- The Yellow wheelie bin is for Rubbish. Ensure it has a yellow bin liner installed and wheel it to where you need it, and wheel it out of the way when finished. Once filled this rubbish can be incinerated.

- The Red wheelie bin is for Salvage. Salvage is the shorts left after periods of cutting timber, that are long enough to get small pieces from. This bin should be used preferentially before cutting into new lengths of timber.

- The Blue wheelie bin is for Scrap. That is the wood left over after the Salvage has been cut down. The pieces are too small to use for urn making and are only suitable for kindling. Advise Management when this is full so it can be emptied or replaced.

- The floor area around the equipment needs to be clear at all times, so that the trolleys can move urns from workstation to workstation, and so that staff can leave quickly in an emergency.

- Sawdust is a firehazard. It cannot be allowed to accumulate on equipment as it can create electrical shorts and damage the equipment. It cannot be allowed to accumulate at power points. At best it will trip breaker switches. At worst it will smoulder and a fire could erupt while no one is in attendance. Sawdust needs to be swept or vacuumed as soon as the task is finished that created it. Additionally the Workshop needs to be swept and vacuum at the end of each work day, so leave time available to do this.

- If any equipment is broken or worn, advise Management immediately (via email) so it can be repaired, and a plan made for the continuation of work in its absence

WOOD STORAGE

- When a new order of wood arrives, it needs to be stored flat under the bench. Fillets should keep it off the floor. It should be stored in bundles of the same width so it is easy to identify when we are short on a particular size. If you have ripped too much of a width of timber, label it with pencil (either the width in cms, or the piece it was ripped for i.e # 3 classic base) before placing back in the stack.

HAND TOOLS

- Hand tools are storage in labelled draws or labelled cube boxes in the cube shelving. They need to be returned to the appropriate storage after use for the benefit of all workers. Time spent looking for tools is not productive time making urns, and sometimes our timeframes are tight.

- If a tool is broken or lost immediately arrange for its replacement. Using tools that are not fit for purpose creates damage on the equipment to which they are applied.

SAW

- Daily as used – sweep and vacuum dust
- Weekly – blow out the door mechanism, the track for winding down the router spline, and all the mechisms where sawdust collects inside the saw cabinet with the air gun attached to the compressor
- Monthly – used lubricant spary to keep the springs and moving parts that allow for the raising and lower and angling of the saw blade free

SANDERS

- Daily as used - sweep and vacuum dust
- Weekly – use air compressor to blow out accumulations in the mechanisms and around the on off switch to prevent shorts.

DRILL PRESS

- Daily – sweep and vacuum dust
- Weekly - use air compressor to blow out accumulations in the mechanisms and around the on off switch to prevent shorts.

ROUTER TABLES

- Daily as used – sweep and vacuum dust
- Weekly - use air compressor to blow out accumulations in the mechanisms and around the on off switch to prevent shorts.

DUST EXTRACTOR

- Weekly – Detach the collection bag by undoing the hex head hose clip at the machine end of the pipe. Remove the sawdust into a bag suitable for incineration. Ensure the intake is freed of any small off cuts of timber. Refit the hose ready for use.

MAINTENANCE RECORD

- Document the cleaning at the end of each week on the Maintenace Record.
- Scan or photograph and add to the Workshop Maintenance Schedule in Monday
- If urn making is part of your job description it is your responsibility to check this task is being attended to accurately after a period of absence, whether that be annual leave, sickness or injury.

COMPETENCIES WORKSHOP AND EQUIPMENT MAINTENANCE 08-19

Staff member	C1	C2	C3	C4	Trained by
Damien Burns					
Alan Fon					
Leo Frampton					

Key
C1 = I have read and understood this SOP
C2 = I have received training
C3 = I am competent to manage this task on my own
C4 = I am credentialed to train other staff in this SOP

APPENDIX I

STANDARD OPERATING PROCEDURE 05-19

VEHICLE MAINTENANCE

Potential Hazards:

Not Applicable

Required Personal Protective Equipment (PPE)

Not applicable

PROCEDURE

- If a vehicle is used in the conduct of you work, the Company requires you to treat the vehicle as well as you treat your own personal vehicle. However, if it is acceptable for you to accumulate panel damage without ownership, road dust and diesel residues, and storage of rubbish items within, then the Company requires you to treat the vehicle better than your personal vehicle.
- WHEN OUR VEHICLES APPEAR UNCLEAN AND UNKEPT, WHY WOULD CLIENTS TRUST THAT WE CAN CARE FOR THEIR BELOVED PETS? Scrupulously clean and well presented vehicles are figural to conveying professionalism, competency and trust worthiness.
- There is insurance cover in place for all vehicles used by the Company. The excess for each claim is $500 per incident. Be aware of who will be paying that excess – the Handbook outlines that when an accident that results in damage is your fault you will be liable for that cost.
- When a Company vehicle resides at your home, it is your responsibility to park it in such a manner that it is not damaged by other vehicles or implements at your property.
- There is no smoking in Company vehicles.
- Rubbish is to be removed from Company vehicles daily.
- If you carry pets on furnishings you are responsible for vacuuming them.
- **EVERY DAY** that you use the vehicle, cast an eye around the vehicle to see if there is any new damage. If new damage has occurred Management must be notified immediately, with some explanation of how that damage has occurred. This notification should be made via email, as this information may be needed by the insurance company.
- Due to the nature of the business, it is expected that there will be spills of blood, urine and faeces in the containment area of the vehicle. **EVERY DAY** that you use the vehicle the

containment area needs to be spot cleaning with detol wipes. It may be that the tarp needs to be removed, washed with sanitiser and hung up to dry. **DO NOT** wash the vehicle inside with a hose. They are not designed to be cleaned in the manner and soiled water will be wicked up by carpets and other interior linings.

- **ONCE A MONTH**, complete a Vehicle Maintenance Form, available in the Forms section in Monday. The tool provided on the key ring allows you to check tyre tread depths accurately. Scan or photograph the completed form and attach to the maintenance log for your vehicle.
- Advise management **BEFORE:**
  - You run out of Road User Charges
  - A Service is due
  - A WoF is due
  - Tyres are no longer legal
  - A poor wheel alignment causes tyres to wear unevenly through to steel belts.
- If driving is part of your job description it is your responsibility to check this task is being attended to accurately after a period of absence, whether that be annual leave, sickness or injury.

COMPETENCIES VEHICLE MAINTENANCE 05-19

Staff member	C1	C2	C3	C4	Trained by
Athena Irvine					
Tania Hoeta					
Jessie Best					

Key
C1 = I have read and understood this SOP
C2 = I have received training
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APPENDIX J

STANDARD OPERATING PROCEDURE 04-19

EXTRACTION SYSTEM CLEANING

Potential Hazards:

- Respiratory damage

Required Personal Protective Equipment (PPE)

Face mask (disposable dust mask)

PROCEDURE

- The consequence of not performing this task correctly is the shut down of this area of business due to complaints for neighbouring tenants.

  The extraction unit pulls air through the holes in the bottom of the entrance door, up through the booth and out the roof at the rate of 460L per second.

  When the filter on the extraction unit is not cleaned either:
  1) The fan shuts down and wont move air or
  2) The duct collapses and fumes escape into the ceiling cavity we share with the neighbours.

  Given that these are known outcomes from previous experience, not performing this task to the standard defined below is considered serious misconduct. The impact on the business is significant.
- **EVERY SPRAY DAY** Remove the bottom pan of the extraction system by undoing the compression clip and sliding the pan forward to free it from where it secures
- The filter material is wrapped around a triangular piece of mesh. Pull this whole apparatus downward.
- Remove the filter and shake outside. The air gun attached to the compressor can be used to blow out the excess. Place this filter in the laundry bucket.

- Wrap the triangular mesh with a clean filter (stored in the sealed container in the spray booth). There are enough filters provided for at least one per weekday.
- Reinsert the apparatus into the extraction system and refit the bottom pan. The unit is now ready to use.
- **ONCE A WEEK**, take the laundry bucket full of a weeks worth of filters, and rinse them in water. Hang them to dry on the clothes horse in the burner room where heat from the burners will assist with drying them. When this task is completed take a photo of the filters drying on the clothes horse and add to the maintenance record for the extraction system to evidence this has occurred.
- If any of the filters become damaged, order replacements promptly from Newman Refrigeration. Contacts are in the Soul Friend Suppliers board on Monday.
- In the event of an extraction system failure notify Management immediately. Do not use the spray booth during work hours until the breakdown is rectified.
- If spraying is part of your job description it is your responsibility to check this task is being attended to accurately after a period of absence, whether that be annual leave, sickness or injury.

COMPETENCIES EXTRACTION SYSTEM CLEANING 04-19

Staff member	C1	C2	C3	C4	Trained by
Damien Burns					
Chantal Burns					

Key
C1 = I have read and understood this SOP
C2 = I have received training
C3 = I am competent to manage this task on my own
C4 = I am credentialed to train other staff in this SOP

APPENDIX K

STANDARD OPERATING PROCEDURE 01-19

Autoclaving Sharps for Disposal

Potential Hazards:

- Needle stick injury
- Zoonotic disease

Required Personal Protective Equipment (PPE)

Appropriate footwear

Gloves

PROCEDURE

- Turn on the boiler in the boiler room. The switch is just inside the boiler room door. Check that there is no water leaking from the pump on the floor, and ensure the boiler is functioning by observing the water level guage and the temperature guage.
- Only 1 autoclave can run at a time and be effective in sterilising the contents, as the boiler is feeding them is small. To be effective, the autoclave must reach and maintain a temperature of 121° C for at least 30 minutes by using saturated steam under at least 15 psi of pressure. Heat detection strips are used to show that this has been achieved.
- Fill the chamber of the autoclave with sharps containers. The rigid nature of these containers means its ok that they touch the walls. Write your name and date on a new heat detection strip and add it to the chamber.
- Ensure the the door to the chamber is fully wound closed. Remember that this process creates pressure. It is critical the door is closed properly.
- Due to the age of these units, the manual controls are tired and require a reset everytime a sterilisation session is started. Press On, Press off, Press manual reset and then liquid cycle. Turn the handle til the light comes on. The cycle will then run for the next 2 hours.
- At the end of the session, switch the autoclave off as well as the boiler in the boiler room and leave to cool overnight.

- When cold, open the autoclave door, find the heat detection strip and tape it into the log book as proof that the autoclave has reached the appropriate temperature to sterilize the contents.
- IF THE DETECTION STRIP has failed to change colour, run another cycle. If the result is the same the Autoclave will need servicing. Make arrangements to do so (See Soul Friend Service techs in Monday) and advise management of the unplanned expense.
- An autoclave session should occur every cremation session where there is enough sharps to fill an autoclave chamber
- Remove containers from chamber once cooled and tape lids closed for secure transport to the dump site. The vibration of the vehicle can pop open lids that have been warped during the sterilisation process. This leads to spillage in the truck and a Health and Safety risk at the dump site. All our sharps waste is deep buried so that personel and wildlife (seagulls) are safe from them. ALL containers must be taped closed.
- Remove the containers to the Hazardous goods store at the end of the driveway. By this point they should be ready to load out into the truck directly.
- NO Sharps Containers are to be stored in the Cremation room.
- ONLY sharps waiting for sterilisation can be stored in the autoclave room.
- If autoclaving is part of your job description it is your responsibility to check this task is being attended to accurately after a period of absence, whether that be annual leave, sickness or injury.

COMPETENCIES AUTOCLAVING SHARPS FOR DISPOSAL 01-19

Staff member	C1	C2	C3	C4	Trained by
Chantall Burns					
Damien Burns					
Jessie Best					
Tania Hoeta					

Key
C1 = I have read and understood this SOP
C2 = I have received training
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C4 = I am credentialed to train other staff in this SOP

APPENDIX L

STANDARD OPERATING PROCEDURE 10-20

Cremator Maintenance

Potential Hazards:

- Burn
- Respiratory damage
- Manual handling

Required Personal Protective Equipment (PPE)

Appropriate footwear

Gloves

PROCEDURE

- The air holes in the floor need to be cleared each cremation event. Air is essential to seat the fire down low in the chamber, otherwise the flame wants to climb up the chimney to receive oxygen.

- During cremation grease leaves the body and is collected in the trap under the floor. After cremations and during the rake out, some of the cremains also enters the holes and quickly solidify.

- IF THE HOLES ARE NOT CLEARED the grease in the chamber will become super heated, start giving off gases, and create an explosion. The business cannot sustain the consequences of such an explosion.

- Every 12 months the chamber needs to be cleared of grease. JB's environmental are our preferred contractor to do this. The hatch on the site is removed to achieve this and needs to be reinstated before attempting another cremation. This even t needs to be documented in the Equiment log.
- Door seals are to be checked once a month. The bead around the door opening needs to be sealed into the rope seal on the adjoining face. Smoke will leak where this closure does not occur well.
- Door seals need to be replaced once a year as routine. They get clogged with rease and other contaminants reducing their effectiveness. They can be purchased from Pyrotec.
- The flame rods, controllers, ignitors and fan bearings need to be serviced by Windsor Engineering annually. Book 1 unit at a time so the business can continue to function with the remaining cremator.
- From time to time cracks will appear in the refractory. This is an extremely arsh environment in terms of temperature and this will create expansion and contraction in the metal work which will crack refractory over time. When these cracks fill with ash they deepen, and refractory will start to break away. When you see a crack appear, fill it with Mastic sealer. This will cure during the next firing of the cremator holding things in place and reducing wear and tear. Southern Pacific refractories hold a product coloured grey. Heatrite also have tubes of fire cement in black.
- Parts to be kept onsite include
  Temperature probe
  Door seals
  Mastic sealant
  Flame controllers
  Fan Bearings

COMPETENCIES CREMATOR MAINTENANCE 10-20

Staff member	C1	C2	C3	C4	Trained by
AJ Pehi					
Damien Burns					
Sammy Butler					

Key
C1 = I have read and understood this SOP
C2 = I have received training
C3 = I am competent to manage this task on my own
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APPENDIX M

STANDARD OPERATING PROCEDURE NUMBER 09-20

Cremator Operation

Potential Hazards:

- Burn
- Respiratory damage
- Manual handling

Required Personal Protective Equipment (PPE)

Appropriate footwear

Gloves

PROCEDURE

PREPARATION

- Load the Cremator with return animals and separate them with fire bricks. As each pet goes into the Cremator the animals area is drawn on the map on the clip board, and the paper ID tag is kept within the clip board. It is optimal for the load to be 150kg or more. Lighter loads take disproportionatly longer to cremate and are not economic.
- The optimal burn loading to balance fats and reduce emissions is 4 x 30kg dogs and 8 – 10 5 kg cats (or equivalent). Place the cats along the side where the burners come in (left side). This should not obscure the flames entry into the chamber. Dogs are placed along the right hand side.

