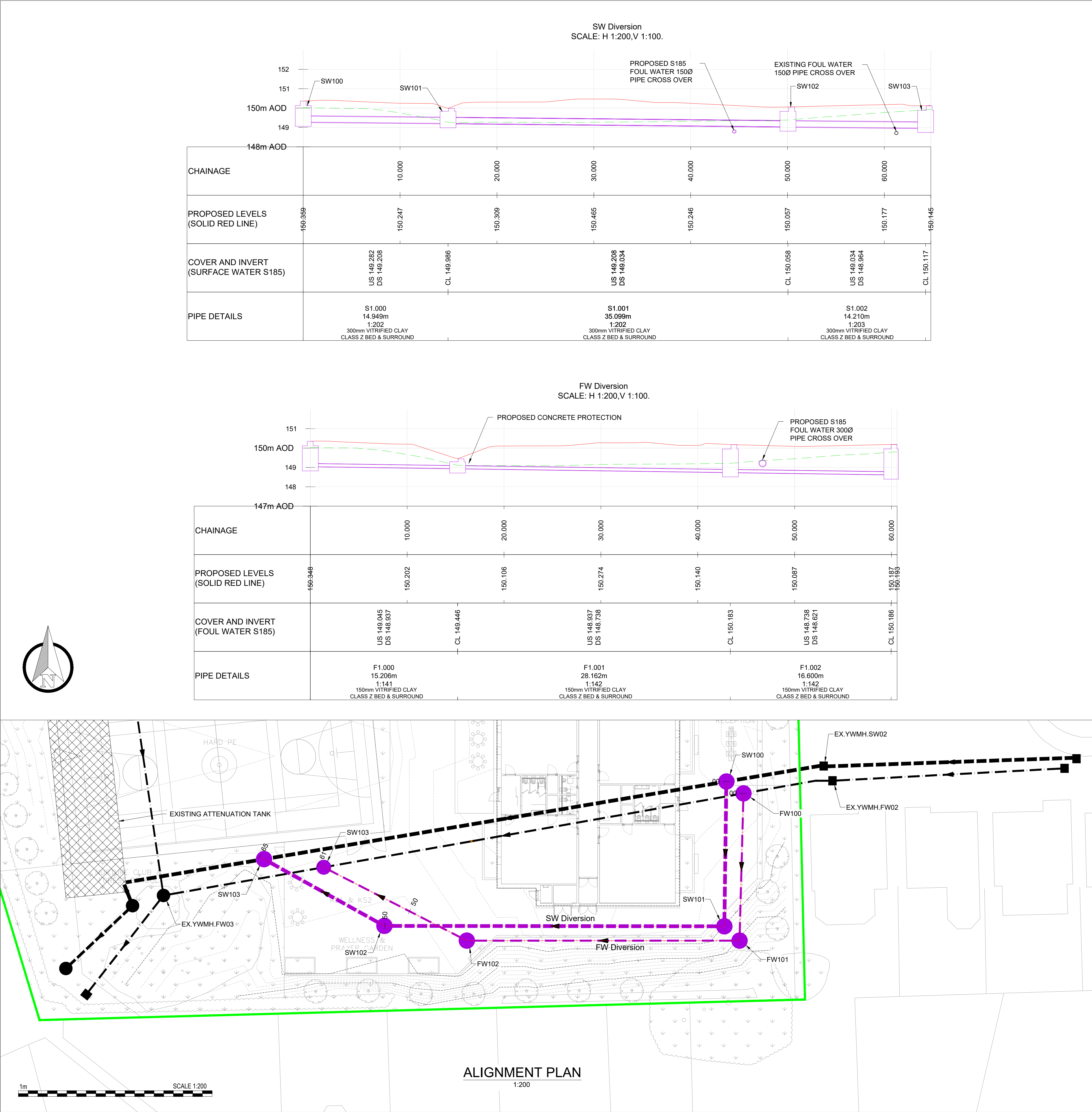




DRAINAGE NOTES

CDM REGULATIONS - DRAINAGE

ALL DESIGN WORK HAS BEEN CARRIED OUT WITH HEALTH & SAFETY ASPECTS GIVEN FULL CONSIDERATION. WHEREVER POSSIBLE RISKS HAVE BEEN ELIMINATED FROM THE DESIGN, HOWEVER DUE TO THE NATURE OF THIS TYPE OF WORK IT IS NOT POSSIBLE TO REMOVE ALL RISK.

THE CONTRACTOR SHALL PROVIDE SATISFACTORY RESPONSES VIA SUITABLE METHOD STATEMENTS AS TO THE MANNER IN WHICH THEY PROPOSE TO CARRY OUT THE WORK AND DEAL WITH ANY HIGHLIGHTED RISK, IN PARTICULAR THE FOLLOWING :-

- ALL TRENCH EXCAVATIONS, REGARDLESS OF DEPTH.
- GUARDING TO EDGES OF EXCAVATIONS TO PREVENT INJURY.
- GUARDING OF THE WORKS OUTSIDE NORMAL WORKING HOURS.
- UNDERMINING OF ADJACENT ROADS OR STRUCTURES.
- CONFINED SPACES OPERATIONS.
- DEALING WITH EXISTING SERVICES.
- TRAFFIC MANAGEMENT ON EXISTING HIGHWAYS.
- PROCEDURES TO BE FOLLOWED IN THE EVENT OF AN EMERGENCY.
- METHODS OF WORKING WHERE GROUND CONTAMINATION MAY BE PRESENT.
- DEALING WITH EXISTING SEWER FLOWS.

