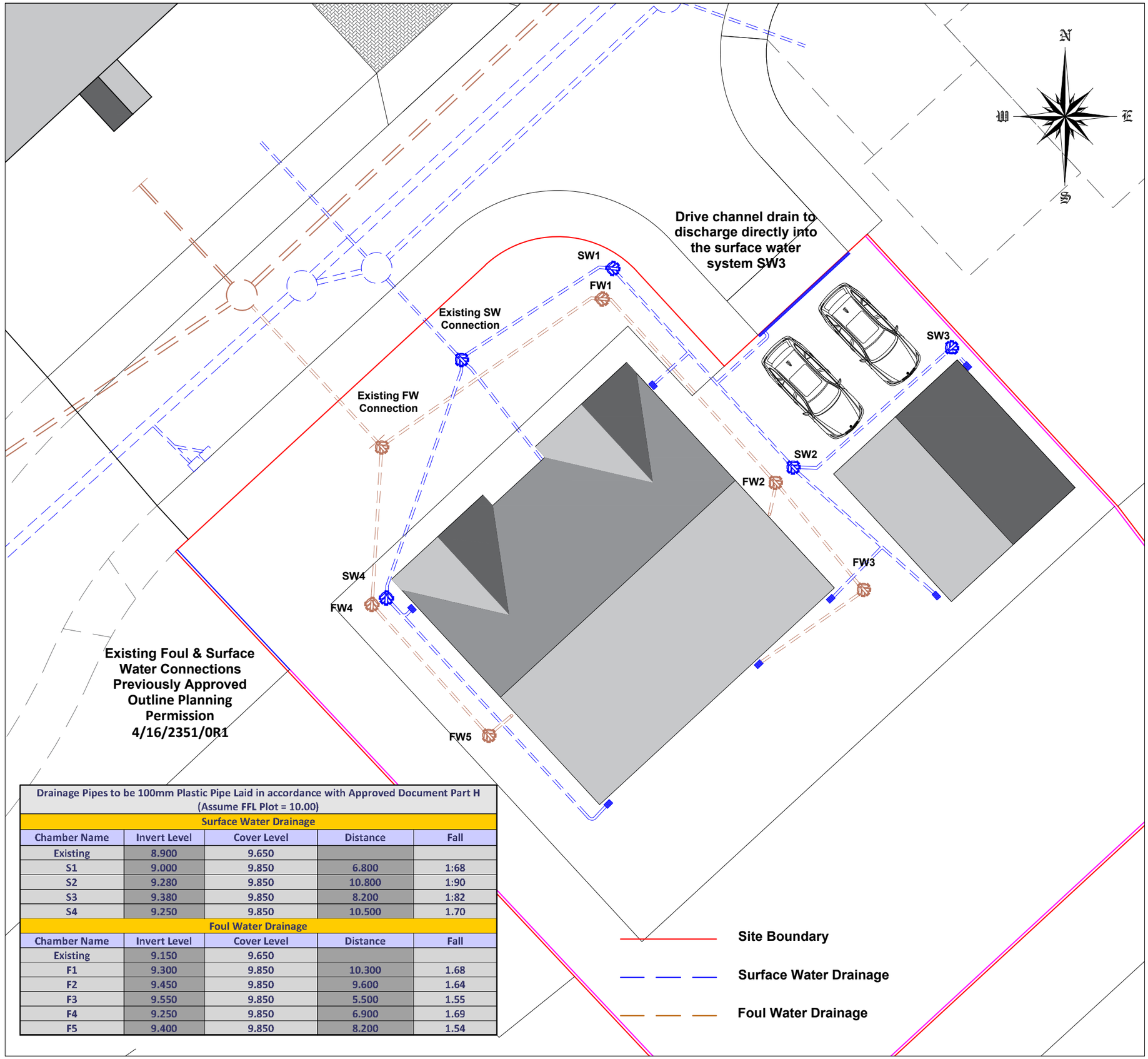

Drainage Pipes to be 100mm Plastic Pipe Laid in accordance with Approved Document Part H (Assume FFL Plot = 10.00)				
Surface Water Drainage				
Chamber Name	Invert Level	Cover Level	Distance	Fall
Existing	8.900	9.650		
S1	9.000	9.850	6.800	1:68
S2	9.280	9.850	10.800	1:90
S3	9.380	9.850	8.200	1:82
S4	9.250	9.850	10.500	1.70
Foul Water Drainage				
Chamber Name	Invert Level	Cover Level	Distance	Fall
Existing	9.150	9.650		
F1	9.300	9.850	10.300	1.68
F2	9.450	9.850	9.600	1.64
F3	9.550	9.850	5.500	1.55
F4	9.250	9.850	6.900	1.69
F5	9.400	9.850	8.200	1.54

