

# Engineering Approval

- issued by Auckland Council - Regulatory Engineering Department

25/03/2025

Wood and Partners Consultants Ltd  
PO Box 6752  
Victoria Street West  
Auckland 1142

Attn: Fatima,

Dear Sir/Madam,

## DECISION ON AN APPLICATION FOR ENGINEERING PLAN APPROVAL

Application Number:	ENG60362263
Applicant:	Woods and Partners Consultants Ltd
Proposed Activity:	Wastewater only – revised 3
Location of work:	Millwater Precinct 6 Stage 3 & 4

*Please note: When communicating with Auckland Council regarding this application, quote the approval reference number.*

**Approval is hereby granted to construct the works identified above subject to the following conditions:**

### Preamble:

The purpose of the approval process is to ensure that Council's vested infrastructure assets achieve acceptable levels of service. The standards used for this purpose are:

- Auckland Council Code of Practice for Land Development and Subdivision (CoP)  
~~Chapter 2 – Earthworks and Geotechnical Requirements (v2.0 – July 2022)~~  
~~Chapter 3 – Auckland Transport Code of Practice (ATCoP Draft v1 – April 2022)~~  
~~Chapter 4 – Stormwater (v3.0 – Jan 2022)~~  
Chapter 5 – Wastewater (v2.2 - Nov 2019)  
~~Chapter 6 – Water supply (v2.2 – Nov 2019)~~

*Latest versions of the Code of Practice can be found on the Auckland Council website*

under the *Auckland Design Manual* section.

(<http://www.aucklanddesignmanual.co.nz/regulations/codes-of-practice>)

- Relevant New Zealand standards relating to the approval which may not be covered by the Code of Practice.

## General conditions:

- 1) The **approved engineering** works shall be carried out in accordance with the attached annotated plans (noted below) and associated calculations and standards as identified in the Auckland Council Code of Practice and the conditions set below.

Table of relevant plan numbers and amendments

Drawing Number	Rev	Date
P22-437-01-4004-DR	3	Mar 2025
P22-437-01-4500-DR	3	Mar 2025

- 2) Engineering approval is valid for a period of **24 months** from the original approval date and will lapse on 31/05/2026 unless a pre-construction meeting has been held and construction commenced. Extensions to this approval may be granted if requested.
- 3) All construction and conditions within this approval are to be completed within **24 months** of the date of approval or extensions to this approval may be granted if requested.
- 4) All works shall be carried out in accordance with the following associated reports, agreements, and approved consents
  - Resource consent **SUB60305557-C**
  - **Watercare Application Number EPA-230925, dated: 31 May 2024, and,**
  - **Watercare Application Number EPA-230925A, dated: 23/09/2024**
  - **Watercare Application Number EPA-230925, dated: 2/10/2024**
  - **Watercare Application Number EPA-230925A, dated: 10/02/2025**
  - **Watercare Application Number EPA-230925A2, dated: 19/03/2025**
- 5) Copies of all relevant consents and approvals including associated specifications, reports and supporting documents are always to be kept on site and available during the full construction period.
- 6) All works are to be undertaken and supervised by suitably qualified professional and experienced practitioners (SQEPs) as per the approved Quality Assurance Manual (QAM). Evidence shall be provided at the pre-construction meeting prior to the commencement of the physical works.  
<https://www.aucklandcouncil.govt.nz/building-and-consents/engineering-approvals/Documents/development-engineering-quality-assurance-manual.pdf>
- 7) As-built plans and documentation (including CCTV pipe inspections) in accordance with Auckland Council's "Regulatory Engineering As-built requirements" are to be provided to

Council's Development Engineer for final signoff. Required documents shall include:

- Digital as-built plans in dxf/dwg format
- As-built plans in vectorised PDF format
- Certified signed pdf as-built plans
- Statement of Certification: Engineering approval signed by Chartered Engineer, Council-accepted Registered Professional Surveyor or Registered Engineering Associate
- Schedule of Land and Assets to Vest in vectorized/excel format
- Schedule of Abandoned Assets in vectorised/excel format
- CCTV pipe inspections, with logsheets and assessment by the Engineer
- All test and inspection results (e.g. Copies of QAM inspection sheets).

<https://www.aucklandcouncil.govt.nz/building-and-consents/engineering-approvals/Documents/engineering-as-built-requirements.pdf>

- 8) Please note, that for public water and wastewater assets, the consent holder will need to liaise with Watercare Services Ltd directly for as-built and completion documentation requirements for Certificate of Acceptance (COA).
- 9) Engineering Compliance Confirmation

The application for Engineering signoff shall be accompanied by Letter of Certification from a suitably qualified professional confirming that all the Engineering Approval conditions have been complied with as per Council approval conditions and requirements.

## Observation and Completion Documentation Conditions:

***Auckland Council – Regulatory Engineering is the point of contact for the compliance aspects of the stormwater, roading and parks aspects. Watercare Services Limited is your point of contact for water and wastewater aspects.***

***The following conditions will guide you on the process to achieve engineering compliance for this approved engineering approval.***

- 10) The Developer's Representative shall give Council's Development Engineer at least **5 (Five)** working days' notice of the on-site **pre-construction meeting**. Construction of consented works shall not commence on the site until such meeting has been held and all necessary documentation are presented as follows, but not limited to;
  - Approved Engineering Plans
  - Health and Safety Plan (in order for the development engineer to understand how they need to comply while onsite)
  - Approved Corridor Access Request (and TMP where required)
  - Services location and identification details by specific utility providers.
  - All approved Resource or Subdivision Consent (and all conditions attached thereto).
  - A programme of works detailing specific inspection milestones.
  - Any signed Consents to Enter for Construction for works on land (including Council land) not owned by the consent holder.

Note:

- Any variation or changes to the approved engineering plans shall be submitted for approval as an Amendment prior to construction works.
- If applicant/owner/engineer has been changed and applicant wishes to stick to same approval and use the same EPA reference number, fresh EPA form signed by both parties is to be submitted to or office. Reg Eng admin to close and settle any fees if applicant /owner is changed.

To contact your Development Engineer to discuss your project or arrange inspections you can contact **Samuel Holmes** on **021802102** | [samuel.holmes@aucklandcouncil.govt.nz](mailto:samuel.holmes@aucklandcouncil.govt.nz)

- 11) The Developer's Representative shall give Watercare's Engineer at least **5 (Five)** working days' notice of the on-site **pre-construction meeting**. Construction work shall not commence on site until such meeting has been held and Watercare have confirmed that the works can proceed.

Note:

To proceed with construction the consented works, contractor nominated by the designer will be required to request a pre-construction meeting with Watercare. Please email [preinspection@water.co.nz](mailto:preinspection@water.co.nz) together with a copy of the completed construction environment management plan (CEMP) and the latest evaluation of the Construction Monitoring level. Contractor must ensure that these documents are concurred and/or approved by the designer.

## Special conditions:

### A. Wastewater and water (Watercare Application Number EPA-230925A dated: 23/09/2024)

- 12) The construction of water/wastewater infrastructure to vest in Auckland Council (and then in Watercare) on completion (**public water supply/wastewater works**) must comply with the requirements of the current Code of Practice, as well as Watercare's standards for material supply, construction and asset data capture.
- 13) The public water supply/wastewater works must comply with Watercare's requirements in accordance with Watercare's Compliance Statement Policy, Part 1 for Land Development and Subdivision Works.
- 14) All connections/disconnections to Public water/wastewater networks must be made in accordance with Watercare's connection processes and must comply with the current Code of Practice.
- 15) All materials for the proposed public water supply/wastewater works must comply with Watercare Material Supply Standards. Please refer to the Material Application Guidelines for the correct material and specification requirements.

16) All wastewater stubs for service connections must be constructed with new public wastewater reticulation main extensions and provided with end cap and marker post within each lot boundary. Watercare approval is required before any service connection is made on the wastewater stub.

Advice notes:

- a) *Under the Auckland Water Supply and Wastewater Network Bylaw 2015 Watercare may refuse to accept the vesting of any infrastructure not completed in accordance with approved conditions.*
- b) *The public water supply/wastewater works detailed on the Watercare review shall be constructed at no cost to Watercare. The submitted proposed plans must be based on actual site verification of the existing public wastewater drains and watermains.*
- c) *All works on existing public wastewater drains and watermains (including connections and disconnections) shall be carried out only by a Watercare approved contractor at the applicant's expense.*
- d) *All works in close proximity to existing public wastewater drains and watermains will require a "works over" approval from Watercare and should be obtained prior to Pre-start meeting.*
- e) *Watercare approval is required before any individual building / lot is connected to the public water and/or wastewater network. An application for new connection shall be submitted to Watercare in conjunction with the application to Council for building consent.*
- f) *Watercare infrastructure growth charges will apply to all new developments. Details of the charge are available on the website, [watercare.co.nz](http://watercare.co.nz).*
- g) *A minimum 1.2 metres is required from the soffit level of the public wastewater drain to the lowest floor level.*
- h) *Adequate provision must be made for the protection of public watermain from any proposed network utility service. This will include locating all watermain, hydrants, valves and tees before work begins.*
- i) *All water supply leads for service connections must be constructed with the new public water supply reticulation main extensions as per Watercare standard drawing as appropriate. The meter installation must be carried out by a Watercare approved contractor.*
- j) *All water supply leads for service connection passing under a driveway must be installed through a duct of suitable strength to support the driveway loading.*
- k) *All new public water supply reticulation main extensions cannot be connected to the live public system until all water supply leads for service connections are completed.*
- l) *Mixed-used development shall have two (2) separate bulk water meters, one (1) to service the residential units and one (1) to service the commercial units.*

- m) *The granting of this application does not constitute a guarantee from Watercare Services Limited to provide a fire fighting capability in accordance with Fire and Emergency New Zealand Code of Practice.*
- n) *Water pressure could change in the future. To comply with FW2 fire risk classification, the installation of a sprinkler system and/or booster pump may be required for commercial, industrial high-rise and mixed-use buildings.*

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**General advice notes:**

- 1) If the applicant wishes to extend the duration of this Engineering Application, the applicant shall contact the undersigned engineer to request consideration.
- 2) The applicant is advised that a Traffic Management Plan (TMP) in accordance with the NZTA Code of Practice for Temporary Traffic Management (COPTTM) will be required for the proposed works. No works are to commence within the road reserve until an approved TMP has been issued by Auckland Transport.
- 3) All work within the legal road corridor (boundary to boundary) requires a 'Corridor Access Request (CAR) approved by Auckland Transport.

*Note that an application for a CAR is made online to [www.beforeudig.co.nz](http://www.beforeudig.co.nz) where relevant background details are required including resource consents, traffic management plans etc. A CAR ([www.beforeudig.co.nz](http://www.beforeudig.co.nz)) may require up to 15 days to process and construction hours may be restricted on certain roads.*

- 4) An approval letter and A9 completion certificate from Auckland Transport is required to be submitted to Auckland Council as a verification that Auckland Transport has completed approval for all completed works within public road.
- 5) This approval does not grant rights to the Approval Holder to enter private land to undertake works including owned by Auckland Council. It is the responsibility of the Approval Holder to obtain the approval of relevant property owners and tenants in advance of works commencing.
- 6) The Approval holder is advised that this approval does not obviate the need to obtain building consents for private drainage and structures associated with the provision of infrastructure services.
- 7) Where there are retaining walls of height exceeding 1.5m or retaining walls with surcharge load adjacent to the driveway, a Building Consent must be lodged for approval of those works prior to any work commencing.
- 8) In addition to the charge for this approval, an engineering administration and inspection charge, relating to the engineering requirements will be applicable by determining all reasonable and actual costs incurred by Council to process and manage this approval. The Engineering Approval Completion Certificate (EACC) will only be issued by council once the invoice is paid in full.

Yours faithfully



Samuel Holmes  
**Project Manager**  
**REGULATORY ENGINEERING**

Attachments:

1. Approved drawings
2. Watercare Application Number EPA-230925 dated: 31 May 2024, and,
3. Watercare Application Number EPA-230925A dated: 31 May 2024
4. Watercare Application Number EPA-230925, dated: 2/10/2024
5. Watercare Application Number EPA-230925A, dated: 10/02/2025
6. Watercare Application Number EPA-230925A2, dated: 19/03/2025



SHEET 4001

SHEET 4002

SHEET 4003

SHEET 4004

SHEET 4005

STAGE 3

STAGE 4

LEGEND

- PROPOSED GRAVITY SEWER
- EXISTING GRAVITY SEWER (ENG60362263)
- EXISTING STORMWATER
- PROPOSED STORMWATER
- STAGE BOUNDARY
- REINFORCED EARTH SLOPE

NOTES

1. ALL WORKS AND MATERIALS SHALL COMPLY WITH WATERCARE STANDARD. ANY AMBIGUITY BETWEEN THESE DRAWINGS AND COUNCIL STANDARDS SHALL BE REFERRED TO THE ENGINEER FOR CLARIFICATION.
  2. PIPE BEDDING SHALL COMPLY WITH WATERCARE STANDARDS AS SHOWN ON THE DETAIL DRAWING REFERENCE No. WW7.
  3. ALL MAIN WASTEWATER LINES ARE MINIMUM 150mmID - uPVC S16 PIPES AND ALL PRIVATE CONNECTIONS TO BE 100mm UNLESS STATED OTHERWISE.
  4. ALL PIPE CROSSINGS UNDER ROADS TO BE HARDFILL BACKFILLED.
  5. LOWEST PERMITTED FFL STATED ASSUMES THE FOLLOWING PARAMETERS:  
 1) 150mm DROP BETWEEN FFL AND FGL.  
 2) 500mm COVER FOR PRIVATE WW LEADS.  
 3) 100mm WW PRIVATE LEADS.  
 4) WW PRIVATE LEADS LAID AT 1%.
- IF A PROPOSED FFL IS LOWER THAN THE LOWEST PERMITTED FFL STATED, A GRAVITY CONNECTION WILL NOT BE ACHIEVED. IN THIS SITUATION A PRIVATE WW PUMP WILL BE REQUIRED.

