

Omnibus Construction Management Plan - Designation (OCMPD)

Job # 1528

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REVIEW & APPROVAL

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1 Plan Linkage

Omnibus Constuction management plan Plan Linkage (This Document)

Construction Management Plan (CMP)

Construction Noise and Vibration Management Plan (CNVMP)

Construction Traffic Management Plan (CTMP)

Construction Communication and Consultation Plan (CCCP)

Dust Management Plan (DMP)

Hazardous Substances Management Plan (HSMP)

Note hold control and click section to jump to plan.



2 Project Location & Scope

2.1 Location Description

The project site is located in the south of Hamilton in the suburb of Peacocke.





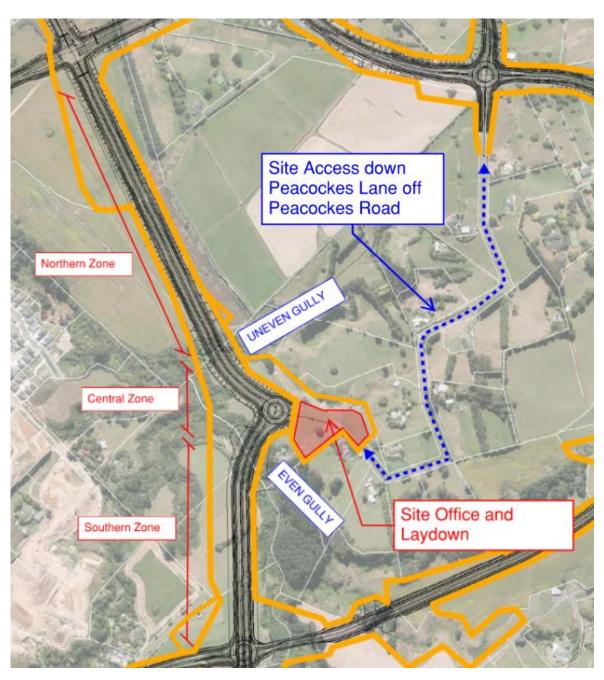
The extent of works is split into 3 main zones, each separated by a gully. The uneven gully separates the Northern and Central zone, and the even gully separates the Central and Southern Zone.

At the North extent of the site, there is an interface with HEB who are constructing the new Waikato River Bridge and on the South extent of the site, there is an interface with Downer who are constructing the new East-West Arterial on Whatukooruru Drive.

The main site office and laydown area is located at the former site of 112 Peacocke Lane which can be accessed off Peacockes Road

The site sits within the Southern Links Designation, the extent of which is outlined in yellow on the following map.





2.2 Project Scope Summary

This project involves construction of a wastewater pipeline from the southern connection near the new East West Arterial Whatukooruru Road, across the Even Gully via a steel bridge, through the central zone and then across the 'Uneven Gully' via a second bridge and then heading North through Westbrook Place.

The wastewater pipeline will be constructed on grade with the cut battered down to suit the depth as required. A future cycle path will be laid on top of the alignment.

To cross each of the gullies, steel bridges will be fabricated and installed on concrete abutments anchored with piles down to the rock bed.

To attenuate emergency flows, storage tanks will be constructed, 1 each in the central and zones.



3 Document Purpose

This Omnibus Management Plan is created for the Hamilton City Council (HCC, the Principal) Southern Gullies Wastewater project.

This Plan is an over-arching management plan required under the HCC Designation that sits above several other specialist management plans required by the HCC Designation and Waikato Regional Council (WRC) Resource Consents.

The purpose of this CMP is to satisfy the necessary Designation Conditions and to demonstrate to HCC, how CB Civil and Drainage Limited (CB Civil) intends to meet, manage and comply with the conditions of the Designation during the construction phase of the Project.

4 Omnibus Management Plan Designation

The following plans are covered within this Omnibus Management Plant to meet the conditions of the designation.

- Construction Management Plan (CMP)
- Construction Noise and Vibration Management Plan (CNVMP)
- Construction Traffic Management Plan (CTMP)
- Construction Communication and Consultation Plan (CCCP)
- Dust Management Plan (DMP)
- Hazardous Substances Management Plan (HSMP)

5 Site Office Layout

The site office is intended to be a replica of the current site office layout at 50 Old Farm Road.

This design and shelter arrangement will be transported out to Peacocke Lane and re-erected in the below configuration.





6 Blank

This section is intentionally left blank to allow for future amendments if required.



Construction Management Plan (CMP)



7 Construction Management Plan (CMP)

The following table sets out the Southern Links designation Conditions section 9 relating to Construction Management and the section referenced as to where these conditions are addressed.

9.1 No later than forty (40) working days prior to the commencement of any stage of Construction Works or as otherwise agreed with the HCC Chief Executive or their nominee, the Requiring Authority shall submit for certification a Construction Management Plan (CMP) to the Territorial Authority Chief Executive or nominee. The CMP shall be prepared by a suitably qualified and experienced person. The objective of the CMP is to avoid, remedy or mitigate any adverse effects of construction, through methods identified in the CMP. For the avoidance of doubt, the Requiring Authority may prepare a CMP in relation to each individual stage of its programme of works, provided that in each case it shall submit a CMP for certification in accordance with this Condition prior to any Construction Works commencing on a particular stage 9.2 The CMP shall have regard to and where appropriate implement any relevant actions identified in the minutes arising from Community Liaison Group meetings (Conditions 3.3 and 3.14) 9.3 The CMP(s) shall include specific details relating to the construction and management of all works associated with the Project, including the following: a Details of the site or Project manager, including their contact details (phone, facsimile (if any), postal address, email address) b Details of the contact person required by Condition 8.1 including name, phone number, email and postal address c The location of large notice boards that clearly identify the name, phone number, email and postal address or service of the site or Project manager and the contact person required by Conditions 3.1 and 8.1 d Training requirements for employees, sub-contractors and visitors on construction promption and address for service of the site or Project manager and security of the contact person required by Conditions 3.1 and 8.1 d Training requirements for employees, sub-contractors and visitors on construction promptions of the properties of the contact person required by Conditions 3.1 and 8.1 d Training requirements	Section	Description	Reference
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	k	Procedures for ensuring that residents in the immediate vicinity of construction areas are given prior notice of the commencement of Construction Works and	Section 7.2.11



I	Procedures to be followed to ensure that iwi representatives are notified of the proposed commencement of Construction Works and of the discovery of any koiwi or other artefacts	Section 7.2.12
m	Procedures to be followed in the event that any historic artefacts are disturbed, being in accordance with any Authority obtained under the Heritage New Zealand Pouhere Taonga Act 2014	Section 7.2.13
n	Means of ensuring the safety of the general public	Section 7.2.14
0	Procedures for receiving and responding to complaints	Section 7.2.15

7.1 Community Liaison Group Actions

CB Civil shall have regard to and where appropriate implement any relevant actions identified in the minutes arising from Community Liaison Group meetings.

7.2 Construction and Management

7.2.1 **Project Manager Details**

Jamie Campbell	PO Box 4309,	021 029 01724	jamie@cbcivil.co.nz	
CB Civil	Hamilton 3216			

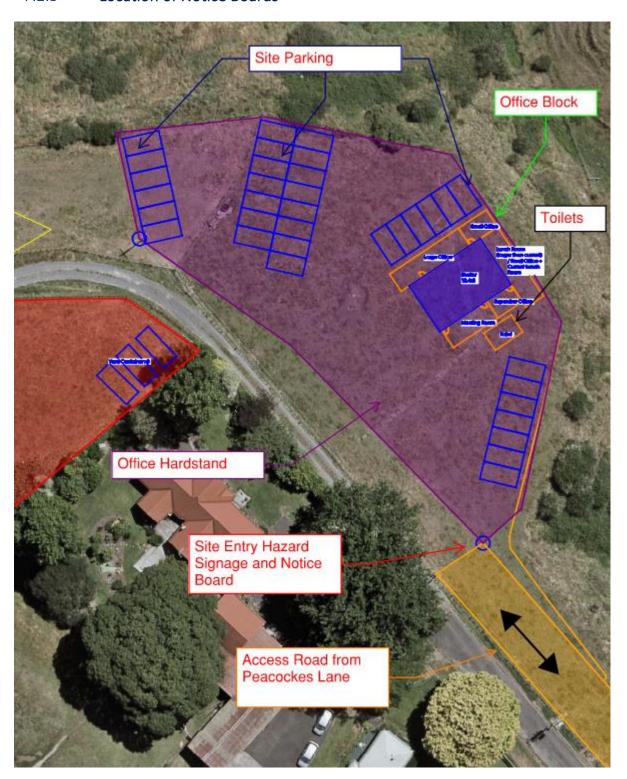
7.2.2 Site Contact Person

The project phone will be contactable 24 hours, seven days a week for the duration of construction for public enquiries about the Construction Works.

Project Phone	PO Box 4309,	0508 779 4636	psw@cbcivil.co.nz	
	Hamilton 3216			



7.2.3 Location of Notice Boards



7.2.4 Training Requirements

All training undertaken by CB Civil staff is recorded in Bware. A full report will be printed and made available on site for review. Any additional training to meet specific requirements on the job will be done on demand.

Subcontractors will be required to provide a record of their training as part of our Subcontractor Capability Assessment.



All employees and subcontractors working on site will undertake an induction which will cover construction procedures, environmental management and monitoring and their details will be recorded in an Employee / Subcontractor Induction Register.

Any visitors to the site for the purposes of viewing or monitoring, will undertake an induction which will cover environmental management and monitoring. Their details will be recorded in a Visitor Induction Register.

7.2.5 **Construction Programme**

Construction will begin with the earthworks to enable the abutment piling at the North side of the Even Gully (Bridge 1) abutment. This will commence in early 2023. From here, the earthworks will continue unlocking the remainder of the bridge abutments for piling prior to the conclusion of the Summer Earthworks season. The cut from this will be carted to the fill area in the Northern Zone.

