

Notice to Engineer

Number 005

To: Gale Chen & Jason McCrostie
Organisation: WSP
Address: 65 Arena Avenue, Invercargill

From: SouthRoads Ltd
Date: 13/06/25
Contract: CC1680 Morell-Nelson Street Foulsewer Renewals
Total Pages: 1 + Attachments

Subject: Quality Management Plan Rev 1

Good afternoon,

Please find attached the revised Quality Management Plan along with the Inspection Test Plan.

Yours faithfully



Kate Gentle
Contractor's Representative

✓

Contract Administration
Confirmation of Discussion
Contract Variation
SR Delegate Approved



QUALITY MANAGEMENT PLAN

for

CC1680 Morell-Nelson Foulsewer Renewals

Principal: Invercargill City Council
Address: 101 Esk Street
Invercargill

Engineer's Rep: Jason McCrostie
Address: 65 Arena Ave
Invercargill
Telephone: 021 225 9076

CONFIDENTIALITY

All information relating to this contract is strictly confidential to SouthRoads Ltd, the Engineer and the Principal, and must only be used in relation to this contract.



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1 Distribution

This Quality Management Plan has been issued to:

Contract Role	Company
Contractor	SouthRoads Ltd
Principal	Invercargill City Council
Engineer's Representative	WSP

2 Contract Information

Award Date: 07/03/25

Commencement Date: 26/05/25

Completion Date: 20/10/25

Defects Liability Period: 52 weeks

2.1 Scope of Works

This contract includes the following work activities:

- Site establishment
- Traffic management installation and management
- Installation of 438m of DN150 uPVC main
- Installation of 603m of DN225 uPVC main
- Installation of property connections
- Removal of existing mains
- Renewal of 13 DN1050 manholes
- CCTV and testing of new mains
- Reinstatement of carriageway, footpath and berms
- Supply of As-builts, red-pen markups and quality assurance documentation

2.2 Contract Documentation

All works within this contract shall be carried out in accordance with the following documents where relevant:

- CC1680 Morell-Nelson Foulsewer Renewals contract documents and appendices
- Specifications as detailed in the contract documents
- Health and Safety at Work Act 2015

3 Contract Management

3.1 Personnel

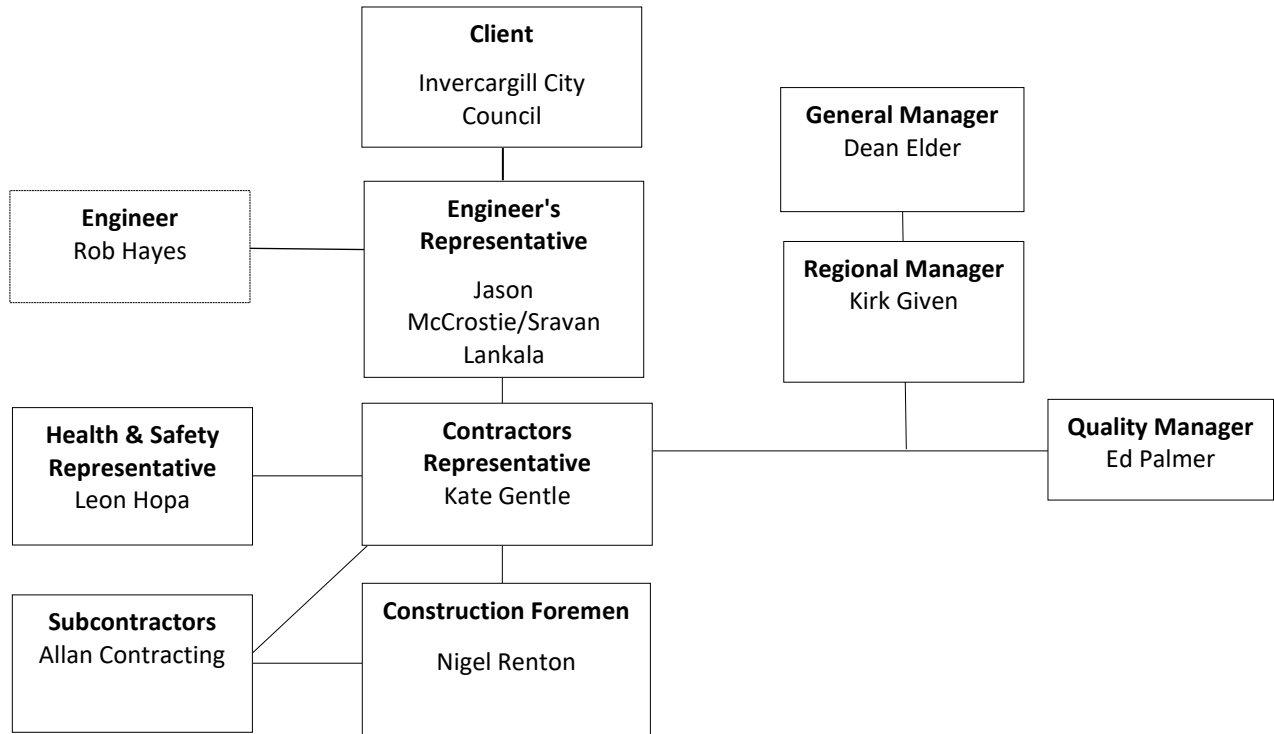
This section outlines the personnel involved in this contract and their intended roles and responsibilities.

