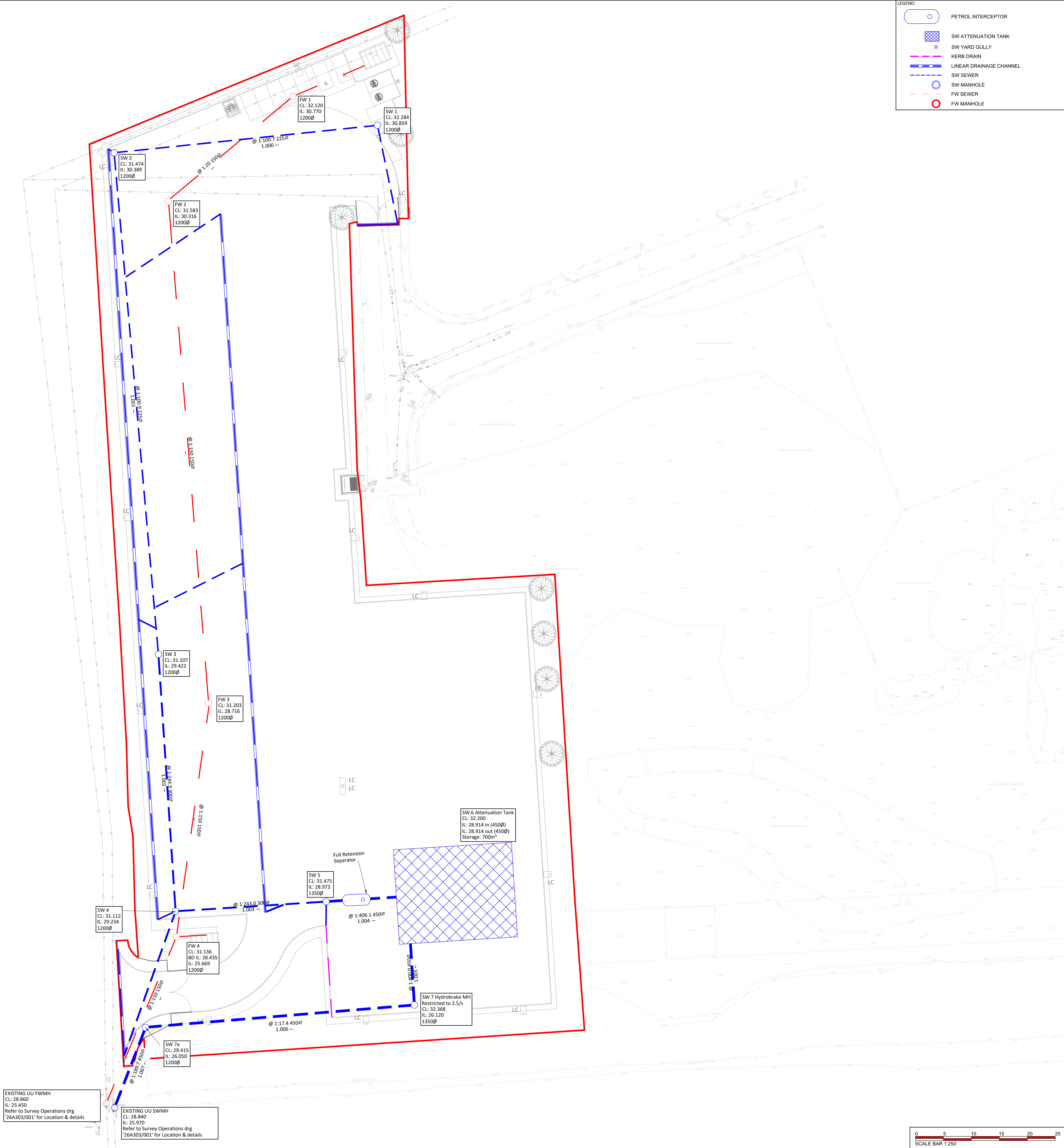
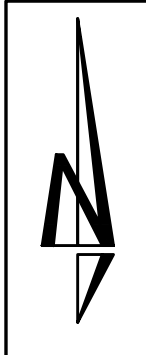




