Fulton Hogan	Hobart Airport TASMANIA	**Inspection and Test Plan - Control and Supervision of the Works**	**Document #** **GT4-ITP-020** Revision : 0 Date: 10/04/2023

Client:	**Hobart International Airport Pty Ltd**	**Construction Process:**	Prepared by:	Reviewed by :	Approved by :
Project:	**Project Mercury Early Works At Hobart International Airport**	***Sewer Rising Main Installation***	Name: **Carter Lawson -Kelleway**	Name: **Carter Lawson-Kelleway (VOC by David Hart)**	Name:
Contract No:	**MER-EW-001**	**Specifications:** Specification 706 & WSA 02-2014-3.1 Gravity Sewer Code of Australia, MRWA Specification			
		Structure / Component: Sewer Incl. Rising Main	Signed : CLK	Signed CLK	Signed :
		Location: Hobart International Airport	Date : 10/04/2024	Date : 10/04/2024	Date :

Item No.	Task/Activity Description	Inspection / Controls and Verification Detail					HP/ WP/ AP/ IP/ TP/ SCP	Responsibility (Project Engineer, Site Engineer, Superintendent, Surveyor, Foreman)	Checked by:			
		Frequency	Acceptance Criteria	Reference Documents	Inspection / Test Method	Record of conformity			Client	Fulton Hogan	FH's Sub-contractor	Date
1	**Preliminary Works**											
1.1	Check that current revision drawings are being used	Prior to Commencing Work	Issued For Construction (IFC) and latest available revision used	IFC Project Drawings/ Drawing Register	Document review	Latest revision IFC drawings	***WP**	Site Engineer	N/A		N/A	
1.2	Confirm understanding of current EMP related to the work area and that all prescribed environmental controls are in place	Prior to Commencing	All environmental measures to be implemented as per current CEMP and local authorities. Sediment control measures to be installed and protected vegetation to be clearly identified	CEMP, Site induction	Document review & Site inspection	ITP signed	***WP**	Site Engineer	N/A		N/A	
1.3	Traffic Management (When required)	Prior to Commencing Work	Approved TMP and WASIN (where required)	Applicable TMP	Document review & Site inspection	Approved TMP	***HP**	Site Engineer	N/A		N/A	
1.4	Survey set out works	Prior to Commencing Work	Survey activities undertaken to ensure and validate that all works meet level and location requirements. The establishment and integrity of the survey network shall be verified before commencing any survey and set out activity. IFC and latest available revision used.	IFC Project Drawings	Site inspection	Survey records & marks on the ground. This ITP Signed off.	**HP**	Site Engineer / Surveyor / Superintendent	N/A		N/A	
2	**Material Conformance**											
2.1	Water Pipes and fittings	Every batch of new material	Sewer pipe material to be free from defects and be sized to the following: EW-CE-DRW-600-002- Schedule 1: New Pipe WSA-02-2014-3.1	WSA-02-2014-3.1 WSA PS 207 WSA PS-230 Drawing(s): HB19198-C1271 HB19198-C1272 HB19198-C1273 EW-CE-DRW-600-001	Verify	ITP signed Receival Inspection Checklist	**IP**	Site Engineer	N/A		N/A	
2.2	Correct embedment / backfill materials onsite	Every batch of new material	Inspect bedding and backfill material to ensure suitability. If watermain is to be protected, use stabilised sand or concrete encasement TYPE R - REFER TO TRENCH DETAIL .	MRWA-W-201 to 203 EW-CE-DRW-600-006	Verify	ITP signed Receival Inspection Checklist	**IP**	Site Engineer	N/A		N/A	
3	**Excavation of trenches**											