REVISION DETAILS	BY	DATE
1 ISSUED FOR EPA	JM	MAY 2024
2 DRAINAGE LAYOUT CHANGE	RV	SEP 2024

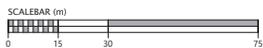
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DESIGNED	RV	AUCKLAND 1023
DRAWN	FS	
CHECKED	AB	
APPROVED	TR	WOODS.CO.NZ



MILLWATER OREWA WEST  
PRECINCT 6 - STAGE 3  
AND 4

WASTEWATER DRAINAGE PLAN

STATUS	FOR APPROVAL	REV
SCALE	1:1500@A3 1:750@A1	2
COUNCIL	AUCKLAND COUNCIL	
DWG NO	P22-437-01-4000-DR	



**Watercare**

**Network Extension Peer Review**  
Application Number: EPA-230925A

Approved By: *Thomas Pava*  
Date: 23/09/2024

This is only a review for water and/or wastewater network extension. EPA must be secured from Auckland Council.





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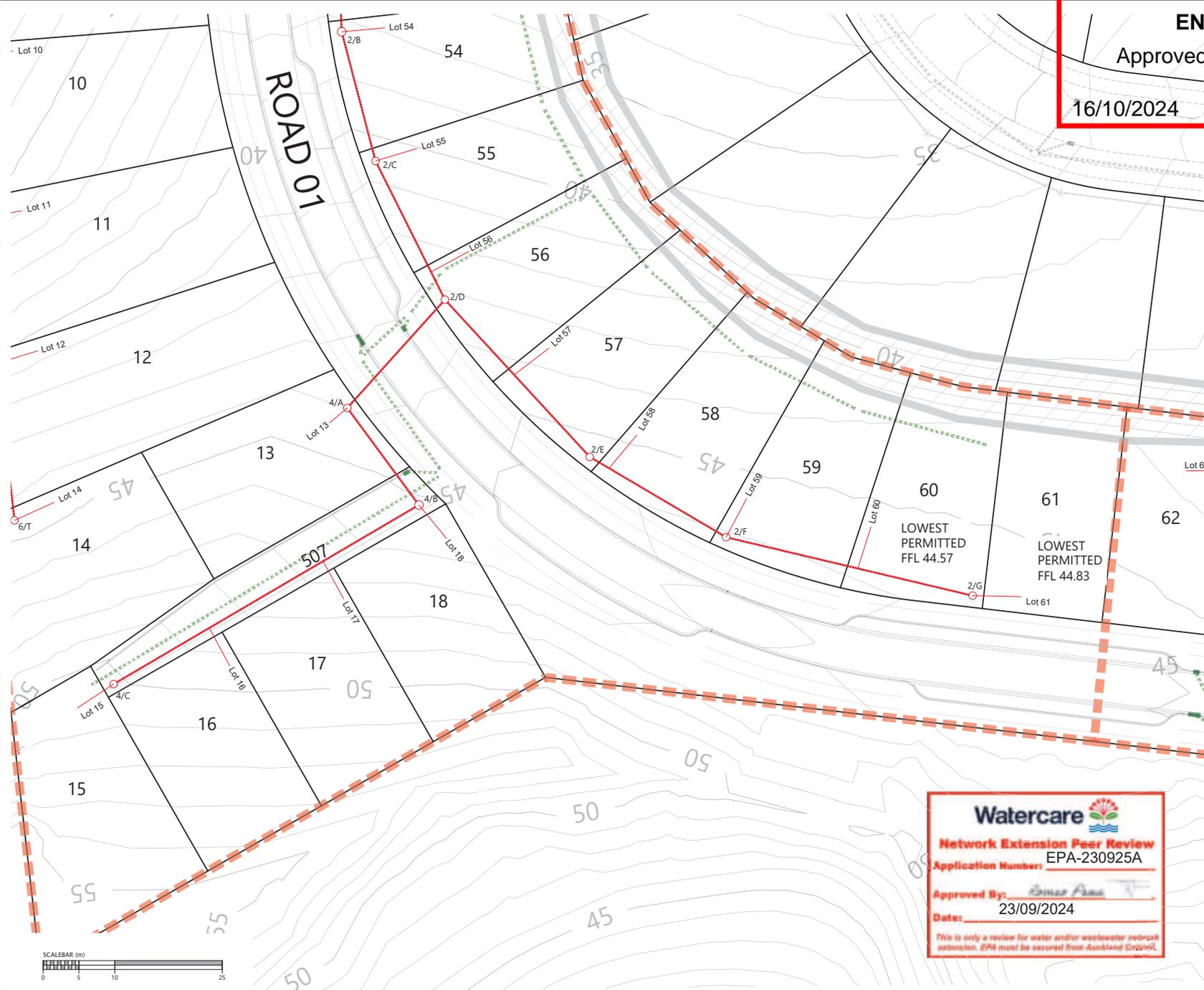
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MILLWATER OREWA WEST  
 PRECINCT 6 - STAGE 3  
 AND 4  
 WASTEWATER DRAINAGE PLAN

STATUS	FOR APPROVAL	REV
SCALE	1:500@A3	2
COUNCIL	AUCKLAND COUNCIL	
DWG NO	P22-437-01-4002-DR	

**Watercare**  
 Network Extension Feasibility Review  
 Application Number: EPA-230925A  
 Approved By: *Simon Adams*  
 Date: 23/09/2024  
 This is only a review for water and/or wastewater network extension. EPA must be secured from Auckland Council.



Plot Date 3:08:51 pm 11 September 2024, FATIMAS



LEGEND

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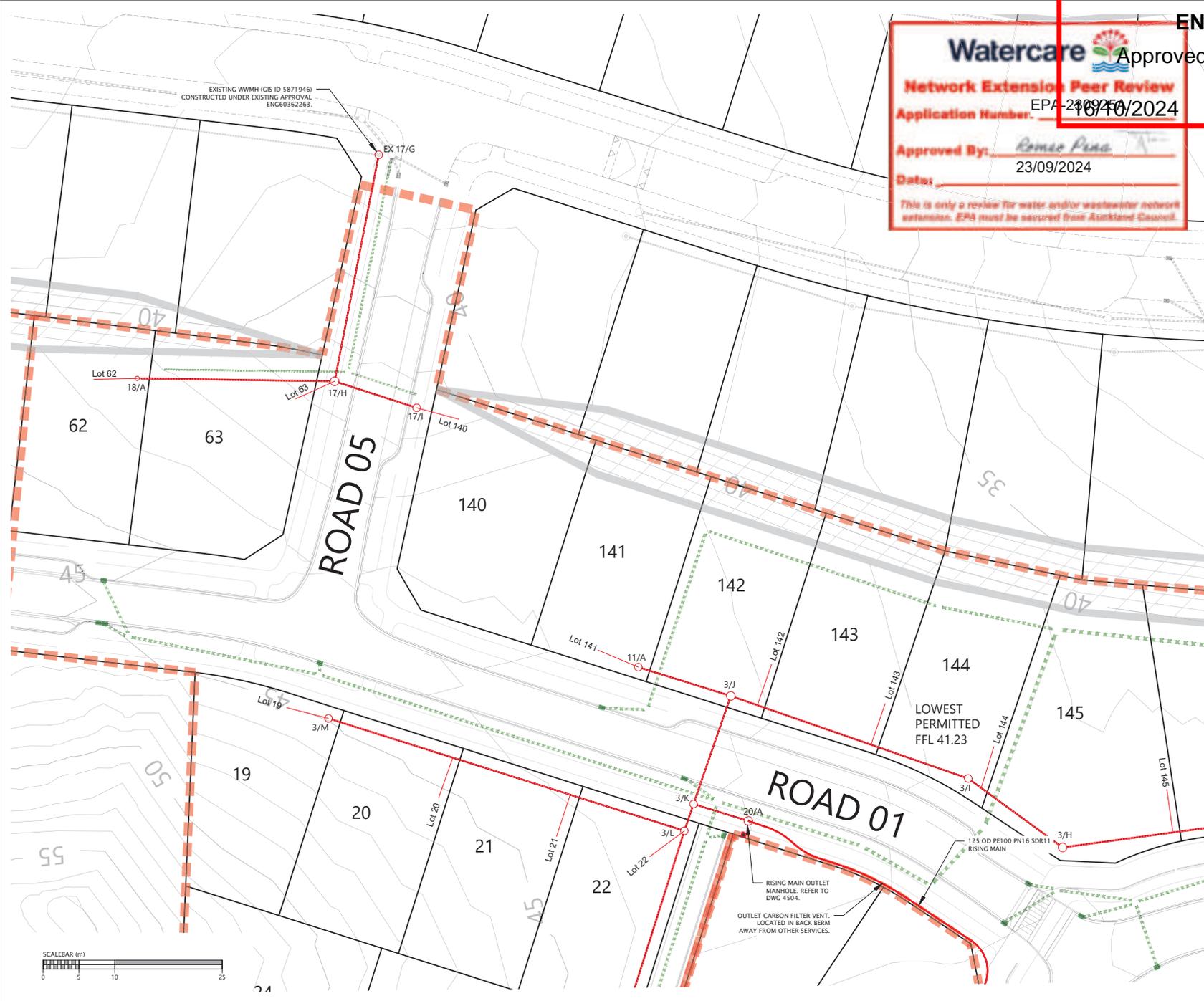
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MILLWATER OREWA WEST  
PRECINCT 6 - STAGE 3  
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WASTEWATER DRAINAGE PLAN

