

United Utilities Inspection Sheet

Development Remedial Work

(Manholes and gravity sewers)



Site name:	Winnington Phase 3	
Site address		
District Council:		
United Utilities Notification number	42	00010125
United Utilities Order number	55	



Accurate 'as built' drawing received?	No
Development achieved 50% occupancy?	Yes
Type of remedial list:	Manhole and sewers remedial list

Adoptions Engineer:		Telephone:	
		Email:	
Developer:		Telephone:	
Contact name:		Email:	
Contractor:		Telephone:	
Contact name:		Email:	

Please note a final inspection cannot be completed until the development is completed and has a minimum of 50% occupancy. Where the status 'observation feedback during construction' is used, this is not the final inspection. Additional actions may arise upon completion of the final inspection.

MANHOLE REMEDIAL WORK				
MH reference:	Status:	No. formal inspections	Defect observed	Action(s)
F2				
F3				
F4				
F4a	See action(s)		Debris	Manhole to be cleaned out. Please clean to ensure that no debris remains on the benching and that all debris is removed from the channel.
	See action(s)		Other (see comments)	Position of the MH to be confirmed.
F5				
F7				
F9				
F10				
F11				
F12	Passed - Actions listed confirmed as completed		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
	Passed - Actions listed confirmed as completed		Cover and frame positioned incorrectly	Please adjust position of the cover and frame to ensure it is square over the cover slab opening.
F13	Passed - Actions listed confirmed as completed		Cover slab (minor damage)	Please use an epoxy resin to repair area of minor damage.
	See action(s)		Mortar between brickwork/ raising pieces is not flush	Please remove any excess mortar 'snots' and mortar point as appropriate to flush and seal joints.
	See action(s)		Benching defective	Please repair as appropriate to make good area of defective benching.

	See action(s)		Top step inaccessible	Top double rung step to be lowered, and other step rungs to be adjusted with correct spacing leading down to manhole benching, in alignment with the cover slab opening.
f13a				
F14	See action(s)		Other (see comments)	Ladder required moving up to cover slab.
F16	See action(s)		Adjusting brickwork defective/ showing signs of deterioration	Manhole to be re-bed. When re-bedding please comply to UU asset standard as follows; Adjusting brickwork should be a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces, bedded on suitably strong mortar no thicker than 12mm between the manhole frame and top course of masonry. Please note maximum distance to first step of 675mm will need to be achieved.
	See action(s)		Obstruction evident within channel	Please ensure that the channel invert is in good alignment and is free from restriction.
	See action(s)		Debris	Manhole to be cleaned out. Please clean to ensure that no debris remains on the benching and that all debris is removed from the channel.
F18	Passed		None. Passed	None (further inspection will be carried out to assess condition upon completion of the 12 month maintenance period).
F19	Passed		None. Passed	None (further inspection will be carried out to assess condition upon completion of the 12 month maintenance period).
F20	Passed		None. Passed	None (further inspection will be carried out to assess condition upon completion of the 12 month maintenance period).
F21	See action(s)		Ladder required	Ladder required as depth to benching greater than 3m. Step irons to be removed and a ladder is to be installed as per UU standard detail number STND/01/002. Please note if you wish to install a GRP ladder, this will need to be technically approved with the Adoptions Engineer. Contact details can be found at the top of this form.
F22	See action(s)		Unable to inspect	Under parked van.
F24	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
	See action(s)		Mortar between brickwork/ raising pieces is not flush	Please remove any excess mortar 'snots' and mortar point as appropriate to flush and seal joints.
F25	Passed - Actions listed confirmed as completed		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
F26	See action(s)		Ladder required	Ladder required as depth to benching greater than 3m. Step irons to be removed and a ladder is to be installed as per UU standard detail number STND/01/002. Please note if you wish to install a GRP ladder, this will need to be technically approved with the Adoptions Engineer. Contact details can be found at the top of this form.

