



Environmental Service & Design

ABN: 97 107 517 144

30 January 2020

Daniel Young
L1/176 Warrandyte Road
Langwarrin VIC 3910

Dear Daniel,

RE: Preliminary Site Investigation – 4-6 Boland Street Launceston

Environmental Service and Design (ES&D) has investigated the site at 4-6 Boland Street Launceston, in relation to any potentially contaminating activities formerly conducted thereon, including risk to potential receptors and other potential environmental issues which may arise due to development activities.

The assessment was guided by the principles and requirements contained within the National Environmental Protection (Assessment of Site Contamination) Measure, 1999 (as amended) (NEPM) according to its status as a state policy.

The investigation comprised a Preliminary Site Investigation as defined in NEPM Schedule B2, Section 2.1:

“Preliminary site investigations (PSIs) usually include a desktop study to collect basic site information and identify the site characteristics (site location, land use, site layout, building construction, geological and hydrogeological setting, historical land uses and activities at the site), a site inspection and interviews with current and past owners, operators and occupiers of the site and nearby sites.

The preliminary investigation should be sufficient to:

- identify potential sources of contamination and determine potential contaminants of concern;



- identify areas of potential contamination;
- identify potential human and ecological receptors;
- identify feasible pathways by which contaminants and receptors may be linked;
- identify potentially affected media (soil, sediment, groundwater, surface water, indoor and ambient air)
- identify environmental issues which may arise because of development activities, or due to the change of use (increased disturbance due to increase in human activity).

With respect to contamination, if thorough preliminary investigation shows a history of non-contaminating activities and there is no other evidence or suspicion of contamination, further investigation is not required.”

It was concluded that the site does not present risk to potential receptors identified in the Conceptual Site Model (CSM), once the management measures are implemented.

As per Section E2.5 of the Launceston Interim Planning Scheme 2015:

- (c) a plan to manage contamination and associated risk to human health or the environment that includes:
 - (i) an environmental site assessment;
 - (ii) any specific remediation and protection measures required to be implemented before any use commences; and
 - (iii) a statement that the land is suitable for the intended use.

The details of the required investigation are documented in the following pages

Yours sincerely,




Rod Cooper BSc., CEnvP Site Contamination
Principal Consultant ES&D



Preliminary Site Investigation

4-6 Boland Street
Launceston

Project No: 6830

Date: January 2020



environmental service & design

ABN: 97 107 517 144
74 Minna Road
Heybridge TAS 7316
Ph: (03) 6431 2999

ACN: 107 517 144
PO Box 651
Burnie TAS 7320
www.esandd.com.au



Document Control

Prepared & Published by: ES&D
Version: Final
File: 6830
Contact: Rod Cooper
Phone No: (03) 6431 2999
Prepared For: Daniel Young

Version:			Date:
DRAFT 1	R McCormack	ES&D	28/01/2020
REVIEW	Rod Cooper	ES&D	29/01/2020
REVIEW	Carmel Parker	ES&D	29/01/2020
FINAL	R McCormack	ES&D	29/01/2020

This report has been prepared, based on information generated by Environmental Service and Design Pty Ltd from a wide range of sources. If you believe that Environmental Service and Design Pty Ltd has misrepresented or overlooked any relevant information, it is your responsibility to bring this to the attention of Environmental Service and Design Pty Ltd before implementing any of the report's recommendations. In preparing this report, we have relied on information supplied to Environmental Service and Design Pty Ltd, which, where reasonable, Environmental Service and Design Pty Ltd has assumed to be correct. Whilst all reasonable efforts have been made to substantiate such information, no responsibility will be accepted if the information is incorrect or inaccurate.

