

EXTENSION OF TIME REGISTER

PBE067 - Water Supply Network Renewals and Improvements Program - Trunk Main Valves

Thursday, 23 April 2020

[illegible]

Note: Does not include Saturdays, Sundays, Night works or Public Holidays when assessing revised date for PC.

Cost Impact

Time ImpactTOTAL TIME IMPACT

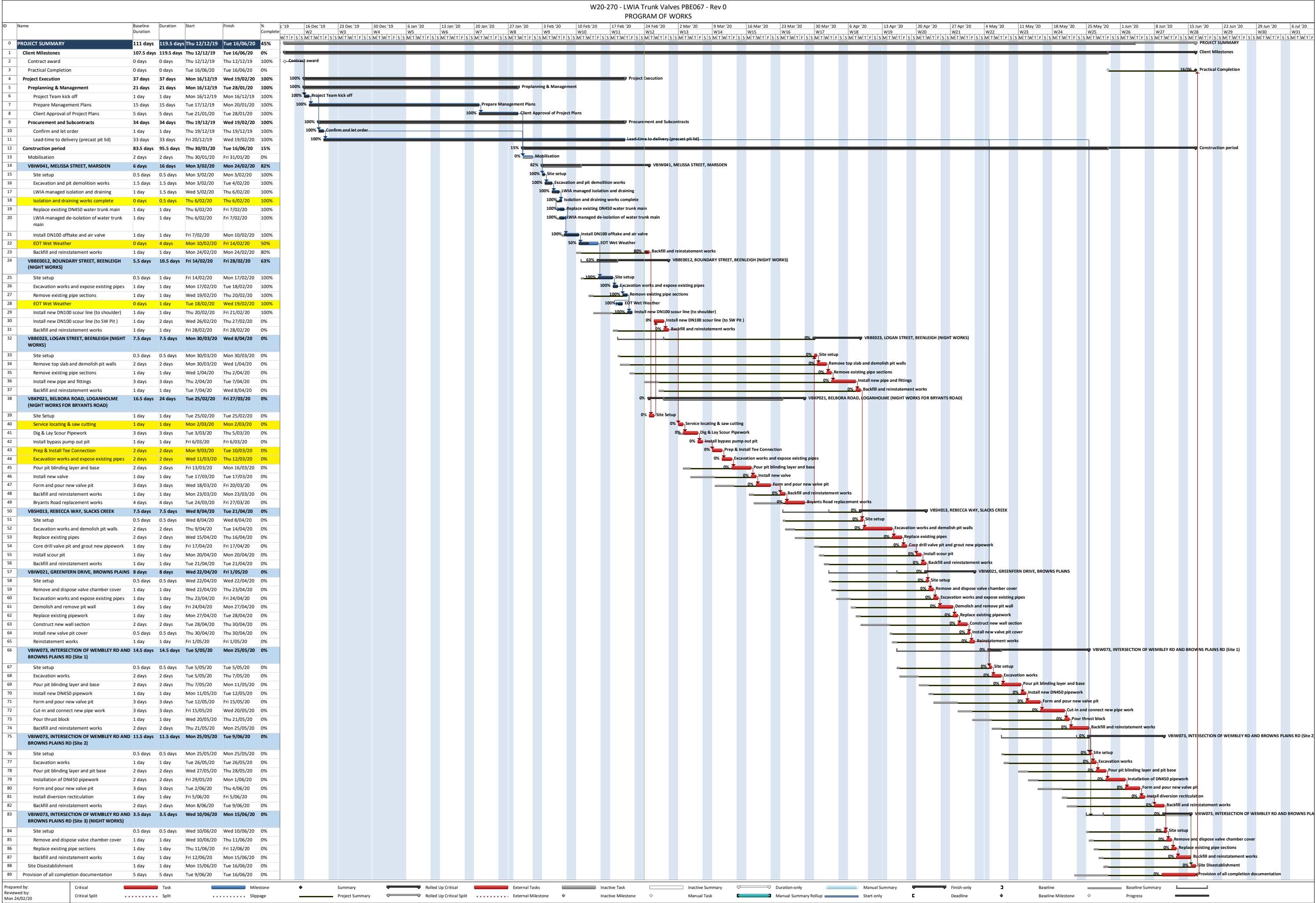
The values shown above are exclusive of GST

Acceptance of Variation Order

Main Contractor

For and on behalf of

Downer Utilities Australia Pty. Ltd.



Inspection and Test Checklist	Document Number	Hyperlink to Aconex
Bolted Flange Joint and Ancillary Equipment Installation Tightening Record	PM001-00-P-CHE-QA-7601	http://au1.aconex.com/ViewDoc?trackingid=949133621485970827&projectid=1476396865&cversion=1
Clear and Grub - Civil	PM001-00-P-CHE-QA-7602	http://au1.aconex.com/ViewDoc?trackingid=949133621485970830&projectid=1476396865&cversion=1
Compressor Location and Levelling Record	PM001-00-P-CHE-QA-7603	http://au1.aconex.com/ViewDoc?trackingid=949133621485970828&projectid=1476396865&cversion=1
Disinfection and Bacteriological	PM001-00-P-CHE-QA-7604	http://au1.aconex.com/ViewDoc?trackingid=949133621485970832&projectid=1476396865&cversion=1
Drainage – Pipe Installation - Civil	PM001-00-P-CHE-QA-7605	http://au1.aconex.com/ViewDoc?trackingid=949133621485970831&projectid=1476396865&cversion=1
Drainage – Precast Unit Installation - Civil	PM001-00-P-CHE-QA-7606	http://au1.aconex.com/ViewDoc?trackingid=949133621485970824&projectid=1476396865&cversion=1
Drainage - Sumps - Pits and Underground Piping Test Record - Civil	PM001-00-P-CHE-QA-7607	http://au1.aconex.com/ViewDoc?trackingid=949133621485970825&projectid=1476396865&cversion=1
Drainage & Reticulation Record - Earthworks	PM001-00-P-CHE-QA-7608	http://au1.aconex.com/ViewDoc?trackingid=949133621485970823&projectid=1476396865&cversion=1
Drainage Record - Earthworks	PM001-00-P-CHE-QA-7609	http://au1.aconex.com/ViewDoc?trackingid=949133621485970826&projectid=1476396865&cversion=1
Enveloper Installation	PM001-00-P-CHE-QA-7610	http://au1.aconex.com/ViewDoc?trackingid=949133621485970829&projectid=1476396865&cversion=1
Flange Management	PM001-00-P-CHE-QA-7611	http://au1.aconex.com/ViewDoc?trackingid=949133621485971161&projectid=1476396865&cversion=1
Flanged Joint Checklist	PM001-00-P-CHE-QA-7612	http://au1.aconex.com/ViewDoc?trackingid=949133621485971159&projectid=1476396865&cversion=1
FLOWTITE Carrier Pipe Installation	PM001-00-P-CHE-QA-7613	http://au1.aconex.com/ViewDoc?trackingid=949133621485971160&projectid=1476396865&cversion=1
FLOWTITE Pipe Cutting	PM001-00-P-CHE-QA-7614	http://au1.aconex.com/ViewDoc?trackingid=949133621485971162&projectid=1476396865&cversion=1
Free Issue Materials	PM001-00-P-CHE-QA-7615	http://au1.aconex.com/ViewDoc?trackingid=949133621485971163&projectid=1476396865&cversion=1
Geo-Fabrics Record	PM001-00-P-CHE-QA-7616	http://au1.aconex.com/ViewDoc?trackingid=949133621485971155&projectid=1476396865&cversion=1
Geotechnical Bore Log Report	PM001-00-P-CHE-QA-7617	http://au1.aconex.com/ViewDoc?trackingid=949133621485971154&projectid=1476396865&cversion=1
HDD Installation	PM001-00-P-CHE-QA-7618	http://au1.aconex.com/ViewDoc?trackingid=949133621485971156&projectid=1476396865&cversion=1
HDPE Hydrostatic Leak Test	PM001-00-P-CHE-QA-7619	http://au1.aconex.com/ViewDoc?trackingid=949133621485971157&projectid=1476396865&cversion=1
HDPE Hydrostatic Strength Test	PM001-00-P-CHE-QA-7620	http://au1.aconex.com/ViewDoc?trackingid=949133621485971158&projectid=1476396865&cversion=1
HDPE Pneumatic Leak Test	PM001-00-P-CHE-QA-7621	http://au1.aconex.com/ViewDoc?trackingid=949133621485971455&projectid=1476396865&cversion=1
HDPE Pneumatic Strength Test	PM001-00-P-CHE-QA-7622	http://au1.aconex.com/ViewDoc?trackingid=949133621485971457&projectid=1476396865&cversion=1
HOBAS Joint	PM001-00-P-CHE-QA-7623	http://au1.aconex.com/ViewDoc?trackingid=949133621485971462&projectid=1476396865&cversion=1
HOBAS Pipe Cutting	PM001-00-P-CHE-QA-7624	http://au1.aconex.com/ViewDoc?trackingid=949133621485971465&projectid=1476396865&cversion=1
Installation of Epoxy Lining	PM001-00-P-CHE-QA-7625	http://au1.aconex.com/ViewDoc?trackingid=949133621485971464&projectid=1476396865&cversion=1
Pipeline Installation	PM001-00-P-CHE-QA-7626	http://au1.aconex.com/ViewDoc?trackingid=949133621485971466&projectid=1476396865&cversion=1
Pipework and conduits - Inspection Record	PM001-00-P-CHE-QA-7627	http://au1.aconex.com/ViewDoc?trackingid=949133621485971468&projectid=1476396865&cversion=1
Pipework Testing Inspection Record	PM001-00-P-CHE-QA-7628	http://au1.aconex.com/ViewDoc?trackingid=949133621485971467&projectid=1476396865&cversion=1
Piping Drying	PM001-00-P-CHE-QA-7629	http://au1.aconex.com/ViewDoc?trackingid=949133621485971470&projectid=1476396865&cversion=1
Piping Flange Register	PM001-00-P-CHE-QA-7630	http://au1.aconex.com/ViewDoc?trackingid=949133621485971469&projectid=1476396865&cversion=1

Piping Flange	PM001-00-P-CHE-QA-7631	http://au1.aconex.com/ViewDoc?trackingid=949133621485971471&projectid=1476396865&cversion=1
Piping Flush	PM001-00-P-CHE-QA-7632	http://au1.aconex.com/ViewDoc?trackingid=949133621485971472&projectid=1476396865&cversion=1
Piping Installation – Post Leak Test	PM001-00-P-CHE-QA-7633	http://au1.aconex.com/ViewDoc?trackingid=949133621485971474&projectid=1476396865&cversion=1
Piping Installation – Pre Leak Test	PM001-00-P-CHE-QA-7634	http://au1.aconex.com/ViewDoc?trackingid=949133621485971473&projectid=1476396865&cversion=1
Piping Insulation	PM001-00-P-CHE-QA-7635	http://au1.aconex.com/ViewDoc?trackingid=949133621485971461&projectid=1476396865&cversion=1
Piping Leak Test	PM001-00-P-CHE-QA-7636	http://au1.aconex.com/ViewDoc?trackingid=949133621485971456&projectid=1476396865&cversion=1
Precast Manhole Shaft Cutting	PM001-00-P-CHE-QA-7637	http://au1.aconex.com/ViewDoc?trackingid=949133621485971463&projectid=1476396865&cversion=1
Pre-Excavation	PM001-00-P-CHE-QA-7638	http://au1.aconex.com/ViewDoc?trackingid=949133621485971458&projectid=1476396865&cversion=1
Pre-Filling	PM001-00-P-CHE-QA-7639	http://au1.aconex.com/ViewDoc?trackingid=949133621485971460&projectid=1476396865&cversion=1
Pump Installation	PM001-00-P-CHE-QA-7640	http://au1.aconex.com/ViewDoc?trackingid=949133621485971459&projectid=1476396865&cversion=1
Rip Rap and Rock Check Dams	PM001-00-P-CHE-QA-7641	http://au1.aconex.com/ViewDoc?trackingid=949133621485971560&projectid=1476396865&cversion=1
Rock Anchors - Civil	PM001-00-P-CHE-QA-7642	http://au1.aconex.com/ViewDoc?trackingid=949133621485971558&projectid=1476396865&cversion=1
Safety Signage	PM001-00-P-CHE-QA-7643	http://au1.aconex.com/ViewDoc?trackingid=949133621485971563&projectid=1476396865&cversion=1
Security Fencing	PM001-00-P-CHE-QA-7644	http://au1.aconex.com/ViewDoc?trackingid=949133621485971562&projectid=1476396865&cversion=1
Set Out & Survey Record	PM001-00-P-CHE-QA-7645	http://au1.aconex.com/ViewDoc?trackingid=949133621485971564&projectid=1476396865&cversion=1
Site Establishment	PM001-00-P-CHE-QA-7646	http://au1.aconex.com/ViewDoc?trackingid=949133621485971565&projectid=1476396865&cversion=1
Steel Envelopper Weld	PM001-00-P-CHE-QA-7647	http://au1.aconex.com/ViewDoc?trackingid=949133621485971566&projectid=1476396865&cversion=1
Surface Preparation and Coating	PM001-00-P-CHE-QA-7648	http://au1.aconex.com/ViewDoc?trackingid=949133621485971567&projectid=1476396865&cversion=1
Thrust Block Installation - Inline	PM001-00-P-CHE-QA-7649	http://au1.aconex.com/ViewDoc?trackingid=949133621485971568&projectid=1476396865&cversion=1
Thrust Block Installation - Not Inline	PM001-00-P-CHE-QA-7650	http://au1.aconex.com/ViewDoc?trackingid=949133621485971569&projectid=1476396865&cversion=1
Tightening of Bolted Connections	PM001-00-P-CHE-QA-7651	http://au1.aconex.com/ViewDoc?trackingid=949133621485971570&projectid=1476396865&cversion=1
Manhole HDPE Liner Extrusion Welding	PM001-00-P-CHE-QA-7652	http://au1.aconex.com/ViewDoc?trackingid=949133621485971571&projectid=1476396865&cversion=1
Removal of Existing - Installation of New Wet Well Lid	PM001-00-P-CHE-QA-7653	http://au1.aconex.com/ViewDoc?trackingid=949133621485971572&projectid=1476396865&cversion=1
Vacuum Testing	PM001-00-P-CHE-QA-7654	http://au1.aconex.com/ViewDoc?trackingid=949133621485971575&projectid=1476396865&cversion=1
Bored Piers - Civil	PM001-00-P-CHE-QA-7655	http://au1.aconex.com/ViewDoc?trackingid=949133621485971573&projectid=1476396865&cversion=1
CFA Pile Cap Foundation Record with 28 day test results	PM001-00-P-CHE-QA-7656	http://au1.aconex.com/ViewDoc?trackingid=949133621485971574&projectid=1476396865&cversion=1
CFA Pile Cap Record -with stub setting records	PM001-00-P-CHE-QA-7657	http://au1.aconex.com/ViewDoc?trackingid=949133621485971556&projectid=1476396865&cversion=1
CFA Single Pile Foundation Record	PM001-00-P-CHE-QA-7658	http://au1.aconex.com/ViewDoc?trackingid=949133621485971555&projectid=1476396865&cversion=1
Concrete - Pour Record	PM001-00-P-CHE-QA-7659	http://au1.aconex.com/ViewDoc?trackingid=949133621485971557&projectid=1476396865&cversion=1
Concrete FRP	PM001-00-P-CHE-QA-7660	http://au1.aconex.com/ViewDoc?trackingid=949133621485971559&projectid=1476396865&cversion=1
Concrete Repairs	PM001-00-P-CHE-QA-7661	http://au1.aconex.com/ViewDoc?trackingid=949133621485972920&projectid=1476396865&cversion=1

Concrete Structures Record	PM001-00-P-CHE-QA-7662	http://au1.aconex.com/ViewDoc?trackingid=949133621485972921&projectid=1476396865&cversion=1
Conduits & Fittings In-Situ Concrete	PM001-00-P-CHE-QA-7663	http://au1.aconex.com/ViewDoc?trackingid=949133621485972923&projectid=1476396865&cversion=1
Foundation Backfilling Record	PM001-00-P-CHE-QA-7664	http://au1.aconex.com/ViewDoc?trackingid=949133621485972926&projectid=1476396865&cversion=1
Joint Sealing Record	PM001-00-P-CHE-QA-7665	http://au1.aconex.com/ViewDoc?trackingid=949133621485972924&projectid=1476396865&cversion=1
Lining Inspection Record	PM001-00-P-CHE-QA-7666	http://au1.aconex.com/ViewDoc?trackingid=949133621485972925&projectid=1476396865&cversion=1
Pile Cap with Hold Down Bolt Assembly Record	PM001-00-P-CHE-QA-7667	http://au1.aconex.com/ViewDoc?trackingid=949133621485972927&projectid=1476396865&cversion=1
Placement & Compaction	PM001-00-P-CHE-QA-7668	http://au1.aconex.com/ViewDoc?trackingid=949133621485972936&projectid=1476396865&cversion=1
Pole Foundation with Hold Down Bolt Assembly Record	PM001-00-P-CHE-QA-7669	http://au1.aconex.com/ViewDoc?trackingid=949133621485972928&projectid=1476396865&cversion=1
Post Concrete Pour	PM001-00-P-CHE-QA-7670	http://au1.aconex.com/ViewDoc?trackingid=949133621485972929&projectid=1476396865&cversion=1
Precast Concrete Wall Panels	PM001-00-P-CHE-QA-7671	http://au1.aconex.com/ViewDoc?trackingid=949133621485972931&projectid=1476396865&cversion=1
Pre-Concrete Pour	PM001-00-P-CHE-QA-7672	http://au1.aconex.com/ViewDoc?trackingid=949133621485972930&projectid=1476396865&cversion=1
Reinstatement	PM001-00-P-CHE-QA-7673	http://au1.aconex.com/ViewDoc?trackingid=949133621485972932&projectid=1476396865&cversion=1
Remedial Works - Foundations Record	PM001-00-P-CHE-QA-7674	http://au1.aconex.com/ViewDoc?trackingid=949133621485972933&projectid=1476396865&cversion=1
Structure Grout Sealing Record	PM001-00-P-CHE-QA-7675	http://au1.aconex.com/ViewDoc?trackingid=949133621485972934&projectid=1476396865&cversion=1
Unbound Pavements	PM001-00-P-CHE-QA-7676	http://au1.aconex.com/ViewDoc?trackingid=949133621485972935&projectid=1476396865&cversion=1
Underside of Pavements	PM001-00-P-CHE-QA-7677	http://au1.aconex.com/ViewDoc?trackingid=949133621485972917&projectid=1476396865&cversion=1
WTG owner Base Grouting and Sealing Record	PM001-00-P-CHE-QA-7678	http://au1.aconex.com/ViewDoc?trackingid=949133621485972918&projectid=1476396865&cversion=1
Belt Drive Tightening Record	PM001-00-P-CHE-QA-7679	http://au1.aconex.com/ViewDoc?trackingid=949133621485972922&projectid=1476396865&cversion=1
Cutover	PM001-00-P-CHE-QA-7680	http://au1.aconex.com/ViewDoc?trackingid=949133621485972919&projectid=1476396865&cversion=1
Diesel Generator Report	PM001-00-P-CHE-QA-7681	http://au1.aconex.com/ViewDoc?trackingid=949133621485973253&projectid=1476396865&cversion=1
Pre - Commissioning	PM001-00-P-CHE-QA-7682	http://au1.aconex.com/ViewDoc?trackingid=949133621485973255&projectid=1476396865&cversion=1
Access Tracks – Pavements Record - Earthworks	PM001-00-P-CHE-QA-7683	http://au1.aconex.com/ViewDoc?trackingid=949133621485973258&projectid=1476396865&cversion=1
Access Tracks and Clearing Record - Earthworks	PM001-00-P-CHE-QA-7684	http://au1.aconex.com/ViewDoc?trackingid=949133621485973257&projectid=1476396865&cversion=1
Pavements Roads Car Parks - Earthworks	PM001-00-P-CHE-QA-7685	http://au1.aconex.com/ViewDoc?trackingid=949133621485973256&projectid=1476396865&cversion=1
Pavements Roads Car Parks -Civil	PM001-00-P-CHE-QA-7686	http://au1.aconex.com/ViewDoc?trackingid=949133621485973260&projectid=1476396865&cversion=1
Placement of Dense Graded Asphalt	PM001-00-P-CHE-QA-7687	http://au1.aconex.com/ViewDoc?trackingid=949133621485973259&projectid=1476396865&cversion=1
Road Furniture & Signage	PM001-00-P-CHE-QA-7688	http://au1.aconex.com/ViewDoc?trackingid=949133621485973261&projectid=1476396865&cversion=1
Sprayed Bitumous Seal – Binder and Aggregate Application	PM001-00-P-CHE-QA-7689	http://au1.aconex.com/ViewDoc?trackingid=949133621485973244&projectid=1476396865&cversion=1
Sprayed Bitumous Seal – Prime Application	PM001-00-P-CHE-QA-7690	http://au1.aconex.com/ViewDoc?trackingid=949133621485973243&projectid=1476396865&cversion=1
Acid Sulphate Soil Record - Earthworks	PM001-00-P-CHE-QA-7691	http://au1.aconex.com/ViewDoc?trackingid=949133621485973242&projectid=1476396865&cversion=1
Clearing - Access Permit Record	PM001-00-P-CHE-QA-7692	http://au1.aconex.com/ViewDoc?trackingid=949133621485973245&projectid=1476396865&cversion=1

Landscaping and Surfacing	PM001-00-P-CHE-QA-7693	http://au1.aconex.com/ViewDoc?trackingid=949133621485973246&projectid=1476396865&cversion=1
Landscaping	PM001-00-P-CHE-QA-7694	http://au1.aconex.com/ViewDoc?trackingid=949133621485973247&projectid=1476396865&cversion=1
PLQ Access Tracks and Clearing Record	PM001-00-P-CHE-QA-7695	http://au1.aconex.com/ViewDoc?trackingid=949133621485973250&projectid=1476396865&cversion=1
Subsoil Drainage	PM001-00-P-CHE-QA-7696	http://au1.aconex.com/ViewDoc?trackingid=949133621485973248&projectid=1476396865&cversion=1
Batteries and Chargers Record	PM001-00-P-CHE-QA-7697	http://au1.aconex.com/ViewDoc?trackingid=949133621485973251&projectid=1476396865&cversion=1
Cable and Conduit Pits - Installation Record	PM001-00-P-CHE-QA-7698	http://au1.aconex.com/ViewDoc?trackingid=949133621485973249&projectid=1476396865&cversion=1
Cable Pit Installation	PM001-00-P-CHE-QA-7699	http://au1.aconex.com/ViewDoc?trackingid=949133621485973252&projectid=1476396865&cversion=1
Cable Pits - Installation Record	PM001-00-P-CHE-QA-7700	http://au1.aconex.com/ViewDoc?trackingid=949133621485973254&projectid=1476396865&cversion=1
Cable Pull and Installation	PM001-00-P-CHE-QA-7701	http://au1.aconex.com/ViewDoc?trackingid=949133621485973488&projectid=1476396865&cversion=1
Cable Racking - Installation Record	PM001-00-P-CHE-QA-7702	http://au1.aconex.com/ViewDoc?trackingid=949133621485973489&projectid=1476396865&cversion=1
Cable Trench Record	PM001-00-P-CHE-QA-7703	http://au1.aconex.com/ViewDoc?trackingid=949133621485973491&projectid=1476396865&cversion=1
Cable Trenches - Pits Record - Earthworks	PM001-00-P-CHE-QA-7704	http://au1.aconex.com/ViewDoc?trackingid=949133621485973492&projectid=1476396865&cversion=1
Circuit Breaker - Installation Record	PM001-00-P-CHE-QA-7705	http://au1.aconex.com/ViewDoc?trackingid=949133621485973473&projectid=1476396865&cversion=1
Comms -SCADA Cable Installation Record	PM001-00-P-CHE-QA-7706	http://au1.aconex.com/ViewDoc?trackingid=949133621485973472&projectid=1476396865&cversion=1
Compression Test Sample Record	PM001-00-P-CHE-QA-7707	http://au1.aconex.com/ViewDoc?trackingid=949133621485973474&projectid=1476396865&cversion=1
Conduit and Fittings Record	PM001-00-P-CHE-QA-7708	http://au1.aconex.com/ViewDoc?trackingid=949133621485973475&projectid=1476396865&cversion=1
Conduit Trench Record	PM001-00-P-CHE-QA-7709	http://au1.aconex.com/ViewDoc?trackingid=949133621485973477&projectid=1476396865&cversion=1
Control Panel - Commissioning Record	PM001-00-P-CHE-QA-7710	http://au1.aconex.com/ViewDoc?trackingid=949133621485973476&projectid=1476396865&cversion=1
Control Panel Record	PM001-00-P-CHE-QA-7711	http://au1.aconex.com/ViewDoc?trackingid=949133621485973478&projectid=1476396865&cversion=1
Direct Buried Cable and Conduit Installation Record	PM001-00-P-CHE-QA-7712	http://au1.aconex.com/ViewDoc?trackingid=949133621485973481&projectid=1476396865&cversion=1
Direct Buried Cable Installation	PM001-00-P-CHE-QA-7713	http://au1.aconex.com/ViewDoc?trackingid=949133621485973479&projectid=1476396865&cversion=1
Distribution Board Record	PM001-00-P-CHE-QA-7714	http://au1.aconex.com/ViewDoc?trackingid=949133621485973482&projectid=1476396865&cversion=1
Earth Rod and Pit Installation	PM001-00-P-CHE-QA-7715	http://au1.aconex.com/ViewDoc?trackingid=949133621485973483&projectid=1476396865&cversion=1
Electrical Equipment Basic Tests Record	PM001-00-P-CHE-QA-7716	http://au1.aconex.com/ViewDoc?trackingid=949133621485973484&projectid=1476396865&cversion=1
Electrical Trenching Excavation and Backfill	PM001-00-P-CHE-QA-7717	http://au1.aconex.com/ViewDoc?trackingid=949133621485973485&projectid=1476396865&cversion=1
E-motor ShimPacker Stack Record	PM001-00-P-CHE-QA-7718	http://au1.aconex.com/ViewDoc?trackingid=949133621485973486&projectid=1476396865&cversion=1
Generator and Equipment Maintenance Record	PM001-00-P-CHE-QA-7719	http://au1.aconex.com/ViewDoc?trackingid=949133621485973490&projectid=1476396865&cversion=1
Junction Box Record	PM001-00-P-CHE-QA-7720	http://au1.aconex.com/ViewDoc?trackingid=949133621485973487&projectid=1476396865&cversion=1
Light and Small Power - Testing Record	PM001-00-P-CHE-QA-7721	http://au1.aconex.com/ViewDoc?trackingid=949133621485974396&projectid=1476396865&cversion=1
Local Control Station - Installation Record	PM001-00-P-CHE-QA-7722	http://au1.aconex.com/ViewDoc?trackingid=949133621485974402&projectid=1476396865&cversion=1
LV Control and Instrumentation Cable Termination Sheet	PM001-00-P-CHE-QA-7723	http://au1.aconex.com/ViewDoc?trackingid=949133621485974397&projectid=1476396865&cversion=1