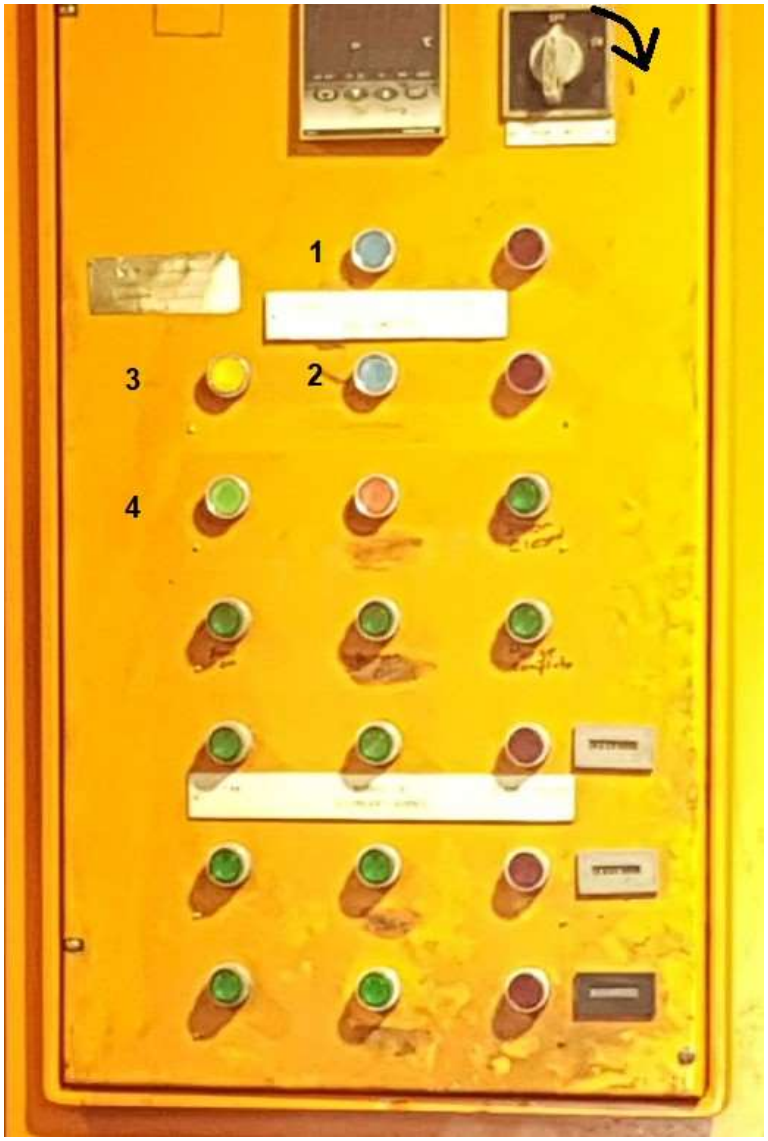
  A burner filled with only cats will not cremate well. A cremation filled with too many large dogs will need the exhaust slowed to reduce emissions (see Troubleshooting). A horse cremation normally doesn't produce fat fueled emissions as they are often skinny at the time of death or muscularly fit (if they have died by accident). A sea lion is very fatty. Once alight both primary burners will likely cycle off as the cadaver cremates itself.

- Before firing the Cremator up, have one last check of comments in the database to ensure that we don't miss out on taking a paw print or a fur clip.

- Ring fire comms to let them know you are running a cremation and when it will conclude. This stops them sending a fire truck if passerby notice flame from the stack (see process below).

START SEQUENCE

- Turn on the power switch and press the buttons in the sequence shown.



- The hearth fan comes on for 5 minutes to clear the main chamber of any fumes that might ignite. The duration of this is set by the first timer.

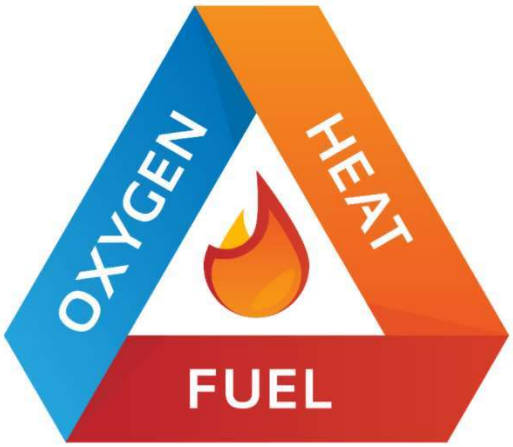
- The after burner in the secondary chamber comes on next. This fires for 20 mins to heat the refractory in the secondary chamber, which burns off emissions leaving the primary chamber. The duration of this is set by the second timer.

- Both burners on the primary chamber fire up next. It is important to observe the stacks at the point that inginition in the primary chamber occurs (aprox 25 mins into the cycle).

- **SMOKE IS NO JOKE!!**

CREMATION

- The key to good combustion is striving for the balance of 3 factors

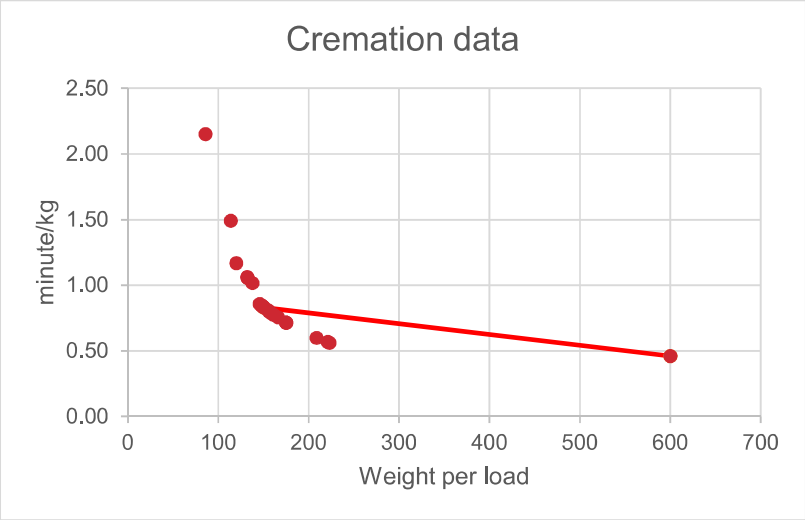


Oxygen is provided via the hearth fan through the breather holes in the floor. This seats the fire down low. When these holes block, the fire wants to climb the chimney to get oxygen. Heat or ignition source is provided by two burners directed downwards into the primary chamber. These also have fans generating oxygen. The gas involved is one fuel input. The bodies themselves are another.

- Once both primary burners are operating they will cycle on and off by themselves without producing a flame failure, as they respond to the temperature probe and the digital display. The cut off is set at 800 degrees Celsius. This stops over fueling with gas making the cremation both safe, economic and kind on equipment.

- Once through the firing up process, the Cremator can consume approximately 100kg per hour. Since our routine cremation full with return animals involves around 150kg, the total cycle should take 2 hrs. Extend the time if you are cremating a larger load. A horse will take somewhere between 4.5 and 5 hours for a 600kg animal.

- Previous cremation data shows that as the weight of the creamtion rises the time to reduce to ash reduces on a per kg basis. (graph does not include the warm up phase of the cycle – see description below).



The Table below indicates suggested cycle times (including warm up phase)

Weight (kg)	150	175	200	225	250	275	300	325	350	375
Cycle time	2:30	2:47	3:03	3:18	3:32	3:45	3:57	4:07	4:18	4:26

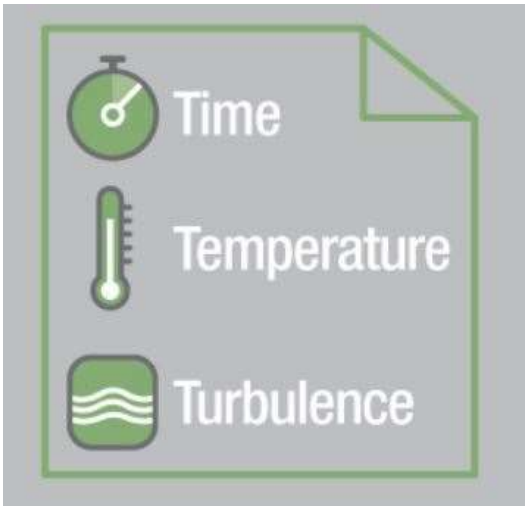
Weight (kg	400	425	450	475	500	525	550	575	600
Cycle time	4:34	4:41	4:48	4:52	4:56	4:58	5:00	5:01	5:01

- The graph and calculation are shown to offer sensible estimate, but always check through the viewing port if there is concern it's not completed.

- Non-return or biological waste loads should be calculated also on a per weight basis.

TROUBLE SHOOTING

- Visible emissions are most likely to occur as the plastic bags surrounding the cadavers or waste ignite. The quality of the exhaust is determined by 3 factors



Turbulence is created by the after burner being aimed diagonally through the after secondary chamber. The temperature will be approximately 1100 degrees if the pre-heat is observed properly. The only other factor we can influence is Time. Visible emissions will occur if the time for the exhaust to travel through the after chamber is too slow or too fast. Previous experience with witches hats over the stacks to prevent rain influx, slowed the exhaust too much and caused emissions to occur through breathing holes in the stack. Now that these have been removed, the reason for visible emissions is the exhaust moving too fast. Turn off the primary burner towards the back of the primary chamber by turning off the gas tap. A flame failure will occur. A light will show on the burner and an alarm will sound. Dismiss the alarm by pushing the yellow button. Monitor the stack, and after 10 minutes reinstate the burner by turn on the gas tap. If emissions are observed repeat the process. Only the early part of a cremation event may be affected in this way, if it occurs at all.

- If the load is large you may notice flame coming out he top of the chimney stack. This means that the bodies are acting as fuel in their own right and we don't need full gas inputs at the beginning. Again turn off the primary burner towards the back of the primary chamber by

turning off the gas tap. If flame is still observable out the stack you can also turn off the front primary burner. Observe regularly over the next 10 to 15 minutes. When the flame in the chamber has settled as observed through the viewing ports, you can turn the back onto the burner and clear the flame failure but pressing the lit button on the burner. Within a couple of minutes it should fire again.

- If a flame failure occurs the alarm bell will sound to alert you. The front of the switch board will show you which burner is affected (red light), and there is also a light that will be illuminated on the flame controller visible through the buner maintenance cover. Press this light and reset the alarm (yellow button). Within a couple of minutes the flame controller will attempt ignition again. If you have repeated events of this during a cremation, maintenance should be initiated the following day and documented in the Equipment Log.

Flame controller showing flame failure

Flame controller operational

- If the digital display shows HHHH and the burner will not start the sequence at all, the temperature probe has burnt out. Maintenance should be initiated the following day and documented in the Equipment Log.

COMPETENCIES 20	CREMATOR OPERATION				09-
Staff member	C1	C2	C3	C4	Trained by
AJ Pehi					
Damien Burns					
Sammy Butler					

Key
C1 = I have read and understood this SOP
C2 = I have received training
C3 = I am competent to manage this task on my own
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APPENDIX N

STANDARD OPERATING PROCEDURE 09-2019

MANAGING COMPLAINTS

Potential Hazards:

- Damaged Morale and Culture

Required Personal Protective Equipment (PPE) Not Applicable

PROCEDURE

- Complaints are our mechanism for improving, growing and expanding

  When a client has a complaint we haven't met their expectation. If their expectation is unrealistic then there is some education needed from us. If we have failed to meet their expectation (and it is realistic) we need to know why and what we can do to improve. If more staff training in house is needed then that can be provided, but after training has been provided, it is expected that we can deliver on the promises we sell ourselves on.

- Soul Friend Pet Cremation provides service to people who are shocked, grieving and bereft.

  Often we are responding to a need that is unplanned. As such it will never be convenient. The entire function of this business is to provide solution, to provide comfort, to provide resource, to provide assistance. If 35 dogs die in a week, we respond to 35 dog cremations accordingly. If 3 horses die in a week, we respond to 3 horse cremations accordingly. Each client we are attending to should have no awareness of the difficulty we are experiencing because we provide service.

- Complaints from clients must be documented.

  There is no value in hiding from a complaint. Complaints will assessed each month, can be discussed with staff, can be round tabled at meetings to find solutions. Complaints are to be documented in writing via an email to info@sfpetcremations.co.nz. In the subject line write Complaint: and then a brief description. In the body of the email describe the complaint more fully, note personel involved and contact details ("I spoke to the vet nurse at the counter" is not suitable). Also write any solution that was applied to this situation. Asure the client that management will respond promptly.

  Soul Friends has a progressive policy around responding to complaints. This isn't quite the same as the customer is always right. We don't automatically refund or repair to keep people

happy. We deliver our product in good order and these are signed for upon receipt. Any solution that has a price tag attached needs approval at management level.

Once attended to, these emails are stored in the Complaints folder in the inbox.

- Complaints in house

Soul Friend Pet Cremations is a small team. As such inappropriate complaining has a detrimental affect on morale and grows victim thinking. By directing complaints where they can be responded to we grow unity in a supportive work environment. If you have a complaint around your working situation, whether it be the tasks you are asked to do, or some other staff member has had some impact on you, your complaint should be directed to management, If your complaint isn't worthy of taking to management, take it home. DO NOT sully the waters with your colleagues.

If you take a complaint about work conditions, tasks or staff interactions to management, sometimes the answer will be yes, and sometimes it will be no. Either way the decision will be explained to you, so that you can at least know that you have been heard. Sometimes the no will mean not now, particularly if there are financial implications that need to be budgeted for.

It is not appropriate ever to discuss wages, or contract conditions with your colleagues. Each of your contracts are negotiated individually, between the staff member and the Company. That negotiation is based on the staff members ability and availability, and the Company's need and financial constraints. The contract is not a measure of the worthiness or value of the individual. Discussing your contract with anybody but management within the company, is not in keeping with your contract which states we will work together in good faith.

If you have an issue with your paysheet, take it to payroll. Do not discuss with staff.

If you have an issue with your hourly rate, take it to management. Do not discuss with staff.

If you take a complaint to management and you don't feel you have found resolution, you may take it outside of the company to seek advice, as outlined in your contract and in the handbook. Outside mediation can be sought.

Now that this has been outlined in

1) Your contract
2) The handbook and
3) This SOP

It is expected that you will comply. Breaches of this complaint policy will be dealt with formally, consistently and swiftly.

Soul Friend Pet Cremations aims to grow a workplace where staff feel good about what they are doing and contributing to their clients, feel successful about meeting their targets and obligations, and feels resourced in terms of competencies and skills. The Company alone can not achieve that. Your continued commitment to the process can.

COMPETENCIES 2019	**MANAGING COMPLAINTS**				**09-**
Staff member	C1	C2	C3	C4	Trained by
Tania Hoeta					

Damien Burns
Chantall Burns

Key
C1 = I have read and understood this SOP
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Appendix F – Assessment of Environmental Noise Effects Report

SOUL FRIENDS PET CREMATORIUM

SOUL FRIENDS PET CREMATORIUM AND WORKSHOP, ASHURST

ASSESSMENT OF ENVIRONMENTAL NOISE EFFECTS

FEBRUARY 2021

PUBLIC

Question today
Imagine tomorrow
Create for the future

Soul Friends Pet Crematorium and Workshop, Ashurst
Assessment of Environmental Noise Effects

Soul Friends Pet Crematorium

WSP
12 Moorhouse Avenue
Christchurch 8011

Phone: +64 3 363 5400
Email: george.vanhout@wsp.com
www.wsp.com/nz

REV	DATE	DETAILS
1	09 February 2021	Update for existing site activities

	NAME	DATE	SIGNATURE
Prepared by:	George van Hout	09 February 2021	
Reviewed by:	Jon Jones	09 February 2021	
Approved by:	Jon Jones	09 February 2021	

TABLE OF CONTENTS

LIST OF APPENDICES

EXECUTIVE SUMMARY

WSP has undertaken an assessment of the noise associated with the relocation and extension of the existing pet crematorium and workshop. It is proposed that the existing crematorium and workshop which are currently split over two sites, are combined at a single new location at 94 Mulgrave Street, in Ashurst. The proposal is for a new building to the north of the 94 Mulgrave Street site which will house four crematorium chambers and associated stacks (two existing and two new), along with the relocated workshop, a reception, staff areas, and chapel.

The operation of the crematorium and workshop will generally occur between 0900 and 1700 hours Monday to Friday; however, the crematorium may run until 2100 hours if any crematorium chambers are non-operational due to maintenance. All staff will be offsite prior to 2200 hours.

The proposed site activities are:

- The operation of the workshop between 0900 and 1700 hours
- Two cremation chambers operating concurrently. Cremation services will not operate all day, as each burn takes approximately 2.5 hrs to undertake, with downtime between each burn for cooling, loading and unloading.

We have undertaken an assessment based on both the workshop operation in isolation, and another assessment considering the workshop and crematorium operating concurrently in a worst-case scenario. We have assessed noise from vehicles arriving and leaving the site separately as the peak staff vehicle movements will occur outside of when the crematorium or workshop operates.

The general noise rules for rural zones are not considered relevant in the context of the wider site, as some adjacent properties are commercial in nature or adjacent land is not noise sensitive (pastural land, rather than residential). Therefore, alternative appropriate noise limits for this site and surrounding area have been developed.