STATUS	FOR APPROVAL	REV
SCALE	1:500@A3	2
COUNCIL	AUCKLAND COUNCIL	
DWG NO	P22-437-01-4003-DR	



Plot Date 3:09:10 pm 11 September 2024, FATIMAS

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LEGEND

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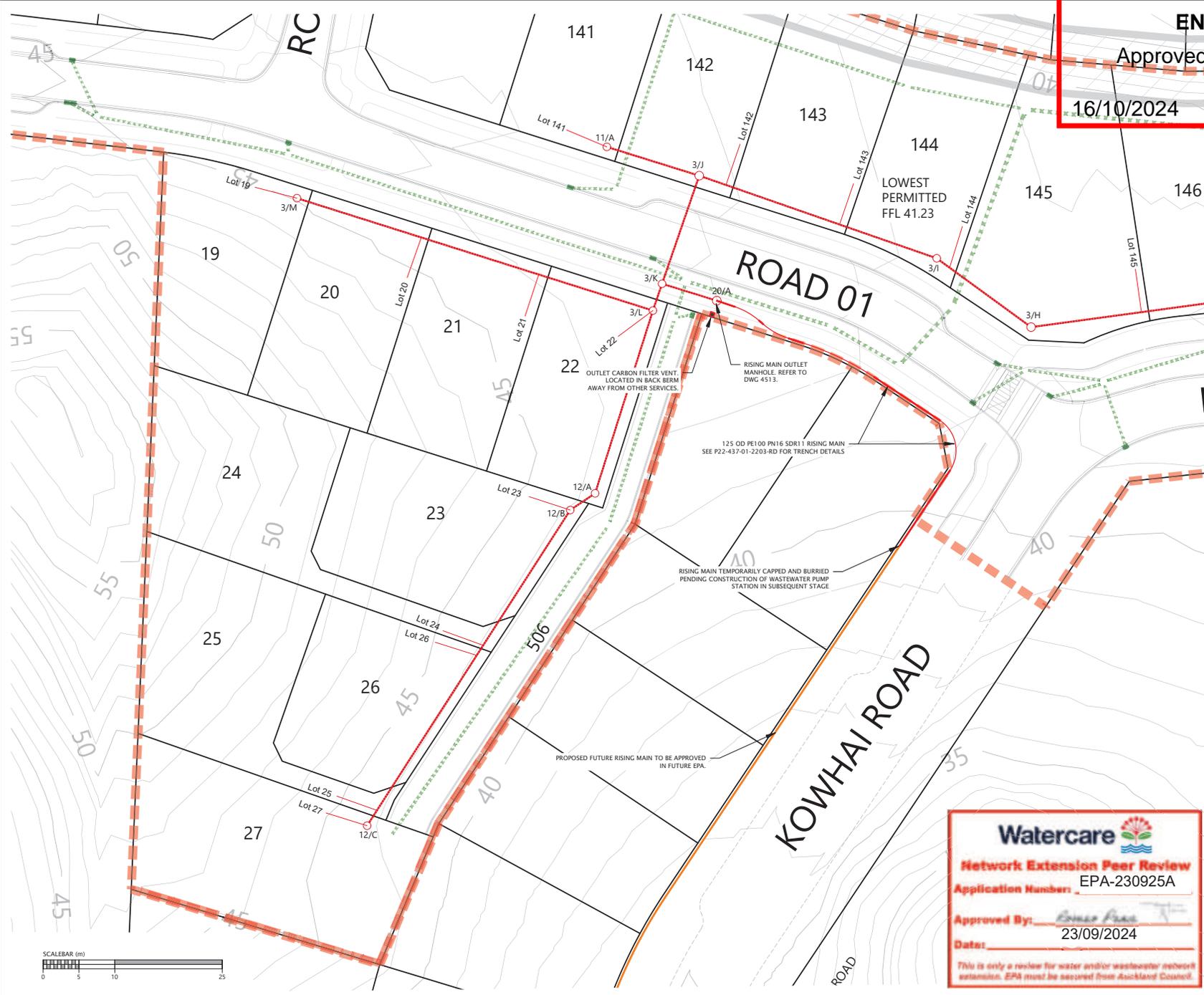
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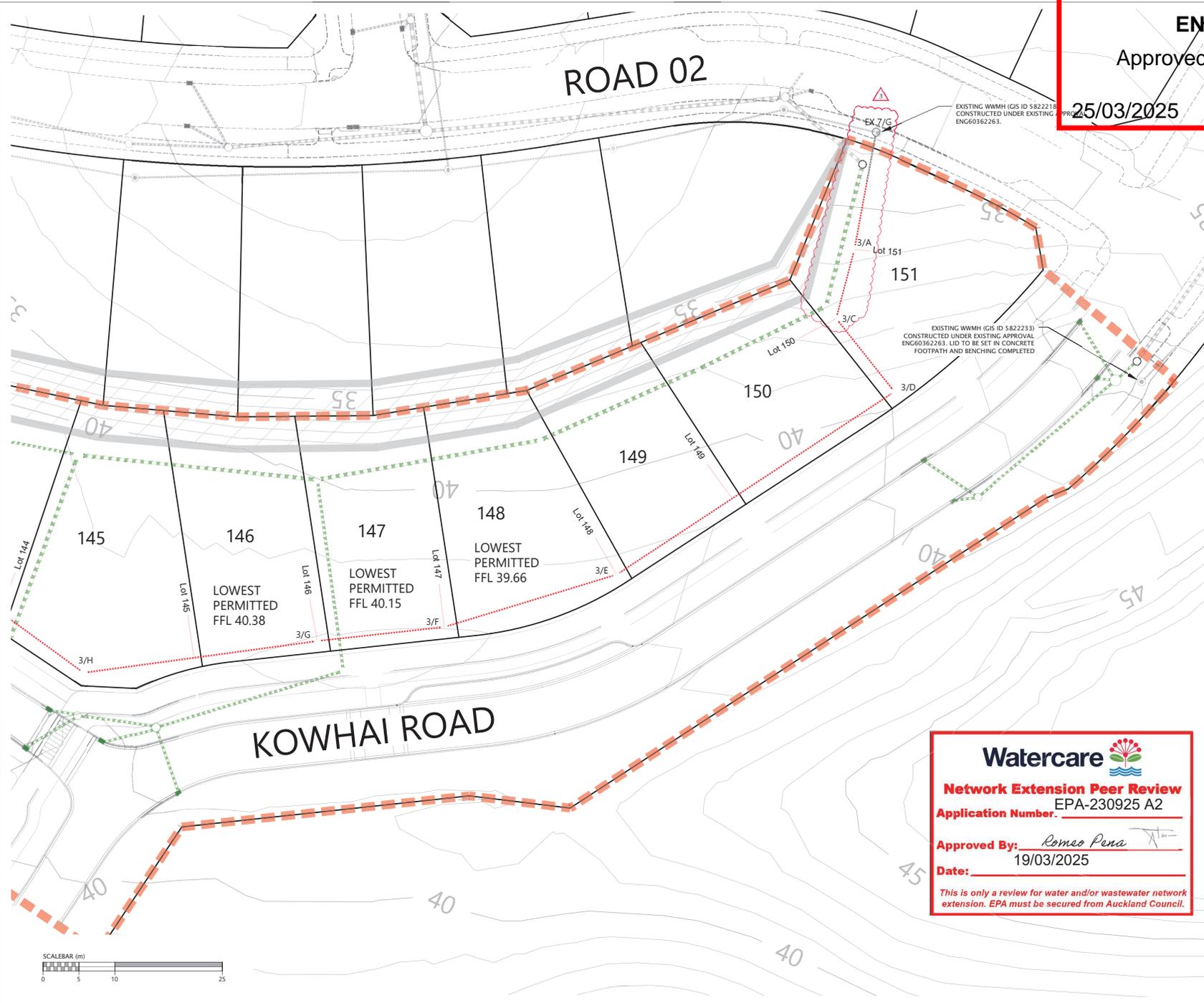
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WASTEWATER DRAINAGE PLAN

STATUS	FOR APPROVAL	REV
SCALE	1:500@A3	2
COUNCIL	AUCKLAND COUNCIL	
DWG NO	P22-437-01-4005-DR	



**Watercare**  
Network Extension Peer Review  
Application Number: EPA-230925A  
Approved By: *[Signature]*  
Date: 23/09/2024  
This is only a review for water and/or wastewater network extension. EPA must be secured from Auckland Council.

Plot Date 3:09:46 pm 11 September 2024, FATMAS



LEGEND

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1 ISSUED FOR EPA	JM	MAY 2024
2 DRAINAGE LAYOUT CHANGE	RV	SEP 2024
3 REVISED WW LINE 3	FS	MAR 2025

SURVEYED	WOODS	BUILDING B, LEVEL 1 8 NUGENT STREET GRAFTON
DESIGNED	FS	AUCKLAND 1023
DRAWN	FS	
CHECKED	AB	
APPROVED	AB	WOODS.CO.NZ



MILLWATER OREWA WEST  
PRECINCT 6 - STAGE 3  
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WASTEWATER DRAINAGE PLAN

STATUS	FOR APPROVAL	REV
SCALE	1:500@A3	3
COUNCIL	AUCKLAND COUNCIL	
DWG NO	P22-437-01-4004-DR	

**Watercare**  
Network Extension Peer Review  
Application Number: EPA-230925 A2  
Approved By: *Romeo Pera*  
Date: 19/03/2025  
*This is only a review for water and/or wastewater network extension. EPA must be secured from Auckland Council.*



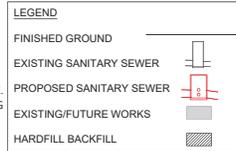
ENG60362263

Approved Engineering Plan

25/03/2025

NOTES

1. ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND COUNCIL STANDARDS AND WATERCARE STANDARDS.
2. FOR PIPE BEDDING DETAILS REFER TO STANDARD DETAIL SHEETS UNLESS OTHERWISE NOTED ON THE DRAINAGE LONG SECTIONS IN WHICH CASE SUCH NOTES TAKE PRECEDENCE.
3. ALL PIPE CROSSINGS UNDER ROADS TO BE HARDFILL BACKFILLED.
4. ALL SS 100mm DIA. RAMPED RISERS ARE TO BE EXTENDED AND CAPPED OFF 1.0m BELOW THE FINISHED GROUND SURFACE.
5. THE CONTRACTOR IS TO PEG MANHOLES AND CHECK FINISHED EARTHWORKS LEVELS (MH LID LEVELS) PRIOR TO ORDERING MANHOLES.
6. ALL PIPE LENGTHS SHOWN IN THE LONG SECTIONS ARE WALL TO WALL AND CHAINAGES ARE PIT CENTRE TO CENTRE.
7. ALL INVERT LEVELS SHOWN IN THE LONG SECTIONS ARE AT THE INSIDE OF THE PIT WALL.
8. ALL SANITARY SEWER MANHOLES SHALL HAVE SAFETY GRILL AS PER AUCKLAND COUNCIL STANDARD AND WATERCARE STANDARD.
9. ALL PE PIPES ARE TO INCLUDE A FLEXIBLE JOINT WITHIN 1M OF THE SSMH AS SHOWN IN WATERCARE STANDARD DRAWING WW10.
10. ANGLED MANHOLE (IF ANY) SHALL BE INSTALLED AS PER WATERCARE STANDARD DRAWING WW5.
11. PIPE GRADES HIGHER THAN 10% (INCLUDING SERVICE CONNECTION), THE BEDDINGS AND SURROUNDING MATERIAL SHALL BE OF LOW-STRENGTH (7MPa) SCORIA CONCRETE AS PER WATERCARE STANDARD DRAWING WW16.
12. INTERNAL MH DROP PIPES ARE TO BE AS PER WATERCARE STANDARD DETAIL WW13.

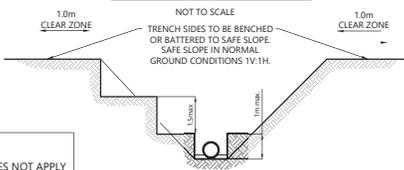


COMPLEX GROUND CONDITIONS:

THIS PREFERRED SAFE TRENCHING SOLUTION DOES NOT APPLY WHEN TRENCHING IN COMPLEX GROUND CONDITIONS.

ALL TRENCH EXCAVATIONS IN COMPLEX GROUND CONDITIONS MUST BE ASSESSED BY AN 'EXPERIENCED TEMPORARY WORKS DESIGNER' IN ACCORDANCE WITH THE WORKSAFE GUIDELINES FOR EXCAVATION SAFETY.

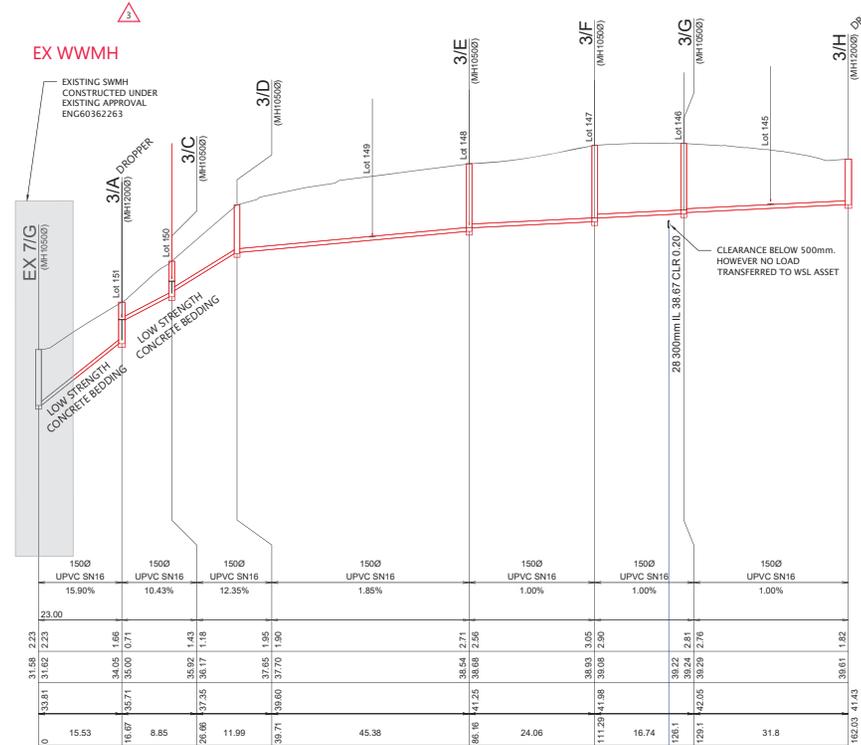
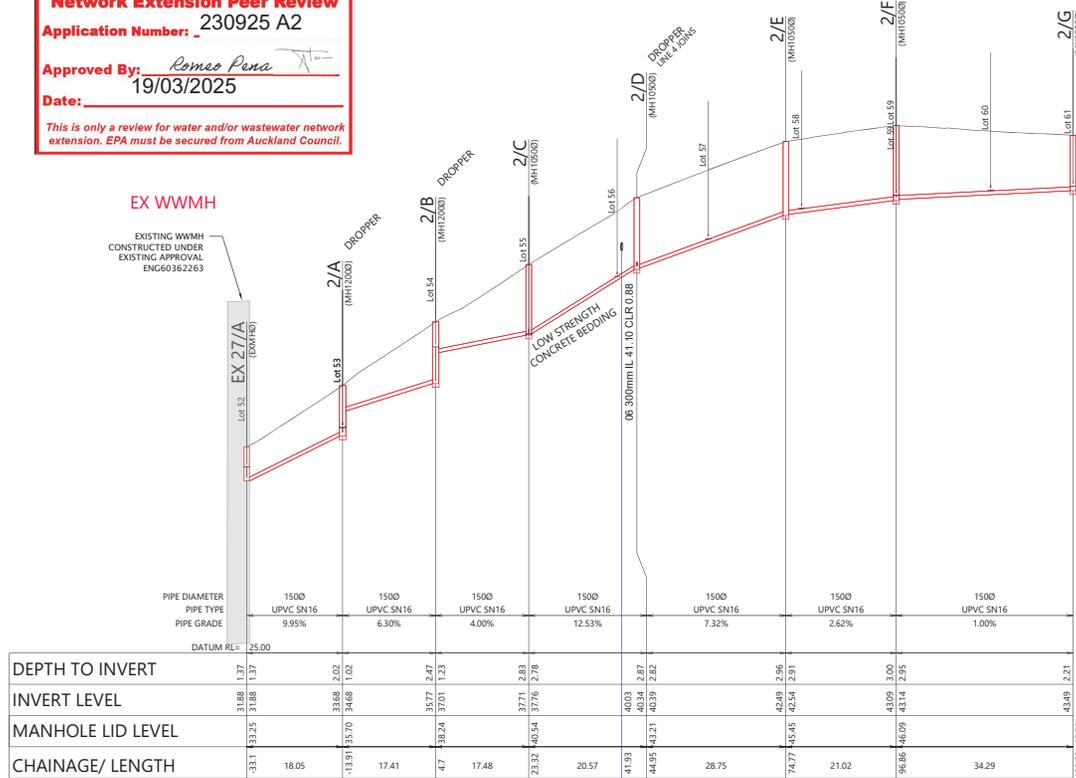
PREFERRED SAFE TRENCHING SOLUTION IN NORMAL GROUND CONDITIONS