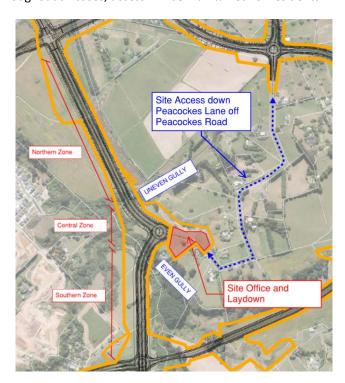
During this time, the drainage works for the South Zone pipeline will commence in conjunction with the cut to fill operation.

While the earthworks are being undertaken, the bridge steel components will be fabricated off site. Towards the end of the 2023 Winter season, the bridge components will be brought to site for Bridge 1 and assembled ready for launching. The temporary works for Bridge 1 will be constructed and subsequently Bridge 1 will be installed. The operation will then be repeated for Bridge 2 which crosses the Uneven Gully.

While the bridges are being installed, the drainage pipe will be constructed in the Northern Zone. Following both bridge installations, the drainage works in the Central Zone will be able to be completed.

Normal working hours will be between 0700 and 1900 Monday – Saturday (excluding public holidays). Any work outside of these hours will be undertaken in accordance with the processes detailed in the Construction Noise and Vibration Plan

It is not anticipated that there will be any complete road closures or partial closures required for more than an individual transport or movement event. Throughout all cases, access will be maintained for residents.





7.2.6 Environmental Incident and Emergency Management Procedures

In the event of an accidental spill or discharge of sediment, hazardous and/or toxic substance, CB Civil will use the following procedure. Plan attached Appendix 1.

Assess

- Stop, ensure worker safety and assess the situation.
- Check Safety Data Sheets (SDS) to ensure its safe to clean up the spill.
- Assess fire/explosion danger and hazards.
- Use personal protective equipment.
- If safe to do so, stop and contain the flow.
- Turn off valves of taps.
- Right container and replace lid.
- Plug holes, or turn container so hole is at the top.
- Report the time, location, material spilled, volume spilled, likelihood of any further spill, conditions and actions taken so far to CB Civil Supervisor. CB Civil Supervisor to immediately follow Incident Reporting protocol.

Contain

- Consider the impact of response actions on the environment.
- No action is always an option.
- Identify any sensitive aspects of the environment which could be at risk (i.e., wildlife, vegetation)
- Identify an appropriate response strategy to halt or minimise any further spill, contain the existing spill and protect threatened resources.
- Use spill kit materials to contain the spill/and or construct bunds or trenches as needed.

Recover

- Small quantities of liquid can be recovered using sorbent materials.
- Our specialist CB vacuum truck will be employed to suck up any spilled material and contain in its onboard holding tank.
- Removal of contaminated soil should be undertaken after consultation with the client and the relative authority.
- Ensure all contaminated wastes are clearly labelled.

Dispose

All contaminated materials will be disposed of at approved facilities and records of disposal will be kept.

7.2.7 Management of Waste

The laydown areas required to enable the works will be protected with a layer of geotextile cloth and then have granular material added in situ to create a raised platform. This rock base will then be capped by a graded running course which will allow trucks to effectively move throughout weather conditions and also minimize the environmental impacts to the surrounding areas. Construction materials will be stored in designated locations and managed to ensure a tidy worksite is maintained. Earthworks materials and stockpiles will also be stored in designated locations and maintained as detailed in the Dust Management Plan (Section 11). Upon completion of the works, CB Civil will completely remove all temporary project offices and amenities from the site and reinstate the land back to existing or as agreed with Hamilton City Council.

The site will be always kept tidy and free of litter. Rubbish and office waste will be collected using bins on site and brought to a central waste collection point near the site office. From here, our waste management contractor will collect and remove to the appropriate location off site.



7.2.8 Location of Workers' Offices

The main workers' offices are shown in the image captured for 7.2.3.

As the work progresses, several small site offices/containers will be transported into suitable locations on the southern and northern extents of the gullies to enable the crews to have secure and central locations for works.

7.2.9 Environmental Controls Sediment Runoff, Dust Soil, Debris and Demolition

CB Civil will provide Erosion and Sediment Control Plans for the project, as required by Waikato Regional Council resource consents. The plan will detail sediment control measures, groundwater removal methods, discharge points and a disestablishment methodology.

These plans will be reviewed and approved by the Waikato Regional Council representative.

These plans will be combined with safe work method statements prepared for earthwork and open trench activities as applicable and combined into the work pack documents.

These plans and method statements will be provided for review a minimum of 2 days prior to works commencing. The following aspects will be taken into account.

- The surrounding environment e.g., swales, culverts and natural water courses must be identified.
- The slope of the surrounding work area must be checked, and the termination or collection area of the run-off identified.
- The weather forecast must be checked in advance of works commencing.
- Ensure that the correct materials are being used to contain any wastewater runoff. In general, this will be silt fences or bunds.
- Ensure environmental practices and controls identified in the method statement have been implemented prior to works commencing.
- Inspect site controls (drain plugs, filters, sandbags, silt socks, silt fencing and bunding) to ensure they are working properly and take immediate action to remedy if required.
- > Ensure spill kits are kept on site and that staff are well trained in its use and the action plan.
- If required, installation of clean water diversions channels around the perimeter of stages of works being undertaken.
- > If required, installation of dirty water containment within the site for treatment prior to being discharged.
- Details of ground water extraction and methods utilised to treat the water before discharge.
- Placement of the site offices and additional facilities e.g., toilets.

Tracking onto the road will be avoided for the vehicles entering and embarking from the site through the use of stabilised entrance ways. If tracking issues onto local roads are persistent then a wheel wash may be considered.

Dust mitigation measures will be included in the Dust Management Plan at Section 11 below.

7.2.10 Earthworks Management

Due to the location of works, there are no nearby building and structures that will be affected by earthworks. Earthworks measures, including stabilization are covered in Section 11 – Dust Management Plan.

Ground movement effects are covered in Section 8 - Construction Noise & Vibration Management Plan.



7.2.11 Residents Notices

Letters will be used to contact stakeholders to advise about the construction progress, notifications of upcoming construction activities and their expected duration, and any issues unique to the stakeholder.

Personal visits will be undertaken where necessary where stakeholders will be directly affected by specific works and where other forms of communication have not proven effective. The need for these will be determined on a case-by-case basis by the Project Manager.

For further information, please refer to Section 10 - Construction Communication & Consultation Plan (CCCP).

7.2.12 **Iwi Notification**

Prior to any earthworks involving topsoil stripping or more, the Project Iwi Representative will be notified, and an opportunity given for them to attend site and undertake monitoring.

Project Iwi Representative: Marina Hape, ph. 022 451 7461, email marinahape@gmail.com

Further processes to be implemented upon the discovery of koiwi or other artefacts are detailed in the following section 7.2.13.

7.2.13 Historic Artefact Discovery

During the bulk earthworks stage, if additional archaeological material is uncovered and an archaeologist is NOT on site then CB Civil will implement the On-call Discover Protocol outlined in section 16.4 e) of the Southern Gullies Heritage and Archaeological Site Management Plan (HASMP), extract below:

Discovery of koiwi tangata (human remains)

If bone material suspected to be human remains is identified the following protocol will be adopted:

- 1. Earthworks shall cease in the immediate vicinity while an appropriately qualified archaeologist is consulted to establish whether the bone is human.
- 2. The area of the site containing koiwi will be secured, ensuring that the area (and any objects contained within) remains undisturbed and meets health and safety requirements.
- 3. If it is determined that bone is human, earthworks will not resume in the immediate vicinity (as determined by the Project Archaeologist) until HNZPT, tangata whenua, the New Zealand Police and district council representatives have been notified.
- 4. Kaumatua will be given opportunity to conduct karakia in association with appropriate tikanga Māori prior to the removal of koiwi for reburial.
- 5. If kaumatua so request, or as may have been agreed prior to the project commencing, koiwi may be further analysed by a specialist osteo-archaeologist prior to reburial.
- 6. Work within the area can recommence as soon as the bones have been removed from site, and with the agreement of all relevant agencies.

Discovery of Archaeological Features or Deposits

If suspected archaeological remains are exposed during bulk earthworks works, the following procedure will be implemented:

- 1. Contractors shall cease all work in the immediate vicinity of the suspected archaeological site, and immediately notify the Project Manager.
- 2. The area of the suspected archaeological deposit or feature is to be made secure, ensuring that the area (and any objects contained within) remains undisturbed and meets health and safety requirements.
- 3. The Project Manager will arrange for the Project Archaeologist to visit the site, to confirm the nature of the archaeological site, and to define the extent of the deposit or feature.
- 4. Following confirmation of the site as archaeological, the Project Manager will notify the Regional Archaeologist HNZPT, tangata whenua representatives.
- 5. The archaeological remains will be investigated and recorded in accordance with archaeological best practice, and in line with the legal conditions of any authority granted by HNZPT.



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6. Works can resume once the Project Archaeologist confirms that the required investigation and recording are complete, and in the case of koiwi, tangata whenua once tangata whenua give their consent.

Discovery of Taonga

If taonga are discovered, the procedure established for the discovery of archaeological sites (as detailed above) must be followed, and the following procedure will apply to the taonga itself:

- 1. The area of the site containing the taonga will be secured in such a way that protects the taonga from further disturbance or damage.
- 2. The archaeologist will inform HNZPT and the nominated tangata whenua representative(s) so that appropriate actions can be determined.
- 3. If the object is identified as taonga tūturu the Project Archaeologist will notify the Ministry for Culture and Heritage of the finding, as required under the Protected Objects Act 1975.
- 4. The Ministry for Culture and Heritage, in consultation with tangata whenua, will decide on custodianship of the taonga. If the taonga requires conservation treatment this can be carried out by the Archaeological Conservation Laboratory, University of Auckland (093737999).