Noise from a scenario where the workshop solely operates achieves the recommended noise limits at the boundary of any residential zone and notional boundary of any dwelling in the rural zone at all properties.

Noise from the workshop operating concurrently with the crematorium achieves the recommended noise limits at the boundary of any residential zone and notional boundary of any dwelling in the rural zone at all properties.

For completeness we have also assessed noise against the PNCC District Plan noise limits which assesses noise at the boundary of rural zoned sites. Although these limits are exceeded in some areas, they are considered general targets and not appropriate to this application.

The wider 94 Mulgrave Street site also contains an existing dog boarding kennels and cattery, which have been operating on the site for several decades. Therefore, the operation of these have existing use rights, and the size and scale of these facilities are not changing as part of this proposal. However, to consider any potential increase in noise level around the site, we have predicted the change in noise level across the surrounding environment with the proposed crematorium operating concurrently with the existing kennels and cattery.

The increase in noise level from the current (kennels and cattery operating only) to the proposed (kennels, cattery crematorium and workshop operating concurrently) scenarios is predicted to be subjectively negligible for the majority of properties. A perceptible change in noise level is predicted at two properties; however, the cumulative noise level at these locations is below the relevant fixed level criteria and is therefore considered acceptable.

Therefore, on the basis of the assessments presented within this report, noise as a result of the crematorium and workshop on the site is not considered to be a material constraint to the reasonable operation of the facility.

1 PROJECT BACKGROUND

WSP has been appointed by Soul Friends Pet Crematorium to provide acoustic consultancy services to assess the noise effects associated with the relocation and extension of the current pet crematorium and existing workshop. The existing site is split over two sites and it is proposed to combine on a single new site at 94 Mulgrave Street, in Ashurst.

Soul Friends Crematorium provides cremation services for private individuals, vet clinics, and education providers in the Manawatu-Tararua area. The relocation of the two existing chambers, and the extension of another two cremation chambers would provide a higher capacity and provide specialist services for individuals who want to witness the cremation. Relocating the workshop to the same site as the crematorium would provide a single site for all staff at Soul Friends.

This noise assessment is based on our correspondence with the applicant to date along with the following documentation:

- Operating procedure document titled *Standard operating Procedure; Cremator Operation*, numbered 09-20, prepared by Soul Friends Limited, and received by email on 26 November 2020; and,
- Site layout titled *Tolly Farm – Soul Friends; 94 Mulgrave St, Ashurst; Site Plan*, as prepared by Total Span, and received by email on 5 October 2020.

This report outlines relevant operational acoustic criteria for the relocation and extension of the crematorium and workshop and assesses the potential operational noise effects against the acoustic criteria.

2 SITE DESCRIPTION

2.1 SITE LOCATION

The area surrounding the proposed site is generally rural in nature to the north, east and west. A nursery is located to the east, and an abattoir is located to the west of the proposed site. Rural dwellings are located further north. To the south is undeveloped residential land, and low-density typically single-story residential dwellings.

The site is located in a Rural Zone, as is the sites immediately to the east, west and north. The sites to the southeast, southwest, and south across Mulgrave Street are located in a Residential Zone.

The wider site includes an existing residential dwelling and existing boarding kennels and a cattery which are not changing as part of this application. The kennels and cattery have been operating on the site at the same size and scale for a significant period of time, and so have existing use rights. The kennels and cattery make up the existing noise environment, discussed in Section 2.4.

A proposed new building which is to house the crematorium, workshop, and administrative spaces is to be constructed to the north of the current buildings on site, as shown in pink in Figure 2.1 and described below. A new internal driveway will be developed between the current driveway and proposed new building.

The location of the proposed development in the context of the surrounding area is shown in Figure 2.1.

Figure 2.1 Location of the proposed building (in pink) (Palmy Local Maps accessed 02/12/2020)

2.2 NOISE SENSITIVE RECEPTORS

There are multiple existing noise sensitive receptors surrounding the site. These include:

- 102/106 Mulgrave Street (abattoir) and 83 Winchester Street (nursery)
- 88, 97, and 98 Mulgrave Street (residential zoned with dwellings on the land)
- 114 Mulgrave Street and 167 Wyndham Street (rural zoned land)
- 73 Winchester Street (residential zoned land with no dwelling currently on the land)

The above properties are shown in relation to the proposed site in Figure 2.2.

Figure 2.2 Location of nearby noise sensitive properties

2.3 PROPOSED ACTIVITY

The proposal is to construct a new building to the north of the 94 Mulgrave Street site, adjacent to the stream that runs through the site, with a new access road between the current driveway and proposed building. Additionally, new parking facilities for staff and customers and an area for receiving deliveries are proposed.

The proposed building is to be constructed from profiled steel and lined internally on the walls with plywood. There will be sliding/roller doors in the façade of the building to allow for access, ventilation, and ease of movement into the workshop and crematorium. Mechanical ventilation will be provided into the workshop spaces.

The proposed building is to contain:

- The two current crematorium chambers relocated to the site and two proposed new crematorium chambers, with the stacks penetrating the roof.
- A woodwork workshop.
- Staff room and amenities.
- A reception, chapel, and private area to watch the crematorium process.

Staff for the workshop and crematorium will generally arrive on site around 0900 hours, and on a typical day leave around 1700 hours. During busy times or when a crematorium chamber is having maintenance, crematorium staff may depart the site later (around 2100 hours) to allow for an additional burn cycle.

A total of 6 – 7 staff, consisting of 3 full time employees and 3 part-time employees, plus the applicant) are to work at the proposed building, Monday to Friday. The crematorium and workshop will operate concurrently though crematorium burn cycles. During the loading and cool-down cycles of the crematorium, the workshop will also operate. Only up to two chambers of the crematorium will operate at once.

A new acoustic fence is to be installed along the boundary of 98 Mulgrave Street and the current driveway of the site. This acoustic fence will continue along the northern boundary of 98 Mulgrave Street, described further in Section 4.2.1.

2.4 EXISTING SITE ACTIVITY

The 94 Mulgrave Street site currently includes a boarding kennels and cattery which have been operating at the same size and scale on the site for several decades. The kennel and cattery activity is not changing as part of this application and so this activity has existing use rights (further outlined in the wider Resource Consent Application).

The boarding kennels and cattery operate 24 hours a day, with pick-up, drop-off or visiting hours between 0700 and 0900 hours in the morning and 1530 and 1900 hours in the afternoon/evening (apart from Christmas Day when they are not open). Dogs have access to the outdoor runs during the daytime period.

The wider site also includes an office building along with a residential dwelling used by the manager of the kennels and cattery. An unsealed access road runs along the western boundary of the site from Mulgrave Street to the office building, which, is well maintained.

The wider site is undeveloped pasture currently used as an area for grazing animals.

3 ACOUSTIC CRITERIA

Section 16 of the Resource Management Act (RMA) requires occupiers of land to ensure any noise generated is of a reasonable level. A District or Resource Management Plan presents noise limits which have been developed by the Council to provide guidance as to reasonable general noise limits in certain zones.

Noise limits set in District Plans are general rules for a zone and not specific to a single site or particular land use. Specific sites may be more or less noise sensitive depending on the site use and surrounding noise environment. Therefore, it is appropriate to consider alternative criteria in such circumstances, which are relevant to the specific site and surrounding area.

Guidance as to a reasonable level of noise received at adjacent noise sensitive receivers is provided in several national and international sources, as outlined below.

3.1 PALMERSTON NORTH CITY COUNCIL DISTRICT PLAN

The noise limits for non-residential activities occurring in a Residential Zone are outlined in Section 10.8 *Rules: Noise – Non-Residential Activities* of the Palmerston North City Council (PNCC) District Plan. Noise limits for the Rural Zone are outlined in Section 9.11 *Rules: Noise*, in the same District Plan. These limits are as follows:

10.8 Rules: Noise – Non-Residential Activities

R10.8.1 Noise

Sound emissions from any fixed mechanical plant, or from any non-residential activity, when measured at or within the boundary of any other site (other than land from which the noise is emitted or a road) shall not exceed the following:

7.00am to 10.00pm	*45 dB $L_{Aeq\ (15mins)}$*
10:00pm to 7:00am	*40 dB $L_{Aeq\ (15mins)}$*
Night-time L_{max} 10:00pm to 7:00am	*65 dBA L_{max}*

11.11.9 Rules: Noise

R9.11.1 Noise

Sound emissions from any activity in the Rural Zone when measured at or within the boundary of any land zoned for residential purposes or at or within the boundary of any land in the Rural Zone (other than land from within the noise is emitted or a road) shall not exceed the following:

7.00 am – 7.00 pm	*50 dB $L_{Aeq(15\ mins)}$*
7.00 pm to 10.00 pm	*45 dB $L_{Aeq(15\ mins)}$*
10.00 pm – 7.00 am	*40 dB $L_{Aeq(15\ mins)}$*
Night-time L_{max}	*10.00 pm – 7.00 am 70 dBA L_{max}*

Noise between Business Zones in the PNCC District Plan are required to achieve between 60 dB $L_{Aeq\ (15\ min)}$ to 70 dB $L_{Aeq\ (15\ min)}$ depending on the type of Business Zone the noise receiver and source are located within. This is typical as businesses are less noise sensitive than residential or rural properties, and generally do not change in sensitivity between daytime and night-time.

As outlined in Section 6.2 of the Palmerston North City Council District Plan, noise is to be measured in accordance with NZS 6801:2008 *Acoustics – Measurement of Environmental Sound* and assessed in accordance with NZS 6802:2008 *Acoustics – Environmental Noise*.

Specific noise sources (outside of the scope of this assessment) such as construction noise, road traffic noise, wind farms, and fixed wing and/or helicopters are to be assessed against the appropriate New Zealand Standard, rather than the fixed noise limits above.

3.2 NEW ZEALAND STANDARD NZS 6802:2008

The District Plan references NZS 6802:2008 for assessing noise emissions. New Zealand Standard NZS 6802 provides guidance daytime noise limit at the boundary of any residential zoned site or the notional boundary of any rural zone (20 metres from any habitable dwelling) of 55 dB $L_{Aeq(15\ min)}$ and an evening noise limit of 50 dB L_{Aeq} which have been set *"for the reasonable protection of health and amenity associated with use of land for residential purposes"*.

NZS 6802 states that a 60 dB $L_{Aeq(15\ min)}$ noise limit is appropriate during the day *"for the protection of amenity values for the character of a mixed-use area or zone"*, which could be considered adequate for commercial properties in this setting.

The use of the notional boundary for the assessment of noise is generally the area where the majority of residential living activities occur and is a more practical approach for this assessment.

3.3 WORLD HEALTH ORGANISATION

The World Health Organisation (WHO) *Guidelines for Community Noise* (1995) document discusses health effects for environmental noise exposure including sleep disturbance, annoyance and speech disturbance. This document states that a 55 dB L_{Aeq} noise limit at the boundary of residential zones or the notional boundary of dwellings in a rural zone over a 16 hour daytime period will ensure that few people are seriously annoyed by an activity and a 50 dB L_{Aeq} noise limit at any noise sensitive location over a 16 hour daytime period will cause few people to be moderately annoyed.

3.4 SUBJECTIVE DIFFERENCE IN NOISE LEVELS

The decibel scale is logarithmic rather than a linear scale, and hence a 3 dB increase in sound level represents a doubling of the sound energy present. The human perception of sound is subjective, but as a general guide the following list provides an indication of the subjective difference in perceived sound level based on broadband activities or similar sound sources under normal listening conditions.

- 1 to 2 dB: This is an imperceptible change in loudness
- 3 dB: Subjectively a barely perceptible change in loudness
- 5 to 6 dB: Noticeable increase in noise level of a sound source
- 8 to 9 dB: Obvious increase in the loudness of a sound source
- 10 dB: This is perceived as a doubling of the loudness of a sound source

These increases are based on the change in a noise level over a short time period. Where a noise source increases over a long period of time (such as traffic increasing on a road over multi-year period), this may have a lesser subjective impact.

3.5 DISCUSSION OF ACOUSTIC CRITERIA

Based on these guidance documents, appropriate noise limits have been proposed, which provide an acceptable level of noise in this instance. These have developed based on protecting the existing residential amenity, with a slightly relaxed design requirement adopted for the existing properties which are commercial in nature, at a level in keeping with the design requirement for commercial properties in an urbanised area.

Proposed project noise limits are provided in Table 3.1.

Table 3.1 Proposed Project Noise Limits

ZONE	TIME	NOISE LIMIT AT ADJACENT SITES
Residential Zone (noise limit applies at the boundary of the site being assessed)	0700 – 2200 hours	45 dB $L_{Aeq(15\ min)}$
Rural Zone (noise limit applies at the notional boundary of dwellings within this zone)*	0700 – 1900 hours	50 dB $L_{Aeq(15\ min)}$
	1900 – 2200 hours	45 dB $L_{Aeq(15\ min)}$
Rural Zone (noise limit assessed at site boundary for commercial activities on rural zoned land, abattoir and nursery)*	At all times	60 dB L_{Aeq}

* We have also undertaken a separate review of noise at the site boundary of adjacent sites against the District Plan Rural Zone rules for completeness

When comparing the current noise environment to the predicted noise environment, post implementing the crematorium and workshop proposal, a change in level of 3 dB or less at the site boundary (for the residential zone) or notional boundary (for the rural zone) would be an acceptable change in noise level. The subjective noise level difference would be barely perceptible.

Consideration also needs to be given to the actual noise level received at adjacent properties, as if this is below the maximum acoustic criteria outlined in Table 3.1, the effects of this predicted change may be limited and likely acceptable, even if there is a more significant change in noise level.

4 ASSESSMENT OF NOISE EFFECTS

The main noise sources associated with the operation of the relocated workshop and crematorium are expected to be:

- Break-out noise from the operation of the fans associated with the crematorium chambers.
- Noise from the stacks associated with the crematorium.
- Break-out noise from the workshop including extract systems.
- Noise generated by vehicles entering and exiting the site.

Noise from people outside of the building talking (such as from people on a coffee break, sitting outside during lunch, or guests walking from the car-park to the reception) are expected to produce minimal noise emissions. We would expect the effects of these to be negligible due to the relatively low level, infrequent occurrence and distance to surrounding boundaries. Therefore, noise from these sources is not considered within this assessment.

4.1 CURRENT ACTIVITY

Currently, the crematorium and workshop operate over two different sites. On the 8th of October 2020, George van Hout from WSP visited both the current workshop site and crematorium to undertake noise measurements of the current activities which occur at both of these sites. Example noise measurements of the existing kennel activity (as the cattery produced negligible noise) on the existing site were also undertaken for completeness. Results from the measurements are provided below.

4.1.1 WORKSHOP

The current workshop is located within an independent building, on a rural property not owned or operated by the applicant. This workshop is a shared working space, used by others (joinery business). During the time on site, people not associated with Soul Friends were also using the workshop space, however; measurements were only taken of machinery that is to be relocated to the proposed new workshop.

The workshop creates hand-made wooden urns for housing the ashes of pets for owners to keep. The machinery used in the creation of these wooden urns includes bench saws, drills, routers, planes, and belt sanders. Various hand tools are also used. The main equipment is summarised in Table 4.1.

Noise measurements were undertaken close (1.5 metres away) to the equipment, along with general reverberant levels within the space when multiple pieces of equipment were in operation. All measurements were undertaken within the workshop such that the influence from ambient noise (such as noise from birds and vehicles) was negligible.

Based on our site visit, observations of the use of the equipment were:

- Two workshop staff were on site while the site visit was undertaken.
- The equipment was not used continuously, so there were periods where no equipment was used. This ranged between 30 seconds and 5 minutes, depending on the activity that was occurring.
- Equipment was used concurrently, with staff undertaking various tasks, including using the bench saw and belt sander concurrently.
- Each piece of equipment had its own dedicated dust removal system (where relevant).

The equipment, and measured sound level is given in Table 4.1 below. Where reverberant noise levels are provided, measurements were undertaken away from the operational equipment such that one source was not dominant over the other. The reverberant levels were representative of the existing workshop environment.

