Watercare Services Limited

QUEEN STREET WASTEWATER DIVERSION PROGRAMME: MAYORAL DRIVE ALIGNMENT PROJECT

EROSION AND SESDIMENT CONTROL PLAN

14 MAY 2025

PUBLIC

QUEEN STREET WASTEWATER DIVERSION PROGRAMME: MAYORAL DRIVE ALIGNMENT

EROSION AND SEDIMENT CONTROL PLAN

Watercare Services Limited

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REV	DATE	DETAILS
3	01/05/2025	Erosion and Sediment Control Plan for the latest Mayoral Drive Alignment

	NAME	DATE
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Reviewed by:	W. BIRD	05/05/2025
Approved by:	Philip McFarlane	08/05/2025

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ABBREVIATIONS AND DEFINITIONS

AEE	Assessment of Environmental Effects
AEP	Annual Exceedance Probability
ARI	Average Recurrence Interval
AT	Auckland Transport
Auckland Council	The 'Council'
AUP	Auckland Unitary Plan (Operative in Part)
BPO	Best Practicable Option
CSA	Construction Support Area
EOP	Engineered Overflow Points
ESCP	Erosion and Sediment Control Plan
The Project	The new wastewater pipeline between Part 3 – Part 4 Connector Tunnel within 329 Queen Street and P1MH1 within Vincent Street
Watercare	Watercare Services Limited
WSP	WSP New Zealand Limited

EXECUTIVE SUMMARY

WSP has been engaged by Watercare Services Limited to prepare an Erosion and Sediment Control Plan (ESCP) for the Mayoral Drive Alignment of the Queen Street Wastewater Diversion Programme. ESCP elements of the project are spread across four connected sites; one Construction Support Area (CSA) at Greys Ave, and three Secondary Construction Compounds (Mayoral Drive, Mayoral-Cook and Vincent Street). Across these four sites, six shaft locations are proposed.

The construction required for these shafts involves land disturbing activities that have the potential to produce sedimentation and erosion effects on the receiving environment.

This ESCP has been developed to assist in identifying and responding to the environmental effects of the project generated by earthworks (land disturbance) at locations within the project area. The ESCP has been developed in accordance with best practice and core principles of the Auckland Council guideline GD05 - *Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region*. This assessment should be read in conjunction with the Flood Hazard Assessment prepared for this specific project (refer to Appendix K of this application).

The proposed tunnel alignment is entirely underground; however, the shafts required for its construction are a potential source of sediment. Key perimetral control devices being proposed across the four construction sites include plywood diversion bunds, hot mix asphalt bunds, silt socks, and catch-pit protection.

At the Greys Ave CSA (including the Construction Compound), plywood diversion bunds and concrete barriers will divide the site into three zones: a central “clean water” corridor preserving an existing overland flow path, and two adjacent “dirty water” areas. Concrete barriers (min. 1000 mm high) will be placed at the upstream interface of the dirty water areas to divert overflows from the Myers Park attenuation area into the clean water corridor and protect the dirty areas. Along the corridor walls, plywood bunds (min. 500 mm high) will be used, with traversable bunds (preferably hot mix) at vehicle crossings to maintain separation.

The three Secondary Compounds require simpler Erosion and Sediment Control (ESC) measures due to less complex conditions. Clean water will be diverted upslope with plywood bunds; downslope plywood bunds will contain sediment-laden water. Entry/exit points will have traversable bunds (hot mix preferred), or silt socks on soft/permeable surfaces, which also provide treatment. In some areas, existing kerbs may substitute for bunds.

Water accumulated within the compounds is to be captured and pumped into clarifying tanks and discharged off-site once sufficiently treated. Catchpit protection devices are to be installed on all catchpits within the compounds.

ESC devices are expected to be installed, monitored, and maintained as per GD05 guidelines.

This ESCP presents a Best Practicable Option (BPO) for sediment control based on the current understanding of the extent and timing of project works. The appointed contractor will customise this ESCP to their own specific construction methodology and programme, however the overall environmental outcome must be consistent. Underground service relocations or any other enabling works outside the CSA and secondary compounds are not covered by this ESCP.

With the application of these best practice ESC measures, the project will minimise the erosion and sediment effects on the surrounding environment.

1 INTRODUCTION

Watercare is proposing to upgrade the existing wastewater network of the upper (southern) catchment of Auckland City Centre. The current network has insufficient capacity to meet future needs based on increased development in the area. The wider programme of works has been split into separate parts for the purpose of design, consenting and construction; the consenting and construction packages of the Queen Street programme are shown in Figure 1-1.

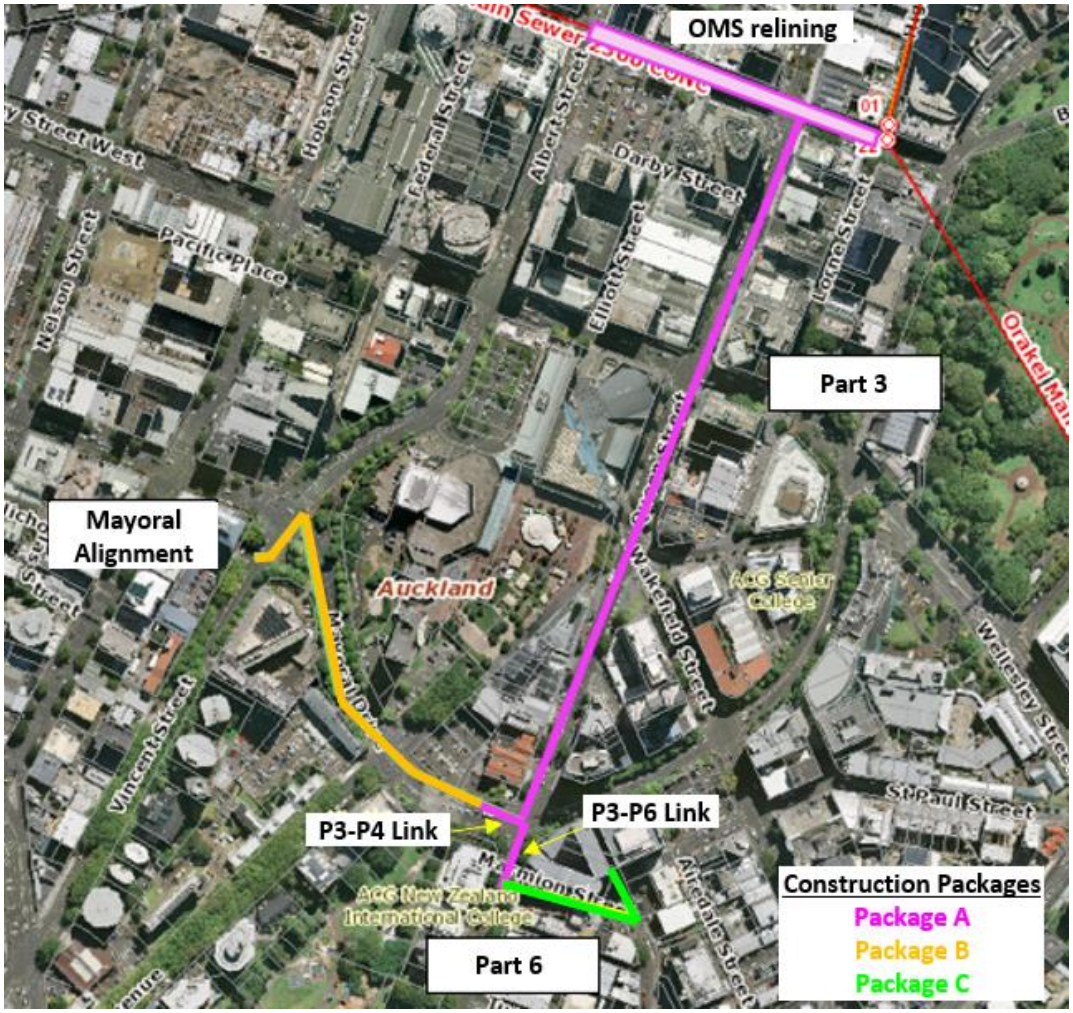


Figure 1-1: Queen Street Wastewater Diversion Programme

The Mayoral Drive alignment involves a new wastewater pipe within or adjacent to the road reserve of Mayoral Drive. The works proposed under this consent ('the Project') include a 375mm – 700mm diameter wastewater pipeline between the P4MH3 shaft within 329 Queen Street and the P1MH1 shaft within Vincent Street, along with connections to 'engineered overflow points' ('EOPs') and manholes.

1.1 PURPOSE OF THIS REPORT

The purpose of this report is to provide an assessment of the best-suited erosion and sediment controls in relation to the Mayoral Drive.

2 DESCRIPTION OF EXISTING ENVIRONMENT

The project is located within Auckland City Centre, on a section of Mayoral Drive between Queen Street and Vincent Street/Cook Street, along with a short extension within Vincent Street (see Figure 2-1 for approximate project area). In addition, the project works will also occur within a surface carpark at 34-38 Greys Avenue and 329 Queen Street. The CSA site will contain both a section of the proposed wastewater pipeline and the CSA for the Queen Street programme[1].