Sian Keith	Project Archaeologist	021 141 1802	sian@siankeitharchaeology.com

7.2.14 General Public Safety

The construction site perimeter will be always fenced and locked when personnel are not on site. Access to the site will be by defined entry/exit locations with hazard boards and warning notices displayed to indicate any dangers or risks apparent. Outside of the construction site, Traffic Management will be utilised as necessary and in compliance with an approved Traffic Management Plan suitable for the works.

7.2.15 Complaints Procedure

CB Civil has setup a dedicated e-mail address and 0508 number which will be provided for any communications and complaints.

Phone – 0508 779 4636

Email - psw@cbcivil.co.nz

Process for managing concerns:

- Complaints made to CB Civil will be logged with the date, time, caller's name, contact details and the nature of their complaint and will be immediately forwarded to the CB Civil Project Manager for action and resolution.
- CB Civil will ring the complainant back to give an explanation of the activity, inform them of steps taken to address their concerns and how these steps will resolve the issue.
- CB Civil will notify HCC of any complaints that require further action. Any complaints will also be tabled at the weekly project meeting.



Construction Noise & Vibration Management Plan (CNVMP)



8 Construction Noise & Vibration Management Plan (CNVMP)

The following table sets out the Southern Links designation Conditions section 11 relating to Construction Noise and Vibration and the section referenced as to where these conditions are addressed.

Condition	Description	Reference
11.1	No later than forty (40) working days prior to the commencement of any stage of Construction Works or as otherwise agreed with the HCC Chief Executive or their nominee, the Requiring Authority shall submit a Construction Noise and Vibration Management Plan (CNVMP) to the Territorial Authority's Chief Executive Officer or nominee for certification. The CNVMP shall be prepared by a suitably qualified and experienced expert. The objective of the CNVMP is to provide a framework for the development and implementation of identified Best Practicable Options to avoid, remedy or mitigate the adverse effects of noise and vibration during construction and to minimise the frequency, duration and degree of exceedance of the noise and vibration standards set out in Conditions 11.3 and 11.4.	Section 8
11.2	The CNVMP shall be prepared in accordance with the State Highway Construction and Maintenance Noise and Vibration Guide (NZTA, 2013), and include the procedures, methods and measures for the control of noise and vibration associated with all relevant Project Construction Works	Section 8.1
11.3	Construction noise must be measured and assessed in accordance with NZS 6803:1999 'Acoustics Construction Noise' (NZS 6803:1999). The construction noise limits for the purposes of the CNVMP that are to be complied with, as far as practicable, are as given in Table A below	Section 8.2
11.4	The CNVMP must describe the measures adopted to seek to meet the Category A vibration criteria set out in Table B below, where practicable. If measured or predicted vibration levels exceed the Category A criteria, then a suitably qualified and experienced person shall be engaged to assess and manage construction vibration to comply with the Category A criteria. If the Category A criteria cannot be practicably achieved, the Category B criteria in Table B below shall be applied. If measured or predicted construction vibration levels exceed the Category B criteria, then construction activity shall only proceed if vibration effects on those buildings at risk of exceeding the Category B criteria are assessed, monitored and mitigated by suitably qualified persons. The criteria are to be applied to either predicted ground vibrations, or measured in accordance with ISO 4866: 2010 and AS 2187-2: 2006	Section 8.3
11.5	In addition to those matters detailed in the State Highway Construction and Maintenance Noise and Vibration Guide, the CNVMP shall address the following aspects with regard to managing the adverse effects of construction noise and vibration:	Section 8.4
a	Identification of affected dwellings and other sensitive locations where vibration criteria apply, which shall include all houses located within 50 metres of general road construction activities, and 100 metres of piling, where those activities are undertaken on peat	Section 8.4.1
b	Predicted noise levels set out as minimum compliance distances for key activities and items of plant and identification of any dwellings or other sensitive locations where works will be required within those minimum compliance distances	Section 8.4.2
С	Mitigation options, including alternative strategies where full compliance with the noise criteria in Table A and / or the vibration criteria in Table B cannot practicably be achieved	Section 8.4.3



d	Requirements for building condition surveys of critical dwellings, prior to and	Section 8.4.4
	after completion of construction works and during the works if required	
	(including all buildings measured or predicted to exceed the Category B	
	vibration criteria contained in Table B above) and processes for repair of any	
	damage caused by the works	
11.6	Where noise or vibration predictions made in accordance with the CNVMP	Section 8.5
	show that levels from a particular activity or at a specific location might	
	exceed the limits set out in Condition 11.3 and/or 11.4, or where	
	measurements show that compliance is not being achieved, the Requiring	
	Authority shall prepare Schedules to the CNVMP. These Schedules shall:	
а	be prepared in accordance with the State Highway Construction Noise and	Section 8.5.1
	Vibration Guide and include the relevant details specified in the Guide,	
	including activity specific and/or location specific noise and vibration	
	predictions and mitigation	
b	include noise limits for the activity and an overview of mitigation options that	Section 8.5.2
	have been considered, identifying which of those options are practicable	
С	be provided to the Territorial Authority Chief Executive or nominee at least	Note
	five (5) working days in advance of the relevant works being carried out and	
	implemented, for certification	
11.7	In the event that, either:	Note
a	the Territorial Authority certifies the Schedule, or	Note
b	fails to advise the Requiring Authority of any concerns it has with the Schedule.	Note
	within the five (5) working days period following receipt, then the activities	
	covered by the Schedule may be carried out	
11.8	If the Territorial Authority advises the Requiring Authority of a concern it has	Note
	with the Schedule, then no activity related to that concern shall be carried out	
	until the matter has been addressed by the Requiring Authority to the	
	satisfaction of the Territorial Authority	

8.1 Procedures, Methods and Measures

The below procedures, methods and measures for the control of noise and vibration associated with all relevant Project Construction Works are in accordance with the State Highway Construction and Maintenance Noise and Vibration Guide (NZTA, 2013).

A dust & noise monitoring kit will be available for monitoring as required. Using this system would allow data to be transferred to AWS cloud services full access able to be provided to HCC on request. Data can also be downloaded from the platform into CSV files for reporting.





Vibration is monitored via the use of a ground vibration monitor when required.

The unit is a battery-operated unit designed for long term ground vibration logging. The unit is used to monitor vibrations that are caused by traffic, pile driving and demolition work. Includes a geophone and PC software for further analysis of the recorded measurements.

The unit is placed as near as possible to the closest structure in the region that may be affected by the vibrating activity. The following table identify the types of noise and vibration activities that CB Civil will be undertaking during this contract.



The Project Manager shall be responsible for ensuring regular monitoring of activities likely to cause vibration in excess of the below prescribed limits and with a potential to cause disturbance to local residents. The following will be considered when developing a programme for monitoring:

- The Engineers shall collate all vibration monitoring data and undertake comparisons in the event of complaints regarding vibration and liaise with the Stakeholder Coordinator.
- Any external complaints will be reported directly to the Stakeholder Coordinator who will address the complaint and liaise with the Project Manager to organise compliance monitoring.

Noise Activities	Vibration Activities
Earthwork operations – both plant and works	Sheet Piling / Pile and Plate
Drainage operations	Tree felling
Generators and dewatering equipment	Truck movements
	Bridge Piling

Steps to mitigate the effects that these activities will have on people, structures and the environment is outlined below.

8.2 Noise Limits

Construction noise will be measured and assessed in accordance with NZS 6803:1999 'Acoustics Construction Noise' (NZS 6803:1999). The construction noise limits for the purposes of the CNVMP that are to be complied with, as far as practicable, are as given in Table below:

Day	Time	L _{Aeq(15min)}	L _{AFmax}
Occupied PPFs (as defined in NZS 6806.2010)			
Weekdays	0630h – 0730h	60 dB	75 dB
	0730h – 1800h	75 dB	90 dB



1				
	1800h – 2000h	70 dB	85 dB	
	2000h – 0630h	45 dB	75 dB	
Saturday	0630h – 0730h	60 dB	75 dB	
	0730h – 1800h	75 dB	90 dB	
	1800h – 2000h	45 dB	75 dB	
	2000h – 0630h	45 dB	75 dB	
Sundays and	0630h – 0730h	45 dB	75 dB	
public holidays	0730h – 1800h	55 dB	85 dB	
	1800h – 2000h	45 dB	75 dB	
	2000h – 0630h	45 dB	75 dB	
Commercial and industrial receivers				
All	0730h – 1800h	75 dB		
	1800h – 0730h	80 dB		

Table A: Construction Noise Criteria

8.3 Vibration Criteria

The following limits will be adhered to.

RECEIVER	DETAILS	CATEGORY A	CATEGORY B	LOCATION
Occupied dwellings	Monday to Friday 6:30am to 8:00pm	1.0 mm/s ppv	5.0 mm/s ppv	Inside the building
Occupied dwellings	All hours Sunday and Monday to Saturday 8:00pm to 6:30am	0.3 mm/s ppv	1.0 mm/s ppv	Inside the building
Other occupied buildings	At all times	2.0 mm/s ppv	10.0 mm/s ppv	Inside the building
All buildings	Transient vibration	5.0 mm/s ppv	BS 5228.2 Table B2 values	Building foundation
All buildings	Continuous vibration	5.0 mm/s ppv	50% of BS 5228.2 Table B2 values	Building foundation
Underground services	Transient vibration	20.0 mm/s ppv	30.0 mm/s ppv	On pipework
	Continuous vibration	10.0 mm/s ppv	15.0 mm/s ppv	On pipework

Table B: Construction Vibration Criteria

The criteria are to be applied to either predicted ground vibrations or measured in accordance with ISO 4866: 2010 and AS 2187-2: 2006.

If measured or predicted vibration levels exceed the Category A criteria, then a suitably qualified and experienced person will be engaged to assess and manage construction vibration to comply with the Category A criteria.

