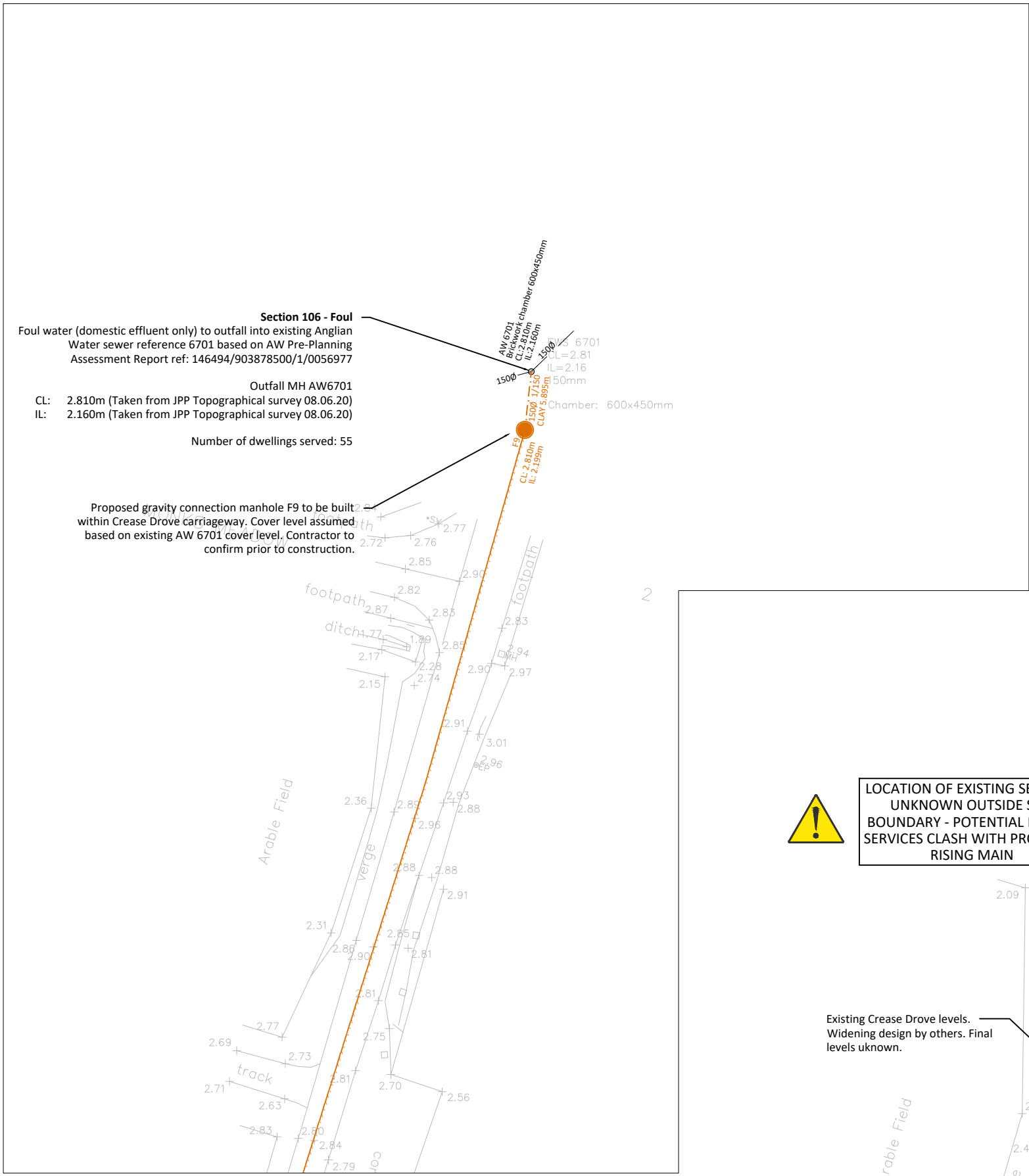




Northern Foul Water Outfall
(Scale 1:500)

Health, safety & the environment

In accordance with the Construction (Design and Management) Regulations 2015, the designs and details on this drawing have been the subject of a Designers Risk Assessment, to identify risks in the construction, use, or demolition of the scheme.

It is not considered necessary for Designers to highlight obvious and/or common risks (such as deep excavations, manual handling and working around heavy plant) which Contractors should be familiar with, and be able to control by good management and site practice.

So far as is reasonably practicable, the risks inherent in the design have been eliminated. Where it has been considered that elimination of a risk (or part of a risk) is not reasonably practicable, it has been reduced.

Significant unusual residual risks are identified on the drawing by use of a Yellow Caution Marker, beside the measures which have been adopted to eliminate and/or reduce them.

Refer to JPP Drawing No. 100 for Health & Safety Risks

This drawing has been based/developed using the following external drawings					
Type	Company	Drawing date	Drawing title	Date received	Rev
Topographical Survey	TCS Topo & Volumetric Surveys	Jul 2015	Topographical Survey July 2015	09.04.19	-
Topographical Survey	JPP	June 2020	XREF_Topo (shows foul outfall MH 6701)	08.06.20	-
Site Layout	RGP	March 2020	100-220 Crease Drive Overlay - Model Extract 2020-03-02	03.02.20	-

JPP CONSULTING TO BE INFORMED IMMEDIATELY IF THESE DRAWINGS ARE NO LONGER CURRENT

Agreement	Approval Date
Section 278 (Works within the Existing Highway)	N/A
Section 38 (Highways adoption agreement)	Not Approved
Section 104 (Sewer adoption agreement)	Not Approved
Section 106 (Permission to discharge to public sewer)	Not Approved
Section 23 (Permission to discharge into watercourse)	Not Approved

DRAWINGS HAVE NOT BEEN APPROVED, UNTIL THE DRAWINGS ARE APPROVED THE DESIGNS AND DETAILS SHOWN ON THIS DRAWING ARE SUBJECT TO CHANGE
ANY WORKS UNDERTAKEN PRIOR TO TECHNICAL APPROVAL IS ENTIRELY AT THE CONTRACTOR'S RISK

ALL ADAPTABLE HIGHWAY WORKS TO BE IN ACCORDANCE WITH LINCOLNSHIRE COUNTY COUNCIL DEVELOPMENT ROAD AND SUSTAINABLE DRAINAGE SPECIFICATION AND CONSTRUCTION

ALL ADAPTABLE DRAINAGE WORKS TO BE IN ACCORDANCE WITH SEWERS FOR ADOPTION 6TH EDITION.