Proposed Drainage Plan 1/200

Drainage

Above ground

Provide 100 mm soil vent pipes to take waste pipes from Bathroom, Shower Room, and En-suite. Refer to drawing for location of s.v.ps. Drain invert to vertical soil stack to be min. 450 mm below lowest connection point (large radius 90 bend). Stacks to be ventilated at head of drain and terminated above the roof line, 900 mm above any opening within 3m, and finished with a cage or cover which does not restrict the flow of air.

Minimum 100 mm trap to W.C. with 75 mm re-sealable traps to other fittings. Bath, shower and sink washbasin wastes to be minimum 50 mm dia. Waste pipe gradients to meet requirements of Regulation H1

Below ground

Provide new drain connections as shown and agreed at planning stage by United Utilities. All new underground drainage in 110 dia Marley up drainage pipes and fittings, or equal approved, to B.S. 4660: 2000 and installed in accordance with B.S. 5572: 1978 and B.S. 5955: 1980 to minimum fall of 1/60, Bedding (pea gravel) and protection (concrete encasement) to shallow pipework or below traffic loadings to be confirmed on site with Building Control, all gullies to be trapped and rodable.

Where passing through walls pipes are to be bridged over using concrete lintels. A single drain system is to discharge to the existing sewer as plan.

Pipes penetrating though walls

Pipes penetrating though walls should have joints formed within 150mm of either wall face, with 600mm maximum length adjacent rocker pipes fitted both sides with flexible joints, or alternatively lintels provided above openings though walls to give 50mm clear space around pipes and openings in-filled with inert sheet material and sealed to prevent ingress of fill, vermin and radon gas.

Drain trenches near buildings

Trench excavations for pipe runs located within 1.0m of buildings which extend below the level of the existing foundations should have trenches backfilled with concrete up to the underside of the existing foundations. Trench excavations for pipe runs located more than 1.0m from buildings which extend below the level of the existing foundations should have trenches backfilled with concrete up to the underside of the existing foundations less 150mm.

Inspection chambers and gullies

Proprietary Upvc 450mm diameter inspection chambers to be provided at all changes of level and or direction and at 45m maximum spacing in straight runs up to 1.2m in depth.

Surface water drainage around the building

Paths and paved areas around the building to have a non-slip finish and provided with a surface cross fall of 1:40 - 1:60 to dispose of rain/surface water and a reverse gradient of at least 500mm away from walls of building (unless the paved/path area is a proprietary system designed to be porous and installed in accordance with manufacturer's details). Surface water to be disposed of by an existing surface water attenuation system that has controlled discharge to the local river Keekle.

Rain/surface water disposal

Rain/surface water to be piped away from buildings as detailed in guidance above and discharged in to existing approved attenuation system, storm water drainage facilities using new inspection chamber connection as shown on plans/ specification, or as agreed with building control on site. New connections to existing surface water system (CBC, UU & EA approved).

Rainwater gutters to be Marley "Deep flow" or "Premier" Brown uPVC half round eaves gutter system with 68 mm dia circular down pipe connecting directly into gullies with ACO grated drains to front of garage and level access doors and drive way entrance as shown on plans.

Project Details	**Plot 3, Cleator Gate, Jacktrees Road, Cleator Moor, Cumbria**		
Project	**Proposed 5 Bedroom Dwelling Proposed Site Drainage Plans**		
Ref	**P3CG -CB-005**	**Rev**	**A**
Scale	**1/200**	**Date**	**15th Mar 2021**
Client	**C Bell & R OConnor**		**A1 Paper size**