THE ABOVE LIST IS BY NO MEANS EXHAUSTIVE, BUT DOES HIGHLIGHT OPERATIONS THAT PRESENT A RISK TO BOTH CONTRACTORS AND THE GENERAL PUBLIC.

- ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "CODE FOR ADOPTION", THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND MUST BE KITEMARKED.
- 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.
- FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT.
- YORKSHIRE WATER IS NOT OBLIGED TO ACCEPT FILTER DRAIN/LAND DRAINAGE RUN-OFF INTO THE PUBLIC SEWER NETWORK OR ADOPTABLE DRAINAGE SYSTEM (DIRECTLY OR IN-DIRECTLY). 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.
- COVER SLABS MUST CARRY THE BSI KITE MARK OR WILL BE REJECTED BY THE YORKSHIRE WATER INSPECTOR. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LOAD BEARING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO 600 X 600MM FOR THE YORKSHIRE WATER SPECIFIED COVER SIZE. PLEASE REFER TO THE CONCRETE PIPE SYSTEMS ASSOCIATION (CPSA), "TECHNICAL BULLETIN" ISSUED AUTUMN 2004 FOR KITEMARKED COVER SLAB OPENING SIZES.
- THE ADOPTABLE SEWERS SHOULD BE A MINIMUM OF 1M AND MANHOLES 0.5M FROM KERB FACES AND SERVICE MARGINS.
- SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
- SEWERS MUST HAVE 5 METRES CLEARANCE FROM TREES AND HEDGES OR THE WIDTH OF THE CANOPY AT MATURE HEIGHT. (ALSO REFER TO DESIGN AND CONSTRUCTION GUIDANCE FOR RESTRICTIONS ON TREE PLANTING ADJACENT TO SEWERS)
- 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 NONVEHICULAR ACCESS AREAS) THEN A CONCRETE SLAB SHOULD BE PROVIDED ABOVE GRANULAR BED AND SURROUND.
- BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A1).
- YORKSHIRE WATER POLICY IS THAT BRICK MANHOLES AND 1050MM DIA. MANHOLE RINGS ARE NOT PREFERRED. INSTEAD IT IS PREFERRED THAT YOU USE A TYPE "B" MANHOLE WITH 1200MM DIA, 1350MM DIA, OR 1500MM DIA RINGS, WITH THE OPENING SITED OVER THE CHANNEL WHERE DEPTH OF COVER TO PIPE SOFFIT IS 1 - 1.5M.
- ALL LEVELS ARE IN METRES RELATED TO OSGB36 DATUM USING LEICA GNSS RECEIVER. COORDINATE GRID IS RELATED TO OSGB36 DATUM USING LEICA GNSS RECEIVER SITE CENTERED AROUND SVS01.
- THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS: 100MM DIA. 40KN/M, 150MM DIA. 40KN/M, 225MM DIA. 45KN/M AND 300MM DIA. 72KN/M. THE MINIMUM CRUSHING STRENGTH FOR CONCRETE PIPES SHOULD BE - (CLASS 120 TO EN 1916/BS5911-1 2002). PLASTIC PIPE SHOULD CONFORM TO WIS 4-35-01 AND BS EN13476.
- 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.
- THERE MUST BE ENOUGH CLEARANCE AT CROSSOVERS TO ACCOMMODATE BEDDING TO BOTH PIPES, APPROX. 300MM : IF CROSSOVER IS NEAR THE ROCKER THEN THE CLEARANCE NEEDED MAY NEED TO BE INCREASED".
- 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 CLAY WARE CHANNEL IN MANHOLES.

Notes

- Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
- This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
- All dimensions in millimetres unless noted otherwise. All levels in metres unless noted otherwise.
- Any discrepancies noted on site are to be reported to the engineer immediately.
- This drawing should be printed and read in colour.

Design Notes

- THIS DRAWING IS BASED ON THE FOLLOWING INFORMATION:
 - N1471-ONE-ZZ-XX-M2-L-0001_Site (LANDSCAPE PLAN)
 - 22878_Topographic and Services Survey_Final (TOPOGRAPHIC & CCTV SURVEY)
- REFER TO WIDER S185 PACKAGE OF DRAWINGS FOR FURTHER INFORMATION.

Legend

- SITE BOUNDARY
- PROPOSED SURFACE WATER DIVERSION
- PROPOSED FOUL WATER DIVERSION
- EXISTING ADOPTED YORKSHIRE WATER SURFACE WATER SEWER SHOWN ON ASSET MAP
- EXISTING ADOPTED YORKSHIRE WATER SURFACE WATER SEWER SHOWN ON ASSET MAP
- PROPOSED MAJOR CONTOUR (0.5m)
- PROPOSED MINOR CONTOUR (0.1m)
- PROPOSED GROUND PROFILE
- EXISTING GROUND PROFILE
- EXISTING YORKSHIRE WATER ATTENUATION ASSET

P0231.07.26UPDATED TO LATEST MASTER PLAN

P0108.05.26PRELIMINARY ISSUE

REVDATEDESCRIPTION

CLIENT

Department for Education

CONTRACTOR

BOWMER + KIRKLAND

CONSULTANT

HEXA

PROJECT

GOMERSAL ST MARYS PRIMARY SCHOOL

DRAWING TITLE

S185 PROPOSED LONGSECTION

DEIR REF : 203, 165

DRAWING PURPOSE

PRELIMINARY

DRAWN BY

DATE

CHK'D BY

SCALE

MEDIA

AR

08.05.26

RR

1:200

A1

PROJECT - ORIGINATOR - ZONE - LEVEL - TYPE - ROLE - NUMBER

REVISION

SRP1134-HEX-ZZ-ZZ-D-C-9213

P02

© Copyright Hexa Consulting Ltd