

Steel / Ductile Iron Pipes PN16 to seal at 16barg					
Gasket Specification	DN100	DN300	DN600	DN700	DN900
Torque setting (Nm)	49	160	480	467	534
C.O.F.	0.120				
Torque sequence	As per Drg: 40018-001-DWG-CST-G02-001 Bolt Specification Grade 4.6				

**FARRANS** A CBM COMPANY | **ATKINS** Member of the SNC-Lavalin Group | **Atkins Limited** Chadwick House, Birchwood Park, Warrington, WA3 6AE Direct: 01925 238319

**LEGEND:**

- PLANNING BOUNDARY
- WORKING BOUNDARY
- WATERCOURSE
- PROPOSED PIPE ROUTE
- PUBLIC RIGHT OF WAYS
- TREE
- L.V.
- A.V.
- W.O.
- SETTING OUT POINT
- ELECTRIC POLE
- HAZARD IDENTIFIER
- CLAY STANK

**EXISTING SERVICES:**

- WATER MAIN
- SEWER MAIN
- ELECTRIC-HV
- ELECTRIC-HV OVERHEAD
- ELECTRIC-LV
- ELECTRIC-LV OVERHEAD
- ELECTRIC LINE
- BT UNDERGROUND
- BT OVERHEAD
- BT-VIRGIN MEDIA
- GAS-LOW PRESSURE
- GAS-MEDIUM PRESSURE
- STORM WATER MAIN
- STREET LIGHT CABLE
- GAS WORKING SAFETY ZONE
- POWER LINE SAFETY ZONE

**REFERENCE:**  
 SZ14-T15A-PR1-M3-001-DWG-CST-G04-034: GENERAL NOTES / REFERENCES  
 40018-001-DWG-CST-G02-001: FLANGE MANAGEMENT DRAWING

**SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION**

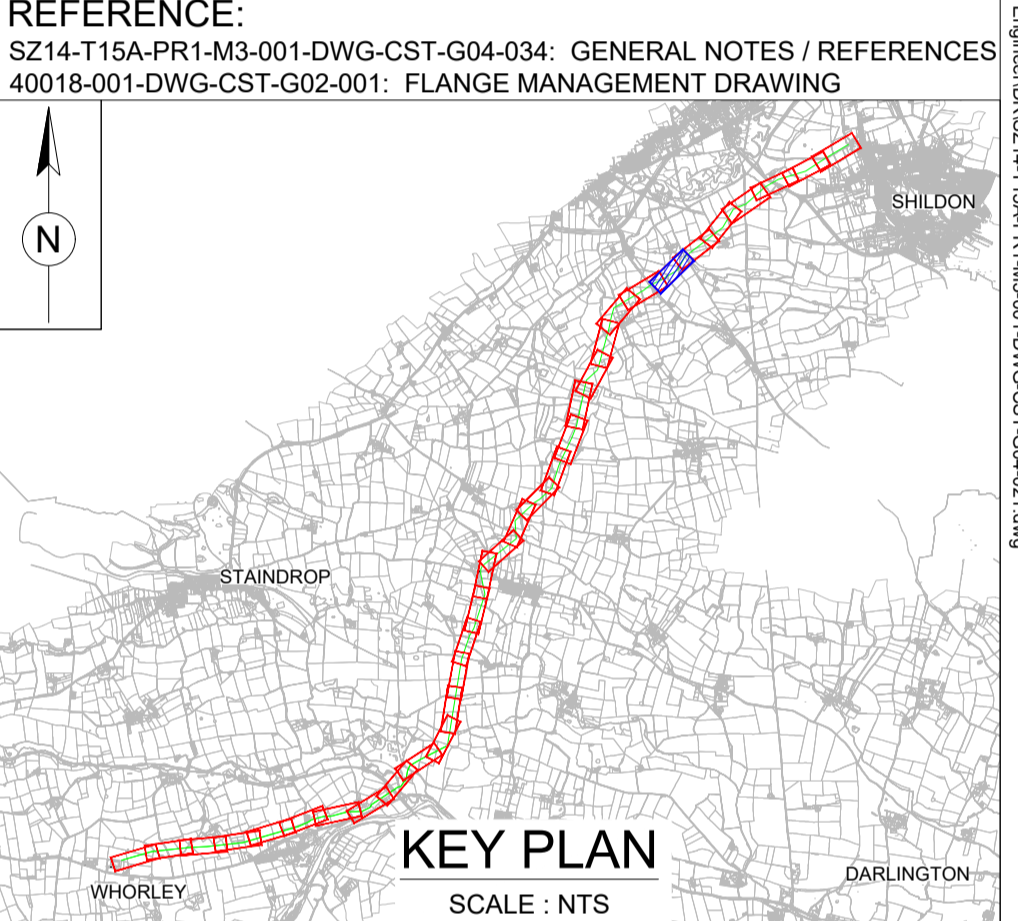
In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:

**CONSTRUCTION**  
 REFER DRA DOCUMENT NO. 40018\_001\_DOC\_C01\_001.

**MAINTENANCE/CLEANING**  
 REFER DRA DOCUMENT NO. 40018\_001\_DOC\_C01\_001.

**DECOMMISSIONING/DEMOLITION**  
 REFER DRA DOCUMENT NO. 40018\_001\_DOC\_C01\_001.

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement



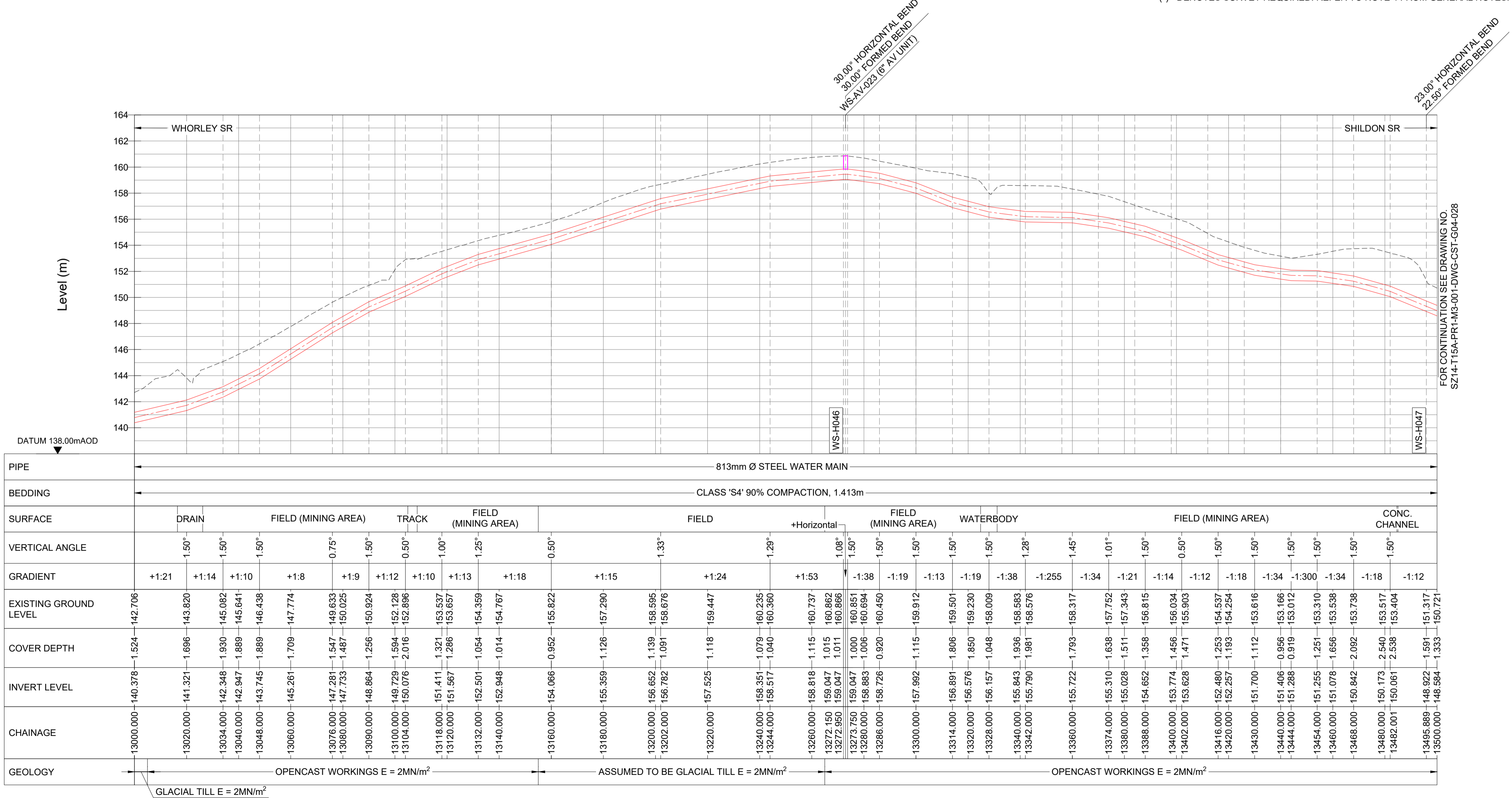
WHORLEY TO SHILDON SETTING OUT POINTS		
CHAINAGE (m)	EASTING	NORTHING
13000	419355.370	524958.540
13040	419389.768	524978.956
13080	419424.165	524999.372
13120	419458.563	525019.788
13160	419492.960	525040.204
13200	419527.357	525060.621
13240	419561.755	525081.037
13280	419596.152	525101.453
13320	419630.550	525121.869
13360	419664.947	525142.285
13400	419699.345	525162.701
13440	419733.742	525183.117
13480	419768.140	525203.533