MH Mancage Access- OH Powerline Checklist A	PM001-00-P-CHE-QA-7724	http://au1.aconex.com/ViewDoc?trackingid=949133621485974399&projectid=1476396865&cversion=1
Motor Control Circuit - MCC Record	PM001-00-P-CHE-QA-7725	http://au1.aconex.com/ViewDoc?trackingid=949133621485974400&projectid=1476396865&cversion=1
PLC Cubicle Record	PM001-00-P-CHE-QA-7726	http://au1.aconex.com/ViewDoc?trackingid=949133621485974403&projectid=1476396865&cversion=1
Pre - Site Acceptance Test	PM001-00-P-CHE-QA-7727	http://au1.aconex.com/ViewDoc?trackingid=949133621485974404&projectid=1476396865&cversion=1
Pre Cast Cable Pits Record	PM001-00-P-CHE-QA-7728	http://au1.aconex.com/ViewDoc?trackingid=949133621485974405&projectid=1476396865&cversion=1
Site Acceptance Test	PM001-00-P-CHE-QA-7729	http://au1.aconex.com/ViewDoc?trackingid=949133621485974406&projectid=1476396865&cversion=1
Surface Run Conduit and Fittings Record	PM001-00-P-CHE-QA-7730	http://au1.aconex.com/ViewDoc?trackingid=949133621485974381&projectid=1476396865&cversion=1
Switch Room - Control Room Installation Record	PM001-00-P-CHE-QA-7731	http://au1.aconex.com/ViewDoc?trackingid=949133621485974383&projectid=1476396865&cversion=1
Underground Conduit Innstallation	PM001-00-P-CHE-QA-7732	http://au1.aconex.com/ViewDoc?trackingid=949133621485974382&projectid=1476396865&cversion=1
UPS System - Installation Record	PM001-00-P-CHE-QA-7733	http://au1.aconex.com/ViewDoc?trackingid=949133621485974385&projectid=1476396865&cversion=1
Primary Structural Steel Erection	PM001-00-P-CHE-QA-7734	http://au1.aconex.com/ViewDoc?trackingid=949133621485974387&projectid=1476396865&cversion=1
Reinforced Masonry Blockwork Installation - Civil	PM001-00-P-CHE-QA-7735	http://au1.aconex.com/ViewDoc?trackingid=949133621485974386&projectid=1476396865&cversion=1
Secondary Structural Steel Erection	PM001-00-P-CHE-QA-7736	http://au1.aconex.com/ViewDoc?trackingid=949133621485974389&projectid=1476396865&cversion=1
Steel Framework Installation Record	PM001-00-P-CHE-QA-7737	http://au1.aconex.com/ViewDoc?trackingid=949133621485974390&projectid=1476396865&cversion=1
Steelwork Receiving Inspection Record	PM001-00-P-CHE-QA-7738	http://au1.aconex.com/ViewDoc?trackingid=949133621485974392&projectid=1476396865&cversion=1
Structural Steel Erection	PM001-00-P-CHE-QA-7739	http://au1.aconex.com/ViewDoc?trackingid=949133621485974393&projectid=1476396865&cversion=1
Structural Steel Pre-assembly (For Large Preamsemblies)	PM001-00-P-CHE-QA-7740	http://au1.aconex.com/ViewDoc?trackingid=949133621485974394&projectid=1476396865&cversion=1
Structure Condition Assessment Record	PM001-00-P-CHE-QA-7741	http://au1.aconex.com/ViewDoc?trackingid=949133621485975327&projectid=1476396865&cversion=1
Timber Framework Installation	PM001-00-P-CHE-QA-7742	http://au1.aconex.com/ViewDoc?trackingid=949133621485975326&projectid=1476396865&cversion=1
Shaft Alignment and Mechanical Coupling Record	PM001-00-P-CHE-QA-7743	http://au1.aconex.com/ViewDoc?trackingid=949133621485975328&projectid=1476396865&cversion=1
Soft Foot Record	PM001-00-P-CHE-QA-7744	http://au1.aconex.com/ViewDoc?trackingid=949133621485975329&projectid=1476396865&cversion=1
Vendor Mechanical Skid Equipment Placement Record	PM001-00-P-CHE-QA-7745	http://au1.aconex.com/ViewDoc?trackingid=949133621485975330&projectid=1476396865&cversion=1
Vendor Skid Location and Levelling Record	PM001-00-P-CHE-QA-7746	http://au1.aconex.com/ViewDoc?trackingid=949133621485975331&projectid=1476396865&cversion=1
Buidling Installation Record	PM001-00-P-CHE-QA-7747	http://au1.aconex.com/ViewDoc?trackingid=949133621485975332&projectid=1476396865&cversion=1
Building Works Plumbing Rough In	PM001-00-P-CHE-QA-7748	http://au1.aconex.com/ViewDoc?trackingid=949133621485975333&projectid=1476396865&cversion=1
Building Works Plumbing	PM001-00-P-CHE-QA-7749	http://au1.aconex.com/ViewDoc?trackingid=949133621485975334&projectid=1476396865&cversion=1
Building Works Roofing	PM001-00-P-CHE-QA-7750	http://au1.aconex.com/ViewDoc?trackingid=949133621485975335&projectid=1476396865&cversion=1
Cladding Installation Record	PM001-00-P-CHE-QA-7751	http://au1.aconex.com/ViewDoc?trackingid=949133621485975315&projectid=1476396865&cversion=1
Daily Access Conditions Record - Earthworks	PM001-00-P-CHE-QA-7752	http://au1.aconex.com/ViewDoc?trackingid=949133621485975318&projectid=1476396865&cversion=1
Dynamic Cone Penetrometer Results Record - Earthworks	PM001-00-P-CHE-QA-7753	http://au1.aconex.com/ViewDoc?trackingid=949133621485975314&projectid=1476396865&cversion=1
Excavation - Bulk Earthworks	PM001-00-P-CHE-QA-7754	http://au1.aconex.com/ViewDoc?trackingid=949133621485975316&projectid=1476396865&cversion=1

Existing Road-Access Track Inspection - Earthworks	PM001-00-P-CHE-QA-7755	http://au1.aconex.com/ViewDoc?trackingid=949133621485975317&projectid=1476396865&cversion=1
Fencing and Gates Record	PM001-00-P-CHE-QA-7756	http://au1.aconex.com/ViewDoc?trackingid=949133621485975319&projectid=1476396865&cversion=1
Filling Compaction Results Record	PM001-00-P-CHE-QA-7757	http://au1.aconex.com/ViewDoc?trackingid=949133621485975320&projectid=1476396865&cversion=1
Gabions Record	PM001-00-P-CHE-QA-7758	http://au1.aconex.com/ViewDoc?trackingid=949133621485975321&projectid=1476396865&cversion=1
Guardrail Installation - per Guardrail	PM001-00-P-CHE-QA-7759	http://au1.aconex.com/ViewDoc?trackingid=949133621485975336&projectid=1476396865&cversion=1
Laydown Area Establishment	PM001-00-P-CHE-QA-7760	http://au1.aconex.com/ViewDoc?trackingid=949133621485975322&projectid=1476396865&cversion=1
Mechanical Skid and Equipment Placement	PM001-00-P-CHE-QA-7761	http://au1.aconex.com/ViewDoc?trackingid=949133621485975323&projectid=1476396865&cversion=1
Post-Filling	PM001-00-P-CHE-QA-7762	http://au1.aconex.com/ViewDoc?trackingid=949133621485975324&projectid=1476396865&cversion=1
Span Clearing Record	PM001-00-P-CHE-QA-7763	http://au1.aconex.com/ViewDoc?trackingid=949133621485975325&projectid=1476396865&cversion=1
Pre-Construction	PM001-00-P-CHE-QA-7764	http://au1.aconex.com/ViewDoc?trackingid=949133621486194952&projectid=1476396865&cversion=1
CCTV and Cleaning	PM001-00-P-CHE-QA-7765	http://au1.aconex.com/ViewDoc?trackingid=949133621486194954&projectid=1476396865&cversion=1
Relining Works	PM001-00-P-CHE-QA-7766	http://au1.aconex.com/ViewDoc?trackingid=949133621486194951&projectid=1476396865&cversion=1
Reticulation Mains As Constructed Reinstatement Handover	PM001-00-P-CHE-QA-7767	http://au1.aconex.com/ViewDoc?trackingid=949133621486194953&projectid=1476396865&cversion=1
Receipt Inspection of Material & Equipment	PM001-00-P-CHE-QA-7768	https://au1.aconex.com/ViewDoc?trackingid=949133621486231044&projectid=1476396865&cversion=1
Maintenance Hole Construction	PM001-00-P-CHE-QA-7769	https://au1.aconex.com/ViewDoc?trackingid=949133621494011651&projectid=1476396865&cversion=1
Sample Tap installation	PM001-00-P-CHE-QA-7770	
Minor Works Disinfection WOP608	PM001-00-P-CHE-QA-7771	
Watermain Trench Excavation	PM001-00-P-CHE-QA-7772	
Hoist Lift Crane	PM001-00-P-CHE-QA-7773	
Watermain Backfill Compaction	PM001-00-P-CHE-QA-7774	
Electrofusion Welding	PM001-00-P-CHE-QA-7775	
PE Butt Fusion Welding	PM001-00-P-CHE-QA-7776	

CHECKLISTS		
ITC Number	ITC Description	Referenced to ITP

Inspection & Test Plan

Work Package:	PBE067	Inspection/Characteristics	Prepared by: Brett Davey	Reviewed by: Mark O'Connor	Endorsed by: Laurence Marano
Delivery Partner:	Pensar	R: Report/Record Submitted/Test Results	Title: LoganWIA Project Supervisor	Title: LoganWIA Project Manager	Title: Designer / RPEQ
ITP No.	PBE067-01-W-ITP-QA-7600	S: Surveillance	Signed:	Signed:	Signed:
Construction Process:	Air Valve cut in	H: Hold Point	Date:	Date:	Date:
		W: Witness Point (inspection)	REVISION:	REVISION DATE: 10/10/2019	

Lot No:	1	Lot Description: VBIW041 - Air Valve cut in
----------------	---	--

Job/Activity:					Inspection / Characteristics							
Ref	Process Description	Reference - Spec / Std	Acceptance Criteria	Frequency	Delivery Partner				Logan Water Infrastructure Alliance			
					Status	Resp.	Sign	Date	Status	Resp.	Sign	Date
Logan WIA 1	Approvals from various stakeholders	Logan Water Infrastructure Alliance Procedures	Sign off from approvals team to confirm all necessary approvals received in order to complete Stage	Prior to commencing works					H	CC		
Logan WIA 2	Community informed of works	Logan Water Infrastructure Alliance Procedures	Sign off from community team to confirm all necessary letter drops and door knocks have occurred in order to complete Stage	Prior to commencing works					H	LC/KH		

Preliminary works and Permits

1	IFC Drawing	IFC Drawings PBE067-01-W-DWG-CI-2070 PBE067-01-W-DWG-CI-2071 PBE067-01-W-DWG-CI-2072	Current LoganWIA IFC drawing supplied to Delivery Partner	Prior to commencing works	H	PM/PE			H	PM/PE			ITP sign off
2	Material supply	IFC Drawings PBE067-01-W-DWG-CI-2070 PBE067-01-W-DWG-CI-2071 PBE067-01-W-DWG-CI-2072	All pipes and materials are in accordance with IFC drawings undamaged and handed over to the Delivery Partner	Prior to commencing works	H	PE/SS			H	PE/SS			ITC Free Issue Materials, PM001-00-P-CHE-QA-7768
3	Interim Operations Plan	Construction Technical Specification, Scope of Works and Project Drawings PBE067-00-W-CHE-QA-7600	IOP developed for cut-in and signed off by all relevant parties	Prior to works	H	PE			H	PM/PE			Lot IOP
4	Dilapidation Survey	Scope of Works	Thorough photographic records of site before commencement of any works, with notes and comments	Prior to commencing works	S	PE/SS			S	PE/SS			Dilapidation report done
5	Environmental Controls installed as required	Project Specifications, EMP and Approved Silt and Sedimentation Control Plan PBE067-00-W-MPL-EN-7100	Environmental controls installed as per approved Silt and Sedimentation Control Plan. Arborist and fauna spotter/catcher have completed necessary trimming and felling in accordance with project EMP.	Entire Site	S	SS			S	SS			Silt and Sedimentation Control Plan
6	Check that an excavation permit has been issued / services are located and removed, relocated or protected	LoganWIA permit to excavate form and a Dial Before You Dig Plan	Excavation permit approved and DBYD are valid. Service to be sprayed up prior to work commencing and all crew to be briefed on location of services.	Prior to commencing works	H	PE/SS			H	PE/SS			Excavation Permit DBYD
7	Site Establishment	IFC Drawings PBE067-01-W-DWG-CI-2070 PBE067-01-W-DWG-CI-2071 PBE067-01-W-DWG-CI-2072	All relevant site documentation and specifications as per IFC drawings are complied with: DBYD, TGS, SWMS, Set outs	Prior to commencing works	H	PE/SS			S	PE/SS			ITC: PM001-00-P-CHE-QA-7646

Construction works

17	Valve & Hydrant Markings	Construction Technical Specification, Standard & Project Drawings	Marker Posts / kerb marking / pavement marking as specified in SEQ-WAT-1300-1 and SEQ-WAT-1300-2.	As Specified	H	SS			S	SS			Photo records
18	Restoration	Scope of works EMP PBE067	All areas affected by construction that are no longer required for future project works have been reinstated to original condition or as specified.	On completion	W	PE/SS			W	PE/SS			Photo, Reinstatement ITC: PM001-00-P-CHE-QA-7673
19	Defect Rectification	Scope of works PBE067 IFC Drawings	Defect walk including LWIA and subcontractor reps has been conducted, all defects transferred onto punch list. All category A and B defects have been rectified by subcontractor and accepted by Downer.	When Lots are deemed ready for inspection by LWIA	H	PE			H	PE			LWIA Punch List PM001-00-P-FOR-PM-9015
20	As-constructed information	IFC Drawings PBE067-01-W-DWG-CI-2070 PBE067-01-W-DWG-CI-2071 PBE067-01-W-DWG-CI-2072	All as-constructed data recorded. Hand sketches provided to LoganWIA for acceptance. Detailed description of works completed / electronic survey.	After construction	H	PE			H	PE			Red line mark up drawings submitted to LWIA
Key : SS - Site Supervisor PE - Project Engineer PM - Project Manager DM - Design Manager R: Report/Record Submitted/Test Results - Test certificates or test reports, shall be received and verified by LoganWIA prior to equipment installation. S: Surveillance - General inspection of tasks and works. No advice required to LoganWIA H: Hold Point - Mandatory Hold Point. Inspection & sign off required prior to proceeding. Give LoganWIA min 48 hours' notice. W: Witness Point (inspection) - LoganWIA must nominate witness point on the ITP. 24 hours' notice required for LoganWIA nominated witness points. After this period has elapsed, works may proceed if LoganWIA does not attend the inspection.				Delivery Partner PE Sign Off:					LoganWIA PE Sign Off:				
				Date:					Date:				

Inspection & Test Plan

Work Package:	PBE067	Inspection/Characteristics	Prepared by: Brett Davey	Reviewed by: Mark O'Connor	Endorsed by: Laurence Marano
Delivery Partner:	Pensar	R: Report/Record Submitted/Test Results	Title: LoganWIA Project Supervisor	Title: LoganWIA Project Manager	Title: Designer / RPEQ
ITP No.	PBE067-01-W-ITP-QA-7600	S: Surveillance	Signed:	Signed:	Signed:
Construction Process:	Scour line install	H: Hold Point	Date:	Date:	Date:
		W: Witness Point (inspection)	REVISION: 0	REVISION DATE: 10/10/2019	

Lot No:	2	Lot Description: VBBE012 - Scour line install
----------------	---	--

Job/Activity:					Inspection / Characteristics							
Ref	Process Description	Reference - Spec / Std	Acceptance Criteria	Frequency	Delivery Partner				Logan Water Infrastructure Alliance			
					Status	Resp.	Sign	Date	Status	Resp.	Sign	Date
Logan WIA 1	Approvals from various stakeholders	Logan Water Infrastructure Alliance Procedures	Sign off from approvals team to confirm all necessary approvals received in order to complete Stage	Prior to commencing works					H	CC		
Logan WIA 2	Community informed of works	Logan Water Infrastructure Alliance Procedures	Sign off from community team to confirm all necessary letter drops and door knocks have occurred in order to complete Stage	Prior to commencing works					H	LC/KH		

Preliminary works and Permits

1	IFC Drawing	IFC Drawings PBE067-01-W-DWG-CI-2000 PBE067-01-W-DWG-CI-2001 PBE067-01-W-DWG-CI-2002 PBE067-01-W-DWG-CI-2003	Current LoganWIA IFC drawing supplied to Delivery Partner	Prior to commencing works	H	PM/PE			H	PM/PE		
2	Material supply	IFC Drawings PBE067-01-W-DWG-CI-2000 PBE067-01-W-DWG-CI-2001 PBE067-01-W-DWG-CI-2002 PBE067-01-W-DWG-CI-2003	All pipes and materials are in accordance with IFC drawings undamaged and handed over to the Delivery Partner	Prior to commencing works	H	PE/SS			H	PE/SS		
3	Dilapidation Survey	Scope of Works	Thorough photographic records of site before commencement of any works, with notes and comments	Prior to commencing works	S	PE/SS			S	PE/SS		
4	Traffic Management	Scope of Works, TGS, TMP	Traffic Management Plan/ Guidance Scheme has been approved for use an implemented as required prior to mobilisation and provision for implementation throughout the works.	Prior to commencing works	H	PE/SS			R	PE/SS		
5	Environmental Controls installed as required	Project Specifications, EMP and Approved Silt and Sedimentation Control Plan PBE067-00-W-MPL-EN-7100	Environmental controls installed as per approved Silt and Sedimentation Control Plan. Arborist and fauna spotter/catcher have completed necessary trimming and felling in accordance with project EMP.	Entire Site	S	SS			S	SS		
6	Check that an excavation permit has been issued / services are located and removed, relocated or protected	LoganWIA permit to excavate form and a Dial Before You Dig Plan	Excavation permit approved and DBYD are valid. Service to be sprayed up prior to work commencing and all crew to be briefed on location of services.	Prior to commencing works	H	PE/SS			H	PE/SS		
7	Site Establishment	IFC Drawings PBE067-01-W-DWG-CI-2000 PBE067-01-W-DWG-CI-2001 PBE067-01-W-DWG-CI-2002 PBE067-01-W-DWG-CI-2003	All relevant site documentation and specifications as per IFC drawings are complied with: DBYD, TGS, SWMS, Set outs	Prior to commencing works	H	PE/SS			S	PE/SS		

Construction works

8	Saw Cut road Surface	IFC Drawings PBE067-01-W-DWG-CI-2000 PBE067-01-W-DWG-CI-2001 PBE067-01-W-DWG-CI-2002 PBE067-01-W-DWG-CI-2003	Mark out alignment and trench width required for excavation as per the IFC drawings and survey data.	Prior to excavation	H	PE/SS			S	PE/SS			Photos
9	Excavation to Depth	Construction Technical Specification, Standard & Project IFC Drawings PBE067-01-W-DWG-CI-2000 PBE067-01-W-DWG-CI-2001 PBE067-01-W-DWG-CI-2002 PBE067-01-W-DWG-CI-2003	Excavate at correct grade and to correct level satisfy all of the below - min of 150mm thick bedding material (above pipe) - min of 100mm thick bedding material (below pipe) - min cover required over the pipe to surface - Specified IL in IFC Drawings - All Acid sulphate soils to be disposed off accordingly	All Excavations	H	SS			W	SS			ITC Document: PM001-00-P-CHE-QA-7772 Acid sulphate soil register and disposal documentation
10	Storm water pit inspection	Standard & Project Drawings PBE067-01-W-DWG-CI-2000 PBE067-01-W-DWG-CI-2001	Verify stormwater pit wall thickness prior to pipe installation	Prior to pipe install	H	SS			H	DM/SS			Confirm wall thickness aligns with drawings, photographic evidence
11	Pipe, Valves and Flanged Fittings pre-assembled disinfected and installed	Construction Technical Specification, Standard & Project Drawings PBE067-01-W-DWG-CI-2000 PBE067-01-W-DWG-CI-2001 PBE067-01-W-DWG-CI-2002 PBE067-01-W-DWG-CI-2003	Valves, flanged fittings and Pipes to be installed in accordance with Drawings as specified. Bolts to be tightened in accordance with SEQ-WAT-1313-1(A). And manufactures specification	All valves, flange fittings and Hydrants	H	SS			W	PE/SS			Flange management ITC: PM001-00-P-CHE-QA-7611 Torque Wrench Calib Cert Minor works disinfection ITC: PM001-00-P-CHE-QA-7771
12	Hydrostatic pressure testing	IFC Drawings PBE067-01-W-DWG-CI-2000 PBE067-01-W-DWG-CI-2001 See note 7	Water main pipe has passed pressure test by hydrostatic test method in accordance with clause 19.4 of SEQ WS&S D&C Code Amendment to WSA03-2011	After construction	H	PE/SS			H	DM/SS			ITC: PM001-00-P-CHE-QA-7636 Hydrostatic pressure testing Calibration certificates, Nata accredited test report
13	Pipe Bedding, Surround Material and Marker Tape	Construction Technical Specification, Standard & Project Drawings	Refer to note M1A PM001-00-W-DWG-ND-0051, 5mm Gravel placed, levelled and compacted. Allow space under Socket to sleeve the Joint. Bedding to be compacted and inspected by LoganWIA rep. Bidim (Geotextile), Detectable watermain Warning Marker Tape placed above pipe surround bedding prior to backfill. Tape to be brought up to surface at valves. Compacted as per C1C PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W-DWG-ND-0021	All Bedding material	H	SS			W	SS			Material Cert/Docket Pipeline installation ITC: PM001-00-W-DWG-ND-0050_REV3 PM001-00-W-DWG-ND-0051 PM001-00-P-CHE-QA-7626 PM001-00-P-CHE-QA-7772 PM001-00-W-DWG-ND-0021 PBE067-01-W-DWG-CI-2003
14	Geotech assesment of thrust bearing walls before concrete pour	PM001-00-W-DWG-ND-0021 Size thrust blocks to geotech assesment	Soil tested and results to be compared to geotech assesment on drawing to determine the size of the thrust block to be installed	Before pouring of concrete for thrust support	H	SS			H	PE/SS			ITC: PM001-00-P-CHE-QA-7650
15	Thrust Blocks	Construction Technical Specification, Standard & Project Drawings	As per standard drawing (SEQ-WAT-1205-1) requirements and Geotechnical reports/penetrometer reading on Ground Conditions. Concrete N20 or greater. Bearing face against undisturbed ground. No spills over the joints. Concrete sufficiently vibrated to ensure sufficient compaction.	All thrust blocks	H	PE			H	DM/SS			Geotechnical report or Photo of Penetrometer Reading. Thrust block installation ITC: PM001-00-P-CHE-QA-7649

16	Survey Pickup	Construction Technical Specification, Standard & Project Drawings	Survey pickup as per requirements outlined in SEQ water supply construction code. (ADAC files)	All Pipeline	H	PE			H	PE/SS			Survey Plans (ADAC data) ITC: PM001-00-P-CHE-QA-7645
17	Trench fill and Compaction	SEQ Watermain Construction Code / Construction Technical Specification, Standard & Project Drawings	Existing material not suitable for backfill due to ASS. Backfill as per trench detail on drawing PBE067-01-W-DWG-CI-2003 Type 2.1 CBR80 refer note M2C. Compact in 200mm layers to Min 98% DDR as AS1289.5.1.1. Compacted as per C2A PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W-DWG-ND-0021. Or as per Trench type L3 on drawing PM001-00-W-DWG-ND-0051.	All Trenches	H	SS			W	PE/SS			Material Cert/Docket PM001-00-W-DWG-ND-0050_REV3 PM001-00-W-DWG-ND-0051_REV3 PM001-00-P-CHE-QA-7772 PM001-00-P-CHE-QA-7626 PM001-00-W-DWG-ND-0021 PBE067-01-W-DWG-CI-2003
18	Road re-instatment	1) Scope of works 2) LWIA Standard Drawings 3) SEQ Standard Drawings	Completed and signed off Watermain Backfill & Compaction ITC As per PBE-01-W-DWG-CI-2003 or as per Trench type L3 on drawing PM001-00-W-DWG-ND-0051.	After construction	H	SS			W	PE/SS			Watermain Backfill & Compaction ITC (PM001-00-P-CHE-QA-7774) NATA Compaction Test Results Material Certificates PBE067-01-W-DWG-CI-2003
Re-instatment and Demob													
19	Valve & Hydrant Markings	Construction Technical Specification, Standard & Project Drawings	Marker Posts / kerb marking / pavement marking as specified in SEQ-WAT-1300-1 and SEQ-WAT-1300-2.	As Specified	H	SS			S	SS			Photo records
20	Restoration	Scope of works EMP PBE067	All areas affected by construction that are no longer required for future project works have been reinstated to original condition or as specified.	On completion	W	PE/SS			W	PE/SS			Photo, Reinstatement ITC: PM001-00-P-CHE-QA-7673
21	Defect Rectification	Scope of works PBE067 IFC Drawings	Defect walk including LWIA and subcontractor reps has been conducted, all defects transferred onto punch list. All category A and B defects have been rectified by subcontractor and accepted by Downer.	When Lots are deemed ready for inspection by LWIA	H	PE			H	PE			LWIA Punch List PM001-00-P-FOR-PM-9015
22	As-constructed information	IFC Drawings PBE067-01-W-DWG-CI-2000 PBE067-01-W-DWG-CI-2001 PBE067-01-W-DWG-CI-2002 PBE067-01-W-DWG-CI-2003	All as-constructed data recorded. Hand sketches provided to LoganWIA for acceptance. Detailed description of works completed / electronic survey.	After construction	H	PE			H	PE			Red line mark up drawings submitted to LWIA
Key : SS - Site Supervisor PE - Project Engineer PM - Project Manager DM - Design Manager R: Report/Record Submitted/Test Results - Test certificates or test reports, shall be received and verified by LoganWIA prior to equipment installation. S: Surveillance - General inspection of tasks and works. No advice required to LoganWIA H: Hold Point - Mandatory Hold Point. Inspection & sign off required prior to proceeding. Give LoganWIA min 48 hours' notice. W: Witness Point (inspection) - LoganWIA must nominate witness point on the ITP. 24 hours' notice required for LoganWIA nominated witness points. After this period has elapsed, works may proceed if LoganWIA does not attend the inspection.				Delivery Partner PE Sign Off:					LoganWIA PE Sign Off:				
				Date:					Date:				