3.1.1 Personnel Register

Position	Name	Phone
SouthRoads Regional Manager	Kirk Given	027 671 2081
Contract Manager	Josh Faulkner	027 403 2621
Contractor's Representative	Kate Gentle	027 282 1544
Site Representative	Kate Gentle	027 282 1544
Construction Foremen	Nigel Renton	027 837 7841
Health and Safety Manager	Leon Hopa	027 284 6540
Quality Manager	Ed Palmer	027 232 6647
Engineer's Representative	Jason McCrostie	021 225 9076
Emergency	Fire/Ambulance/Police	111
Site Safety Supervisors	Contractor's Site Representative and Construction Foremen (See above)	
First Aiders	All employees are trained in emergency first aid	
Medical Facilities	1 st preference – local first aid – first aid kit on site 2 nd preference – Local hospital	
Assembly Area	Site Container	

3.1.3 Lines of Communication

The lines of communication to be followed through this contract are as outlined below:



Key responsibilities and authorities within this contract are as follows:

3.1.4 Contract Manager

Josh Faulkner

027 403 2621

- Overall responsibility for the programming and commitment of SouthRoads and Subcontractor resources for this contract.
- Authority to address and resolve contract issues or disputes.
- Responsible for processing variations and progress claims.
- Responsible for contract communications, including receiving instructions from the Principal or Engineer (refer NZS 3910:2003 clause 5.2), and issuing Notices to Engineer.
- Ensuring compliance within the contract of all Contract Plans.

3.1.5 Contractor's Representative

Kate Gentle

027 282 1544

- First point of contact for the Engineer's Representative for all matters pertaining to the contract works.
- Responsibility for all site operations including the management of SouthRoads and subcontractor resources.
- Responsible for the preparation and management of Contract Plans, including the Quality Management Plan, Health and Safety Plan and Environmental Plan.
- Responsible for the implementation of Contract Plans, including the Quality Management Plan, Health and Safety Plan and Environmental Plan.
- Ensuring compliance of all Contract Plans within the contract.
- Responsible for on-site quality control testing, dimension control, measuring and recording of variations.
- Management of construction techniques on site.

3.1.6 Contract Foremen / STMS

Nigel Renton

027 837 7841

- Responsible for the day to day management of on-site construction activities.
- Ensuring on-site compliance with Contract Plans and company procedures.
- Responsible for achieving specified construction standards and dimension control.
- Ensuring compliance with the Health and Safety at Work Act 2015.

3.1.7 Quality Manager

Ed Palmer

027 232 6647

- Review and internal approval of this Quality Management Plan.
- Overseeing all quality activities throughout the SouthRoads business.
- Managing the Quality Incident process for any non-conformances, including any which may arise throughout this contract.
- Managing SouthRoads' internal quality systems and processes, including those which may be used throughout this contract.

3.1.8 Environmental Manager

Kieran O'Connor

027 232 7149

- Overseeing all environmental activities throughout the SouthRoads business.
- District and regional plan compliance and monitoring.

3.1.9 Health and Safety Representative / Supervisor

Leon Hopa

027 284 6540

- Overseeing all Health and Safety related activities throughout the SouthRoads business.
- Programming regular site safety audits.

- Approval of the Health and Safety Plan for this contract.

3.1.10 Emergency Contacts

The following SouthRoads personnel can be contacted should any sites require emergency works to make the site safe:

- **Kate Gentle** **027 282 1544**
- **Highways South** **03 211 1561**

3.2 Qualification of Personnel

It is the responsibility of the Contractor's Representative to ensure that all personnel employed on the Contract are suitable qualified, experienced, trained and competent in the task they are engaged in. This is to be carried out prior to works commencing and verified through site auditing.

3.3 Communications

All formal communications from the Engineer to SouthRoads are to be received in the form of a Notice to Contractor (NTC).