SAFE TRENCHING NOTES:

1. THIS DIAGRAM SHOWS THE PREFERRED SAFE TRENCHING SOLUTION IN NORMAL GROUND CONDITIONS.
2. ALL TRENCH EXCAVATIONS MUST BE ASSESSED BY A 'COMPETENT PERSON' ON SITE IN ACCORDANCE WITH THE WORKSAFE GUIDELINES FOR EXCAVATION SAFETY.
3. IF THE PREFERRED TRENCHING SOLUTION IS NOT SUITABLE FOR THE GROUND CONDITIONS, RECORDS OF THE SAFE TRENCHING ASSESSMENT MUST BE PROVIDED TO THE DESIGNER.
4. TABLES 1 AND 2 OF THE WORKSAFE GUIDELINES SET OUT THE RECOMMENDED COMPETENCIES FOR THE 'COMPETENT PERSON'. TABLES 1 & 2 ARE INCLUDED IN THE CONTRACT DOCUMENTS.
5. GROUND CONDITIONS AS DEFINED IN TABLES 1 AND 2 OF THE WORKSAFE GUIDELINES:
  - NORMAL GROUND CONDITIONS: GENERALLY FLAT OPEN GROUND WITH LIGHT TO MODERATE CHARGE LOADING, FAVOURABLE GROUND CONDITIONS, OFF SET FROM NEARBY STRUCTURES AND SENSITIVE INFRASTRUCTURE. GROUNDWATER CAN BE CONTROLLED WITH SIMPLY MEANS.
  - COMPLEX GROUND CONDITIONS: THE GROUND CONDITIONS INCLUDE VERY WEAK OR SENSITIVE SOILS, GROUNDWATER THAT REQUIRES SPECIALIST DEWATERING, OR LOCATIONS NEAR STRUCTURES AND SENSITIVE INFRASTRUCTURE. THESE CONDITIONS WOULD RESULT IN AN ELEVATED RISK WHEN CONSTRUCTING THE EXCAVATION.

**Watercare**  
Network Extension Peer Review  
Application Number: 230925 A2  
Approved By: Romeo Pena  
Date: 19/03/2025  
This is only a review for water and/or wastewater network extension. EPA must be secured from Auckland Council.



REVISION DETAILS	INT	DATE	SURVEYED	WOODS	CLIENT
1 ISSUED FOR EPA	JM	MAY 2024	DESIGNED	FS	WFOH PROPERTIES
2 DRAINAGE LAYOUT CHANGE	RV	SEP 2024	DRAWN	FS	
3 REVISED WW LINE 3	FS	MAR 2025	CHECKED	AB	
			APPROVED	AB	WOODS.CO.NZ

BUILDING B, LEVEL 1  
8 NUGENT STREET  
GRAFTON  
AUCKLAND 1023



MILLWATER OREWA WEST - PRECINCT 6 STAGE 3 AND 4  
WASTEWATER LONG SECTION

STATUS	FOR APPROVAL	REV
SCALE	V 1:200@A3 H 1:1000@A3	3
COUNCIL	AUCKLAND COUNCIL	
DWG NO	P22-437-01-4500-DR	

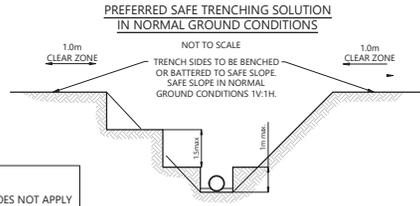
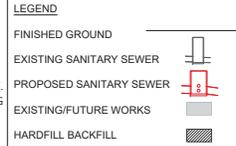
ENG60362263

Approved Engineering Plan

16/10/2024

NOTES

1. ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND COUNCIL STANDARDS AND WATERCARE STANDARDS.
2. FOR PIPE BEDDING DETAILS REFER TO STANDARD DETAIL SHEETS UNLESS OTHERWISE NOTED ON THE DRAINAGE LONG SECTIONS IN WHICH CASE SUCH NOTES TAKE PRECEDENCE.
3. ALL PIPE CROSSINGS UNDER ROADS TO BE HARDFILL BACKFILL.
4. ALL SS 100mm DIA. RAMPED RISERS ARE TO BE EXTENDED AND CAPPED OFF 1.0m BELOW THE FINISHED GROUND SURFACE.
5. THE CONTRACTOR IS TO PEG MANHOLES AND CHECK FINISHED EARTHWORKS LEVELS (MH LID LEVELS) PRIOR TO ORDERING MANHOLES.
6. ALL PIPE LENGTHS SHOWN IN THE LONG SECTIONS ARE WALL TO WALL AND CHAINAGES ARE PIT CENTRE TO CENTRE.
7. ALL INVERT LEVELS SHOWN IN THE LONG SECTIONS ARE AT THE INSIDE OF THE PIT WALL.
8. ALL SANITARY SEWER MANHOLES SHALL HAVE SAFETY GRILL AS PER AUCKLAND COUNCIL STANDARD AND WATERCARE STANDARD.
9. ALL PE PIPES ARE TO INCLUDE A FLEXIBLE JOINT WITHIN 1M OF THE SSMH AS SHOWN IN WATERCARE STANDARD DRAWING WW10.
10. ANGLED MANHOLE (IF ANY) SHALL BE INSTALLED AS PER WATERCARE STANDARD DRAWING WW5.
11. PIPE GRADES HIGHER THAN 10% (INCLUDING SERVICE CONNECTION), THE BEDDINGS AND SURROUNDING MATERIAL SHALL BE OF LOW-STRENGTH (7MPa) SCORIA CONCRETE AS PER WATERCARE STANDARD DRAWING WW16.
12. INTERNAL MH DROP PIPES ARE TO BE AS PER WATERCARE STANDARD DETAIL WW13.



**COMPLEX GROUND CONDITIONS:**

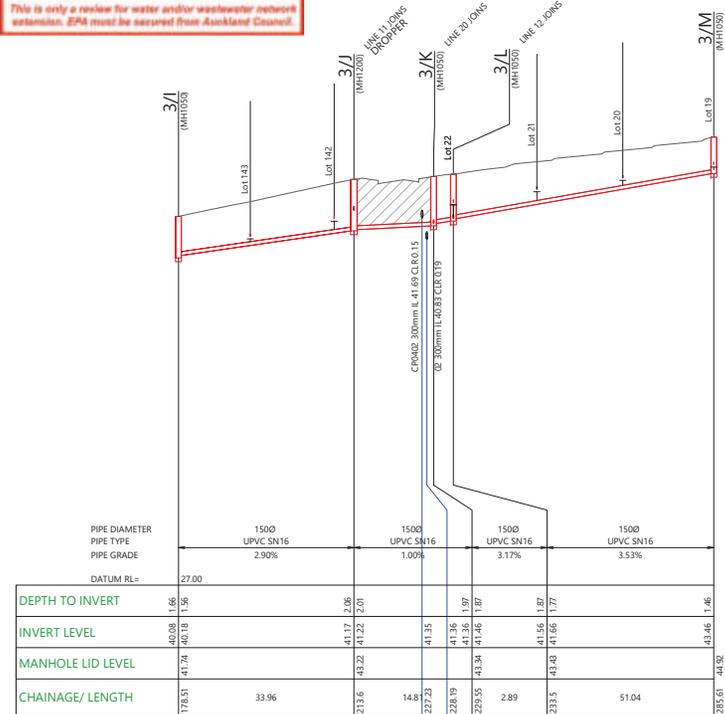
THIS PREFERRED SAFE TRENCHING SOLUTION DOES NOT APPLY WHEN TRENCHING IN COMPLEX GROUND CONDITIONS.

ALL TRENCH EXCAVATIONS IN COMPLEX GROUND CONDITIONS MUST BE ASSESSED BY AN 'EXPERIENCED TEMPORARY WORKS DESIGNER' IN ACCORDANCE WITH THE WORKSAFE GUIDELINES FOR EXCAVATION SAFETY.

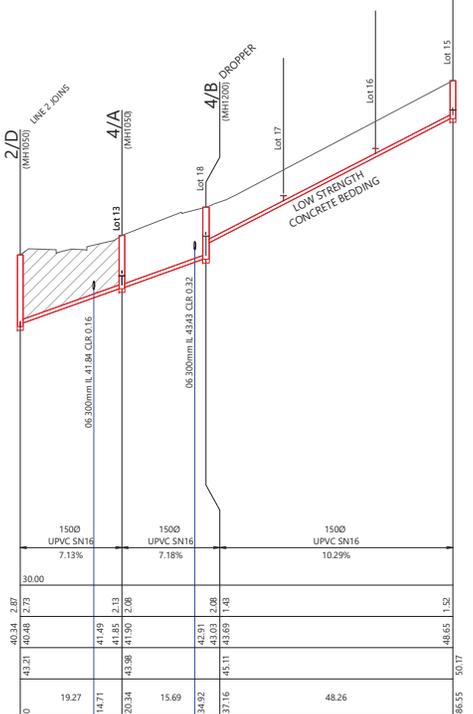
**SAFE TRENCHING NOTES:**

1. THIS DIAGRAM SHOWS THE PREFERRED SAFE TRENCHING SOLUTION IN NORMAL GROUND CONDITIONS.
2. ALL TRENCH EXCAVATIONS MUST BE ASSESSED BY A 'COMPETENT PERSON' ON SITE IN ACCORDANCE WITH THE WORKSAFE GUIDELINES FOR EXCAVATION SAFETY.
3. IF THE PREFERRED TRENCHING SOLUTION IS NOT SUITABLE FOR THE GROUND CONDITIONS, RECORDS OF THE SAFE TRENCHING ASSESSMENT MUST BE PROVIDED TO THE CONTRACTOR.
4. TABLES 1 AND 2 OF THE WORKSAFE GUIDELINES SET OUT THE RECOMMENDED COMPETENCIES FOR THE 'COMPETENT PERSON'. TABLE 1 & 2 ARE INCLUDED IN THE CONTRACT DOCUMENTS.
5. GROUND CONDITIONS AS DEFINED IN TABLES 1 AND 2 OF THE WORKSAFE GUIDELINES:
  - NORMAL GROUND CONDITIONS: GENERALLY FLAT OPEN GROUND WITH NEARLY HORIZONTAL SURFACE. LOADS ARE LOW AND UNIFORM. GROUND CONDITIONS, OFF SET FROM NEARBY STRUCTURES AND SENSITIVE INFRASTRUCTURE. GROUNDWATER CAN BE CONTROLLED WITH SIMPLY EXISTING WATERCARE STANDARD DRAWING WW16.
  - COMPLEX GROUND CONDITIONS: THE GROUND CONDITIONS INCLUDE VERY WEAK OR SENSITIVE SOILS, GROUNDWATER THAT REQUIRES SPECIALIST DEWATERING, OR LOCATIONS NEAR STRUCTURES AND SENSITIVE INFRASTRUCTURE. THESE CONDITIONS WOULD RESULT IN AN ELEVATED RISK WHEN CONSTRUCTING THE EXCAVATION.