	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
	See action(s)		Adjusting brickwork defective/ showing signs of deterioration	Manhole to be re-bed. When re-bedding please comply to UU asset standard as follows; Adjusting brickwork should be a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces, bedded on suitably strong mortar no thicker than 12mm between the manhole frame and top course of masonry. Please note maximum distance to first step of 675mm will need to be achieved.
	See action(s)		Other (see comments)	Cut back high level connection.
F27	See action(s)		Other (see comments)	Larger ladder brackets required.
	See action(s)		Other (see comments)	Cut back high level connection.
F28	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
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	See action(s)		Other (see comments)	Ladder required on full brackets.
F30	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
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	See action(s)		Cover and frame damaged	Cover and frame to be replaced due to being damaged. Please ensure replacement is to the correct specification i.e. D400 cover and frame, 150mm deep, unless otherwise specified.

F30a	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
	See action(s)		Other (see comments)	Incorrect opening size in cover slab, raiser and cover.
F31	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
	See action(s)		Cover and frame damaged	Cover and frame to be replaced due to being damaged. Please ensure replacement is to the correct specification i.e. D400 cover and frame, 150mm deep, unless otherwise specified.
	See action(s)		Mortar between brickwork/ raising pieces is not flush	Please remove any excess mortar 'snots' and mortar point as appropriate to flush and seal joints.
F32	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
	See action(s)		Cover and frame damaged	Cover and frame to be replaced due to being damaged. Please ensure replacement is to the correct specification i.e. D400 cover and frame, 150mm deep, unless otherwise specified.
F33	See action(s)		Cover and frame damaged	Cover and frame to be replaced due to being damaged. Please ensure replacement is to the correct specification i.e. D400 cover and frame, 150mm deep, unless otherwise specified.
	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.

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F34	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
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	See action(s)		Ladder required	Ladder required as depth to benching greater than 3m. Step irons to be removed and a ladder is to be installed as per UU standard detail number STND/01/002. Please note if you wish to install a GRP ladder, this will need to be technically approved with the Adoptions Engineer. Contact details can be found at the top of this form.
F35	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
	See action(s)		Adjusting brickwork defective/ showing signs of deterioration	Manhole to be re-bed. When re-bedding please comply to UU asset standard as follows; Adjusting brickwork should be a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces, bedded on suitably strong mortar no thicker than 12mm between the manhole frame and top course of masonry. Please note maximum distance to first step of 675mm will need to be achieved.
	See action(s)		Ladder required	Ladder required as depth to benching greater than 3m. Step irons to be removed and a ladder is to be installed as per UU standard detail number STND/01/002. Please note if you wish to install a GRP ladder, this will need to be technically approved with the Adoptions Engineer. Contact details can be found at the top of this form.

F36	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
	See action(s)		Ladder required	Ladder required as depth to benching greater than 3m. Step irons to be removed and a ladder is to be installed as per UU standard detail number STND/01/002. Please note if you wish to install a GRP ladder, this will need to be technically approved with the Adoptions Engineer. Contact details can be found at the top of this form.
	See action(s)		Adjusting brickwork defective/ showing signs of deterioration	Manhole to be re-bed. When re-bedding please comply to UU asset standard as follows; Adjusting brickwork should be a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces, bedded on suitably strong mortar no thicker than 12mm between the manhole frame and top course of masonry. Please note maximum distance to first step of 675mm will need to be achieved.
	See action(s)		Obstruction evident within channel	Please ensure that the channel invert is in good alignment and is free from restriction.
F37	See action(s)		Adjusting brickwork defective/ showing signs of deterioration	Manhole to be re-bed. When re-bedding please comply to UU asset standard as follows; Adjusting brickwork should be a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces, bedded on suitably strong mortar no thicker than 12mm between the manhole frame and top course of masonry. Please note maximum distance to first step of 675mm will need to be achieved.
	See action(s)		Manhole hasn't been benched.	Manhole yet to be benched. Please note benching should be built up with a 1:10 - 1:30 gradient.
F38	See action(s)		Debris	Manhole to be cleaned out. Please clean to ensure that no debris remains on the benching and that all debris is removed from the channel.
F39	See action(s)		Debris	Manhole to be cleaned out. Please clean to ensure that no debris remains on the benching and that all debris is removed from the channel.
F40	Passed		None. Passed	None (further inspection will be carried out to assess condition upon completion of the 12 month maintenance period).
F41	Passed		None. Passed	None (further inspection will be carried out to assess condition upon completion of the 12 month maintenance period).
F42	Passed - Actions listed confirmed as completed		Manhole hasn't been benched.	Manhole yet to be benched. Please note benching should be built up with a 1:10 - 1:30 gradient.
	Passed - Actions listed confirmed as completed		Bolts missing from manhole cover	Please install the missing bolts to the manhole cover.