Noise from handheld tools such as hammers, hand sand papering, hand saw, etc. did not generate significant noise levels compared to machinery outlined in Table 4.1. The equipment measured is considered to be amongst the noisiest activities in the workshop.

Table 4.1 Measured noise level of workshop equipment

Equipment	Noise Level
Belt sander with extract fan	75 dB $L_{Aeq(30\ sec)}$ at 1.5 m away
Bench router	78 dB $L_{Aeq(30\ sec)}$ at 1.5 m away
Bench side drill	75 dB $L_{Aeq(20\ sec)}$ at 1.5 m away
Bench planer	89 dB $L_{Aeq(20\ sec)}$ at 2 m away
Table plane/square edge	80 dB $L_{Aeq(20\ sec)}$ at 1.5 m away
Table saw	88 dB $L_{Aeq(30\ sec)}$ at 1.5 m away
Reverberant level with belt sander, extract fan and bench router	73 $L_{Aeq(30\ sec)}$ SPL_{rev}
Reverberant level with table plane/square edge and belt sander	73 dB $L_{Aeq(30\ sec)}$ SPL_{rev}
Reverberant level with table saw and belt sander operating	80 dB $L_{Aeq(30\ sec)}$ SPL_{rev}

Noise measurements were only undertaken while the equipment was operational. No long-term (15 minute) measurements were undertaken as the workshop was used by others and would not be representative of the new facility.

4.1.2 CREMATORIUM

The existing crematorium is located in a commercial precinct in Fitzherbert, in Palmerston North. The current building contains two large crematorium chambers and associated supply fans (for gas and air), with the two stacks penetrating through the roof to approximately 10 metres high.

Based on site observations, discussions with the client, and the Cremation Procedure document, once the cremator is loaded and shut, the following procedure is followed:

- The hearth fan is turned on to remove any fumes which may ignite. This runs for approximately 5 minutes.
- The after burner in the secondary chamber then turns on to heat the chamber and stacks. This runs for approximately 20 minutes.
- Both burners in the primary chamber then ignite, heating the chamber to approximately 800 degrees Celsius.
- The primary burners cycle on and off based on the temperature of the chamber to keep it at approximately 800 degrees Celsius.

The total time of each cremation depends on the weight which is loaded into the chamber. Typically, a 150 kg load (made up of multiple animals) is used, which takes between 2 and 2.5 hours to complete a single cycle.

WSP undertook measurements of the crematorium at the following locations:

— Within the room which houses the crematorium chambers as a reverberant noise level.

— 10 metres from the partial open door to the room which contains the crematorium chambers.

— Locations around the building where noise from the two stacks are dominant.

Outside the crematorium room, other noise sources were also audible during the measurement period, including vehicles on Tennent Drive, birdsong, and noise from other tenancies in the general area.

Noise measurements were made during the first three stages of the cremation process above. During our site visit, a cowl was installed on top of both towers to reduce rain from entering the stacks while the kiln dried. This made audible noise due to the air movement around the cowls. Once the cowls are removed, the less turbulent air is expected to result in lower noise levels; however, we have considered this worst-case level only with the cowl on for the purposes of this assessment.

The noise levels measured during our site visit of the crematorium operating are outlined in Table 4.2.

Table 4.2 Measured noise level of two cremators operating

Activity	Noise Level	Notes
Hearth fans operating only	81 dB $L_{Aeq(20\ sec)}$ SPL_{rev}	Measured inside the room (reverberant level) when hearth fans were only operating.
Noise from the stacks with hearth fans only	54 dB $L_{Aeq(20\ sec)}$ at 15 metres*	Measured behind building, away from traffic noise. Other noise was audible during measurements
Second fans and hearth fans operating only	83 dB $L_{Aeq(20\ sec)}$ SPL_{rev}	Measured inside the room (reverberant level) when hearth fans and secondary fans were operating.
Noise from the stacks with hearth fans and secondary fans	61 dB $L_{Aeq(20\ sec)}$ at 15 metres*	Measured behind building, away from traffic noise. Other noise was audible during measurements
Primary, secondary and heath fans all operating	84 dB $L_{Aeq(20\ sec)}$ SPL_{rev}	Measured inside the room (reverberant level) when all three sets of fans were operating.
Noise from the stacks with primary, secondary, and hearth fans operating	64 dB $L_{Aeq(20\ sec)}$ at 15 metres*	Measured behind building, away from traffic noise. Other noise was audible during measurements

*Noise was measured at a location 13 metres horizontally to the stacks, with the stacks approximately 8 metres above the measurement location.

The highest noise generating operation associated with the crematorium is when all six fans (two hearth fans, two primary fans, and two secondary fans) are operating concurrently.

During the initial stages when the heath fans are operating only, noise levels from the stacks are 10 dB lower overall. During the warming of the stacks when the secondary fans operate concurrently with the hearth fans, noise levels from the stacks are 7 dB lower. Therefore, noise levels on site will be lower than predicted within this report during other stages of crematorium use.

4.1.3 NOISE FROM EXISTING KENNELS

Noise measurements were undertaken at the proposed 94 Mulgrave Street site, near the boarding kennels and around the wider site. No noticeable noise was heard or measured from the cattery. Noise measurements around the kennels were taken to determine the noise generated by the kennels, and to assist in predicting the noise emissions from the existing activity on the site at the surrounding properties. Noise measurements were undertaken in the locations shown in Figure 4.1, which could be accessed easily from the site, and/or were near adjacent property boundaries.

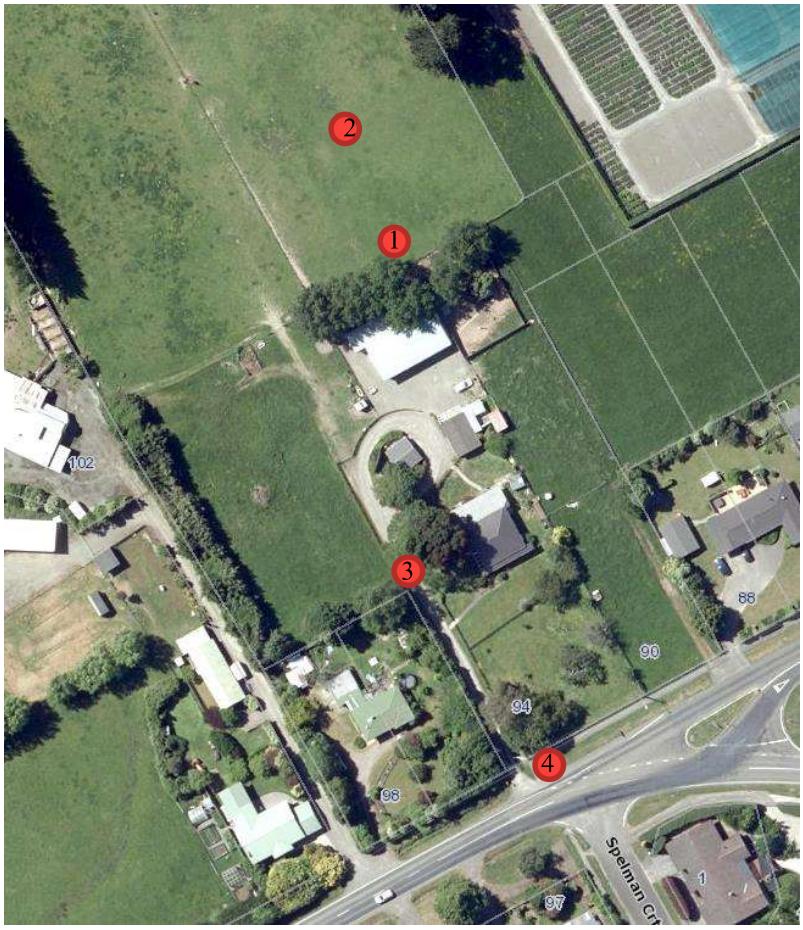

Figure 4.1 Locations of ambient noise measurements

Measurement locations were chosen near the kennels to accurately measure noise from this activity with minimal external interference. Due to the proximity of the measurements, dogs were more excited (barking) than a typical scenario (as the site engineer was not familiar to the dogs), and the owner has Operating Procedure Document and personality profile to match dogs so they are as calm (not barking) as far as practicable. Part of this operating procedure document is to isolate dogs who constantly bark. Noise measurements were undertaken at other various locations to negate this effect (location 3 above), however, other unrelated external ambient sources were also measured in these positions which affected the measured sound levels.

The measurements of the current operation were undertaken to compare the current noise generated on site to a scenario where cumulative noise from the kennels, crematorium and workshop are operating.

The noise levels measured on the 94 Mulgrave Street site were as follows.

Table 4.3 Measured ambient noise levels

POSITION	LOCATION	SOUND PRESSURE LEVEL	NOTES
1	10 metres away from kennels	56 dB $L_{Aeq(15\ min)}$	Noise from dogs barking was dominant. At other times planes, vehicles on road, construction activity, and noise from the nursery was audible
2	35 metres away from kennels	55 dB $L_{Aeq(15\ min)}$	Noise from dogs barking was dominant. When dogs were quiet, planes, vehicles on road, construction activity, and noise from the nursery was present
3	Near 98 Mulgrave Street boundary	52 dB $L_{Aeq(15\ min)}$	Noise from dogs barking was audible, and sometimes dominant with multiple dogs barking. Noise from traffic, especially heavy vehicles also becoming noticeable over dogs barking.
4	On footpath on Mulgrave Street, adjacent to entry of site	65 dB $L_{Aeq(15\ min)}$	Vehicle noise dominant. Noise from construction audible almost always. Dogs occasionally audible over vehicles. Plane overhead.

4.2 PREDICTED NOISE LEVELS

SoundPLAN Version 8.1 3D computational noise modelling software has been used to predict the transmission of noise from the proposal to adjacent noise sensitive receptors, based on the methodology contained within ISO 9613-2. The assessment takes into account attenuation due to distance and terrain as well as absorption by the atmosphere and ground. Our assessment assumes worst-case downwind conditions in all directions from the source which provides a conservative approach for assessment.

Under NZS 6802:2008, where an activity produces a Special Audible Characteristic (SAC) a 5 dB penalty shall be applied. While the measured noise spectrum from each equipment does not show overly tonal levels (when assessed in line with NZS 6802:2008), this equipment can be intrusive, impulsive, and includes high speed cutting. Therefore, we have included a 5 dB penalty for Special Audible Characteristics from the workshop.

For activities on site that occur for a limited duration, or that occur during the daytime period, but at a reduced rate to the peak period assessed, a -5 dB duration adjustment can be applied under NZS 6802:2008. We have allowed a -5 dB duration adjustment for vehicles entering and exiting the site only, as during the majority of the day (non-peak periods), vehicles movements will be considerably less than the peak periods at the beginning and end of the day.

4.2.1 MITIGATION

An acoustic fence is proposed along the boundary of the site and 98 Mulgrave Street, as shown in Figure 4.2. The acoustic fence shall comply with the following minimum specifications:

- Height: 1.8 metres (min.)
- Surface mass: 10 kg/m^2 (min.)

- The fence shall be constructed and maintained such that there are no gaps or cracks in the fence. Where timber is used, the paling shall be overlapped by a minimum of 25 mm or a board and batten system implemented. A sleeper rail will be required sealing the bottom of the fence to the ground.
- If timber is used, this would be constructed of 25 mm pine (or equivalent) to resist warping.

Figure 4.2 Location of acoustic fencing

4.2.2 NOISE FROM THE WORKSHOP ONLY

We have assessed noise emissions from the workshop space within the proposed building. The workshop takes up approximately a quarter of the building, in the southwest corner. There are five roller/sliding doors proposed in the façade of the building. We have assumed for this analysis that all roller doors would be open, reflecting a worst case scenario for noise break out.

The workshop is to be a similar size, scale, and have a similar acoustic environment (all hard surfaces) as the current workshop where the source noise level were measured. Based on our existing site noise measurements, we have calculated that a reverberant internal noise level of 90 dB L_{Aeq} within the workshop area may occur during the worst-case operation of the workshop, which includes a 5 dB correction for SAC. We have assumed that this level would be approximately constant over a 15-minute period. This in reality may not occur as equipment is turned on when in use, and off to inspect progress, or as hand tools (hand sanding, light drilling, hammering pins) are used which have a significantly lower noise level. Therefore, this assessment is expected to be conservative.

Based on the above, and accounting for the acoustic fence installed in the location outlined in Figure 4.2, the predicted noise emissions from the workshop are provided in Table 4.4.

Table 4.4 Predicted operational noise levels from the workshop only

Property Address	Distance to assessment location, m	Predicted noise Level (dB L_{Aeq}) inclusive of SAC	Property type	Noise Limit (dB L_{Aeq})	Compliant?
106 Mulgrave Street	176	43	Rural	50	Yes
167 Wyndham Street	268	< 30	Rural	50	Yes
88 Mulgrave Street	200	43	Residential	45	Yes
97 Mulgrave Street	266	36	Residential	45	Yes
98 Mulgrave Street	180	43	Residential	45	Yes
73 Winchester Street	160	44	Residential	45	Yes
83 Winchester Street	75	52	Rural Commercial	60	Yes
102 Mulgrave Street	45	52	Rural Commercial	60	Yes

A noise contour map showing the noise emissions from this activity is provided in Appendix A.

Table 4.1 demonstrates that noise levels are predicted to achieve the noise limits at the site boundary of all residential zones, the notional boundary of all dwellings in the rural zone, and the site boundary of rural zoned sites which are commercial in nature. Therefore, effects from the workshop operating concurrently are predicted to be reasonable.

4.2.3 NOISE FROM THE CREMATORIUM AND WORKSHOP OPERATING CONCURRENTLY

We have assessed the noise emissions from the proposed building when activities in the workshop occur concurrently with the operation of the crematorium. The crematorium takes up one-half of the proposed building across the length of the building. The stacks penetrate the roof of the proposed building and will stand approximately 10 metres high. The roller/sliding doors in the façade are required to be open to allow for ventilation to the crematorium chambers, and therefore have assessed a scenario where all roller/sliding doors are to be

Only two crematoriums chambers will operate concurrently. We have based our analysis on the noise measurements undertaken on site, with a calculated reverberant level within the building of 83 dB L_{Aeq} for two crematorium chambers operating, and noise out of the stack being 61 dB L_{Aeq} at 15 metres for one stack, both of which are assumed to be steady over a 15 minute period. The directivity of the stack for the measurements is generally representative of the directivity at receptor locations. The stack noise level is a worst-case scenario when the heath fan, after burner, and primary chamber burners all operate concurrently on both crematorium chambers. As described above, this would only occur after the first 25 minutes (the first 25 minutes is the hearth fan and secondary fan operating only) to heat the chamber up to 800 degrees Celsius. Once the chamber is at 800 degrees Celsius, the two primary burners will cycle on and off to keep temperature. Therefore, this noise assessment predicts the worst-case noise emissions generated. This level of noise would not occur for the entire operating period, as the cremators run for approximately 2.5 hours for a typical burn period, with a down period for cooling, unloading, and loading.

For the combined assessment it has been assumed that the workshop operation is the same as that outlined in Section 4.1.1.

Based on the above, and accounting for the acoustic fence installed in the location outlined in Figure 4.2, the predicted noise emissions from the workshop and crematoriums operating concurrently are provided in Table 4.5.

Table 4.5 Predicted operational noise levels from the workshop and crematorium operating concurrently

Property Address	Distance to assessment location, m	Predicted Noise Level (dB L_{Aeq}) inclusive of SAC	Property type	Noise Limit (dB L_{Aeq})	Compliant?
106 Mulgrave Street	176	45	Rural	Daytime 50	Yes
				Evening 45*	Yes
167 Wyndham Street	268	40	Rural	Daytime 50	Yes
				Evening 45*	
88 Mulgrave Street	200	44	Residential	45	Yes
97 Mulgrave Street	266	42	Residential	45	Yes
98 Mulgrave Street	180	45	Residential	45	Yes
73 Winchester Street	160	45	Residential	45	Yes
83 Winchester Street	75	54	Rural Commercial	60	Yes
102 Mulgrave Street	45	52	Rural Commercial	60	Yes

*Lower noise limit as the cremators will operate until 2200 hours, where the workshop will only operate until 1700 hours.

