

All sewer works to comply with MSA "Sewers for Adoption" 6th Edition.

All pipes to have class S granular bed and surround.

All sewer trenches and branch connections to be backfilled with suitable material in 225mm layers and well compacted. Type of backfill material to be agreed with adopting Authority.

All manholes to be constructed in accordance with United Utilities standard details.

Connections from main sewers to first inspection chamber to be 150 dia.Foul and 150 dia Surface Water. Ditto gully connections.

All connections to sewers to be junctions and not saddles.

Manhole covers and frames to be ductile iron 675 x 675 clear square opening BS497 Grade "A" with BSI kitemark on cover.

Manhole covers in garden areas to be as above but grade "B".

First pipe out of manhole to be max. 600mm long connected to a short rocker pipe all as per Sewers for Adoption.

All pipe diameters given are internal including rising mains.

Adoptable sewers

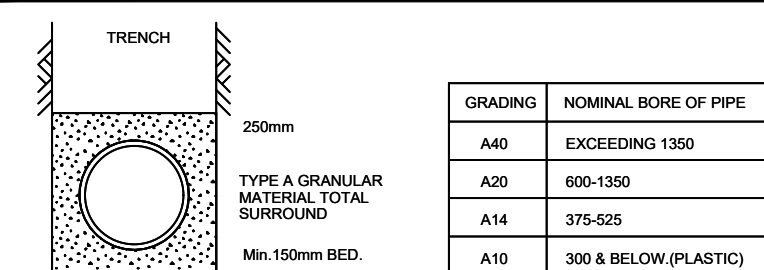
All foul and storm Water sewers up to and including 300 mm dia to be either SuperSieve clay pipes to BSEN 295-1 1991 or UltraRib pipes to WIS 4-35-01 2000 supplied by Wavin.

All flow restricting devices to be Fluidic Amp or Fluidic Cone Vortex Flow Control Valves (where flow and operating head are suitable) supplied by Wavin.

All 100 and 150 mm dia foul and storm water drains, including all inspection chambers and terminal fittings to be OsmaDrain or PlastiDrain to BSEN 13476 2007 supplied by Wavin.

○ SOIL AND VENT PIPE ○ RAINWATER PIPE
 — WASTE GULLY (BACK INLET TYPE) RE — RODDING EYE
 — INSPECTION CHAMBER
 (10.00) COMBINED INVERT LEVEL (METRES)

All invert levels of existing Foul and Surface Water systems are to be confirmed prior to the commencement of any on site drainage works. Any discrepancy in levels is to be reported immediately to Priestley Johnson (Structural Engineers) Ltd.



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

ONLY COMPETENT CONTRACTORS WHO HAVE A VALID SAFETY POLICY ARE TO BE EMPLOYED. THEY SHOULD ALSO PROVIDE SATISFACTORY RESPONSES AT TENDER STAGE AS TO THE MANNER IN WHICH THEY WILL DEAL WITH THE ELEMENTS OF RISK INVOLVED IN THIS TYPE OF WORK AND IN PARTICULAR THOSE HIGHLIGHTED BY BELOW:—

1. TRENCH EXCAVATIONS IN EXCESS OF 1.2M DEEP.
2. GUARDING TO EDGES OF EXCAVATIONS TO PREVENT PEOPLE, MATERIALS AND VEHICLES FALLING INTO EXCAVATION.
3. GUARDING OF EXCAVATIONS OUTSIDE WORKING HOURS TO PREVENT UNAUTHORISED ACCESS.
4. UNDERMINING TO ADJACENT ROADS OR STRUCTURES.
5. CONFINED SPACE OPERATIONS.
6. DEALING WITH EXISTING SERVICES.