	Passed - Actions listed confirmed as completed		Adjusting brickwork defective/ showing signs of deterioration	Manhole to be re-bed. When re-bedding please comply to UU asset standard as follows; Adjusting brickwork should be a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces, bedded on suitably strong mortar no thicker than 12mm between the manhole frame and top course of masonry. Please note maximum distance to first step of 675mm will need to be achieved.
S1	See action(s)		Manhole hasn't been benched.	Manhole yet to be benched. Please note benching should be built up with a 1:10 - 1:30 gradient.
	See action(s)		Bolts missing from manhole cover	Please install the missing bolts to the manhole cover.
	See action(s)		Mortar between brickwork/ raising pieces is not flush	Please remove any excess mortar 'snots' and mortar point as appropriate to flush and seal joints.
S2	Passed - Actions listed confirmed as completed		Cover slab (minor damage)	Please use an epoxy resin to repair area of minor damage.
	See action(s)		Mortar between brickwork/ raising pieces is not flush	Please remove any excess mortar 'snots' and mortar point as appropriate to flush and seal joints.
	Passed - Actions listed confirmed as completed		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
S3	Passed - Actions listed confirmed as completed		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
S7	See action(s)		Cover slab (minor damage)	Please use an epoxy resin to repair area of minor damage.
	Passed - Actions listed confirmed as completed		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
S8				
S9	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
			Adjusting brickwork defective/ showing signs of deterioration	Break down to coverslab and rebuild.

S11	Passed		None. Passed	None (further inspection will be carried out to assess condition upon completion of the 12 month maintenance period).
S12	See action(s)		Ladder required	Ladder required as depth to benching greater than 3m. Step irons to be removed and a ladder is to be installed as per UU standard detail number STND/01/002. Please note if you wish to install a GRP ladder, this will need to be technically approved with the Adoptions Engineer. Contact details can be found at the top of this form.
S13				
S14	See action(s)		Debris	Manhole to be cleaned out. Please clean to ensure that no debris remains on the benching and that all debris is removed from the channel.
	See action(s)		Adjusting brickwork defective/ showing signs of deterioration	Manhole to be re-bed. When re-bedding please comply to UU asset standard as follows; Adjusting brickwork should be a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces, bedded on suitably strong mortar no thicker than 12mm between the manhole frame and top course of masonry. Please note maximum distance to first step of 675mm will need to be achieved.
S15	See action(s)		Adjusting brickwork defective/ showing signs of deterioration	Manhole to be re-bed. When re-bedding please comply to UU asset standard as follows; Adjusting brickwork should be a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces, bedded on suitably strong mortar no thicker than 12mm between the manhole frame and top course of masonry. Please note maximum distance to first step of 675mm will need to be achieved.
	See action(s)		Debris	Manhole to be cleaned out. Please clean to ensure that no debris remains on the benching and that all debris is removed from the channel.
S16	See action(s)		Debris	Manhole to be cleaned out. Please clean to ensure that no debris remains on the benching and that all debris is removed from the channel.
S17	Passed		None. Passed	None (further inspection will be carried out to assess condition upon completion of the 12 month maintenance period).
S18	Passed		None. Passed	None (further inspection will be carried out to assess condition upon completion of the 12 month maintenance period).
S19	See action(s)		Other (see comments)	Cut back high level connection.
	See action(s)		Infiltration	Please seal area of infiltration through identifying the cause and stopping the flow.
S20	Passed		None. Passed	None (further inspection will be carried out to assess condition upon completion of the 12 month maintenance period).
S21				
S24	Passed - Actions listed confirmed as completed		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.

S25	Passed - Actions listed confirmed as completed		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
S26	See action(s)		Cover and frame positioned incorrectly	Please adjust position of the cover and frame to ensure it is square over the cover slab opening.
	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
	See action(s)		Infiltration	Please seal area of infiltration through identifying the cause and stopping the flow.
	See action(s)		Adjusting brickwork defective/ showing signs of deterioration	Break down to coverslab and rebuild.
S27	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
S28	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
	See action(s)		Other (see comments)	No raising piece installed, 1-3 raising pieces are required.
S29	Passed - Actions listed confirmed as completed		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
	Passed - Actions listed confirmed as completed		Other (see comments)	Line holding.
S30	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.