Inspection & Test Plan

Work Package: PBE067		Inspection/Characteristics		Prepared by: Brett Davey		Reviewed by: Mark O'Connor		Endorsed by: Laurence Marano					
Delivery Partner: Pensar		R: Report/Record Submitted/Test Results		Title: LoganWIA Project Supervisor		Title: LoganWIA Project Manager		Title: Designer / RPEQ					
ITP No. PBE067-01-W-ITP-QA-7600		S: Surveillance		Signed:		Signed:		Signed:					
Construction Process: Demolish pit and Air Valve cut in		H: Hold Point		Date:		Date:		Date:					
		W: Witness Point (inspection)		REVISION: 0		REVISION DATE: 10/10/2019							
Lot No: 3		Lot Description: VBEE023 - Air Valve cut in											
Job/Activity:					Inspection / Characteristics								
Ref	Process Description	Reference - Spec / Std	Acceptance Criteria	Frequency	Delivery Partner				Logan Water Infrastructure Alliance				Verifying Records
					Status	Resp.	Sign	Date	Status	Resp.	Sign	Date	
Logan WIA 1	Approvals from various stakeholders	Logan Water Infrastructure Alliance Procedures	Sign off from approvals team to confirm all necessary approvals received in order to complete Stage	Prior to commencing works					H	CC			ITP sign off
Logan WIA 2	Community informed of works	Logan Water Infrastructure Alliance Procedures	Sign off from community team to confirm all necessary letter drops and door knocks have occurred in order to complete Stage	Prior to commencing works					H	LC/KH			ITP sign off
Preliminary works and Permits													
1	IFC Drawing	IFC Drawings PBE067-01-W-DWG-CI-2020 PBE067-01-W-DWG-CI-2021 PBE067-01-W-DWG-CI-2022 PBE067-01-W-DWG-CI-2023	Current LoganWIA IFC drawing supplied to Delivery Partner	Prior to commencing works	H	PM/PE			H	PM/PE			ITP sign off
2	Material supply	IFC Drawings PBE067-01-W-DWG-CI-2020 PBE067-01-W-DWG-CI-2021 PBE067-01-W-DWG-CI-2022 PBE067-01-W-DWG-CI-2023	All pipes and materials are in accordance with IFC drawings undamaged and handed over to the Delivery Partner	Prior to commencing works	H	PE/SS			H	PE/SS			ITC Free Issue Materials, PM001-00-P-CHE-QA-7768
3	Interim Operations Plan	Construction Technical Specification, Scope of Works and Project Drawings PBE067-00-W-CHE-QA-7601 / 7602	IOP developed for cut-in and signed off by all relevant parties	Prior to works	H	PE			H	PM/PE			Lot IOP
4	Dilapidation Survey	Scope of Works	Thorough photographic records of site before commencement of any works, with notes and comments	Prior to commencing works	S	PE/SS			S	PE/SS			Dilapidation report done
5	Traffic Management	Scope of Works, TGS, TMP	Traffic Management Plan/ Guidance Scheme has been approved for use an implemented as required prior to mobilisation and provision for implementation throughout the works.	Prior to commencing works	H	PE/SS			R	PE/SS			TMP / TGS
6	Environmental Controls installed as required	Project Specifications, EMP and Approved Silt and Sedimentation Control Plan PBE067-00-W-MPL-EN-7100	Environmental controls installed as per approved Silt and Sedimentation Control Plan. Arborist and fauna spotter/catcher have completed necessary trimming and felling in accordance with project EMP.	Entire Site	S	SS			S	SS			Silt and Sedimentation Control Plan
7	Check that an excavation permit has been issued / services are located and removed, relocated or protected	LoganWIA permit to excavate form and a Dial Before You Dig Plan	Excavation permit approved and DBYD are valid. Service to be sprayed up prior to work commencing and all crew to be briefed on location of services. Ensure unknown service is potholed. And, ensure no clashes with continuously rising air valve line.	Prior to commencing works	H	PE/SS			H	PE/SS			Excavation Permit DBYD
8	Site Establishment	IFC Drawings PBE067-01-W-DWG-CI-2020 PBE067-01-W-DWG-CI-2021 PBE067-01-W-DWG-CI-2022 PBE067-01-W-DWG-CI-2023	All relevant site documentation and specifications as per IFC drawings are complied with: DBYD, TGS, SWMS, Set outs	Prior to commencing works	H	PE/SS			S	PE/SS			ITC: PM001-00-P-CHE-QA-7646
Construction works													

9	Saw Cut road Surface	IFC Drawings PBE067-01-W-DWG-CI-2020 PBE067-01-W-DWG-CI-2021 PBE067-01-W-DWG-CI-2022 PBE067-01-W-DWG-CI-2023	Mark out alignment and trench width required for excavation as per the IFC drawings and survey data.	Prior to excavation	H	PE/SS			S	PE/SS			Photos
10	Excavation to Depth	Construction Technical Specification, Standard & Project IFC Drawings PBE067-01-W-DWG-CI-2020 PBE067-01-W-DWG-CI-2021 PBE067-01-W-DWG-CI-2022 PBE067-01-W-DWG-CI-2023 PM001-00-W-DWG-ND-0050 PM001-00-W-DWG-ND-0051	Excavate at correct grade and to correct level satisfy all of the below - min of 150 or 300 mm thick bedding material (above pipe) depending on trench type, refer PM001-00-W-DWG-ND-0050 PM001-00-W-DWG-ND-0051 - min of 100mm or 150mm thick bedding material (below pipe) refer PM001-00-W-DWG-ND-0050 PM001-00-W-DWG-ND-0051 - min cover required over the pipe to surface - Specified IL in IFC Drawings	All Excavations	H	SS			W	SS			ITC Document: PM001-00-P-CHE-QA-7772 Trench type to be marked on ITC as per design drawings
11	Confirm of fitting details of DN375	IFC Drawings PBE067-01-W-DWG-CI-2020 PBE067-01-W-DWG-CI-2021 PBE067-01-W-DWG-CI-2022 PBE067-01-W-DWG-CI-2023	Check DN375 pipe location and confirm connectors and pipe lengths are correct before cutting in	Prior to works on water main	H	SS			H	PE/SS			Visual inspection, photographic evidence
12	Confirm position of DN150 pipe prior to isolation	IFC Drawings PBE067-01-W-DWG-CI-2020 PBE067-01-W-DWG-CI-2021 PBE067-01-W-DWG-CI-2022 PBE067-01-W-DWG-CI-2023	Check DN150 pipe location and confirm connectors and pipe lengths are correct before cutting in	Prior to works on water main	H	SS			H	PE/SS			Visual inspection, photographic evidence
13	Operations to isolate and scour water main	Approved IOP shut down document PBE067-00-W-CHE-QA-7601 / 7602	Water mains isolated and de pressurized or dewatered	Prior to works on water main	H	PE			S	PE/SS			IOP Signed by Operations
14	Pipe, Valves and Flanged Fittings pre-assembled disinfected and installed	Construction Technical Specification, Standard & Project Drawings PBE067-01-W-DWG-CI-2020 PBE067-01-W-DWG-CI-2021 PBE067-01-W-DWG-CI-2022 PBE067-01-W-DWG-CI-2023	Valves, flanged fittings and Pipes to be installed in accordance with Drawings as specified. Bolts to be tightened in accordance with SEQ-WAT-1313-1(A). And manufactures specification	All valves, flange fittings and Hydrants	H	SS			W	PE/SS			Flange management ITC: PM001-00-P-CHE-QA-7611 Torque Wrench Calib Cert Minor works disinfection ITC: PM001-00-P-CHE-QA-7771
15	Pipe Bedding, Surround Material and Marker Tape	Construction Technical Specification, Standard & Project Drawings	Refer to note M1A PM001-00-W-DWG-ND-0051, 5mm Gravel placed, levelled and compacted. Allow space under Socket to sleeve the Joint. Bedding to be compacted and inspected by LoganWIA rep. Bidim (Geotextile), Detectable watermain Warning Marker Tape placed above pipe surround bedding prior to backfill. Tape to be brought up to surface at valves. Compacted as per C1C PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W-DWG-ND-0021	All Bedding material	H	SS			W	SS			Material Cert/Docket Pipeline installation ITC: PM001-00-W-DWG-ND-0050_REV3 PM001-00-W-DWG-ND-0051 PM001-00-P-CHE-QA-7626 PM001-00-P-CHE-QA-7772 PM001-00-W-DWG-ND-0022 PBE067-01-W-DWG-CI-2022. PBE067-01-W-DWG-CI-2023.
16	Thrust Blocks	Construction Technical Specification, Standard & Project Drawings	As per standard drawing (SEQ-WAT-1205-1) requirements and Geotechnical reports/penetrometer reading on Ground Conditions. Concrete N20 or greater. Bearing face against undisturbed ground. No spills over the joints. Concrete sufficiently vibrated to ensure sufficient compaction.	All thrust blocks	H	PE			H	PE/SS			Geotechnical report or Photo of Penetrometer Reading. Thrust block installation ITC: PM001-00-P-CHE-QA-7649
17	Pit internal support	Logan road pit to be internally braced as per Logan WIA specifications. See propping sketch	Sub contractor to supply layout design based on Logan WIA sketch with accompanying RPEQ	Before pit lid removal	H	PE			H	PE/SS			Supports shown to be in accordance with RPEG drawing Photographic evidence

18	Restoration (Coating) of existing DN375 pipe work	IFC Drawings PBE067-01-W-DWG-CI-2021 See note 6	See details on Note PC2 on STD DWG PM001-00-W-DWG-ST-3000	After construction	H	PE			H	DM/SS			Photographic evidence
19	Survey Pickup	Construction Technical Specification, Standard & Project Drawings	Survey pickup as per requirements outlined in SEQ water supply construction code. (ADAC files)	All Pipeline	H	PE			H	PE/SS			Survey Plans (ADAC data) ITC: PM001-00-P-CHE-QA-7645
20	Trench fill and Compaction	SEQ Watermain Construction Code / Construction Technical Specification, Standard & Project Drawings	Backfill in accordance with relevant trench type as specified on drawing PBE067-01-W-DWG-CI-2022 with material as per note M2A M2B M2C PM001-00-W-DWG-ND-0051. Compact in 200mm layers to Min 98% on road Min 95% on footpath DDR as AS1289.5.1.1. Compacted as per C2A PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W-DWG-ND-0021.	All Trenches	H	SS			W	DM/SS			Material Cert/Docket PM001-00-W-DWG-ND-0050_REV3 PM001-00-W-DWG-ND-0051_REV3 PM001-00-P-CHE-QA-7772 PM001-00-P-CHE-QA-7626 PM001-00-W-DWG-ND-0022 PBE067-01-W-DWG-CI-2022. PBE067-01-W-DWG-CI-2023.
21	Road re-instatment	1) Scope of works 2) LWIA Standard Drawings 3) SEQ Standard Drawings	Completed and signed off Watermain Backfill & Compaction ITC As per PBE-01-W-DWG-CI-2003 or as per Trench type L3 on drawing PM001-00-W-DWG-ND-0051.	After construction	H	SS			W	PE/SS			Watermain Backfill & Compaction ITC (PM001-00-P-CHE-QA-7774) NATA Compaction Test Results Material Certificates PBE067-01-W-DWG-CI-2003
Re-instatment and Demob													
22	Valve & Hydrant Markings	Construction Technical Specification, Standard & Project Drawings	Marker Posts / kerb marking / pavement marking as specified in SEQ-WAT-1300-1 and SEQ-WAT-1300-2.	As Specified	H	SS			S	SS			Photo records
23	Restoration	Scope of works EMP PBE067	All areas affected by construction that are no longer required for future project works have been reinstated to original condition or as specified.	On completion	W	PE/SS			W	PE/SS			Photo, Reinstatement ITC: PM001-00-P-CHE-QA-7673
24	Defect Rectification	Scope of works PBE067 IFC Drawings	Defect walk including LWIA and subcontractor reps has been conducted, all defects transferred onto punch list. All category A and B defects have been rectified by subcontractor and accepted by Downer.	When Lots are deemed ready for inspection by LWIA	H	PE			H	PE			LWIA Punch List PM001-00-P-FOR-PM-9015
25	As-constructed information	IFC Drawings PBE067-01-W-DWG-CI-2020 PBE067-01-W-DWG-CI-2021 PBE067-01-W-DWG-CI-2022 PBE067-01-W-DWG-CI-2023	All as-constructed data recorded. Hand sketches provided to LoganWIA for acceptance. Detailed description of works completed / electronic survey.	After construction	H	PE			H	PE			Red line mark up drawings submitted to LWIA
Key : SS - Site Supervisor PE - Project Engineer PM - Project Manager DM - Design Manager R: Report/Record Submitted/Test Results - Test certificates or test reports, shall be received and verified by LoganWIA prior to equipment installation. S: Surveillance - General inspection of tasks and works. No advice required to LoganWIA H: Hold Point - Mandatory Hold Point. Inspection & sign off required prior to proceeding. Give LoganWIA min 48 hours' notice. W: Witness Point (inspection) - LoganWIA must nominate witness point on the ITP. 24 hours' notice required for LoganWIA nominated witness points. After this period has elapsed, works may proceed if LoganWIA does not attend the inspection.				Delivery Partner PE Sign Off:					LoganWIA PE Sign Off:				
				Date:					Date:				

Inspection & Test Plan

Work Package:	PBE067	Inspection/Characteristics	Prepared by: Jay Pery	Reviewed by: Mark O'Connor	Endorsed by: Scott Dicker								
Delivery Partner:	Pensar	R: Report/Record Submitted/Test Results	Title: LoganWIA Project Engineer	Title: LoganWIA Project Manager	Title: Designer / RPEQ								
ITP No.	PBE067-01-W-ITP-QA-7600	S: Surveillance	Signed:	Signed:	Signed:								
Construction Process:	Valve pit construction and Valve cut in	H: Hold Point W: Witness Point (inspection)	Date:	Date:	Date:								
Lot No:	6	REVISION: 0	REVISION DATE: 18/02/2020										
Lot Description: VBKP021 Site 1 - Valve pit construction and Valve cut in													
Job/Activity:			Inspection / Characteristics										
Ref	Process Description	Reference - Spec / Std	Acceptance Criteria	Frequency	Delivery Partner	Logan Water Infrastructure Alliance							
					Status	Resp.	Sign	Date	Status	Resp.	Sign	Date	Verifying Records
Logan WIA 1	Approvals from various stakeholders	Logan Water Infrastructure Alliance Procedures	Sign off from approvals team to confirm all necessary approvals received in order to complete Stage	Prior to commencing works					H	CC			ITP sign off
Logan WIA 2	Community informed of works	Logan Water Infrastructure Alliance Procedures	Sign off from community team to confirm all necessary letter drops and door knocks have occurred in order to complete Stage	Prior to commencing works					H	LC/KH			ITP sign off
Preliminary works and Permits													
1	IFC Drawing	IFC Drawings PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042	Current LoganWIA IFC drawing supplied to Delivery Partner	Prior to commencing works	H	PM/PE			H	PM/PE			ITP sign off
2	Material supply	IFC Drawings PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042	All pipes and materials are in accordance with IFC drawings undamaged and handed over to the Delivery Partner	Prior to commencing works	H	PE/SS			H	PE/SS			ITC Free Issue Materials, PM001-00-P-CHE-QA-7768
3	Interim Operations Plan	Construction Technical Specification, Scope of Works and Project Drawings PBE067-00-W-CHE-QA-7605	IOP developed for cut-in and signed off by all relevant parties	Prior to works	H	PE			H	PM/PE			Lot IOP
4	Dilapidation Survey	Scope of Works	Thorough photographic records of site before commencement of any works, with notes and comments	Prior to commencing works	S	PE/SS			S	PE/SS			Dilapidation report done
5	Traffic Management	Scope of Works, TGS, TMP	Traffic Management Plan/ Guidance Scheme has been approved for use an implemented as required prior to mobilisation and provision for implementation throughout the works.	Prior to commencing works	H	PE/SS			R	PE/SS			TMP / TGS
6	Environmental Controls installed as required	Project Specifications, EMP and Approved Silt and Sedimentation Control Plan PBE067-00-W-MPL-EN-7100	Environmental controls installed as per approved Silt and Sedimentation Control Plan. Arborist and fauna spotter/catcher have completed necessary trimming and felling in accordance with project EMP.	Entire Site	S	SS			S	SS			Silt and Sedimentation Control Plan
7	Check that an excavation permit has been issued / services are located and removed, relocated or protected	LoganWIA permit to excavate form and a Dial Before You Dig Plan	Excavation permit approved and DBYD are valid. Service to be sprayed up prior to work commencing and all crew to be briefed on location of services.	Prior to commencing works	H	PE/SS			H	PE/SS			Excavation Permit DBYD
8	Site Establishment	IFC Drawings PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042 PBE067-01-W-DWG-ST-3001 and PBE067-01-W-DWG-ST-3002	All relevant site documentation and specifications as per IFC drawings are compiled with: DBYD, TGS, SWMS, Set outs	Prior to commencing works	H	PE/SS			S	PE/SS			ITC: PM001-00-P-CHE-QA-7646
Construction works													

9	Geotech assessment of thrust bearing walls before concrete pour setout	PM001-00-W-DWG-ND-0021 Size thrust blocks to geotech assesment	Soil tested and results to be compared to geotech assesment on drawing to determine the size of the thrust block to be installed. 50kPa horizontal bearing capacity, and 100kPa vertical bearing capacity for pit as per PBE067-01-W-DWG-ST-3001	Before pouring of concrete for thrust support	H	PE/SS			H	DM/SS			ITC: PM001-00-P-CHE-QA-7650 Geotechnical Report
10	Pit layout confirmation	As per IFC drawing PBE067-01-W-DWG-CI-2041	Ensure pit does not encroach into private property alignment, location and size of pit to be confirmed	Prior to excavation	H	PE/SS			H	DM/SS			Site layout Survey Plan
11	Excavation and ground preparation	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042 PBE067-01-W-DWG-ST-3001 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0020 PM001-00-W-DWG-ND-0021 PM001-00-W-DWG-ND-0022	ITC's-PM001-00-P-CHE-QA-7638 and PM001-00-P-CHE-QA-7760, PM001-00-P-CHE-QA-7772 is completed and signed by Delivery Partner and LoganWIA reps. 50kPa horizontal bearing capacity, and 100kPa vertical bearing capacity for pit as per PBE067-01-W-DWG-ST-3001	prior to pouring blinding layer	W	PE/SS			S	PE/SS			ITC signed PM001-00-P-CHE-QA-7638 and PM001-00-P-CHE-QA-7760 PM001-00-P-CHE-QA-7772
12	Pour blinding layer	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042 PBE067-01-W-DWG-ST-3001 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0020 PM001-00-W-DWG-ND-0021 PM001-00-W-DWG-ND-0022	50mm thick N20 blinding concrete placed to specified level. Sump detail correct as per PBE067-01-W-DWG-ST-3001 Provide concrete mix design for approval by DM	Prior to start concrete work	H	PE/SS			W	PE/SS			PM001-00-P-CHE-QA-7672 Pre-Concrete Pour REV 1, Photos, Concrete Docket
13	Form, Reo and pour valve pit base	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042 PBE067-01-W-DWG-ST-3001 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0020 PM001-00-W-DWG-ND-0021 PM001-00-W-DWG-ND-0022	Provide concrete mix design for approval by DM 1) steel reinforcement as per design drawings. 2) starter bars for walls tied into base as per design 3) starter bars for plinths tied into base as per design 4) sump reinforcement and block out installed including recess for cover. Sump to be as per detail PBE067-01-W-DWG-ST-3001 5) floor to be locally thickened to accommodate 1:100 fall toward the sump, ensuring 300mm clearance to underside of flanges 6) Concrete to be S40/20 and approved as per Note CC7 on drawing PM001-00-W-DWG-ND-0022 7) formwork suitable for pour	Prior to start concrete work	H	PE/SS			H	DM/PE/SS This is a hold point for the RPEQ Structural Engineer			PM001-00-P-CHE-QA-7672 Pre-Concrete Pour REV 1, Photos, Concrete Docket, Inspection by RPEQ Structural Engineer Slump test of concrete by supplier
14	Operations to isolate and scour water main	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042 PBE067-01-W-DWG-ST-3001 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0020 PM001-00-W-DWG-ND-0021 PM001-00-W-DWG-ND-0022	Water mains isolated and de pressurized or dewatered	Prior to works on water main	H	PE			S	PE/SS			IOP Signed by Operations

15	Pipe, Valves and Flanged Fittings pre-assembled disinfected and installed	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042 PBE067-01-W-DWG-ST-3001 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0020 PM001-00-W-DWG-ND-0021 PM001-00-W-DWG-ND-0022	Valves, flanged fittings and Pipes to be installed in accordance with Drawings as specified. Bolts to be tightened in accordance with SEQ-WAT-1313-1(A). And manufactures specification	All valves, flange fittings and Hydrants	H	SS				W	PE/SS			Flange management ITC: PM001-00-P-CHE-QA-7611 Torque Wrench Calib Cert Minor works disinfection ITC: PM001-00-P-CHE-QA-7771
16	Form, Reo and pour valve pit walls	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042 PBE067-01-W-DWG-ST-3001 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0020 PM001-00-W-DWG-ND-0021 PM001-00-W-DWG-ND-0022	1) steel reinforcement as per design drawings. 2) pipework to be cast into wall at correct height, with puddle flanges central and extra reinforcement installed as per drawing 3) formwork installed. Suitably restrained to prevent shifting or bowing. 4) Concrete to be S40/20 and approved as per Note CC7 on drawing PM001-00-W-DWG-ND-0022	Prior to start concrete work	H	PE/SS				H	DM/PE/SS This is a hold point for the RPEQ Structural Engineer			PM001-00-P-CHE-QA-7672 Pre-Concrete Pour REV 1, Photos, Concrete Docket Inspection by RPEQ Structural Engineer Slump test of concrete by supplier
17	Form, Reo and pour valve pit Plinths	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042 PBE067-01-W-DWG-ST-3001 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0021 PM001-00-W-DWG-ND-0028	1) steel reinforcement as per design drawings. 2) formwork installed. Suitably restrained to prevent shifting or bowing. 3) Concrete to be S40/20 and approved as per Note CC7 on drawing PM001-00-W-DWG-ND-0022	Prior to start concrete work	H	PE/SS				H	DM/PE/SS This is a hold point for the RPEQ Structural Engineer			PM001-00-P-CHE-QA-7672 Pre-Concrete Pour REV 1, Photos, Concrete Docket Inspection by RPEQ Structural Engineer Slump test of concrete by supplier
18	Form, Reo and pour valve pit cover	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042 PBE067-01-W-DWG-ST-3001 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0021 PM001-00-W-DWG-ND-0027	1) steel reinforcement as per design drawings. 2) formwork installed. Suitably restrained to prevent shifting or bowing. 3) Concrete to be S40/20 and approved as per Note CC7 on drawing PM001-00-W-DWG-ND-0022 4) location of valve box Cast into slab correct and suits on site construction	Prior to start concrete work	H	PE/SS				H	DM/PE/SS This is a hold point for the RPEQ Structural Engineer			PM001-00-P-CHE-QA-7672 Pre-Concrete Pour REV 1, Photos, Concrete Docket. signed off RPEQ form 15 by contactor for lifting points. Inspection by RPEQ Structural Engineer Slump test of concrete by supplier
19	<u>WATER PIPELINE:</u> Pipe Bedding, Surround Material and Marker Tape	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042 PBE067-01-W-DWG-ST-3001 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0020 PM001-00-W-DWG-ND-0021 PM001-00-W-DWG-ND-0022	As per trench type C1 PM001-00-W-DWG-ND-0050_REV3 5mm Gravel (note M1A PM001-00-W-DWG-ND-0051) placed, levelled and compacted. Allow space under Socket to sleeve the Joint. Bedding to be compacted and inspected by LoganWIA rep. Bidim (Geotextile), Detectable watermain Warning Marker Tape placed above pipe surround bedding prior to backfill. Tape to be brought up to surface at valves. Compacted as per C1C PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W-DWG-ND-0021	All Bedding material	H	SS				W	PE/SS			Material Cert/Docket Pipeline installation ITC: PM001-00-W-DWG-ND-0050_REV3 PM001-00-W-DWG-ND-0051 PM001-00-P-CHE-QA-7626 PM001-00-W-DWG-ND-0021

20	WATER PIPELINE: Removal of Existing Main	Construction Technical Specification, Standard & Project Drawings	Removal of existing Mains in accordance with spec and IFC plans. AC main to be disposed of in accordance with approved Asbestos management Plan.	All Mains	H	SS			H	SS			Waste Tracking Log, Asbestos Disposal Register, Asbestos Management Plan
21	<u>STORMWATER PIPELINE:</u> Saw Cut road Surface	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042 PBE067-01-W-DWG-ST-3001 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0020 PM001-00-W-DWG-ND-0021 PM001-00-W-DWG-ND-0022	Mark out alignment and trench width required for excavation as per the IFC drawings and survey data.	Prior to excavation	H	PE/SS			S	PE/SS			Photos
22	<u>STORMWATER PIPELINE:</u> Pipe Bedding, Surround Material and Marker Tape	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042 PBE067-01-W-DWG-ST-3001 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0020 PM001-00-W-DWG-ND-0021 PM001-00-W-DWG-ND-0022	<u>IN FOOTPATH:</u> As per trench type C1 PM001-00-W-DWG-ND- 0050_REV3 5mm Gravel (note M1A PM001-00-W- DWG-ND-0051) placed, levelled and compacted. Allow space under Socket to sleeve the Joint. Bedding to be compacted and inspected by LoganWIA rep. Bidim (Geotextile), Detectable watermain Warning Marker Tape placed above pipe surround bedding prior to backfill. Tape to be brought up to surface at valves. Compacted as per C1C PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W- DWG-ND-0021 <u>IN ROADWAY</u> As per trench type L1 PM001-00-W-DWG-ND-0050 or L3 PM001-00-W-DWG-ND-0051	All Bedding material	H	SS			W	PE/SS			Material Cert/Docket Pipeline installation ITC: PM001-00-W-DWG-ND- 0050_REV3 PM001-00-W-DWG-ND-0051 PM001-00-P-CHE-QA-7626 PM001-00-W-DWG-ND-0021
23	<u>STORMWATER PIPELINE:</u> Maintenance hole cut in	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042 PM001-00-W-DWG-ND-0020 PM001-00-W-DWG-ND-0021 PM001-00-W-DWG-ND-0022 PBE067-01-W-DWG-CI-2001	Manhole pit penetration as per drawing PBE067-01-W- DWG-CI-2042. Hydrophilic seal installed as per PBE067- 01-W-DWG-CI-2001	Stormwater maintenance hole penetration	W	SS			W	SS			Photos, Inspection by Site Supervisor