Figure 2-1: Mayoral Drive Alignment project area in orange

Upstream of the Greys Ave CSA is Myers Park, where the grassed area functions as a stormwater detention basin during large storm events (see Figure 2-2). The presence of this basin suggests that the flow directed towards the CSA will generally be minor and will not require significant mitigation to prevent clean water from entering the site.

[1] The CSA at 34-38 Greys Avenue and 329 Queen Street has been established under the 'Part 3' consent and retained for the Mayoral Drive alignment construction works.

Figure 2-2: Detention Basin at Myers Park

3 NATURE OF WORK (ACTIVITIES) SUBJECT TO ASSESSMENT

The following is a summary of the construction activities to which the resource consent relates. For more details on the nature of the works proposed, refer to the Construction Methodology (**Appendix C**). The Construction Methodology has been based on a likely scenario and has been developed to provide a baseline assessment.

This Project relates to the construction of a new wastewater sewer line within/adjacent to the road corridor of Mayoral Drive, including connections to the existing wastewater network.

The Project will be constructed using a combination of trenchless pilot bore and open-cut trenching excavation, with shafts utilised along the alignment to launch and receive the pilot boring machine. An overview of the proposed construction activities is shown below as Figure 3-1.

To ensure flexibility in the consenting process, a consenting envelope approach has been adopted for all shaft dimensions and the construction compounds. The dimensions specified within the consent allow for changes through the detailed design phase.

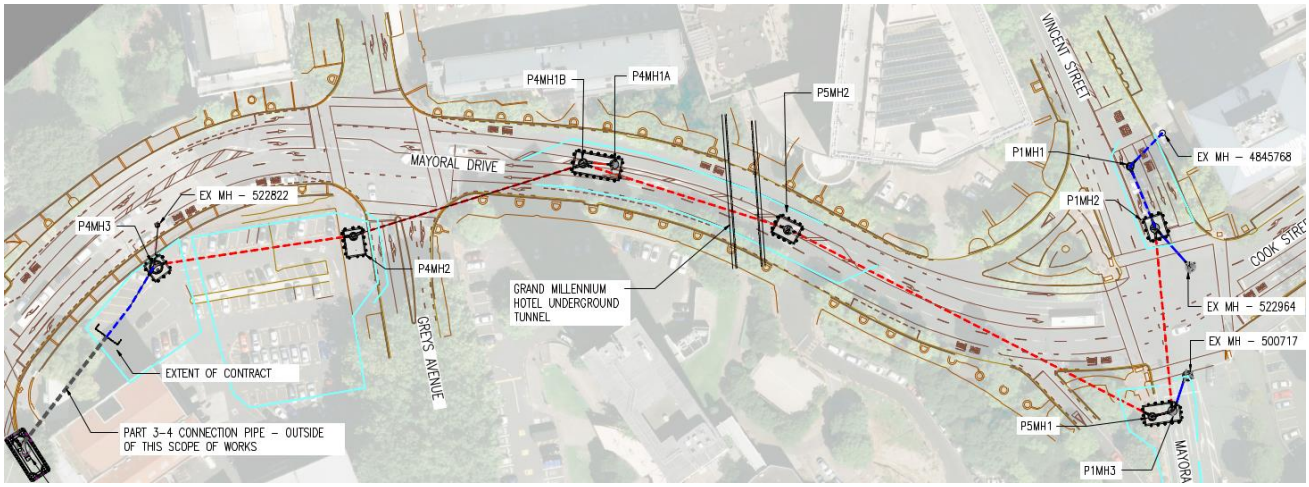


Figure 3-1: Overview of main indicative construction works (red lines are trenchless pipelines, blue are trenched pipelines)

Table 1 provides a high-level overview of the different construction activities and stages, which are provided in greater detail within the Construction Methodology.

Table 1: Overview of the different construction activities and stages

Network Utility Relocations	The existing network utilities within and around the proposed shafts will need to be relocated. The exact utilities to be diverted are yet to be confirmed, but will likely include potable water, electricity, wastewater, stormwater and communications. Open-cut progressive trenching will be utilised to relocate any utilities that are required to be relocated. New utilities will be constructed around the proposed shaft locations, and the existing utilities will be removed during shaft construction. Dewatering of the trenches may be required.

Temporary Construction Shafts	Most manhole locations on this alignment will be used as launch/reception pits for the trenchless construction method (axis/pilot bore). Six construction shafts are proposed along the Mayoral Drive alignment. The trenchless method requires shafts with maximum internal dimensions of **5.5 m x 12 m** and a maximum depth of **9 m**. The shafts are expected to be constructed using a 'post and panel' type methodology (subject to geotechnical investigations and shaft temporary works design). Refer to Section 3.1 of the Construction Methodology (**Appendix C)** for the steps to construct the temporary shafts.
Trenchless Tunnelling Works	It is proposed to construct the tunnelled sections between manholes P4MH3 (within Greys Avenue Carpark) and P1MH2 (within Vincent Street, opposite the intersection with Mayoral Drive) of the wastewater pipeline using a trenchless pilot-guided boring methodology. Refer to Section 3.2 of the Construction Methodology (**Appendix C**) for more detail of the trenchless tunnelling methodology.
Open Cut Construction Works	Open-cut construction is proposed for two short sections of the proposed pipeline between the shafts for P4MH3 and the P3-P4 Connector Tunnel within 329 Queen Street, and between P1MH1 and the shaft within Vincent Street. Open-cut construction is also proposed for network tie-ins and connections to existing EOPs. Refer to Section 4 of the Construction Methodology (**Appendix C**) for more detail of the trenchless tunnelling methodology.
Construction Support Areas	To support the proposed construction activities, a primary CSA will be used within the public carpark at 38 Greys Avenue and 329 Queen Street. This CSA is already set up as part of the approved Part 3 Alignment and will also be utilised for the Part 3 – Part 4 Connector Tunnel consents. The CSA may be reconfigured to respond to the works proposed for the Project. The CSA contains site offices and welfare facilities, along with some limited site laydown and materials storage areas. The indicative site layout for the Greys Avenue CSA is shown below in Figure 3-2 which reflects the set up for Part 3 construction. Three secondary construction compounds (compounds) will be established within the road corridor of Mayoral Drive and Vincent Street to allow for the construction of shafts and to undertake tunnelling works. In addition, the Greys Avenue CSA will be extended into the footpath at Greys Avenue to accommodate the construction of P4MH2. These compounds are expected to be in place for 6 to 8 months. Temporary concrete or steel barriers with hoardings will be constructed around the perimeter of each, with access gates one or both ends. The indicative compound boundaries around the possible shaft envelopes are shown below in Figures 3-3 to 3-5.

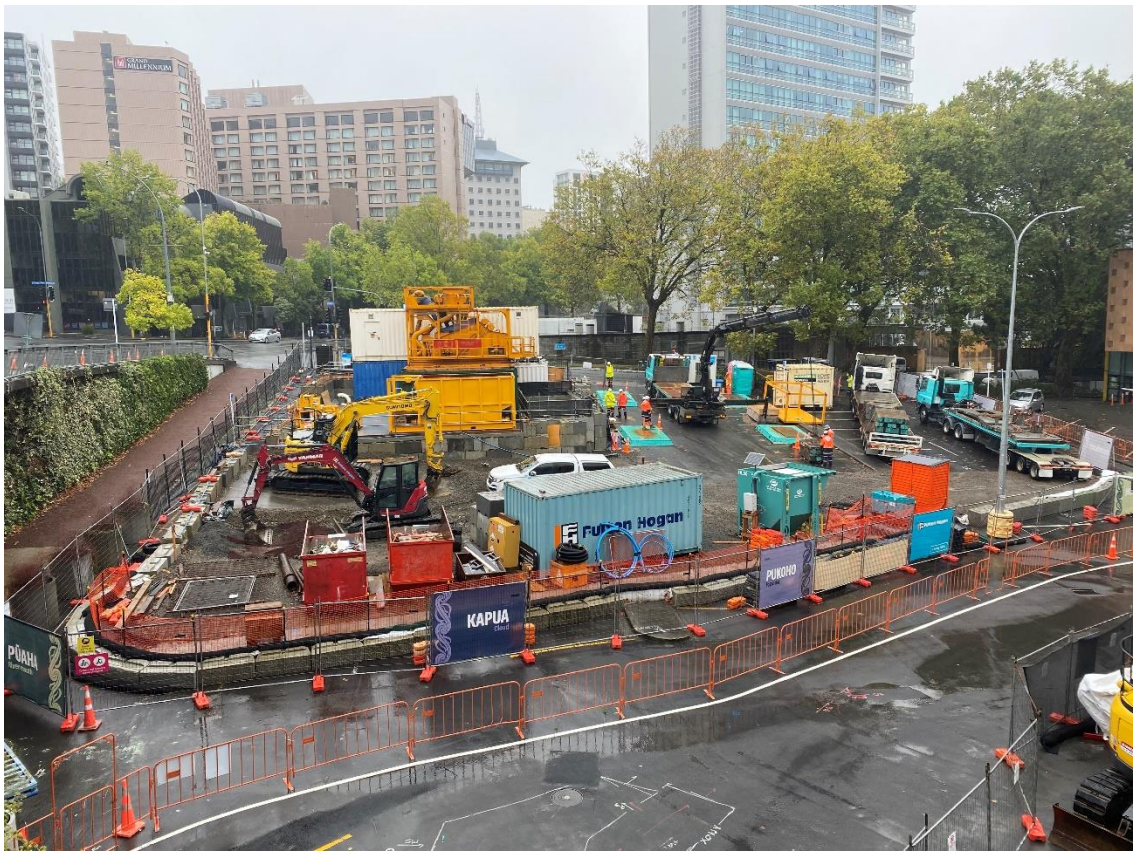


Figure 3-2: Indicative Greys Ave CSA layout (looking north-west towards Greys Ave)