	See action(s)		Cover and frame damaged	Cover and frame to be replaced due to being damaged. Please ensure replacement is to the correct specification i.e. D400 cover and frame, 150mm deep, unless otherwise specified.
	Passed - Actions listed confirmed as completed		Other (see comments)	Steps out of alignment, please remove existing steps and replace in alignment with opening.
S31	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
	See action(s)		Adjusting brickwork defective/ showing signs of deterioration	Manhole to be re-bed. When re-bedding please comply to UU asset standard as follows; Adjusting brickwork should be a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces, bedded on suitably strong mortar no thicker than 12mm between the manhole frame and top course of masonry. Please note maximum distance to first step of 675mm will need to be achieved.
	See action(s)		Cover and frame damaged	Cover and frame to be replaced due to being damaged. Please ensure replacement is to the correct specification i.e. D400 cover and frame, 150mm deep, unless otherwise specified.
S32	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
	See action(s)		Mortar between brickwork/ raising pieces is not flush	Please remove any excess mortar 'snots' and mortar point as appropriate to flush and seal joints.
	See action(s)		Cover and frame damaged	Cover and frame to be replaced due to being damaged. Please ensure replacement is to the correct specification i.e. D400 cover and frame, 150mm deep, unless otherwise specified.
S33				
S34	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.

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S36	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
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	See action(s)		Lifting eyes not sealed	Please mortar point as appropriate.
S37	See action(s)		Cover and frame to be lifted to finished road level	When lifting frame to finished road level, please consider that cover and frame should be D400 with 150mm deep frame (unless specified as otherwise, i.e. E600 for heavy traffic on approved drawing) and have a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces with mortar beds no thicker than 12mm. Please note the maximum distance to first step of 675mm must be achieved.
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	See action(s)		Other (see comments)	Cut back high level connection.
S43	See action(s)		Debris	Manhole to be cleaned out. Please clean to ensure that no debris remains on the benching and that all debris is removed from the channel.
	See action(s)		Channel defective	Lateral connections to connect to the main channel as half channels, swept with the direction of flow (at soffit level).
	See action(s)		Adjusting brickwork defective/ showing signs of deterioration	Manhole to be re-bed. When re-bedding please comply to UU asset standard as follows; Adjusting brickwork should be a minimum of 1 course, maximum of 3 class B engineering bricks or pre-cast concrete raising pieces, bedded on suitably strong mortar no thicker than 12mm between the manhole frame and top course of masonry. Please note maximum distance to first step of 675mm will need to be achieved.

[illegible]

SEWER REMEDIAL WORK

MH to MH length	Status	Approx. meterage	Defect observed	Action(s)
F2-F3				
F3-F4				
F14a-F4	See action(s)		Other (see comments)	F14a not on drawing - drawing required.
	See action(s)	28m	Other (see comments)	Loss of vision due to cleaning/incoming flows - resurvey.
F14a-F14	Passed			
F12-F13	Passed			
F13-F13a	Passed		Other (see comments)	Additional F13a to be added to as built.
F13a-F14	Passed		Other (see comments)	Additional F13a to be added to as built.
F14-F21	Passed			
F16-F19	See action(s)	F16	Obstruction within pipe	Sewer length to be cleaned and post cleaning CCTV survey to be provided to determine whether or not there is any further remedial work required.
F18-F19	Passed			
F19-F20	See action(s)	21m	Hole in pipe	Affected section of the pipe to be replaced and post repair CCTV survey to be provided.
F20-F21	See action(s)		Other (see comments)	Back drop blocked - re CCTV.
F21-F26	See action(s)	26m	Loss of vision (camera underwater)	Sewer length to be cleaned and CCTV survey post cleaning to be provided.
F25-F24	Passed - Actions listed confirmed as completed	43m	Open joint, out of tolerance	Affected section of the pipe to be replaced and post repair CCTV survey to be provided.
F25-F26	Passed - Actions listed confirmed as completed	9m	Obstruction within pipe	Sewer length to be cleaned and post cleaning CCTV survey to be provided to determine whether or not there is any further remedial work required.
F26-F28	See action(s)	28m	Back fall observed within line of sewer	Please confirm levels within the upstream and downstream manhole and confirm gradient/ fall of sewer is as approved on the longitudinal section. Developer to confirm section to be re-layed and post-repair CCTV to be provided.
F28-F34	See action(s)			Sewer length at 40/50% at end of run, downstream length (F35/F36) running clear, why?
F30-F30a	Passed			
F30a-F31	Passed			
F31-F32	Passed			
F32-F33	Passed			
F33-F34	Passed			
F34-F35	See action(s)		Other (see comments)	Sewer length at 40/50%, downstream length running clear, why?
F35-F36	See action(s)	4m	Seeping infiltration	Affected section of the pipe to be replaced and post repair CCTV survey to be provided.
F36-F51	Passed			
F37-F38	Passed			
F38-F41	Passed			
F39-F40	See action(s)	23m	Other (see comments)	Damage to the pipe
F40-F41	Passed			
F41-F42	See action(s)	18m	Back fall observed within line of sewer	Please confirm levels within the upstream and downstream manhole and confirm gradient/ fall of sewer is as approved on the longitudinal section. Developer to confirm section to be re-layed and post-repair CCTV to be provided.
F42-F43	Passed			
S1-S12				
S2-S3	Passed			
S3-S7	Passed			
S7-S9	Passed			
S9-S11a	Passed			

