

Let's develop
Your Tomorrow
Today

19045 – Edge Lane, Openshaw
Site Maintenance Plan

**Prepared for
Lovell**

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Proposed drainage system:

The surface water from each dwellings discharges into two separate pipe networks and gravitate towards two control chambers which restrict the outgoing flows to an approved discharge rate.

Two cellular storages are used adjacent to the control chambers to store excess flow from rainfall event of 1 in 30 to 1 in 100 (plus 40% climates change).as a means of storing the exceedance flow.

Surface water drainage (blue) and foul water drainage (Brown) as shown on the drawing ELL-19045-YH-B-180-H are to become public sewer and to be maintained by united utilities as part of section 104 adoption agreement. The adopted manholes in these drawings are also scheduled on drawing ELL-19045-YH-B-220-H which gives the details of the manhole structures.

The remaining drainage which are located within the privately purchased dwelling boundaries are classed as private drainage and will be maintained by the purchasers.

The properties which are to be remained under Your Housing ownership will be maintained by the management company which will be appointed by Your Housing.

The cellular storage units are also to be maintained by a management company appointed to ensure the drainage system and cellular storage tank inlets & outlet pipework remain clear at all times and remain operational.

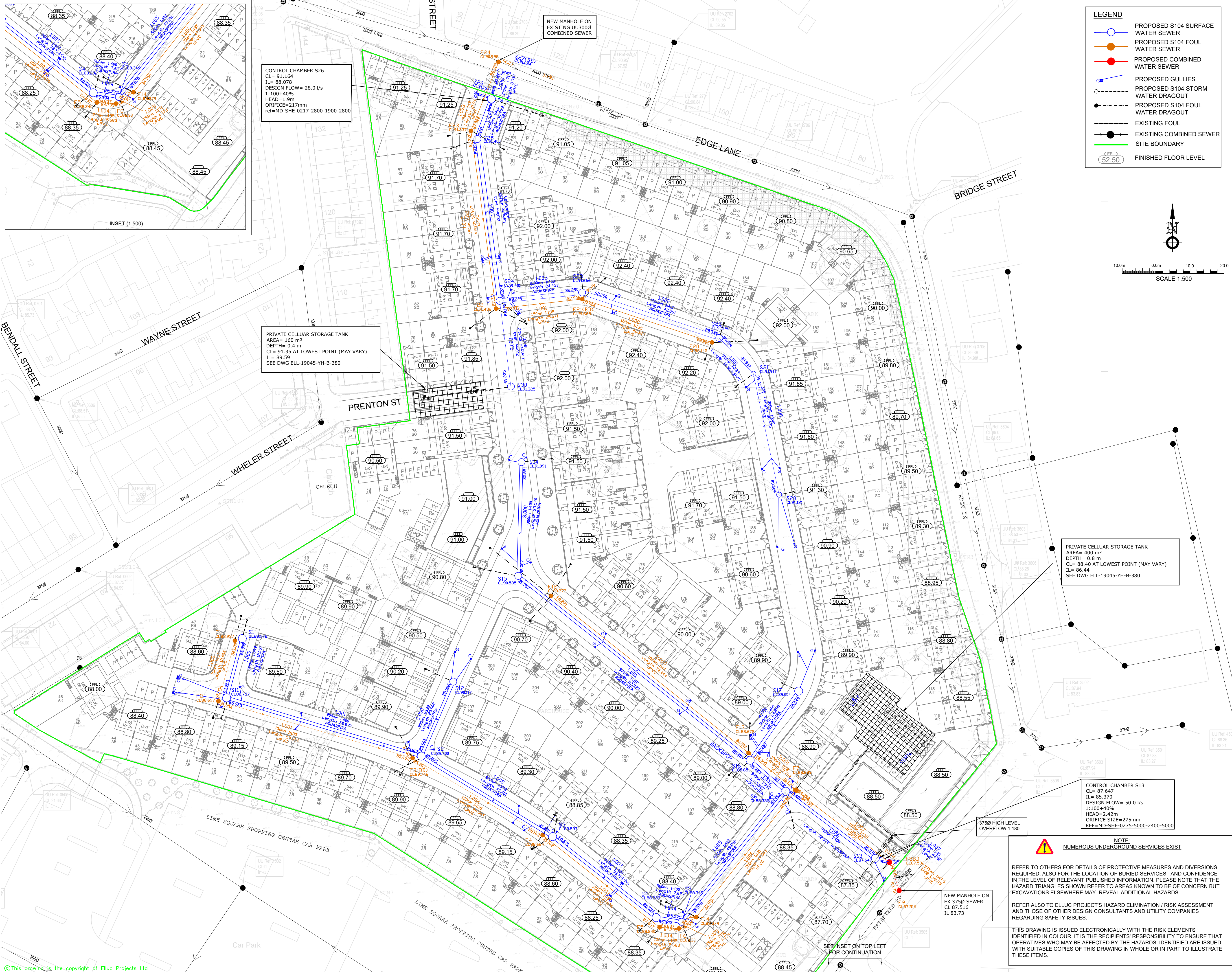
The table below presents management activities in order to meet the aim & objectives outlined above.