This report is prepared solely for the use of the client to whom it is addressed and Environmental Service and Design Pty Ltd will not accept any responsibility for third parties. In the event that any advice or other services rendered by Environmental Service and Design Pty Ltd constitute a supply of services to a consumer under the Competition and Consumer Act 2010 (as amended), then Environmental Service and Design Pty Ltd's liability for any breach of any conditions or warranties implied under the Act shall not be excluded but will be limited to the cost of having the advice or services supplied again. Nothing in this Disclaimer affects any rights or remedies to which you may be entitled under the Competition and Consumer Act 2010 (as amended). Each paragraph of this disclaimer shall be deemed to be separate and severable from each other. If any paragraph is found to be illegal, prohibited or unenforceable, then this shall not invalidate any other paragraphs.

Contents

1	Introduction	1
2	Author Details	2
3	Scope of Works.....	2
4	Basis for Assessment	2
5	Information Sources	3
5.1	Previous Reports	3
6	Site Details	3
6.1	Site Identification	3
6.2	Zoning.....	4
7	Site Description	5
8	Geology, Hydrology and Hydrogeology	5
8.1	Topography	5
8.2	Surface Water.....	5
8.3	Regional Geology.....	5
8.4	Regional Hydrogeology	5
8.5	Acid Sulphate Soils	6
9	Site History	6
9.1	WorkSafe Tasmania Dangerous Goods Licenses	7
9.2	Launceston City Council contaminated land records.....	7
9.3	EPA Property Information Request.....	7
9.4	Anecdotal Information	7
9.5	Historical Aerial photography	7
10	Site History Summary	11
11	Potential Site Contamination.....	11
11.1	Onsite contamination.....	11
11.1.1	Decommissioned UPSS	11
11.1.2	Workshop.....	11
11.1.3	Building material.....	11

11.2	Offsite Sources	12
11.2.1	Launceston Gasworks	12
12	UPSS Removal	12
13	Potential Receptors.....	13
14	Discussion	13
15	Conclusions and Recommendations.....	15
	References	17
	Appendices	18
	Appendix 1 – Site Plan.....	18
	Appendix 2 – Lab Results	19

List of Tables

Table 1:	Site details	3
Table 2:	CoPC's found above detection limits	12
Table 3:	Final Conceptual Site Model	14

List of Figures

Figure 1:	Site location	4
Figure 2:	Zoning – Urban Mixed Use.....	4
Figure 3:	Inferred Groundwater Flow Direction	6
Figure 4:	Aerial 1976 (Source: TheLIST)	8
Figure 5:	Aerial 1982 (Source: TheLIST)	9
Figure 6:	Aerial 1991 (Source: TheLIST)	9
Figure 7:	Aerial 2008 (Source: Google Earth).....	10
Figure 8:	Aerial 2018 (Source: Google Earth).....	10



1 Introduction

Environmental Service and Design (ES&D) were commissioned their client Daniel Young to undertake a Preliminary Site Investigation (PSI) on the proposed development at 4-6 Boland Street Launceston. The site has triggered the potentially contaminated land code due to a “fuel tank” previously buried on the site and proximity to the nearby gasworks.

The tank was removed in March 2018 by Tasman Geotechnics. The soil was tested against HIL and HSL for a commercial site. The proposed use for the site is residential therefore a review of the results is warranted.

The objective of the PSI was to conduct a site inspection and collate site historical information to determine whether other activities have occurred on or near the site which may result in contamination of the land and if so, whether the level of risk will increase with the proposed or future development.

Code E2 (Potentially Contaminated Land Code) of the Launceston Interim Planning Scheme 2015 stipulates that use or development of potentially contaminated land must not adversely impact on human health or the environment.

The following use and development are exempt for the code:

E2.5

P1. Land is suitable for the intended use, having regard to:

- (a) an environmental site assessment that demonstrates there is no evidence the land is contaminated; **or**
- (b) an environmental site assessment that demonstrates that the level of contamination does not present a risk to human health or the environment; **or**
- (c) a plan to manage contamination and associated risk to human health or the environment that includes:
 - (i) an environmental site assessment;
 - (ii) any specific remediation and protection measures required to be implemented before any use commences; and
 - (iii) a statement that the land is suitable for the intended use.