S11a-S11	Passed - Actions listed confirmed as completed	14m	Open joint, out of tolerance	Affected section of the pipe to be replaced and post repair CCTV survey to be provided.
	Passed - Actions listed confirmed as completed	28m	Open joint, out of tolerance	Affected section of the pipe to be replaced and post repair CCTV survey to be provided.
	Passed - Actions listed confirmed as completed	30m	Back fall observed within line of sewer	Please confirm levels within the upstream and downstream manhole and confirm gradient/ fall of sewer is as approved on the longitudinal section. Developer to confirm section to be re-layed and post-repair CCTV to be provided.
	Passed - Actions listed confirmed as completed		Other (see comments)	Infiltration noted as camera enters S11. To be checked on MH inspection.
S11-S12	Passed			
S12-S13				
S13-S20				
S14-S15	Passed			
S15-S18	Passed			
S16-S17	See action(s)		Coarse settled deposits	Sewer length to be cleaned and post cleaning CCTV survey to be provided to determine whether or not there is any further remedial work required.
S17-S18	Passed			
S19-S18	See action(s)	20m	Seeping infiltration	Affected section of the pipe to be replaced and post repair CCTV survey to be provided.
	See action(s)	33m	Seeping infiltration	Affected section of the pipe to be replaced and post repair CCTV survey to be provided.
S19-S20	Passed			
S20-S26	See action(s)		Coarse settled deposits	Sewer length to be cleaned and post cleaning CCTV survey to be provided to determine whether or not there is any further remedial work required.
S21-S26				
S24-S25	Passed			
S26-S25	Passed - Actions listed confirmed as completed	8m	Open joint, out of tolerance	Affected section of the pipe to be replaced and post repair CCTV survey to be provided.
S26-S27				
S27-S28	Passed			
S28-S34	Passed			
S29-S30	Passed			
S30-S31	See action(s)	10m	Displaced joint, out of tolerance	Affected section of the pipe to be replaced and post repair CCTV survey to be provided.
	See action(s)	12m	Open joint, out of tolerance	Affected section of the pipe to be replaced and post repair CCTV survey to be provided.
	See action(s)		Obstruction within pipe	Sewer length to be cleaned and post cleaning CCTV survey to be provided to determine whether or not there is any further remedial work required.
S31-S32	See action(s)		Other (see comments)	225mm reported, 300mm design - to be checked on site.
S32-S34	Passed			
S34-S36	Passed			
S36-S37	Passed			
S37-S56	Passed			
F42-F43	Passed			
S43-S44	Passed			
S44-S47	Passed			
S45-S46	See action(s)	0m	Longitudinal crack	Affected section of the pipe to be replaced and post repair CCTV survey to be provided.
S46-S47	Passed			
S47-S48	Passed			
S48-S49	See action(s)		Other (see comments)	Reported as 225mm but 300mm on design. To be checked on site.

You may wish to refer to United Utilities website for Developer Services. This can be found using the following link:

<http://www.unitedutilities.com/builder-developer-wastewater.aspx>

Additional comments:

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