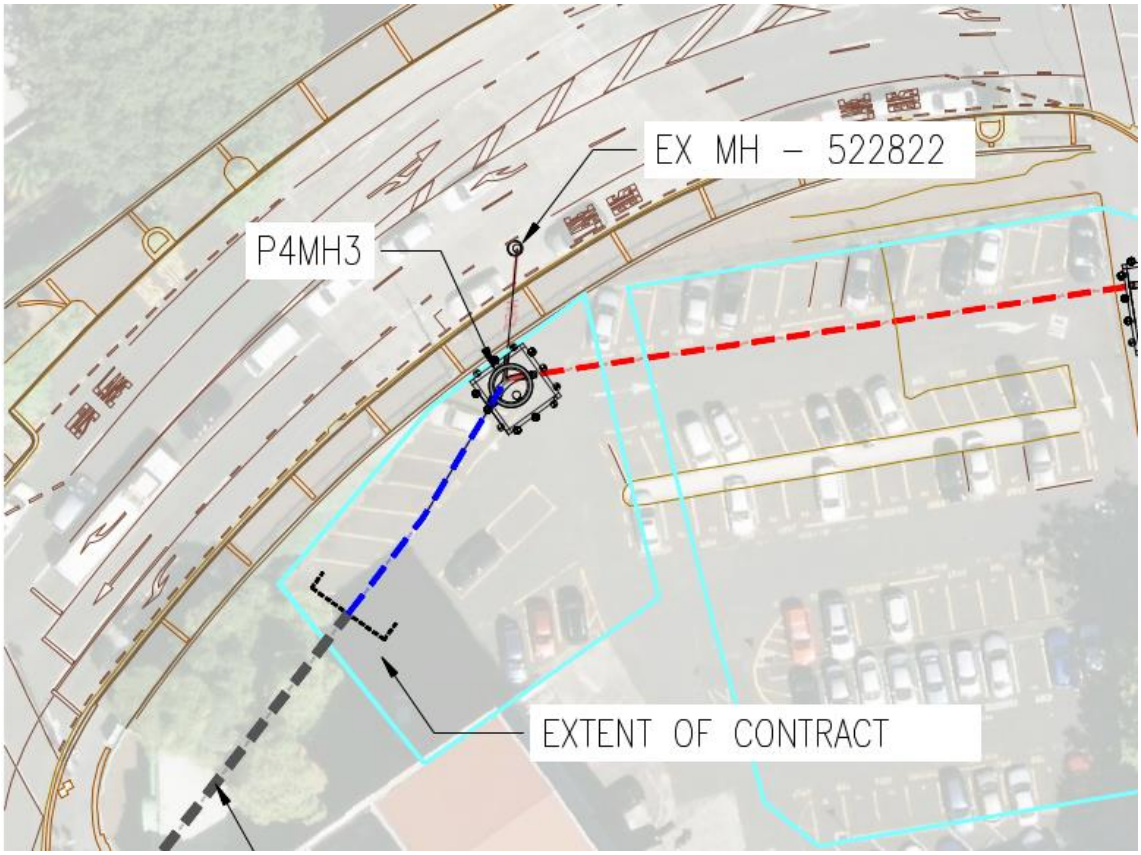


Figure 3-3: Indicative compound around P4MH3 within Greys Ave Carpark (indicative compound extents shown in light blue)

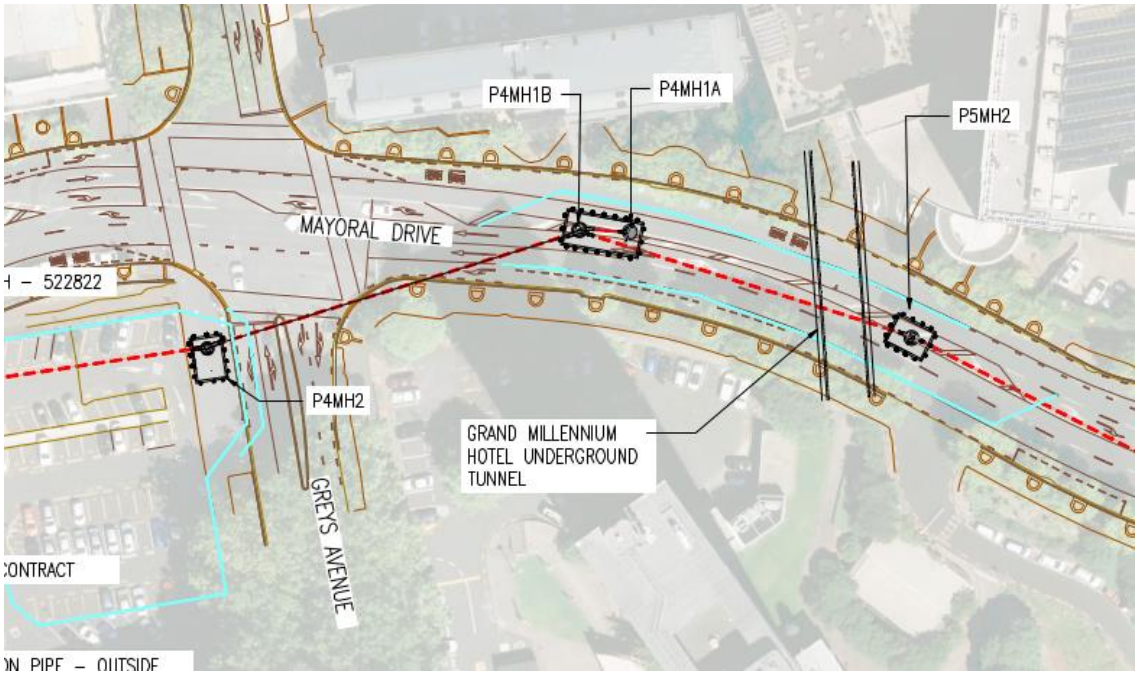


Figure 3-4: Two compounds on Mayoral Drive/Greys Ave outside 299 Queen Street, G05/1 Greys Ave and the CSA in the Greys Ave carpark

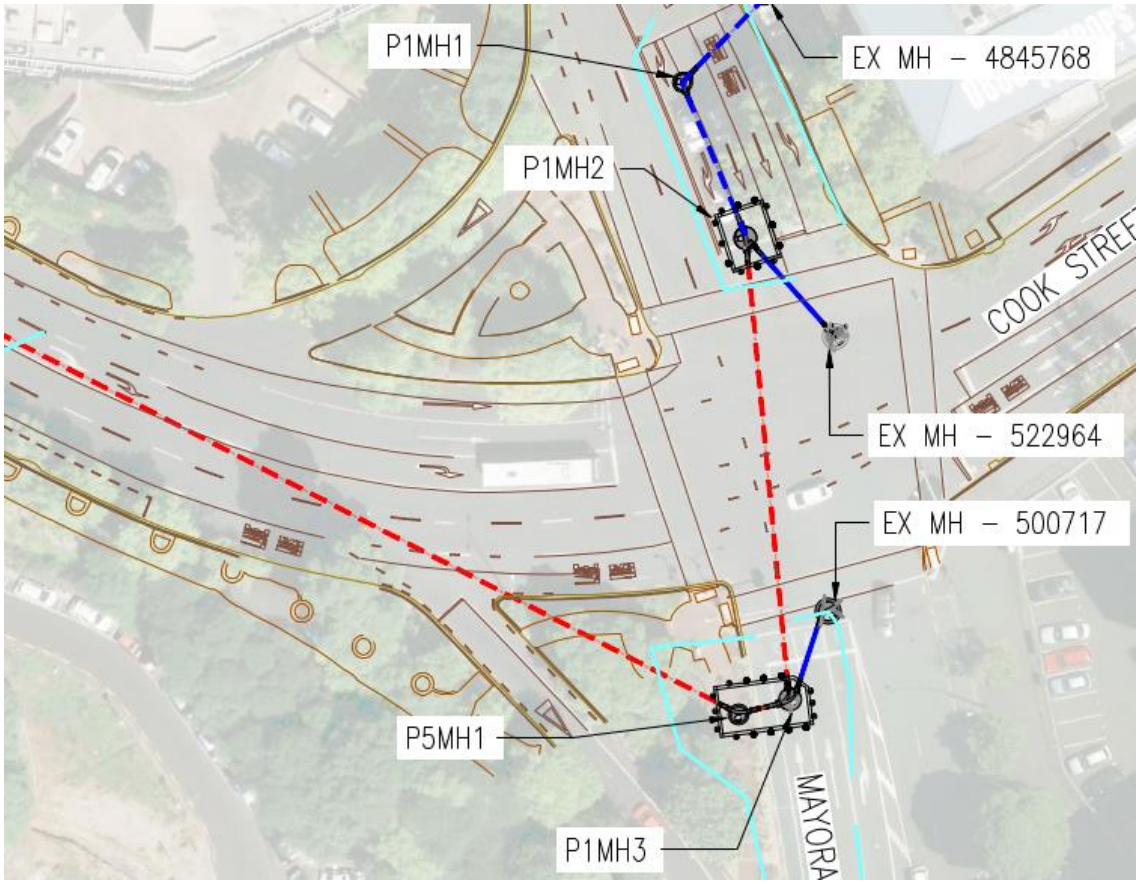


Figure 3-5: Two compounds at Cook St/Mayoral Drive/Vincent St intersection

4 ASSESSMENT METHODOLOGY

The purpose of the ESCP is to outline potential environmental effects, and to provide the most appropriate mitigation measures. The Auckland Unitary Plan (AUP), Chapter E11, recognises that it is not feasible to prevent all discharges of sediment, and requires the application of a Best Practicable Option (BPO) approach. It further defines best practice as compliance with Auckland Council guideline GD05 - Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region, or an alternative equivalent.