This report will comprise a summary of investigation pursuant to E2.5 - P1 (c).

2 Author Details

The preliminary site investigation was prepared by R McCormack and reviewed by C Parker and reviewed/certified by R Cooper, CEnvP Site Contamination and Principal Consultant, all of ES&D.

3 Scope of Works

The scope of the preliminary site investigation included:

- Desktop review of the site and surrounding land use history;
- Obtaining information from Work Safe Tasmania (WST) regarding potential storage of dangerous substances in the area surrounding the property;
- Determination of potential contaminants of concern;
- Field investigations and site visit;
- Consideration of the site's environmental settings;
- Identification of potential human and ecological receptors and consideration of risks to identified receptors;
- Development of a Conceptual Site Model (CSM); and,
- Preparation of the assessment report.

4 Basis for Assessment

As a State Policy for the purposes of State policies and Procedures Act 1993, the National Environmental Protection (Assessment of Site Contamination) Measure 1999 (NEPM) was the guideline used for the assessment.

The assessment included elements of a Preliminary Environmental Site Assessment as defined in NEPM Schedule B2. NEPM advises that if a thorough preliminary investigation shows a history of non-contaminating activities and there is no other evidence or suspicion of contamination, further investigation is not required (Schedule B2 and Section 2.1).

5 Information Sources

- Historic Dangerous Substances license information associated with WorkSafe Tasmania, Department of Justice;
- (the LIST) Land Information System Tasmania (www.thelist.tas.gov.au), accessed 24/01/2020;
- (GIP) DPIPWE Groundwater Information Portal (<http://wrt.tas.gov.au/groundwater-info>);
- Launceston Interim Planning Scheme 2015 (www.iplan.tas.gov.au), accessed 24/01/2020;
- National Environment Protection (assessment of Site Contamination) Amendment Measure 2013 (no. 1).
- Google Earth Pro, accessed 24/01/2020
- Site visit and interviews with the owner and neighbouring property.
- ESA and UPSS Decommissioning Report

5.1 Previous Reports

UPSS decommissioning was attempted by Jemrock in 2017 (ESA) and completed by Tasman Geotechnics in 2018. These two reports have been used to collate information for this assessment.

6 Site Details

6.1 Site Identification

The site comprises the following properties (Table 1):

Table 1: Site details

Street Address	Property ID	Title Reference	App. Area (m ²)
4-6 Boland Street	2853701	153116/1	710
13A Tamar Street	3457882 3457890	124938/1 124939/1	740

The properties at 4-6 Boland Street and 13A Tamar Street are owed by Becroft Nominees Pty Ltd.



Figure 1: Site location

6.2 Zoning

The site is currently zoned “Urban Mixed Use” (Launceston Interim Planning Scheme 2015, Figure 2) and is surrounded by “Open Space and “Urban Mixed Use” zoning. “Open Space” and “Environmental Management” (North Esk River) zoning is present to the north and “Particular Purpose” (J Boag and Son Brewery) zoning to the west. The current zoning is not expected to change as part of the proposed development.