LEGEND:

- PETROL INTERCEPTOR
- SW ATTENUATION TANK
- SW YARD GULLY
- KERB DRAIN
- LINEAR DRAINAGE CHANNEL
- SW SEWER
- SW MANHOLE
- FW SEWER
- FW MANHOLE

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SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARDOUSNESS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING:

CONSTRUCTION

MAINTENANCE

DEMOLITION

- IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT
- GENERAL NOTES:**
- This drawing shall be read in conjunction with all the relevant architects, engineers' and service engineers drawings & specifications.
 - All units in millimeters U.O.N. as the drawing. Do not scale off the drawing.
 - All temporary works for formwork, excavations etc., to be the design responsibility of the Contractor.
 - The Contractor shall allow for the protection, temporary and permanent support and diversion works as necessary, to all existing services to the satisfaction of the asset owners.
 - The Contractor shall allow for dealing with surface water run-off into excavations and from groundwater by means of sumps, pumping and de-watering as appropriate, in order to keep the excavation as reasonably dry as possible during the construction of the works.
 - The Contractor is responsible for obtaining all required permits and licenses.
 - All private drainage within the site is to comply with the requirements of the relevant British/European Standard, (including BS EN 752, BS EN 1610, BS EN 295, BS EN 1917, BS5911, BS5911, BS5911-0 & 14 and BS EN 124), and the Building Regulations Part H.
 - Any adoptable drainage is to be in accordance with the requirements of the adopting authority. If in doubt seek clarification.
 - All pipework within chambers are to be laid soffit to soffit (U.O.N). All chamber invert levels are for the outgoing pipe levels. Backdrop pipework shall be connected at soffit to soffit with the backdrop / rodding access level specified.
 - Catchpit invert levels are for the outgoing slope, pipes to be soffit level, sump level specified separately. All Catchpits are to be built with a 300 sump (U.O.N).
 - Any gradients of drains indicated are indicative only and the Contractor shall install the drains to the specified levels shown for each chamber (U.O.N).
 - Cover levels of the access points are provisional and subject to adjustment on site to suit the finished ground levels.
 - Positions and sizes of above ground foul and surface water drainage connections ("pop-ups") are indicative only. Setting out and confirmation of the internal requirements is the responsibility of the Architect. Contractor to confirm requirement prior to construction.
 - Diameter of P.C manholes varies with pipe size, number of connections, depth etc. Minimum sizes are shown on the Burrows Graham Standard Details drawings. Sizes shown on drainage layout and/or manhole schedules take precedence over minimum sizes.
 - Flow control chambers should be built in accordance with the requirement of the manufacturer. Allowance should be made for a 500 sump and double covers and frames on the chambers.
 - Insitu concrete grades to be as stated on the drawings. Design chemical class for all precast concrete products shall be C4 unless agreed otherwise.
 - All separators shall be in accordance with Building Regulations Part H3-A and with BS EN 858 and be site-marked / CE-marked in accordance. The oil alarm system is to be in accordance with Client's requirements. Separators to be installed in accordance with manufacturer's recommendations / requirements (venting, protection etc)
 - All below ground plastic/GRP tanks shall be installed in accordance with the manufacturers instructions / requirements. They shall be provided with sufficient concrete surround to counter floatation and shall have a wall thickness adequate to resist the highest ground water level which could be encountered at their location.
 - All existing drainage/structures to be abandoned shall be broken out and removed from site, the excavation shall be backfilled with a suitable granular material to the required level. Alternatively, deep drains may be cleaned and grouted with a 1:10 cementitious grout, with structures broken down to 1m below proposed finished ground level and infilled with a suitable granular material. Abandoned gullies are to be removed from site and abandoned tails are to be sealed with a 300 thick concrete plug at a depth of 1.0m below proposed finished ground level.