A noise contour map showing the noise emissions from this activity is provided in Appendix B.

Table 4.1 demonstrates that noise emissions are predicted to achieve the proposed noise limits at the site boundary of all residential zones, the notional boundary of all dwellings in the rural zone, and the site boundary of rural zoned sites which are commercial in nature, except for 114 Mulgrave Street. There is no dwelling on 114 Mulgrave Street site, and therefore no assessment location currently. We have assessed this

Therefore, effects from the workshop operating concurrently with the crematorium are predicted to be reasonable.

4.2.4 NOISE LEVELS AT RURAL SITE BOUNDARIES

As described in Section 3, noise levels at the boundaries of properties in the rural zones are not considered specific or appropriate to this application. However, for completeness, we have predicted the noise at the boundary of adjacent rural zoned sites for comparison to the general noise limits outlined in the PNCC District Plan. It is noted that these limits are not considered relevant to this specific application.

Regarding noise from the workshop operating solely, our predictions show that the noise level at the site boundary of all adjacent rural zoned sites achieve the District Plan noise limits except for 102 Mulgrave Street and 83 Winchester Street which are 2 dB higher than the general Rural Zone noise limits outlined in the District Plan. We have the following comments on this:

- A 2 dB increase is subjectively and imperceptible increase in loudness.
- These two properties are commercial in nature and so are less noise sensitive than residential rural type properties.
- The effects associated with the slight exceedances of the District Plan noise limits are negligible.

With regard to noise at the boundary of rural zoned sites when the workshop operates concurrently to the crematorium:

- The predicted noise levels exceed the general Rural Zone noise limits outlined in the PNCC District Plan at the boundary of the adjacent site, as shown in Table 4.6. We do not expect that these exceedances are significant or relevant, due to the following:
  - 83 Winchester Street and 102 Mulgrave Street are currently commercial in nature, as they are a nursery and abattoir (consecutively). These sites therefore a significantly less noise sensitive than residential activities and

would generate their own noise. Therefore, the Rural Zoned noise limits are not a good indication of effects at these properties

- The area which experiences elevated levels of noise above the Rural Zone noise limits at 167 Wyndham Street, 102 Mulgrave Street, and 114 Mulgrave Street are not near any residential dwellings. the land is currently used as pasture for stock, and in places has a stream running through (which would require a set-back if a residential dwelling is constructed).

- Due to the above, we therefore expect any noise effects with these exceedances are negligible.

Table 4.6 Technical non-compliance

Property	Technical non-compliance	
	0700 – 1900 Hours (50 dB L_{Aeq} limit)	1900 – 2200 Hours (45 dB L_{Aeq} limit)
83 Winchester Street	4 dB	9 dB
102 Mulgrave Street	2 dB	7 dB
114 Mulgrave Street	7 dB	12 dB
106 Mulgrave Street	-	1 dB

4.2.5 NOISE FROM VEHICLES ENTERING AND EXITING THE SITE

Vehicles will enter and exit the site as staff arrive and depart, when visitors come to the site, and for deliveries to the workshop and crematorium. The proposal is for car-parks to the north and south of the proposed building, with the sole entry and exit onto Mulgrave Street, utilising the existing entry/exit.

Based on advice from the operator of the crematorium, up to 10 staff are to work in the proposed new building. Staff will arrive at 0900 hours and generally depart at 1700 hours, Monday to Friday. Crematorium staff may depart later (prior to 2200 hours) if additional usage is required when a crematorium chamber is down for maintenance.

The occasional visitor or light delivery vehicle will occur during the day. All vehicle activities occur within the "daytime" period outlined in the PNCC District Plan. We have assumed that all staff would arrive or depart in a worst-case 15 minute period (7 vehicle movements).

It is proposed that the acoustic fence described in Section 4.2.1 will be installed along the boundary of the site shown in Figure 4.2. Staff would arrive and/or depart outside of when other activities occur in the proposed new building, and therefore we have assessed these scenarios in isolation.

We have undertaken calculations of light vehicles moving through the site based on a sound level of a vehicle drive-by having an SEL of 71 dB L_{AE} at 10 metres. The predicted noise from traffic is provided in Table 4.7.

Table 4.7 Predicted noise emissions from vehicles

Property Address	Distance to Boundary, m	Predicted Noise Level (dB L_{Aeq})	Property type	Noise Limit (dB L_{Aeq})	Compliant?
106 Mulgrave Street	42	34	Rural	50	Yes
167 Wyndham Street	120	30	Rural	50	Yes
88 Mulgrave Street	55	33	Residential	45	Yes
97 Mulgrave Street	26	36	Residential	45	Yes
98 Mulgrave Street	4	39	Residential	45	Yes
73 Winchester Street	55	33	Residential	45	Yes
83 Winchester Street	72	32	Rural Commercial	60	Yes
102 Mulgrave Street	42	34	Rural Commercial	60	Yes

As shown above, noise from traffic is predicted to be within the noise limits at the site boundary of adjacent residential zones, or at the notional boundary of any dwellings within the rural zone. Therefore, effects from noise associated with traffic are reasonable.

Noise from traffic are also predicted to be below the District Plan noise limit at the boundary of adjacent rural zone sites.

4.2.6 CHANGE IN EXISTING NOISE LEVELS RESULTING FROM THE PROPOSED CREMATORIUM AND WORKSHOP ACTIVITIES

We have assessed the total noise emissions from the proposed building, when activities in the workshop occur concurrently with the operation of the crematorium along with the kennels, against the existing noise generated by the existing kennels and cattery on site. Noise generated by the workshop and crematorium is described in Section 4.2.3.

We have predicted the current noise generated by the kennel activity on site based on the 15-minute noise measurements undertaken near the kennels (No noise was observed from the cattery and therefore have been excluded). A noise level of 56 dB $L_{Aeq(15\ min)}$ at 10 metres away from the outdoor runs has been used for the purpose of this assessment. This noise level has been modified for Special Audible Characteristics (SAC) and an allowance for averaging over the daytime period, in line with New Zealand Standard NZS 6802:2008, as the measured noise level was higher than what typically would occur on a standard day (as described above).

Based on our site inspections, the current fences surrounding the outdoor dog runs provide minimal acoustic attenuation, especially to the north, east and west (as this is a typical deer fence). We have assumed that the barking dogs are notionally equally spread over the outdoor runs.

Based on the above, assuming the operation of the proposed new crematorium and workshop, and the existing kennel and cattery operation on the site, the cumulative increase in noise levels at adjacent sites due to the inclusion of the proposed crematorium and workshop are provided in Table 4.8.

Table 4.8 Predicted change in noise levels from the inclusion of the workshop and crematorium operating concurrently

Property Address	Predicted Increase in Noise Level (dB L_{Aeq}) at notional boundary	Predicted Increase in Noise Level (dB L_{Aeq}) at site boundary	Property type
106 Mulgrave Street	0	0	Rural
167 Wyndham Street	0	0	Rural
114 Mulgrave Street	No notional boundary	2	Rural
88 Mulgrave Street	-	0	Residential
97 Mulgrave Street	-	0	Residential
98 Mulgrave Street	-	0	Residential
73 Winchester Street	-	0	Residential
83 Winchester Street	10	<1	Rural Commercial
102 Mulgrave Street	0	0	Rural Commercial

The noise contour showing the difference in noise level is provided in Appendix C. We have the following comments regarding the predicted changes in noise level:

- Noise from crematorium and workshop activities at 114 Mulgrave Street benefits less from distance attenuation than dogs from the kennels, as this noise source is significantly closer to the boundary of the site. However, the increase in overall noise is minimal and is generally perceived as an imperceptible change.
- Due to the screening of the existing building on the 114 Mulgrave Street site (assumes a semi-enclosed barn), the change in noise level on the 114 Mulgrave Street property is predicted to be up to 10 dB (as indicated in Appendix C). However, this change is over an area of the site, which is used as pasture, with the wider site not used for residential living and is therefore not expected to have a significant impact. This increase is due to the benefit of the existing acoustic screening provided by the barn from noise from the kennels compared to the direct noise from the proposed crematorium and workshop. The noise level received over the 114 Mulgrave Street is below the relevant fixed level criteria outlined in Table 3.1, and therefore is considered acceptable.
- The change in noise level at the notional boundary of 83 Winchester Street is due to the benefit of acoustic screening from the existing kennel noise. The existing buildings on the 83 Winchester Street are located in a way where the north portion of the site is screened from the noise generated by the kennels but will receive direct noise from the crematorium and workshop. As shown in Table 4.5, the noise level at the site boundary of 83 Winchester Street is predicted to be 54 dB $L_{Aeq(15\ min)}$ when the crematorium and workshop operate concurrently. The noise level received at the buildings (where the change in noise environment is the most significant) is below 50 dB $L_{Aeq(15\ min)}$ and the relevant fixed level criteria outlined in Table 3.1 and is therefore considered acceptable.
- A less than 1 dB increase is predicted at the boundary of 83 Winchester Street site. This change in noise level is subjectively an imperceptible change in noise level in a real world environment. Therefore, the change in noise level at this location is deemed acceptable.

Based on the above, the change in noise environment with the inclusion of crematorium and workshop is predicted to result in reasonable noise effects.

5 CONCLUSIONS

WSP has undertaken an assessment of the noise associated with the relocation and extension of the existing pet crematorium and workshop. The current site is split over two sites and it is proposed to be relocated to single new site at 94 Mulgrave Street, in Ashurst. The proposal is for a new building to the north of the site which will house four crematorium chambers and associated stacks (two existing and two new), along with the relocated workshop, a reception, staff areas, and chapel.

The activity at the site will generally occur between 0900 and 1700 hours Monday to Friday; however, the crematorium may run until 2100 hours on occasion if crematorium changers are non-operation due to maintenance. All staff will be offsite prior to 2200 hours.

Only two cremators will operate concurrently, along with the workshop. Cremation services will not operate all day, as each burn takes approximately 2.5 hrs to undertaken, with downtime between each burn for cooling, loading and unloading. The workshop will operate throughout the 0900 to 1700 hours period.

We have undertaken our assessment based on both the workshop operation in isolation, and separately based on the workshop and crematorium operating concurrently in a worst-case scenario. We have assessed noise from vehicles individually as staff will arrive or depart outside of when the crematorium or workshop operates.

Noise from the workshop operating only achieves the recommended noise limits at the boundary of any residential zone and notional boundary of any dwelling in the rural zone at all properties.

Noise from the workshop operating concurrently with the crematorium achieves the recommended noise limits at the boundary of any residential zone and notional boundary of any dwelling in the rural zone at all properties.

For completeness we have also assessed noise against the PNCC District Plan noise limits. Although these limits are exceeded in some areas, they are considered general targets and not appropriate to this application. The technical exceedances are over areas of land that are used for pasture/grazing of animals and a stream runs through a portion of this land. No residential dwellings are currently in this area. In addition, the 83 Winchester Street is used for a nursery and 102 Mulgrave Street is used for an abattoir, which are commercial activities, and so are not considered to be noise sensitive.

In addition, the change in the overall noise generated by the site is predicted to be imperceptible at all sites, apart from a small area of the nursery (83 Winchester Street), and the adjacent unoccupied site (114 Mulgrave Street). The areas which experience a perceptible change in noise level at both properties are largely screened from the existing noise from the kennels by the existing buildings on site, but will be subject to some direct noise impact from the proposals. However, the predicted level of noise resulting from the existing site activities and proposal is low enough that even with this change in noise level, the magnitude of noise is predicted to be acceptable and is within the project design criteria outlined in Table 3.1.

Therefore, on the basis of the assessments presented within this report, noise as a result of the crematorium and workshop on the site is not considered to be a material constraint to the reasonable operation of the facility.

APPENDIX A

NOISE CONTOUR FOR SCENARIO WHERE WORKSHOP OPERATES ONLY

Soul Friends Pet Crematorium and Workshop, Ashurst

Noise Contour of workshop operating only

Legend

- Workshop Operating Only - 50 dB LAeq Contour
- Proposed Building
- Rural Zone
- Residential Zone

0 30 60 90 m

1:2500 at A3

Map: 201210-5-P1403-GvH-MAP1	Author: GvH
Date: 10/12/2020	Approved by: CB

To be read in conjunction with WSP document: <REPORT_ID>

Map Source: Google Maps

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APPENDIX B

NOISE CONTOUR FOR SCENARIO WHERE 2 CREMATORIUM STACKS ARE OPERATING ONLY

Soul Friends Pet Crematorium and Workshop, Ashurst

Noise Contour of workshop and two cremators operating concurrently

Map: 201210-5-P1403-GvH-MAP2	Author: GvH
Date: 10/12/2020	Approved by: CB

N

0 30 60 90 m

1:2500 at A3

Legend

- Two Cremators and Workshop Operating Concurrently - 50 dB LAeq Contour
- Two Cremators and Workshop Operating Concurrently - 45 dB LAeq Contour
- Proposed Building
- Rural Zone
- Residential Zone

To be read in conjunction with WSP document: <REPORT_ID>

Map Source: Google Maps

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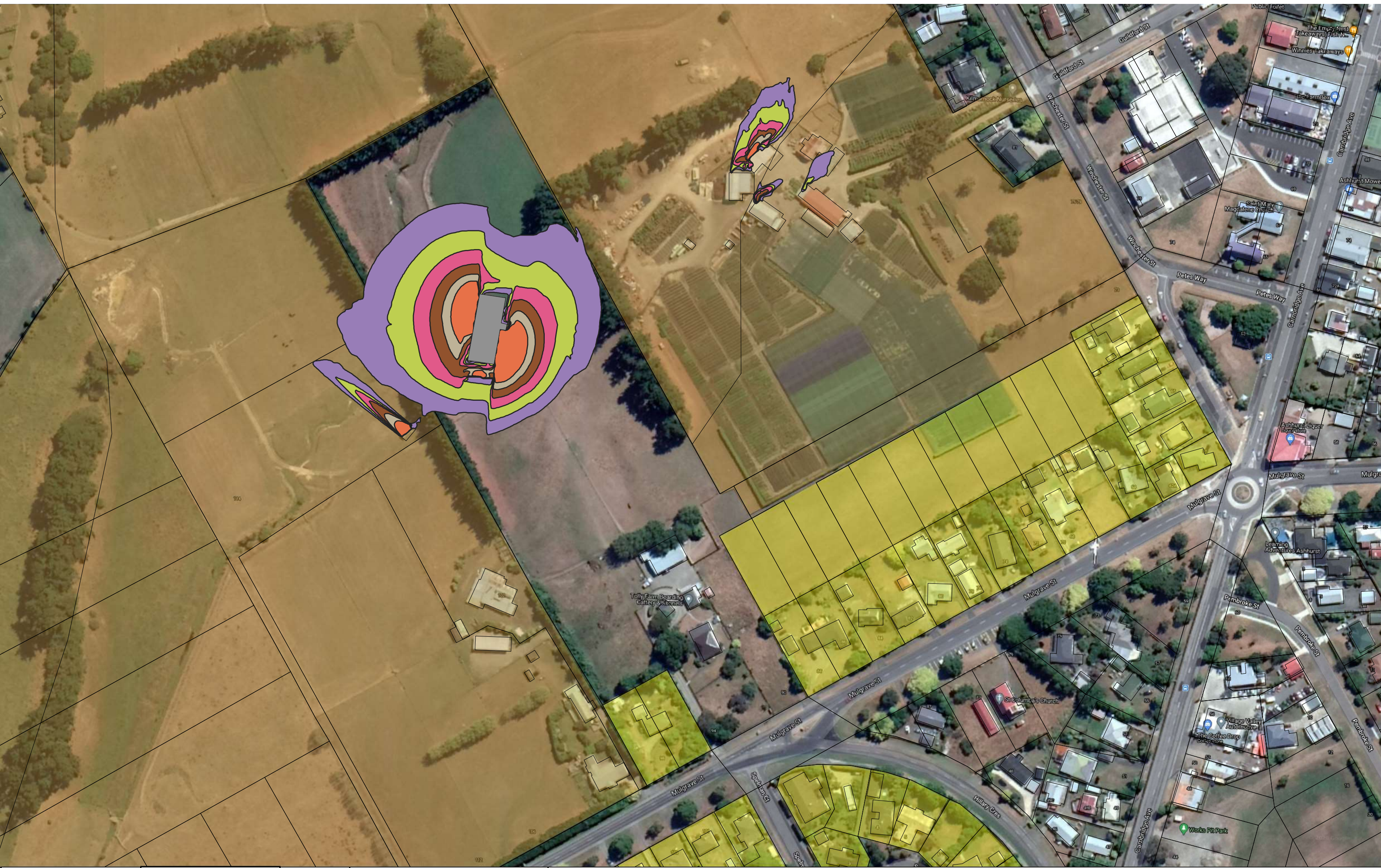
APPENDIX C