If the Category A criteria cannot be practicably achieved, the Category B criteria in Table B above shall be applied. If measured or predicted construction vibration levels exceed the Category B criteria, then we will only proceed if vibration effects on those



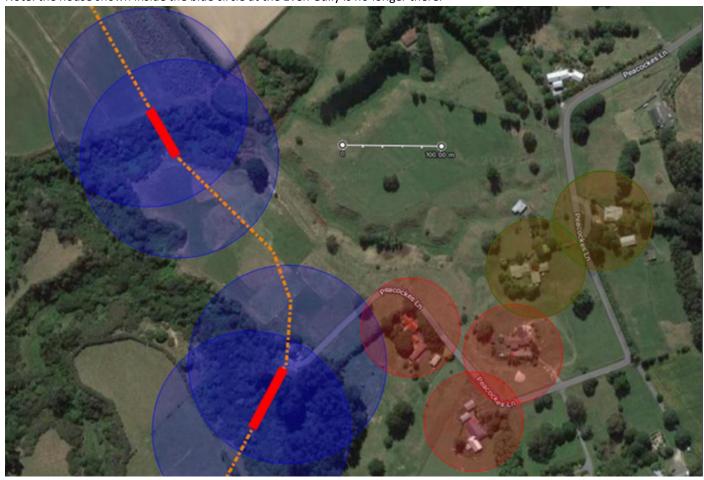
buildings at risk of exceeding the Category B criteria are assessed, monitored and mitigated by suitably qualified persons. The criteria are to be applied to either predicted ground vibrations or measured in accordance with ISO 4866: 2010 and AS 2187-2: 2006.

8.4 Adverse Effects of Construction Noise and Vibration

8.4.1 Affected Dwellings

An initial assessment of the sensitive properties within 50m of road construction activities has been undertaken. Although the contract does not include road construction works, properties that are within 50m of access haul roads and corners have been identified and are shown in the red circles. Two nearby properties are within 50m of the straight sections of road and these are identified in green circles. It is not anticipated that these properties will be overly disrupted. The blue circles represent the areas where piling activities will occur (bridge abutments) and show that there are no properties located within 100m. As well as this, the ground has not been identified as peat however if identified onsite, further mitigations will be implemented. The approximate location of the pipeline is indicated by the orange dashed line and the red lines represent the approximate bridge locations.

Note: the house shown inside the blue circle at the Even Gully is no longer there.





8.4.2 Minimum Compliance Distances for Key Activities

PLANT / MACHINERY	DBA LEA (AT 10M)	MIN COMPLIANCE DISTANCE FOR PLANT WITH NO MITIGATION (M)	MIN COMPLIANCE DISTANCE FOR PLANT WITH 8DB MITIGATION (SCREENING)
D6 Bulldozer	91	108	43
Drill Rig	67	7	10
30T excavator	78	24	10
20T excavator	74	16	7
12T excavator	72	13	5
Truck & trailer	71	11	5
10,000 water carts	67	7	3
Hydrema 4-wheeler	67	7	7
Hydrema 6-wheeler	71	24	7
Roller	72	13	5
Sinotruk C7	71	11	5
12T loader	67	7	7
Doosan DX140W	72	13	5

8.4.3 **Mitigation Options**

Due to the isolated location of the job and the It is not expected that noise criteria will be exceeded however below are some mitigation options, including alternative strategies for areas where the noise criteria could be exceeded. Where possible the first step shall be noise barriers to be used where they will provide effective mitigation either at the source or near the receiver.

Temporary noise barriers will be:

- Utilised for those areas where no permanent noise barriers are required or where these cannot be practicably implemented early during construction.
- Constructed of suitable material, typically plywood. Alternative barrier construction may include, but not limited to, fibre cement, shipping containers or mass-loaded vinyl.
- Constructed so that they contain no gaps between boards, and
- > Of sufficient height to interrupt line-of-sight between the receiver and the source.

Enclosures shall be used on generators and pumps:

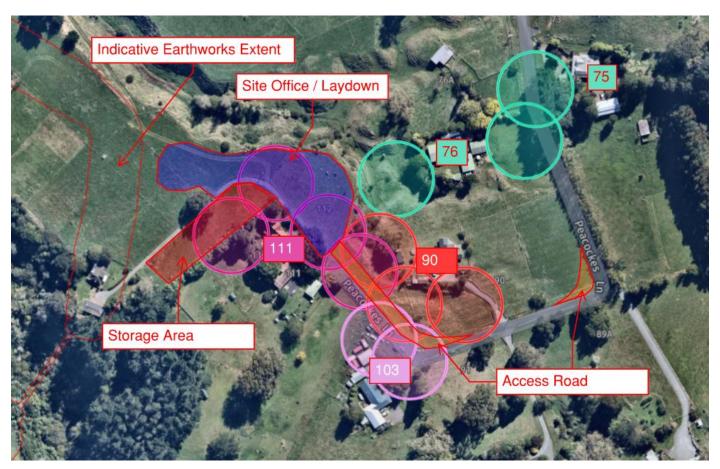
- When a noise barrier is not sufficient to achieve compliance with the Project noise criteria; and
- Where most appropriate, e.g., stationary plant such as generators or pumps.



8.4.4 **Building Condition Surveys**

CB Civil will complete a building condition survey of critical dwellings, prior to and after completion of construction works and during the works if required (including all buildings measured or predicted to exceed the Category B vibration criteria contained in Table B above). These surveys will include photographic records of the condition prior and post construction to be used for comparison should any claim arise regarding vibration damage. Any pre-construction building condition survey will be undertaken by suitably qualified Surveyor or other suitably qualified personnel. The property owners will be notified of the requirement to survey their property and an explanation provided as to why. Once the owners have agreed to the survey it will be carried out. The survey will consist of a video of the exterior of the structures and written notes. Attention will be paid to the existing wear and tear. CB Civil will undergo extensive investigation if any damage caused by the works. Where a complaint is received relating to possible property damage caused by construction related vibration CB Civil will notify the client and CB Civil will manage the complaint and get a comparison report completed by a third party who was engaged to complete the condition survey. Any damage to the property, which is identified in the Comparison Report will (subject to property owner(s) approval) be remedied, as soon as reasonably practicable. If the property owner(s) do not provide such approval, no remedial works are required to be carried out.

The properties at 111, 103 and 90 Peacocke Lane have been identified as requiring preconstruction surveys undertaken. The impact of the aspects of site are shown below on a 50m distance from the dwelling extents. The properties at 76 and 75 Peacocke Lane have been identified as not being affected by site works as their property extents only overlap onto a straight section of existing road.



8.5 Noise or Vibration Predictions that Exceed the Limits

Where noise or vibration predictions made in accordance with this document show that levels from a particular activity or at a specific location might exceed the limits, or where measurements show that compliance is not being achieved, CB Civil will undertake a site specific assessment utilizing a Site Specific Noise or Vibration Schedule (SSNVS) as set out below:



Site Specific Noise or Vibration Schedule (SSNVS)

- Purpose 1.
- Activity Description details of work including plant and equipment
- 3. Location
- **Nearest Neighbours**
- **Noise Predictions**
- Proposed Mitigations
- 7. Communication with Neighbours
- 8. Monitoring

This schedule will be completed in accordance with the State Highway Construction and Maintenance Noise Vibration Guide and take into account and document measures intended to mitigate the impacts of noise. Examples of these measures are further detail in the following sections.

8.5.1 Specific Location of Predictions and Mitigation

CB Civil will take all practicable steps to reduce the noise associated with the works by implementing the noise mitigation measures listed below:

- Controlling noise at the source
- All machinery will be good condition upon its arrival at the site and will be maintained in good condition throughout the duration of the project. For example, all tracked plant will be greased to reduce squeaking.
- Upon arrival at the site, the machinery and plant will be checked and modified, if necessary, to ensure that it is not generating unnecessary noise.
- When machinery or plant is not required to be running, it will be switched off and not left idling.
- Noisy plant and machinery will be strategically positioned on the site to reduce the effects on neighbours where practicable.
- Horns will not be used under any circumstances unless in the case of an emergency.
- Any radios or music played on site will be inaudible at the nearest dwellings.
- All workers on site will be familiar with the provisions of this CNVMP and made aware of the impacts of noise and the above methods that can be used to minimise noise emissions.

If noise levels are still exceeding the upper limits CB Civil will engage a suitably qualified and experienced person to assess and reduce the noise levels.

The minimum unmitigated separation distances for plant onsite will be observed where possible. For example, where works with an excavator are required near the site boundary, an 8t excavator may be used. If works are required within the



unmitigated separation distances listed in the above table, acoustic screening will be used to reduce the noise levels at the nearest occupied receivers and the mitigated separation distances will be observed.

The construction noise limits only apply at occupied buildings. The following general vibration mitigation measures will be observed at all times:

- Where tracked plant items are to be used the lightest model practicable will be selected for the work to minimise vibration.
- Where works with an excavator are required within 10 m of an occupied building, an 8t excavator will be used.
- Where compaction works are required within 15 m of an occupied building, a static roller will be used. If this is not practicable to meet the required specifications, vibration monitoring will be undertaken at the first use of the vibratory roller to determine whether additional mitigation measures are required to maintain compliance with the consented vibration limits.
- Excavator operators will avoid banging buckets on the ground.
- Excavator operators will track the machines as slowly as is practicable, (fast tracking across a site can generate high vibration levels). This is particularly important within 10 m of an occupied building.
- Workers will be made aware of the impacts of vibration and the methods that can be used to minimise its generation, before works begin on site.

If vibration levels are still exceeding the upper limits CB Civil will engage a suitably qualified and experienced person to access and reduce the noise levels

8.5.2 Activity and an Overview of Mitigation Options

Noise Activities	Vibration Activities
Earthwork operations – both plant and works	Sheet Piling / Pile and Plate
Drainage operations	Tree felling
Generators and dewatering equipment	Truck movements
	Bridge Piling

Limits as per sections 8.2 & 8.3 of this plan.

Steps to mitigate the effects that these will have on people, structures and the environment is outlined below.