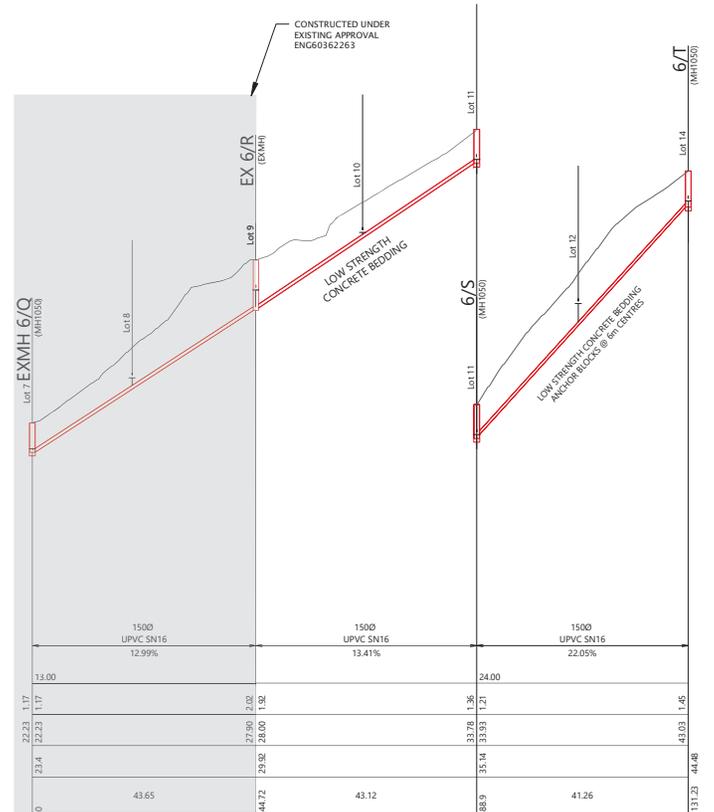
**Watercare**  
 Network Extension Peer Review  
 Application Number: EPA-230925A  
 Approved By: [Signature]  
 Date: 23/09/2024  
 This is only a review for water and/or wastewater network extension. EPA must be secured from Auckland Council.



DEPTH TO INVERT	INVERT LEVEL	MANHOLE LID LEVEL	CHAINAGE/LENGTH
4.66	48.03	41.74	178.51
1.56	40.018	41.74	33.96
2.01	41.17	43.22	213.6
1.97	41.35	43.32	14.8
1.97	41.36	43.34	228.19
1.87	41.36	43.34	229.55
1.97	41.56	43.46	2.89
1.77	41.66	43.46	233.5
1.46	41.86	43.46	51.04
1.46	48.65	44.92	285.61



DEPTH TO INVERT	INVERT LEVEL	MANHOLE LID LEVEL	CHAINAGE/LENGTH
2.87	40.34	43.21	19.27
2.73	40.48	43.21	14.71
1.13	41.49	43.98	20.34
2.08	41.50	43.98	15.69
2.08	42.91	43.03	34.92
1.48	43.03	45.11	37.16
1.52	43.69	48.65	48.26
1.52	48.65	50.17	86.55



DEPTH TO INVERT	INVERT LEVEL	MANHOLE LID LEVEL	CHAINAGE/LENGTH
1.17	22.23	23.4	43.65
1.17	22.23	23.4	44.72
1.92	27.90	29.92	43.12
1.36	33.78	35.14	41.26
1.21	33.93	35.14	131.25
1.45	43.03	44.48	131.25



REVISION DETAILS	INT	DATE	SURVEYED	WOODS	CLIENT
1 ISSUED FOR EPA	JM	MAY 2024	DESIGNED	JM	BUILDING B, LEVEL 1 8 NUGENT STREET GRAFTON AUCKLAND 1023
2 DRAINAGE LAYOUT CHANGE	RV	SEP 2024	DRAWN	TS	
			CHECKED	JM	
			APPROVED	TR	WOODS.CO.NZ



MILLWATER OREWA WEST - PRECINCT 6 STAGE 3 AND 4  
 WASTEWATER LONG SECTION

STATUS	FOR APPROVAL	REV
SCALE	V 1:200@A3 H 1:1000@A3	2
COUNCIL	AUCKLAND COUNCIL	
DWG NO	P22-437-01-4501-DR	

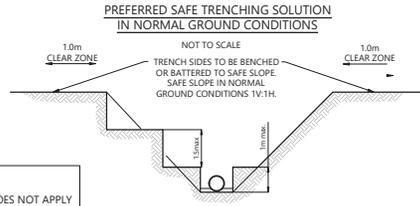
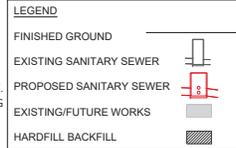
ENG60362263

Approved Engineering Plan

16/10/2024

NOTES

1. ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND COUNCIL STANDARDS AND WATERCARE STANDARDS.
2. FOR PIPE BEDDING DETAILS REFER TO STANDARD DETAIL SHEETS UNLESS OTHERWISE NOTED ON THE DRAINAGE LONG SECTIONS IN WHICH CASE SUCH NOTES TAKE PRECEDENCE.
3. ALL PIPE CROSSINGS UNDER ROADS TO BE HARDFILL BACKFILLED.
4. ALL SS 100mm DIA. RAMPED RISERS ARE TO BE EXTENDED AND CAPPED OFF 1.0m BELOW THE FINISHED GROUND SURFACE.
5. THE CONTRACTOR IS TO PEG MANHOLES AND CHECK FINISHED EARTHWORKS LEVELS (MH LID LEVELS) PRIOR TO ORDERING MANHOLES.
6. ALL PIPE LENGTHS SHOWN IN THE LONG SECTIONS ARE WALL TO WALL AND CHAINAGES ARE PIT CENTRE TO CENTRE.
7. ALL INVERT LEVELS SHOWN IN THE LONG SECTIONS ARE AT THE INSIDE OF THE PIT WALL.
8. ALL SANITARY SEWER MANHOLES SHALL HAVE SAFETY GRILL AS PER AUCKLAND COUNCIL STANDARD AND WATERCARE STANDARD.
9. ALL PE PIPES ARE TO INCLUDE A FLEXIBLE JOINT WITHIN 1M OF THE SSMH AS SHOWN IN WATERCARE STANDARD DRAWING WW10.
10. ANGLED MANHOLE (IF ANY) SHALL BE INSTALLED AS PER WATERCARE STANDARD DRAWING WW5.
11. PIPE GRADES HIGHER THAN 10% (INCLUDING SERVICE CONNECTION), THE BEDDINGS AND SURROUNDING MATERIAL SHALL BE OF LOW-STRENGTH (7MPa) SCORIA CONCRETE AS PER WATERCARE STANDARD DRAWING WW16.
12. INTERNAL MH DROP PIPES ARE TO BE AS PER WATERCARE STANDARD DETAIL WW13.



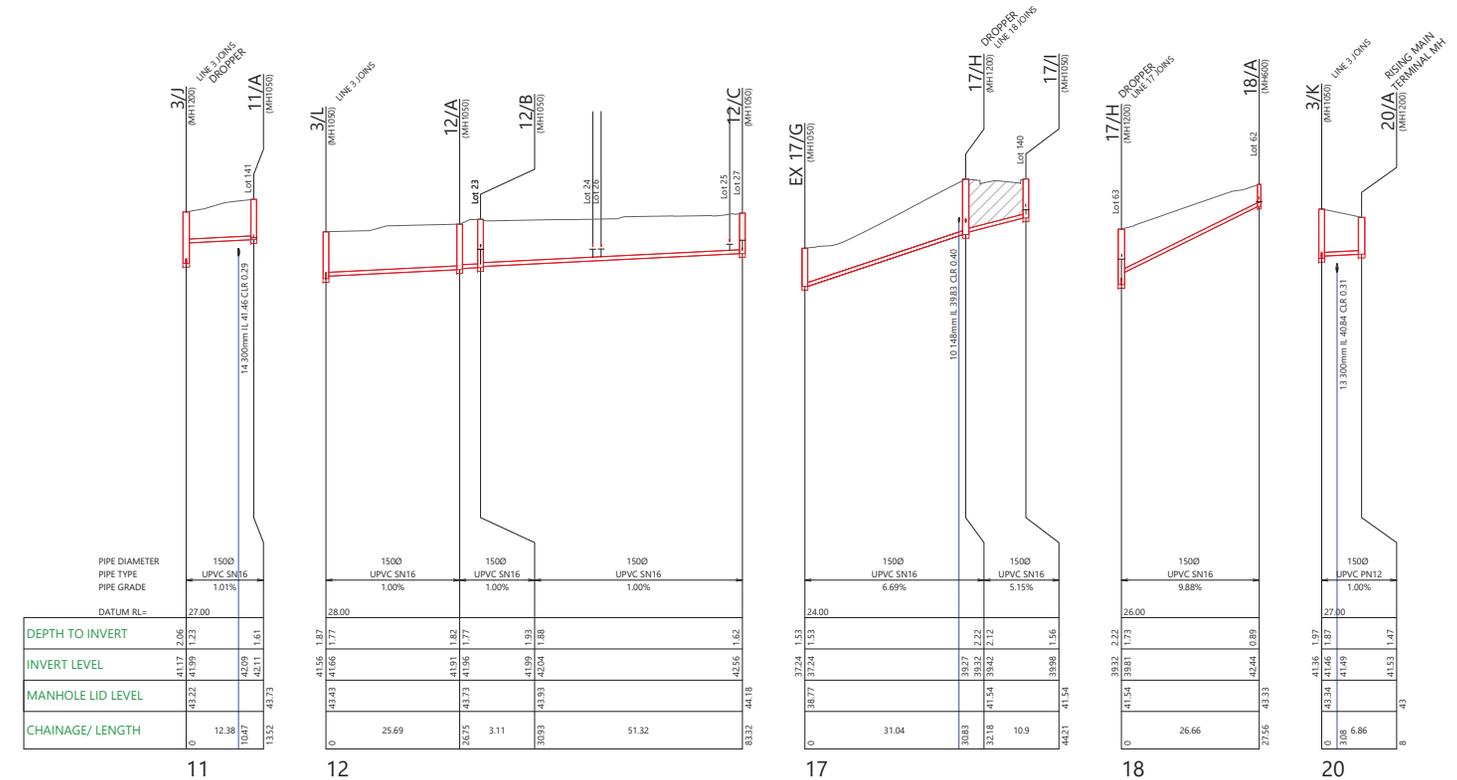
**COMPLEX GROUND CONDITIONS:**

THIS PREFERRED SAFE TRENCHING SOLUTION DOES NOT APPLY WHEN TRENCHING IN COMPLEX GROUND CONDITIONS.

ALL TRENCH EXCAVATIONS IN COMPLEX GROUND CONDITIONS MUST BE ASSESSED BY AN 'EXPERIENCED TEMPORARY WORKS DESIGNER' IN ACCORDANCE WITH THE WORKSAFE GUIDELINES FOR EXCAVATION SAFETY.

**SAFE TRENCHING NOTES:**

1. THIS DIAGRAM SHOWS THE PREFERRED SAFE TRENCHING SOLUTION.
2. ALL TRENCH EXCAVATIONS MUST BE ASSESSED BY A 'COMPETENT PERSON' ON SITE IN ACCORDANCE WITH THE WORKSAFE GUIDELINES FOR EXCAVATION SAFETY.
3. IF THE PREFERRED TRENCHING SOLUTION IS NOT SUITABLE, THE CONTRACTOR MUST OBTAIN RECORDS OF THE SAFE TRENCHING ASSESSMENT FROM THE COMPETENT PERSON.
4. TABLES 1 AND 2 OF THE WORKSAFE GUIDELINES SET OUT THE RECOMMENDED COMPETENCIES FOR THE 'COMPETENT PERSON'. TABLES 1 & 2 ARE INCLUDED IN THE CONTRACT DOCUMENTS.
5. GROUND CONDITIONS AS DEFINED IN TABLES 1 AND 2 OF THE WORKSAFE GUIDELINES:
  - NORMAL GROUND CONDITIONS: GENERALLY FLAT OPEN GROUND WITH NEARBY STRUCTURES AND SENSITIVE INFRASTRUCTURE. GROUNDWATER CAN BE CONTROLLED WITH SIMPLY SHIELDING.
  - COMPLEX GROUND CONDITIONS: THE GROUND CONDITIONS INCLUDE VERY WEAK OR SENSITIVE SOILS, GROUNDWATER THAT REQUIRES SPECIALIST DEWATERING, OR LOCATIONS NEAR STRUCTURES AND SENSITIVE INFRASTRUCTURE. THESE CONDITIONS WOULD RESULT IN AN ELEVATED RISK WHEN CONSTRUCTING THE EXCAVATION.



REVISION DETAILS	INT	DATE	SURVEYED	WOODS	BUILDING B, LEVEL 1 8 NUGENT STREET GRAFTON AUCKLAND 1023
1 ISSUED FOR EPA	JM	MAY 2024	DESIGNED	JM	
2 DRAINAGE LAYOUT CHANGE	RV	SEP 2024	DRAWN	TS	
			CHECKED	JM	
			APPROVED	TR	



MILLWATER OREWA WEST - PRECINCT 6 STAGE 3 AND 4  
 WASTEWATER LONG SECTION

**Watercare**  
 Network Extension Peer Review  
 Application Number: EPA-230925A  
 Approved By: *[Signature]*  
 Date: 23/09/2024  
 This is only a review for water and/or wastewater network extension. EPA must be secured from Auckland Council.