The ten fundamental principles of erosion and sediment control listed under Auckland Council guideline GD05 are as follows:

- *Minimise disturbance by retaining existing environment values and minimising earthworks.*
- *Stage construction to minimise the extent of land disturbance at a given time.*
- *Protect steep slopes.*
- *Protect receiving environments locate and map out all existing watercourses on the plan.*
- *Fully stabilise disturbed soils and exposed earthworks areas with vegetation rapidly after each stage and at specific milestones within stages.*
- *Install perimeter controls to retain dirty water within the site and clean water out of the working site.*
- *Employ sediment retention devices to collect and treat sediment-laden water to protect surrounding watercourses.*
- *Engage trained and experienced staff when implementing erosion and sediment controls.*
- *The erosion sediment control must adapt to the site's changing needs as the project progresses.*
- *Inspect, monitor, and maintain the operation of erosion and sediment control measures.*

These best practice principles have informed the ESC strategy presented on the following pages.

5 TECHNICAL ANALYSIS

The 'Universal Soil Loss Equation' is not suited to quantifying sediment yield from the discrete sites spread across Mayoral Drive, and there is no readily available alternative form of analysis that might be used. As a result, the ESC analysis has largely been qualitative, focusing on whether or not the proposed controls represent a suitable BPO.

The receiving environment is the upper Waitemata Harbour, with sediment reaching it principally via the piped stormwater system. There are no existing natural watercourses within or downstream of the project area.

Mayoral Drive is heavily urbanised and highly impervious, and therefore fully stabilised from an earthworks perspective. Other sources of contaminants arising from human activities (heavy metals) remain present, but these are outside the scope of this ESCP and are addressed in the PSI / DSI prepared by WSP (Appendix F of the application).

Project works include seven shaft construction sites where earth will be exposed, with six of these sites included within the scope of this report. The greatest contaminant-related risk derives from excavated spoil dropped from excavators and vehicles or spills of waterborne sludge or drilling fluids. Spoil "down-hole" within the shaft is a much lower risk, as the only way it can reach the surface is by being lifted or pumped out (assuming extreme event flows are suitably managed). The Greys Avenue Compound and the Vincent Street and Mayoral Drive Secondary Compounds have additional exposed surfaces due to open trenching.

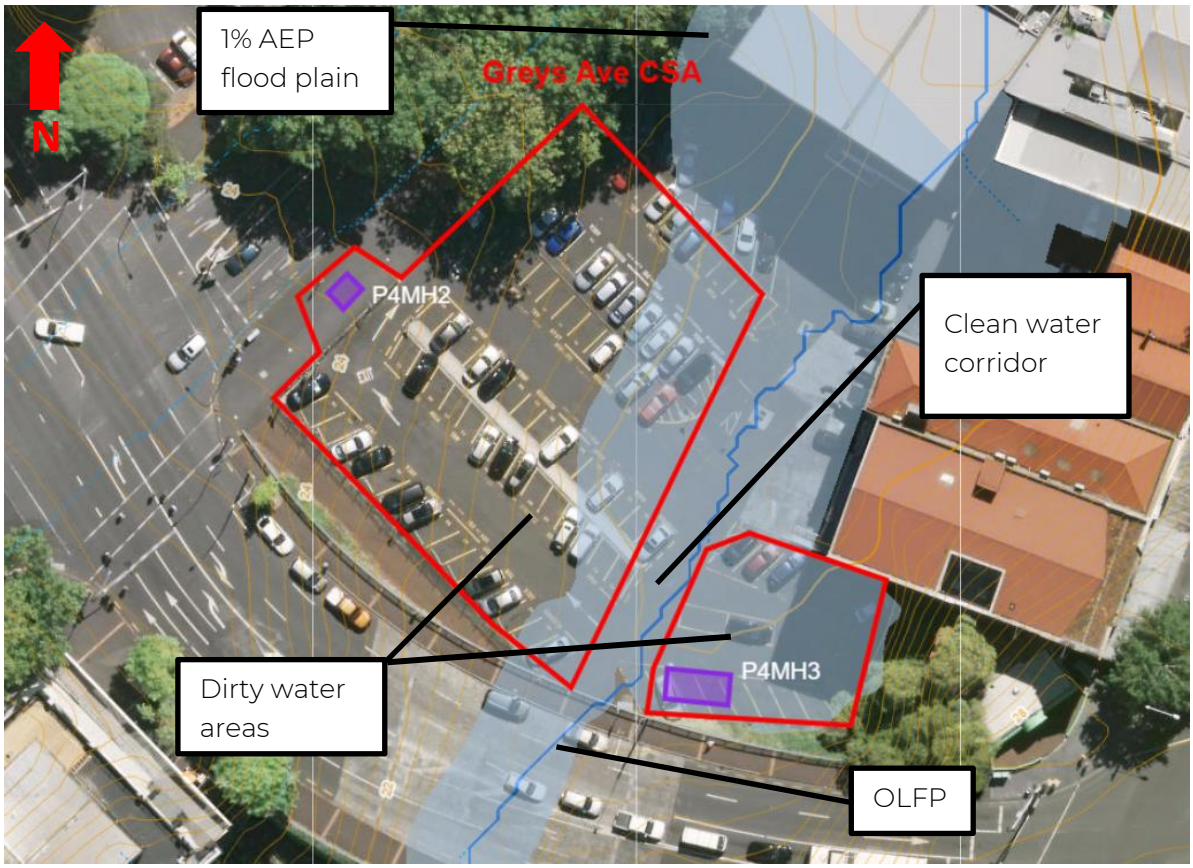


Figure 5-1: Mayoral Drive and Greys Ave tunnelling shafts with stormwater features

The Greys Ave CSA has an overland flow path (OLFP) running directly through it. Significant floodplains also impinge upon the construction boundaries. GD05 requires clean water diversions

to convey the 5% AEP storm around the work site, which we estimate to be approximately 3.4 m^3/s. Therefore, provision must be made to convey overland flows of this magnitude (to be confirmed by the Contractor) across the CSA, via a "clean water corridor" - a stabilised clear space across the middle of the CSA. Concrete training walls and plywood diversion bunds will be configured to confine flood flows within the 3-metre-wide clean-water corridor. The CSA will comprise three sections, two 'dirty-water areas' separated by the clean water corridor (refer to Appendix A, sheet 2 of 4). As seen in Figure 5-1, the proposed works place a shaft relatively close to the OLFP (thus close to the clean-water corridor). There is only very limited flexibility to alter the width or location of the clean water corridor, therefore, it is essential that the Contractor maintains control of overland flows such that they are clear of Shaft P4MH3. "Dirty" activities and the storage of materials within the 3m minimum width OLFP corridor must be avoided or at least kept to a minimum. If in any case dirty activities occur within this corridor, it is expected to be stabilised by the contractor as before the end of each working day.