All formal communications from SouthRoads are to be sent as a Notice to Engineer (NTE), including any relevant attachments.

Telephone conversations should be followed up by e-mail or other written confirmation to document any information or instructions given.

Other methods of communication which can be used in this contract include:

- Telephone calls
- Text messages
- E-mails
- Meetings (including minutes)

3.4 Record Keeping

All contract documentation must be filed in a Contract File, to be maintained by the Contract Manager/Representative. An electronic file must also be maintained on the company intranet.

4 Subcontractors and Suppliers

4.1 Subcontractors

The below table lists the subcontractors to be employed on this contract, and the activities they are to carry out.

Subcontractor	Activity
Allan Contracting	Kerb and channel reinstatement

All subcontractors must complete a Health and Safety prequalification and sign a subcontractor agreement with SouthRoads prior to commencing any work.

Subcontractor responsibilities within this contract include:

- Ensuring the work, they complete is compliant with this Quality Management Plan, their in-house quality systems, contract specifications and product specifications and guidelines.
- Compliance with the approved Traffic Management Plan (where applicable).
- Compliance with the Contract Health and Safety Plan, their in-house Health and Safety systems and SouthRoads' Health and Safety Policies and Procedures.
- Maintaining communication with SouthRoads' Contractor's Representative in respect to all areas of the contract works.

Subcontractors may be subject to random site auditing to verify compliance with Contract Plans and SouthRoads' or their own procedures.

4.2 Suppliers

The below table lists the suppliers who will be engaged within this contract and the particular products, materials or services they will provide.

Supplier	Product/Material/Service
Allied Concrete	Concrete
Hynds/Humes	Pipes/fittings
Allied Materials/SouthRoads pit	Aggregates

All materials and products are to be checked upon receipt against the order to verify compliance. This includes the receipt of any relevant test results or certifications.

5 Meetings and Reporting

5.1 Contract Meetings

The following meetings and their frequencies are required as part of this contract.

Meeting Type	Timing / Frequency
Site meeting	Weekly or as per Engineer's request
Contract meeting	Monthly

Formal meetings are to be minuted and distributed to attendees and absentees.

5.2 Reporting

5.2.1 Financial Reports

The payment claim is to be submitted to the Engineer by the third working day of each month.

5.2.2 Progress Reporting

A weekly update is to be provided to the Engineer, detailing progress of the contract to date, any issues or incidents and an expected programme forecast for the next week. The following shall also be provided weekly – a rolling four-week schedule showing one week actual progress and a three-week look-ahead forecast. Variation from approved programme and plans shall be noted and rationalized.

5.2.3 Monthly Contract Reports

A formal contract report is to be provided to the Engineer with the monthly claim. This is to include:

- Updated construction programme, showing actual progress to date as compared to planned progress
- Copy of the contract claim
- Construction issues
- Quality performance
- Health and Safety performance
- Environmental performance
- Any potential variations to be brought to the Engineer's attention.

6 Quality Management and Inspections

6.1 Company Quality Management

SouthRoads maintains a Quality Management System which is certified to ISO 9001:2015. This system is maintained through including regular audits of company operations against current policies and procedures to verify compliance and identify opportunities for improvement.

6.2 Work Instructions

Work instructions are provided by management to construction staff in the form of a job folder, containing all relevant information required to carry out the contract works.

This information includes but it not limited to:

- Construction works order (either generated from CMS or from a SouthRoads template)
- 'For Construction' issue drawings
- Contract specifications
- Product/material specifications and guidelines
- Inspection and Test Plan (ITP)
- Permit to Dig
- Relevant consents or external standards
- Other relevant forms

6.3 Inspection and Test Plan

An Inspection and Test Plan (ITP) is implemented as a register of all hold points, witness points and inspections required to successfully manage the quality aspects of this contract. It also allows for signing off the contract works as complete. The Engineer's Representative must be notified at least 24 hours in advance for all hold points and inspections required by the ITP and contract specification.

The ITP is to be maintained on site and completed as the contract progresses. As each point is addressed, it is signed and dated as complete by the person specified before the works can proceed past that point. The ITP is retained as a quality record of the contract works.

The ITP for this contract is located as Appendix A to this Quality Management Plan.

6.4 Photographs

Photographs should be taken at significant work stages as a general record of the works. This also includes instances where formal inspections are not required but verification of work completion is required.

Photographs should be stored on the contract file by the Contractor's Representative.

6.5 Job Audit

Once the works are completed, the job must be audited by the Contractor's Representative along with the Engineer for practical completion and Defects Liability Certificate and allow timely release of bonds and or retentions. This provides an opportunity for the contract works to be inspected to confirm compliance with the contract.