NOISE CONTOUR OF THE DIFFERENCE IN NOISE LEVEL FROM THE EXISTING ACTIVITY ON THE SITE AND THE NEW ACTIVITY ON THE SITE



Map: 210209-5-P1403-GvH-MAP3

Author: GvH

Date: 09/02/2021

Approved by: JJ

N

To be read in conjunction with WSP document:

Map Source: Google Maps

0 20 40 60 m

1:1800 at A3

Legend

- Proposed Building
- Rural Zone
- Residential Zone
- 10+ dB Difference
- 8-10 dB Difference
- 6-8 dB Difference
- 4-6 dB Difference
- 2-4dB Difference
- 0-2dB Difference

Soul Friends Pet Crematorium and Workshop, Ashurst

Noise Contour of difference between existing noise environment and proposed noise environment

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Appendix G – Preliminary Site Investigation

Project Number: 5-P1403.00

94 Mulgrave Street Ashhurst

Preliminary Site Investigation

5 March 2021

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150 YEARS IN AOTEAROA

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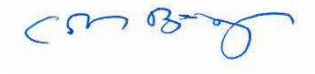

Approved for release by
Tabitha Manderson

Document History and Status

Revision	Date	Author	Reviewed by	Approved by	Status
1	February 2021	James Gladwin	Christopher Bergin	Tabitha Manderson	

Revision Details

Revision	Details
1	Preliminary Site Investigation

Contents

List of Figures

List of Tables

Disclaimers and Limitations

This report ('**Report**') has been prepared by WSP exclusively for Soul Friends Pet Cremations/Tolly Farm Ltd ('**Client**') in relation to [the preparation of resource consent applications] ('**Purpose**') and in accordance with the Short Form Agreement dated 23 June 2020. The findings in this Report are based on and are subject to the assumptions specified in the Report and the offer of service dated 16th June 2020 and initial planning assessment advice dated 1 September 2020. 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.

1 Introduction

1.1 Background

Soul Friends are looking to construct a pet crematorium at 94 Mulgrave Street in Ashhurst. The site has reportedly had a history of horticulture and Palmerston North City Council (PNCC) have requested a preliminary site investigation (PSI) be completed to better understand the contamination risks. This PSI will review the readily available historic information available to determine if any HAIL activities may have been present that are a potential risk to human health.

1.2 Purpose and scope

This PSI has been prepared to identify the contamination risks within the proposed site.

The objectives of this PSI are to:

- Provide a summary of the HAIL activities that are being, or have been, undertaken on or adjacent to the site.
- Support the resource consenting application process under the *Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011* ('the NESCS').

The scope of works comprised:

- A review of the following information:
    - Geological and environmental maps;
    - Historical aerial photographs
    - Palmerston North City Council (PNCC) Property Files
- Development of a sample plan followed by the collection of soil samples and analysis for contaminants of concern.
- Preparation of a PSI (this report).

This report has been completed in general accordance of MfE (2011b) Contaminated Land Management Guidelines No: 1 Reporting on Contaminated Sites in New Zealand.

This PSI has been prepared by a contaminated land specialist (CLS) and has been certified by suitably qualified and experienced practitioners (SQEP).

2 Site Location

The development site is located at 94 Mulgrave St in Ashhurst. The legal description of the site is Lot 2 DP 35100. The location of the site is shown in Figure 1 and a summary of the site information is provided in Table 2-1. A plan of the proposed development has been attached in Appendix A.

Figure 1 - Site location[1]

Table 2-1 - Summary of land information

Appellation:	Lot 2 DP 35100
Address:	94 Mulgrave St, Ashhurst
Land District:	Wellington
Surveyed Area:	4.0494 ha
Parcel Id:	4056951
Parcel Status:	Current
Titles:	WN12A/55
Owners:	Glendinnings Trustee Company Limited, Simone Carole Morrison

3 Site History

A review of the information available from PNCC and Historic Aerial Imagery has been completed. This section summarises the findings.

3.1 PNCC Property Files

A copy of the PNCC property file was provided by the client to WSP. The property file contained the following pertinent points:

[1] Site highlighted in yellow.

23/08/1957 – Building permit for workshop. Concrete floor, iron roofs and walls.

11/11/1966 – Building permit for cow shed. Concrete floor, iron roof, concrete block walls

11/02/1981 – Building permit for house extension. Concrete floor, iron roof, gib walls.

17/06/1981 – Building permit for garage. Concrete floor, iron roof, weatherboard walls (Potential Asbestos Containing Material).

02/02/1981 – Building alterations to service area. Involved demolition and construction. Concrete floor, decramastic tiles for roofing (Potential ACM) and timber walls lined with weather board (Potential ACM).

30/05/1988 – Extension. Concrete floor, iron roof and concrete block walls.

21/01/1993 – Building consent for granny flat includes plan Figure 2.

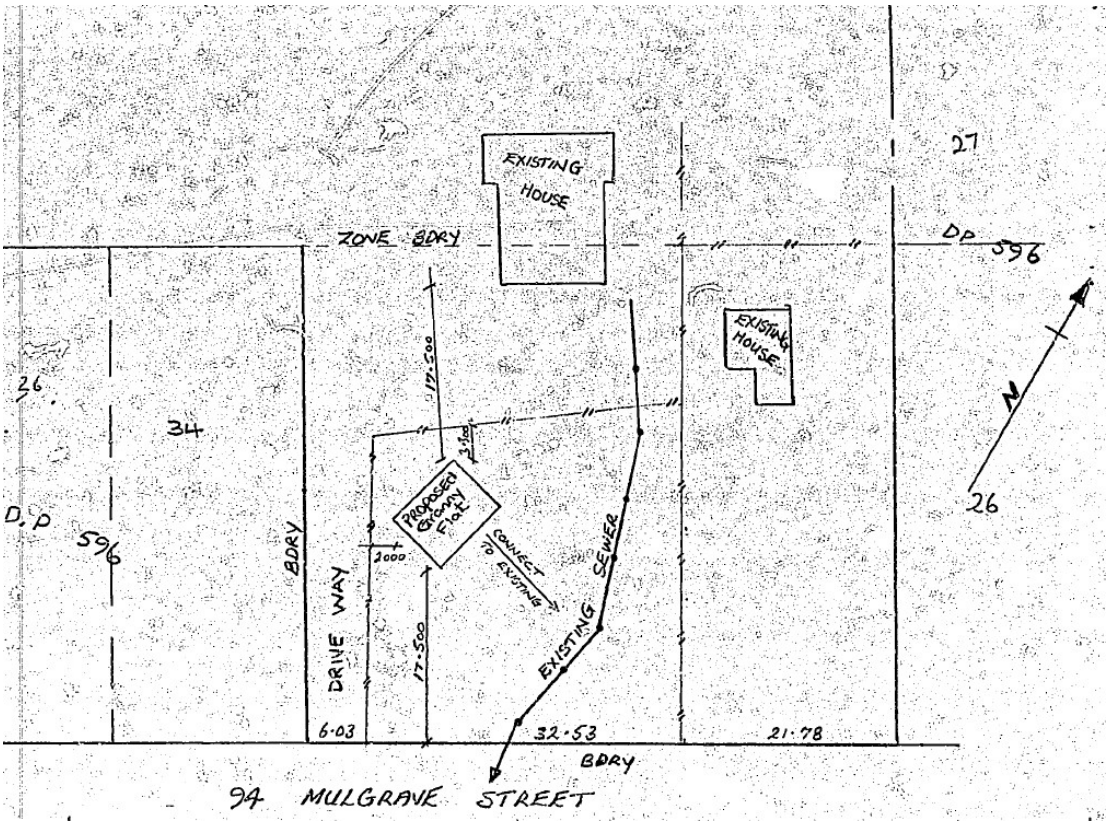

Figure 2 - Plan showing location of granny flat

1995 - Building alterations to existing northernmost house.

1997 – Consent to relocate granny flat outside of PNCC area.

29/11/2010 – Refurbishment of storage shed. Involved demolition of existing roofing and walls. Demolition plan outlines requirements to check for asbestos prior to work. Location plan is provided in Figure 3 and a photo showing HazChem 2WE Agrichemicals is provided in Figure 4.

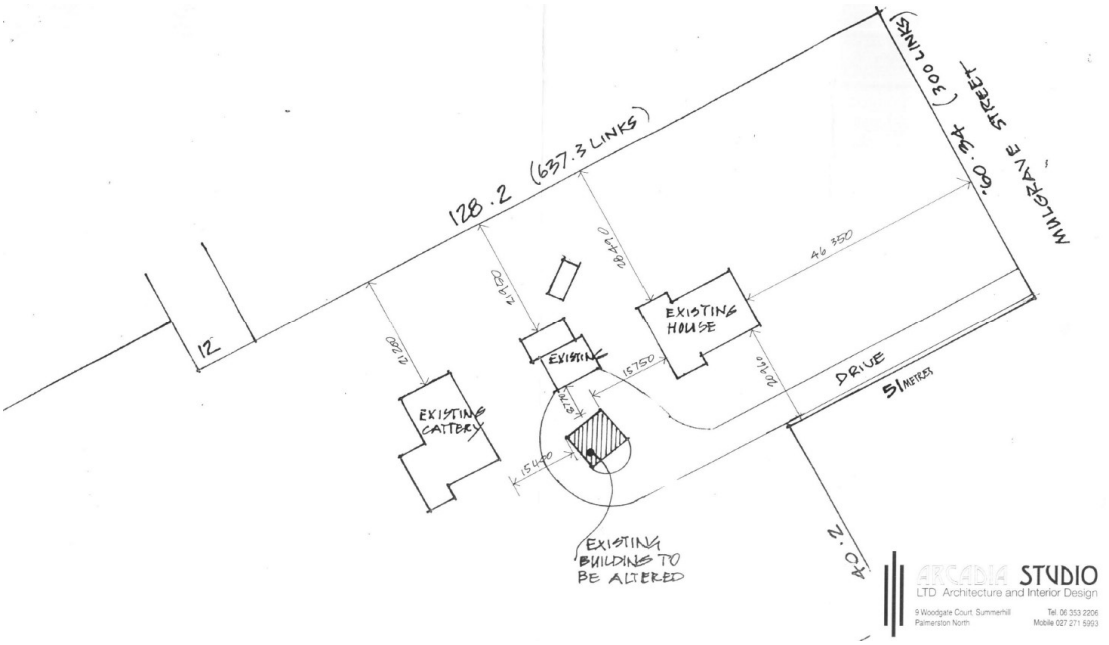

Figure 3 - Location plan of chemical storage shed

Figure 4 - Photo of chemical storage shed with HazChem signage

11/06/2012 – Application to install wood burner. Details northernmost house as being constructed in the 1850s.

06/05/2018 – Specifications for single dwelling on 94 Mulgrave Street for Tolley Farm Simone Morrison. Building consent to replace existing metal roof with coloursteel. Inspection completed by PNCC on 13/06/2018 to confirm replacement of roofing.

3.2 Historic Aerial Imagery

Historic aerial photographs from Retrolens, LINZ and Google Earth were reviewed. Aerial imagery between 1950 and 2019 was reviewed. There was a gap of 13 years between 1950 and 1963, a gap of 14 years between 1963 and 1977 and a gap of 20 years between 1981 and 2001 Licencing restrictions prevents the duplication of Google Earth Imagery in WSP reports. Aerial imagery from Retrolens and LINZ have been provided in Figure 5 to Figure 10.

Aerial imagery shows there may have been some market gardening activity towards the front of the property in the 1950 and 1963 imagery. The remainder of the front section has been occupied by residential properties, a chemical storage shed and a building that is listed as a cattery in Figure 3.

The large area of land to the rear of the property was paddock in all aerial imagery that was reviewed. **A summary of the aerial imagery that details the associated HAIL and contaminants of concern has been provided in Appendix B.**

Figure 5 – 1950

Figure 6 – 1963

Figure 7 – 1977

Figure 8 – 1981

Figure 9 – 2001

Figure 10 – 2019

4 Site Condition and Surrounding Environment

A site visit was completed by WSP on 25 February 2021 and a visual inspection of the proposed development area (Appendix A) was completed. The development area was found to be paddock with adjoining buildings to the south.

Figure 11 – Paddock looking south towards the front of the property

Figure 12 – Storage building

Figure 13 - Former workshop now cattery

Figure 14 - Residential Dwelling

Figure 15 – Office

Figure 16 - Agrichemical Storage

5 Geology and Hydrology

5.1 Geology

A site soil assessment completed by WSP shows that the soils onsite are dark greyish silty clay loams stoneless with 25% mottling down and poor drainage down to 0.4m, dark silty clay loam stoneless with 30% mottles and poor drainage between 0.4 and 0.45m and light grey silty clay loam stoneless with 65% mottles at +0.45m depth. The assessment indicates that the site has a perched water table.

NZ 1:250k Geological Units are identified as Late Pleistocene river deposits consisting poorly to moderately sorted gravel with minor sand or silt underlying terraces.

5.2 Hydrology

With exception of the stop bank along the stream, the site is very flat. Contours on the PNCC Online Maps indicates that the site slopes gently to the south slope towards the Manawatu River. The stream that flows through the northern part of the property discharges into the Manawatu River at Raukawa Road.

6 Basis for SGVs and SCSs

This section outlines the SGVs[2] and SCSs[3] used for this investigation.

[2] Soil Guideline Values
[3] Soil Contaminant Standards

6.1 Human Health

6.1.1 NESCS Soil Contaminant Standards

SCSs were selected from the Ministry for the Environment's "Contaminated Land Management Guidelines – Methodology for Deriving Standards for Contaminants in Soil to Protect Human Health" and the "User's Guide – National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health".

The "commercial / industrial outdoor worker" values found in "Table B2 – Soil Contaminant Standards for health (SCS (health)) for inorganic substances" and in "Table B3 – Soil Contaminant Standards for health (SCS (health)) for organic compounds" are considered most relevant and stringent criteria and have been provided in Table 6-1 and *Table 6-2Table 6-2 - Soil Contaminant Standards for health (SCS (health)) for organic compounds*. The SCSs have been selected on the basis that the site will be a commercial property.

Table 6-1 - Soil Contaminant Standards for health (SCS (health)) for inorganic substances

	Arsenic	Boron	Cadmium (pH 5)[1]	Chromium		Copper	Inorganic lead	Inorganic mercury
				III	VI			
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Rural residential / lifestyle block 25% produce	17	>10,000	0.8	>10,000	290	>10,000	160	200
Residential 10% produce	20	>10,000	3	>10,000	460	>10,000	210	310
High-density residential	45	>10,000	230	>10,000	1,500	>10,000	500	1,000
Recreation	80	>10,000	400	>10,000	2,700	>10,000	880	1,800
Commercial / industrial outdoor worker (unpaved)	70	>10,000	1,300	>10,000	6,300	>10,000	3,300	4,200

The Australian National Environmental Protection Measures (NEPM) specify low density residential soil contaminant standards for Nickel (6000 g/m^3) and Zinc 400000 g/m^3).