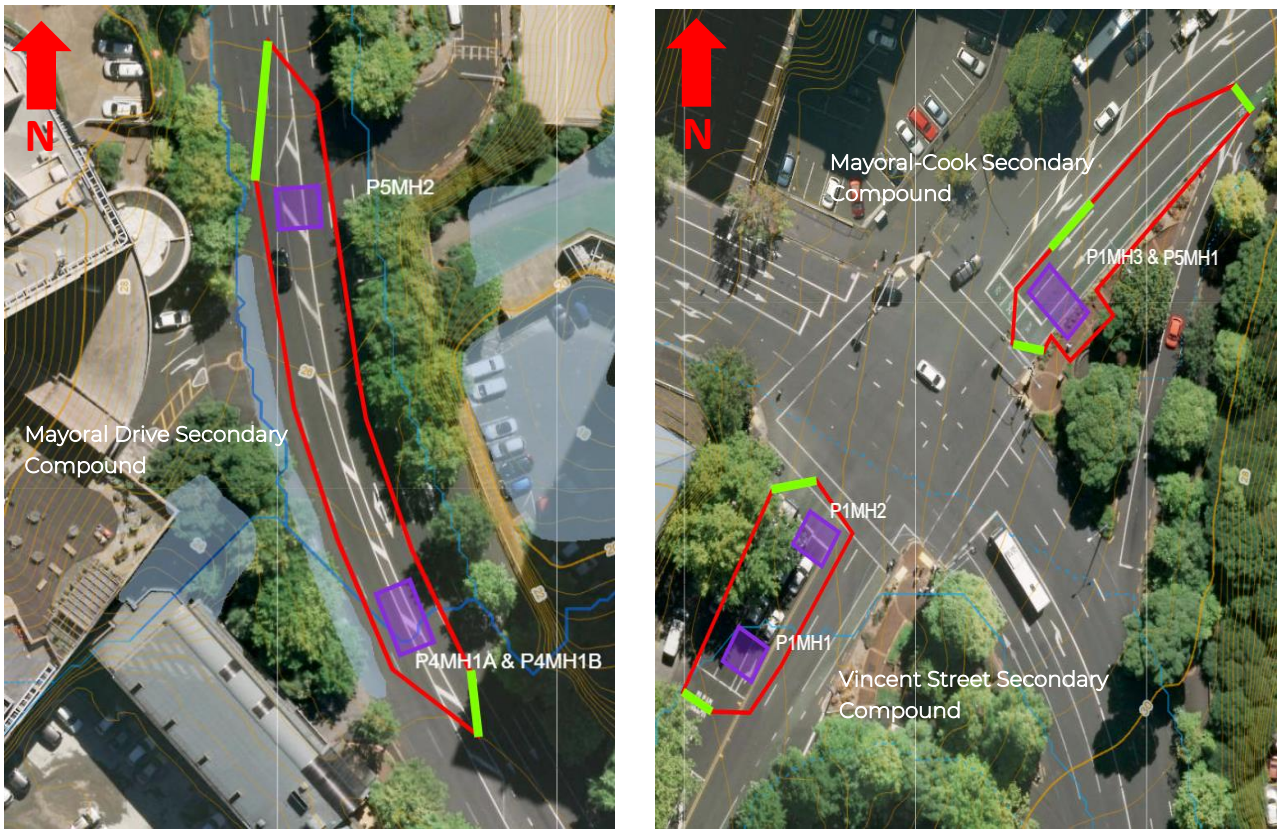


Figure 5-2: Secondary construction compounds in relation to local flood hazards extracted from Auckland's GeoMaps

The secondary compounds involve less complicated ESC measures due to simpler environmental conditions. Mayoral Drive and Vincent Street Secondary Compounds each have an OLFP passing through their site, with Mayoral Drive Compound also containing moderate flood plain characteristics through the majority of its length.

6 MITIGATION MEASURES

This section, and the plans presented in **Appendix A** of this ESCP, outline the ESC proposed to retain and treat sediment-laden runoff on site. The devices mentioned must be monitored weekly during construction and adapted to suit the specific conditions as required.

Appendix A of this ESCP shows the indicative layout of the proposed controls. The appointed contractor of the works will be expected to refine this strategy into a more detailed ESCP based on their own specific construction methodology and work sequencing.

6.1 EROSION AND SEDIMENT CONTROL MEASURES

6.1.1 CLEAN WATER DIVERSION

Plywood diversion bunds with a height of 500mm are to be constructed around the perimeter of the proposed "dirty" areas at the Greys Ave CSA and three Secondary Construction Compounds. The role of these devices is to direct clean water, including flow from major storms, away from the construction sites and into existing street catchpits and stormwater channels downslope of the site.

The Greys Ave CSA is to have plywood bunds running parallel to the significant overland flow path that passes through the site, forming a flow corridor of 3m minimum width. The siting of amenities, the carrying-out of silt-generating activities and the storage of materials within this zone are to be minimised. This will allow "clean" overland flow to move through the site and pass downstream.

The 5% annual exceedance probability (AEP) storm flow depth has been estimated by Manning's Formula to be approximately 300mm through the constructed cross-section. Adding an allowance for freeboard, it was found that the upstream perimeter of the dirty water sites should be protected by a concrete barrier with a minimum height of 1000 mm. This will prevent any build-up of Myers Park overflow from entering the dirty water sites and instead divert overflow from the detention basin in Myers Park into the clean water corridor. The concrete barrier is recommended to continue around 5 metres down the walls of the corridor, followed by plywood diversion bunds at a minimum of 500mm to convey the 5% AEP runoff through the site. This is indicated in *Sheet 2* of the ESCP in Appendix A.

Plywood diversion bunds are also to be used as clean water diversion around the upstream end of all Secondary Construction Compounds, with the exception of traversable bunds (preferably hot mix) at the entry and exit of each site to contain the dirty water. The cordons will be extended to surround open-trench areas during the time these are active. Refer to Appendix A for more details.

Bunds placed at the entries and exits of each site are expected to be ~75mm height across the entire ESCP. These bunds should be traversable as it is expected that typically only heavier vehicles will be crossing these bunds. For soft surfaces such as berms, an earth bund or sand-filled sock ("silt-socks") can be substituted for any perimetral bunding of the site.

Plywood diversion bunds, traversable bunds (hot mix) and silt socks must be designed to exclude the 5% AEP storm. These devices must be installed prior to the excavation works at the compound.

6.1.2 DIRTY WATER DIVERSION

Dirty water is intended to be retained within the sites using plywood diversion bunds across the downstream ends of the compounds. Mayoral Drive and Mayoral-Cook Secondary Compounds will be the only exceptions to this, with both Compounds using a combination of plywood bunds, kerb-lines and silt socks to prevent dirty water escaping the boundary. The silt socks will provide treatment for any dirty water that seeps out. However, most accumulated dirty water will be treated within each site using the appointed contractor's on-site treatment system. Additional freeboard will be provided at the downslope bunds of the dirty water areas to retain dirty water up to the 5% annual exceedance probability (AEP) storm.

Catchpit protection devices are to be installed on all catchpits contained within the CSA or Secondary Compounds.

6.1.3 STABILISED ENTRANCES

The access points and entrances to the Greys Ave CSA and individual compounds will be adequately stabilised in accordance with GD05. In general, this will involve retaining the existing sealed surface or installing hardfill followed by the implementation of the traversable bund. Appropriate stabilisation of entrances and access paths will prevent these locations from becoming sources of sediment, minimise dust generation, and minimise release of dirty water into surrounding areas.

6.1.4 CONSTRUCTION DISCHARGE LOCATIONS

Sediment-laden water collected within the compounds will be treated and discharged off-site or as per the recommendations of a dewatering assessment.

6.2 DEWATERING

Low-lying sections within the compounds, including the shaft site(s), may be inundated after a severe rainfall event. The following steps are to be undertaken when dewatering is required subject to ground investigations:

- Water to be removed via 50 to 100mm submersible pump
- Water will be pumped into clarifying tanks/containers for treatment
- Water to be discharged directly off-site or to the existing stormwater network once being treated to a minimum black disc clarity of 100mm

6.3 HEAVY RAINFALL RESPONSE AND CONTINGENCY MEASURES

Heavy rainfall events have the potential to damage or displace ESCs and result in uncontrolled sediment discharge. As a minimum, the appointed contractor must monitor weather patterns on the site daily and ensure the ESC devices are fit for purpose before and during any forecast rainfall event.

In general, the appointed contractor must:

- Monitor weather forecasts regularly to assess the risks and amend ESC to suit weather conditions
- Inspect controls after heavy rainfall and repair any damage immediately
- Report heavy rainfall incidents and liaise with Auckland Council as part of routine reporting
- Report any serious incidents to Council within 24 hours.
- If the shaft is expected to flood, contain the silty water on site until it can be pumped out and processed after the event.

For the Greys Ave CSA, activities within the overland flow path must be strictly managed to avoid sediment release. Maintaining a clear, 3m minimum width flow corridor through the CSA will be a key factor in achieving this.

6.4 MONITORING AND MAINTENANCE

GD05 provides indicative methods for ESC device maintenance. As a minimum, it is recommended that each device is inspected once a week, and after every rainfall event for correct operation. It is also recommended to remove accumulated sediment in the devices regularly and to clearly identify sediment disposal locations. Any damage to devices must be immediately remediated. The contractor is expected to have a trained environmental advisor to supervise the sediment controls. The contractor must also keep records of all inspections and provide related reports at the request of the Engineer. Table 2 highlights the key device-specific maintenance procedures:

Table 2: Indicative Maintenance Procedures

Erosion and Sediment Control Measure	Indicative Maintenance Procedure	Frequency
Plywood diversion bunds and traversable (preferably hot mix) bunds	— Inspect for water ponding and blockages. Reinstate if damaged. — Inspect inverts and outlets for any signs of scour and erosion. — Remove sediment deposited around the bunds to avoid overtopping due to lack of freeboard.	Weekly and after every rainfall event.
Silt socks	— Inspect for water ponding and blockages. Reinstate if damaged; re-position if dislodged. — Remove sediment deposited around the socks to avoid overtopping.	Weekly and after every rainfall event.

Stabilised Construction Entrances	— Inspect daily and after each rainfall. Maintain as required to preserve function. — Pick up droppings and sweep surface regularly. — Re-construct or re-surface construction entrance if it becomes ineffective through surface contamination.	Daily and after every rainfall event.

7 CONCLUSION

Across the Mayoral Drive alignment construction areas, devices such as 500mm plywood diversion bunds, traversable (preferably hot mix) bunds, concrete diversion barriers, silt socks, catchpit protection and dirty water clarifiers are to be implemented to provide erosion and sediment control. Plywood diversion bunds and concrete barriers will be used to divide the Greys Ave CSA into two 'dirty water areas' and a 3m wide 'clean water corridor' for the overland flow path from Myers Park to pass through the site. Placement of amenities or materials within the overland flow corridor is to be avoided or at least kept to a minimum.

