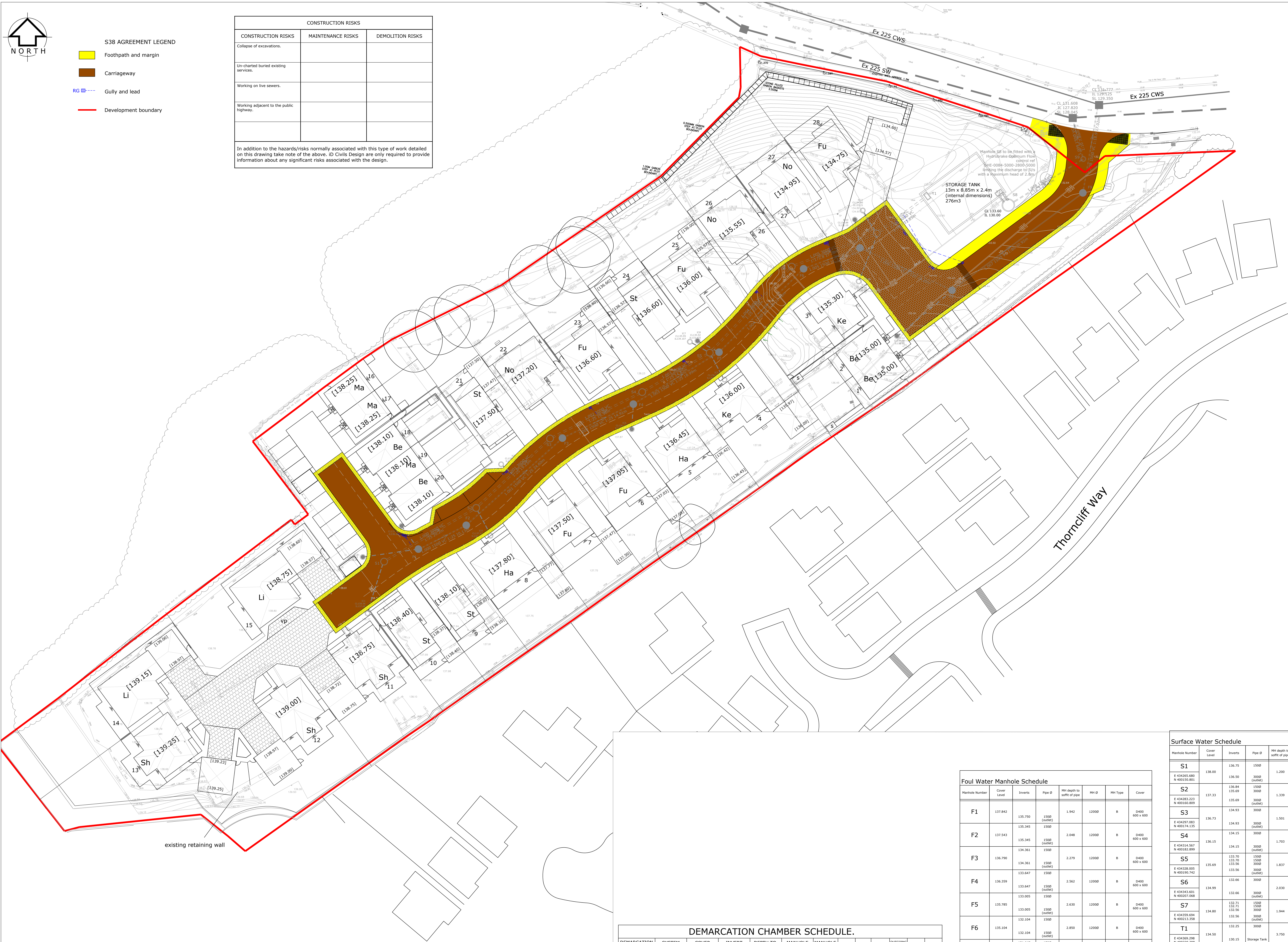


S38 AGREEMENT LEGEND

- Footpath and margin
- Carriageway
- Gully and lead
- Development boundary

CONSTRUCTION RISKS		
CONSTRUCTION RISKS	MAINTENANCE RISKS	DEMOLITION RISKS
Collapse of excavations.		
Un-charted buried existing services.		
Working on live sewers.		
Working adjacent to the public highway.		
In addition to the hazards/risks normally associated with this type of work detailed on this drawing take note of the above. iD Civils Design are only required to provide information about any significant risks associated with the design.		



