED:	APPROVED:	DATE:
1:100	BT	HI	KB	BT	AUGUST 2025

MÔN CIVILS LIMITED