STATUS	FOR APPROVAL	REV
SCALE	V 1:200@A3 H 1:1000@A3	2
COUNCIL	AUCKLAND COUNCIL	
DWG NO	P22-437-01-4502-DR	

ENG60362263

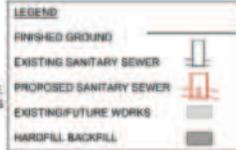
Approved Engineering Plan

16/10/2024



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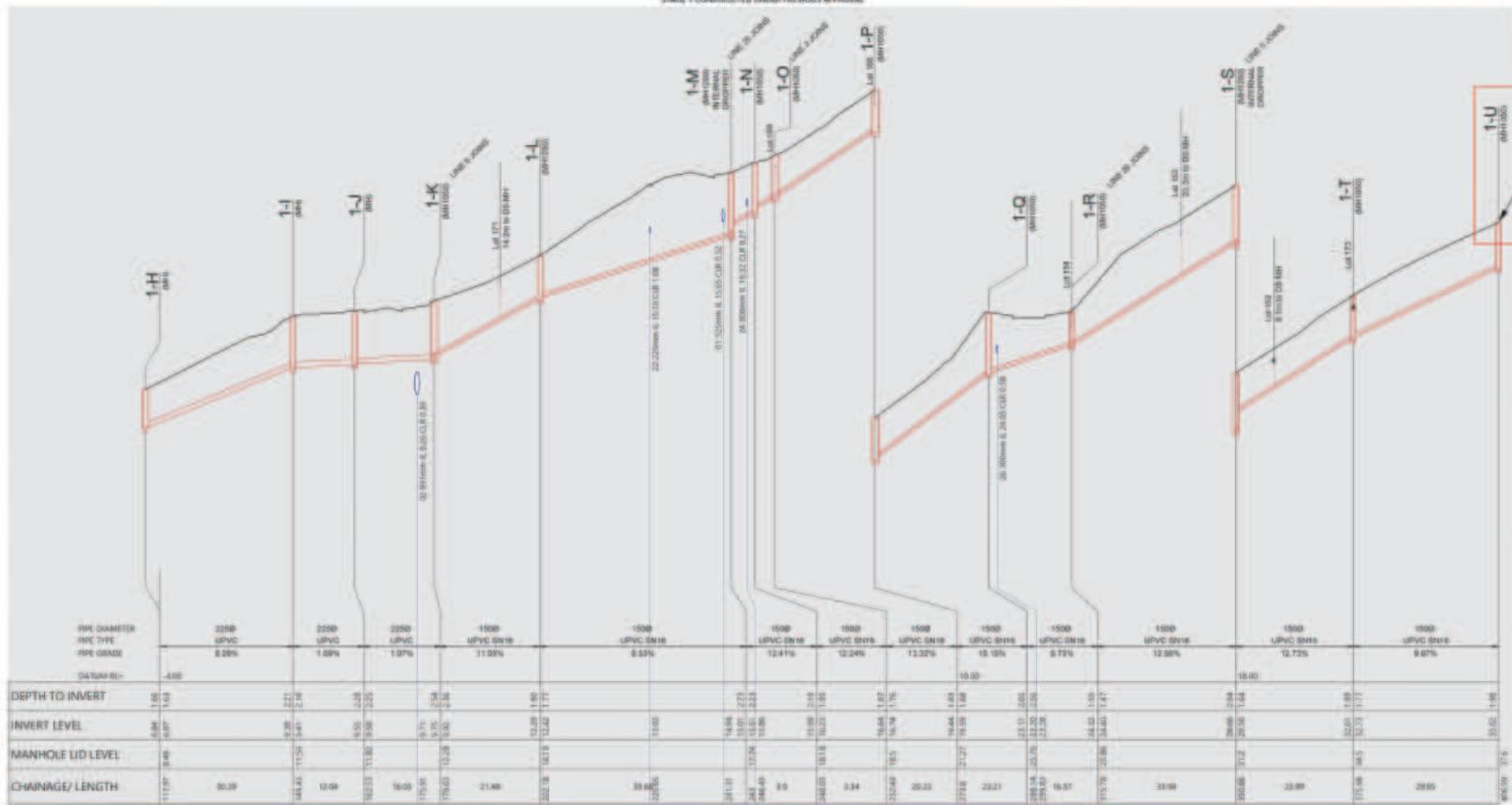
1. ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND COUNCIL STANDARDS AND WATERCARE STANDARDS.
2. FOR PIPE BEDDING DETAILS REFER TO STANDARD DETAIL SHEETS UNLESS OTHERWISE NOTED ON THE DRAINAGE LONG SECTIONS IN WHICH CASE SUCH NOTES TAKE PRECEDENCE.
3. ALL PIPE CROSSINGS UNDER ROADS TO BE HARDFILL BACKFILLED.
4. ALL 150mm DIA. RAINPIT RISERS ARE TO BE EXTENDED AND CAPPED OFF 1.0m BELOW THE FINISHED GROUND SURFACE.
5. THE CONTRACTOR IS TO REG MANHOLES AND CHECK FINISHED EARTHWORKS LEVELS (MH LID LEVELS) PRIOR TO ORDERING MANHOLES.
6. ALL PIPE LENGTHS SHOWN IN THE LONG SECTIONS ARE WALL TO WALL AND CHAINAGES ARE PIT CENTRE TO CENTRE.
7. ALL INVERT LEVELS SHOWN IN THE LONG SECTIONS ARE AT THE INSIDE OF THE PIT WALL.
8. ALL SANITARY SEWER MANHOLES SHALL HAVE SAFETY GRILLS AS PER AUCKLAND COUNCIL STANDARD AND WATERCARE STANDARD.
9. ALL PE PIPES ARE TO INCLUDE A FLEXIBLE JOINT WITHIN 1M OF THE SS4H AS SHOWN IN WATERCARE STANDARD DRAWING WW13.
10. ANGGLED MANHOLE (IF ANY) SHALL BE INSTALLED AS PER WATERCARE STANDARD DRAWING WW5.
11. PIPE GRADES HIGHER THAN 1% (INCLUDING SERVICE CONNECTION) THE BEDDINGS AND SURROUNDING MATERIAL SHALL BE OF LOW-STRENGTH (7MPa) SCORIA CONCRETE AS PER WATERCARE STANDARD DRAWING WW16.
12. INTERNAL MH DROP PIPES ARE TO BE AS PER WATERCARE STANDARD DETAIL WW13.



**COMPLEX GROUND CONDITIONS:**  
THIS PREFERRED SAFE TRENCHING SOLUTION DOES NOT APPLY WHEN TRENCHING IN COMPLEX GROUND CONDITIONS.  
ALL TRENCH EXCAVATIONS IN COMPLEX GROUND CONDITIONS MUST BE ASSESSED BY AN EXPERIENCED TEMPORARY WORKS DESIGNER IN ACCORDANCE WITH THE WORKSAFE GUIDELINES FOR EXCAVATION SAFETY.

- SAFE TRENCHING NOTES:**
1. THIS DIAGRAM SHOWS THE PREFERRED SAFE TRENCHING SOLUTION. ALL TRENCH EXCAVATIONS MUST BE ASSESSED BY A COMPETENT PERSON ON SITE IN ACCORDANCE WITH THE WORKSAFE GUIDELINES FOR EXCAVATION SAFETY.
  2. IF THE PREFERRED TRENCHING SOLUTION IS NOT SUITABLE FOR THE SITE, THE CONTRACTOR MUST OBTAIN A SAFE TRENCHING ASSESSMENT FROM A COMPETENT PERSON.
  3. TABLES 1 AND 2 OF THE WORKSAFE GUIDELINES SET OUT THE RECOMMENDED COMPETENCIES FOR THE COMPETENT PERSON. TABLES 1 & 2 ARE INCLUDED IN THE CONTRACT DOCUMENTS.
  4. GROUND CONDITIONS AS DEFINED IN TABLES 1 AND 2 OF THE WORKSAFE GUIDELINES.
  5. **NORMAL GROUND CONDITIONS:** GENERALLY FLAT DRY GROUND WITH NO SIGNIFICANT OBSTACLES. GROUNDWATER CAN BE CONTROLLED WITH SHIELDING.
  6. **COMPLEX GROUND CONDITIONS:** THE GROUND CONDITIONS INCLUDE VERY WEAK OR SENSITIVE SOILS, GROUNDWATER THAT REQUIRES SPECIALIST DEWATERING, OR LOCATIONS NEAR STRUCTURES AND SENSITIVE INFRASTRUCTURE. THESE CONDITIONS WOULD RESULT IN AN ELEVATED RISK WHEN CONSTRUCTING THE EXCAVATION.

STAGE 4 - CONSTRUCTED UNDER PREVIOUS APPROVAL



NOT INCLUDED ON THIS EPA APPROVAL

SCALES: 1:1000 (H&V) 1:500 (W&L)

REVISION DETAILS	INT	DATE	SURVEYED	WOODS
1 ISSUED FOR EPA	JM	MAY 2024	DESIGNED	JM
2 DRAINAGE LAYOUT CHANGE	EV	SEP 2024	DRAWN	TS
			CHECKED	JM
			APPROVED	TR

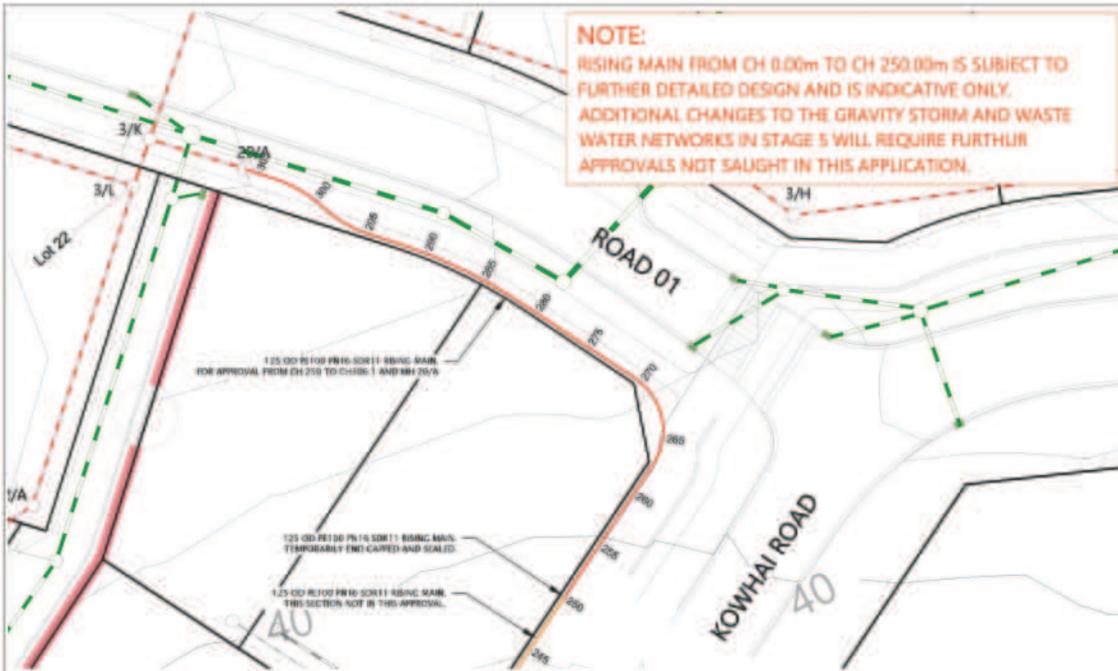
BUILDING B, LEVEL 1  
8 NUGENT STREET  
GRAFTON  
AUCKLAND 1023



MILLWATER OREWA WEST - PRECINCT 6 STAGE 3 AND 4  
WASTEWATER LONG SECTION



STATUS	FOR APPROVAL	REV
SCALE	V 1:200@A3 H 1:1000@A3	2
COUNCIL	AUCKLAND COUNCIL	
DWG NO	P22-437-01-4503-DR	



**NOTE:**  
 RISING MAIN FROM CH 0.00m TO CH 250.00m IS SUBJECT TO FURTHER DETAILED DESIGN AND IS INDICATIVE ONLY. ADDITIONAL CHANGES TO THE GRAVITY STORM AND WASTE WATER NETWORKS IN STAGE 5 WILL REQUIRE FURTHER APPROVALS NOT SAUGHT IN THIS APPLICATION.