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3.1	Trenching details	Ongoing	• Trench's to be excavated to conform with IFC drawing details. • Sides of excavation to be kept vertical to at least 150mm above the pipe. • Ensure trench width and depth are within tolerance • Ensure trench foundation & wall firm, stiff & suitable	Drawing(s): MRWA-W-2023 EW-CE-DRW-600-006	Verify	ITP signed	**IP**	Site Engineer	N/A		N/A	
3.2	Benching & shielding (where required)	As Required	Trench support is required where the trench is more than 1.5 metres, unless the trench has been assessed as safe by a geotechnical engineer and written confirmation provided as such.	Work Procedures	Verify	ITP signed	***HP**	Site Engineer	N/A		N/A	
3.3	Capping and grouting of abandoned mains	Before bedding material is installed	Where it is necessary to fill a redundant pipeline, low strength grout (<5 MPa), similar material or sand shall be used.	Drawing(s): WSA 03-2011 3.1 EW-CE-DRW-600-004	Verify	Release of Hold Point	**WP**	Site Engineer/Superi ndendant	N/A		N/A	
4	**Watermain Installation**											
4.1	Bedding	Each Lot	Bedding materials : 5 or 7mm single sized aggregate used Bedding depth: 75mm>x>150mm for 150dia pipe	AS2053.1:2001 MRWA-W-201 EW-CE-DRW-600-006	Verify	ITP signed	**IP**	Site Engineer	N/A		N/A	
4.2	Pipe Joints	Each Lot	Ensure pipe joint deflection is acceptable, as per drawings and product specifications. ALL JOINTS SHALL BE BUTT WELDED. WHERE BUTT WELDING IS NOT POSSIBLE MECHANICAL JOINTS SHALL BE USED. ELECTROFUSION SHALL NOT BE USED UNLESS APPROVED PRIOR BY THE SUPERINTENDENT.	MRWA-W-103 Drawing(s): EW-CE-DRW-600-001	Verify	ITP signed, photo of each joint	**IP**	Site Engineer	N/A		N/A	
4.3	Pipe Embedment	Each Lot	Embedment Type R including 5/7mm single sized aggregate. Min Overlay: 300mm (Compaction with ride on equipment) Side Support: 100mm>x>350mm Embedment placed under haunches by shovel and worked around pipe to ensure all voids at haunches are filled	Table 201-D, MRWA-W-201 MRWA-W-202 EW-CE-DRW-600-006	Verify	ITP signed	**IP**	Site Engineer	N/A		N/A	

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4.4	Pipe Backfill Material	Each Lot	Backfill material (Type R): Class 2 FCR (depth <1.5m) Class 4 FCR (depth >1.5m)	MRWA-W-201 Drawing(s): EW-CE-DRW-600-006	Verify	ITP signed	**IP**	Site Engineer	N/A		N/A	
4.5	Pipe Backfill Compaction	Each Lot	Backfill compacted in <= 200mm loose layers to achieve minimum density R_D 95% (MDDR = 95%). Avoid compaction within 500mm of top of pipe Trafficable Areas: R_D 95% (MDDR = 95%) Non-Trafficable Areas: Below 600mm = 90% MDDR, Above 600mm = 95% MDDR	MRWA-W-201 MRWA Specification No. 04-03 .	Test report	ITP signed	**TP**	Site Engineer	N/A		N/A	
4.6	Marking Tape	Each Lot	Marking tape to be laid along the route of the alignment ontop of first backfill layer	MRWA-W-202	Verify	ITP signed	**IP**	Site Engineer	N/A		N/A	
4.7	Valves	Each Lot	• Install valves in the vertical position and provide surface fittings and valve markings in accordance with Drawings • Inspect the valve for damage. Repair any damage to the external coating in accordance with the manufacturer's instructions • Check the valve and off-take clamp flanges to ensure the sleeves fit in the bolt holes. Trim insulation sleeves such that they join inside one flange, and not at the flange joint. • Lid on valve to be cenrally placed	WSA 03-2011 3.1 MRWA-W-300, MRWA-W-301 and MRWA-W-302 EW-CE-DRW-600-004	Verify	ITP signed	***HP**	Site Engineer	N/A		N/A	
4.9	Scour/Pump Out Points	Each Lot	• DN100 SCOUR/PUMP OUT POINT IN A 1200 CONCRETE MH PIT to be installed where denoted on the drawings. • SEWER SCOUR OUTLETS TO BE IN ACCORDANCE WITH STANDARD DRAWINGS SPS-1602 AND SPS-1603	EW-CE-DRW-600-004	Verify	ITP signed	***HP**	Site Engineer	N/A		N/A	
4.1	Thrust blocks	Where required	• CONNECTION TO THE EXISTING RISING MAIN MUST BE ANCHORED TO PREVENT MOVEMENT CAUSED BY THRUST IN ACCORDANCE WITH MRWA-W-205A. THRUST BLOCK AREA = 0.89m2	MRWA-W-205a EW-CE-DRW-600-001	Verify	ITP signed	**WP**	Site Engineer	N/A		N/A	
5	**Testing**											
5.1	Compaction Testing (when applicable)	Completion of pipe installation & fittings.	Undertake field density testing of trench fill in accordance with the methods specified in WSA 02 - 2014-3.1	MRWA Backfill Spec 04-03.2 EW-CE-DRW-600-006	Compaction Testing	Test Report	**WP**	FH Engineer / Superintendent	N/A		N/A	
5.2	Pipeline Pressure Testing	Completion of pipe installation & fittings.	Undertake pressure testing of pipelines in accordance with the methods specified in WSA 02 - 2014-3.1 & WSA 03 - 2011-3.1. Gravity sewer to be tested for 28 Kpa for minimum 3 minutes and sewer rising main to be tested at 31m 1000 Kpa for minimum 2 hours.	WSA 02 - 2014-3.1 WSA 03 - 2011-3.1 EW-CE-DRW-600-001	Pressure Testing	Completed CL-003- Pressure Testing Record & CL-003(A, B or C) - Pressure Testing	**HP**	FH Engineer / Superintendent	N/A		N/A	

