WORK AREA:	CONTRACT NAME:	DESCRIPTION OF ACTIVITY:	Rev	Originator	Date	Approved	Date
Gillingham Road	CON23041 Gillingham Road Bridge Replacement	Installation and Commissioning of Watermains	0	Akash Nada	03/04/2025	GvdLinde	
ITP No: 003			1				

Item No.	ITEM	ACTIVITY TASK	ACCEPTANCE CRITERIA	FREQUENCY	CERTIFYING DOCUMENTATION, RECORD OR CHECKSHEET	VERIFICATION SIGN OFFS	
						INTERNAL VERIFICATION AUTHORITY OR RESPONSIBILITY	CRITICAL HOLD POINT AUTHORITY
1.	**Site Preparation**	Site Clearance	Site clear of debris and vegetation	Prior to commencing watermain construction works	Visual Inspection	R	W
2.	**Pipe Delivery and Storage**	Delivery of Pipes and Fittings	Pipes and fittings free from damage, correct type and size	Upon being delivered on site	Visual Inspection, Delivery Dockets	R	H
2.1		Storage of pipes and fittings	Pipes and fittings stored as per manufacturer's recommendation	Upon being delivered on site	Visual Inspection	R	W
3	**Excavation and Bedding**	Initial set out	Setout as per drawings and provided design model	Prior to excavation works	Visual Inspection	R	H
3.1		Excavation	Excavation to correct depth and width, no damage to ex. Services	Prior to place bedding material	Visual Inspection, Checksheet	H	W
3.2		Place Pipe Bedding and Surround Material	Granular material for all pipe bedding and surround shall consist of uniformly sized particles between 5mm and 10mm and be composed of crushed blue metal or an approved alternative. – WDC Specification for the installation of watermains – Section 4.4 pg. n. 12	Prior to installation of pipe	Visual Inspection, Checksheet	H	W
4	**Pipe Installation**	Pipe laying	Pipes laid to line and grade; joints correctly made	Upon completion of jointing the pipes	Visual Inspection, Checksheet	H	W
4.1		Pipe Jointing – Butt Weld	Joints made as per manufacturer's instructions; data logged - WDC Specification for the installation of watermains – Section 5.1.6	Each Joint	Data Logg, Checksheet	H	W

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4.2		Pipe Jointing – Electrofusion Welding	Joints made as per manufacturer's instructions; data logged -WDC Specification for the installation of watermains – Section 5.1.6	Each EF Joint	Data Logg, Checksheet	H	W
4.3		Flanged Joints	For jointing ductile iron fittings to PE80 pipe stub or slim flanges with nylon coated backing plate shall be used. – Stainless steel 316- bolts and washers. Torqued as per manufacturers instruction. - WDC Specification for the installation of watermains – Section 5.1.7 Denso	Each Flanged connection	Visual Inspection, Checksheet	H	H
5	**Fittings Installation**	Installation of Valves	Valves installed as per drawings and specifications	Each valve connection	Visual Inspection	H	W
5.1		Installation of Hydrants	Hydrants installed as per drawings and specifications	Each Hydrant connection	Visual Inspection	H	W
5.2		Installation of Air Valve and Scour Valve	Valves installed as per drawings and specifications	Each valve connection	Visual Inspection	H	W
6	**Testing**	Pressure Test – Main larger than DN63mm PE80 – Decay Test Method as per approved WMS	No Leaks, pressure maintained as per specification	Each Sections	Data Logg, Test Record Sheet	H	W
6.1		Weld Testing	Tests to verify if the butt weld is ductile and stronger than the pipe itself will be conducted in accordance with ISO 13953:2001. For EF welds, the required destructive test is the peel decohesion test, which must be performed in accordance with ISO 13954:1997.	Random Samples – typically between 1% and 2% of the total welds WDC Specification for the installation of watermains – Section 5.1.8	ISO-accredited lab test report	H	R
8	**Anchor Blocks**	Construction of Anchor Blocks	Visual Inspection – Completed as per approved drawing sheet no. C033C & C033D	Each Anchor block as per drawings	Prepour Inspection Checksheet, Visual Inspection	H	H

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9	**Backfilling**	Backfilling of the trench	Visual Inspection – Material as per specification, compacted in layers	Each layer	Compaction test record sheet	H	R
10	**Disinfection**	Disinfection of the watermain	Visual Inspection – in accordance with WDC Water Services – Hygiene Code of practice	Prior to connection with live main – Upon completion of backfilling and testing each section	Visual Inspection, Record Sheet	H	W
11	**Water Main Commissioning**	Connection to live mains	New water mains must be connected to live mains within 10days of completing the disinfection process.	For each new water mains installed	Visual Inspection, Record Sheet	H	W
12	**As Built & Final Design Documentation**	As-built Plans	Engineer to review and accept as-built Drawings	For all completed works	As-Built Plans, Operation and Maintenance Manual	H	H

INSPECTION & TEST PLAN

INSPECTION & TEST PLAN (ITP)

The ITP defines the required inspections during various stages of fabrication, construction and installation work. It is also a method of communicating these requirements to those doing the work and a verifying record that they have been carried out.

The ITP defines 2 different levels of inspection according to the following criteria:

- **Internal Verification:** This inspection or verification activity is required internally by United Civil. A Designated Internal Authority- Project Manager, Supervisor, Foreman or other authorised person is determined for the given inspection point or verification activity. Where a signature required verification is notified by signing the designated check sheet.
- **Critical Hold Points:** These are ONLY inspections required by the contract. It requires the Foreman/ Supervisor or Subcontractors Representative to notify the United Civil Project Manager that the hold point stage of inspection has been reached. Fabrication shall not proceed past this point unless the inspection has been carried out or approval to proceed is given in writing & signed by the Engineer's Representative.

  The Engineer's Representative shall sign the Check sheet.

  A Contract Hold Point is a contractual requirement. Where the Engineer's Rep has not signed or for whatever reason cannot sign the Hold Point off the Project Manager must signify verification by the Engineer by other means such email sign off or other formal correspondence and note as such on the ITP.