HORIZONTAL BEND		
SOP NO.	EASTING	NORTHING
WS-H046	419590.090	525097.855
WS-H047	419699.224	525292.255

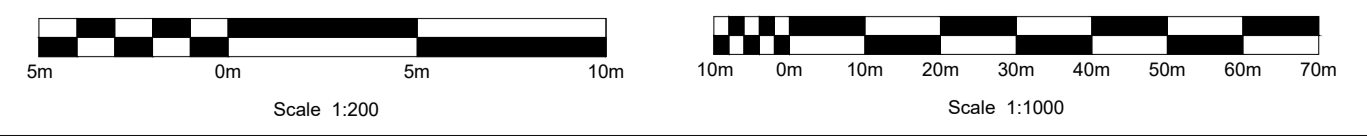
  

AIRVALVE		
SOP NO.	EASTING	NORTHING
WS-AV-023	419590.090	525097.855



PIPE	813mm Ø STEEL WATER MAIN																																																	
BEDDING	CLASS 'S4' 90% COMPACTION, 1.413m																																																	
SURFACE	DRAIN	FIELD (MINING AREA)			TRACK	FIELD (MINING AREA)			FIELD	WATERBODY			FIELD (MINING AREA)			CONC. CHANNEL																																		
VERTICAL ANGLE	1.50°	1.50°	1.50°	0.75°	1.50°	0.50°	1.00°	1.25°	0.50°	1.33°	1.29°	1.08°	1.50°	1.50°	1.50°	1.28°	1.45°	1.01°	1.50°	1.50°	1.50°	1.50°	1.50°	1.50°	1.50°	1.50°	1.50°																							
GRADIENT	+1.21	+1.14	+1.10	+1.8	+1.9	+1.12	+1.10	+1.13	+1.18	+1.15		+1.24	+1.53	-1.38	-1.19	-1.13	-1.19	-1.38	-1.255	-1.34	-1.21	-1.14	-1.12	-1.18	-1.34	-1.300	-1.34	-1.18	-1.12																					
EXISTING GROUND LEVEL	13000.000-140.378	13020.000-141.321	13034.000-142.348	13040.000-142.947	13048.000-143.745	13060.000-145.281	13076.000-147.281	13080.000-147.733	13090.000-148.864	13100.000-149.729	13104.000-150.076	13118.000-151.411	13120.000-151.567	13132.000-152.501	13140.000-152.948	13160.000-154.066	13180.000-155.359	13200.000-156.652	13202.000-156.782	13220.000-157.525	13240.000-158.351	13244.000-158.517	13260.000-158.818	13272.950-159.047	13273.750-159.047	13280.000-158.883	13286.000-158.726	13300.000-157.992	13314.000-156.891	13320.000-156.576	13326.000-156.157	13340.000-155.843	13342.000-155.790	13360.000-155.722	13374.000-155.310	13380.000-155.028	13388.000-154.652	13400.000-153.774	13402.000-153.628	13416.000-152.480	13420.000-152.257	13430.000-151.700	13440.000-151.406	13454.000-151.255	13460.000-151.078	13468.000-150.842	13480.000-150.173	13482.001-150.081	13495.889-148.922	13500.000-146.594
COVER DEPTH	1.524	1.696	1.930	1.869	1.889	1.709	1.547	1.487	1.256	1.594	2.016	1.321	1.286	1.054	0.952	1.126	1.139	1.091	1.118	1.079	1.040	1.115	1.011	1.006	1.006	1.115	1.115	1.806	1.850	1.048	1.936	1.981	1.793	1.638	1.511	1.358	1.456	1.253	1.193	1.012	0.919	1.251	1.656	2.092	2.540	2.538	1.591	1.333		