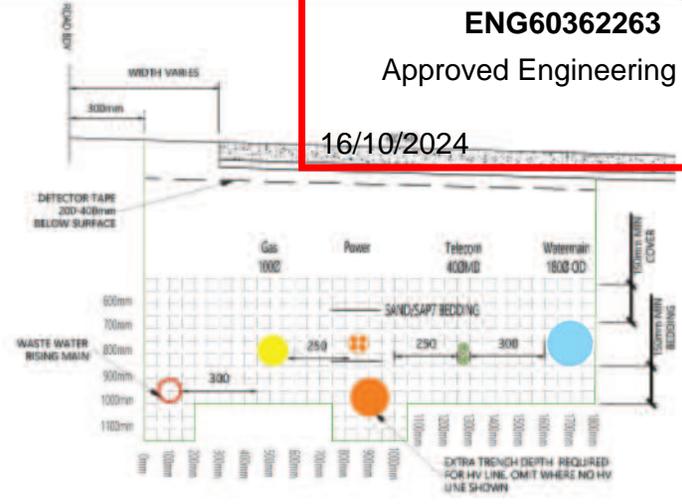
125 OD PE130 PN16 SDR11 RISING MAIN FOR APPROVAL FROM CH 210 TO CH 250. 1 AND 2M 70'S

125 OD PE130 PN16 SDR11 RISING MAIN TEMPORARILY END-CAPPED AND SEALED

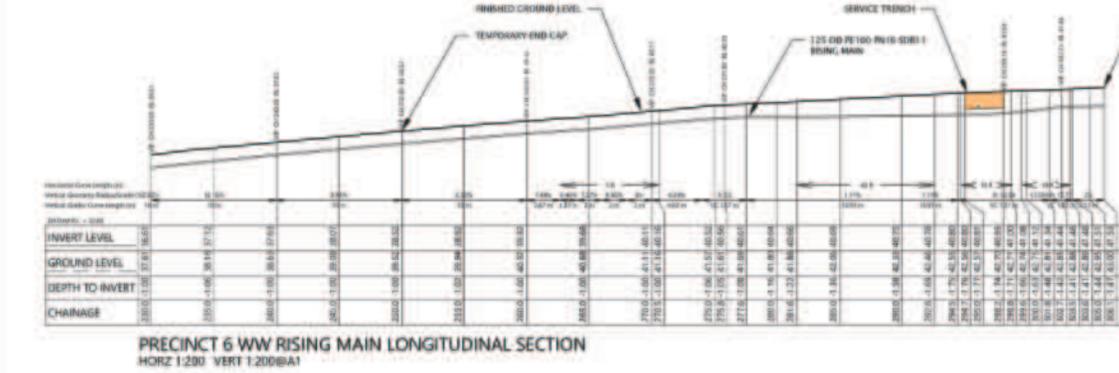
125 OD PE130 PN16 SDR11 RISING MAIN THIS SECTION NOT IN THIS APPROVAL

**NOTES**

1. TRACER WIRE TO BE PROVIDED TO ALL BURIED PIPELINES.
2. THE BEDDING SHALL COMPLY WITH SW-TECHNICAL STANDARDS.
3. ALL MAIN WASTEWATER LINES ARE MINIMUM 150mm ID UPVC S115 PIPE UNLESS ALL PRIVATE CONNECTIONS TO BE 100mm UNLESS STATED OTHERWISE.
4. ALL PIPE CROSSING UNDER ROADS TO BE HANDRAIL SADDLED.



1 TYPICAL COMMON SERVICES TRENCH PROFILE WITH RISING MAIN

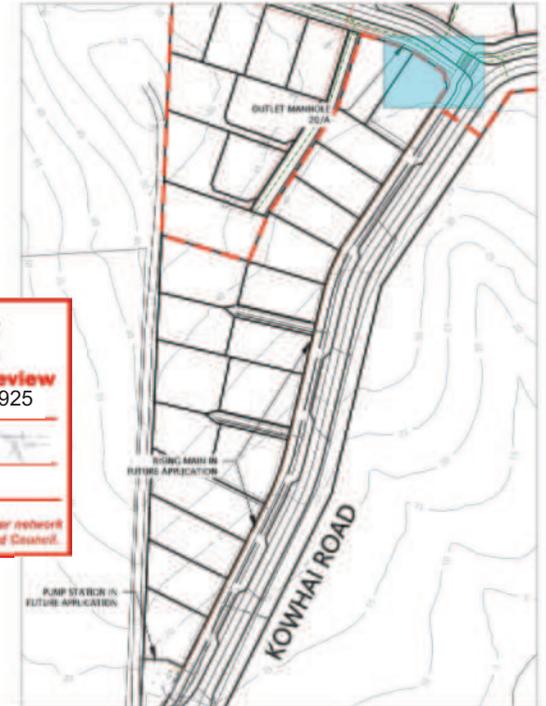


PRECINCT 6 WW RISING MAIN LONGITUDINAL SECTION  
 HORZ 1:200 VERT 1:200@A1



**Watercare**  
 Network Extension Peer Review  
 Application Number: EPA-230925  
 Approved By: *Simon Fene*  
 Date: 2/10/2024

*This is only a review for water and/or wastewater network extension. EPA must be secured from Auckland Council.*



REVISION DETAILS	INT	DATE	SURVEYED	WOODS	BUILDING & LEVEL	STATUS	FOR APPROVAL	REV
1 ISSUED FOR EPA	JM	MAY 2024	DESIGNED	JM	B NUGENT STREET	STATUS	1:400 @ A3	2
2 DRAINAGE LAYOUT CHANGE	RV	SEP 2024	DRAWN	TS	GRAFTON	COUNCIL	AUCKLAND COUNCIL	
			CHECKED	JM	AUCKLAND 1023	DWG NO	P22-437-01-4504-DR	
			APPROVED	TR	WOODS.CO.NZ			



MILLWATER OREWA WEST - PRECINCT 6 STAGE 3 AND 4  
 RISING MAIN PROPOSED FUTURE ALIGNMENT



Plan Date: 13/12/2024 12:00 PM 13 September 2024, 10:27 AM  
 File: C:\Users\mrc\OneDrive\Work\005-497923-487 - 01\003\_211553\DWG\003-211553-004-DWG-01-4504-DR-001.DWG

ENG60362263

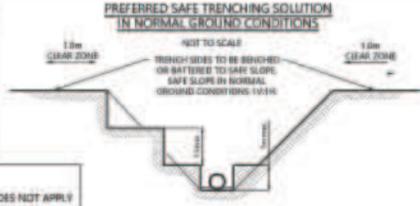
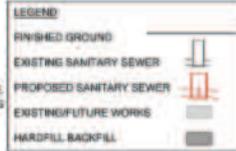
Approved Engineering Plan

16/10/2024



NOTES

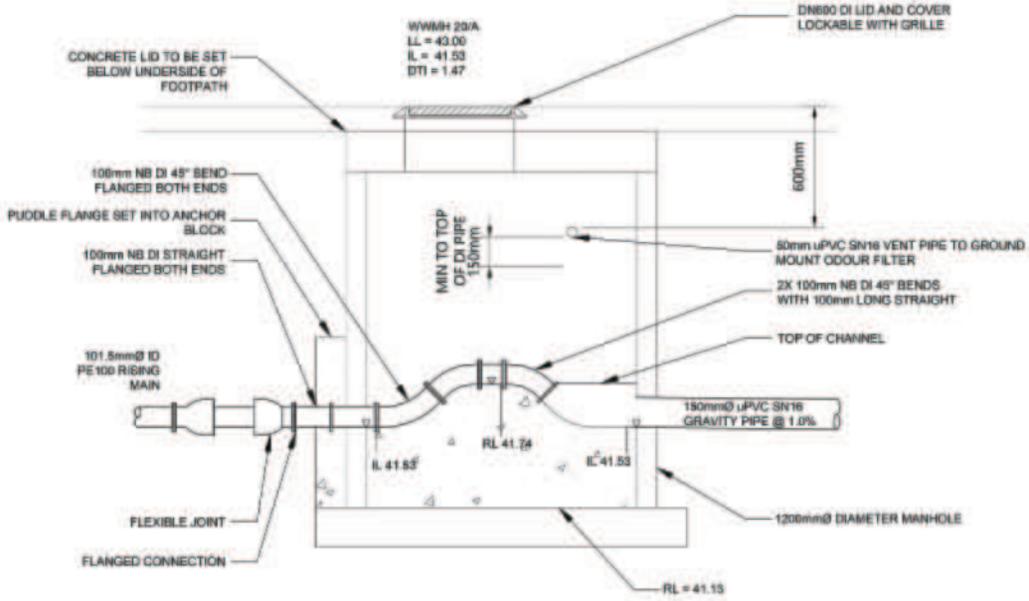
1. ALL WORKS AND MATERIALS TO COMPLY WITH AUCKLAND COUNCIL STANDARDS AND WATERCARE STANDARDS.
2. FOR PIPE BEDDING DETAILS REFER TO STANDARD DETAIL SHEETS UNLESS OTHERWISE NOTED ON THE DRAINAGE LONG SECTIONS IN WHICH CASE SUCH NOTES TAKE PRECEDENCE.
3. ALL PIPE CROSSINGS UNDER ROADS TO BE HARDFILL BACKFILLED.
4. ALL 55mm DIA. RIMMED RISERS ARE TO BE EXTENDED AND CAPPED OFF 100mm BELOW THE FINISHED GROUND SURFACE.
5. THE CONTRACTOR IS TO RIG MANHOLES AND CHECK FINISHED BATHWORKS LEVELS (MH LID LEVELS) PRIOR TO ORDERING MANHOLES.
6. ALL PIPE LENGTHS SHOWN IN THE LONG SECTIONS ARE WALL TO WALL AND CHAINAGES ARE PIT CENTRE TO CENTRE.
7. ALL INVERT LEVELS SHOWN IN THE LONG SECTIONS ARE AT THE INSIDE OF THE PIT WALL.
8. ALL SANITARY SEWER MANHOLES SHALL HAVE SAFETY GRILL AS PER AUCKLAND COUNCIL STANDARD AND WATERCARE STANDARD.
9. ALL PE PIPES ARE TO INCLUDE A FLEXIBLE JOINT WITHIN 1M OF THE SSMH AS SHOWN IN WATERCARE STANDARD DRAWING WW13.
10. ANGLED MANHOLE (IF ANY) SHALL BE INSTALLED AS PER WATERCARE STANDARD DRAWING WW15.
11. PIPE GRADES HIGHER THAN 10% (INCLUDING SERVICE CONNECTION) THE BEDDINGS AND SURROUNDING MATERIAL SHALL BE OF LOW-STRENGTH (7MPa) SCORIA CONCRETE AS PER WATERCARE STANDARD DRAWING WW16.
12. INTERNAL MH DROP PIPES ARE TO BE AS PER WATERCARE STANDARD DETAIL WW11.



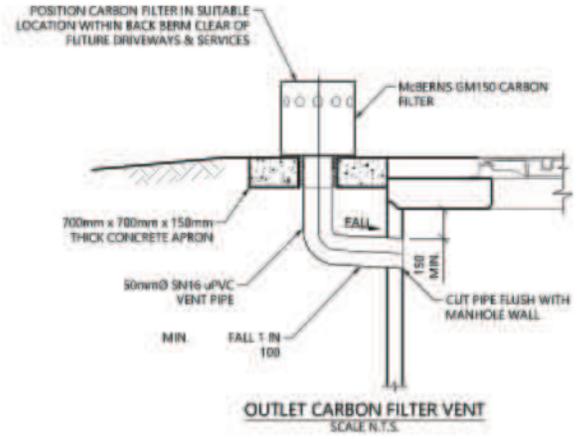
**COMPLEX GROUND CONDITIONS:**  
 THIS PREFERRED SAFE TRENCHING SOLUTION DOES NOT APPLY WHEN TRENCHING IN COMPLEX GROUND CONDITIONS.  
 ALL TRENCH EXCAVATIONS IN COMPLEX GROUND CONDITIONS MUST BE ASSESSED BY AN EXPERIENCED TEMPORARY WORKS DESIGNER IN ACCORDANCE WITH THE WORKSAFE GUIDELINES FOR EXCAVATION SAFETY.

SAFE TRENCHING NOTES:

1. THIS DIAGRAM SHOWS THE PREFERRED SAFE TRENCHING SOLUTION.
2. ALL TRENCH EXCAVATIONS MUST BE ASSESSED BY A 'COMPETENT PERSON' ON SITE IN ACCORDANCE WITH THE WORKSAFE GUIDELINES FOR EXCAVATION SAFETY.
3. IF THE PREFERRED TRENCHING SOLUTION IS NOT SUITABLE FOR THE SITE, RECORDS OF THE SAFE TRENCHING ASSESSMENT AND RECORDS OF THE WORKSAFE GUIDELINES SHOULD BE INCLUDED IN THE CONTRACT DOCUMENTS.
4. TABLES 1 AND 2 OF THE WORKSAFE GUIDELINES SET OUT THE RECOMMENDED COMPETENCIES FOR THE 'COMPETENT PERSON'. TABLE 1 & 2 ARE INCLUDED IN THE CONTRACT DOCUMENTS.
5. GROUND CONDITIONS AS SHOWN IN TABLES 1 AND 2 OF THE WORKSAFE GUIDELINES:
  - NORMAL GROUND CONDITIONS: GENERALLY FLAT OPEN GROUND WITH AVERAGE CHARGE LOADING, FAVOURABLE GROUND CONDITIONS, OFF SET FROM NEARBY SENSITIVE INFRASTRUCTURE, GROUNDWATER CAN BE CONTROLLED WITH SHIELDING.
  - COMPLEX GROUND CONDITIONS: THE GROUND CONDITIONS INCLUDE VERY WEAK OR SENSITIVE SOILS, GROUNDWATER THAT REQUIRES SPECIALIST DEWATERING, OR LOCATIONS NEAR STRUCTURES AND SENSITIVE INFRASTRUCTURE. THESE CONDITIONS WOULD RESULT IN AN ELEVATED RISK WHEN CONSTRUCTING THE EXCAVATION.