DEMARCATION CHAMBER SCHEDULE.												
DEMARCATION CHAMBER REFERENCE	SYSTEM	COVER LEVEL	INVERT LEVEL	DEPTH TO INVERT (m)	MANHOLE TYPE	MANHOLE DIAMETER	LATERAL DIAMETER	COVER CLASS	COVER SIZE	OUTSIDE PIPE LENGTH (m)	OUTSIDE PIPE GRADIENT	OUTSIDE PIPE MATERIAL
IC1	SW	138.56	137.68	0.88	W.O.D.U.I.C.	5000	1500	B125	4620	10.3	1:10	V.C.
IC2	FW	138.12	136.81	1.31	W.N.E.I.C.	5000	1500	B125	4620	10.6	1:10	V.C.
IC3	FW	137.80	136.20	1.70	W.N.E.I.C.	5000	1500	B125	4620	4.5	1:10	V.C.
IC4	SW	137.67	135.69	0.978	W.O.D.U.I.C.	5000	1500	B125	4620	8.1	1:10	V.C.
IC5	SW	137.25	135.72	1.53	W.N.E.I.C.	5000	1500	B125	4620	2.5	1:10	V.C.
IC6	FW	136.65	134.117	2.533	Type B manhole	12000	1500	B125	600x600	4.7	1:10	V.C.
IC7	SW	135.56	134.107	1.843	W.N.E.I.C.	5000	1500	B125	4620	4.9	1:10	V.C.
IC8	FW	135.92	133.475	2.445	Type B manhole	12000	1500	B125	600x600	4.7	1:10	V.C.
IC9	SW	136.00	134.257	1.733	W.N.E.I.C.	5000	1500	B125	4620	5.5	1:10	V.C.
IC10	FW	134.88	132.19	2.61	Type B manhole	12000	1500	D400	600x600	5.4	1:10	V.C.
IC11	SW	134.80	133.21	1.59	W.N.E.I.C.	5000	1500	D400	600	5.0	1:10	V.C.
IC12	FW	135.00	132.85	2.15	Type B manhole	12000	1500	B125	600x600	13.6	1:10	V.C.
IC13	SW	134.30	131.31	2.99	Type B manhole	12000	1500	B125	600x600	4.0	1:10	V.C.

W.O.D.U.I.C. = W.O.D.U.I.C. Universal Inspection Chamber (up to 1200mm deep)
W.N.E.I.C. = W.N.E.I.C. Universal Inspection Chamber (up to 1200mm deep)
REFER TO ID CIVILS DESIGN DRAWING 4759-C-04-02 FOR DETAILS OF TYPE B MANHOLE.

Foul Water Manhole Schedule						
Manhole Number	Cover Level	Inverts	HH depth to soffit of pipe	MH D	MH Type	Cover
F1	137.842	135.750 135.345	1.942	12000	B	D400 600 x 600
		135.345 135.345				
F2	137.143	135.345 134.361	2.048	12000	B	D400 600 x 600
		135.345 134.361				
F3	136.790	134.361 133.647	2.279	12000	B	D400 600 x 600
		134.361 133.647				
F4	136.359	133.647 133.005	2.562	12000	B	D400 600 x 600
		133.647 133.005				
F5	135.780	133.005 132.104	2.430	12000	B	D400 600 x 600
		133.005 132.104				
F6	135.104	132.104 131.647	2.850	12000	B	D400 600 x 600
		132.104 131.647				
F7	134.950	131.647 131.487	3.153	12000	A	D400 600 x 600
		131.647 131.487				
F8	134.454	131.487 131.100	2.717	12000	B	D400 600 x 600
		131.487 131.100				
F9	132.523	131.100 129.120	1.273	15000	BLUE	D400 600 x 600
		131.100 129.120				
EX MH	131.777	129.120	2.652	EXMH	EXMH	D400 600 x 600

Surface Water Schedule									
Manhole Number	Cover Level	Inverts	HH depth to soffit of pipe	MH D	MH Type	Cover	Manhole Number	Cover Level	Inverts
S1	136.00	136.75	1.500	1.200	12000	MH BLUE	D 400	600 x 600	
		136.00							
S2	137.33	136.69	3.000	1.339	15000	MH BLUE	D 400	1200 x 600	
		136.69							
S3	136.73	134.93	3.000	1.501	12000	MH B	D 400	600 x 600	
		134.93							
S4	136.15	134.15	3.000	1.703	12000	MH B	D 400	600 x 600	
		134.15							
S5	135.69	133.78	3.000	1.637	12000	MH B	D 400	600 x 600	
		133.78							
S6	134.99	132.66	3.000	2.030	12000	MH B	D 400	600 x 600	
		132.66							
S7	134.80	132.73	3.000	1.944	18000	MH B	D 400	600 x 600	
		132.73							
T1	134.50	132.25	3.000	3.750	18000	Special attention drawings	D 400	600 x 600	
		132.25							
T2	133.80	130.10	6000	1.300	18000	Special attention drawings	D 400	600 x 600	
		130.10							
S8	133.60	130.05	6000	3.450	18000	See drawing 4759-C-04-01	D 400	1200 x 675	
		130.05							
S9	132.11	128.68	1500	3.276	12000	MH A	D 400	600 x 600	
		128.68							
EX MH	131.61	127.80	2250	3.788	EX MH	EX MH	D 400	600 x 600	
		127.80							

Health and Safety Notes/CDM Regulations 2015
In line with the above regulations we are obliged to inform the Contractor of the potential risks that may be encountered in the construction of these works. An assessment of these risks has been carried out and the results are shown on this drawing. Although considerable effort is undertaken to eliminate risks, the very nature of the project gives rise to some hazards and risks.
Significant risks that cannot be eliminated by design could not be foreseen by a competent contractor any relied in the risk assessment based on the drawings.