6.6 Contractor's and Engineer's Witness and Hold Points

These are documented in the Inspection and Test Plan (Appendix A), with actions and areas provided for signing.

7 Site Safety

7.1 Health and Safety

SouthRoads is a tertiary-accredited employer under the ACC Partnership Programme. This allows SouthRoads to self-manage their Health and Safety systems and employee wellbeing.

The company maintains a comprehensive Health and Safety management system which is certified for ISO45001:2018 that applies to all personnel and all activities. Our Health and Safety Policy underpins how the company will operate to fulfil its obligations under the Health and Safety at Work Act 2015, and this contract.

This project is to be managed in accordance with SouthRoads' Health and Safety policies and procedures. This includes provisions for (but not limited to) management, staff and subcontractors, monitoring, reporting and incident and accident investigation.

Please refer to the contract-specific Health and Safety Plan for further detail on these processes.

8 Non-Conformance

If any work is identified that does not conform to the specified standards, as part of the rectification process the non-conformance will be entered into the Quality Incident process.

The Quality Incident process involves the non-conformance being entered into our Online Safety Management Tool, which is SouthRoads issue management system. This includes all details of the non-conformance.

An investigator is then assigned, who investigates the causes of the non-conformance and writes recommendations for rectification of the issue (where applicable) and for prevention of the issue occurring in the future.

The results of the investigation are then considered at monthly senior management meeting, with any actions being assigned to relevant personnel to complete. Once the actions are complete and any new procedures are implemented, the Quality Incident is closed off.


Procedures for processing of Quality Incidents are undertaken in accordance with SouthRoads Integrated management system (IMS.)

9 Quality Management Plan Auditing

The Contract operations may be subject to auditing against this Quality Management Plan to verify compliance and identify any areas of improvement.

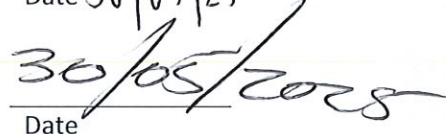

10 Approvals

Prepared by: Kate Gentle
Contractor's Representative



Date 30/05/25

Internally Approved by:


Date

Externally Approved by:

Date

Appendix 1: Inspection and Test Plan



INSPECTION TEST PLAN
CONSTRUCTION

Foreman		Nigel Renton Kate Gentle Josh Faulkner Rob Hayes		Action	Morell-Nelson Foulsewer Renewal								
Contractor's Representative					W	Witness	Stage 1 - Morell Street, Nelson Street between Hardy Street and Martin Street						
Contract Manager					H	Hold Point							
Engineer					M	Monitor	Job Number:	4814	Version:	1			
No:	Detail		Inspection / Test Point	ACTION	Conformance Criteria (Whats Required)	Frequency	Inspection / Test Method	Verification Records	Signatory	Comments	Date	Signature	Engineer's Rep Signature
1	ITP sign off		Sign off	H	Ensure ITP has been reviewed and signed off by the DM. No work may proceed unless this has been signed.	Prior to commencement	Review	Sign This ITP	Divisional Manager				
2	Materials testing to be provided to Engineer for acceptance	SR10.103	Aggregate Acceptance	W	Laboratory test certificates: MDD and Grading Results	Prior to commencement	Lab report	Sign This ITP	Contractor's Rep				
3	Ensure Approved Plans are on site. Safety/Environmental/Quality/TMP/Permits/Site Plans		Review	W	All plans permits produced under pre-construction available on site at all times	Prior to commencement	Review	Sign This ITP	Contractor's Rep				
4	Notice to Engineer Reviewed by Contract Manager		Review	W	All NTE's to be reviewed	Prior to submission to Engineer	Review	Sign This ITP	Contractor's Rep				
5	Variations Reviewed by Contract Manager		Review	W	All Variations to be reviewed	Prior to submission to Engineer	Review	Sign This ITP	Contractor's Rep				
6	Site Pre-Condition Inspection	D1.5, D1.32.4	Review	W	Record existing condition of site via walk-over/drive-over	Prior to excavation	Video	Sign This ITP	Contractor's Rep				
7	Powernet and Chorus locates completed	D1.8	Inspection	H	All known services have been located, reference back to plans to ensure everything has been located	Prior to excavation	Inspection	Sign This ITP	Supervisor/Foreman				
8	Material inspection	D2, D2.4.1	Material Inspection	W	Complete inspection of materials as they arrive to site	Upon pipe delivery	Inspection	Sign This ITP	Supervisor/Foreman				
9	Sewerage continuity	C1.13, D2.7.5	Monitoring	W	Ensure there is continuity in sewerage network during construction works	During construction	Inspection	Sign This ITP	Supervisor/Foreman				
10	Existing alignment markout	D2.7.1, C1.14	Inspection/Test Point	H	Markout existing alignment and trench edges onsite, to be confirmed by the Engineer's Rep	Prior to commencement	Inspection	Sign This ITP	Supervisor/Foreman				
11	Inspect subgrade	D13.4.3, D13.4.4	Inspection/Scala	M	Inspect subgrade as expose, complete scala if required. Contact manager for further instruction if subgrade is deemed unsuitable	During construction	Inspection/Scala	Sign This ITP	Supervisor/Foreman				
12	Pipe laying	D2, D2.7, D2.11.2	Pipe laying	M	Pipe to be laid as per specification, contract document and plans	During construction	Spot checks	Sign This ITP	Supervisor/Foreman				