Table 6-2 - Soil Contaminant Standards for health (SCS (health)) for organic compounds

Scenario	BaP[1]	DDT	Dieldrin[2]	PCP	Dioxin	
					TCDD	Dioxin-like PCBs
	mg/kg TEQ	mg/kg	mg/kg	mg/kg	µg/kg TEQ	µg/kg TEQ
Rural residential / lifestyle block 25% produce	6	45	1.1	55	0.12	0.09
Residential 10% produce	10	70	2.6	55	0.15	0.12
High-density residential	24	240	45	110	0.35	0.33
Recreation	40	400	70	150	0.6	0.52
Commercial / industrial outdoor worker (unpaved)	35	1,000	160	360	1.4	1.2

6.1.2 Asbestos

The BRANZ New Zealand Guidelines for Assessing and Managing Asbestos in Soils prescribe the following levels for asbestos in soils as outlined in Table 6-3. The SCSs have been selected on the basis that the site will be a commercial property.

Table 6-3 – Asbestos SCS

Form of asbestos		Soil guideline values for asbestos (w/w)			
		Residential[1]	High-density residential[2]	Recreational[3]	Commercial and industrial[4]
ACM (bonded)		0.01%	0.04%	0.02%	0.05%
FA and/or AF[5]		0.001%			
All forms of asbestos – surface		No visible asbestos on surface soil[6]			
Capping requirements for residual contamination above selected soil guideline value					
Depth[7]	Hard cap	No depth limitation, no controls – except for long-term management			
	Soft cap	≥0.5 m			≥0.2 m

6.2 Environmental

The ANZECC Default guideline values (DGVs) for metal and organic toxicants in sediment are listed in

Table 6-4-2. The sediment DGVs indicate the concentrations below which there is a low risk of unacceptable effects occurring and should be used to help ensure the protection of aquatic ecosystems. In contrast, the 'upper' guideline values (GV-high), also listed, provide an indication of concentrations at which you might already expect to observe toxicity-related adverse effects (ANZECC, 2018).

Table 6-4 - Revised toxicant default guideline values and 'upper' guideline values for sediment quality[4]

Toxicant	DGV (mg/kg)	GV-high (mg/kg)
Arsenic	20	70
Cadmium	1.5	10.0
Chromium	80	370
Copper	65	270
Lead	50	220
Mercury	0.15	1.0
Nickel	21	52
Zinc	200	410
Total DDT	1.2	5.0
p.p'-DDE	1.4	7.0
o,p'- + p,p'-DDD	3.5	9.0
Chlordane	4.5	9.0
Dieldrin	2.8	7.0
Endrin	2.7	60
Lindane	0.9	1.4
TPH	280	550

6.3 Disposal of Spoil

The Predicted background levels for soils have been sourced from Landcare Research's Land Resource Information Systems (LRIS) Portal for the area. Predicted background levels have been

[4] https://www.waterquality.gov.au/anz-guidelines/guideline-values/default/sediment-quality-toxicants

included in *Table 6-5*. LRIS report that this data is intended "to provide an initial assessment of background soil concentrations at locations that are being assessed for use as clean-fills or managed fill or for the assessment of contaminated land".

These levels can be used to assess the materials suitability as clean fill.

Table 6-5 - Predicted Background Concentration (PBC) for geological unit classification Pakihi Mudstone represented as mean and 95th quantile estimates of the background concentration (mg/kg) [5]

Element	Symbol	Number of Samples	Median Background	95% upper limit for background (mg/kg)
Arsenic	As	87	2.38	9.97
Cadmium	Cd	11	0.065	0.33
Chromium	Cr	106	11.76	56.88
Copper	Cu	37	11.23	48.14
Lead	Pb	106	7.11	25.83
Nickel	Ni	100	6.24	35.15
Zinc	Zn	11	23.61	97.97

Class A and Class B landfill acceptance criteria (MfE, 2020) have been provided in *Table 6-6* for the contaminants of concern.

Table 6-6 - Landfill Acceptance Criteria

	Class A Landfill		Class B Landfill	
	Screening Criteria (mg/kg)	Concentration in Leachate (mg/L)	Screening Criteria (mg/kg)	Concentration in Leachate (mg/L)
Arsenic	100	5	10	0.5
Cadmium	20	1	2	0.1
Chromium (VI)	100	5	10	0.5
Copper	100	5	10	0.5
Mercury	4	0.2	0.4	0.02
Lead	100	5	10	0.5

[5] https://lris.scinfo.org.nz/layer/48470-pbc-predicted-background-soil-concentrations-new-zealand/

Nickel	200	10	20	1
Zinc	200	10	20	1

7 Site Characterisation

This investigation has identified that the rear of the site has been used for pasture since the 1950s. Potential sources of contamination include the use of agrichemicals, an above ground storage tank visible in the 1963 imagery (potential fuel storage) and potential asbestos associated with the renovations completed on old buildings.

7.1 Conceptual Site Model

Possible Contaminants of Concern	Likely Source	Potential Pathways	Potential Receptors
Metals OCPs	Agrichemicals	Ingestion Inhalation Dermal contact	Site workers / Maintenance and excavator workers
		Sediment runoff, shallow groundwater flows	Downstream surface waters
Asbestos	Renovations on historic buildings	Inhalation	Site workers / Maintenance and excavator workers
TPH[6]	Above ground storage tank	Ingestion Inhalation Dermal contact	Site workers / Maintenance and excavator workers
		Sediment runoff, shallow groundwater flows	Downstream surface waters

[6] Total Petroleum Hydrocarbons

8 Conclusions & Recommendations

WSP New Zealand Limited (WSP), has been engaged by the Soul Friends to complete this Preliminary Site Investigation (PSI) on 94 Mulgrave Street for the purpose of constructing a pet crematorium. WSP were informed that the site had historically been used for horticulture and that a PSI was required. The review of the historical information found that the development area on the site has not been used for horticulture. However, potential sources of contamination include agrichemical application, potential fuel storage in the 1960's and potential asbestos contamination from renovations to historic buildings. It is therefore recommended that some sample be completed to quantify the contamination (if any) from these potential sources:

- Five OCP[7] and metals analysis of near surface soils within the proposed footprint of the development and car park area.
- One hand auger to 1m depth downstream of the old above ground storage tank with analysis for TPH.
- A surface soil sample for % w/w asbestos in the car park footprint near to the chemical storage shed that was renovated in 2010.

[7] Organochlorine Pesticides

9 References

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MfE. (Revised 2011). *Contaminated Land Management Guidelines No. 1*. Wellington: Ministry for the Environment.

MfE. (Revised 2011). *Contaminated Land Management Guidelines No. 5*. Wellington: Ministry for the Environment.

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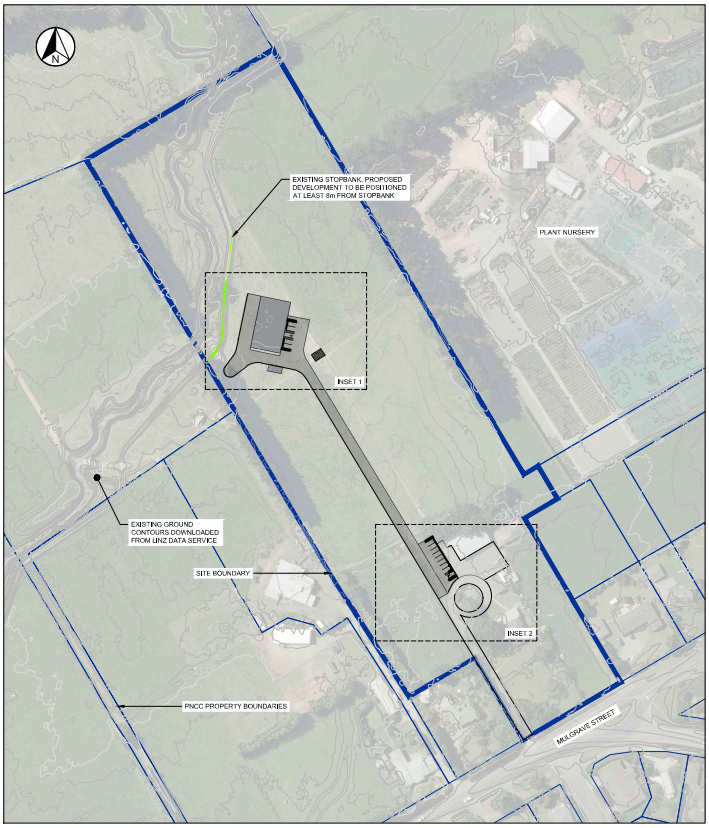
Appendix A
Proposed Development



SITE LAYOUT
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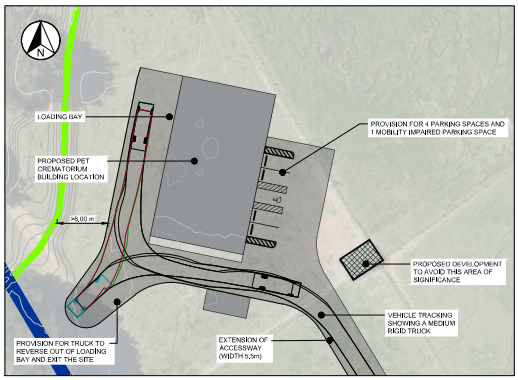
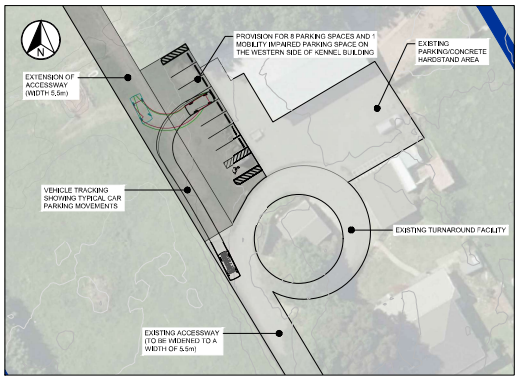


INSET 1
SCALE: NTS



INSET 2
SCALE: NTS

WORK IN PROGRESS
PRINTED 3/02/2021 9:16:28 AM

REVISION	AMENDMENT	APPROVED	DATE

Palmerston North Office
+64 6 350 0500
PO Box 1472
Palmerston North 4440
New Zealand

CIVIL

SCALES: AS SHOWN			ORIGINAL SIZE: A1
DRAWN: G. ROLFE	DESIGNED: DESIGNER	APPROVED: APPROVER	
DRAWING VERIFIED: VERIFIER	DESIGN VERIFIED: VERIFIER	APPROVED DATE: YYYY-MM-DD	

DRAFT FOR COMMENT

PROJECT:
SOUL FRIEND PET CREMATIOND
94 MULGRAVE STREET
SOUL FRIENDS PET CREMATORIUM

TITLE:
GENERAL SITE LAYOUT

WSP PROJECT NO. (SUB-PROJECT)	SHEET NO.	REVISION
5-P1403.00	C01	A

Original sheet size A1 (841x594) Plot Date 2021-02-03 at 9:16:28 AM C:\Users\gro162\Desktop\Soul Friends Crematorium\Site Plan.dwg Option 2

Appendix B
Historic Aerial Summary

Summary Historic Aerial Imagery

Prepared by: wkjwg0 Approved by: gmcmb0 Project: 5-P1403.00

Aerial Imagery data obtained from LINZ under Creative Commons License CC BY 4.0. Parcel boundaries are to be taken as approximate only.

Metres
0 12.5 25 50
1:1,000 @ A3

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03 March 2021

wsp.com/nz

Appendix H – Iwi Correspondence

Dowse, Samantha

From: Manderson, Tabitha
Sent: Thursday, 17 December 2020 4:45 PM
To: Dowse, Samantha
Subject: FW: Soul Friends - various consent applications

Tabitha Manderson
Principal Planner

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tabitha.manderson@wsp.com

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From: Siobhan Karaitiana <Siobhan@rangitaane.iwi.nz>
Sent: Monday, November 9, 2020 9:35 AM
To: Manderson, Tabitha <tabitha.manderson@wsp.com>; Debbie Te Puni <Debbie@rangitaane.iwi.nz>
Subject: Re: Soul Friends - various consent applications

Kia ora Tabitha

I have forwarded onto iwi leaders. One response around general support however nothing else come back, I take this as no strong concerns. Very much support the approach of having a garden type space for whānau.

I also wanted to let you know that I am moving on from my role to take up a position as Environmental Adisor with Te Ahu a Turanga-Manawatū Highway Project. Hopefully, I will still bump into in this space ☺

Until my replacement has been confirmed please email Debbie with any correspondence going forward and she will put you onto the correct person to advise on any Rangitāne matters.

All the best and take care

Ngā manaakitanga

Siobhan Karaitiana

Taiao Planner

Te Ao Turoa Environmental Centre

Rangitāne o Manawatū

027 342 8400

From: Manderson, Tabitha <tabitha.manderson@wsp.com>
Sent: Monday, 2 November 2020 12:02 PM
To: Siobhan Karaitiana <Siobhan@rangitaane.iwi.nz>
Subject: Soul Friends - various consent applications

Kia ora Siobhan

As very briefly outlined on the phone (sorry it took a while to send the email ended up being off sick for a week), WSP are currently assisting a local business who wish to relocate an existing pet crematorium service to a property in Ashhurst (94 Mulgrave St). Various consents from PNCC and Horizons are required. Below is brief description of the proposed activities

> Soul Friends are a local business who undertake cremations of pets. They service the Manawatū, Horowhenua, Wairarapa, Kapiti, and Wellington regions. They currently operate their crematorium at 80 Tennent Drive, Palmerston North. The business will no longer be able to operate from this site from March 2022.
>
> At present deceased pets are picked up from vet clinics and taken to be cremated, however in the future Soul Friends wish to offer a more personalised service to their clients, one that recognises pets are an integral part to any family. To do this, they wish to move to a more welcoming site than the industrial complex they currently operate out of.
>
> What is currently proposed is for development and operation of the following at the site:

- Constructing the necessary building (a Totalspan shed to house the crematorium and woodworking workshop and spray booth for urn finishes);
- Discharging to air contaminants from cremating domestic animals and incinerating documents, biological, pathological and medical wastes;
- Autoclaving sharps for disposal at landfill;
- Undertaking aquamation using alkaline solution;
- Establishing a woodwork workshop and spray booth for urn finishes ;
- Establishing a memorial garden for the public to visit from 7am to 7pm Monday to Sunday.

The business would also be open to the public from 9am to 5pm Monday to Friday and by appointment on weekends. 6-7 staff would be onsite during these hours of operation in addition to those who work at the Tolly Farm Boarding Cattery and Kennels, which would continue to operate at the site too.

Soul Friends and Tolly Farm Boarding Cattery and Kennels are committed to being good neighbours and are looking at what would be appropriate mitigation for the site. This is likely to include management plans, that would include a 'complaints register', robust maintenance programme for equipment used on the site and potentially landscaping to ensure the amenity of the area is maintained.

Attached is the initial site plan showing where the new building (to house the crematoria and non-denominational chapel) would go. This is not yet to scale. You might be able to pick up that there is a stopbank adjacent to the stream that runs through the north-west corner of the property (I've not yet established if there is a specific name for this stream, at the moment understand it's likely a tributary of the Manawatu River). No physical works (earthworks associated with building construction) will be undertaken within 8m of the stopbank. No stream works are proposed.

The memorial garden would be established in the north west corner, the area currently bordered by some existing vegetation. Access would be via an existing culvert and would be foot traffic only.

We are currently working through our various technical reports. Reports include noise modelling, landscape/amenity assessment, traffic assessment, soils assessment and an air quality report is being done (this is being led by Deborah Ryan of PDP).

Mitigation that we know will be required (recommended by our various experts) will include an acoustic fence around the kennel area (existing buildings more on the eastern side of the property) and some landscaping around the new building (exact location to be determined we are still just working through this). Noise is probably the biggest effect we are dealing with.

Consent is being sought from PNCC for the various activities. Crematorium are considered to be an 'industrial' activity under the District Plan and is a non-complying activity in the rural zone. The other activities that require consent include the boarding kennels (discretionary activity, though worth noting the kennels have been operating under existing use rights for some time but there is no documentation so the client is wanting to 'put it right') and likely to be a traffic non-compliance (potentially at times exceed 100 movements a day at times).