RISING MAIN DISCHARGE MANHOLE



**Watercare**

**Network Extension Peer Review**

Application Number: EPA-230925

Approved By: *[Signature]*

Date: 2/10/2024

*This is only a review for water and/or wastewater network extension. EPA must be secured from Auckland Council.*

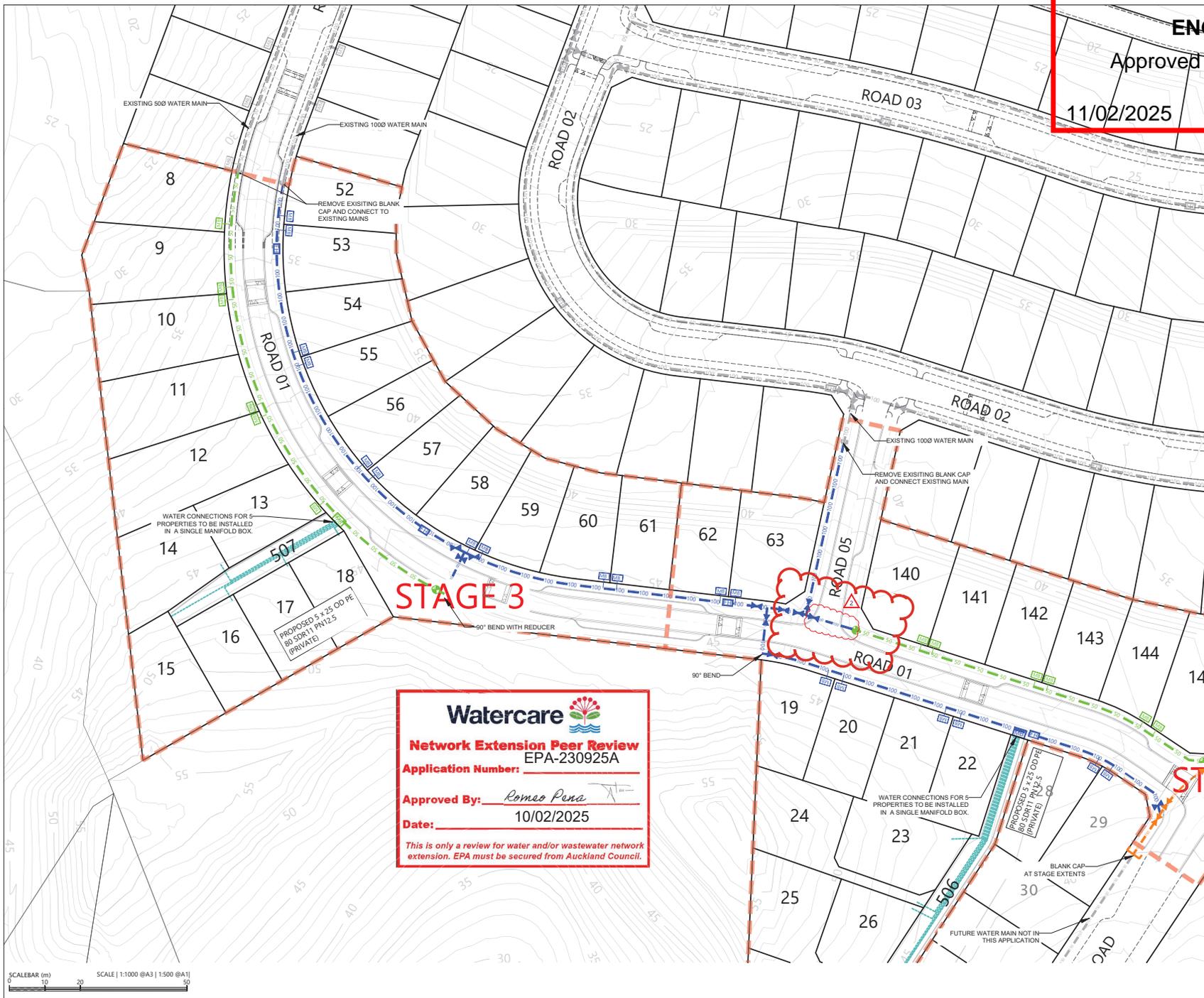
REVISION DETAILS	INT	DATE	SURVEYED	WOODS	WOODS
1 ISSUED FOR EPA	JM	MAY 2024	DESIGNED	JM	BUILDING 8, LEVEL 8 8 NUGENT STREET GRAFTON AUCKLAND 1023
2 DRAINAGE LAYOUT CHANGE	RV	SEP 2024	DRAWN	TS	
			CHECKED	JM	
			APPROVED	TR	WOODS.CO.NZ



MILLWATER OREWA WEST - PRECINCT 6 STAGE 3 AND 4

RISING MAIN DISCHARGE MANHOLE SECTIONS

STATUS	FOR APPROVAL	REV
SCALE	NTS	2
COUNCIL	AUCKLAND COUNCIL	
DWG NO	P22-437-01-4513-DR	



**Watercare**

**Network Extension Peer Review**  
EPA-230925A

**Application Number:** \_\_\_\_\_

**Approved By:** *Romeo Pena*

**Date:** 10/02/2025

*This is only a review for water and/or wastewater network extension. EPA must be secured from Auckland Council.*

**LEGEND**

- EXISTING WATERMAIN
  - 300
  - 50
  - 100
  - 150
- PROPOSED WATERMAIN
  - 300
  - 50
  - 100
  - 150
- 50mm DIA. PEET VALVE
- FLANGE SLUICE VALVE
- FIRE HYDRANT
- BLANK CAP
- WATER METER BANK

**NOTES**

1. ALL WORK AND MATERIALS SHALL COMPLY WITH WATERCARE COP. ANY AMBIGUITY BETWEEN THESE DRAWINGS AND WATERCARE STANDARDS ARE TO BE REFERRED TO THE ENGINEER FOR CLARIFICATION.
2. PIPE BEDDING DETAILS SHALL COMPLY WITH WATERCARE STD DETAIL DRAWINGS UNLESS OTHERWISE AGREED BY THE ENGINEER AND COUNCIL.
3. ALL WATERMAIN ROAD CROSSINGS SHALL BE HARDFILL BACKFILLED.
4. CONNECTIONS TO EXISTING COUNCIL WATERMANS ARE TO BE MADE ONLY AFTER TESTING, STERILIZATION AND ACCEPTANCE BY WATERCARE. CONNECTIONS TO BE MADE IN ACCORDANCE WITH COUNCIL'S ALC POLICY.
5. PIPES BELOW 125 OD ARE TO BE PE 80 SDR11 PN 12.5. PIPES 125 OD AND LARGER ARE TO BE PE 100 SDR13.6 PN 12.5.
6. ALL PIPE SIZES ARE SHOWN AS NOMINAL INTERNAL DIAMETERS.
7. SERVICE LIDS OF METER BANKS CAN BE INSTALLED WITH LOCKABLE GATE VALVES.
8. ALL 25mmOD SERVICE LINES (PRIVATE) ARE TO BE INSTALLED AS PER WATERCARE DETAIL DRAWING WS 18 (2020).

REVISION DETAILS	BY	DATE
1 ISSUED FOR EPA	JM	MAY 2024
2 RE-ISSUED FOR EPA	FS	FEB 2025

SURVEYED	WOODS	BUILDING B, LEVEL 1 8 NUGENT STREET GRATTON AUCKLAND 1023
DESIGNED	JM	
DRAWN	TS	
CHECKED	JM	
APPROVED	TR	WOODS.CO.NZ



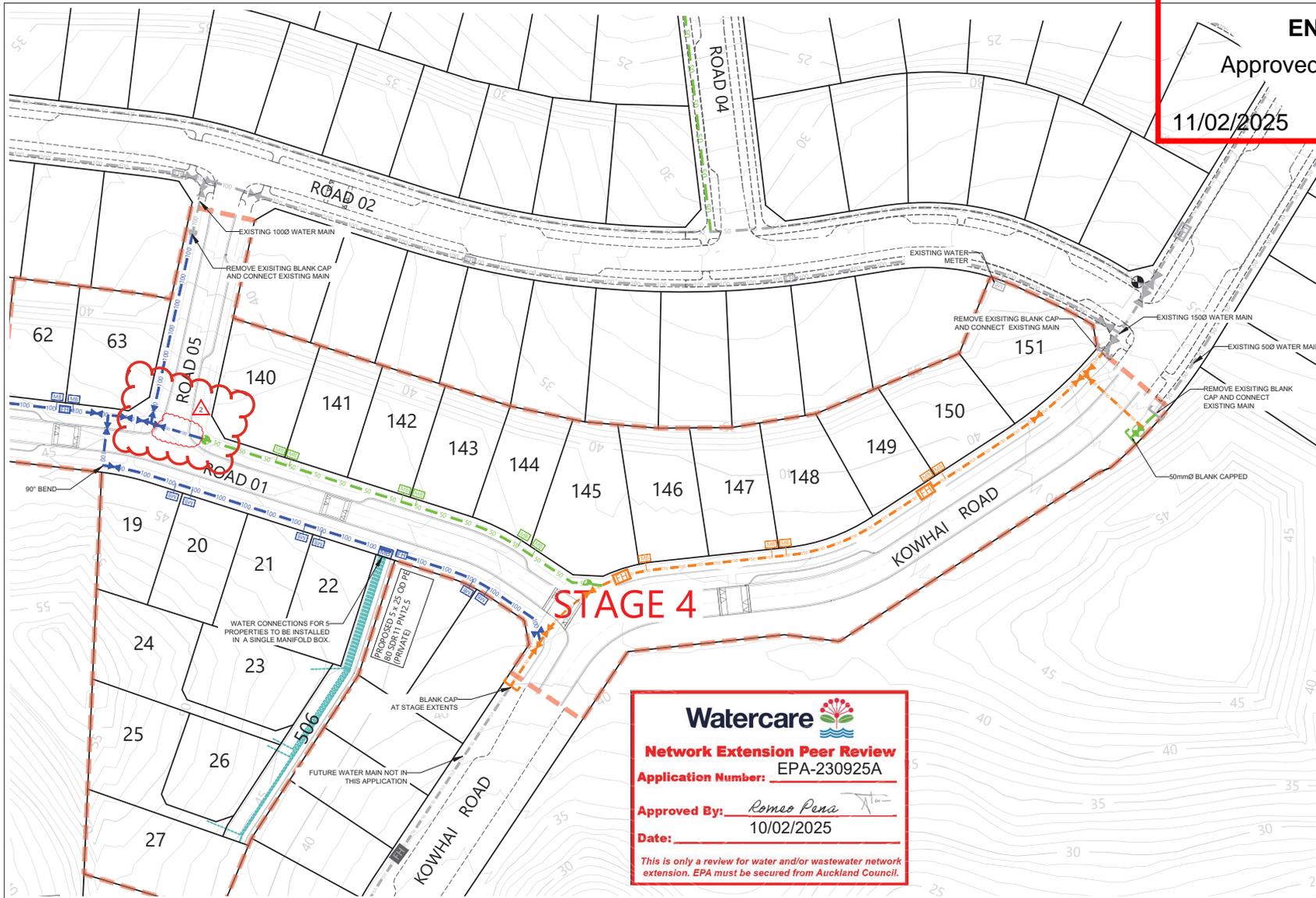
**MILLWATER OREWA WEST  
PRECINCT 6 - STAGE 3  
AND 4**

**WATER RETICULATION PLAN**

STATUS	FOR APPROVAL	REV
SCALE	1:1000@A3	2
COUNCIL	AUCKLAND COUNCIL	
DWG NO	P22-437-01-6000-WR	

Plot Date: 24/21 pm 3 February 2025, FATIMAS

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LEGEND

- EXISTING WATERMAIN — 300 — 150
- PROPOSED WATERMAIN — 200 — 100
- 50mm DIA. PEET VALVE — 150
- FLANGE SLUICE VALVE
- FIRE HYDRANT
- BLANK CAP
- WATER METER BANK

NOTES

1. ALL WORK AND MATERIALS SHALL COMPLY WITH WATERCARE COP. ANY AMBIGUITY BETWEEN THESE DRAWINGS AND WATERCARE STANDARDS ARE TO BE REFERRED TO THE ENGINEER FOR CLARIFICATION.
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REVISION DETAILS	BY	DATE
1 ISSUED FOR EPA	JM	MAY 2024
2 RE-ISSUED FOR EPA	FS	FEB 2025

SURVEYED	WOODS	BUILDING B, LEVEL 1 8 NUGENT STREET GRAFTON AUCKLAND 1023
DESIGNED	JM	
DRAWN	TS	
CHECKED	JM	
APPROVED	TR	WOODS.CO.NZ

**Watercare**

**Network Extension Peer Review**

Application Number: **EPA-230925A**

Approved By: *Romeo Pena*

Date: **10/02/2025**

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**WFH** PROPERTIES

**MILLWATER OREWA WEST  
PRECINCT 6 - STAGE 3  
AND 4**

WATER RETICULATION PLAN

STATUS	FOR APPROVAL	REV
SCALE	1:1000@A3	2
COUNCIL	AUCKLAND COUNCIL	
DWG NO	P22-437-01-6001-WR	



Plot Date: 24/24/25 pm:3 February 2025, FATIMAS