INVERT LEVEL	140.378	141.321	142.348	142.947	143.745	145.281	147.281	147.733	148.864	149.729	150.076	151.411	151.567	152.501	152.948	154.066	155.359	156.652	156.782	157.525	158.351	158.517	158.818	159.047	159.047	158.883	158.726	157.992	156.891	156.576	156.157	155.843	155.790	155.722	155.310	155.028	154.652	153.774	153.628	152.480	152.257	151.700	151.406	151.255	151.078	150.842	150.173	150.081	148.922	146.594
CHAINAGE	13000.000	13020.000	13034.000	13040.000	13048.000	13060.000	13076.000	13080.000	13090.000	13100.000	13104.000	13118.000	13120.000	13132.000	13140.000	13160.000	13180.000	13200.000	13202.000	13220.000	13240.000	13244.000	13260.000	13272.950	13273.750	13280.000	13286.000	13300.000	13314.000	13320.000	13326.000	13340.000	13342.000	13360.000	13374.000	13380.000	13388.000	13400.000	13402.000	13416.000	13420.000	13430.000	13440.000	13454.000	13460.000	13468.000	13480.000	13482.001	13495.889	13500.000
GEOLOGY	GLACIAL TILL E = 2MN/m <sup>2</sup>			OPENCAST WORKINGS E = 2MN/m <sup>2</sup>			ASSUMED TO BE GLACIAL TILL E = 2MN/m <sup>2</sup>			OPENCAST WORKINGS E = 2MN/m <sup>2</sup>																																								

**LONGITUDINAL SECTION**  
 HORIZONTAL SCALE 1:1000 VERTICAL SCALE 1:200



**Drawing Status:** FOR REVIEW BY LEAD APPOINTED PARTY

**Suitability:** S4

Rev.	Description	Date	Drawn	Chk'd	App'd
P06	FOR REVIEW	17.11.2023	AJ	RH	SK
P05	FOR REVIEW	10.10.2023	AJ	RH	SK
P04	FOR REVIEW	18.09.2023	AJ	RH	SK
P03	FOR REVIEW	26.07.2023	AJ	RH	SK
P02	FOR REVIEW	30.06.2023	AJ	RH	SK

**Note:-**  
 IF THIS DRAWING IS FOUND TO BE IN ANY WAY INACCURATE, PLEASE ADVISE THE RECORD OFFICE IMMEDIATELY AND COMPLETE AN AMENDMENT FORM.



**CONTRACTOR:** FARRANS  
**REF. NO.:** WN019/0205-4.11  
**I.D. PROJECT NO.:** WN019/0205

**Drawing Title:**  
 TEES STRATEGIC TRANSFER MAIN  
 WHORLEY SR TO SHILDON SR  
 PLAN AND LONGITUDINAL SECTION

**Dwg No:**  
 SZ14-T15A-PR1-M3-001-DWG-CST-G04-027

Sheet:	Date:	Sheet:	Scale:	Rev No:
27 OF 33	17.11.2023	A1	AS SHOWN	P06