Works to be undertaken in areas where residents are in close proximity that are considered high-noise and/or vibration, activities shall be scheduled for the daytime where practicable, and avoided during the night-time. The specific mitigation measures specifically applicable to vibration and construction noise generating activities are also noted.

In the event that potential non-compliance with the construction Project criteria is predicted, or in the event of measurement showing non-compliance with the criteria, an activity specific management plan will be prepared.

Appropriate mitigation options will be considered and implemented following the hierarchy set out below. Each question shall be considered in sequence before moving onto the next one.

- Have equipment and methodologies been chosen that reduce the overall noise from the activity? Can quieter alternative equipment or methodologies be practicably implemented?
- Is it imperative that night-time works be undertaken, or can works be re-scheduled to daytime?

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- Can temporary construction noise or vibration barriers be erected or installed within the designation, which provide effective shielding of the equipment/activity?
- Can the works be sequenced to avoid sensitive times for neighbouring residents/businesses, e.g., can works be scheduled for school holidays?
- Have potentially affected persons been contacted and implications discussed/feedback taken into consideration in the planning of this activity?
- Is the activity of long duration and likely to impact on the same group of residents for an extended time? Is there a justified case for affected houses to be upgraded to provide a suitable internal noise environment during this activity, e.g., by installing alternative ventilation/improved glazing? (Advice from a suitably qualified acoustic engineer required)

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Construction Traffic Management Plan (CTMP)



9 Construction Traffic Management Plan (CTMP)

The following table sets out the Southern Links designation Conditions section 12 relating to Traffic Management and the section referenced as to where these conditions are addressed.

Condition	Description	Reference
12.1	A Construction Traffic Management Plan (CTMP) shall be prepared by a	
	suitably qualified and experienced person in accordance with the NZTA Code	
	of Practice for Temporary Traffic Management and after consultation with the	
	Territorial Authority Chief Executive or nominee. The CTMP shall be submitted	
	to the Territorial Authority Chief Executive or nominee, for certification that	
	the plan satisfies this condition no later than forty (40) working days prior to	Section 9
	the commencement of any stage during Construction Works or as otherwise	Section
	agreed with the HCC Chief Executive or their nominee. Construction of any	
	relevant stage of the Project shall not commence until the Requiring Authority	
	has received the Chief Executive's or nominee's written certification of the	
	CTMP for that stage of works	
12.2	The objective of the CTMP is to provide a framework to be adopted by the	
12.2		
	Requiring Authority to ensure that the adverse traffic and access related	Note
	effects of the construction of the Project will be avoided, remedied or	
12.2	Miles required	
12.3	When requesting certification of a CTMP, the Requiring Authority shall	
	provide the certifying Territorial Authority with a letter from each other	
	Territorial Authority whose roads are affected by the Project's construction	Note
	traffic confirming that the Requiring Authority has adequately consulted	Note
	with that Territorial Authority in relation to Condition 12.5(i) and any	
	effects on that Territorial Authority's Road network and included adequate	
45:	measures to manage such effects	
12.4	The CTMP shall have regard to and where appropriate implement any	0
	relevant actions identified in the minutes arising from Community Liaison	Section 9.1
	Group meetings (Conditions 3.3 and 3.14)	
12.5	The CTMP shall describe the measures that will be undertaken to avoid,	
	remedy or mitigate the local and network wide construction traffic effects of	Section 9.2
	construction of the Project. In particular (but not limited to), the CTMP shall	
	describe:	
а	Measures to maintain vehicle access to roads and property to defined and	
	approved levels of service. The CTMP shall identify notification thresholds and	Section 9.2.1
	processes for communicating with affected parties and shall consider whether	
	there are specific user needs that require specific responses	
b	Measures to maintain access for emergency vehicles, and methods to ensure	
	that emergency service providers are regularly informed of the timing and	Section 9.2.2
	sequencing of works, road closures and alternative routes	
С	The manner in which service providers are regularly informed of the timing	Section 9.2.3
	and sequencing of works, road closures and alternative routes	
d	The timing and sequencing of any road closures that will be required and the	
	nature and duration of any traffic management measures that will result,	Section 9.2.4
	including any temporary restrictions, detours or diversions	
е	Measures to ensure safe interaction between Project-related construction	
	traffic and local road traffic where any temporary or existing local roads cross	Section 9.2.5
	the Southern Links corridor	
f	Measures to ensure safe access to the Project site	Section 9.2.6
g	Measures to monitor the performance against agreed levels of service of all	
	access points to the Project site, and all key state highway and arterial local	Section 9.2.7
	road intersections used by Project-related construction traffic, and the	3331011 3.2.7
	procedures to be followed where intervention is deemed necessary in order	



	to maintain acceptable and reasonable operating conditions on local roads and on the State Highway network	
h	Measures to ensure that any staging of Construction Works will adequately avoid, remedy or mitigate traffic-related adverse effects	Section 9.2.8
i	Measures to be adopted to identify routes to be used (and roads to be specifically avoided) for Project-related Heavy Commercial Vehicles (HCVs) for shifting bulk materials (such as earth fill or pavement materials or water) (Bulk HCVs) and implement temporary traffic management controls in accordance with the Code of Practice for Temporary Traffic Management (COPTTM)	Section 9.2.8
j	Measures to ensure the use and reinstatement (to a mutually agreed standard) of local roads to be used as haul roads. The CTMP shall also describe the assessment and monitoring of road conditions and implementation of mitigation works	Section 9.2.9

Site specific traffic management plans will be provided as separate documents during the course of the project.

9.1 Traffic related actions from Community Liaison Group Meetings

CB Civil shall have regard to and where appropriate implement any relevant actions identified in the minutes arising from Community Liaison Group meetings.

9.2 Measures to Avoid, Remedy or Mitigate Local Traffic Effects

9.2.1 Measures to Maintain Vehicle Access

Vehicle access to residential properties will not be restricted by CB Civil. On Peacocks Lane HV traffic will be restricted to one way at any given time and will be managed by the trucks pulling over at the entrance to Peacockes Lane and radioing their intention to travel, if there is a vehicle coming the opposite direction they will be notified.

9.2.2 Access & Notification for Emergency Vehicles

Road closures are not anticipated throughout the normal construction works. CB Civil will attend the Hamilton City Council led Traffic Forum to consult with emergency services as required - the New Zealand Police, New Zealand Fire Service and St John Ambulance regarding location, timing and duration of the construction works. Note that due to the nature of the works being undertaken on site, it is not anticipated that CB Civil works will affect access for emergency vehicles.

9.2.3 Service Providers Notification

Road closures are not anticipated throughout the normal construction works. There will be occasional HV movements that may require a specific CAR, and these will be submitted separately. For instance, wide vehicle movements during crane or bridge transportation. These will be communicated at the Hamilton City Council led Traffic Forum which CB Civil will attend and participate in.

9.2.4 Road Closure Temporary Restrictions, Detours or Diversions

Road closures are not anticipated throughout the normal construction works.



9.2.5 Safe Interaction Between Project-Traffic and Local Road Traffic

A suitable TMP shall be implemented to ensure that all interactions between construction traffic and the local road user is done safely.

The current construction methodology has an increase in HV traffic on the local roads and truck crossing points will be clearly identified as detailed by the TMP.

Internal contractor speed management will be undertaken using onboard GPS systems will be used to measure speeds of construction vehicles. CB Civil will impose site specific traffic rules for interacting around local traffic to minimize the risk to the public. These measures may include actions such as 'left turn only' or reduced speed limits that help to create a safe working environment for our people as well as local road users.

9.2.6 Safe Access to Site

Safe access and egress will be provided for each of the site offices, laydown areas and each work front.

An approved Traffic Management Plan (TMP) will be in place for each site location to ensure safe access and egress. Where required, a Vehicle Movement Plan (VMP) will also be developed to ensure safe vehicle movements when not operating on public roads.

9.2.7 Measures to Monitor Access Points

Access will be required to each of the 3 sites located in the Northern, Central and Southern Zones. At all these locations, access is at the end of a dead-end road and so turning movements across public access are minimal. At each location, an approved TMP will be in place with truck crossing points clearly identified. The performance and condition of each of these access locations will be monitored and maintained as required to keep at an acceptable level of operation. If any complaints are received, these will be managed through the Complaints Management Procedure detailed in Section 7.2.15 and actioned accordingly to resolve.

9.2.8 Measures To Identify Routes to be Used or Avoided

Due to the nature of our works, access is required at each of the 3 site locations. Because of their geographic locations and surrounding constraints, there is only a single access way in and out of each site. Staging of our works will be communicated to the traffic forum at a high level and stakeholder interactions will be undertaken with the parties deemed to be affected as identified in Section 10.3.1.

Consultation will also be undertaken with the other main contractors (HEB, Downer & BPC) in the surrounding with a view to collaboratively optimize construction access and minimize adverse effects on the public. Haul routes for material and large equipment will be identified and liaison with TMC from RCA (local roads and State Highway).

CB Civil will attend and participate in the Hamilton City Council led Traffic Forum and any learnings from prior contracts will look to be incorporated if reasonable and applicable within the anticipated scope.

9.2.9 Measures for Use and Reinstatement of Local Roads

A precondition survey has been completed for Peacockes Lane which will be the main local road directly impacted by CB Civil works. In the event of any pavement failures that occur during the construction works CB Civil shall repair these with a cold mix AC repair.

At the conclusion of the contract works and in agreement with council and CB Civil, a final repair plan will need to scoped and actioned.

Omnibus Construction Management Plan - Designation (OCMPD)



Other local roads used by CB Civil in the construction of this project will also be heavily impacted by other contractor's during construction of their own projects. It is intended that discussions with the HCC project team and the applicable contractors involved are undertaken with an agreement made of how these roads will be maintained.



10 Construction Communication & Consultation Plan (CCCP)



10 Construction Communication & Consultation Plan (CCCP)

The following table sets out the Southern Links designation Conditions section 18 relating to Communication and Consultation and the section referenced as to where these conditions are addressed.