24	Survey Pickup	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042 PBE067-01-W-DWG-ST-3001 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0020 PM001-00-W-DWG-ND-0021 PM001-00-W-DWG-ND-0022	Survey pickup as per requirements outlined in SEQ water supply construction code. (ADAC files)	All Pipeline	H	PE				H	PE/SS		Survey Plans (ADAC data) ITC: PM001-00-P-CHE-QA- 7645
25	<u>WATER PIPELINE:</u> Trench fill and Compaction Surface Reinstatement	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042 PBE067-01-W-DWG-ST-3001 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0020 PM001-00-W-DWG-ND-0021 PM001-00-W-DWG-ND-0022 IPWEAQ RS-065.	As per trench type C1 PM001-00-W-DWG-ND- 0050_REV3 Backfill with removed material as per note M2A and M2B PM001-00-W-DWG-ND-0051. Compact in 200mm layers to Min 95% DDR as AS1289.5.1.1. Compacted as per C2A PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W- DWG-ND-0021. Surface reinstatement as per C1 PM001-00-W-DWG- ND-0050. Footpath to be reinstated based on IPWEAQ RS-065.	All Trenches	H	SS				W	PE/SS		Material Cert/Docket PM001-00-W-DWG-ND- 0050_REV3 PM001-00-W-DWG-ND- 0051_REV3 PM001-00-P-CHE- QA-7772 PM001-00-W-DWG-ND-0021
26	<u>STORMWATER PIPELINE:</u> Trench fill and Compaction Surface Reinstatement	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042 PBE067-01-W-DWG-ST-3001 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0020 PM001-00-W-DWG-ND-0021 PM001-00-W-DWG-ND-0022 IPWEAQ RS-065.	<u>IN FOOTPATH</u> As per trench type C1 PM001-00-W-DWG-ND- 0050_REV3 Backfill with removed material as per note M2A and M2B PM001-00-W-DWG-ND-0051. Compact in 200mm layers to Min 95% DDR as AS1289.5.1.1. Compacted as per C2A PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W- DWG-ND-0021. Surface reinstatement as per L1 PM001-00-W-DWG- ND-0050. Footpath to be reinstated based on IPWEAQ RS-065. <u>IN ROADWAY</u> As per trench type L1 PM001-00-W-DWG-ND-0050 or L3 PM001-00-W-DWG-ND-0051	All Trenches	H	SS				W	PE/SS		Material Cert/Docket PM001-00-W-DWG-ND- 0050_REV3 PM001-00-W-DWG-ND- 0051_REV3 PM001-00-P-CHE- QA-7772 PM001-00-W-DWG-ND-0021 Watermain Backfill & Compaction ITC (PM001-00-P- CHE-QA-7774) NATA Compaction Test Results Material Certificates ITC:PM001-00-P-CHE-QA- 7685 PM001-00-P-CHE-QA-7686

27	Pavement and road re-instatment	1) Scope of works 2) LWIA Standard Drawings 3) SEQ Standard Drawings	Completed and signed off Watermain Backfill & Compaction ITC	After construction	H	SS				W	PE/SS			Watermain Backfill & Compaction ITC (PM001-00-P-CHE-QA-7774) NATA Compaction Test Results Material Certificates ITC:PM001-00-P-CHE-QA-7685 PM001-00-P-CHE-QA-7686
Re-instatment and Demob														
28	Valve & Hydrant Markings	Construction Technical Specification, Standard & Project Drawings	Marker Posts / kerb marking / pavement marking as specified in SEQ-WAT-1300-1 and SEQ-WAT-1300-2.	As Specified	H	SS				S	PE/SS			Photo records
29	Restoration	Scope of works EMP PBE067	All areas affected by construction that are no longer required for future project works have been reinstated to original condition or as specified.	On completion	W	PE/SS				W	PE/SS			Photo, Reinstatement ITC: PM001-00-P-CHE-QA-7673
30	Defect Rectification	Scope of works PBE067 IFC Drawings	Defect walk including LWIA and subcontractor reps has been conducted, all defects transferred onto punch list. All category A and B defects have been rectified by subcontractor and accepted by Downer.	When Lots are deemed ready for inspection by LWIA	H	PE				H	PE			LWIA Punch List PM001-00-P-FOR-PM-9015
26	As-constructed information	IFC Drawings PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2041 PBE067-01-W-DWG-CI-2042	All as-constructed data recorded. Hand sketches provided to LoganWIA for acceptance. Detailed description of works completed / electronic survey.	After construction	H	PE				H	PE			Red line mark up drawings submitted to LWIA
Key : SS - Site Supervisor PE - Project Engineer PM - Project Manager DM - Design Manager				Delivery Partner PE Sign Off:						LoganWIA PE Sign Off:				
R: Report/Record Submitted/Test Results - Test certificates or test reports, shall be received and verified by LoganWIA prior to equipment installation. S: Surveillance - General inspection of tasks and works. No advice required to LoganWIA. H: Hold Point - Mandatory Hold Point. Inspection & sign off required prior to proceeding. Give LoganWIA min 48 hours' notice. W: Witness Point (inspection) - LoganWIA must nominate witness point on the ITP. 24 hours' notice required for LoganWIA nominated witness points. After this period has elapsed, works may proceed if LoganWIA does not attend the inspection.				Date:						Date:				

Inspection & Test Plan

Work Package: PBE067		Inspection/Characteristics		Prepared by: Jay Pery		Reviewed by: Vinoth Kumaar		Endorsed by: Laurence Marano					
Delivery Partner: Pensar		R: Report/Record Submitted/Test Results		Title: LoganWIA Project Engineer		Title: LoganWIA Project Manager		Title: Designer / RPEQ					
ITP No.: PBE067-01-W-ITP-QA-7600		S: Surveillance		Signed:		Signed:		Signed:					
Construction Process: Demolish pit and Air Valve cut in		H: Hold Point		Date:		Date:		Date:					
		W: Witness Point (Inspection)		REVISION: 0		REVISION DATE: 25/03/2020							
Lot No: 4		Lot Description: VBSH013 Rebecca Way - Demolish pit and Scour Valve Cut In											
Job/Activity:					Inspection / Characteristics								
Ref	Process Description	Reference - Spec / Std	Acceptance Criteria	Frequency	Delivery Partner				Logan Water Infrastructure Alliance				Verifying Records
					Status	Resp.	Sign	Date	Status	Resp.	Sign	Date	
Logan WIA 1	Approvals from various stakeholders	Logan Water Infrastructure Alliance Procedures	Sign off from approvals team to confirm all necessary approvals received in order to complete Stage	Prior to commencing works					H	CC			ITP sign off
Logan WIA 2	Community informed of works	Logan Water Infrastructure Alliance Procedures	Sign off from community team to confirm all necessary letter drops and door knocks have occurred in order to complete Stage	Prior to commencing works					H	LC/KH			ITP sign off
Preliminary works and Permits													
1	IFC Drawing	IFC Drawings PBE067-01-W-DWG-CI-2030 PBE067-01-W-DWG-CI-2031 PBE067-01-W-DWG-CI-2032	Current LoganWIA IFC drawing supplied to Delivery Partner	Prior to commencing works	H	PM/PE			H	PM/PE			ITP sign off
2	Material supply	IFC Drawings PBE067-01-W-DWG-CI-2030 PBE067-01-W-DWG-CI-2031 PBE067-01-W-DWG-CI-2032	All pipes and materials are in accordance with IFC drawings undamaged and handed over to the Delivery Partner	Prior to commencing works	H	PE/SS			H	PE/SS			ITC Free Issue Materials, PM001-00-P-CHE-QA-7768
3	Interim Operations Plan	Construction Technical Specification, Scope of Works and Project Drawings PBE067-00-W-CHE-QA-7603	IOP developed for cut-in and signed off by all relevant parties	Prior to works	H	PE			H	PM/PE			Lot IOP
4	Dilapidation Survey	Scope of Works	Thorough photographic records of site before commencement of any works, with notes and comments	Prior to commencing works	S	PE/SS			S	PE/SS			Dilapidation report done
5	Traffic Management	Scope of Works, TGS, TMP	Traffic Management Plan/ Guidance Scheme has been approved for use an implemented as required prior to mobilisation and provision for implementation throughout the works.	Prior to commencing works	H	PE/SS			R	PE/SS			TMP / TGS
6	Environmental Controls installed as required	Project Specifications, EMP and Approved Silt and Sedimentation Control Plan PBE067-00-W-MPL-EN-7100	Environmental controls installed as per approved Silt and Sedimentation Control Plan. Arborist and fauna spotter/catcher have completed necessary trimming and felling in accordance with project EMP.	Entire Site	S	SS			S	SS			Silt and Sedimentation Control Plan
7	Check that an excavation permit has been issued / services are located and removed, relocated or protected	LoganWIA permit to excavate form and a Dial Before You Dig Plan	Excavation permit approved and DBYD are valid. Service to be sprayed up prior to work commencing and all crew to be briefed on location of services.	Prior to commencing works	H	PE/SS			H	PE/SS			Excavation Permit DBYD
8	Site Establishment	IFC Drawings PBE067-01-W-DWG-CI-2030 PBE067-01-W-DWG-CI-2031 PBE067-01-W-DWG-CI-2032	All relevant site documentation and specifications as per IFC drawings are complied with: DBYD, TGS, SWMS, Set outs	Prior to commencing works	H	PE/SS			S	PE/SS			ITC: PM001-00-P-CHE-QA-7646
9	Set out survey	IFC Drawings	Establish, level check and set out excavation in accordance with IFC drawings. Completed by a registered surveyor.	Prior to commencing works	H	PE/SS			H	PE/SS			Calibration certificate for surveying equipment

10	Service Location	Scope of Works	- Dial Before You Dig completed - Existing drawings reviewed - All known service locations confirmed onsite by Ground Penetrating Radar or non destructive excavation.	Prior to excavation	H	PE/SS			H	PE/SS			Service location marked up drawings/photos
11	Excavation wall support	Scope of Works	Excavation walls are stabilised by either benching or battering to code of practice, or through shoring. All nearby existing structures are supported.	1.5m excavation depth	W	PE/SS			W	PE/SS			Geotechnical Engineer inspection report if no support/shoring is used
12	Precast concrete components: class and size	Scope of Works IFC drawings	Precast units are in accordance with drawings and are clean, damage-free and defect-free	All units	H	PE/SS			H	PE/SS/R PEQ Structural Eng./DM			ITP Sign off
13	Materials	Scope of Works IFC drawings	Pipes, fittings and all other ancillary materials supplied and on site in accordance with IFC drawings. Embedment material datasheet has been reviewed and approved (5mm single size aggregate)	Once per lot	H	PE/SS			H	PE/SS			Delivery docket Embedment material datasheet
Construction works													
14	Saw Cut road Surface	IFC Drawings PBE067-01-W-DWG-CI-2030 PBE067-01-W-DWG-CI-2031 PBE067-01-W-DWG-CI-2032	Mark out alignment and trench width required for excavation as per the IFC drawings and survey data. Confirm site geotechnical soil suitability for shoring walls	Prior to excavation	H	PE/SS			S	PE/SS			Photos
15	Excavation to Depth	Construction Technical Specification, Standard & Project IFC Drawings PBE067-01-W-DWG-CI-2030 PBE067-01-W-DWG-CI-2031 PBE067-01-W-DWG-CI-2032	Excavate at correct grade and to correct level satisfy all of the below - min of 300mm thick bedding material (above pipe) - min of 100mm thick bedding material (below pipe) - min cover required over the pipe to surface - Specified IL in IFC Drawings	All Excavations	H	SS			W	PE/SS			ITC Document: PM001-00-P-CHE-QA-7772
16	Pipeline trench excavation	Scope of Works IFC drawings PM001-00-W-DWG-ND-0050 and ND-0051	LoganWIA standard drawing set Type L1 PM001-00-W-DWG-ND-0050 with amendments for upper layers of concrete pavement, Pavement Type C in PM001-01-S-DWG-CI-2030. Trench is excavated to line, level, grade and width. Trench floor is a flat firm base, >50 kPa bearing capacity	Each line	W	PE/SS			W	PE/SS			ITP sign off Compaction Tests Photos
17	Operations to isolate and scour water main	Approved IOP shut down document PBE067-00-W-CHE-QA-7603	Water mains isolated and de pressurized or dewatered	Prior to works on water main	H	PE			S	PE/SS			IOP Signed by Operations
18	Core drilling and decommissioning existing pit	IFC Drawings PBE067-01-W-DWG-CI-2030 PBE067-01-W-DWG-CI-2031 PBE067-01-W-DWG-CI-2032	Core drill existing pit as per IFC drawings. Decommission pit as per IFC drawings. Inspect drainage holes as described on drawings. Drainage holes to have Bidim material as per CI-2032.	Before backfilling	W	PE			S	PE/SS			Issue a Permit to demolish PM001-00-P-FOR-HS-7579 Issue a Permit to cut and drill PM001-00-P-FOR-HS-7576
19	Pipe, Valves and Flanged Fittings pre-assembled disinfected and installed	Construction Technical Specification, Standard & Project Drawings PBE067-01-W-DWG-CI-2030 PBE067-01-W-DWG-CI-2031 PBE067-01-W-DWG-CI-2032	Valves, flanged fittings and Pipes to be installed in accordance with Drawings as specified. Bolts to be tightened in accordance with SEQ-WAT-1313-1(A). And manufactures specification	All valves, flange fittings and Hydrants	H	SS			W	PE/SS			Flange management ITC: PM001-00-P-CHE-QA-7611 Torque Wrench Calib Cert Minor works disinfection ITC: PM001-00-P-CHE-QA-7771

20	Pipe Bedding, Surround Material and Marker Tape	Construction Technical Specification, Standard & Project Drawings	5mm Gravel placed, levelled and compacted. Allow space under Socket to sleeve the Joint. Bedding to be self-compacted and inspected by LoganWIA rep. Bidim (Geotextile), Detectable watermain Warning Marker Tape placed above pipe surround bedding prior to backfill. Tape to be brought up to surface at valves. Compacted as per C1C PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W-DWG-ND-0021	All Bedding material	H	SS			W	PE/SS			Material Cert/Docket Pipeline installation ITC: PM001-00-W-DWG-ND-0050_REV3 PM001-00-W-DWG-ND-0051 PM001-00-P-CHE-QA-7626 PM001-00-W-DWG-ND-0021 Photos
21	Geotech assesment of thrust bearing walls before concrete pour	PM001-00-W-DWG-ND-0021 Size thrust blocks to geotech assesment	Soil tested and results to be compared to geotech assesment on drawing to determine the size of the thrust block to be installed	Before pouring of concrete for thrust support	H	SS			H	DM/SS			ITC: PM001-00-P-CHE-QA-7650 Photos
22	Thrust Blocks	Construction Technical Specification, Standard & Project Drawings	As per standard drawing (SEQ-WAT-1205-1) requirements and Geotechnical reports/penetrometer reading on Ground Conditions. Concrete N20 or greater. Bearing face against undisturbed ground. No spills over the joints. Concrete sufficiently vibrated to ensure sufficient compaction.	All thrust blocks	H	PE			H	PE/SS			Geotechnical report or Photo of Penetrometer Reading. Thrust block installation ITC: PM001-00-P-CHE-QA-7649
23	Survey Pickup	Construction Technical Specification, Standard & Project Drawings	Survey pickup as per requirements outlined in SEQ water supply construction code. (ADAC files)	All Pipeline	H	PE			H	PE/SS			Survey Plans (ADAC data) ITC: PM001-00-P-CHE-QA-7645
24	Trench fill and Compaction	SEQ Watermain Construction Code / Construction Technical Specification, Standard & Project Drawings	As per trench type L1 PM001-00-W-DWG-ND-0050 Backfill Type 2.1 M2A and M2B PM001-00-W-DWG-ND-0051 or as agreed with Supervisor as per notes. Compact in 200mm layers to Min 98% DDR as AS1289.5.1.1. Compacted as per C2A PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W-DWG-ND-0021 100% Compaction within 0.5 m from subgrade.	All Trenches	H	SS			W	DM/SS			Material Cert/Docket PM001-00-W-DWG-ND-0050_REV3 PM001-00-W-DWG-ND-0051_REV3 PM001-00-P-CHE-QA-7772 PM001-00-W-DWG-ND-0021 Compaction Results
25	Road and pavement re-instatment	1) Scope of works 2) LWIA Standard Drawings 3) SEQ Standard Drawings	Completed and signed off Watermain Backfill & Compaction ITC	After construction	H	SS			W	PE/SS			Watermain Backfill & Compaction ITC (PM001-00-P-CHE-QA-7774) NATA Compaction Test Results Material Certificates ITC: Pavement re-instate PM001-00-P-CHE-QA-7685
Re-instatment and Demob													
26	Valve & Hydrant Markings	Construction Technical Specification, Standard & Project Drawings	Marker Posts / kerb marking / pavement marking as specified in SEQ-WAT-1300-1 and SEQ-WAT-1300-2.	As Specified	H	SS			S	SS			Photo records
27	Restoration	Scope of works EMP PBE067	All areas affected by construction that are no longer required for future project works have been reinstated to original condition or as specified.	On completion	W	PE/SS			W	PE/SS			Photo, Reinstatement ITC: PM001-00-P-CHE-QA-7673
28	Defect Rectification	Scope of works PBE067 IFC Drawings	Defect walk including LWIA and subcontractor reps has been conducted, all defects transferred onto punch list. All category A and B defects have been rectified by subcontractor and accepted by Downer.	When Lots are deemed ready for inspection by LWIA	H	PE			H	PE			LWIA Punch List PM001-00-P-FOR-PM-9015
29	As-constructed information	IFC Drawings PBE067-01-W-DWG-CI-2030 PBE067-01-W-DWG-CI-2031 PBE067-01-W-DWG-CI-2032	All as-constructed data recorded. Hand sketches provided to LoganWIA for acceptance. Detailed description of works completed / electronic survey.	After construction	H	PE			H	PE			Red line mark up drawings submitted to LWIA
Key : SS - Site Supervisor PE - Project Engineer PM - Project Manager DM - Design Manager R: Report/Record Submitted/Test Results - Test certificates or test reports, shall be received and verified by LoganWIA prior to equipment installation. S: Surveillance - General inspection of tasks and works. No advice required to LoganWIA H: Hold Point - Mandatory Hold Point. Inspection & sign off required prior to proceeding. Give LoganWIA min 48 hours' notice. W: Witness Point (inspection) - LoganWIA must nominate witness point on the ITP. 24 hours' notice required for LoganWIA nominated witness points. After this period has elapsed, works may proceed if LoganWIA does not attend the inspection.				Delivery Partner PE Sign Off:						LoganWIA PE Sign Off:			
				Date:						Date:			

Inspection & Test Plan

Work Package: PBE067		Inspection/Characteristics		Prepared by: Jay Pery		Reviewed by : Mark O'Connor		Endorsed by: Laurence Marano					
Delivery Partner: Pensar		R: Report/Record Submitted/Test Results		Title: LoganWIA Project Supervisor		Title: LoganWIA Project Manager		Title: Designer / RPEQ					
ITP No.: PBE067-01-W-ITP-QA-7600		S: Surveillance		Signed :		Signed :		Signed :					
Construction Process: Demolish pit and Valve removal		H: Hold Point		Date :		Date :		Date :					
		W: Witness Point (inspection)		REVISION: 0		REVISION DATE: 25/03/2020							
Lot No: 7		Lot Description: VBKP021 Bryants Road Site 2 -Demolish pit and Valve removal											
Job/Activity:					Inspection / Characteristics								
Ref	Process Description	Reference - Spec / Std	Acceptance Criteria	Frequency	Delivery Partner				Logan Water Infrastructure Alliance				Verifying Records
					Status	Resp.	Sign	Date	Status	Resp.	Sign	Date	
Logan WIA 1	Approvals from various stakeholders	Logan Water Infrastructure Alliance Procedures	Sign off from approvals team to confirm all necessary approvals received in order to complete Stage	Prior to commencing works					H	CC			ITP sign off
Logan WIA 2	Community informed of works	Logan Water Infrastructure Alliance Procedures	Sign off from community team to confirm all necessary letter drops and door knocks have occurred in order to complete Stage	Prior to commencing works					H	LC/KH			ITP sign off
Preliminary works and Permits													
1	IFC Drawing	IFC Drawings PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2043	Current LoganWIA IFC drawing supplied to Delivery Partner	Prior to commencing works	H	PM/PE			H	PM/PE			ITP sign off
2	Material supply	IFC Drawings PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2043	All pipes and materials are in accordance with IFC drawings undamaged and handed over to the Delivery Partner	Prior to commencing works	H	PE/SS			H	PE/SS			ITC Free Issue Materials, PM001-00-P-CHE-QA-7768
3	Interim Operations Plan	Construction Technical Specification, Scope of Works and Project Drawings PBE067-00-W-CHE-QA-7606	IOP developed for cut-in and signed off by all relevant parties	Prior to works	H	PE			H	PM/PE			Lot IOP
4	Dilapidation Survey	Scope of Works	Thorough photographic records of site before commencement of any works, with notes and comments	Prior to commencing works	S	PE/SS			S	PE/SS			Dilapidation report done
5	Traffic Management	Scope of Works, TGS, TMP	Traffic Management Plan/ Guidance Scheme has been approved for use an implemented as required prior to mobilisation and provision for implementation throughout the works.	Prior to commencing works	H	PE/SS			R	PE/SS			TMP / TGS
6	Environmental Controls installed as required	Project Specifications, EMP and Approved Silt and Sedimentation Control Plan PBE067-00-W-MPL-EN-7100	Environmental controls installed as per approved Silt and Sedimentation Control Plan. Arborist and fauna spotter/catcher have completed necessary trimming and felling in accordance with project EMP.	Entire Site	S	SS			S	SS			Silt and Sedimentation Control Plan
7	Check that an excavation permit has been issued / services are located and removed, relocated or protected	LoganWIA permit to excavate form and a Dial Before You Dig Plan	Excavation permit approved and DBYD are valid. Service to be sprayed up prior to work commencing and all crew to be briefed on location of services.	Prior to commencing works	H	PE/SS			H	PE/SS			Excavation Permit DBYD
8	Site Establishment	IFC Drawings PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2043	All relevant site documentation and specifications as per IFC drawings are complied with: DBYD, TGS, SWMS, Set outs	Prior to commencing works	H	PE/SS			S	PE/SS			ITC: PM001-00-P-CHE-QA-7646
9	Set out survey	IFC Drawings	Establish, level check and set out excavation in accordance with IFC drawings. Completed by a registered surveyor.	Prior to commencing works	H	PE/SS			H	PE/SS			Calibration certificate for surveying equipment
10	Service Location	Scope of Works	• Dial Before You Dig completed • Existing drawings reviewed • All known service locations confirmed onsite by Ground Penetrating Radar or non destructive excavation.	Prior to excavation	H	PE/SS			H	PE/SS			Service location marked up drawings/photos
11	Materials	Scope of Works IFC drawings PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2043	Pipes, fittings and all other ancillary materials supplied and on site in accordance with IFC drawings. Embedment material datasheet has been reviewed and approved (5mm single size aggregate)	Once per lot	H	PE/SS			H	PE/SS			Delivery docket Embedment material datasheet
Construction works													

12	Pit internal support	Bryants road pit to be internally braced as per Logan WIA specifications. See propping sketch LWIA - Form 15 - 2020 02 20	Sub contractor to supply layout design based on Logan WIA sketch with accompanying Subcontractors RPEQ Support Design	Before pit lid removal	H	PE			H	PE/SS			Supports shown to be in accordance with Subcontractors RPEQ drawing - Form 15 - 2020 02 20 Photographic evidence
13	Excavation and ground preparation	As per IFC drawing PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2043 PBE067-01-W-DWG-ST-3001 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0022	ITC's PM001-00-P-CHE-QA-7638 and PM001-00-P-CHE-QA-7760 is completed and signed by Delivery Partner and LoganWIA reps.	prior to excavation	W	PE/SS			S	PE/SS			ITC signed PM001-00-P-CHE-QA-7638 and PM001-00-P-CHE-QA-7760
14	Operations to isolate and scour water main	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2043 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0022	Water mains isolated and de pressurized or dewatered	Prior to works on water main	H	PE			S	PE/SS			IOP PBE067-00-W-CHE-QA-7606 Signed by Operations
15	Pipe, Valves and Flanged Fittings pre-assembled disinfected and installed	Construction Technical Specification, Standard & Project Drawings PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2043 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0022	Valves, flanged fittings and Pipes to be installed in accordance with Drawings as specified. Bolts to be tightened in accordance with SEQ-WAT-1313-1(A). And manufactures specification	All valves, flange fittings and Hydrants	H	SS			W	PE/SS			Flange management ITC: PM001-00-P-CHE-QA-7611 Torque Wrench Calib Cert Minor works disinfection ITC: PM001-00-P-CHE-QA-7771
16	Core drilling drainage holes	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2043 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0022	Inspect drainage holes are as described on drawings. Drainage holes to have Bidim material as per CI-2043.	Prior to works on water main	W	PE/SS			W	PE/SS			Photos
17	Removal of Existing Main	Construction Technical Specification, Standard & Project Drawings	Removal of existing Mains in accordance with spec and IFC plans. AC main to be disposed of in accordance with approved Asbestos management Plan.	All Mains	H	SS			H	SS			Waste Tracking Log, Asbestos Disposal Register, Asbestos Management Plan
18	Core drilling and decommissioning existing pit	IFC Drawings PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2043	Core drill existing pit as per IFC drawings. Decommission pit as per IFC drawings	Before backfilling	W	PE			S	PE/SS			Issue a Permit to demolish PM001-00-P-FOR-HS-7579 Issue a Permit to cut and drill PM001-00-P-FOR-HS-7576
19	Pipe Bedding, Surround Material and Marker Tape	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2043 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0022	As per trench type L1 PM001-00-W-DWG-ND-0050_REV3 5mm Gravel (note M1A PM001-00-W-DWG-ND-0051) placed, levelled and compacted. Allow space under Socket to sleeve the Joint. Bedding to be compacted and inspected by LoganWIA rep. Bidim (Geotextile), Detectable watermain Warning Marker Tape placed above pipe surround bedding prior to backfill. Tape to be brought up to surface at valves. Compacted as per C1C PM001-00-W-DWG-ND-0051.	All Bedding material	H	SS			W	PE/SS			Material Cert/Docket Pipeline installation ITC: PM001-00-W-DWG-ND-0050_REV3 PM001-00-W-DWG-ND-0051 PM001-00-P-CHE-QA-7626 PM001-00-W-DWG-ND-0021