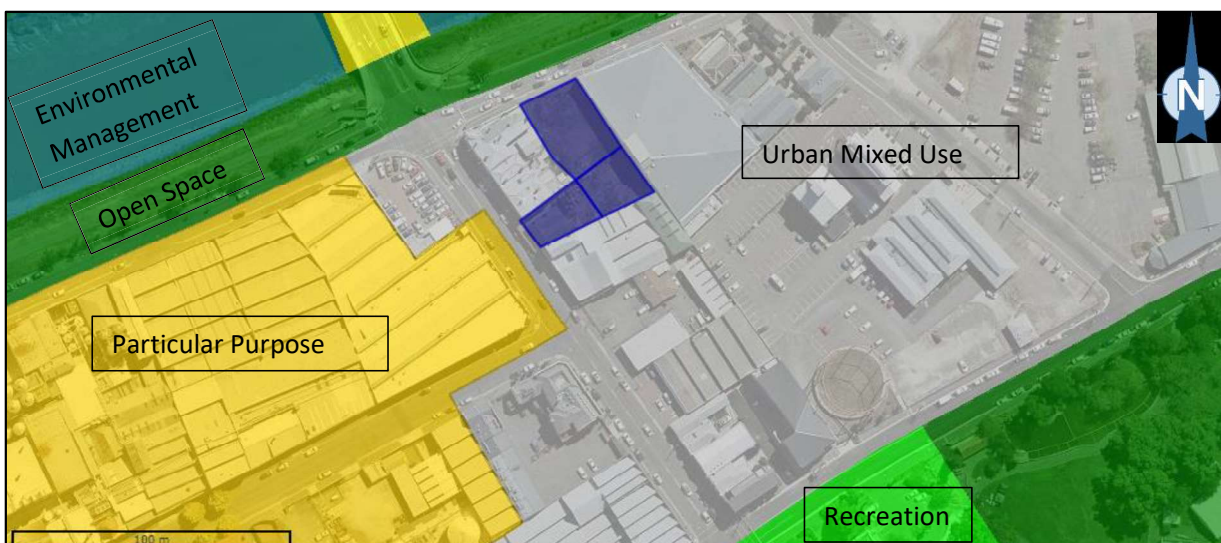


Figure 2: Zoning – Urban Mixed Use

PSI – 4-6 Boland Street



7 Site Description

The subject site is in an urban mixed area in Launceston. The site comprises three titles covering an area of 1450 m². The site is bound by Boland Street to the north, the Centrelink building to the east, the “Launceston Show Girls” to the west and commercial buildings to the south. A flood levee is located between Boland Street and the North Esk River.

Daniel Young plans to construct a four level, high density, residential accommodation over the three sites. The accommodation is intended to be occupied by University of Tasmania students.

8 Geology, Hydrology and Hydrogeology

8.1 Topography

A review of Google Earth indicates the local topography is relatively flat, with an elevation of 4 m AHD across the site. The site is expected to be further leveled during the construction of the carpark which will form the base of the residential block.

8.2 Surface Water

The nearest surface water body is the North Esk River on the opposite side of Boland Street to the north. The site is located approximately 900 m from where the North Esk River joins the River Tamar.

8.3 Regional Geology

The Mineral Resources Tasmania Digital Geological Atlas, 1:25,000 Series, Launceston sheet, shows the site to be located on undifferentiated Quaternary aged sediments.

8.4 Regional Hydrogeology

Groundwater is likely to flow towards the North Esk River. A representation of likely groundwater flow direction according to changes in topography is presented in Figure 3. Reference to the Department of Primary Industries, Parks, Water and Environment (DPIPWE) Groundwater Information Access Portal indicates there are no registered bores within 500m of the site. Groundwater is not extracted for drinking purposes in the area, water is supplied to the area from TasWater infrastructure.



Figure 3: Inferred Groundwater Flow Direction

8.5 Acid Sulphate Soils

Review of the LIST (Land Information System Tasmania) indicates that the site has “low” potential for acid sulphate soils based on the elevation. Foundations should be designed in accordance with **AS 2870-2011 Section 5.5.1** unless further testing can confirm this is not required.

9 Site History

The following information has been reviewed to determine the historical land use and assess the likelihood of potentially contaminating activities occurring on the site:

- WorkSafe Tasmania Dangerous Goods Records;
- Launceston City Council contaminated site records;
- EPA Property Information Request;
- Anecdotal information; and
- Historical aerial photographs

A title search was not deemed necessary after reviewing other documents and conducting interviews.

9.1 WorkSafe Tasmania Dangerous Goods Licenses

A search of the Historic WorkSafe Tasmania Dangerous Goods Licenses information was conducted. A 1,000 gallon underground storage tank (~ 3,700 L) was installed by Plaza Taxi Service in 1947, located in the rear of the shed at the southern end of the site.