Section	Description	Reference
8.1	The Requiring Authority shall make a contact person available 24 hours, seven	Section 10.1
	days a week for the duration of construction for public enquiries about the	
	ConstructionWorks	
8.2	The Requiring Authority shall submit to the Territorial Authority Chief Executive	Note
	or nominee a Construction Communication and Consultation Plan (CCCP)	
	prepared by a suitably qualified and experienced person, which shall be	
	implemented and complied with for the duration of the construction of the	
	Project	
8.3	The CCCP shall be submitted to the Territorial Authority Chief Executive or	Note
	nominee, no later than forty (40) working days prior to the commencement of	
	any stage of Construction Works for certification or as otherwise agreed with	
	the HCC Chief Executive or their nominee	
8.4	The objective of the Construction Communication and Consultation Plan is to	Section 10.2
	set out a framework to ensure appropriate communication and consultation is	
	undertaken with the relevant community, stakeholders, directly affected	
	parties, and affected parties in proximity during the construction of the Project	
8.5	The CCCP shall set out how the Requiring Authority will:	Section 10.3
a	Inform the community of construction progress and future construction	Section 10.3.1
	activities and constraints that could affect them	
b	Receive and respond to feedback on construction related matters	Section 10.3.2
С	Provide information on key project milestones	Section 10.3.3
8.6	The CCCP shall, as a minimum, include:	Section 10.4
a	A communications framework that details the Requiring Authority's	Section 10.4.1
	communication strategies, the accountabilities and timeframes for responding	555.5 151
	to inquiries and complaints, frequency of communications and consultation, the	
	range of communication and consultation methods to be used (including any	
	modern and relevant communication methods, newsletters or similar,	
	advertising), and any other relevant communication matters	
b	The Communication, Consultation and Property Liaison Manager for the Project	Section 10.4.2
	(required by Condition 3.2) including their contact details (phone, email and	
	postal address)	
С	How the community, stakeholders, directly affected, and affected in proximity	Section 10.4.3
	parties will be notified of the commencement of construction activities and	_
	works, the expected duration of the activities and works, and who to contact	
	for any queries, concerns and complaints	
d	Methods for communicating in advance any temporary traffic management	Section 10.4.4
	measures, and permanent changes to road networks and layouts to the	
	community, stakeholders, directly affected, and affected in proximity parties	
е	Methods for communicating in advance proposed hours of construction	Section 10.4.5
	activities outside of normal working hours and on weekends and public	
	holidays, to surrounding communities, and methods to record and deal with	
	any concerns raised about such hours	
f	Methods for communicating and consulting in advance of construction works	Section 10.4.6
	with emergency services (Police, Fire, Ambulance) on the location, timing and	
	duration of Construction Works	
8.7	The CCCP shall have regard to, and where appropriate implement, any relevant	Section 10.4.7
	actions identified in the minutes arising from the Community Liaison Group	
	meetings (Conditions 3.3 and 3.14)	
[



10.1 24 Hour Contact Person

The project phone will be contactable 24 hours, seven days a week for the duration of construction for public enquiries about the Construction works.

Project Phone	PO Box 4309,	0508 779 4636	psw@cbcivil.co.nz	
	Hamilton 3216			

10.2 Consultation Framework

The objective of communications and engagement activities is to ensure key stakeholders and communities are well informed and are included in the journey to deliver the Project.

Communication and engagement objectives:

- Ensure key stakeholders and impacted communities are always well informed about the project.
- Manage expectations about completion dates against project milestones.
- > Establish clear two-way communication processes for stakeholders to express their views about the works.
- > Document, analyse, monitor and ensure stakeholders are responded to in a timely manner.
- Provide at least 10 working days prior notification of major works to stakeholders and affected communities.
- Build, maintain and enhance existing relationships.
- Protect and enhance the Council's reputation with stakeholders and affected communities.

10.3 Communication Plan

10.3.1 Community Communication

Letters will be used to contact stakeholders to advise about the construction progress, notifications of upcoming construction activities and any issues unique to the stakeholder.

Personal visits will be undertaken where necessary where stakeholders will be directly affected by specific works and where other forms of communication have not proven effective. The need for these will be determined on a case-by-case basis by the Project Manager.

The following 3 images identify the approximate construction alignment (red line) and the stakeholders (circles) who will be communicated with at various stages of the project. The reasons for contact are indicated by:

- Red no impact house removed.
- Light Green minor impact potential neighbouring properties. To be monitored for impact
- Light Blue low impact property access along our haulage route
- Pink medium impact property located close to work site.

Access roads for construction that will be utilised will be Plateau Drive, Peacockes Lane and Hall Road.





Above: Northern Zone

Below Left: Southern Zone

Below Right: Central Zone







10.3.2 Feedback on Construction

CB Civil has setup a dedicated e-mail address and 0508 number for all stakeholder queries.

Phone – 0508 779 4636 **Email** – psw@cbcivil.co.nz

All issues or enquiries received via email or phone will be responded to within 24 hours.

10.3.3 Key Project Milestones Communication

The Council's general website shall provide key project features and construction updates. All information shall be drafted and managed by the Council's Communication and Engagement Advisor with input from CB Civil where required. Project updates will be posted on the Council Facebook page by the Council's Communication and Engagement Advisor, with content supplied by CB Civil.

10.4 Minimum Communication

The purpose is to provide the necessary guidance and background to enable CB Civil and HCC to effectively manage issues associated with the design and construction of the Project. Further, the purpose of this plan is to:

- Inform affected and interested communities of construction progress.
- Engage with stakeholders in order to maintain good relationships and to provide opportunities for learning about the Project.
- Provide early information on traffic diversions.
- > Respond to queries, complaints and compliments from stakeholders and the public during construction.
- Encourage support for the project and welcome ideas and suggestions for improvement.

10.4.1 Communication Strategies

A range of engagement and communication methods will be considered by the Project Manager and the Council's Project Manager and Communication and Engagement Advisor during the Project to determine the most appropriate method to engage with stakeholders and the community. The methods that may be used are:

- Information email address and phone number for communications to the community which will be monitored by the Project team.
- Letters and direct emails will be used when contacting a stakeholder about an issue unique to the stakeholder, and/or providing notifications of upcoming construction activities and for project updates as these media allow the inclusion of personalised information.
- Personal visits will be undertaken where necessary where stakeholders will be directly affected by specific works and where other forms of communication have not proven effective. The need for these will be determined on a case-by-case basis by the Project Manager.
- CB Civil Project Engineers will hold regular meetings with the HCC Project Manager and Communications Manager. This will be a planning forum to discuss upcoming works and any stakeholder/community engagement that is required.
- Over the course of the Project CB Civil will attend and provide input to the wider Peacocke project community open days. These open days will provide the public an opportunity to understand the scope of the project and ask questions or provide feedback. Throughout these sessions' members of the Project Team, including the Project Manager and Council Project Manager and specialists, will be on hand to provide information and guidance on the upcoming phases of the Project.



- For residents, a targeted letterbox drop will be undertaken to inform them of works in their area prior to any major construction works commencing. All letters will be reviewed by the Council's Project Manager and Communication and Engagement Advisor at least 5 working days prior to release for review and approval.
- The Council's general website shall provide key project features and construction updates. All information shall be drafted and managed by the Council's Communication and Engagement Advisor with input from CB Civil where required. Project updates will be posted on the Council Facebook page by the Council's Communication and Engagement Advisor, with content supplied by CB Civil.

The frequency of communications along with the specific method that will be used will be determined based on the above framework and in consultation with the individual parties involved.

All project communications will be drafted by CB Civil and then sent to HCC Communications and Engagement Advisor to review and approve before distribution.

All project related external communication will be through Hamilton City Council. No public communication or announcement will be made by any member of the project team at any time to a third party without approval, including any section of the media or social media about the Project.

10.4.2 Communication, Consultation and Property Liaison Manager

For enquiries about the Hamilton City Council part of Southern Links please contact:

Nathanael Savage - DDI: 07 838 6699 | Email: southernlinks@hcc.govt.nz

10.4.3 Notified of the Commencement of Construction Activities

Community, Stakeholders, directly affected and proximity parties will be notified prior to the commencement of construction activities. Notification will include the expected duration of the works and contact details in the event of any queries, concerns or complaints.

A combination of project signage, noticeboards, letter drops, personal visits will be used by CB Civil. Further reaching communications will be provided utilizing the HCC /Waka Kotahi NZTA media for traffic notifications, information regarding open days or meetings.

10.4.4 Temporary Traffic Management Notification

Engagement for traffic management will need to be undertaken in relation to the location, timing and duration of construction works, particularly around traffic management proposed such as road lane reductions and/or closures and alternative routes or detours to be used. Further information is covered in the Construction Traffic Management Plan (CTMP) Section 9.

10.4.5 Advance Proposed Hours Communication

Where it is identified that construction work will need to be undertaken outside normal working hours, weekends or public holidays, the affected stakeholders will be given notice via letterbox drop or personal visit and will include the 24-hour project contact details. All project communications will be drafted by CB Civil and then sent to HCC Communications and Engagement Advisor to review and approve before distribution. A record of the interaction will be included in the Stakeholder Register and any concerns raised.

Process for managing concerns:



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- Complaints made to CB Civil will be logged with the date, time, caller's name, contact details and the nature of their complaint and will be immediately forwarded to the CB Civil Project Manager for action and resolution.
- CB Civil will ring the complainant back to give an explanation of the activity, inform them of steps taken to address their concerns and how these steps will resolve the issue.
- CB Civil will notify HCC of any complaints that require further action. Any complaints will also be tabled at the weekly project meeting.

10.4.6 Emergency Services Notification

CB Civil will attend the Hamilton City Council led Traffic Forum to consult with emergency services as required - the New Zealand Police, New Zealand Fire Service and St John Ambulance regarding location, timing and duration of the construction works. Note that due to the nature of the works being undertaken on site, it is not anticipated that CB Civil works will affect access for emergency vehicles.