Rev	Description	Date
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 BANK HOUSE
105 - 109 NEW STREET,
BLACKROD,
BOLTON
BL6 5AG

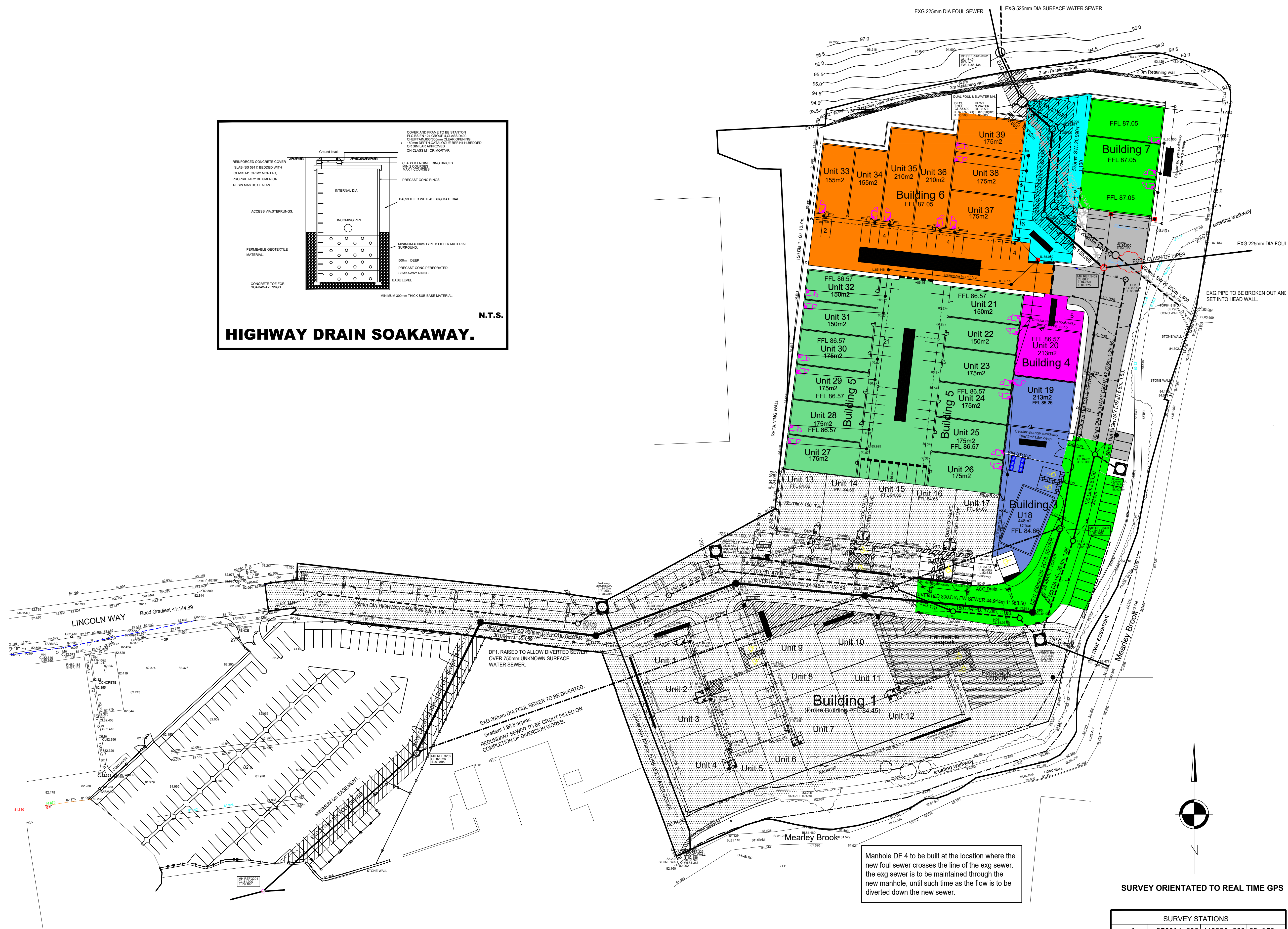
TEL:- 01204 667711
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 ace
consultancy engineering business environment

JAMES ALPE.

Dwg No	REV.G.	Drawn
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Dwg No 16004/D600.	REV.G.	Drawn	SMJ
		Date	April 2019
		Scale	1:500



SURVEY STATIONS				
stn1	375314	638	442320.889	83.179
stn1a	375279	752	442315.348	82.848
stn2	375411	338	442307.881	83.688
stn3	375420	137	442302.916	83.562
stn3a	375429	354	442254.989	82.835
stn4	375452	490	442270.305	83.584
stn5	375488	874	442269.013	83.578
stn6	375522	345	442280.630	83.604
stn7	375526	365	442318.976	83.959
stn8	375548	051	442358.364	84.815
stn9	375558	133	442396.637	85.650