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6	**Completion**											
6.1	As constructed drawings	Each Lot	Ensure all conduit deviations are captured on redline drawings for updating the IFC Drawings, and providing asbuilt data for AutoCAD	EW-CE-DRW-600-004	Verify	ITP signed	**IP**	Site Engineer	N/A		N/A	

Final Inspection

The signature below verifies that this ITP has been completed in accordance with the FH's Quality system Procedures and verifies lot compliance with specifications.

Print Name: Carter Lawson-Kelleway Position: Site Engineer Signature: **Carter Lawson-Kelleway** Date: 21/06/2024

Legend

HP	Hold Point	Work shall not proceed past the HP until released by the Superintendent	**IP**	Inspection point	Formal Inspection to be done and recorded
HP*	FH Hold Point	Work shall not proceed past the HP* until released by FH	**TP**	Test Point	Product compliance test to be undertaken and recorded/reported
AP	Approval Point	Written or verbal approval given by the Superintendent	**SCP**	Survey conformance point	A qualified surveyor to check product/section/structure and report
WP	Witness Point	An inspection which must be witnessed by the Superintendent	**WP***	Fulton Hogan Witness Point	An inspection which must be witnessed by Fulton Hogan Representative

Schedule 1: New Pipe

Pipe Size	Pipe Type	Length (m)	Pipe Class	Standard
DN100	PE100	96m	SDR 13.6	WSA PS 207
DN 225	GRP	1m	SN10	WSA PS 230

EMBEDMENT & BACKFILL DETAILS:.

- Type R is to be installed as per Figure 1.

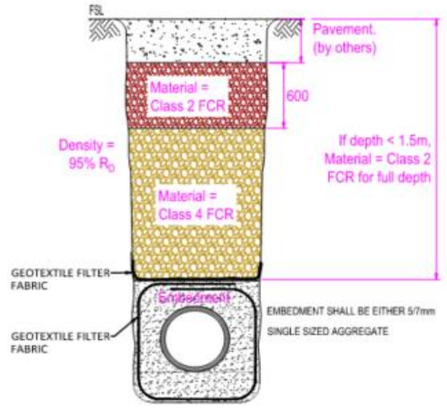

Figure 1: Type R Backfill

NOTE:
AGI DRAIN AND 100Ø BALLAST HAVE BEEN EXCLUDED FROM EMBEDMENT SYSTEM PENDING FURTHER GEOTECHNICAL INVESTIGATION.

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