Notes

- No work should commence on site until written approval is received from Yorkshire Water/Adopting Highway Authority or any relevant Authority. Works undertaken prior to approval are at the Developer's risk and ID Civils Design will not be held responsible for subsequent delays in approvals, remedial costs or construction programme delays.
- Prior to the commencement of on site works the contractor is to check the location, invert levels, soffit levels, sizes and conditions of manholes, pipes, and any other drains or watercourses in which it is intended to outfall. Any discrepancy is to be reported immediately to ID Civils Design.
- Prior to construction of an on site works the contractor is to check the location, invert levels, soffit levels, sizes and conditions of manholes, pipes, and any other drains or watercourses in which it is intended to outfall. Any discrepancy is to be reported immediately to ID Civils Design.
- The Local Authority and statutory service providers are to be notified prior to the commencement of work on site.
- All highway works to be carried out in accordance with the Highways Authority specification for Highway Works.
- Street lighting to be in accordance with the lighting design.
- All sewer works to be adopted to be in accordance with "Sewers for Adoption" (6th Edition), the relevant British/European and Yorkshire Water's Standards/Requirements/Adopted and "Kitemarked".
- Yorkshire Water is not obliged to accept filter drain/land drainage runoff into the public sewer network or adoptable drainage system (directly or indirectly). An alternative method of disposal of the land drainage runoff will therefore be required and you will have to liaise with the Local Authority, Land Drainage Section with regard to the disposal of the filter drain/land drainage runoff.
- Adoptable sewers should be a minimum of 1.0m and manholes 0.5m from kerb, foot and service margins.
- Sewers must have 5 metres clearance from trees and hedges, any existing trees should be removed and no new trees planted within this zone. Refer to Figure 2.3 on page 23 "Sewers for Adoption" 6th Edition for restrictions on tree planting adjacent to sewers.
- Cover slabs must carry the BS1 Kitemark or will be rejected by 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 slab down to 600mm x 600mm for the Yorkshire Water specified cover size. Please refer to Concrete Pipe Systems Association (CPSA) Technical Bulletin issued autumn 2004 for Kitemarked cover slab opening sizes.
- Manhole covers shall have a minimum clear opening of 600 x 600mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways.
- The chamber size of manholes with more than one connection in them may need to be increased an increment to accommodate the connections and bends.
- Yorkshire Water policy is not to accept Type "C" brick manholes and 1000mm dia. manhole rings. Instead it is preferred that you use a type "B" manhole with 1200mm dia. or 1500mm dia. rings, with the opening sized over the channel where the depth of cover to pipe soffit is 3-1.5m.
- Plastic channel sections in manholes are not acceptable and Yorkshire Water would prefer clayware channels in manholes. Plastic channels are difficult to set in concrete because they float and a satisfactory finish cannot be obtained on the benching.
- Filled ground must be filled and consolidated under the supervision and to the satisfaction of Yorkshire Water before any sewer works are carried out.
- 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 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 none vehicular access areas) then a concrete slab should be provided above granular bed and surround. (Ref. S.F.A.6 TABLE 2.4)
- The minimum crushing strength for Clay pipes should be as follows:
150mm dia. 400N/m²
225mm dia. 450N/m²
300mm dia. 720N/m²
- The pipe strength for Concrete pipes should be Class 120 to BS EN 12698/1-1:2002.
- Adoptable plastic sewer pipes to be BS1 Kitemarked (certified to WIS 4-35-01) and to BS/EN13476).
- Adoptable plastic sewer pipes to be laid in maximum of 3 metre lengths unless there is a specific operational need to lay longer lengths.
- Where plastic pipes are installed in the ground prior to getting approval, the Developer must provide a light-line CCTV Survey and report (electronic deflection testing) of the prospectively adoptable sewers which will be at the Developer's expense.
- 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.
- Bedding and Backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).

Rev	Description	By	Date
E	Hatch updated	CR	20.02.20
D	Tank location updated	CR	11.02.20
C	Square and tank amended	CR	22.11.19
B	Tank amended	CR	22.08.19
A	Outfall positions updated	CR	24.06.19

Client:

Rouse Homes

Project Title:

New Road Tankersley

Drawing Title:

S38 Agreement Layout

Scale		Date	
1:250 @ A0		04.06.19	
Drawing No		Revision	
4759-C-D7-01		E A	

Geo Structures Civils
iD Civils Design
Consulting Engineers

North East & Yorkshire:
Alicia Gubbins, Aileen Richmond,
North Yorkshire, DL10 5HG
E: 01748 889515
F: 01565 740263

North West & Midlands:
Cathryn Hodge,
Tatton Street, Knutsford,
Cheshire, WA16 6AD
E: 01565 755557
F: 01565 740263