From Horizons an air permit as a discretionary activity. While waiting for the air quality report, and I would not prejudice the findings of this, from discussions with Deborah it is unlikely to result in breaches of the various air quality standards (NES or One Plan). As a rule of thumb modern cremators are 'clean burning' provided they are maintained and operated correctly. I will be guided by the technical report in respect of any specific conditions required.

We are currently assisting our client with the preparation of a management plan. As above the client is committed to being a good neighbour.

We are in the consultation phase of the consent preparation currently, hence my email to you. We are seeking feedback regarding the proposal and wanting to address concerns through mitigation, if possible.

I hope the above provides enough information for initial discussion. Due to the timing of when the lease expires for the existing operation we do have a bit of a tight timeframe for lodging the consents (will be lodged later this month) but we can continue to assist with determining appropriate mitigation. If any of the various technical reports will assist them happy to provide these once they are finalised. We have an information evening for surrounding landowners on Tuesday evening, we may get additional feedback at that which could influence what happens with the consenting strategy.

Please let me know if I can provide more details at this stage.

Nga mihi

Tabitha

(and sorry not sure what has happened to the macrons)

-LAEmHhHzdJzBlTWfa4Hgs7pbKl

Dowse, Samantha

From: Manderson, Tabitha
Sent: Thursday, 17 December 2020 4:46 PM
To: Dowse, Samantha
Subject: FW: Soul Friends Consent Application - request for consultation
Attachments: Tolly Site Plan with container.pdf

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From: Manderson, Tabitha
Sent: Wednesday, December 2, 2020 3:01 PM
To: raukawakitetonga@gmail.com
Subject: Soul Friends Consent Application - request for consultation

Kia ora

WSP are currently assisting a local business who wish to relocate an existing pet crematorium service to a property in Ashhurst (94 Mulgrave St). Various consents from PNCC and Horizons are required. Below is brief description of the proposed activities. We would welcome the opportunity to discuss this proposal with Ngāti Raukawa. Apologies if correspondence has already been received in regards to this proposal, I fear my contact list is not as up to date as it should be.

Soul Friends are a local business who undertake cremations of pets. They service the Manawatū, Horowhenua, Wairarapa, Kapiti, and Wellington regions. They currently operate their crematorium at 80 Tennent Drive, Palmerston North. The business will no longer be able to operate from this site from March 2021.

At present deceased pets are picked up from vet clinics and taken to be cremated, however in the future Soul Friends wish to offer a more personalised service to their clients, one that recognises pets are an integral part to any family. To do this, they wish to move to a more welcoming site than the industrial complex they currently operate out of.
What is currently proposed is for development and operation of the following at the site:

- Constructing the necessary building (a Totalspan shed to house the crematorium and woodworking workshop and spray booth for urn finishes);
- Discharging to air contaminants from cremating domestic animals and incinerating documents, biological, pathological and medical wastes;
- Autoclaving sharps for disposal at landfill;
- Undertaking aquamation using alkaline solution;
- Establishing a woodwork workshop and spray booth for urn finishes ;
- Establishing a memorial garden for the public to visit from 7am to 7pm Monday to Sunday.

The business would also be open to the public from 9am to 5pm Monday to Friday and by appointment on weekends. 6-7 staff would be onsite during these hours of operation in addition to those who work at the Tolly Farm Boarding Cattery and Kennels, which would continue to operate at the site too.

Soul Friends and Tolly Farm Boarding Cattery and Kennels are committed to being good neighbours and are looking at what would be appropriate mitigation for the site. This is likely to include management plans, that would include a 'complaints register', robust maintenance programme for equipment used on the site and potentially landscaping to ensure the amenity of the area is maintained.

Attached is the initial site plan showing where the new building (to house the crematoria and non-denominational chapel) would go. This is not yet to scale. You might be able to pick up that there is a stopbank adjacent to the stream that runs through the north-west corner of the property (I've not yet established if there is a specific name for this stream, at the moment understand it's likely a tributary of the Manawatu River). No physical works (earthworks associated with building construction) will be undertaken within 8m of the stopbank. No stream works are proposed.

The memorial garden would be established in the north west corner, the area currently bordered by some existing vegetation. Access would be via an existing culvert and would be foot traffic only.
We are currently working through our various technical reports. Reports include noise modelling, landscape/amenity assessment, traffic assessment, soils assessment and an air quality report is being done (this is being led by Deborah Ryan of PDP).
Mitigation that we know will be required (recommended by our various experts) will include an acoustic fence around the kennel area (existing buildings more on the eastern side of the property) and some landscaping around the new building (exact location to be determined we are still just working through this). Noise is probably the biggest effect we are dealing with.

Consent is being sought from PNCC for the various activities. Crematorium are considered to be an 'industrial' activity under the District Plan and is a non-complying activity in the rural zone and there could be a traffic non-compliance (potentially at times exceed 100 movements a day at times).

From Horizons an air permit as a discretionary activity. While waiting for the air quality report, and I would not prejudice the findings of this, from discussions with Deborah it is unlikely to result in breaches of the various air quality standards (NES or One Plan). As a rule of thumb modern cremators are 'clean burning' provided they are maintained and operated correctly. I will be guided by the technical report in respect of any specific conditions required.
We are currently assisting our client with the preparation of a management plan. As above the client is committed to being a good neighbour.

We are in the consultation phase of the consent preparation currently, hence my email to you. We are seeking feedback regarding the proposal and wanting to address concerns through mitigation, if possible.

I would greatly appreciate if someone was able to contact me with regards to the above. More than happy to help arrange a site visit if this would be of assistance.

Nga mihi
Tabitha

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Appendix I – Simon Barnes Memorandum

Tolly Farm Land use options.

This document is to summarise the considerations given to possible land use operations a Tolly Farm, Ashhurst.

Kennels

In regards to the existing Kennel Operation, the current set up is not a money making exercise. Costs to operate a facility like this, particularly compliance costs (including resource consent costs) mean that scaling the business is not viable. Our experience is that the operation struggles to break even on its own, and increasing the size of the kennels would not yield any greater returns. In summary, the costs increase in direct proportion to the size of the operation.

The kennel operation is supplemented with "added value" services such as Pick-up Drop offs, walking and grooming. These are all part of the current setup and contribute to the overall financial performance of the business.

Other Land Based Options

In consideration to other potential revenue streams, research was conducted into the financial benefits of various farming and Horticulture activities. Sources of data for potential revenue were as follows –

- Wrightson Farm Surveys
- Chartered Accountants KPI Benchmarking data
- Beef and Lamb NZ Ltd

We did not look at any activity that required major infrastructure investment as this is not possible. Other assumptions as follows –

- Full land area (4ha) available for productive use (i.e. Maximum yields)
- No allowance for small scale operation – i.e. based on large farming data (maximum efficiency)
- No allowance for regional climate factors
- No costs for debt servicing have been used (true Gross Margins)
- Non irrigated land use
- No conversation/set up costs allowed for

Noting the assumptions the options below are therefore considered to represent upper potential returns.

Small Farm

Here we looked at the activities of Wool, Sheep & Beef, Dairy Grazing, Deer & Velvet and Cash Crops.

Best returns were provided by Sheep & Beef with a combined return of $380 per Hectare. If we apply this to Tolly Farm and assume utilisation at the maximum of 4 Ha, then we could see a return of $1,520 per annum.

Crops

A number of Crop scenarios were looked at and the best returns were from Asparagus. An annual return of $12,920 for Tolly Farm was possible.

Orchards

Kiwi Fruit Gold have very attractive returns of $120,000 per Ha for a possible annual return of $480,000.

Other

Other possible options considered were Honey and Forestry. Returns were $4,000 per annum for Honey and $100,000 per annum for Forestry.

Conclusions

The best returns are from Kiwi Fruit Gold. Whilst the returns are spectacular, it is not something that would be viable in the Manawatu Climate. This is confirmed by the lack of such operations in the region.

Based on the soils assessment undertaken for the site, only 2.2hectares is assessed as being Class 2 land which is understood to be more versatile.

Based on this, the scenarios of Orchards were discounted.

Cropping would be possible and has been considered as an alternative/additional income stream. The returns are poor with the best option at a modest $12,920 pa for Asparagus.

The most likely operation to succeed in terms of easy set up and ongoing maintenance is Sheep & Beef. Little infrastructure investment would be required and the cost to run would be comparatively low. But the returns are low at $1,520 pa.

Based on these results, it was clear that trying to generate income from the land was not a viable option from a business point of view.

Our view is to maximise the return to the business by combining the Cremations part of the operation with the kennel operation on the same parcel of land.

Prepared By

Simon Barnes

Prime Strategies Group

Improving business performance

Appendix J – Consultation Summary

Memorandum

To	Simone Morrison
Copy	Tabitha Manderson, Simon Barnes
From	Samantha Dowse
Office	Palmerston North
Date	17 December 2020
File/Ref	5-P1403.00
Subject	Information Evening Attendees and Concerns Expressed

An Information Evening was held on Tuesday 3 November 7pm at the Centennial Room at the Village Valley Centre in Ashhurst. The following table outlines attendees and their addresses. Note, some attendees did not record their name and address.

Name	Address
Phil Wycherley	1 Spelman Court
John Wycherley	160 Wyndham Street
Scott Currie	83 Winchester Street
Bevan Currie	83 Winchester Street
Bradley Currie	145 Wyndham Street
Ross and Meryl Simcox	86 Mulgrave Street
Kevin and Janelle Ramsay	161 Wyndham Street
David and Elizabeth Thompson	167 Wyndham Street
Bryce Ilton	42 Hanlon Road
Richard Holdsworth	97 Mulgrave Street
Sanjana Ellwood	103 Mulgrave Street
Judy McFarlane	101 Mulgrave Street
Dave Denton	106 Mulgrave Street

Issues and concerns raised at the meeting by those who attended included:

- Hours of operation – 10pm perceived too late
- Dog noise as a result of further activity onsite
- Smoke

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- Odour
- Traffic
- Incompatible land use – a crematorium near residential properties not seen as appropriate
- Property values
- Safety of surrounding properties in regard to contaminants
- Flood risk and contaminants entering water
- Future residential development of Ashhurst
- That the wider community should be notified

Attendees were invited to fill out a feedback form and return to WSP. Below are the feedback forms transcribed.

Your Name	Judy McFarlane
Address	101 Mulgrave Street, Ashhurst 4810
Describe your thoughts of the proposal	
I disagree with the proposal to relocate Soul Friend Pet Cremations to tolley farm. It is not the place to put a business in residential area where people live. We have to put up with constant barking, at certain times of the year where it is especially bad like Christmas time. The traffic is bad now, it will be worse for us getting in and out of our property, the amount of traffic that comes in and out of tolley farm now is bad but will be worse if this proposal goes ahead. I am also concerned about pollutants released into the air. The owners lack of disregard for her neighbours, this where we live. The owner does not live on property, therefore why should we have to put up with the proposal to go ahead, and all the issues that will come with it. I totally oppose this proposal.	

Your Name	R. Holdsworth
Address	97 Mulgrave Street, Ashhurst
Describe your thoughts of the proposal	
Description of my thoughts regarding Tolly farms and Soul Friends operating from the same plot of land at 94 Mulgrave Street, Ashhurst, Currently Tolly Farms. - Vehicle movements I were told in the meeting that a Rural zone property is allowed a total maximum of 100 vehicle movements per day, I would think they are getting close to that already, They are talking an extra 6 to 7 staff currently plus I are guessing 3 or 4 that are already there = 22 vehicle movements per day and that's if they don't go out to get snacks or lunch, Add the doggie day-care traffic and I witnessed from my letter box 5 vehicle	

movements in the 5 mins I where standing there from 6.00pm to 6.05pm on the evening of this meeting add to this the longer term boarding traffic, Now they are talking about Memorial Gardens (grave yard), Trucks dropping off dead animals, Mourners coming to morn the lost of there pets, People buying caskets and grave markers, Trucks/Couriers coming to pick these up to take to the other places they supply these two. Trades people to service/repair/upgrade equipment, Trucks to supply the chemicals and raw materials IE wood etc. This to me sounds like far too much traffic for a Rural/Residential site.

- I stated Rural/Residential because when I see the map shown at this meeting all I saw was a small piece of so-called rural land surrounded on 3 sides by residential properties. I don't see this to be a place for a commercial operation such as this.

- It was stated that it would operate from 7.00am to 7.00pm 7 days and no later than 10.00pm, evert vehicle light shines in my house (Office window) I have grown big trees to try and mitigate this already and as a result have limited access to my own driveway. When leaving that property, Not to mention the privacy aspect as I sit in my office or on my deck looking at them looking at me when they are leaving, So now they want to make the problem worse, I must admit I knew when I brough my property 10 years ago there were boarding Kennels across the road however I did not sign up to live by a Memorial garden, Crematorium, Wood working workshop, Doggie day-care and boarding Kennel, If that was there when I looked at the property for purchase I would not have brought it. I think there is a lot people who would feel like me and you can't tell me it would not put some potential buyers off my property if that was there not to mention the Value of my property.

- Noise if of real concern, I attach an article I found about neighbour of the canterbury Pet Crematorium with the Headline "Canterbury pet crematorium too much for neighbours" * they are saying it is loud, Very loud and from what I gather there is no woodworking workshop as well, I have done quite a bit of woodworking and it is a very noisy Hobby, To have a wood working workshop in a residential area would be like living by a building site going every day forever. At least a property being built has and end date whereas this never would not have a foreseeable end date and I are hard pressed to believe a total span shed would mitigate this noise.

- Smell I are also finding hard to believe that taken in dead animals and burning hair and flesh does not stink. Where does the exhaust go when the wind is blowing towards my house, I can smell the neighbourhood fire places when they light up in winter, I find it hard to believe I won't smell this operation when the wind is blowing my way, and what happens to the exhaust contaminates when it rains? Do they join with the water molecules and get washed to ground?

- This brings me to Death and the fact that they are proposing a Memorial site, Burning dead animals or aquamating them. This is something I really don't want to be reminded of every day when I get home. Everyday when I go to the letterbox and look at my window, sitting on my deck looking at a place where dead animals are sent to be disposed of. Not what I signed up for when I brought my property and again would not have brought if that was across the road.

- I did note at the meeting there where quite a lot of people there considering you sent approx. 12 letters out, this suggests to me that almost all that received a letter took the time to turn up. During this meeting there appeared to be quite a bit of concern about this project around the room so I are thinking I are not alone in being concerned about this.

- In Short, I think that although this land is zoned Rural it is surrounded by residential land. I think it will have a significant impact and does not belong in this environment, in my opinion

it belongs in a truly rural setting with no neighbours to speak of, only animals and trees or in an industrial/commercial environment as it is a commercial/industrial business really.

Regards,

Richard Holdsworth

*Article can be found at following link: https://www.stuff.co.nz/national/96359152/canterbury-pet-crematorium-too-much-for-neighbours

Your Name	Sanjana Ellwood
Address	103 Mulgrave Street, Ashhurst

Describe your thoughts of the proposal

I oppose the idea of Soul Friends Pet Cremations relocation because of pollutants that will be released in the atmosphere, residential area is not for crematorium. Historically crematoriums are considered to be build in industrial areas. I am also concerned about noise, odour, and increase in traffic. I am concerned about the owners attitude towards her current staff @ Tolly farm which is very poorly managed already, dogs are barking @ all hours of the day, and recently they escaped the doggy day-care. The owner doesn't live @ the site and it's clear the poor management that is in place currently.

I am also concerned about the owners non-transparency as only 12 letters were sent out to neighbours when clearly there are more than 12 houses that will be impacted by this consolidation of Simone's business. The 12 properties that were given the letters to, all appear to oppose this idea. I have no issues with Simone moving the Pet crematorium from Tennent Drive however putting it in the middle of residential area is not appropriate. I am opposing this idea.

Sanjana Ellwood.

wsp.com/nz