Cellular Storage operations and maintenance requirements

Maintenance	Required Action	Frequency
Regular maintenance	Inspection and identifying of any areas that are not operating correctly and taking remedial actions when necessary	Monthly
	Inspect all inlet and outlets and silt traps and clear silts and debris	Monthly
	Inspect Vents and repair as necessary	
	Inspect condition of cellular storage tank and carry out maintenance to accordance with the supplier's recommendations. Inspect Vents and repair as necessary	Monthly
Remedial work	Inspect and repair all inlets and outlet pipes to the cellular storage tank	As required (tasks to repair problems due to damage)
	Inspect Vents and repair as necessary	
	Reinstatement following pollution incident	As required (tasks to repair problems due to damage)
	Removal of silt buildup	As required (tasks to repair problems due to damage)

Operations and maintenance requirements for private surface and foul water drainage to include manholes and pipes (Excluding the drainage within building curtilage)

Maintenance	Required Action	Frequency
Regular maintenance	Inspection and identifying of any areas that are not operating correctly and taking remedial actions when necessary	Monthly
	Debris and Grass removal from catchment surface, Inspect inspection chamber, silt traps and clear silts and debris	Monthly
Occasional tasks	Inspect inspection chambers, drainage channels, gullies, silt traps and clear silts and debris	Annually
Remedial work	Review and repair / replace any gullies and / or Aco drains due to wear and tear	As required