10.4.7 Community Liaison Group Meetings Actions for Communication

CB Civil shall have regard to and where appropriate implement any relevant actions identified in the minutes arising from Community Liaison Group meetings.



Dust Management Plan (DMP)



11 Dust Management Plan (DMP)

Section	Description	Reference
19.1	Prior to the commencement of Construction Works, the Requiring	
	Authority shall prepare a Dust Management Plan (DMP). The DMP	
	shall be prepared by a suitably qualified and experienced person. The	
	Requiring Authority shall implement the DMP at all times during the	Ocation 11
	Project. The objective of the DMP shall be to ensure that Construction	Section 11
	Works are undertaken in a manner to ensure that no discharge of	
	airborne particulate matter (dust) causes an adverse effect on the	
	amenity value of any person beyond the designation boundary.	
19.2	The DMP shall be provided to the Territorial Authority Chief Executive	
	or nominee for certification at least forty (40) working days prior to	
	the commencement of Construction Works or as otherwise agreed	Note
	with the HCC Chief Executive or their nominee.	
19.3	As a minimum the DMP shall include the following details:	Section 11.1
а	Mitigation measures to be implemented during construction to	C+
	minimise dust emissions	Section 11.1.1
b	Methods for the daily visual monitoring of dust emissions and assessing the	Section 11.1.2
	effectiveness of the mitigation measures implemented	Section 11.1.2
С	Procedures for responding to process malfunctions and accidental dust discharges	Section 11.1.3
d	Criteria, including consideration of weather conditions and procedures, for the	Section 11.1.4
	use of water sprays on stockpiles and operational areas of the Project	Continue 11 1 5
е	Continuous monitoring of meteorology	Section 11.1.5
f	Monitoring of construction vehicle maintenance	Section 11.1.6
g	Complaints investigation, monitoring and reporting	Section 11.1.7
h	The identification of staff and contractors' responsibilities	Section 11.1.8
-	Appropriate DMP review procedures	Section 11.1.9

11.1 Dust Management

11.1.1 Mitigation Measures

Dust suppression will be a vital part of this project not only for environmental controls but also with the neighboring properties.

Pre-condition surveys shall be taken of the immediately adjacent properties to ensure that any affected parties' properties are suitably managed throughout the construction activity. This is identified in Section 8.4

A watercart will be onsite for the duration of the construction activities and will be used whenever necessary to mitigate any dust produced from cut batters, earthworks or cut to waste activities.

Water will be supplied to site via the existing feed to 112 Peacocke Lane and stored in tanks to alleviate capacity requirements. Water carts will also have access to water filling locations (town supply) in the area to ensure adequate water supply for dust suppression.



Note the following measures that will be utilised to manage dust emissions for specific construction activities:

Cut Batters / Earthworks Arears

- Limit exposed cut faces where possible.
- Cut and cover completed earthworks areas as soon as possible.
- > Watercart onsite as required to manage haul roads or any other activities that cause dust emissions.
- Stabilisation of completed work areas e.g., Hydroseed, mulch, polymer etc.

CB Yard / Truck movements from site

- Yard to be stabilised to metal to reduce creation of dust emissions.
- Watercart onsite as required to manage any dust emissions caused by vehicle movements.
- Monitoring of vehicle speeds

Mitigation measures will be constantly reviewed by staff onsite to ensure their effectiveness and adjusted as required to make sure that they are still appropriate for the activities being carried out.

11.1.2 Daily Visual Monitoring

As part of the standard supervision of the construction works the dust will be monitored by all staff onsite and report to the Site Supervisor in any case where dust becomes an issue.

Monitoring of dust and its management will be covered daily in prestart meetings and formally captured in weekly environmental inspections.

Prior to the end of shift, the Site Supervisor will be responsible for a walkover to ensure all areas are appropriately stabilized for the conditions.

11.1.3 Malfunctions and Accidental Dust Discharges

The Site Supervisor will be responsible for recording observations through the company reporting software. This will include the following:

- Date
- Time
- Description of dust emission
- Location
- Source of dust suppression
- Weather conditions at the time of the event
- Other corrective actions
- Persons notified, When and corrective action

11.1.4 Weather Conditions and Procedures

Weather and weather forecasts will be monitored and discussed daily prior to any works being undertaken. In advance of weekend or large activities of work, the team will consider meteorological forecasts. If there is an inclement weather event it shall be assessed to identify if it presents any additional risks to the construction activities planned for the day.

Following a significant weather event, the following actions would be taken:

- Stop works and assess impact.
- Immediately action any breaches of ESCP
- Stabilise / water site / manage site as required.
- Report



11.1.5 Continuous Monitoring of Meteorology

Weather shall be continuously monitored onsite via the following methods:

- Wind Forecasts / Observations
- Rain Forecasts / Observations / Data outputs from weather stations (NIWA station at Hamilton Airport)

11.1.6 Monitoring of Construction Vehicle Maintenance

All operators of plant and vehicles used by CB Civil will be required to complete a daily equipment inspection or a weekly vehicle inspection to ensure that the equipment is fit for use and maintained. The inspections are completed via Procore, and the reports are distributed to the Site Supervisor, Project Manager and the HSE Coordinator. Maintenance will be coordinated based on these inspections.

11.1.7 Complaints Investigation, Monitoring and Reporting

CB Civil will carry out regular internal audits of the erosion and sediment control devices and dust management measures on the project. In addition, it is the site staff responsibility to check the entire site on a regular basis to see if any maintenance is required. This maintenance will include the checking of sediment control devices, silt fences etc. and removal of sediment. Weekly separate Health & Safety and Environmental audits will review and record the status of all sediment control and stormwater management. These will be undertaken by CB Civil staff. Any issues will be noted and then closed out accordingly. Copies of the weekly reports will be recorded in Procore. All spills into water, major spills or notifiable spills and contamination will be reported to the Waikato Regional Council immediately.

Daily and weekly visual surveillance of dust emissions, dust controls, water quality and turbidity which will be recorded by the Project Manager or his delegated representative. The meteorological forecast will be reviewed daily. This includes weather and physical parameters such as wind speed, rain, temperature, humidity etc. This information will help forecast dust susceptible areas and enable the site team to forecast and plan preventative and responsive measures to wind events. By having this information, we can better plan the implementation of our mitigation controls. This information will be included in the Site Diary.

Audit type	Personal	Frequency
Health & Safety	HSE Coordinator or nominated person	Weekly (if multiple work fronts, else fortnightly)
Environmental	CB Site Engineers or nominated person	Weekly (if multiple work fronts, else fortnightly)

All audits are completed on Procore (the project management software utilized by the project). These are live documents which can be added to and closed out in real time.

Should members of the public have any concerns the stakeholder phone will be monitored as detailed in section 10.4.2. CB Civil will then liaise with the stakeholder to reach a solution.

Project Phone	PO Box 4309,	0508 779 4636	psw@cbcivil.co.nz
	Hamilton 3216		

11.1.8 Staff and Contractors' Responsibilities

All staff are responsible for dust management on site.



The Project Manager will be the ultimate owner of actions but in the event of any incident the below hierarchy and timeline will be carried out.

Level of Incident	Immediately (within 1 hour)	By end of Shift	12 Hours	Within 24 Hours	>24 Hours
Level 1 & 2 (insignificant/ minor)	Inform Supervisor and site HSQE	Address absent/failed hazard controls		Record incident in Procore incident register	PM or deligated person review and close out report in Procore
Level 3 (Moderate)	Inform Supervisor and site HSQE Notify Project Manager and agree incident rating and ongoing internal and external notifications Notify operations manager by phone then notify Clients via phone and email		Notify HSQE and legal if required Record the incident in Procore & Bware Note: Bware used for investigation	Start 5 why investigation	Create and issue hazard alert (if required) Conclude investigation report and send to operations manager for review and sign off
Level 4 (Major)	Inform Supervisor and site HSQE STOP OPERATION AND DETERMINE IF WORKSAFE NOTIFICATION REQUIRED. GET ASSISTANCE Notify Project Manager and agree incident rating and ongoing internal and external notifications Notify operations manager by phone then notify Clients via phone and email	Secure site and make safe Record the incident in Procore & Bware Note: Bware used for investigation	Gather witness statements from all involved	Start Tripod or ICAM investigation	Create and issue hazard alert (if required) Conclude investigation report and send to operations manger for review and sign off
Level 5 (Catastrophic)	Inform Supervisor and site HSQE STOP OPERATION AND DETERMINE IF WORKSAFE NOTIFICATION REQUIRED. GET ASSISTANCE Notify Project Manager and agree incident rating and ongoing internal and external notifications Notify Directors by phone then notify Clients via phone and email	Secure site and make safe Record the incident in Procore & Bware Note: Bware used for investigation	Gather witness statements from all involved	Start Tripod or ICAM investigation	Create and issue hazard alert (if required) Conclude investigation report and send to directors for review and sign off

DMP Review Procedures 11.1.9

The document will be reviewed annually along with other management plans and any control measures that need revising will be updated and actioned accordingly.

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12 Hazardous Substances Management Plan (HSMP)



12 Hazardous Substances Management Plan (HSMP)

Section	Description	Reference
20.1	Prior to the commencement of Construction Works, the Requiring Authority shall prepare a Hazardous Substances Management Plan (HSMP). The HSMP shall be prepared by a suitable qualified and experienced person. The Requiring Authority shall implement the HSMP at all times during the Project. The objective of the HSMP shall be to avoid, remedy or mitigate the adverse effects of Construction Works on human health and the environment which may result from the use of hazardous substances	Section 12
20.2	The HSMP shall be provided to the Territorial Authority Chief Executive Officer or nominee for certification at least forty (40) working days prior to the commencement of Construction Works or as otherwise agreed with the HCC Chief Executive or their nominee	Note
20.3	As a minimum the HSMP shall include the following details:	Section 12.1
а	Details of the type and volumes of hazardous substances to be used and stored during the construction phase of the Project	Section 12.1.1
b	Procedures for the proper storage, handling, transport and disposal of hazardous substances in accordance with best practice and national standards and regulations	Section 12.1.2
С	The equipment, systems and procedures to be used to minimise the risk of spills or leaks of hazardous substances	Section 12.1.3
d	Procedures to notify and report to the Territorial Authority within 24 hours of a spill or leak involving 10 litres or more of a hazardous substance occurring	Section 12.1.4
е	Procedures to be followed to identify causes of spills or leaks of a hazardous substance and to avoid their recurrence	Section 12.1.5

12.1 Hazardous Substances

12.1.1 Details of the Type and Volumes

The following cover sheet will be completed once onsite to provide the volumes of hazardous substances that CB Civil will be using and storing on site. This document provides the details of the type of hazardous substance, the volume that will be stored (maximum) and where it will be safely stored. The corresponding SDS sheets will be provided on site or stored with the products in the containers.