In each dirty water area, the contractor will need to provide an on-site treatment system to reduce sediment concentrations to a compliant level.

For the rest of the alignment, plywood diversion bunds, traversable bunds and silt socks are to be installed around the compounds to divert clean water away from the site, while retaining any dirty water generated within the site. The Mayoral Drive and Mayoral-Cook Secondary Compounds will have a combination of plywood diversion bunds, traversable bunds and silt socks, and the Vincent Street Secondary Compound will have a plywood diversion bund, traversable bunds and the adjacent kerb-line. Cordons will be extended to surround open-trench areas during the time these are active. Catchpit protection is to be provided to all on-site stormwater inlets.

This provisional ESCP is expected to be adopted and developed further by the appointed contractor. Any developments must align with the principles and guidelines provided by Auckland Council's GD05 and deliver environmental outcomes equivalent to those described in this plan.

8 LIMITATIONS

This report ('Report') has been prepared by WSP exclusively for Watercare Services Limited ('Client') in relation to the assessment of erosion and sedimentation effects for the Mayoral Drive Alignment of the Queen Street Wastewater Diversion Programme of Works, for consenting purposes ('Purpose') and in accordance with the task order number TO-WSP-65 task name Queen Street Wastewater Diversions – Rescoping, dated 03.12.2025. The findings in this Report are based on and are subject to the assumptions specified in the Report. WSP accepts no liability whatsoever for any reliance on or use of this Report, in whole or in part, for any use or purpose other than the Purpose or any use or reliance on the Report by any third party.

In preparing the Report, WSP has relied upon data, surveys, analyses, designs, plans and other information ('Client Data') provided by or on behalf of the Client. Except as otherwise stated in the Report, WSP has not verified the accuracy or completeness of the Client Data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in this Report are based in whole or part on the Client Data, those conclusions are contingent upon the accuracy and completeness of the Client Data. WSP will not be liable in relation to incorrect conclusions or findings in the Report should any Client Data be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to WSP.

Appendix A

Erosion Sediment Control Drawing Set

LEGEND:

- PROPOSED WASTEWATER — WW
- SHAFT
- CONSTRUCTION COMPOUND
- HOT MIX ASPHALT BUND — H
- PLYWOOD DIVERSION BUND
- CATCHPIT PROTECTION
- 1000MM CONCRETE BARRIER
- SUMP AND TURKEY NEST
- 0.5M CONTOURS
- OPEN CUT SECTION
- SILT SOCK — SS
- COMPOUND ACCESS

GREYS AVENUE
MAYORAL DRIVE SECONDARY COMPOUND
VINCENT STREET
VINCENT STREET SECONDARY COMPOUND
HOBSON APARTMENTS
R0021853.804
GRAND MILLENNIUM
EX MH4845768
P1MH01
P1MH02
COOK STREET
EX MH – 522964
P4MH1A
P4MH1B
P5MH02
MAYORAL DRIVE
EX MH – 522822
P4MH02
R0021853.802
EX MH – 500717
P1MH03
P5MH01
UP INTERNATIONAL COLLEGE
GREYS AVENUE
CIVIC CAR PARKING
EX MH 522820
P4MH03
GREYS AVE CONSTRUCTION COMPOUND AND CONSTRUCTION SUPPORT AREA (CSA)
MAYORAL–COOK SECONDARY COMPOUND
MAYORAL DRIVE
R0021853.803
MAYORAL DRIVE MANHOLE SHAFT 1
QUEEN STREET
R0021853.801
AOTEA CENTRE

NOTES

1. ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSTALLED ACCORDING TO AUCKLAND COUNCIL GUIDELINE GD05 – EROSION AND SEDIMENT CONTROL GUIDE FOR LAND DISTURBING ACTIVITIES IN THE AUCKLAND REGION.
2. INSTALL CATCHPIT PROTECTION ON ALL EXISTING STORMWATER CATCHPITS WITHIN THE CONSTRUCTION SUPPORT AREA AND SECONDARY COMPOUNDS.
3. PUMP ANY WATER THAT ACCUMULATES IN THE TEMPORARY SHAFTS INTO CLARIFYING TANKS FOR TREATMENT AND DISPOSE TO STORMWATER SYSTEM OR OFFSITE.
4. ADEQUATELY STABILISE ANY EARTHWORKS STOCKPILE WHEN NOT IN USE.
5. RAPIDLY STABILISE OPEN CUT SECTIONS.
6. MAINTAIN EROSION AND SEDIMENT CONTROL PLAN UNTIL DISTURBED AREAS ARE PERMANENTLY STABILISED.
7. ANY STORMWATER DOWNPIPES RUNNING DOWN BUILDINGS AND INTO THE DIRTY WATER COMPOUNDS SHOULD BE IDENTIFIED AND DIVERTED TO A SUITABLE DISCHARGE LOCATION AS CHOSEN BY THE CONTRACTOR.

before u dig

PRELIMINARY
NOT FOR CONSTRUCTION

OVERVIEW PLAN
SCALE 1:1000 @ A3

Original sheet size A3 (420x297) Plot Date 2025-05-06 at 9:20:10 pm P:\Open\Bailey Sutton\Queen Street\ESCP_R0021853.800_804.dwg 800

ISSUE	DATE	AMENDMENT	BY	APPD.
3	05–25	RESOURCE CONSENT	B.S.	W.B.
2	01–25	PRELIMINARY DESIGN	B.S.	R.G.
1	11–23	PRELIMINARY DESIGN	B.S.	W.B.

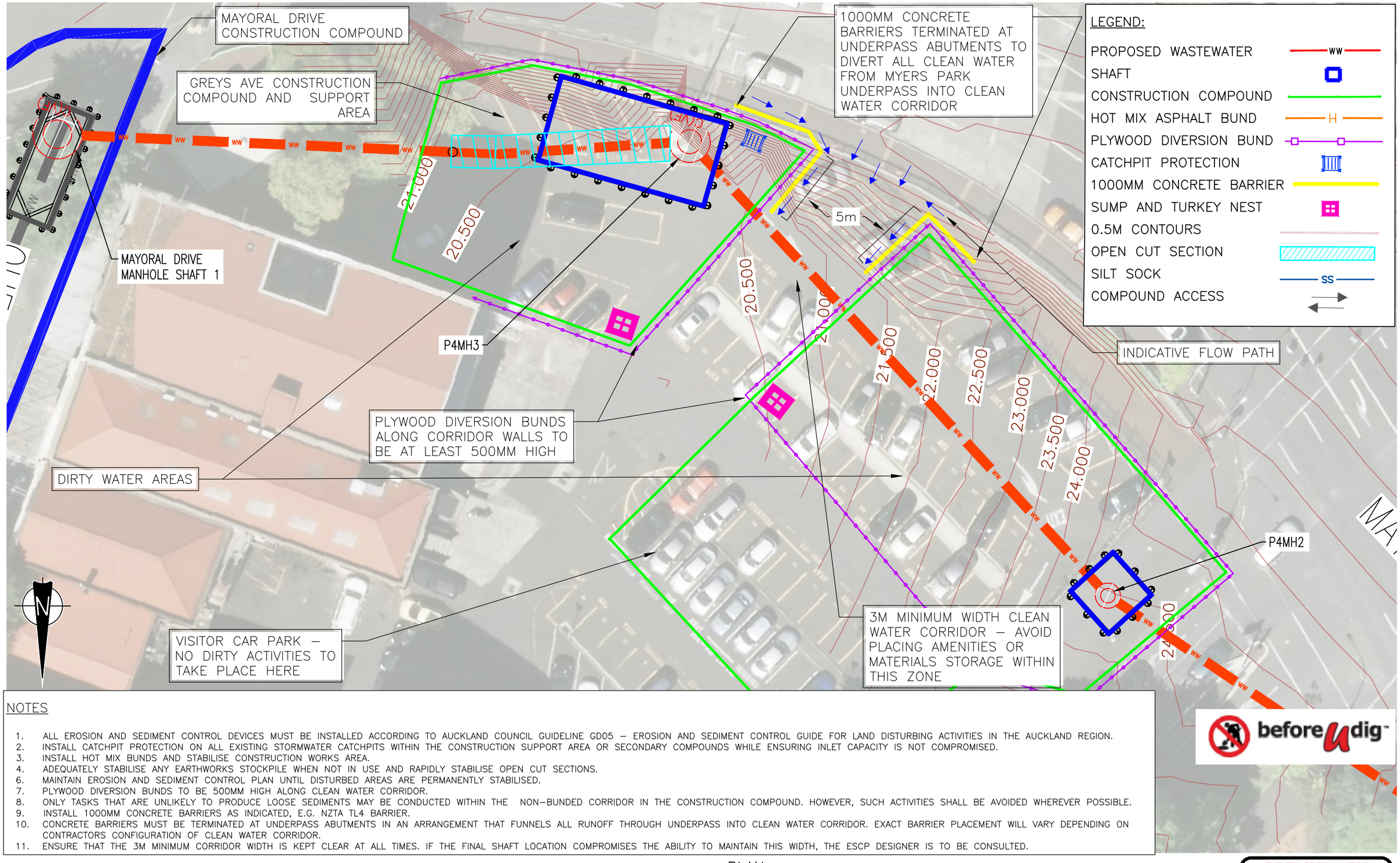
		DATE
DESIGNED	B.SUTTON	05–25
DES. APPROVED	W.B.	05–25
DRAWN	B.SUTTON	05–25
DWG. APPROVED	W.B.	05–25
WSL DESIGN MGMT.	–	05–25
WSL PROJ. LEAD	–	–