PRELIMINARY

YOUR HOUSING

EDGE LANE OPENSHAW

SECTION 104 SEWERS FOR ADOPTION WATER INDUSTRY ACT 1991

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1:500	A1	JAN 2020	EK	ARA

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Rev: I

MANHOLE SCHEDULE NETWORK 1 NORTHERN CATCHMENT

Manhole Number	Cover Level	Connections	Pipe			Manhole Size	Types	
			Code	Inverts	Diams Inv-sft		UNITED UTILITIES MANHOLE TYPES	Cover
F20	92.145							
E. 389283.292	3.790					1500	1	D400
N. 397708.553			0	1.000	88.205	150		
F21	91.668		1	1.000	87.906	150		
E. 389245.028	3.612					1500	1	D400
N. 397721.349			0	1.001	87.906	150		
F22	91.438		1	1.001	87.717	150		
E. 389219.616	3.571					1500	1	D400
N. 397718.498			0	1.002	87.717	150		
F23	91.337		1	1.002	87.326	150		
E. 389212.229	3.861					1500	1	D400
N. 397770.887			0	1.003	87.326	150		
F24	90.998		1	1.003	86.380	150		
E. 389220.368	4.468					1500	1	D400
N. 397791.261								
S20	91.121							
E. 389303.061	1.312					1500	4	D400
N. 397663.675			0	1.000	89.509	300		
S21	91.917		1	1.000	89.357	300		
E. 389295.476	2.260					1500	1	D400
N. 397699.326			0	1.001	89.357	300		
S22	92.142		1	1.001	89.296	300		
E. 389285.404	2.546					2100	SHALLOW SW MANHOLE	D400
N. 397709.846			0	1.002	88.396	1200		
S23	91.666		1	1.002	88.290	1200		
E. 389244.986	2.176					2400	SHALLOW SW MANHOLE	D400
N. 397723.275			0	1.003	88.290	1200		
S24	91.401		1	2.000	88.129	300		
E. 389220.680	1.972					2400	SHALLOW SW MANHOLE	D400
N. 397720.807			0	1.004	88.229	1200		
S25	91.400		1	1.004	88.109	1200		
E. 389214.119	2.091					2100	SHALLOW SW MANHOLE	D400
N. 397768.511			0	1.005	88.109	1200		
S26 CONTROL CHAMBER	91.164		1	1.005	88.078	1200		
E. 389218.237	2.786					2700	5	D400
N. 397780.312			0	1.006	88.078	300		
S27	91.034		1	1.006	87.960	300		
E. 389220.825	2.774					1800	1	D400
N. 397788.300								
S30	91.601							
E. 389224.008	2.068					1500	1	D400
N. 397695.674			0	2.000	89.235	300		

MANHOLE SCHEDULE NETWORK 2 SOUTHERN CATCHMENT

Manhole Number	Cover Level	Connections	Pipe			Manhole Size	Types	
			Code	Inverts	Diams Inv-sft		UNITED UTILITIES MANHOLE TYPES	Cover
F1	88.937							
E. 389142.862	2.707					1200	1	D400
N. 397620.653			0	1.000	86.080	150		
F2	88.697		1	1.000	85.934	150		
E. 389137.812	2.613					1500	1	D400
N. 397602.804			0	1.001	85.934	150		
F3	89.746		1	1.001	85.492	150		
E. 389195.038	4.104					1500	1	D400
N. 397586.063			0	1.002	85.492	150		
F4	88.664		1	1.002	85.162	150		
E. 389233.351	3.352					1500	1	D400
N. 397563.342			0	1.003	85.162	150		
F5	88.240		1	1.003	84.837	150		
E. 389267.809	3.253					1500	1	D400
N. 397536.181			0	1.004	84.837	150		
F6	88.300		1	1.004	84.795	150		
E. 389273.481	3.355					1200	1	D400
N. 397535.633			0	1.005	84.795	150		
F7	88.289		1	2.001	86.271	150		
E. 389308.010	3.741					1500	1	D400
N. 397576.546			0	1.007	84.398	150		
F8	87.532		1	1.007	84.141	150		
E. 389335.534	3.241					1500	1	D400
N. 397565.367			0	1.008	83.916	375		
F9	87.516		1	1.008	83.730	375		
E. 389338.496	3.413					1500	1	D400
N. 397547.049								
F12	90.272							
E. 389235.797	1.922					1200	1	D400
N. 397633.882			0	2.000	86.200	150		
F13	88.672		1	2.000	86.500	150		
E. 389294.069	1.822					1200	1	D400
N. 397587.555			0	2.001	86.500	150		
F14	88.374		1	1.005	84.750	150		
E. 389278.661	3.475					1500	1	D400
N. 397539.194			0	1.006	84.750	150		