 - Where utility/land drainage trenches etc cross over drainage trenches, the Contractor shall construct an impermeable barrier to prevent groundwater infiltrating into the drainage trench.
 - Design assumes that no sewerage authority sewers or other drainage systems require modification, diversion or abandoning (U.O.N on the drawings)
 - Unless otherwise agreed, all outfalls to ponds and watercourses to be proprietary P.C units. Where applicable, headwall details are to be approved by the relevant authority (i.e. Internal Drainage Board / Lead Local Flood Authority / Environment Agency / Highway Authority)
 - All headwalls to have guardrail and headwalls with pipes greater than Ø375 to have a trash screen/grating fitted
 - All manholes less than 1.5m deep are considered as none man entry and shall be maintained from ground level.
 - Upon completion of the works, the Contractor shall clean all drainage by jetting, removing all debris from site and the system is to be CCTV surveyed. No debris shall be permitted to enter the existing drainage system.
 - No deep rooting trees/vegetation should be planted within 5.0m of any drainage works.
 - The storage and installation of all proprietary drainage items used are to be strictly in accordance with the manufacturers instructions / requirements.
 - Any works within the public highway to be reinstated to highway authority requirements. All relevant permits/licences must be sought by the contractor prior to the works being undertaken.
 - Pestrocks, where indicated, shall be electronically operated complete with power supply and connection (refer to service engineers drawings for cable and ducting etc.)
 - Statutory Undertakers information, where shown, is indicative only based on supplied records. The contractor shall verify the depth position and nature of the services as necessary in order to construct the works.
 - Drainage channels are to be ACO Qmax in service yards and ACO Multidrain in car parks, or similar approved. Channels are to be sized by the supplier and approved by the Engineer in writing prior to ordering. Drainage channels to be installed to manufacturers' requirements. Design of channels shall be based on a 1 in 30 year storm return period, 15 minute duration. Outlet units on channel drains to include silt traps.
 - All RWP, gully and channel connections shall be Ø150 U.O.N. Waste/soil stack connections shall be Ø100mm U.O.N and shall have internal above ground rodding eyes or large access fittings in accordance with Building Regulations.
 - All WPC's, SRWP's and RWP's are shown indicatively. Locations shall be confirmed by others.
 - Siphonic break chambers (i.e. with SRWP entering) to be constructed with open grated manhole covers ("Waterway 2000" or similar approved).
 - All sprinkler drain, gully locations and flow rates to be confirmed by the sprinkler Contractor. Potential local storage manholes for sprinkler discharge are to be confirmed following definition of system requirements. It is assumed that future sprinkler installation points will be located close to foul water drainage runs.
 - Below ground drainage connections to be provided to all canopy downpipes
 - Ø150mm with concrete bed and surround U.O.N.
 - All rising mains to be laid at minimum gradients of 1:500 rising and 1:300 falling. Air valves and washout valves may be required at high and low points respectively.

P04	26.03.26	MM	Updated to suit Architects layout	JW
P03	25.03.26	MM	Updated to suit comments	JW
P02	24.03.26	MM	Updated to suit Architects layout	JW
P01	09.03.26	MM	Issued for information	JW
REV	DATE	BY	DESCRIPTION	CHKD

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CLIENT

MARCHMONT

PROJECT

MARCHMONT KNOWSLEY

DRAWING TITLE

PROPOSED DRAINAGE LAYOUT

BGL PROJECT NUMBER	DRAWING STATUS	OFFICE	NORTH
40184	PRELIMINARY		
SCALE @ A0	DATE	DRAWN BY	CHECKED BY
1:250	27.02.26	MM	JW
DRAWING No		REV	
40184-BGL-XX-XX-DR-C-00210		P04	