20	Survey Pickup	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2043 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0022	Survey pickup as per requirements outlined in SEQ water supply construction code. (ADAC files)	All Pipeline	H	PE			H	PE/SS			Survey Plans (ADAC data) ITC: PM001-00-P-CHE-QA- 7645
21	Trench fill and Compaction	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2043 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0022	As per trench type C1 PM001-00-W-DWG-ND- 0050_REV3 Backfill with removed material as per note M2A and M2B PM001-00-W-DWG-ND-0051 or as agreed with Supervisor as per notes. Compact in 200mm layers to Min 98% DDR as AS1289.5.1.1. 100% compaction is being achieved as per note C2B within 0.5m from the subgrade level. Compacted as per C2A and B PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W-DWG-ND-0021. Surface reinstatement as per L1 PM001-00-W-DWG-ND- 0050.	All Trenches	H	SS			W	PE/SS			Material Cert/Docket PM001-00-W-DWG-ND- 0050_REV3 PM001-00-W-DWG-ND- 0051_REV3 PM001-00-P-CHE- QA-7772 PM001-00-W-DWG-ND-0021 Watermain Backfill & Compaction ITC (PM001-00-P- CHE-QA-7774) NATA Compaction Test Results Material Certificates ITC:PM001-00-P-CHE-QA-7685 PM001-00-P-CHE-QA-7686
22	Pavement and road re- instatment	1) Scope of works 2) LWIA Standard Drawings 3) SEQ Standard Drawings	Completed and signed off Watermain Backfill & Compaction ITC Reinstate any damaged traffic signalling cables.	After construction	H	SS			W	PE/SS			Watermain Backfill & Compaction ITC (PM001-00-P- CHE-QA-7774) NATA Compaction Test Results Material Certificates ITC:PM001-00-P-CHE-QA-7685 PM001-00-P-CHE-QA-7686
Re-instatment and Demob													
23	Valve & Hydrant Markings	Construction Technical Specification, Standard & Project Drawings	Marker Posts / kerb marking / pavement marking as specified in SEQ-WAT-1300-1 and SEQ-WAT-1300-2.	As Specified	H	SS			S	PE/SS			Photo records
24	Restoration	Scope of works EMP PBE067	All areas affected by construction that are no longer required for future project works have been reinstated to original condition or as specified.	On completion	W	PE/SS			W	PE/SS			Photo, Reinstatement ITC: PM001-00-P-CHE-QA-7673
25	Defect Rectification	Scope of works PBE067 IFC Drawings	Defect walk including LWIA and subcontractor reps has been conducted, all defects transferred onto punch list. All category A and B defects have been rectified by subcontractor and accepted by Downer.	When Lots are deemed ready for inspection by LWIA	H	PE			H	PE			LWIA Punch List PM001-00-P-FOR-PM-9015
26	As-constructed information	IFC Drawings PBE067-01-W-DWG-CI-2040 PBE067-01-W-DWG-CI-2043	All as-constructed data recorded. Hand sketches provided to LoganWIA for acceptance. Detailed description of works completed / electronic survey.	After construction	H	PE			H	PE			Red line mark up drawings submitted to LWIA
Key : SS - Site Supervisor PE - Project Engineer PM - Project Manager DM - Design Manager				Delivery Partner PE Sign Off:					LoganWIA PE Sign Off:				
R: Report/Record Submitted/Test Results - Test certificates or test reports, shall be received and verified by LoganWIA prior to equipment installation. S: Surveillance - General inspection of tasks and works. No advice required to LoganWIA H: Hold Point - Mandatory Hold Point. Inspection & sign off required prior to proceeding. Give LoganWIA min 48 hours' notice. W: Witness Point (inspection) - LoganWIA must nominate witness point on the ITP. 24 hours' notice required for LoganWIA nominated witness points. After this period has elapsed, works may proceed if LoganWIA does not attend the inspection.				Date:					Date:				

Inspection & Test Plan

Work Package: PBE067		Inspection/Characteristics		Prepared by: Brett Davey		Reviewed by: Mark O'Connor		Endorsed by: Laurence Marano					
Delivery Partner: Pensar		R: Report/Record Submitted/Test Results		Title: LoganWIA Project Supervisor		Title: LoganWIA Project Manager		Title: Designer / RPEQ					
ITP No.: PBE067-01-W-ITP-QA-7600		S: Surveillance		Signed:		Signed:		Signed:					
Construction Process: Pit wall construct and Valve cut in		H: Hold Point		Date:		Date:		Date:					
		W: Witness Point (inspection)		REVISION: 0		REVISION DATE: 10/10/2019							
Lot No: 5		Lot Description: VBIW021 - Pit wall construct and Valve cut in											
Job/Activity:					Inspection / Characteristics								
Ref	Process Description	Reference - Spec / Std	Acceptance Criteria	Frequency	Delivery Partner				Logan Water Infrastructure Alliance				Verifying Records
					Status	Resp.	Sign	Date	Status	Resp.	Sign	Date	
Logan WIA 1	Approvals from various stakeholders	Logan Water Infrastructure Alliance Procedures	Sign off from approvals team to confirm all necessary approvals received in order to complete Stage	Prior to commencing works					H	CC			ITP sign off
Logan WIA 2	Community informed of works	Logan Water Infrastructure Alliance Procedures	Sign off from community team to confirm all necessary letter drops and door knocks have occurred in order to complete Stage	Prior to commencing works					H	LC/KH			ITP sign off
Preliminary works and Permits													
1	IFC Drawing	IFC Drawings PBE067-01-W-DWG-CI-2080 PBE067-01-W-DWG-CI-2081 PBE067-01-W-DWG-CI-2082	Current LoganWIA IFC drawing supplied to Delivery Partner	Prior to commencing works	H	PM/PE			H	PM/PE			ITP sign off
2	Material supply	IFC Drawings PBE067-01-W-DWG-CI-2080 PBE067-01-W-DWG-CI-2081 PBE067-01-W-DWG-CI-2082	All pipes and materials are in accordance with IFC drawings undamaged and handed over to the Delivery Partner	Prior to commencing works	H	PE/SS			H	PE/SS			ITC Free Issue Materials, PM001-00-P-CHE-QA-7768
3	Interim Operations Plan	Construction Technical Specification, Scope of Works and Project Drawings PBE067-00-W-CHE-QA-7604	IOP developed for cut-in and signed off by all relevant parties	Prior to works	H	PE			H	PM/PE			Lot IOP
4	Dilapidation Survey	Scope of Works	Thorough photographic records of site before commencement of any works, with notes and comments	Prior to commencing works	S	PE/SS			S	PE/SS			Dilapidation report done
5	Environmental Controls installed as required	Project Specifications, EMP and Approved Silt and Sedimentation Control Plan PBE067-00-W-MPL-EN-7100	Environmental controls installed as per approved Silt and Sedimentation Control Plan. Arborist and fauna spotter/catcher have completed necessary trimming and felling in accordance with project EMP.	Entire Site	S	SS			S	SS			Silt and Sedimentation Control Plan
6	Check that an excavation permit has been issued / services are located and removed, relocated or protected	LoganWIA permit to excavate form and a Dial Before You Dig Plan	Excavation permit approved and DBYD are valid. Service to be sprayed up prior to work commencing and all crew to be briefed on location of services.	Prior to commencing works	H	PE/SS			H	PE/SS			Excavation Permit DBYD
7	Site Establishment	IFC Drawings PBE067-01-W-DWG-CI-2080 PBE067-01-W-DWG-CI-2081 PBE067-01-W-DWG-CI-2082	All relevant site documentation and specifications as per IFC drawings are complied with: DBYD, TGS, SWMS, Set outs	Prior to commencing works	H	PE/SS			S	PE/SS			ITC: PM001-00-P-CHE-QA-7646
Construction works													
8	Excavation to Depth	Construction Technical Specification, Standard & Project IFC Drawings PBE067-01-W-DWG-CI-2080 PBE067-01-W-DWG-CI-2081 PBE067-01-W-DWG-CI-2082	Excavate at correct grade and to correct level satisfy all of the below - min of 150mm thick bedding material (above pipe) - min of 100mm thick bedding material (below pipe) - min cover required over the pipe to surface - Specified IL in IFC Drawings	All Excavations	H	SS			W	SS			ITC Document: PM001-00-P-CHE-QA-7772

9	Operations to isolate and scour water main	Approved IOP shut down document PBE067-00-W-CHE-QA-7604	Water mains isolated and de pressurized or dewatered	Prior to works on water main	H	PE			H	PE/SS			IOP Signed by Operations
10	Pipe, Valves and Flanged Fittings pre-assembled disinfected and installed	Construction Technical Specification, Standard & Project Drawings PBE067-01-W-DWG-CI-2080 PBE067-01-W-DWG-CI-2081 PBE067-01-W-DWG-CI-2082	Valves, flanged fittings and Pipes to be installed in accordance with Drawings as specified. Bolts to be tightened in accordance with SEQ-WAT-1313-1(A). And manufactures specification	All valves, flange fittings and Hydrants	H	SS			W	PE/SS			Flange management ITC: PM001-00-P-CHE-QA-7611 Torque Wrench Calib Cert Minor works disinfection ITC: PM001-00-P-CHE-QA-7771
11	Geotech assesment of thrust bearing walls before concrete pour	PM001-00-W-DWG-ND-0021 Size thrust blocks to geotech assesment	Soil tested and results to be compared to geotech assesment on drawing to determine the size of the thrust block to be installed	Before pouring of concrete for thrust support	H	SS			H	DM/SS			ITC: PM001-00-P-CHE-QA-7650
12	Form, Reo and pour pit wall	As per IFC drawing PBE067-01-W-DWG-ST-3005 PBE067-01-W-DWG-CI-2081 CI-2003 and PM001-00-W-DWG-ND-0022	1) steel reinforcement as per design drawings. 2) pipework to be cast into wall at correct heigh, with puddle flanges central and extra reinforcement installed as per drawing 3) formwork installed. Suitably restrained to prevent shifting or bowing. 4) Concrete to be S40/20 and approved as per Note CC7 on drawing PM001-00-W-DWG-ND-0022	Prior to start concrete work	H	PE/SS			H	DM/SS			ITC: PM001-00-P-CHE-QA-7672 Pre-Concrete Pour REV 1, Photos, Concrete Docket
14	Pipe Bedding, Surround Material and Marker Tape	Construction Technical Specification, Standard & Project Drawings	5mm Gravel placed, levelled and compacted. Allow space under Socket to sleeve the Joint. Bedding to be self-compacted and inspected by LoganWIA rep. Bidim (Geotextile), Detectable watermain Warning Marker Tape placed above pipe surround bedding prior to backfill. Tape to be brought up to surface at valves.Compacted as per C1C PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W-DWG-ND-0021	All Bedding material	H	SS			W	SS			Material Cert/Docket Pipeline installation ITC: PM001-00-W-DWG-ND-0050_REV3 PM001-00-W-DWG-ND-0051 PM001-00-P-CHE-QA-7626 PM001-00-W-DWG-ND-0021
15	Survey Pickup	Construction Technical Specification, Standard & Project Drawings	Survey pickup as per requirements outlined in SEQ water supply construction code. (ADAC files)	All Pipeline	H	PE			H	PE/SS			Survey Plans (ADAC data) ITC: PM001-00-P-CHE-QA-7645
16	Trench fill and Compaction	SEQ Watermain Construction Code / Construction Technical Specification, Standard & Project Drawings	As per trench type C1 PM001-00-W-DWG-ND-0050_REV3 Backfill with removed material as per note M2A and M2B PM001-00-W-DWG-ND-0051 or as agreed with Supervisor as per notes. Compact in 200mm layers to Min 95% DDR as AS1289.5.1.1. Compacted as per C2A PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W-DWG-ND-0021,	All Trenches	H	SS			W	PE/SS			Material Cert/Docket PM001-00-W-DWG-ND-0050_REV3 PM001-00-W-DWG-ND-0051_REV3 PM001-00-P-CHE-QA-7772 PM001-00-W-DWG-ND-0021
17	Pavement re-instatment	1) Scope of works 2) LWIA Standard Drawings 3) SEQ Standard Drawings	Completed and signed off Watermain Backfill & Compaction ITC	After construction	H	SS			W	PE/SS			Watermain Backfill & Compaction ITC (PM001-00-P-CHE-QA-7774) NATA Compaction Test Results Material Certificates ITC: Pavement re-instate PM001-00-P-CHE-QA-7685
Re-instatment and Demob													
18	Valve & Hydrant Markings	Construction Technical Specification, Standard & Project Drawings	Marker Posts / kerb marking / pavement marking as specified in SEQ-WAT-1300-1 and SEQ-WAT-1300-2.	As Specified	H	SS			S	SS			Photo records
19	Restoration	Scope of works EMP PBE067	All areas affected by construction that are no longer required for future project works have been reinstated to original condition or as specified.	On completion	W	PE/SS			W	PE/SS			Photo, Reinstatement ITC: PM001-00-P-CHE-QA-7673

20	Defect Rectification	Scope of works PBE067 IFC Drawings	Defect walk including LWIA and subcontractor reps has been conducted, all defects transferred onto punch list. All category A and B defects have been rectified by subcontractor and accepted by Downer.	When Lots are deemed ready for inspection by LWIA	H	PE			H	PE			LWIA Punch List PM001-00-P-FOR-PM-9015
21	As-constructed information	IFC Drawings PBE067-01-W-DWG-CI-2080 PBE067-01-W-DWG-CI-2081 PBE067-01-W-DWG-CI-2082	All as-constructed data recorded. Hand sketches provided to LoganWIA for acceptance. Detailed description of works completed / electronic survey.	After construction	H	PE			H	PE			Red line mark up drawings submitted to LWIA
Key : SS - Site Supervisor PE - Project Engineer PM - Project Manager DM - Design Manager R: Report/Record Submitted/Test Results - Test certificates or test reports, shall be received and verified by LoganWIA prior to equipment installation. S: Surveillance - General inspection of tasks and works. No advice required to LoganWIA H: Hold Point - Mandatory Hold Point. Inspection & sign off required prior to proceeding. Give LoganWIA min 48 hours' notice. W: Witness Point (inspection) - LoganWIA must nominate witness point on the ITP. 24 hours' notice required for LoganWIA nominated witness points. After this period has elapsed, works may proceed if LoganWIA does not attend the inspection.				Delivery Partner PE Sign Off:					LoganWIA PE Sign Off:				
				Date:					Date:				

Inspection & Test Plan

Work Package:	PBE067	Inspection/Characteristics	Prepared by: Jay Pery	Reviewed by: Mark O'Connor	Endorsed by: Anthony Domanti
Delivery Partner:	Pensar	R: Report/Record Submitted/Test Results	Title: LoganWIA Project Engineer	Title: LoganWIA Project Manager	Title: Designer / RPEQ
ITP No.:	PBE067-01-W-ITP-QA-7600	S: Surveillance	Signed: _____	Signed: _____	Signed: _____
Construction Process:	Valve pit construction and Valve cut in	H: Hold Point	Date: _____	Date: _____	Date: _____
		W: Witness Point (inspection)	REVISION: 0	REVISION DATE: 22/04/2020	
Lot No:	8	Lot Description: VBIW073 Site 1 - Valve pit construction and Valve cut in			

Job/Activity:					Inspection / Characteristics							
Ref	Process Description	Reference - Spec / Std	Acceptance Criteria	Frequency	Delivery Partner				Logan Water Infrastructure Alliance			
					Status	Resp.	Sign	Date	Status	Resp.	Sign	Date
Logan WIA 1	Approvals from various stakeholders	Logan Water Infrastructure Alliance Procedures	Sign off from approvals team to confirm all necessary approvals received in order to complete Stage	Prior to commencing works					H	CC		
Logan WIA 2	Community informed of works	Logan Water Infrastructure Alliance Procedures	Sign off from community team to confirm all necessary letter drops and door knocks have occurred in order to complete Stage	Prior to commencing works					H	LC/KH		

Preliminary works and Permits												
1	IFC Drawing	IFC Drawings PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2091 PBE067-01-W-DWG-CI-2094 PBE067-01-W-DWG-ST-3007 PBE067-01-W-DWG-ST-3009	Current LoganWIA IFC drawing supplied to Delivery Partner	Prior to commencing works	H	PM/PE			H	PM/PE		ITP sign off
2	Material supply	IFC Drawings PBE067-01-W-DWG-CI-2091 PBE067-01-W-DWG-ST-3007 PBE067-01-W-DWG-ST-3009	All pipes and materials are in accordance with IFC drawings undamaged and handed over to the Delivery Partner	Prior to commencing works	H	PE/SS			H	PE/SS		ITC Free Issue Materials, PM001-00-P-CHE-QA-7768
3	Interim Operations Plan	Construction Technical Specification, Scope of Works and Project Drawings PBE067-00-W-CHE-QA-7607	IOP developed for cut-in and signed off by all relevant parties	Prior to works	H	PE			H	PM/PE		Lot IOP
4	Dilapidation Survey	Scope of Works	Thorough photographic records of site before commencement of any works, with notes and comments	Prior to commencing works	S	PE/SS			S	PE/SS		Dilapidation report done
5	Traffic Management	Scope of Works, TGS, TMP	Traffic Management Plan/ Guidance Scheme has been approved for use and implemented as required prior to mobilisation and provision for implementation throughout the works.	Prior to commencing works	H	PE/SS			R	PE/SS		TMP / TGS
6	Environmental Controls installed as required	Project Specifications, EMP and Approved Silt and Sedimentation Control Plan PBE067-00-W-MPL-EN-7100	Environmental controls installed as per approved Silt and Sedimentation Control Plan. Arborist and fauna spotter/catcher have completed necessary trimming and felling in accordance with project EMP.	Entire Site	S	SS			S	SS		Silt and Sedimentation Control Plan
7	Check that an excavation permit has been issued / services are located and removed, relocated or protected	LoganWIA permit to excavate form and a Dial Before You Dig Plan	Excavation permit approved and DBYD are valid. Service to be sprayed up prior to work commencing and all crew to be briefed on location of services.	Prior to commencing works	H	PE/SS			H	PE/SS		Excavation Permit DBYD
8	Site Establishment	IFC Drawings PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2091 PBE067-01-W-DWG-CI-2094 PBE067-01-W-DWG-ST-3007 PBE067-01-W-DWG-ST-3009	All relevant site documentation and specifications as per IFC drawings are complied with: DBYD, TGS, SWMS, Set outs	Prior to commencing works	H	PE/SS			S	PE/SS		ITC: PM001-00-P-CHE-QA-7646

Construction works

9	Geotech assesment of thrust bearing walls before concrete pour	PM001-00-W-DWG-ND-0021 Size thrust blocks to geotech assesment	Soil tested and results to be compared to geotech assesment on drawing PM001-00-W-DWG-ND-0021 to determine the size of the thrust block to be installed	Before pouring of concrete for thrust support	H	SS			H	DM/SS			ITC: PM001-00-P-CHE-QA-7650
10	Excavation and ground preperation	As per IFC drawing PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2091 PBE067-01-W-DWG-ST-3007 PBE067-01-W-DWG-ND-0022	ITC's-PM001-00-P-CHE-QA-7638 and PM001-00-P-CHE-QA-7760 is completed and signed by Delivery Partner and LoganWIA reps.	prior to pouring blinding layer	W	PE/SS			S	PE/SS			ITC signed PM001-00-P-CHE-QA-7638 and PM001-00-P-CHE-QA-7760
11	Pour blinding layer	As per IFC drawing PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2091 PBE067-01-W-DWG-ST-3007 PBE067-01-W-DWG-ND-0022	50mm thick N20 blinding concrete placed to specified level. Sump detail correct	Prior to start concrete work	H	PE/SS			W	PE/SS			PM001-00-P-CHE-QA-7672 Pre-Concrete Pour REV 1, Photos, Concrete Docket
12	Form, Reo and pour valve pit base	As per IFC drawing PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2091 PBE067-01-W-DWG-ST-3007 PBE067-01-W-DWG-ND-0022	1) steel reinforcement as per design drawings. 2) starter bars for walls tied into base as per design 3) starter bars for plinths tied into base as per design 4) sump reinforcement and block out installed including recess for cover. Sump to be as per detail PBE067-01-W-DWG-ST-3001 5) floor to be locally thickened to accommodate 1:100 fall toward the sump, ensuring 300mm clearance to underside of flanges 6) Concrete to be S40/20 and approved as per Note CC7 on drawing PM001-00-W-DWG-ND-0022 7) formwork suitable for pour	Prior to start concrete work	H	PE/SS			H	PE			PM001-00-P-CHE-QA-7672 Pre-Concrete Pour REV 1, Photos, Concrete Docket
13	Operations to isolate and scour water main	Approved IOP shut down document PBE067-00-W-CHE-QA-7607	Water mains isolated and de pressurized or dewatered	Prior to works on water main	H	PE			H	PE/SS			IOP Signed by Operations
14	Pipe, Valves and Flanged Fittings pre-assembled disinfected and installed	Construction Technical Specification, Standard & Project Drawings PBE067-01-W-DWG-CI-2091 PBE067-01-W-DWG-CI-2094	Valves, flanged fittings and Pipes to be installed in accordance with Drawings as specified. Bolts to be tightened in accordance with SEQ-WAT-1313-1(A). And manufactures specification	All valves, flange fittings and Hydrants	H	SS			W	PE/SS			Flange management ITC: PM001-00-P-CHE-QA-7611 Torque Wrench Calib Cert Minor works disinfection ITC: PM001-00-P-CHE-QA-7771
15	Dismantling joint installed	Construction Technical Specification, Standard & Project Drawings PBE067-01-W-DWG-CI-2091 PBE067-01-W-DWG-CI-2094	Steel mains compact dismantling joint to be installed in accordance with Drawings as specified. Bolts to be tightened in accordance with WSA 109-2011 Appendix E and steel mains compact dismantling joint installation prcedure	Dismantling joint	H	SS			H	DM			Flange management ITC: PM001-00-P-CHE-QA-7611 Torque Wrench Calib Cert Minor works disinfection ITC: PM001-00-P-CHE-QA-7771
16	Form, Reo and pour valve pit walls	As per IFC drawing PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2091 PBE067-01-W-DWG-ST-3007 PBE067-01-W-DWG-ND-0022	1) steel reinforcement as per design drawings. 2) pipework to be cast into wall at correct heigh, with puddle flanges central and extra reinforcement installed as per drawing 3) formwork installed. Suitably restrained to prevent shifting or bowing. 4) Concrete to be S40/20 and approved as per Note CC7 on drawing PM001-00-W-DWG-ND-0022	Prior to start concrete work	H	PE/SS			H	PE			PM001-00-P-CHE-QA-7672 Pre-Concrete Pour REV 1, Photos, Concrete Docket
17	Form, Reo and pour valve pit cover	As per IFC drawing PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2091 PBE067-01-W-DWG-ST-3007 PBE067-01-W-DWG-ND-0022	1) steel reinforcement as per design drawings. 2) formwork installed. Suitably restrained to prevent shifting or bowing. 3) Concrete to be S40/20 and approved as per Note CC7 on drawing PM001-00-W-DWG-ND-0022 4) location of valve box Cast into slab correct and suits on site construction	Prior to start concrete work	H	PE/SS			H	PE			PM001-00-P-CHE-QA-7672 Pre-Concrete Pour REV 1, Photos, Concrete Docket. signed off RPEQ form 15 by contactor for lifting points.
18	Form, Reo and pour valve pit Thrust	As per IFC drawing PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2091 PBE067-01-W-DWG-ST-3007 PBE067-01-W-DWG-ND-0022	1) steel reinforcement as per design drawings. 2) formwork installed. Suitably restrained to prevent shifting or bowing. 3) Early strength concrete to achieve 20MPa within 24 hours, concrete strength testing to be undertaken via Schmidt hammer or similar testing	Prior to start concrete work	H	PE/SS			H	DM			PM001-00-P-CHE-QA-7672 Pre-Concrete Pour REV 1, Photos, Concrete Docket