13	Saddles onto main, for laterals	D4	Sign off	W	Install as per construction plans	During construction	Photos	Sign This ITP	Supervisor/Foreman				
14	Compaction of bedding	D1.29, D2.7.7	Bedding	M	Compacted layers not exceeding 200mm or 1/3 the pipe OD (whichever is lesser).	During construction	Monitor	Sign This ITP	Supervisor/Foreman				
15	Concrete pours	D1.24	Sign off	W	Concrete pours to be inspected by Engineer's Rep prior to backfilling	During construction	Inspection	Sign This ITP	Supervisor/Foreman	Photos/concrete docketts			
16	DN1050 Manhole F25383	D18	Inspection	W	Complete manhole installation checklist	During construction	Inspection	Sign This ITP	Supervisor/Foreman	Complete SR manhole checklist			
17	DN1050 Manhole F25384	D18	Inspection	W	Complete manhole installation checklist	During construction	Inspection	Sign This ITP	Supervisor/Foreman	Complete SR manhole checklist			
18	DN1050 Manhole F25385	D18	Inspection	W	Complete manhole installation checklist	During construction	Inspection	Sign This ITP	Supervisor/Foreman	Complete SR manhole checklist			
19	DN1050 Manhole F25386	D18	Inspection	W	Complete manhole installation checklist	During construction	Inspection	Sign This ITP	Supervisor/Foreman	Complete SR manhole checklist			
20	DN1050 Manhole F25387	D18	Inspection	W	Complete manhole installation checklist	During construction	Inspection	Sign This ITP	Supervisor/Foreman	Complete SR manhole checklist			
21	DN1050 Manhole F25389	D18	Inspection	W	Complete manhole installation checklist	During construction	Inspection	Sign This ITP	Supervisor/Foreman	Complete SR manhole checklist			
22	DN1050 Manhole F25388	D18	Inspection	W	Complete manhole installation checklist	During construction	Inspection	Sign This ITP	Supervisor/Foreman	Complete SR manhole checklist			
23	Connect into existing manhole F25215	D18	Inspection	W	Engineer's Rep to inspect connection into existing manhole	During construction	Inspection	Sign This ITP	Supervisor/Foreman				
24	Encountered Services Sheet	Contract document Appendix X, D2.7.4.3	Record	H	Record service on ICC encountered services sheet for services found on main and laterals	During construction	Record	Sign This ITP	Supervisor/Foreman	Complete encountered service sheet for each service			
25	Drainage Connection Sheet	Contract document Appendix XI	Record	H	Record detail on ICC drainage connection sheet for each lateral installed	During construction	Record	Sign This ITP	Supervisor/Foreman	Complete drainage connection sheet for each lateral installed			
26	Manhole (MH) Inspection Sheet	Contract document Appendix XV	Record	H	Record detail on ICC manhole inspection sheet for each manhole installed	During construction	Record	Sign This ITP	Supervisor/Foreman	Complete manhole installation sheet for each manhole installed			
27	Plateau Testing	D2.7.7	Test	H	Plateau test to be undertaken at start of backfill to calibrate compaction methodology	Prior to backfill	Test	Sign This ITP	Contractor's Rep				