HAZARDOUS Substances SDS Register



PAGE 1 of 1

SUMMARY ONLY - REFER TO COMPLETE SDS FOR MORE INFORMATION

Substance / Product	Locat	ion &	First	First Aid Requirements ¹			PPE Flamm.3	Classification Codes				Storage		
	Qua	ntity	Swallow	Eyes	Skin	Inhaled	Req'ts ²		Chemwatch No. (if available)	UN No:	DG Class	Hazchem	Package Group	Store ir Spill Control
. 91 Octane Petrol	Container	L	A, H, E, J	B, J	H, I, J	H, I, J	1,2,3,4,6	ii / iii / iv / vi				N/A	Υ	Υ
. Diesel	Container	L	A, H, E, J	B, J	H, I, J	H, I, J	1,2,3,4,6	i/iv/v/vi		3082		3Z	Υ	Υ
3. 2 Stroke Oil	Container	L	A, H, E, J	B, J	C, F, J	I,J	1,2,3,4,6	i/iv/v/vi				N/A	Υ	Υ
. Spray Paint	Container	No.	A, H, E, J	B, J	F, B, J	I, J	1,2,3,4,6,7	i / v/ vi / vii	7730518	1950	2.1	2YE	Υ	Y
5. Ероху	Container	No.	A, H, E, J	B, J	B, F, J	I, J	1,2,3,4,6					N/A	Υ	N
6. Hydraulic Oil	Container	L	A, H, E, J	J	C, F,H	I, L	1,2,3,4,6	vii				N/A	Υ	Υ
7. Ultra-Duty Grease	Container	No.	A, H, E, J	L	C,F,J,L	L	1,2,3,4,6					N/A	Υ	N
3. Adblue	Container	L	E, J	B, J	B, F, J	H, J	1,2,3,4,6,7					N/A	Υ	Υ
). Anaconda	Container	No.	A, E, L	B, J	F, C, J	H, I, J	1,2,3,4,6,7	ii	002605			N/A	Υ	N
10.														
DISONS INFORMATION CEN		0 POIS	ON (0800 70	64 766)	– 24 HC		TACT Requiremen	te ³EI	ammability					
A = Rinse mouth		artificial re	ssniration (if hr	eathing st	nnned)		veralls		= Flammable					
A = Rinse mouth G = Apply artificial respiration (if breathing stopped) B = Rinse with water / Irrigate H = Remove from contaminated area			2 = 8	Safety shoes (ii) = Highly flammable										
C = Wash with soap and water I = Breath fresh air			- 1	= Gloves (iii) = Combustible										
D = Induce vomiting J = Seek medical attention				ety glasses / vis) = Supports com				not normally	bum in ai			
E = DO NOT induce vomiting			erile dressing				Respirator		= Remove all po		gnition so	urces		
F = Remove contaminated clothing	L = Give v	vater				o = v	Vash hands afte	ruse (vi) = Do not smok	e				

12.1.2 Procedures for the Proper Storage, Handling, Transport and Disposal

A dedicated hazardous goods container will be in operation for the course of the project to enable safe storage and a folder containing the corresponding SDS sheets will be located within the container.

The SDS sheets for each product will be maintained, consulted and complied with to ensure the correct transportation, handling, use and disposal of any hazardous substance that will be required on site.

In the event of an accidental spill or discharge of sediment, hazardous and/or toxic substance, CB Civil will use the following procedure.

Assess

- Stop, ensure worker safety and assess the situation.
- Check SDS sheets to ensure its safe to clean up the spill.
- Assess fire/explosion danger and hazards.
- Use personal protective equipment.
- If safe to do so, stop and contain the flow.
- Turn off valves of taps.
- Right container and replace lid.
- Plug holes, or turn container so hole is at the top.
- Report the time, location, material spilled, volume spilled, likelihood of any further spill, conditions and actions taken so far to CB Civil Supervisor. CB Civil Supervisor to immediately follow Incident Reporting protocol.



Contain

- Consider the impact of response actions on the environment.
- No action is always an option.
- Identify any sensitive aspects of the environment which could be at risk (i.e., wildlife, vegetation)
- Identify an appropriate response strategy to halt or minimise any further spill, contain the existing spill and protect threatened resources.
- Use spill kit materials to contain the spill/and or construct bunds or trenches as needed.

Recover

- Small quantities of liquid can be recovered using sorbent materials.
- Our specialist CB vacuum truck will be employed to suck up any spilled material and contain in its onboard holding tank.
- Removal of contaminated soil should be undertaken after consultation.
- Ensure all contaminated wastes are clearly labelled.

Dispose

All contaminated materials will be disposed of at approved facilities and records of disposal will be kept.

12.1.3 Procedures to Minimise the Risk of Spills or Leaks

To mitigate the risks associated with the use of hazardous substances on site, the following measures will be in place:

- Fuel will be delivered by mini-tanker and the refuelling and lubrication of construction plant will only be carried out in areas separated from environmentally sensitive areas.
- > Small quantities of fuel (<20L) may be stored in the site containers within an additional container for containment of any potential spill.
- > Spill kits will be available for use in the event of a spill at each site container and in the yard where machinery is stored. These will be identified on site maps.
- > Hydraulic oils, greases and other construction materials will be stored at the yard, in a secure area.
- Any hazardous substances kept on site will be stored under cover in accordance with the relevant regulations.
- Plant maintenance will be undertaken off site or within the yard away from any environmentally sensitive areas unless it is deemed essential to protect the equipment.

12.1.4 **Notification Procedure**

Type of Spill	Notification
Any spill to water	Project Manager and Superintendent immediately.
Notifiable Spills	Health & Safety Coordinator immediately
Any hydrocarbon spills to water	
Major Spills	Project Manager immediately
More than 5 litres to land or asphalt	
Minor Spills	Project Manager immediately
Less than 5 litres to land or asphalt	

The Territorial Authority will be notified of a spill or leak involving 10 litres or more of a hazardous substance within 24 hours.



Spills or Leaks Avoidance 12.1.5

In the event that a spill or leak has occurred staff will follow the process outlined in the Spill Response Plan attached as Appendix 1.

Following the incident, an incident report will be prepared and raised in Procore to investigate the cause and identify methods to avoid recurrence.



13 Review & Amendments

This plan will be submitted for review and comment by Hamilton City Council.

The CB Civil Project Manager will review the plan regularly to ensure it is still relevant and procedures are being implemented. During routine site audits CB Civil will assess the suitability of the current EMP for the activities being undertaken onsite and in conjunction with HCC may make modifications as appropriate.

14 Responsibilities

CB Civil Project Manager is responsible for implementation of this plan. Responsibility to undertake audits of the controls will be delegated by the Project Manager accordingly. All site staff are responsible to ensure the noise and vibration control measures are maintained and action any maintenance required. The procedures, controls and responsibility to report damaged control measures will also be briefed to subcontractor staff.



15 Appendices

15.1 Appendix 1 - Spill Response Plan

SPILL RESPONSE PLAN



SPILL RESPONSE CONTACTS:

Project Manager (PM): Jamie Campbell 021 029 01724
Superintendent (Super): Gavin Smith 021 450 020
H&S Coordinator (H&S) Fiona Forsyth 027 405 6414
Waikato Regional Council (WRC) 0800 800 401

LEVEL OF RESPONSE REQUIRED:

ANY SPILL to WATER - notify PM and Super immediately

Minor Spills - less than 5 litres to land or asphalt contact PM immediately Major Spills - more than 5 litres to land or asphalt contact PM immediately Notifiable Spills - ANY HYDROCARBON SPILL to WATER must be reported to H&S Coordinator immediately.



IMPORTANT STEPS TO FOLLOW:

1. Assess for danger

Identify the spilled material, if unsure check SDS sheets, wear appropriate PPE and only clean up if you will be safe.

2. Stop the Source

Stop machine, stand up container, plug leak.

3. Protect Waterways & Stormwater

Use spill kit booms and pillows.

4. Notify Supervision

Notify Project Manager and Superintendent immediately –phone until you <u>speak</u> with someone, you may also text but do NOT leave a voice message.

5. Start Clean Up

Use equipment in spill kits including pads, socks, pillows, absorbent peat and other absorbents to begin clean up. Be sure to collect all soiled material and dispose of appropriately. In some cases contaminated soil will need to be dug up and disposed of at an appropriate facility. Call the H&S Coordinator to provide advice on disposal options.



Absorbent Peat
Sprinkle over spills,
allow to soak up liquid,
then sweep up and put
in disposal bag.



Absorbent Pad
Used to catch or mop
up smaller oil spills and
leaks.



Absorbent Pillows
Used to mop up or
catch large oil spills
and leaks.



Absorbent Socks

Used to contain spills and protect waterways. It acts as a barrier. Place around spilled material or drain to stop the oil spill moving or getting into the drain.

6. Complete Report

Project Manager to complete an Environmental Incident Report within 24 hours of spill. Notification from Project Manager or H&S Coordinator to HCC and WRC immediately

7. Replace Materials In Spill Kit

Ensure all used materials in spill kit are replaced. You can get these from the yard.