19	Hydrostatic pressure testing	IFC Drawings PBE067-01-W-DWG-CI-2091 DWG-CI-2000 PBE067-01-W-DWG-CI-2001 See note 7	Water main pipe has passed pressure test by hydrostatic test method in accordance with clause 19.4 of SEQ WS&S D&C Code Amendment to WSA03-2011	After construction	H	PE/SS			H	DM/SS			ITC: PM001-00-P-CHE-QA-7636 Hydrostatic pressure testing Calibration certificates, Nata accredited test report
20	Pipe Bedding, Surround Material and Marker Tape	Construction Technical Specification, Standard & Project Drawings	5mm Gravel placed, levelled and compacted. Allow space under Socket to sleeve the Joint. Bedding to be self-compacted and inspected by LoganWIA rep. Bidim (Geotextile), Detectable watermain Warning Marker Tape placed above pipe surround bedding prior to backfill. Tape to be brought up to surface at valves.Compacted as per C1C PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W-DWG-ND-0021	All Bedding material	H	SS			W	SS			Material Cert/Docket Pipeline installation ITC: PM001-00-W-DWG-ND-0050_REV3 PM001-00-W-DWG-ND-0051 PM001-00-P-CHE-QA-7626 PM001-00-W-DWG-ND-0021
21	Survey Pickup	Construction Technical Specification, Standard & Project Drawings	Survey pickup as per requirements outlined in SEQ water supply construction code. (ADAC files)	All Pipeline	H	PE			H	PE/SS			Survey Plans (ADAC data) ITC: PM001-00-P-CHE-QA-7645
22	Trench fill and Compaction	SEQ Watermain Construction Code / Construction Technical Specification, Standard & Project Drawings	As per trench type C1 PM001-00-W-DWG-ND-0050_REV3 Backfill with removed material as per note M2A and M2B PM001-00-W-DWG-ND-0051 or as agreed with Supervisor as per notes. Compact in 200mm layers to Min 95% DDR as AS1289.5.1.1. Compacted as per C2A PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W-DWG-ND-0021.	All Trenches	H	SS			W	PE/SS			Material Cert/Docket PM001-00-W-DWG-ND-0050_REV3 PM001-00-W-DWG-ND-0051_REV3 PM001-00-P-CHE-QA-7772 PM001-00-W-DWG-ND-0021
23	Pavement and road re-instatment	1) Scope of works 2) LWIA Standard Drawings 3) SEQ Standard Drawings	Completed and signed off Watermain Backfill & Compaction ITC	After construction	H	SS			W	PE/SS			Watermain Backfilll & Compaction ITC (PM001-00-P-CHE-QA-7774) NATA Compaction Test Results Material Certificates ITC: Pavement re-instate PM001-00-P-CHE-QA-7685
Re-instatment and Demob													
24	Valve & Hydrant Markings	Construction Technical Specification, Standard & Project Drawings	Marker Posts / kerb marking / pavement marking as specified in SEQ-WAT-1300-1 and SEQ-WAT-1300-2.	As Specified	H	SS			S	SS			Photo records
25	Restoration	Scope of works EMP PBE067	All areas affected by construction that are no longer required for future project works have been reinstated to original condition or as specified.	On completion	W	PE/SS			W	PE/SS			Photo, Reinstatement ITC: PM001-00-P-CHE-QA-7673
26	Defect Rectification	Scope of works PBE067 IFC Drawings	Defect walk including LWIA and subcontractor reps has been conducted, all defects transferred onto punch list. All category A and B defects have been rectified by subcontractor and accepted by Downer.	When Lots are deemed ready for inspection by LWIA	H	PE			H	PE			LWIA Punch List PM001-00-P-FOR-PM-9015
27	As-constructed information	IFC Drawings PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2091 PBE067-01-W-DWG-CI-2094 PBE067-01-W-DWG-ST-3007 PBE067-01-W-DWG-ST-3009	All as-constructed data recorded. Hand sketches provided to LoganWIA for acceptance. Detailed description of works completed / electronic survey.	After construction	H	PE			H	PE			Red line mark up drawings submitted to LWIA
Key : SS - Site Supervisor PE - Project Engineer PM - Project Manager DM - Design Manager R: Report/Record Submitted/Test Results - Test certificates or test reports, shall be received and verified by LoganWIA prior to equipment installation. S: Surveillance - General inspection of tasks and works. No advice required to LoganWIA H: Hold Point - Mandatory Hold Point. Inspection & sign off required prior to proceeding. Give LoganWIA min 48 hours' notice. W: Witness Point (inspection) - LoganWIA must nominate witness point on the ITP. 24 hours' notice required for LoganWIA nominated witness points. After this period has elapsed, works may proceed if LoganWIA does not attend the inspection.				Delivery Partner PE Sign Off:					LoganWIA PE Sign Off:				
				Date:					Date:				

Inspection & Test Plan

Work Package: PBE067		Inspection/Characteristics		Prepared by: Jay Pery		Reviewed by: Mark O'Connor		Endorsed by: Anthony Domanti				
Delivery Partner: Pensar		R: Report/Record Submitted/Test Results		Title: LoganWIA Project Engineer		Title: LoganWIA Project Manager		Title: Designer / RPEQ				
ITP No.: PBE067-01-W-ITP-QA-7600		S: Surveillance		Signed:		Signed:		Signed:				
Construction Process: Valve pit construction and Valve cut in		H: Hold Point		Date:		Date:		Date:				
		W: Witness Point (inspection)		REVISION: 0		REVISION DATE: 22/04/2020						
Lot No: 9		Lot Description: VBIW073 Site 2 - Valve pit construction and Valve cut in										
Job/Activity:					Inspection / Characteristics							
Ref	Process Description	Reference - Spec / Std	Acceptance Criteria	Frequency	Delivery Partner				Logan Water Infrastructure Alliance			
					Status	Resp.	Sign	Date	Status	Resp.	Sign	Date
												Verifying Records
Preliminary works and Permits												
1	IFC Drawing	IFC Drawings PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2092 PBE067-01-W-DWG-CI-2094 PBE067-01-W-DWG-ST-3008 PBE067-01-W-DWG-ST-3009	Current LoganWIA IFC drawing supplied to Delivery Partner	Prior to commencing works	H	PM/PE			H	PM/PE		ITP sign off
2	Material supply	IFC Drawings PBE067-01-W-DWG-CI-2092 PBE067-01-W-DWG-ST-3008 PBE067-01-W-DWG-ST-3009	All pipes and materials are in accordance with IFC drawings undamaged and handed over to the Delivery Partner	Prior to commencing works	H	PE/SS			H	PE/SS		ITC Free Issue Materials, PM001-00-P-CHE-QA-7768
3	Interim Operations Plan	Construction Technical Specification, Scope of Works and Project Drawings PBE067-00-W-CHE-QA-7608	IOP developed for cut-in and signed off by all relevant parties	Prior to works	H	PE			H	PM/PE		Lot IOP
4	Dilapidation Survey	Scope of Works	Thorough photographic records of site before commencement of any works, with notes and comments	Prior to commencing works	S	PE/SS			S	PE/SS		Dilapidation report done
5	Traffic Management	Scope of Works, TGS, TMP	Traffic Management Plan/ Guidance Scheme has been approved for use and implemented as required prior to mobilisation and provision for implementation throughout the works.	Prior to commencing works	H	PE/SS			R	PE/SS		TMP / TGS
6	Environmental Controls installed as required	Project Specifications, EMP and Approved Silt and Sedimentation Control Plan PBE067-00-W-MPL-EN-7100	Environmental controls installed as per approved Silt and Sedimentation Control Plan. Arborist and fauna spotter/catcher have completed necessary trimming and felling in accordance with project EMP.	Entire Site	S	SS			S	SS		Silt and Sedimentation Control Plan
7	Check that an excavation permit has been issued / services are located and removed, relocated or protected	LoganWIA permit to excavate form and a Dial Before You Dig Plan	Excavation permit approved and DBYD are valid. Service to be sprayed up prior to work commencing and all crew to be briefed on location of services.	Prior to commencing works	H	PE/SS			H	PE/SS		Excavation Permit DBYD
8	Site Establishment	IFC Drawings PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2092 PBE067-01-W-DWG-CI-2094 PBE067-01-W-DWG-ST-3008 PBE067-01-W-DWG-ST-3009	All relevant site documentation and specifications as per IFC drawings are complied with: DBYD, TGS, SWMS, Set outs	Prior to commencing works	H	PE/SS			S	PE/SS		ITC: PM001-00-P-CHE-QA-7646
Construction works												
9	Excavation and ground preparation	As per IFC drawing PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2092 PBE067-01-W-DWG-CI-2094 PBE067-01-W-DWG-ST-3008 PBE067-01-W-DWG-ST-3009 PM001-00-W-DWG-ND-0022	ITC's-PM001-00-P-CHE-QA-7638 and PM001-00-P-CHE-QA-7760 is completed and signed by Delivery Partner and LoganWIA reps.	prior to pouring blinding layer	W	PE/SS			S	PE/SS		ITC signed PM001-00-P-CHE-QA-7638 and PM001-00-P-CHE-QA-7760

10	Pour blinding layer	As per IFC drawing PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2092 PBE067-01-W-DWG-CI-2094 PBE067-01-W-DWG-ST-3008 PBE067-01-W-DWG-ST-3009 PM001-00-W-DWG-ND-0022	50mm thick N20 blinding concrete placed to specified level. Sump detail correct	Prior to start concrete work	H	PE/SS			W	PE/SS			PM001-00-P-CHE-QA-7672 Pre-Concrete Pour REV 1, Photos, Concrete Docket
11	Form, Reo and pour valve pit base	As per IFC drawing PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2092 PBE067-01-W-DWG-ST-3008 PBE067-01-W-DWG-ST-3009 PM001-00-W-DWG-ND-0022	1) steel reinforcement as per design drawings. 2) starter bars for walls tied into base as per design 3) starter bars for plinths tied into base as per design 4) sump reinforcement and block out installed including recess for cover. Sump to be as per detail PBE067-01-W-DWG-ST-3001 5) floor to be locally thickened to accommodate 1:100 fall toward the sump, ensuring 300mm clearance to underside of flanges 6) Concrete to be S40/20 and approved as per Note CC7 on drawing PM001-00-W-DWG-ND-0022 7) formwork suitable for pour	Prior to start concrete work	H	PE/SS			H	PE			PM001-00-P-CHE-QA-7672 Pre-Concrete Pour REV 1, Photos, Concrete Docket
12	Operations to isolate and scour water main	Approved IOP shut down document PBE067-00-W-CHE-QA-7608	Water mains isolated and de pressurized or dewatered	Prior to works on water main	H	PE			S	PE/SS			IOP Signed by Operations
13	Pipe, Valves and Flanged Fittings pre-assembled disinfected and installed	Construction Technical Specification, Standard & Project Drawings PBE067-01-W-DWG-CI-2092 PBE067-01-W-DWG-CI-2094	Valves, flanged fittings and Pipes to be installed in accordance with Drawings as specified. Bolts to be tightened in accordance with SEQ-WAT-1313-1(A). And manufactures specification	All valves, flange fittings and Hydrants	H	SS			W	PE/SS			Flange management ITC: PM001-00-P-CHE-QA-7611 Torque Wrench Calib Cert Minor works disinfection ITC: PM001-00-P-CHE-QA-7771
14	Form, Reo and pour valve pit walls	As per IFC drawing PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2092 PBE067-01-W-DWG-CI-2094 PBE067-01-W-DWG-ST-3008 PBE067-01-W-DWG-ST-3009 PM001-00-W-DWG-ND-0022	1) steel reinforcement as per design drawings. 2) pipework to be cast into wall at correct height, with puddle flanges central and extra reinforcement installed as per drawing 3) formwork installed. Suitably restrained to prevent shifting or bowing. 4) Concrete to be S40/20 and approved as per Note CC7 on drawing PM001-00-W-DWG-ND-0022	Prior to start concrete work	H	PE/SS			H	PE			PM001-00-P-CHE-QA-7672 Pre-Concrete Pour REV 1, Photos, Concrete Docket
15	Form, Reo and pour valve pit cover	As per IFC drawing PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2091 PBE067-01-W-DWG-CI-2094 PBE067-01-W-DWG-ST-3007 PBE067-01-W-DWG-ST-3009 PM001-00-W-DWG-ND-0022	1) steel reinforcement as per design drawings. 2) formwork installed. Suitably restrained to prevent shifting or bowing. 3) Concrete to be S40/20 and approved as per Note CC7 on drawing PM001-00-W-DWG-ND-0022 4) location of valve box Cast into slab correct and suits on site construction	Prior to start concrete work	H	PE/SS			H	PE			PM001-00-P-CHE-QA-7672 Pre-Concrete Pour REV 1, Photos, Concrete Docket. signed off RPEQ form 15 by contractor for lifting points.
16	Form, Reo and pour valve pit Plinths	As per IFC drawing PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2092 PBE067-01-W-DWG-CI-2094 PBE067-01-W-DWG-ST-3008 PBE067-01-W-DWG-ST-3009 PM001-00-W-DWG-ND-0022	1) steel reinforcement as per design drawings. 2) formwork installed. Suitably restrained to prevent shifting or bowing. 3) Concrete to be S40/20 and approved as per Note CC7 on drawing PM001-00-W-DWG-ND-0022	Prior to start concrete work	H	PE/SS			H	PE			PM001-00-P-CHE-QA-7672 Pre-Concrete Pour REV 1, Photos, Concrete Docket
17	Pipe Bedding, Surround Material and Marker Tape	Construction Technical Specification, Standard & Project Drawings	5mm Gravel placed, levelled and compacted. Allow space under Socket to sleeve the Joint. Bedding to be self-compacted and inspected by LoganWIA rep. Bidim (Geotextile), Detectable watermain Warning Marker Tape placed above pipe surround bedding prior to backfill. Tape to be brought up to surface at valves. Compacted as per C1C. PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W-DWG-ND-0021	All Bedding material	H	SS			W	SS			Material Cert/Docket Pipeline installation ITC: PM001-00-W-DWG-ND-0050_REV3 PM001-00-W-DWG-ND-0051 PM001-00-P-CHE-QA-7626 PM001-00-W-DWG-ND-0021
18	Survey Pickup	Construction Technical Specification, Standard & Project Drawings	Survey pickup as per requirements outlined in SEQ water supply construction code. (ADAC files)	All Pipeline	H	PE			H	PE/SS			Survey Plans (ADAC data) ITC: PM001-00-P-CHE-QA-7645

19	Trench fill and Compaction	SEQ Watermain Construction Code / Construction Technical Specification, Standard & Project Drawings	As per trench type C1 PM001-00-W-DWG-ND-0050_REV3 Backfill with removed material as per note M2A and M2B PM001-00-W-DWG-ND-0051 or as agreed with Supervisor as per notes. Compact in 200mm layers to Min 95% DDR as AS1289.5.1.1. Compacted as per C2A PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W-DWG-ND-0021,	All Trenches	H	SS			W	PE/SS			Material Cert/Docket PM001-00-W-DWG-ND-0050_REV3 PM001-00-W-DWG-ND-0051_REV3 PM001-00-P-CHE-QA-7772 PM001-00-W-DWG-ND-0021
20	Pavement and road re-instatment	1) Scope of works 2) LWIA Standard Drawings 3) SEQ Standard Drawings	Completed and signed off Watermain Backfill & Compaction ITC	After construction	H	SS			W	PE/SS			Watermain Backfill & Compaction ITC (PM001-00-P-CHE-QA-7774) NATA Compaction Test Results Material Certificates ITC: Pavement re-instate PM001-00-P-CHE-QA-7685
Re-instatment and Demob													
21	Valve & Hydrant Markings	Construction Technical Specification, Standard & Project Drawings	Marker Posts / kerb marking / pavement marking as specified in SEQ-WAT-1300-1 and SEQ-WAT-1300-2.	As Specified	H	SS			S	SS			Photo records
22	Restoration	Scope of works EMP PBE067	All areas affected by construction that are no longer required for future project works have been reinstated to original condition or as specified.	On completion	W	PE/SS			W	PE/SS			Photo, Reinstatement ITC: PM001-00-P-CHE-QA-7673
23	Defect Rectification	Scope of works PBE067 IFC Drawings	Defect walk including LWIA and subcontractor reps has been conducted, all defects transferred onto punch list. All category A and B defects have been rectified by subcontractor and accepted by Downer.	When Lots are deemed ready for inspection by LWIA	H	PE			H	PE			LWIA Punch List PM001-00-P-FOR-PM-9015
24	As-constructed information	IFC Drawings PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2091 PBE067-01-W-DWG-CI-2094 PBE067-01-W-DWG-ST-3007 PBE067-01-W-DWG-ST-3009	All as-constructed data recorded. Hand sketches provided to LoganWIA for acceptance. Detailed description of works completed / electronic survey.	After construction	H	PE			H	PE			Red line mark up drawings submitted to LWIA
Key : SS - Site Supervisor PE - Project Engineer PM - Project Manager DM - Design Manager R: Report/Record Submitted/Test Results - Test certificates or test reports, shall be received and verified by LoganWIA prior to equipment installation. S: Surveillance - General inspection of tasks and works. No advice required to LoganWIA H: Hold Point - Mandatory Hold Point. Inspection & sign off required prior to proceeding. Give LoganWIA min 48 hours' notice. W: Witness Point (inspection) - LoganWIA must nominate witness point on the ITP. 24 hours' notice required for LoganWIA nominated witness points. After this period has elapsed, works may proceed if LoganWIA does not attend the inspection.				Delivery Partner PE Sign Off:					LoganWIA PE Sign Off:				
				Date:					Date:				

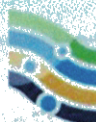
Inspection & Test Plan

Work Package: PBE067		Inspection/Characteristics		Prepared by: Jay Pery		Reviewed by: Mark O'Connor		Endorsed by: Anthony Domanti				
Delivery Partner: Pensar		R: Report/Record Submitted/Test Results		Title: LoganWIA Project Engineer		Title: LoganWIA Project Manager		Title: Designer / RPEQ				
ITP No.: PBE067-01-W-ITP-QA-7600		S: Surveillance		Signed:		Signed:		Signed:				
Construction Process: Demolish pit and Valve removal		H: Hold Point		Date:		Date:		Date:				
		W: Witness Point (inspection)		REVISION: 0		REVISION DATE: 22/04/2020						
Lot No: 10		Lot Description: VBIW073 Site 3 - Demolish pit and Valve removal										
Job/Activity:					Inspection / Characteristics							
Ref	Process Description	Reference - Spec / Std	Acceptance Criteria	Frequency	Delivery Partner				Logan Water Infrastructure Alliance			
					Status	Resp.	Sign	Date	Status	Resp.	Sign	Date
												Verifying Records
Preliminary works and Permits												
1	IFC Drawing	IFC Drawings PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2093 PBE067-01-W-DWG-CI-2094	Current LoganWIA IFC drawing supplied to Delivery Partner	Prior to commencing works	H	PM/PE			H	PM/PE		ITP sign off
2	Material supply	IFC Drawings PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2093 PBE067-01-W-DWG-CI-2094	All pipes and materials are in accordance with IFC drawings undamaged and handed over to the Delivery Partner	Prior to commencing works	H	PE/SS			H	PE/SS		ITC Free Issue Materials, PM001-00-P-CHE-QA-7768
3	Interim Operations Plan	Construction Technical Specification, Scope of Works and Project Drawings PBE067-00-W-CHE-QA-7609	IOP developed for cut-in and signed off by all relevant parties	Prior to works	H	PE			H	PM/PE		Lot IOP
4	Dilapidation Survey	Scope of Works	Thorough photographic records of site before commencement of any works, with notes and comments	Prior to commencing works	S	PE/SS			S	PE/SS		Dilapidation report done
5	Traffic Management	Scope of Works, TGS, TMP	Traffic Management Plan/ Guidance Scheme has been approved for use an implemented as required prior to mobilisation and provision for implementation throughout the works.	Prior to commencing works	H	PE/SS			R	PE/SS		TMP / TGS
6	Environmental Controls installed as required	Project Specifications, EMP and Approved Silt and Sedimentation Control Plan PBE067-00-W-MPL-EN-7100	Environmental controls installed as per approved Silt and Sedimentation Control Plan. Arborist and fauna spotter/catcher have completed necessary trimming and felling in accordance with project EMP.	Entire Site	S	SS			S	SS		Silt and Sedimentation Control Plan
7	Check that an excavation permit has been issued / services are located and removed, relocated or protected	LoganWIA permit to excavate form and a Dial Before You Dig Plan	Excavation permit approved and DBYD are valid. Service to be sprayed up prior to work commencing and all crew to be briefed on location of services.	Prior to commencing works	H	PE/SS			H	PE/SS		Excavation Permit DBYD
8	Site Establishment	IFC Drawings PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2093 PBE067-01-W-DWG-CI-2094	All relevant site documentation and specifications as per IFC drawings are complied with: DBYD, TGS, SWMS, Set outs	Prior to commencing works	H	PE/SS			S	PE/SS		ITC: PM001-00-P-CHE-QA-7646
Construction works												
9	Excavation and ground preperation, core drilling drainage holes	As per IFC drawing PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2093 PBE067-01-W-DWG-CI-2094	ITC's-PM001-00-P-CHE-QA-7638 and PM001-00-P-CHE-QA-7760 is completed and signed by Delivery Partner and LoganWIA reps. Inspect drainage holes are as described on drawings	prior to pouring blinding layer	H	PE/SS			H	PE/SS		ITC signed PM001-00-P-CHE-QA-7638 and PM001-00-P-CHE-QA-7760
10	Operations to isolate and scour water main	Approved IOP shut down document PBE067-00-W-CHE-QA-7609	Water mains isolated and de pressurized or dewatered	Prior to works on water main	H	PE			S	PE/SS		IOP Signed by Operations
11	Pit internal support	Logan road pit to be internally braced as per Logan WIA specifications. See propping sketch	Sub contractor to supply layout design based on Logan WIA sketch with accompanying RPEQ	Before pit lid removal	H	PE			H	PE/SS		Supports shown to be in accordance with RPEG drawing Photographic evidence

12	Core drilling drainage holes	As per IFC drawing PBE067-01-W-DWG-ND-0000 PBE067-01-W-DWG-CI-2093 and PBE067-01-W-DWG-ST-3002 PM001-00-W-DWG-ND-0022	Inspect drainage holes are as described on drawings. Drainage holes to have Bidim material as per CI-2093	Prior to works on water main	W	PE/SS			H	DM			Photos
13	Pipe, Valves and Flanged Fittings pre-assembled disinfected and installed	Construction Technical Specification, Standard & Project Drawings PBE067 01-W-DWG-CI-2090 PBE067-01-W- DWG-CI-2093 PBE067-01-W-DWG- CI-2094	Valves, flanged fittings and Pipes to be installed in accordance with Drawings as specified. Bolts to be tightened in accordance with WSA 109-2011 Appendix E. And manufactures specification	All valves, flange fittings and Hydrants	H	SS			W	PE/SS			Flange management ITC: PM001-00-P-CHE-QA-7611 Torque Wrench Calib Cert Minor works disinfection ITC: PM001-00-P-CHE-QA-7771
14	Pipe restoration and coating	As per IFC drawing PBE067-01-W-DWG-ST-3000 PBE067-01-W-DWG-CI-2093 Note 4	Existing pipeworkprotection coating repair in accordance with note PC2 on STD DWG PM001-00-W-DWG-ST- 3000	Prior to backfill	H	PE/SS			H	DM/SS			Pipes wrapped and coated as per requiremnts with photographic evidence
15	Pipe Bedding, Surround Material and Marker Tape	Construction Technical Specification, Standard & Project Drawings	5mm Gravel placed, levelled and compacted. Allow space under Socket to sleeve the Joint. Bedding to be self-compacted and inspected by LoganWIA rep. Bidim (Geotextile), Detectable watermain Warning Marker Tape placed above pipe surround bedding prior to backfill. Tape to be brought up to surface at valves.Compacted as per C1C PM001-00-W-DWG-ND- 0051, and compacted and tested to note AT2 PM001- 00-W-DWG-ND-0021	All Bedding material	H	SS			W	SS			Material Cert/Docket Pipeline installation ITC: PM001-00-W-DWG-ND- 0050_REV3 PM001-00-W- DWG-ND-0051 PM001-00-P-CHE-QA-7626 PM001-00-W-DWG-ND-0021
16	Survey Pickup	Construction Technical Specification, Standard & Project Drawings	Survey pickup as per requirements outlined in SEQ water supply construction code. (ADAC files)	All Pipeline	H	PE			H	PE/SS			Survey Plans (ADAC data) ITC: PM001-00-P-CHE-QA- 7645
17	Trench fill and Compaction	SEQ Watermain Construction Code / Construction Technical Specification, Standard & Project Drawings	As per trench type C1 PM001-00-W-DWG-ND- 0050_REV3 Backfill with removed material as per note M2A and M2B PM001-00-W-DWG-ND-0051 or as agreed with Supervisor as per notes. Compact in 200mm layers to Min 95% DDR as AS1289.5.1.1. Compacted as per C2A PM001-00-W-DWG-ND-0051, and compacted and tested to note AT2 PM001-00-W- DWG-ND-0021,	All Trenches	H	SS			W	PE/SS			Material Cert/Docket PM001-00-W-DWG-ND- 0050_REV3 PM001-00-W-DWG-ND- 0051_REV3 PM001-00-P-CHE- QA-7772 PM001-00-W-DWG-ND-0021
18	Pavement and road re- instatment	1) Scope of works 2) LWIA Standard Drawings 3) SEQ Standard Drawings	Completed and signed off Watermain Backfill & Compaction ITC	After construction	H	SS			W	PE/SS			Watermain Backfill & Compaction ITC (PM001-00-P- CHE-QA-7774) NATA Compaction Test Results Material Certificates ITC: Pavement re-instate PM001-00-P-CHE-QA-7685
Re-instatment and Demob													
19	Valve & Hydrant Markings	Construction Technical Specification, Standard & Project Drawings	Marker Posts / kerb marking / pavement marking as specified in SEQ-WAT-1300-1 and SEQ-WAT-1300-2.	As Specified	H	SS			S	SS			Photo records
20	Restoration	Scope of works EMP PBE067	All areas affected by construction that are no longer required for future project works have been reinstated to original condition or as specified.	On completion	W	PE/SS			W	PE/SS			Photo, Reinstatement ITC: PM001-00-P-CHE-QA-7673
21	Defect Rectification	Scope of works PBE067 IFC Drawings	Defect walk including LWIA and subcontractor reps has been conducted, all defects transferred onto punch list. All category A and B defects have been rectified by subcontractor and accepted by Downer.	When Lots are deemed ready for inspection by LWIA	H	PE			H	PE			LWIA Punch List PM001-00-P-FOR-PM-9015