28	Compaction of AP65 - Clegg Tests	Contract document Appendix XIII, D2.7.7	Record	W	AP65 to be compacted in layers not exceeding 200mm depth. Clegg testing to be undertaken at 6m intervals. Record results on the ICC Clegg test result sheet.	During backfill	Clegg test	Sign This ITP	Supervisor/Foreman				
29	Compaction of AP65 - Test Results to Engineer	D1.29, D2.7	Test Point	W	NDM testing to be undertaken every 120m and achieve compaction of at least 95%. Results to be provided to Engineer at end of each stage.	During construction	NDM Test	Sign This ITP	Contractor's Rep	NDM test results			
30	Compaction of AP40 - Test Results to Engineer	D1.29, D2.7	Test Point	W	NDM testing to be undertaken every 20m and achieve compaction of at least 98%. Results to be provided to Engineer at end of each stage.	During construction	NDM Test	Sign This ITP	Contractor's Rep	NDM test results			
31	Foul sewer main pressure testing	AS/NZS2566:2	Test Point	H	Pressure test of new main, including connections to boundary	During construction	Pressure test	Sign This ITP	Supervisor/Contractor's Rep				
32	Height check and CCTV - MH F25383 - F25384	D2.9.3	Sign off	H	Check heights during construction. CCTV new line to ensure quality of installation prior to asphalt.	During construction	Inspection	Sign This ITP	Supervisor/Contractor's Rep	CCTV footage			
33	Height check and CCTV - MH F25384 - F25385	D2.9.3	Sign off	H	Check heights during construction. CCTV new line to ensure quality of installation prior to asphalt.	During construction	Inspection	Sign This ITP	Supervisor/Contractor's Rep	CCTV footage			
34	Height check and CCTV - MH F25385 - F25386	D2.9.3	Sign off	H	Check heights during construction. CCTV new line to ensure quality of installation prior to asphalt.	During construction	Inspection	Sign This ITP	Supervisor/Contractor's Rep	CCTV footage			
35	Height check and CCTV - MH F25386 - F25387	D2.9.3	Sign off	H	Check heights during construction. CCTV new line to ensure quality of installation prior to asphalt.	During construction	Inspection	Sign This ITP	Supervisor/Contractor's Rep	CCTV footage			
36	Height check and CCTV - MH F25387 - F25388	D2.9.3	Sign off	H	Check heights during construction. CCTV new line to ensure quality of installation prior to asphalt.	During construction	Inspection	Sign This ITP	Supervisor/Contractor's Rep	CCTV footage			
37	Height check and CCTV - MH F25388 - F25389	D2.9.3	Sign off	H	Check heights during construction. CCTV new line to ensure quality of installation prior to asphalt.	During construction	Inspection	Sign This ITP	Supervisor/Contractor's Rep	CCTV footage			
38	Height check and CCTV - MH F25389 - F25215	D2.9.3	Sign off	H	Check heights during construction. CCTV new line to ensure quality of installation prior to asphalt.	During construction	Inspection	Sign This ITP	Supervisor/Contractor's Rep	CCTV footage			
39	Asphalt prep	D2.8, D12	Sign off	H	Engineer to approve area is ready for asphalt. Prep and overcuts completed and compaction results satisfactory.	Prior to asphalt	Inspection	Sign This ITP	Engineer/Engineer's Rep				
40	Defect walkovers		Inspection	H	Contract management team to walk over site and inspect for any defects. List to be made by Engineer and provided to SR for rectification.	Post construction	Inspection	Sign This ITP	Contractor's Rep				
41	Supply of QA documentation	D17	Sign off	W	Remaining QA documentation to be uploaded into Sharepoint	Post construction	Inspection	Sign This ITP	Contractor's Rep				
42	Supply of Asbuilts	D17	Sign off	W	Asbuilt data, DWG format drawings and red pen mark-ups provided to Engineer	Post construction	Inspection	Sign This ITP	Contractor's Rep				