Manhole Number	Cover Level	Connections	Pipe			Manhole Size	Types	
			Code	Inverts	Diams Inv-sft		UNITED UTILITIES MANHOLE TYPES	Cover
S1	88.978							
E. 389144.849	2.078					2400	SHALLOW SW MANHOLE	D400
N. 397621.288			0	1.000	86.000	900		
S2	89.700		1	2.000	85.905	900		
E. 389197.586	2.995					2400	2	D400
N. 397586.620			0	1.002	85.905	900		
S3	88.587		1	1.002	85.691	900		
E. 389236.306	1.996					2400	SHALLOW SW MANHOLE	D400
N. 397592.914			0	1.003	85.691	900		
S4	88.232		1	1.003	85.594	900		
E. 389266.792	1.738					2400	SHALLOW SW MANHOLE	D400
N. 397539.046			0	1.004	85.594	900		
S5	88.349		1	1.004	85.575	900		
E. 389274.316	1.874					2100	SHALLOW SW MANHOLE	D400
N. 397537.802			0	1.005	85.575	900		
S6	88.335		1	2.002	85.452	900		
E. 389305.011	1.983					2100	SHALLOW SW MANHOLE	D400
N. 397576.260			0	1.006	85.452	900		
S11	88.757		1	1.000	85.955	900		
E. 389140.236	1.902					2400	SHALLOW SW MANHOLE	D400
N. 397603.630			0	1.001	85.955	900		
S12	90.117							
E. 389206.999	3.351					2100	2	D400
N. 397608.590			0	2.000	85.866	900		
S13 CONTROL CHAMBER	87.647		1	5.000	86.203	375		
E. 389331.404	1.902					2700	5	D400
N. 397556.497			0	1.007	85.370	375		
S14	91.091							
E. 389227.109	4.340					2100	2	D400
N. 397673.273			0	3.000	85.851	900		
S15	90.535		1	3.000	85.767	900		
E. 389226.171	3.868					2100	2	D400
N. 397639.746			0	3.001	85.767	900		
S16	88.651		1	4.000	85.487	900		
E. 389294.537	2.265					2100	2	D400
N. 397585.409			0	3.002	85.487	900		
S17	89.004							
E. 389308.825	2.555					2100	SHALLOW SW MANHOLE	D400
N. 397605.799			0	4.000	85.549	900		

NOTES:

1. ALL ADOPTABLE DRAINAGE WORKS HAVE BEEN DESIGNED AND ARE TO BE CONSTRUCTED IN ACCORDANCE WITH "SEWERS FOR ADOPTION 6TH EDITION" AND UU SUPPLEMENT GUIDELINES AND STANDARD DETAILS
2. ALL CLAY PIPE WORK SHALL BE EXTRA STRENGTH CLAYWARE TO B.S EN 295:1991 PART 1
3. ALL PRECAST CONCRETE PIPEWORK SHALL BE TO THE CLASS STATED ON THE DRAWINGS IN ACCORDANCE WITH B.S EN 1916:2002. ALSO, ALL MANHOLES AND CHAMBERS SHALL BE TO B.S EN 1917:2002
4. THE CONTRACTOR MAY ELECT TO USE REINFORCED PVC PIPES AS COVERED BY B.S 4660:2000 & B.S EN 1401-1. STRUCTURED WALL UPVC PIPES TO COMPLY WITH WIS 4-35-01 UP TO AND INCLUDING 300MM. (BY PRIOR AGREEMENT WITH ADOPTING AUTHORITY) MAX. PIPE LENGTH TO BE 3.0M
5. ALL LEVELS RELATE TO TOPOGRAPHICAL SURVEY DATUM
6. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS
7. PLOT DRAINAGE CONNECTIONS TO SEWERS MUST BE 150MM DIAMETER AND UNLESS OTHERWISE STATED LAID TO THE INVERT SHOWN.
8. LEVELS GIVEN ON DRAGOUT CHAMBERS ARE INCOMING PIPE LEVELS
9. PLOT DRAINAGE RUNS TO BE KEPT WITHIN THE CURTILAGE OF THE PLOT THEY SERVE WHEREEVER POSSIBLE.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ANY EXISTING INVERT LEVELS AND EXISTING SITE LEVELS (EXISTING BOUNDARY LEVELS) INDICATED ON DRAWINGS ARE CORRECT BEFORE WORKS COMMENCE.
11. ALL CONNECTIONS TO ADOPTABLE SEWERS SHALL BE MANUFACTURED JUNCTION PIPES. SADDLE CONNECTIONS WILL NOT BE PERMITTED, UNLESS SPECIFIED.
12. ALL SEWERS FOR ADOPTION WITH GREATER THAN 1.20M COVER IN ROADS OR 0.9M COVER IN FIELDS SHALL HAVE CLASS S GRANULAR BED AND SURROUND.
13. ANY SEWER FOR ADOPTION WITH LESS THAN 1.2M COVER IN ROADS OR 0.9M COVER IN FIELDS SHALL HAVE A MINIMUM OF 150MM ST4 CONCRETE SURROUND. FLEXIBILITY SHALL BE MAINTAINED BY THE PROVISION OF FLEXCELL OR SIMILAR APPROVED JOINT FILLER BREAKS IN THE CONCRETE SURROUND AT EACH PIPE JOINT
14. IT IS THE RESPONSIBILITY FOR THE CONTRACTOR TO CHECK ALL ONSITE EXISTING GROUND LEVELS PRIOR TO COMMENCING AND IF THERE ARE ANY DISCREPANCIES THE CONTRACTOR MUST REPORT TO THE ENGINEER IMMEDIATELY
15. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE DRAINAGE AUTHORITY OF THE COMMENCEMENT OF ANY DRAINAGE WORKS AND TO COMPLETE ANY REQUIRED SEWER CONNECTION FORMS INCLUSIVE OF PAYING ANY REQUIRED FEES. THE CONTRACTOR MUST ALLOW FOR THE SUPERVISION OF THE SEWER CONSTRUCTION WORKS BY THE LOCAL AUTHORITY AND NOTIFY THE SUPERVISING OFFICER, GIVING NOTICE WHICH IN ACCORDANCE WORTH THE L.A REQUIREMENTS.
16. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY FOR ANY REQUIRED ROAD OPENING PERMITS WITH THE LOCAL AUTHORITY INCLUDING THE PAYMENT OF ANY FEES
17. BEFORE COMMENCING ANY WORKS ON SITE, THE CONTRACTOR MUST CONTACT THE RELEVANT STATUTORY UNDERTAKER AND BE IN POSSESSION OF THE LATEST AVAILABLE DRAWINGS FROM THE STATUTORY UNDERTAKERS WHICH SHOWS DETAILS OF THEIR SERVICES/APPARATUS. THE CONTRACTOR MUST CONFIRM EXACT LOCATION AND DEPTH OF ANY SERVICES/APPARATUS BY THE USE OF ELECTROLOCATION OR SIMILAR DEVICES AND BY HAND DUG TRIAL HOLES. MECHANICAL EXCAVATOR, POWER TOOLS ETC. MUST NOT BE USED TO LOCATE EXISTING SERVICES/APPARATUS.

H	MANHOLE F24 DIAMETER HAS BEEN CHANGED TO 1500	22.06.21	EK	ARA
G	MANHOLE COVER AND TYPES REVISED TO NEW SITE LEVELS	12.05.21	ARA	ARA
F	MANHOLE COVER AND TYPES REVISED TO NEW SITE LEVELS	12.05.21	ARA	ARA
E	S13, 14, 24, 26 F2, 4, 5, 6, 14, 20, 21, 23 DIAMETERS REVISED S14, 15 INVERT & S23 COVER LEVELS REVISED	26.03.21	ARA	ARA
D	REFER TO REVISION CLOUD	17.02.21	ARA	ARA
C	MANHOLE SCHEDULE REVISED TO SUIT UU COMMENTS	11.01.21	ARA	ARA
B	MANHOLE SCHEDULE REVISED TO SUIT UU COMMENTS	27.10.20	RL	ARA
A	MH F23, F24 & S27 HAVE BEEN REVISED	01.06.20	EK	RL

Rev: Description: Date: By: Chkd:

Status:

PRELIMINARY

Client:

YOUR HOUSING

Project: EDGE LANE
OPENSRAW

Drg Title:

MANHOLE SCHEDULES

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Drg No: ELL-19045-YH-B-220

Rev: H

Photographic Evidence of Drainage Construction