22	As-constructed information	IFC Drawings PBE067-01-W-DWG-CI-2090 PBE067-01-W-DWG-CI-2093 PBE067-01-W-DWG-CI-2094	All as-constructed data recorded. Hand sketches provided to LoganWIA for acceptance. Detailed description of works completed / electronic survey.	After construction	H	PE			H	PE			Red line mark up drawings submitted to LWIA
Key : SS - Site Supervisor PE - Project Engineer PM - Project Manager DM - Design Manager R: Report/Record Submitted/Test Results - Test certificates or test reports, shall be received and verified by LoganWIA prior to equipment installation. S: Surveillance - General inspection of tasks and works. No advice required to LoganWIA H: Hold Point - Mandatory Hold Point. Inspection & sign off required prior to proceeding. Give LoganWIA min 48 hours' notice. W: Witness Point (inspection) - LoganWIA must nominate witness point on the ITP. 24 hours' notice required for LoganWIA nominated witness points. After this period has elapsed, works may proceed if LoganWIA does not attend the inspection.				Delivery Partner PE Sign Off:				LoganWIA PE Sign Off:					
				Date:				Date:					

mmf



LOGAN
WATER INFRASTRUCTURE
ALLIANCE

Proudly

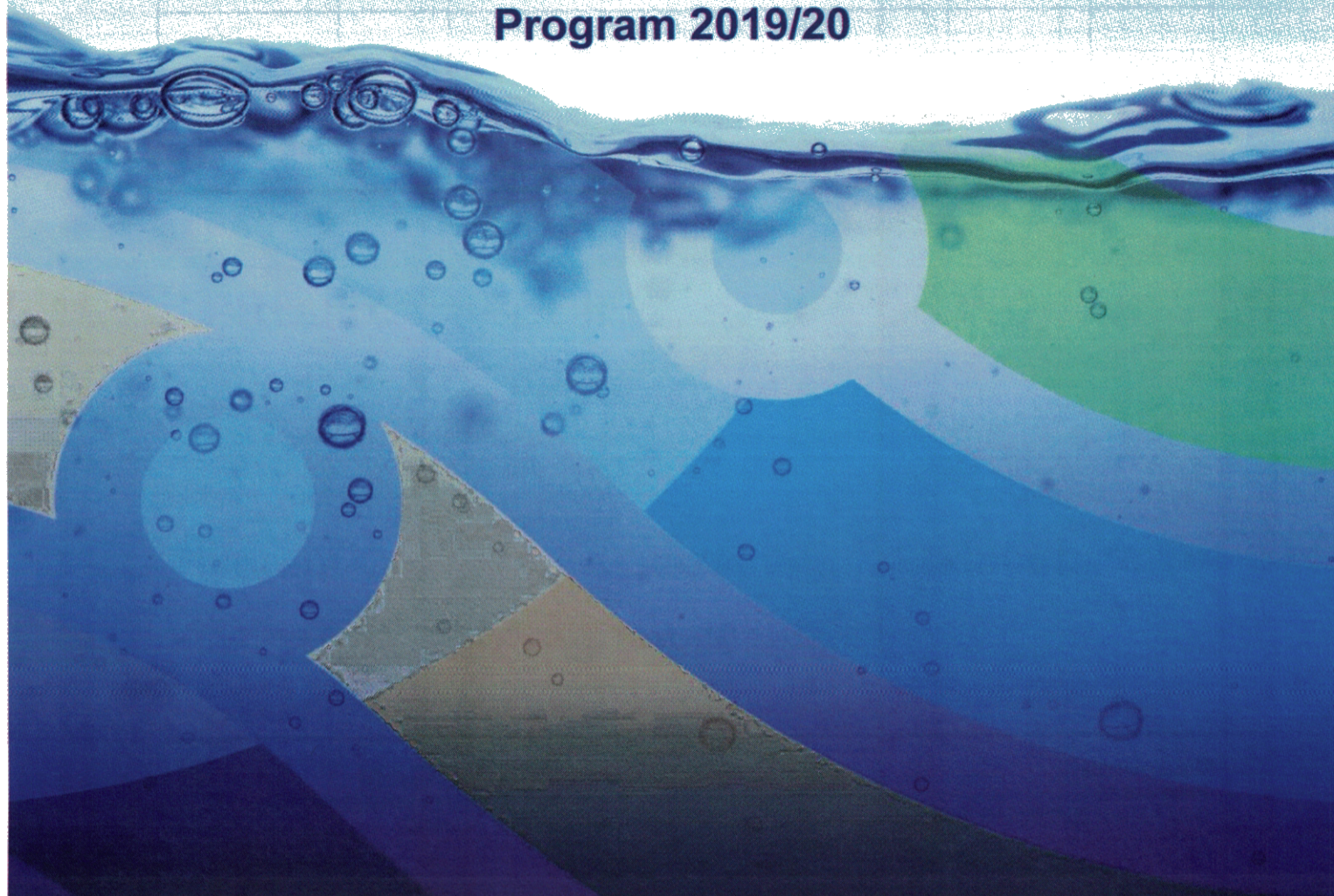


LOGAN
CITY COUNCIL

PROJECT SPECIFIC SCOPE OF WORKS

PBE084 – Performance Assessment

**Hydrant Condition Assessment & Maintenance
Program 2019/20**



pmz

Approval Register

	Signature	Date
Approved by Contracts Administrator: Buddhika Pereira		
Approved by Project Manager: Mark O'Connor		

Controlled Document – Change Register

Revision	Section Changed	Change Description	Initial	Date
A	All	Initial Creation	JP	25/07/2019
B	All	Inclusion of Hydrant Inspection	JP	23/01/2020

TABLE OF CONTENTS

1.	INTRODUCTION	6
1.1	Alliance overview	6
1.2	Our team	6
1.3	Our main work activities.....	6
1.4	Our Charter	6
1.5	Measuring our success.....	6
2.	SCOPE OF WORKS	6
2.1	Background.....	6
2.2	General	7
2.2.1	Extent of Works.....	7
2.2.2	Consumables	Error! Bookmark not defined.
2.2.3	Inclusions	8
2.2.4	Exclusions.....	9
2.3	Location of the works	9
3.	PROJECT REQUIREMENTS.....	10
3.1	Documentation.....	10
3.1.1	Work method statements/work procedures	10
3.1.2	Construction safety and environmental risk.....	10
3.1.3	Traffic management plans/works permit applications	10
3.1.4	Daily diary (record items as appropriate).....	10
3.1.5	Construction schedule and project cash flow	10
3.1.6	Start work authorisation	10
3.1.7	As-Constructed drawings (As-Con)	10
3.1.8	Drawing titles and numbers	10
3.1.9	Interruptions to services - Interim Operations Plan (IOP) (testing, tie-in's & commissioning)	11
3.1.10	General	11
3.1.11	Site establishment/mobilisation	11
3.2	Survey and setting out	11

ms

3.2.1	Datum for the works.....	11
3.2.2	Existing survey/benchmarks	11
3.3	Protection of existing structures	11
3.4	Construction compliance	11
3.4.1	Offsite disposal	11
3.4.2	Personnel.....	11
3.4.3	Construction plant and equipment.....	11
3.5	Inspection and testing	11
3.5.1	Witness and hold points.....	11
3.6	Demobilisation	12
3.7	Reinstatement.....	12
3.7.1	Project restoration schedule	12
3.8	Working hours.....	12
3.8.1	Noise restrictions	12
3.9	Access to the site.....	12
3.10	Site facilities	12
3.10.1	Facilities supplied by Downer	12
3.10.2	Subcontractors site set up/facilities	12
3.11	Geotechnical investigation.....	12
3.12	Existing services	12
3.12.1	Supply/delivery of materials	12
3.12.2	Other interfaces	12
3.13	Meetings	13
4.	MATERIALS SUPPLIED BY DOWNER OR OTHERS.....	13
5.	SAFETY.....	13
5.1	Safety information.....	13
5.2	Zero harm audits.....	13
5.3	Breaches.....	13
5.4	Removal from site.....	13
5.5	Drug and Alcohol	13
6.	ENVIRONMENT	13

mb

7. COMMUNITY	13
7.1 Policies and procedures	13
7.1.1 Attending project inductions.....	13
7.1.2 Handling stakeholder enquiries and complaints	13
7.1.3 Handling media enquiries	14
7.1.4 Respecting program neighbours.....	14
8. LOADING AND UNLOADING OF VEHICLES	14

APPENDICES

Appendix A General Scope of Work

1. INTRODUCTION

1.1 Alliance overview

Refer to Clause 1.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

1.2 Our team

Refer to Clause 1.1.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

1.3 Our main work activities

Refer to Clause 1.1.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

1.4 Our Charter

Refer to Clause 1.1.3 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

1.5 Measuring our success

Refer to Clause 1.1.4 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

2. SCOPE OF WORKS

2.1 Background

Logan City has a responsibility to its stakeholders to provide and maintain serviceable hydrants in accordance with the SEQ Water Supply Code. Currently, Logan City Council's water supply network contains approximately 22,100 hydrants of which 5,000 are considered 'high risk' due to their age and unlined nature of construction. As the current Council boundaries encompass areas that were previously under the jurisdiction of other councils prior to amalgamation in 2008, Council has minimal maintenance data for some areas of the water network, including the fire hydrants within it.

In order to exercise proper duty of care, maintain accurate maintenance records and facilitate efficient asset management practices, a rolling hydrant condition assessment and maintenance (HCAM) program is required. In March 2018, Council developed and implemented the HCAM Pilot Program to ensure efficiency and effectiveness during subsequent program works. During delivery of the Pilot Program, a total of 2,351 hydrants were completed before September 2018.

Council then requested that the remaining HCAM program be delivered through LoganWIA. Accordingly, PBE057 was approved, with 10,000 hydrants identified for the HCAM Program in FY2018/19. In addition to the initial 10,000 hydrants, a scope change was approved to include a further 6,000 hydrants for delivery in FY2018/19 & carrying over into FY2019/20. During delivery of PBE057, a total of 14,636 hydrants were completed before June 2019.

During delivery of PBE084, a total of 2,366 hydrants were completed, with 836 still to come. The HCAM program is subject to Project Closeout by March 2020.

2.2 General

The scope of works for this contract is the inspection of 1,000 of the hydrants completed in the early stages of the HCAM program. Works are all inclusive as detailed in Section 2.2.1 and shown on the contract drawings detailed in Section 5 Drawings and Technical Specifications. The works are to be carried out in accordance with this Scope of Work, Logan City Council's Standard Specifications, the drawings and the General Conditions of Contract, to the satisfaction of the Subcontract Superintendent.

Rate of each work item are to be priced as an all-inclusive price. Lumpsum price to be established based on the indicative quantities given. Quantities will be adjusted to reflect the actual quantities completed and lump sum amount will be adjusted accordingly. The amount tendered in the pricing schedule is therefore a Lump Sum price for the carrying out of all the work quantities listed.

The work items listed are intended to cover the full scope of all the works required. The price for carrying out elements or items of work not specifically listed, but required for completion of the works, are therefore deemed to be included into the overall price of completing the works.

The sequence of the work items listed is not to be necessarily considered as prescriptive.

The pricing schedules may be used by the Superintendent for the purpose of evaluating progress payments and assessing and pricing variations. It must be noted that where an approximate quantity is quoted in the description of the work item, this is to be viewed as an indicator only and the Subcontractor is to price accordingly.

The Contract shall not be subject to rise and fall provisions on account of variations in wage rates or conditions or in the prices of materials or equipment.

2.2.1 Extent of Works

Data Capture

Importantly, the condition assessment data that is captured during the HCAM Pilot Program will form the basis of the hydrant maintenance history, allowing for call up of the previous maintenance works performed on any particular asset. This history will be used as proof of duty of care for maintenance activities within the water network and as a marker of works completed, against which, network issues or dirty water complaints can then be checked to ascertain root cause.

Hydrant inspection will cover a portion of the completed hydrants (50 units) in 20 DMA's subjected to maintenance in the early stages of the HCAM Program. To qualify for inspection, a DMA is required to exceed 250 hydrants.

The data capture method will consist of a GIS layer provided by LoganWIA outlining critical aspects of hydrant quality which may have deteriorated over time. The following data is to be captured electronically for each hydrant:

- Is the hydrant buried?

- Is the hydrant operable?
- Is the hydrant lid in place?
- Is the cat's eye in place?
- Is the curb marking in place?
- Is the curb marking faded?
- Comments regarding any outstanding aspects of hydrant quality

As evidence of completed inspection, photographs outlining the following aspects of hydrant quality will be captured for later review:

1. Hydrant status
2. Hydrant lid status
3. Cats eye and curb marking status

2.2.2 Inclusions

The Contractor shall be responsible for the supply of all plant, labour, equipment, temporary works, materials and consumables necessary to complete the works. The amount tendered in the schedule of rates shall include the cost of supplying all materials (excluding the materials supplied by Downer or others as nominated in Section 7) consumables, tools, appliances, lifting equipment, temporary works as required, freight etc. and is deemed to be inclusive of all overheads and profit. The amount tendered in the schedule of rates shall therefore be an all-inclusive rate for the carrying out of the work required for completion/attainment of the end product.

~~Hydrants that are located between other high risk hydrants and are on the same reticulation main but are not listed as high risk or do not appear on GIS, are to be assessed and included in this contract and will be paid the same unit rate.~~

In the event that a hydrant cannot be located within 10 minutes, crews are to add the missing hydrant to the Planned Maintenance Register and proceed to the next hydrant. Hydrants that can be located but not accessed for any reason shall be treated in the same manner, though an explanation as to why it cannot be accessed shall be appended to the asset's database entry. It is anticipated that there will be minimal numbers of missing / undetectable / inaccessible hydrants. As such, the Contractor will not be paid for missing hydrants and should make allowance for such events within the submitted unit rate.

The work items listed are generic in nature only and are not intended to cover the full scope of all the works required. The price for carrying out elements or items of work not specifically listed, but required for completion of the works, are therefore deemed to be included into the overall price of completing the works.

The scope of works shall include (but not be limited to):

~~• All condition assessment and reactive maintenance tasks listed within this document.~~

- Production of progress photographs and progress reports as required (nominally one per month, though additional reports may be requested in extenuating circumstances).

- Supply of and compliance with low and high-risk fire ant ARMP.

- Traffic management of surrounding roads, property accesses and pedestrian access in accordance with the Queensland Government Manual of Uniform Traffic Control Devices including liaison with local authorities and/or police as required, obtaining all relevant approvals and payment of fees where applicable. All traffic control companies utilised are to be to be accredited by the Main Roads.

~~• In the event of worksite shutdown due to adverse weather conditions exceeding the tenth instance over the duration of the contract, the contractor will be liable for costs incurred due to traffic control fees.~~

- The contractor will be responsible for all planning of traffic control and roadway impacts resulting from the project works.

- In the event that further TMR permits are required, the contractor will be liable for the fees incurred.

- If the top of hydrant surround is buried < 75mm below ground level, the subcontractor shall reinstate the hydrant surround by contouring.

- If the top of hydrant surround is buried > 75mm below ground level, the subcontractor shall barricade the hydrant and notify the Project Engineer. Star pickets with safety caps and mesh to be used to barricade the area. Barricading with traffic cone (Winches hat) is not acceptable.

• Hydrant quality checklist and photographic evidence of hydrant quality is required. Lack of such evidence will be insufficient to claim the hydrant as part of the progress payment

2.2.3 Exclusions

The scope does not include to the following:

- Council will supply hydrant boxes, lids and marker posts (as detailed in section 4)
- ~~• In the event of worksite shut down due to adverse weather conditions up to and including the tenth instance over the duration of the contract, stand down costs incurred due to traffic control fees will be paid by Downer for minimum stoppage hours and maximum of four hours. The stoppage cost will be calculated on the labour rate provided in the section 15 of the contract document.~~
- ~~• Where the number of TMR permits required for the project exceeds more than three, Downer will pay the cost of TMR permit as a variation based on the rate provided in section 15 of the schedule of rates of the tender documents.~~
- GIS layering required for data capture will be supplied by LoganWIA.

2.3 Location of the works

The works will be completed at various locations throughout Logan City Council area. The shapefile of the hydrants is provided in section 5 of the contract documents.

3. PROJECT REQUIREMENTS

3.1 Documentation

3.1.1 Work method statements/work procedures

Refer to Clause 3.1.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.2 Construction safety and environmental risk

Refer to Clause 3.1.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.3 Traffic management plans/works permit applications

Refer to Clause 3.1.3 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.4 Daily diary (record items as appropriate)

Refer to Clause 3.1.4 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.5 Construction schedule and project cash flow

Refer to Clause 3.1.5 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.5.1 Program preparation

Refer to Clause 3.1.5.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.5.2 Program update

Refer to Clause 3.1.5.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.5.3 “Two-week look-ahead” program

Refer to Clause 3.1.5.3 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.6 Start work authorisation

Refer to Clause 3.1.6 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.7 As-Constructed drawings (As-Con)

Refer to Clause 3.1.7 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

NOT APPLICABLE

3.1.8 Drawing titles and numbers

Refer to Clause 3.1.8 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

NOT APPLICABLE

3.1.9 Interruptions to services - Interim Operations Plan (IOP) (testing, tie-in's & commissioning)

Refer to Clause 3.1.9 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

NOT APPLICABLE

3.1.10 General

Refer to Clause 3.1.10 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.11 Site establishment/mobilisation

Refer to Clause 3.1.11 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.2 Survey and setting out

3.2.1 Datum for the works

Refer to Clause 3.2.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

NOT APPLICABLE

3.2.2 Existing survey/benchmarks

Refer to Clause 3.2.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.3 Protection of existing structures

Refer to Clause 3.3 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.4 Construction compliance

3.4.1 Offsite disposal

Refer to Clause 3.4.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.4.2 Personnel

Refer to Clause 3.4.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.4.3 Construction plant and equipment

Refer to Clause 3.4.3 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.5 Inspection and testing

3.5.1 Witness and hold points

Refer to Clause 3.5.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.6 Demobilisation

Refer to Clause 3.6 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.7 Reinstatement

Refer to Clause 3.7 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.7.1 Project restoration schedule

Refer to Clause 3.7.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.8 Working hours

Refer to Clause 3.8 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.8.1 Noise restrictions

Refer to Clause 3.8.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.9 Access to the site

Refer to Clause 3.9 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.10 Site facilities

Refer to Clause 3.10 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.10.1 Facilities supplied by Downer

Refer to Clause 3.10.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

NOT APPLICABLE

3.10.2 Subcontractors site set up/facilities

Refer to Clause 3.10.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.11 Geotechnical investigation

Refer to Clause 3.11 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

NOT APPLICABLE

3.12 Existing services

Refer to Clause 3.12 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.12.1 Supply/delivery of materials

Refer to Clause 3.12.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.12.2 Other interfaces

Refer to Clause 3.12.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.13 Meetings

Refer to Clause 3.13 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

4. MATERIALS SUPPLIED BY DOWNER OR OTHERS

Refer to Clause 4 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

5. SAFETY

Refer to Clause 5 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

5.1 Safety information

Refer to Clause 5.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

5.2 Zero harm audits

Refer to Clause 5.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

5.3 Breaches

Refer to Clause 5.3 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

5.4 Removal from site

Refer to Clause 5.4 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

5.5 Drug and Alcohol

Refer to Clause 5.5 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

6. ENVIRONMENT

Refer to Clause 6 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7. COMMUNITY

Refer to Clause 7 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1 Policies and procedures

Refer to Clause 7.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.1 Attending project inductions

Refer to Clause 7.1.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.2 Handling stakeholder enquiries and complaints



Refer to Clause 7.7.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.3 Handling media enquiries

Refer to Clause 7.1.3 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.4 Respecting program neighbours

Refer to Clause 7.1.4 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.4.1 Working hours

Refer to Clause 7.1.4.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.4.2 Parking

Refer to Clause 7.1.4.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.4.3 Pedestrian access

Refer to Clause 7.1.4.3 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.4.4 Accessing private property

Refer to Clause 7.1.4.4 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.4.5 Building condition surveys

Refer to Clause 7.1.4.5 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.4.6 Damage to private property

Refer to Clause 7.1.4.6 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

8. LOADING AND UNLOADING OF VEHICLES

Refer to Clause 12 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

MS

Appendix A General Scope of Work

Document Number PM001-00-P-SOW-CI-2000 Revision 3.0 issued via Aconex under Document Transmittal **LWA-TENCOR-000556** on 15/03/2018 shall form part of this Project Specific Scope of Works.

PROJECT NAME: PBE084 Hydrant Condition Assessment & Maintenance Program 2019/20

DELIVERY PARTNER: Trades & Service Alliance (TSA)

The price from the tenderer will be deemed to include all items as shown on the drawings and as required by the Scope of Works and Specifications

No.	DESCRIPTION	QUANTITY	UNIT	UNIT RATE (EXCL GST)	TOTAL (EXCL GST)
1	GENERAL ITEMS				
1.01	Insurances	1.00	INCLUDED	INCLUDED	INCLUDED
1.02	Preparation of site specific management plans, SQE, SWMS, ITPs and IOFs for all sites	1.00	INCLUDED	INCLUDED	INCLUDED
1.03	Attendance at site meetings and co-ordination meetings - for all sites	1.00	INCLUDED	INCLUDED	INCLUDED
1.04	Coordination with other trades and authorities - all sites	1.00	INCLUDED	INCLUDED	INCLUDED
1.05	Ongoing Maintenance of reinstated vegetation (turf, etc. - all sites)	1.00	INCLUDED	INCLUDED	INCLUDED
1.06	Project Management	1.00	INCLUDED	INCLUDED	INCLUDED
SUBTOTAL					\$0.00
2	Schedule of Rates Items - All Works Completed under normal working hours Monday - Friday (i.e 7am to 5pm)				
2.01	Hydrant condition assessment and maintenance - Hydrant Inspection	1000	No	\$35.00	\$35,000.00
SUBTOTAL FOR DAY WORKS					\$35,000.00

Note: All listed quantities are estimated quantities and payment will be based on actual Quantities completed

NO	SUMMARY	TOTAL
1	GENERAL ITEMS	\$0.00
2	SUBTOTAL FOR DAY WORKS	\$35,000.00
TOTAL		\$35,000.00

3	UNIT RATES
1. Labour	
1.1	The hours for labour will be calculated from the time of arrival at the work location to execute the particular item of work to the time of departure from work location, but excluding meal breaks and rest periods. Only the time of classes of labour directly doing work which they are competent to perform will be measured. The time of charge hands actually doing work with the gangs will also be measured but not the time of foremen, non working charge hand or other supervisory personnel.
1.2	The subcontractor shall be entitled to payment in respect of the total time that labour is employed on the work, calculated at the rates entered by him in the Schedule of Rates: 1. Labour, as described below:
(a)	The rates for labour shall cover all direct costs to the subcontractor, including (but not limited to) the amount of wages paid to such labour, transportation time (to, from and between the work locations), overtime, subsistence allowances, and any sums paid to or on behalf of such labour for social benefits in accordance with the industry regulations / law and subcontractors mark up for labour.
(b)	Mark up included in the labour rate shall be deemed to cover the subcontractor's profit, overheads, superintendence, liabilities, and insurances and allowances to labour, timekeeping, and clerical and office work, amenities, the use of consumable stores, water, lighting, and power; the use and repair of work platforms, scaffolding, workshops, and stores, portable power tools, manual plant, and tools, use of site vehicles; supervision by the subcontractors staff, foremen, and other supervisory personnel; and charges incidental to the foregoing.
2. Materials	
2.1	Payments for materials will be calculated on the basis of the invoiced price. Subcontractor will be paid a 10% mark up over the material price and mark up shall include subcontractor's profit, overheads, superintendence, liabilities, and insurances and clerical and office work, the use of consumable stores, water, lighting, and power; handling of the material within the work site; supervision by the subcontractors staff, foremen, and other supervisory personnel; and charges incidental to the foregoing.
3. Equipment	
3.1	The hours for Equipment will be calculated for the actual number of hours the equipment is utilised for the work.
3.2	Equipment rates shall be deemed to include due and complete allowance for depreciation, interest, indemnity, insurance, repairs, maintenance, supplies, fuel, lubricants, other consumables, and all overhead, profit, and administrative costs related to the use of such equipment. The cost of drivers, operators, and assistants will be paid for separately as described under the section on Labour.
3.3	Mobilisation and demobilisation will be paid on production of an invoice, if the equipment is not readily available and subcontractor mobilised and demobilised the equipment from elsewhere.
4. Subcontract works	
4.1	Payments for work carried out by subcontractor's of the subcontractor will be calculated on the basis of the invoiced price. Subcontractor will be paid a 10% mark up over the invoiced price and mark up shall include subcontractor's profit, overheads, superintendence, liabilities, insurances, clerical and office work, the use of stores, water, lighting, power; any other facilities provided to the subcontractors subcontractor, supervision by the subcontractors staff, foremen, and other supervisory personnel; and charges incidental to the foregoing

NO	DESCRIPTION	QUANTITY	UNIT	RATE	COMMENTS
1.00	LABOUR				
1.01	Day Works - Traffic Controller	1.00	Per hour	\$ 77.27	
1.02	Day Works - Traffic Controller with Variable Message System	1.00	Per hour	\$ 79.77	
1.03	Night Works - Traffic Controller	1.00	Per hour	\$ 87.71	130% loading
1.04	Night Works - Traffic Controller with Variable Message System	1.00	Per hour	\$ 90.20	130% loading
1.05	Weekend Works - Traffic Controller	1.00	Per hour	\$ 107.84	150% loading
1.06	Weekend Works - Traffic Controller with Variable Message System	1.00	Per hour	\$ 110.44	150% loading
2.00	OTHER				
2.01	TMR Permit	Rate only	No	\$ 195.00	



PROJECT NAME: PBE084 Hydrant Condition Assessment & Maintenance Program 2019/20

DELIVERY PARTNER: Trades & Service Alliance (TSA)

The price from the tenderer will be deemed to include all items as shown on the drawings and as required by the Scope of Works and Specifications

No.	DESCRIPTION	QUANTITY	UNIT	UNIT RATE (EXCL GST)	TOTAL (EXCL GST)
1	GENERAL ITEMS				
1.01	Insurances	1.00	INLCUDED	INCLUDED	INCLUDED
1.02	Preparation of site specific management plans, SQE, SWMS, ITPs and IOPs for all sites	1.00	INLCUDED	INCLUDED	INCLUDED
1.03	Attendance at site meetings and co-ordination meetings - for all sites	1.00	INLCUDED	INCLUDED	INCLUDED
1.04	Coordination with other trades and authorities - all sites	1.00	INLCUDED	INCLUDED	INCLUDED
1.05	Ongoing Maintenance of reinstated vegetation (turf, etc. - all sites)	1.00	INLCUDED	INCLUDED	INCLUDED
1.06	Project Management	1.00	INLCUDED	INCLUDED	INCLUDED
1.07	TC Council permit, Police permit, 3 x TMR permit	1.00	Sum	\$1,200.00	\$1,200.00
	SUBTOTAL				\$1,200.00
2	Schedule of Rates Items - All Works Completed under normal working hours Monday - Friday (i.e 7am to 5pm)				
2.01	Hydrant condition assessment and reactive maintenance – per single hydrant - 1 Traffic controller & VMS	1400	No	\$138.57	\$193,999.17
2.02	Hydrant condition assessment and reactive maintenance – per single hydrant - 2 Traffic controllers & VMS	1400	No	\$170.77	\$239,073.33
2.03	Hydrant lid supply and installation With supply of materials by LCC	Rate Only	No	\$10.00	Rate Only
2.04	Installation of hydrant box (non-trafficable area) - recycled plastic hydrant box, lid and all additional fittings With supply of materials by LCC	Rate Only	No	\$30.00	Rate Only
2.05	Installation of marker post With supply of materials by LCC	Rate Only	No	\$20.00	Rate Only
	SUBTOTAL FOR DAY WORKS				\$433,072.50
3	Schedule of Rates Items - Works Completed outside normal working hours Sunday - Thursday (i.e 7pm to 5am)				
3.01	Hydrant condition assessment and reactive maintenance – per single hydrant - 1 Traffic controller	600	No	\$174.52	\$104,710.00
3.02	Hydrant condition assessment and reactive maintenance – per single hydrant - 2 Traffic controllers & VMS	600	No	\$211.06	\$126,637.50
3.03	Hydrant lid supply and installation With supply of materials by LCC	Rate Only	No	\$10.00	Rate Only
3.04	Installation of hydrant box (non-trafficable area) - recycled plastic hydrant box, lid and all additional fittings With supply of materials by LCC	Rate Only	No	\$30.00	Rate Only
3.05	Installation of marker post With supply of materials by LCC	Rate Only	No	\$20.00	Rate Only
	SUBTOTAL FOR NIGHT WORKS				\$231,347.50
4	Schedule of Rates Items - Works Completed Saturday/ Sunday Only (i.e 7am to 5pm)				
4.01	Hydrant condition assessment and reactive maintenance – per single hydrant - 1 Traffic controller	0	No	\$204.02	\$0.00
4.02	Hydrant condition assessment and reactive maintenance – per single hydrant - 2 Traffic controllers & VMS	0	No	\$248.99	\$0.00
4.03	Hydrant lid supply and installation With supply of materials by LCC	Rate Only	No	\$10.00	Rate Only
4.04	Installation of hydrant box (non-trafficable area) - recycled plastic hydrant box, lid and all additional fittings With supply of materials by LCC	Rate Only	No	\$30.00	Rate Only
4.05	Installation of marker post With supply of materials by LCC	Rate Only	No	\$20.00	Rate Only
	SUBTOTAL FOR WEEKEND WORKS				\$0.00