INSPECTION TEST PLAN
CONSTRUCTION

Foreman		Nigel Renton Kate Gentle Josh Faulkner Rob Hayes		Action	Morell-Nelson Foulsewer Renewal								
Contractor's Representative					W	Witness	Stage 2 - Nelson Street, between Tramway Road and Martin Street						
Contract Manager					H	Hold Point							
Engineer					M	Monitor	Job Number:		4814	Version:		1	
No:	Detail		Inspection / Test Point	ACTION	Conformance Criteria (Whats Required)	Frequency	Inspection / Test Method	Verification Records	Signatory	Comments	Date	Signature	Engineer's Rep Signature
1	ITP sign off		Sign off	H	Ensure ITP has been reviewed and signed off by the DM. No work may proceed unless this has been signed.	Prior to commencement	Review	Sign This ITP	Divisional Manager				
2	Materials testing to be provided to Engineer for acceptance	SR10.103	Aggregate Acceptance	W	Laboratory test certificates: MDD and Grading Results	Prior to commencement	Lab report	Sign This ITP	Contractor's Rep				
3	Ensure Approved Plans are on site. Safety/Environmental/Quality/TMP/Permits/Site Plans		Review	W	All plans permits produced under pre-construction available on site at all times	Prior to commencement	Review	Sign This ITP	Contractor's Rep				
4	Notice to Engineer Reviewed by Divisional Manager		Review	W	All NTE's to be reviewed	Prior to submission to Engineer	Review	Sign This ITP	Contractor's Rep				
5	Variations Reviewed by Divisional Manager		Review	W	All Variations to be reviewed	Prior to submission to Engineer	Review	Sign This ITP	Contractor's Rep				
6	Site Pre-Condition Inspection	D1.5, D1.32.4	Review	W	Record existing condition of site via walk-over/drive-over	Prior to excavation	Video	Sign This ITP	Contractor's Rep				
7	Powernet and Chorus locates completed	D1.8	Inspection	H	All known services have been located, reference back to plans to ensure everything has been located	Prior to excavation	Inspection	Sign This ITP	Supervisor/Foreman				
8	Material inspection	D2, D2.4.1	Material Inspection	W	Complete inspection of materials as they arrive to site	Upon pipe delivery	Inspection	Sign This ITP	Supervisor/Foreman				
9	Sewerage continuity	C1.13, D2.7.5	Monitoring	W	Ensure there is continuity in sewerage network during construction works	During construction	Inspection	Sign This ITP	Supervisor/Foreman				
10	Existing alignment markout	D2.7.1, C1.14	Inspection/Test Point	H	Markout existing alignment and trench edges onsite, to be confirmed by the Engineer's Rep	Prior to commencement	Inspection	Sign This ITP	Supervisor/Foreman				
11	Inspect subgrade	D13.4.3, D13.4.4	Inspection/Scala	M	Inspect subgrade as expose, complete scala if required. Contact manager for further instruction if subgrade is deemed unsuitable	During construction	Inspection/Scala	Sign This ITP	Supervisor/Foreman				
12	Pipe laying	D2, D2.7, D2.11.2	Pipe laying	M	Pipe to be laid as per specification, contract document and plans	During construction	Spot checks	Sign This ITP	Supervisor/Foreman				

13	Saddles onto main, for laterals	D4	Sign off	W	Install as per construction plans	During construction	Photos	Sign This ITP	Supervisor/Foreman				
14	Compaction of bedding	D1.29, D2.7.7	Bedding	M	Compacted layers not exceeding 200mm or 1/3 the pipe OD (whichever is lesser).	During construction	Monitor	Sign This ITP	Supervisor/Foreman				
15	Concrete pours	D1.24	Sign off	W	Concrete pours to be inspected by Engineer's Rep prior to backfilling	During construction	Inspection	Sign This ITP	Supervisor/Foreman	Photos/concrete docketts			
16	DN1050 Manhole F25382	D18	Inspection	W	Complete manhole installation checklist	During construction	Inspection	Sign This ITP	Supervisor/Foreman	Complete SR manhole checklist			
17	DN1050 Manhole F25381	D18	Inspection	W	Complete manhole installation checklist	During construction	Inspection	Sign This ITP	Supervisor/Foreman	Complete SR manhole checklist			
18	DN1050 Manhole F25380	D18	Inspection	W	Complete manhole installation checklist	During construction	Inspection	Sign This ITP	Supervisor/Foreman	Complete SR manhole checklist			
19	DN1050 Manhole F25379	D18	Inspection	W	Complete manhole installation checklist	During construction	Inspection	Sign This ITP	Supervisor/Foreman	Complete SR manhole checklist			
20	DN1050 Manhole F25378	D18	Inspection	W	Complete manhole installation checklist	During construction	Inspection	Sign This ITP	Supervisor/Foreman	Complete SR manhole checklist			
21	DN1050 Manhole F25377	D18	Inspection	W	Complete manhole installation checklist	During construction	Inspection	Sign This ITP	Supervisor/Foreman	Complete SR manhole checklist			
22	Encountered Services Sheet	Contract document Appendix X, D2.7.4.3	Record	H	Record service on ICC encountered services sheet for services found on main and laterals	During construction	Record	Sign This ITP	Supervisor/Foreman	Complete encountered service sheet for each service			
23	Drainage Connection Sheet	Contract document Appendix XI	Record	H	Record detail on ICC drainage connection sheet for each lateral installed	During construction	Record	Sign This ITP	Supervisor/Foreman	Complete drainage connection sheet for each lateral installed			
24	Manhole (MH) Inspection Sheet	Contract document Appendix XV	Record	H	Record detail on ICC manhole inspection sheet for each manhole installed	During construction	Record	Sign This ITP	Supervisor/Foreman	Complete manhole installation sheet for each manhole installed			
25	Plateau Testing	D2.7.7	Test	H	Plateau test to be undertaken at start of backfill to calibrate compaction methodology	Prior to backfill	Test	Sign This ITP	Contractor's Rep				
26	Compaction of AP65 - Clegg Tests	Contract document Appendix XIII, D2.7.7	Record	W	AP65 to be compacted in layers not exceeding 200mm depth. Clegg testing to be undertaken at 6m intervals. Record results on the ICC Clegg test result sheet.	During backfill	Clegg test	Sign This ITP	Supervisor/Foreman				
27	Compaction of AP65 - Test Results to Engineer	D1.29, D2.7	Test Point	W	NDM testing to be undertaken every 120m and achieve compaction of at least 95%. Results to be provided to Engineer at end of each stage.	During construction	NDM Test	Sign This ITP	Contractor's Rep	NDM test results			