Watercare

QUEEN STREET WASTEWATER DIVERSION
PROPOSED MAYORAL DRIVE ALIGNMENT
EROSION AND SEDIMENT CONTROL PLAN OVERVIEW – SHEET 1 OF 5

wsp

CAD FILE	ESCP_R0021853.800_804
DATE	28–01–2025
ORIGINAL SCALE A3	1:1000
CONTRACT No.	–
REF No.	W–SL001.04
DWG No.	R0021853.800
ISSUE	1



NOTES

1. ALL EROSION AND SEDIMENT CONTROL DEVICES MUST BE INSTALLED ACCORDING TO AUCKLAND COUNCIL GUIDELINE GD05 – EROSION AND SEDIMENT CONTROL GUIDE FOR LAND DISTURBING ACTIVITIES IN THE AUCKLAND REGION.
2. INSTALL CATCHPIT PROTECTION ON ALL EXISTING STORMWATER CATCHPITS WITHIN THE CONSTRUCTION SUPPORT AREA OR SECONDARY COMPOUNDS WHILE ENSURING INLET CAPACITY IS NOT COMPROMISED.
3. INSTALL HOT MIX BUNDS AND STABILISE CONSTRUCTION WORKS AREA.
4. ADEQUATELY STABILISE ANY EARTHWORKS STOCKPILE WHEN NOT IN USE AND RAPIDLY STABILISE OPEN CUT SECTIONS.
6. MAINTAIN EROSION AND SEDIMENT CONTROL PLAN UNTIL DISTURBED AREAS ARE PERMANENTLY STABILISED.
7. PLYWOOD DIVERSION BUNDS TO BE 500MM HIGH ALONG CLEAN WATER CORRIDOR.
8. ONLY TASKS THAT ARE UNLIKELY TO PRODUCE LOOSE SEDIMENTS MAY BE CONDUCTED WITHIN THE NON–BUNDED CORRIDOR IN THE CONSTRUCTION COMPOUND. HOWEVER, SUCH ACTIVITIES SHALL BE AVOIDED WHEREVER POSSIBLE.
9. INSTALL 1000MM CONCRETE BARRIERS AS INDICATED, E.G. NZTA TL4 BARRIER.
10. CONCRETE BARRIERS MUST BE TERMINATED AT UNDERPASS ABUTMENTS IN AN ARRANGEMENT THAT FUNNELS ALL RUNOFF THROUGH UNDERPASS INTO CLEAN WATER CORRIDOR. EXACT BARRIER PLACEMENT WILL VARY DEPENDING ON CONTRACTORS CONFIGURATION OF CLEAN WATER CORRIDOR.
11. ENSURE THAT THE 3M MINIMUM CORRIDOR WIDTH IS KEPT CLEAR AT ALL TIMES. IF THE FINAL SHAFT LOCATION COMPROMISES THE ABILITY TO MAINTAIN THIS WIDTH, THE ESCP DESIGNER IS TO BE CONSULTED.

PLAN
SCALE 1:300 @ A3

PRELIMINARY
NOT FOR CONSTRUCTION

ISSUE	DATE	AMENDMENT	BY	APPD.
3	05–25	RESOURCE CONSENT	B.S.	W.B.
2	01–25	PRELIMINARY DESIGN	B.S.	R.G.
1	03–27	PRELIMINARY DESIGN	B.S.	W.B.

		DATE
DESIGNED	B.SUTTON	05–25
DES. APPROVED	W. BIRD	05–25
DRAWN	B.SUTTON	05–25
DWG. APPROVED	W. BIRD	05–25
WSL DESIGN MGMT.	–	03–27
WSL PROJ. LEAD	–	–

QUEEN STREET WASTEWATER DIVERSION
PROPOSED MAYORAL DRIVE ALIGNMENT
EROSION AND SEDIMENT CONTROL PLAN – SHEET 2 OF 5

WSP

CAD FILE	ESCP_R0021853.800_804
DATE	06–05–2025
ORIGINAL SCALE A3	AS SHOWN
CONTRACT No.	–
REF No.	W–SL001.04
DWG No.	R0021853.801
ISSUE	1

Original sheet size A3 (420x297) Plot Date 2025–05–06 at 9:21:03 pm P:\Open\Bailey Sutton\Queen Street\ESCP_R0021853.800_804.dwg 801

LEGEND:

- PROPOSED WASTEWATER — WW
- SHAFT
- CONSTRUCTION COMPOUND
- HOT MIX ASPHALT BUND — H
- PLYWOOD DIVERSION BUND
- CATCHPIT PROTECTION
- 1000MM CONCRETE BARRIER
- SUMP AND TURKEY NEST
- 0.5M CONTOURS
- OPEN CUT SECTION
- SILT SOCK — SS
- COMPOUND ACCESS

GRAND MILLENNIUM

SILT SOCKS AT EDGE OF PATHWAY TO PREVENT AND/OR TREAT DIRTY WATER SPILLAGE DOWN DRIVEWAY

P4MH1B

P4MH1A

P5MH2

MAYORAL DRIVE

MAYORAL DRIVE SECONDARY COMPOUND

GREYS AVE CONSTRUCTION COMPOUND AND SUPPORT AREA

FENCE TO FENCE HOT MIX BUND PLACEMENT ACROSS DRIVE ENTRANCE

NOTES

1. REFER TO DRAWING R0021853.800 FOR GENERAL NOTES.
2. ALL HOT MIX BUNDS PLACED ACROSS ROADS OR DRIVEWAYS MUST BE TRAVERSABLE FOR ALL VEHICLE TYPES.

PLAN
SCALE 1:250 @ A3

PRELIMINARY
NOT FOR CONSTRUCTION

Original sheet size A3 (420x297) Plot Date 2025-05-06 at 9:21:55 pm P:\Open\Bailey Sutton\Queen Street\ESCP_R0021853.800_804.dwg 802

ISSUE	DATE	AMENDMENT	BY	APPD.
3	05-25	RESOURCE CONSENT	B.S.	W.B.
2	01-25	PRELIMINARY DESIGN	B.S.	R.G.
1	11-23	PRELIMINARY DESIGN	B.S.	W.B.

	BY	DATE
DESIGNED	B.SUTTON	05-25
DES. APPROVED	W.BIRD	05-25
DRAWN	B.SUTTON	05-25
DWG. APPROVED	W.BIRD	01-25
WSL DESIGN MGMT.	-	11-23
WSL PROJ. LEAD	-	-

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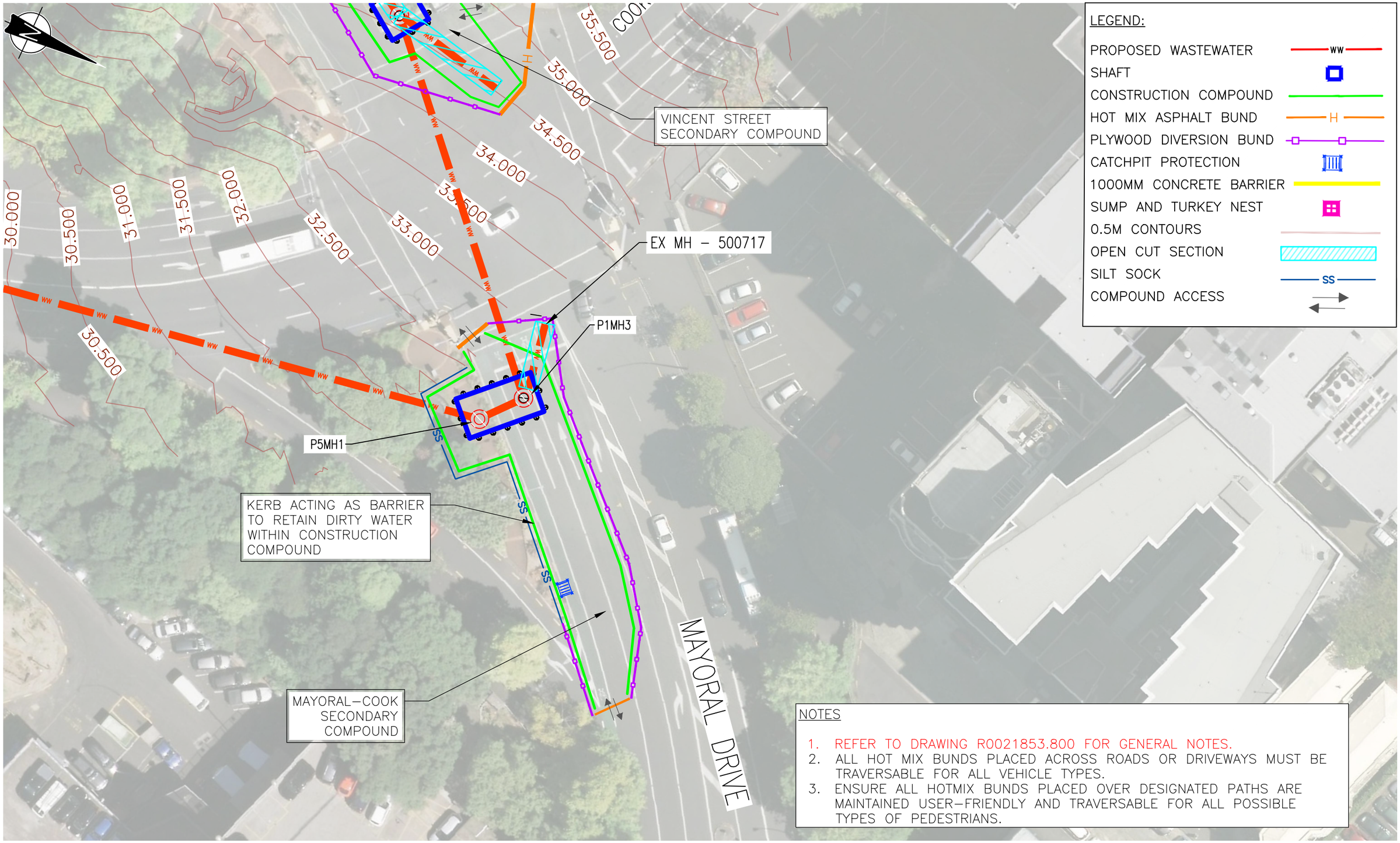
QUEEN STREET WASTEWATER DIVERSION
PROPOSED MAYORAL DRIVE ALIGNMENT
EROSION AND SEDIMENT CONTROL PLAN - SHEET 3 OF 5