NO	SUMMARY	TOTAL
1	GENERAL ITEMS	\$1,200.00
2	SUBTOTAL FOR DAY WORKS	\$433,072.50
3	SUBTOTAL FOR NIGHT WORKS	\$231,347.50
4	SUBTOTAL FOR WEEKEND WORKS	\$0.00
TOTAL		\$665,620.00

3	UNIT RATES
1. Labour	
1.1 The hours for labour will be calculated from the time of arrival at the work location to execute the particular item of work to the time of departure from work location, but excluding meal breaks and rest periods. Only the time of classes of labour directly doing work which they are competent to perform will be measured. The time of charge hands actually doing work with the gangs will also be measured but not the time of foremen, non working charge hand or other supervisory personnel.	
1.2 The subcontractor shall be entitled to payment in respect of the total time that labour is employed on the wok , calculated at the rates entered by him in the Schedule of Rates: 1. Labour, as described below:	
(a) The rates for labour shall cover all direct costs to the subcontractor, including (but not limited to) the amount of wages paid to such labour, transportation time (to, from and between the work locations), overtime, subsistence allowances, and any sums paid to or on behalf of such labour for social benefits in accordance with the industry regulations / law and subcontractors mark up for labour.	
(b) Mark up included in the labour rate shall be deemed to cover the subcontractor's profit, overheads, superintendence, liabilities, and insurances and allowances to labour, timekeeping, and clerical and office work, amenities, the use of consumable stores, water, lighting, and power; the use and repair of work platforms, scaffolding, workshops, and stores, portable power tools, manual plant, and tools, use of site vehicles; supervision by the subcontractors staff, foremen, and other supervisory personnel; and charges incidental to the foregoing.	
2. Materials	
2.1 Payments for materials will be calculated on the basis of the invoiced price. Subcontractor will be paid a 10% mark up over the material price and mark up shall include subcontractor's profit, overheads, superintendence, liabilities, and insurances and clerical and office work, the use of consumable, stores, water, lighting, and power; handling of the material within the work site; supervision by the subcontractors staff, foremen, and other supervisory personnel; and charges incidental to the foregoing.	
3. Equipment	
3.1 The hours for Equipment will be calculated for the actual number of hours the equipment is utilised for the work.	
3.2 Equipment rates shall be deemed to include due and complete allowance for depreciation, interest, indemnity, insurance, repairs, maintenance, supplies, fuel, lubricants, other consumables, and all overhead, profit, and administrative costs related to the use of such equipment. The cost of drivers, operators, and assistants will be paid for separately as described under the section on Labour.	
3.3 Mobilisation and demobilisation will be paid on production of an invoice, if the equipment is not readily available and subcontractor mobilised and demobilised the equipment from elsewhere.	

4. Subcontract works

4.1 Payments for work carried out by subcontractor's of the subcontractor will be calculated on the basis of the invoiced price. Subcontractor will be paid a 10% mark up over the invoiced price and mark up shall include subcontractor's profit, overheads, superintendence, liabilities, insurances, clerical and office work, the use of stores, water, lighting, power; any other facilities provided to the subcontractors subcontractor. supervision by the subcontractors staff, foremen, and other supervisory personnel; and charges incidental to the foregoing

NO	DESCRIPTION	QUANTITY	UNIT	RATE	COMMENTS
1.00	LABOUR				
1.01	Day Works - Traffic Controller	1.00	Per hour	\$ 77.27	
1.02	Day Works - Traffic Controller with Variable Message System	1.00	Per hour	\$ 79.77	
1.03	Night Works - Traffic Controller	1.00	Per hour	\$ 87.71	130% loading
1.04	Night Works - Traffic Controller with Variable Message System	1.00	Per hour	\$ 90.20	130% loading
1.05	Weekend Works - Traffic Controller	1.00	Per hour	\$ 107.94	150% loading
1.06	Weekend Works - Traffic Controller with Variable Message System	1.00	Per hour	\$ 110.44	150% loading
2.00	OTHER				
2.01	TMR Permit	Rate only	No	\$ 196.00	



PROJECT SPECIFIC SCOPE OF WORKS

PBE084

Hydrant Condition Assessment & Maintenance Program 2019/20



Approval Register

	Signature	Date
Approved by Contracts Administrator: Buddhika Perera		
Approved by Project Manager:		

Controlled Document – Change Register

Revision	Section Changed	Change Description	Initial	Date
A	All	Draft document	JP	25/07/2019

TABLE OF CONTENTS

1.	INTRODUCTION	6
1.1	Alliance overview	6
1.2	Our team	6
1.3	Our main work activities.....	6
1.4	Our Charter	6
1.5	Measuring our success.....	6
2.	SCOPE OF WORKS	6
2.1	Background.....	6
2.2	General	7
2.2.1	Extent of Works.....	7
2.2.2	Consumables	9
2.2.3	Inclusions	10
2.2.4	Exclusions	12
2.3	Location of the works	12
3.	PROJECT REQUIREMENTS.....	12
3.1	Documentation.....	12
3.1.1	Work method statements/work procedures	12
3.1.2	Construction safety and environmental risk.....	12
3.1.3	Traffic management plans/works permit applications	12
3.1.4	Daily diary (record items as appropriate).....	12
3.1.5	Construction schedule and project cash flow	12
3.1.6	Start work authorisation	13
3.1.7	As-Constructed drawings (As-Con)	13
3.1.8	Drawing titles and numbers	13
3.1.9	Interruptions to services - Interim Operations Plan (IOP) (testing, tie-in's & commissioning)	13
3.1.10	General	13
3.1.11	Site establishment/mobilisation	13
3.2	Survey and setting out	13

3.2.1	Datum for the works.....	13
3.2.2	Existing survey/benchmarks	13
3.3	Protection of existing structures	14
3.4	Construction compliance	14
3.4.1	Offsite disposal	14
3.4.2	Personnel.....	14
3.4.3	Construction plant and equipment.....	14
3.5	Inspection and testing.....	14
3.5.1	Witness and hold points.....	14
3.6	Demobilisation	14
3.7	Reinstatement.....	14
3.7.1	Project restoration schedule	14
3.8	Working hours.....	14
3.8.1	Noise restrictions	14
3.9	Access to the site.....	14
3.10	Site facilities	15
3.10.1	Facilities supplied by Downer	15
3.10.2	Subcontractors site set up/facilities	15
3.11	Geotechnical investigation.....	15
3.12	Existing services	15
3.12.1	Supply/delivery of materials.....	15
3.12.2	Other interfaces	15
3.13	Meetings	15
4.	MATERIALS SUPPLIED BY DOWNER OR OTHERS.....	15
5.	SAFETY	15
5.1	Safety information.....	15
5.2	Zero harm audits.....	15
5.3	Breaches.....	16
5.4	Removal from site.....	16
5.5	Drug and Alcohol	16
6.	ENVIRONMENT	16

7. COMMUNITY..... 16

7.1 Policies and procedures 16

7.1.1 Attending project inductions..... 16

7.1.2 Handling stakeholder enquiries and complaints 16

7.1.3 Handling media enquiries 16

7.1.4 Respecting program neighbours..... 16

8. LOADING AND UNLOADING OF VEHICLES 17

APPENDICES

Appendix A General Scope of Work

1. INTRODUCTION

1.1 Alliance overview

Refer to Clause 1.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

1.2 Our team

Refer to Clause 1.1.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

1.3 Our main work activities

Refer to Clause 1.1.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

1.4 Our Charter

Refer to Clause 1.1.3 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

1.5 Measuring our success

Refer to Clause 1.1.4 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

2. SCOPE OF WORKS

2.1 Background

Logan City has a responsibility to its stakeholders to provide and maintain serviceable hydrants in accordance with the SEQ Water Supply Code. Currently, Logan City Council's water supply network contains approximately 22,100 hydrants of which 5,000 are considered 'high risk' due to their age and unlined nature of construction. As the current Council boundaries encompass areas that were previously under the jurisdiction of other councils prior to amalgamation in 2008, Council has minimal maintenance data for some areas of the water network, including the fire hydrants within it.

In order to exercise proper duty of care, maintain accurate maintenance records and facilitate efficient asset management practices, a rolling hydrant condition assessment and maintenance (HCAM) program is required. In March 2018, Council developed and implemented the HCAM Pilot Program to ensure efficiency and effectiveness during subsequent program works. During delivery of the Pilot Program, a total of 2,351 hydrants were completed before September 2018.

Council then requested that the remaining HCAM program be delivered through LoganWIA. Accordingly, PBE057 was approved, with 10,000 hydrants identified for the HCAM Program in FY2018/19. In addition to the initial 10,000 hydrants, a scope change was approved to include a further 6,000 hydrants for delivery in FY2018/19 & carrying over into FY2019/20. During delivery of PBE057, a total of 14,636 hydrants were completed before June 2019.

2.2 General

The scope of the works for this contract is the undertaking condition assessment and maintenance of up to 4,000 hydrants which could not previously be completed due to traffic control requirements. Works are all inclusive as detailed in Section 2.2.1 and shown on the contract drawings detailed in Section 5 Drawings and Technical Specifications. The works are to be carried out in accordance with this Scope of Work, Logan City Council's Standard Specifications, the drawings and the General Conditions of Contract, to the satisfaction of the Subcontract Superintendent.

Rate of each work item are to be priced as an all-inclusive price. Lumpsum price to be established based on the indicative quantities given. Quantities will be adjusted to reflect the actual quantities completed and lump sum amount will be adjusted accordingly. The amount tendered in the pricing schedule is therefore a Lump Sum price for the carrying out of all the work quantities listed.

The work items listed are intended to cover the full scope of all the works required. The price for carrying out elements or items of work not specifically listed, but required for completion of the works, are therefore deemed to be included into the overall price of completing the works.

The sequence of the work items listed is not to be necessarily considered as prescriptive.

The pricing schedules may be used by the Superintendent for the purpose of evaluating progress payments and assessing and pricing variations. It must be noted that where an approximate quantity is quoted in the description of the work item, this is to be viewed as an indicator only and the Subcontractor is to price accordingly.

The Contract shall not be subject to rise and fall provisions on account of variations in wage rates or conditions or in the prices of materials or equipment.

2.2.1 Extent of Works

Condition Assessment and Maintenance Duties

The standard duties of the HCAM Pilot Program crews are those that will be carried out on each hydrant during the course of the program. These scope of works form the 'Reactive Maintenance' portion of the works (as described below).

- Paint/repair/replace street markings/lids/cats-eyes etc. to standard shown in SEQ drawings (SEQ-WAT-1300-1 and SEQ-WAT-1300-2).
- Record the asset location using the Esri Collector application
- Clean out hydrant boxes to allow for operation and maintenance
- Record all maintenance tasks completed
- Record any further maintenance tasks required within a Planned Maintenance Register

All works are to be carried out to the standards listed within the SEQ code and associated drawings, specifically (but not limited to) SEQ-WAT-1300-1, SEQ-WAT-1300-2 and SEQ-WAT-1302-1.

Hydrant Box Cleaning

Hydrant boxes are to be cleaned with in such a manner that the hydrant spring-top is cleaned of all dirt and the internals of the valve box have dirt and debris removed down to a level that allows for the base of the hydrant spring-top bolts to be accessed. Suitable cleaning methods for this include, though are not limited to, the use of a vac-truck or tow behind vac-unit with pressure washer, wet/dry vac, or through the use of hand tools.

Data Capture

Importantly, the condition assessment data that is captured during the HCAM Pilot Program will form the basis of the hydrant maintenance history, allowing for call up of the previous maintenance works performed on any particular asset. This history will be used as proof of duty of care for maintenance activities within the water network and as a marker of works completed, against which, network issues or dirty water complaints can then be checked to ascertain root cause.

The electronic data capture format submitted to Downer shall be capable of either direct or indirect input into an ESRI based mapping system. The following data is to be captured electronically for each hydrant tested:

- Before photos for hydrants that were not operable any variations such as replacing missing lids and installing new post etc.
- After photos for all hydrants completed.
- GPS position of assets (Using inbuilt tablet GPS)
- Maintenance tasks performed (reactive maintenance)
- Maintenance tasks required (planned maintenance works)

These details will form the 'condition assessment' for each asset, which will then be input into ESRI Collector for subsequent access by Downer field staff. The contractor will be supplied with an electronic hydrant 'layer' that is able to be displayed and recorded to using ESRI based field products such as ESRI Collector or ESRI Explorer. This layer will show the location and identification of each hydrant that is to be maintained as part of the Pilot Program.

Planned Maintenance

Any maintenance works required to bring the hydrant installation up to SEQ code (other than the reactive maintenance tasks listed within the 'Standard Duties' list) are to be placed in a Planned Maintenance Register and assigned either a High or Low priority ranking according to the below table:

Reactive Maintenance	Planned Maintenance	
	High Priority	Low Priority
Repaint/mark street/kerb markings and replace street furniture (cats-eyes, marker posts etc.)	Plugged hydrants	Replace damaged hydrant surround
	Broken lugs / inoperable hydrant	

	Raise/lower hydrant/valve box/surround in grassed/natural areas	Hydrant corroded/poor condition but still operable
Clean out hydrant/valve boxes	Bolts badly corroded/rusted/worn through	
Repaint/replace hydrant boxes and lids	Hydrant leaking	Raise/lower hydrant/valve box/surround in concreted areas
Record maintenance tasks completed and required	Hydrant too deep (will not fit standpipe)	
	Hydrant buried/not found	Rubber seals perished

The planned maintenance works identified during this process shall not to be completed as part of the HCAM Pilot Program works. As such, the completion of subsequent remedial works should not be priced as part of this submission.

2.2.2 Consumables

The Contractor is responsible for the supply of all consumables such as cats-eyes, thermoplastic arrows and kerb markings, valve lids, paint, hydrant boxes, lids and marker posts. Hydrant boxes, lids and marker post costs will be reimbursed as part of monthly progress payments as per the unit rates provided, and will be paid upon receipt of goods invoices and proof of installation.

All consumables and street furniture are to be placed/applied as specified within SEQ drawings SEQ-WAT-1300-1 and SEQ-WAT-1300-2. All colours and marking shapes/sizes used shall be as specified within SEQ-WAT-1300-1.

Cats-Eyes

Cats-Eyes used on Council controlled roads are to be in accordance with SEQ and AS1906.3 standards. They are to be blue with a raised reflective surface and shall be placed so that the blue reflector faces the direction of approaching traffic. Cats-eyes will be affixed to the road using bituminous pads as per the manufacturer's specifications.

Kerb and Pavement Markings

Kerb and pavement markings such as kerb colourings (surrounding marker discs) and cats-eye arrows used to denote hydrant locations, shall be of a thermoplastic material which incorporates appropriate glass beads and colouring (located as per drawing SEQ-WAT-1300-1), or shall be painted using Dulux ROADMASTER A1 PC 680 (see below for application requirements).

All thermoplastic materials and associated products shall be manufactured to the requirements of main roads and shall be applied in accordance with manufacturer recommendations. Concrete surfaces such as kerbs are to be primed using an appropriate thermo-primer and then pre-heated prior to application of thermoplastic. Reflective thermo-mix material is to be applied to the heated thermoplastic as per manufacturer recommendations (in addition to the reflective material already contained within the preformed thermoplastic material).

The road/kerb colourings can be applied in one of two ways:

- Painted using Dulux ROADMASTER A1 (PC 680) chlorinated rubber/alkyd road marking paint, brush/roller applied to a minimum dried depth of 2mm with reflective beads applied whilst the paint is wet in accordance with best practice. The paint is to be applied to a masked area with dimensions and placement as per SEQ-WAT-1300-1. The paint is to be applied in accordance with manufacturer's recommendations.
- A 200x300mm thermoplastic rectangle may be used for angled kerb markings only (for square kerbs, Dulux ROADMASTER A1 (PC 680) line marking paint must be used). The thermoplastic markings must be installed in accordance with manufacturer's instructions, including the application of thermo-primer prior to the installation of the thermoplastic marking. Surfaces are to be pre-heated prior to the application of any thermoplastic markings to ensure sufficient adhesions to the surface material. Thermo-mix material (glass beads) is to be added to the thermoplastic material as per manufacturer's instructions.

Hydrant Marker Discs

Hydrant marker discs are to be marked and installed in accordance with drawing SEQ-WAT-1300-1. The tags are to be of stainless steel construction. The stainless-steel tags must be circular with a minimum 38mm diameter and 1.6mm thickness, and must be securely fixed to the kerb using minimum 50mmx5mm stainless steel anchors.

Marker Posts

Marker posts will conform to, and be installed as per, the requirements specified on drawing SEQ-WAT-1300-2. Any existing marker posts that are found to be incorrectly installed (i.e: where there is a kerb) shall be removed and disposed of by the contractor. A unit rate for the supply of marker posts shall be provided within the tendered schedule of rates. The cost of installation for a marker post is deemed to be included in the 'Reactive Maintenance' unit rate (item #1 in the schedule of rates) and shall not be charged in addition.

Hydrant Lids and Boxes

A sufficient stock of hydrant lids is to be carried by the Condition Assessment and Maintenance crews for immediate replacement of any missing hydrant box lids. All hydrant box lids will be direct 'like-for-like' replacements suitable for the box that they will reside in.

Where hydrant boxes need to be replaced, they will be replaced Z-1. Boxes in non-trafficable areas (other than pedestrian traffic) are to be replaced with recycled plastic boxes (full colour pigment) and iron covers as per SEQ-WAT-1305-1. All lids are to be coloured in accordance with SEQ-WAT-1300-1.

2.2.3 Inclusions

The Contractor shall be responsible for the supply of all plant, labour, equipment, temporary works, materials and consumables necessary to complete the works. The amount tendered in the schedule of

rates shall include the cost of supplying all materials (excluding the materials supplied by Downer or others as nominated in Section 7) consumables, tools, appliances, lifting equipment, temporary works as required, freight etc. and is deemed to be inclusive of all overheads and profit. The amount tendered in the schedule of rates shall therefore be an all-inclusive rate for the carrying out of the work required for completion/attainment of the end product.

Hydrants that are located between other high-risk hydrants and are on the same reticulation main but are not listed as high risk or do not appear on GIS, are to be assessed and included in this contract and will be paid the same unit rate.

In the event that a hydrant cannot be located within 10 minutes, crews are to add the missing hydrant to the Planned Maintenance Register and proceed to the next hydrant. Hydrants that can be located but not accessed for any reason shall be treated in the same manner, though an explanation as to why it cannot be accessed shall be appended to the asset's database entry. It is anticipated that there will be minimal numbers of missing / undetectable / inaccessible hydrants. As such, the Contractor will not be paid for missing hydrants and should make allowance for such events within the submitted unit rate.

The work items listed are generic in nature only and are not intended to cover the full scope of all the works required. The price for carrying out elements or items of work not specifically listed, but required for completion of the works, are therefore deemed to be included into the overall price of completing the works.

The scope of works shall include (but not be limited to):

- All condition assessment and reactive maintenance tasks listed within this document.
- Production of progress photographs and progress reports as required (nominally one per month, though additional reports may be requested in extenuating circumstances).
- Supply of and compliance with low and high-risk fire ant ARMP.
- Traffic management of surrounding roads, property accesses and pedestrian access in accordance with the Queensland Government Manual of Uniform Traffic Control Devices including liaison with local authorities and/or police as required, obtaining all relevant approvals and payment of fees where applicable. All traffic control companies utilised are to be to be accredited by the Main Roads.
- In the event of worksite shutdown due to adverse weather conditions exceeding the tenth instance over the duration of the contract, the contractor will be liable for costs incurred due to traffic control fees.
- The contractor will be responsible for all planning of traffic control and roadway impacts resulting from the project works.
- In the event that further TMR permits are required, the contractor will be liable for the fees incurred.
- If the top of hydrant surround is buried < 75mm below ground level, the subcontractor shall reinstate the hydrant surround by contouring.

- If the top of hydrant surround is buried > 75mm below ground level, the subcontractor shall barricade the hydrant and notify the Project Engineer. Star pickets with safety caps and mesh to be used to barricade the area. Barricading with traffic cone (Winches hat) is not acceptable.

2.2.4 Exclusions

The scope does not include to the following:

- Council will supply hydrant boxes, lids and marker posts (as detailed in section 4)
- In the event of worksite shut down due to adverse weather conditions up to and including the tenth instance over the duration of the contract, stand down costs incurred due to traffic control fees will be paid by Downer for minimum stoppage hours and maximum of four hours. The stoppage cost will be calculated on the labour rate provided in the section 15 of the contract document.
- Where the number of TMR permits required for the project exceeds more than three, Downer will pay the cost of TMR permit as a variation based on the rate provided in section 15 of the schedule of rates of the tender documents.

2.3 Location of the works

The works will be completed at various locations throughout Logan City Council area. The shapefile of the hydrants is provided in section 5 of the contract documents.

3. PROJECT REQUIREMENTS

3.1 Documentation

3.1.1 Work method statements/work procedures

Refer to Clause 3.1.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.2 Construction safety and environmental risk

Refer to Clause 3.1.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.3 Traffic management plans/works permit applications

Refer to Clause 3.1.3 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.4 Daily diary (record items as appropriate)

Refer to Clause 3.1.4 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.5 Construction schedule and project cash flow

Refer to Clause 3.1.5 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.5.1 Program preparation

Refer to Clause 3.1.5.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.5.2 Program update

Refer to Clause 3.1.5.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.5.3 “Two-week look-ahead” program

Refer to Clause 3.1.5.3 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.6 Start work authorisation

Refer to Clause 3.1.6 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.7 As-Constructed drawings (As-Con)

Refer to Clause 3.1.7 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

NOT APPLICABLE

3.1.8 Drawing titles and numbers

Refer to Clause 3.1.8 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

NOT APPLICABLE

3.1.9 Interruptions to services - Interim Operations Plan (IOP) (testing, tie-in's & commissioning)

Refer to Clause 3.1.9 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

NOT APPLICABLE

3.1.10 General

Refer to Clause 3.1.10 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.1.11 Site establishment/mobilisation

Refer to Clause 3.1.11 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.2 Survey and setting out

3.2.1 Datum for the works

Refer to Clause 3.2.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

NOT APPLICABLE

3.2.2 Existing survey/benchmarks

Refer to Clause 3.2.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.3 Protection of existing structures

Refer to Clause 3.3 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.4 Construction compliance

3.4.1 Offsite disposal

Refer to Clause 3.4.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.4.2 Personnel

Refer to Clause 3.4.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.4.3 Construction plant and equipment

Refer to Clause 3.4.3 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.5 Inspection and testing

3.5.1 Witness and hold points

Refer to Clause 3.5.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.6 Demobilisation

Refer to Clause 3.6 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.7 Reinstatement

Refer to Clause 3.7 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.7.1 Project restoration schedule

Refer to Clause 3.7.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.8 Working hours

Refer to Clause 3.8 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.8.1 Noise restrictions

Refer to Clause 3.8.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.9 Access to the site

Refer to Clause 3.9 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.10 Site facilities

Refer to Clause 3.10 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.10.1 Facilities supplied by Downer

Refer to Clause 3.10.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

NOT APPLICABLE

3.10.2 Subcontractors site set up/facilities

Refer to Clause 3.10.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.11 Geotechnical investigation

Refer to Clause 3.11 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

NOT APPLICABLE

3.12 Existing services

Refer to Clause 3.12 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.12.1 Supply/delivery of materials

Refer to Clause 3.12.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.12.2 Other interfaces

Refer to Clause 3.12.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

3.13 Meetings

Refer to Clause 3.13 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

4. MATERIALS SUPPLIED BY DOWNER OR OTHERS

Refer to Clause 4 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

5. SAFETY

Refer to Clause 5 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

5.1 Safety information

Refer to Clause 5.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

5.2 Zero harm audits

Refer to Clause 5.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

5.3 Breaches

Refer to Clause 5.3 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

5.4 Removal from site

Refer to Clause 5.4 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

5.5 Drug and Alcohol

Refer to Clause 5.5 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

6. ENVIRONMENT

Refer to Clause 6 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7. COMMUNITY

Refer to Clause 7 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1 Policies and procedures

Refer to Clause 7.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.1 Attending project inductions

Refer to Clause 7.1.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.2 Handling stakeholder enquiries and complaints

Refer to Clause 7.7.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.3 Handling media enquiries

Refer to Clause 7.1.3 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.4 Respecting program neighbours

Refer to Clause 7.1.4 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.4.1 Working hours

Refer to Clause 7.1.4.1 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.4.2 Parking

Refer to Clause 7.1.4.2 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.4.3 Pedestrian access

Refer to Clause 7.1.4.3 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.4.4 Accessing private property

Refer to Clause 7.1.4.4 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.4.5 Building condition surveys

Refer to Clause 7.1.4.5 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

7.1.4.6 Damage to private property

Refer to Clause 7.1.4.6 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

8. LOADING AND UNLOADING OF VEHICLES

Refer to Clause 12 of the General Scope of Works Document PM001-00-P-SOW-CI-2000 Rev. 3.

Appendix A General Scope of Work

Document Number PM001-00-P-SOW-CI-2000 Revision 3.0 issued via Aconex under Document Transmittal **LWA-TENCOR-000556 on 15/03/2018** shall form part of this Project Specific Scope of Works.