28	Compaction of AP40 - Test Results to Engineer	D1.29, D2.7	Test Point	W	NDM testing to be undertaken every 20m and achieve compaction of at least 98%. Results to be provided to Engineer at end of each stage.	During construction	NDM Test	Sign This ITP	Contractor's Rep	NDM test results			
29	Foul sewer main pressure testing	AS/NZS2566:2	Test Point	H	Pressure test of new main, including connections to boundary	During construction	Pressure test	Sign This ITP	Supervisor/Contractor's Rep				
30	Height check and CCTV - MH F25382 - F25381	D2.9.3	Sign off	H	Check heights during construction. CCTV new line to ensure quality of installation prior to asphalt.	During construction	Inspection	Sign This ITP	Supervisor/Contractor's Rep	CCTV footage			
31	Height check and CCTV - MH F25381 - F25380	D2.9.3	Sign off	H	Check heights during construction. CCTV new line to ensure quality of installation prior to asphalt.	During construction	Inspection	Sign This ITP	Supervisor/Contractor's Rep	CCTV footage			
32	Height check and CCTV - MH F25380 - F25379	D2.9.3	Sign off	H	Check heights during construction. CCTV new line to ensure quality of installation prior to asphalt.	During construction	Inspection	Sign This ITP	Supervisor/Contractor's Rep	CCTV footage			
33	Height check and CCTV - MH F25379 - F25378	D2.9.3	Sign off	H	Check heights during construction. CCTV new line to ensure quality of installation prior to asphalt.	During construction	Inspection	Sign This ITP	Supervisor/Contractor's Rep	CCTV footage			
34	Height check and CCTV - MH F25378 - F25377	D2.9.3	Sign off	H	Check heights during construction. CCTV new line to ensure quality of installation prior to asphalt.	During construction	Inspection	Sign This ITP	Supervisor/Contractor's Rep	CCTV footage			
35	Asphalt prep	D2.8, D12	Sign off	H	Engineer to approve area is ready for asphalt. Prep and overcuts completed and compaction results satisfactory.	Prior to asphalt	Inspection	Sign This ITP	Engineer/Engineer's Rep				
36	Defect walkovers		Inspection	H	Contract management team to walk over site and inspect for any defects. List to be made by Engineer and provided to SR for rectification.	Post construction	Inspection	Sign This ITP	Contractor's Rep				
37	Supply of QA documentation	D17	Sign off	W	Remaining QA documentation to be uploaded into Sharepoint	Post construction	Inspection	Sign This ITP	Contractor's Rep				
38	Supply of Asbuilts	D17	Sign off	W	Asbuilt data, DWG format drawings and red pen mark-ups provided to Engineer	Post construction	Inspection	Sign This ITP	Contractor's Rep				

Manhole Installation Checklist



Contract Name:	Contract No:
Location:	

Date:

Installation Checklist				
Base Installation	Yes	No	N/A	Comments
Check plans i.e. height and location				
Location of services has been completed				
Cut existing surface to suit				
Excavate to design depth				
Check lifting chains tag				
Place and compact bedding				
Place base				
Cut holes for pipe connections				
Install pipes into manhole				
check 1m flexible joint				
2 pot pipe joins				
Pour Corbels and haunch				
Riser Installlation	Yes	No	N/A	Comments
Install Sealant between risers				
Place riser				
Repeat as needed				
Steps - If required				
Lid Instillation	Yes	No	N/A	Comments
Install sealant				
Place concrete lid				
Install Cast iron lid				
Check lid level				
Concrete lid				
Backfill	Yes	No	N/A	Comments
Bed manhole and pipes				
Compact in 250mm layers to clegg 35				
Finish level to be at 98% NDM				
	Name		Signed	Date
Completed By				