wsp

CAD FILE	ESCP_R0021853.800_804 06-05-2025
ORIGINAL SCALE A3	AS SHOWN
CONTRACT No.	-
REF No.	W-SL001.04
DWG No.	R0021853.802
ISSUE	1



LEGEND:

- PROPOSED WASTEWATER — WW
- SHAFT
- CONSTRUCTION COMPOUND
- HOT MIX ASPHALT BUND — H
- PLYWOOD DIVERSION BUND
- CATCHPIT PROTECTION
- 1000MM CONCRETE BARRIER
- SUMP AND TURKEY NEST
- 0.5M CONTOURS
- OPEN CUT SECTION
- SILT SOCK — SS
- COMPOUND ACCESS

NOTES

1. REFER TO DRAWING R0021853.800 FOR GENERAL NOTES.
2. ALL HOT MIX BUNDS PLACED ACROSS ROADS OR DRIVEWAYS MUST BE TRAVERSABLE FOR ALL VEHICLE TYPES.
3. ENSURE ALL HOTMIX BUNDS PLACED OVER DESIGNATED PATHS ARE MAINTAINED USER–FRIENDLY AND TRAVERSABLE FOR ALL POSSIBLE TYPES OF PEDESTRIANS.

PLAN
SCALE 1:250 @ A3

beforeUdig™

PRELIMINARY
NOT FOR CONSTRUCTION

Original sheet size A3 (420x297) Plot Date 2025-05-06 at 9:22:45 pm P:\Open\Bailey Sutton\Queen Street\ESCP_R0021853.800_804.dwg 803

ISSUE	DATE	AMENDMENT	BY	APPD.
3	05–25	RESOURCE CONSENT	B.S.	W.B.
2	01–25	PRELIMINARY DESIGN	B.S.	R.G.
1	11–23	PRELIMINARY DESIGN	B.S.	W.B.

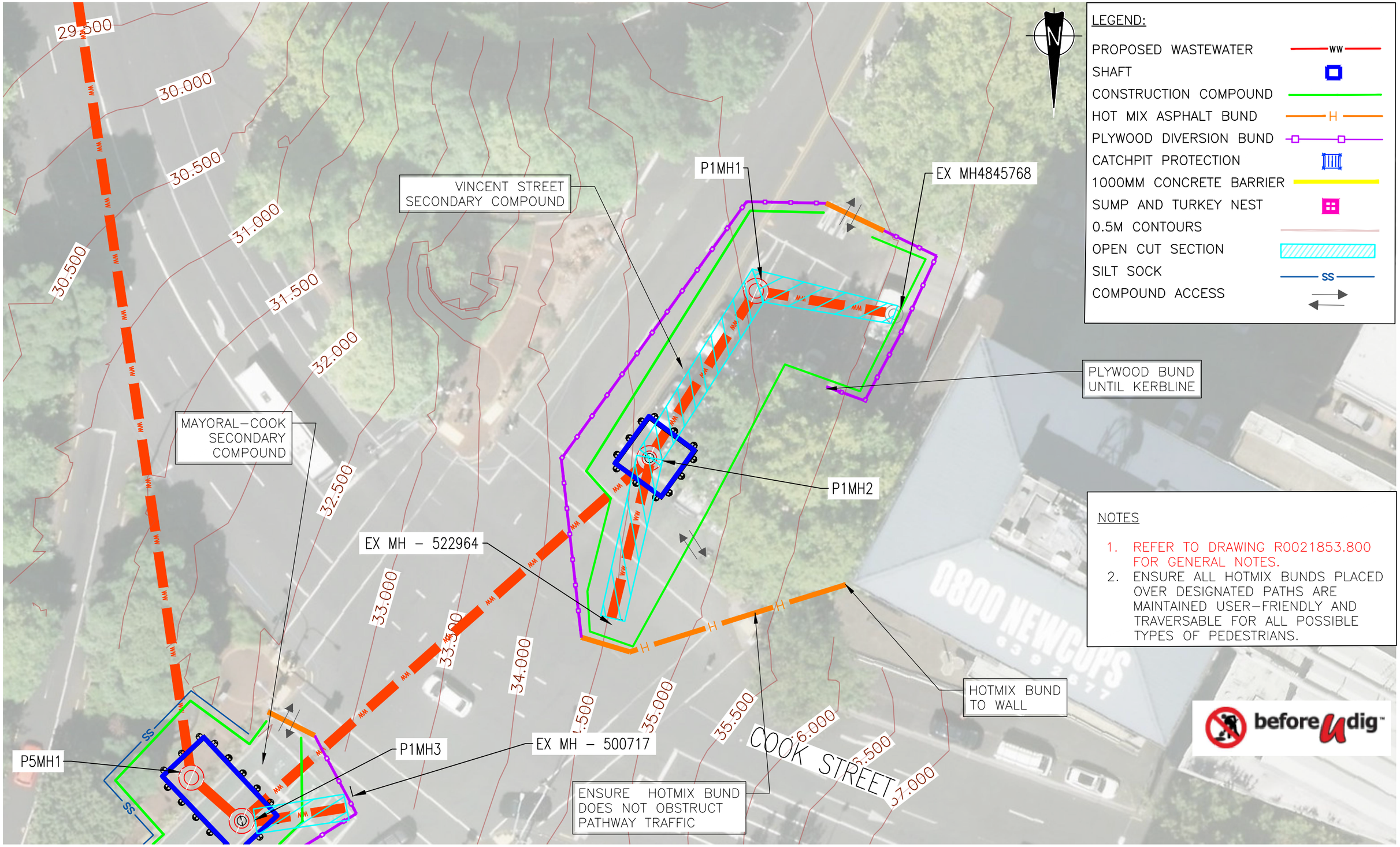
		DATE
DESIGNED	B.SUTTON	06–25
DES. APPROVED	W.BIRD	06–25
DRAWN	B.SUTTON	06–25
DWG. APPROVED	W.BIRD	06–25
WSL DESIGN MGMT.	–	11–23
WSL PROJ. LEAD	–	–

Watercare

QUEEN STREET WASTEWATER DIVERSION
PROPOSED MAYORAL DRIVE ALIGNMENT
EROSION AND SEDIMENT CONTROL PLAN – SHEET 4 OF 5

wsp

CAD FILE	ESCP_R0021853.800_804 06–05–25
ORIGINAL SCALE A3	AS SHOWN
CONTRACT No.	–
REF No.	W–SL001.04
DWG No.	R0021853.803
ISSUE	1



PLAN
SCALE 1:300 @ A3

Original sheet size A3 (420x297) Plot Date 2025-05-06 at 9:23:13 pm P:\Open\Bailey Sutton\Queen Street\ESCP_R0021853.800_804.dwg 804

ISSUE	DATE	AMENDMENT	BY	APPD.
3	06-25	RESOURCE CONSENT	B.S.	W.B.
2	01-25	PRELIMINARY DESIGN	B.S.	R.G.
1	11-23	PRELIMINARY DESIGN	B.S.	W.B.

		DATE
DESIGNED	B.SUTTON	06-25
DES. APPROVED	W.BIRD	06-25
DRAWN	B.SUTTON	06-25
DWG. APPROVED	W.BIRD	06-25
WSL DESIGN MGMT.	–	11-23
WSL PROJ. LEAD	–	–

Watercare

QUEEN STREET WASTEWATER DIVERSION
PROPOSED MAYORAL DRIVE ALIGNMENT
EROSION AND SEDIMENT CONTROL PLAN – SHEET 5 OF 5

wsp

CAD FILE	ESCP_R0021853.800_804 06-05-25
ORIGINAL SCALE A3	AS SHOWN
CONTRACT No.	–
REF No.	W-SL001.04
DWG No.	R0021853.804
ISSUE	1