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- ☐ Manchester
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- ☐ Milton Keynes
Suite 25 Unford Forum, Rockingham Drive,
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- Infrastructure Design
- Structural Engineering
- Planning Services
- Geotechnical & Environmental
- Surveying
- Professional Advice



HIGH GROUNDWATER AND TRENCH INSTABILITY

Due to High Groundwater Table encountered there are potential issues with ingress of water within trenches. This can cause instability and collapse. Groundworker to ensure appropriate trench shoring up and de-watering works.

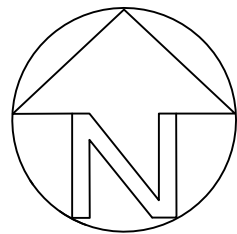


LOW STRENGTH ORGANIC SOILS

Due to the presence of organic soils designed levels have been kept to less than 1.3m build up to reduce the chance of settlement.

Buried services should be designed with flexible joints to allow the uptake of future movement cause by settlement of the soft soils beneath the site.

Ground reinforcement required where CBRs less than 2%. To be designed by a specialist.



General Notes

This drawing is to be used in conjunction with all relevant drawings, specifications and details.

All dimensions are in metres unless noted otherwise.

Do not scale from this drawing.

Drawing Key

Site Boundary - Taken from site layout referenced

Adoptable Section 104 foul water sewer with pipe diameter, gradient, pipe codes and manhole

Adoptable Section 104 surface water sewer with pipe diameter, gradient pipe codes and manhole

Foul water rising main

Existing foul water sewer (taken from JPP topographical survey)

Trapped road gully

Private surface water lateral

Private foul water lateral

Finished floor level

Section 104 sewer easement

IDB Easement

Flood routing arrow

Section 104 Notes

- All adoptable drainage works shall be in accordance with WRC Sewers for Adoption 6th Edition and Anglian Water's guidance notes.
- All adoptable manhole covers shall comply with BS EN 124 in accordance with sewers for adoption 6th edition, clause 5.2.32.
- Lateral manholes with a depth of less than 1.2m from cover to soffit shall have a chamber with a minimum internal diameter of 450mm.
- Lateral manholes with a depth of more than 1.2m from cover to soffit shall have a chamber with a minimum internal diameter of 450mm, with a restricted access opening of 350mm for safety reasons.
- All pipework with less than 1.2m cover in Highway or less than 0.9m cover in soft shall have a concrete protective cover slab to adopting water company requirements.
- Flow routes need to facilitate the potential route of flood flow in rainfall events exceeding the storm sewer design criteria, as required by WRC Sewers for Adoption 6th edition. Flow routes shall be kept clear of permanent physical obstructions which may obstruct the flow of surface water and cause flooding.
- Screen/grill to be located in last manhole to prevent any debris/rubble from entering the existing network during construction.
- All uncovered and shallow pipework to be protected against construction traffic as part of the contractors temporary works.
- Manholes with outgoing pipes greater than 600mm diameter shall be fitted with guard bars, safety chains or other approved safety device.
- A Section 106 application and approval is required with Water Company for all connections (including indirectly) to the existing public sewer network prior to any connection being made.
- All pipe lengths and gradients are based on centre of manhole to centre of manhole.
- The exact position, level, size and use of existing sewers to be confirmed on site and reported to the Engineer prior to the commencement of works.
- All pipes are to be laid with level soffit's or as indicated.
- Trapped road gullies to be used for all gullies designed in shared parking areas.
- No infill covers and frames to be used in block paved areas.
- Protective concrete cover slabs to be used on pipes in non traffic area which doesnt achieve 0.9m cover level and 1.2 cover in traffic area.
- Precast concrete manhole rings will not be cut under any circumstances. Other options will instead be utilised such as building up with concrete or brickwork to the top of the pipe.
- Covers and frames should be kitemarked.
- Pipes of different diameters entering the same manhole should be installed with soffits at the same level.
- All pipes located within the carriageway are located at least 1m from the kerb. The manholes are located 0.5m from the kerb.
- All manholes covers to be 675x675mm cover and frame to maintain clear 600x600mm access in accordance with BS EN 124 Class D400 and embossed FW or SW as appropriate. All proposed manhole covers must comply with Anglian Water's current Health & Safety Standards.

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Infrastructure Design

Structural Engineering

Planning Services

Geotechnical & Environmental

Surveying

Professional Advice

RevAUpdated rising main to suit surveyed foul outfall and drainage to suit 'Option B' design levels

By MLChecked TH22.06.2020

Drawn By: JH

Chkd By: ML

Scale @ A1: 1:500

Date: MARCH 2020

Status: FOR TECHNICAL APPROVAL

Project No.: 11557H

Client: L&H Homes

Project: Housing Development
Crease Drive
Crowland

Title: Section 104 layout

Rev: A

Drawing No: 111

JPP QA Document T07 R1