9.2 Launceston City Council contaminated land records

Launceston City Council has indicated that contamination may have arisen onsite due to the proximity of the site to the Launceston Gasworks which was remediated in the early 2000's. There has been no evidence of any gas works occurring on the site. The city has a network of unmarked gas lines and so PAH is a risk.

9.3 EPA Property Information Request

A Property Information Request was submitted with the EPA in April 2017 as part of a previous study for the site. The information provided confirmed that an underground storage tank was present on the site at 13 Tamar Street. This tank was in use between 1947 and 1956. The adjacent site (8-10 Boland Street) was host to the Launceston Gasworks. Complaints were received in 2004 concerning odours originating from the gasworks site during its remediation.

9.4 Anecdotal Information

Interviews with previous operators indicated the Boland Street site was used as a head office for a local taxi company (1950s/1960s) and taxis did park on site. The Boland Street site was later used as a mechanic workshop providing basic car servicing and repairs. The property at 13 Tamar Street as accommodation/office space to support the mechanic workshop. It was reported that any wastes from the mechanic workshop were captured in containers and disposed of at the Remount Road Landfill.

9.5 Historical Aerial photography

A review of historical aerial photographs available on the LIST and Google Earth was undertaken to identify any historical potentially contaminating land uses in the area. Photos from 1976, 1982, 1991, 2008 and 2018 are shown in Figure 4-Figure 8 below.





Figure 4: Aerial 1976 (Source: TheLIST)



Figure 5: Aerial 1982 (Source: TheLIST)



Figure 6: Aerial 1991 (Source: TheLIST)

PSI – 4-6 Boland Street

PLANNING EXHIBITED DOCUMENTS
 Ref. No: DA 0186/2021
 Date advertised: 05/06/2021
 Planning Administration

This document is subject to copyright and is protected by law. It is intended to be used for the purpose of providing information to the public and is not intended to be used for any other purpose. The Council reserves all other rights. Documents published on this website are for information only and should not be reproduced without the consent of the copyright owner.



Figure 7: Aerial 2008 (Source: Google Earth)



Figure 8: Aerial 2018 (Source: Google Earth)

PSI – 4-6 Boland Street

PLANNING EXHIBITED DOCUMENTS

Ref. No: DA 0186/2021

Date advertised: 05/06/2021

Planning Administration

This document is subject to copyright and is protected by law. It is intended to be used only for the purposes of the planning process and is not to be used for any other purpose. It is not to be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the consent of the copyright owner.

10 Site History Summary

Buildings on the site (clearly seen in Figure 7) consisted of a shed at the southern end of the property and a standalone brick building at the northern end. These buildings have both been demolished between May 2017 and March 2018.

11 Potential Site Contamination

11.1 Onsite contamination

11.1.1 Decommissioned UPSS

The tank was removed on the 28th of March 2018. The tank had been decommissioned previously and filled with water. The decommissioning report states that the water leaked out of the tank due to holes caused by rust. The clay that housed the tank is assumed to have prevented this water from spreading after the leak. The water was removed from site the next day by Hagen Oil. Contaminants of Potential Concern (CoPC) related to a UPSS include;

- Total Petroleum Hydrocarbons (TPH)
- Total Recoverable Hydrocarbons (TRH)
- BTEX
- PAH's
- Phenols

11.1.2 Workshop

The previous study by Jemrock looked at the workshop in detail and included six soil samples taken to the north of the workshop. Lead was measured at concentration levels of 1,460 mg/kg, above the Health Investigation Level (HIL) for a Residential B area of 1,200 mg/kg.

11.1.3 Building material

The buildings which predated 1980 were likely to contain asbestos and as such the demolition works may have disturbed asbestos materials and further assessment will be required to confirm that asbestos fragments are not present on the site. An assessment for asbestos will be included in the validation plan. Two of the samples collected by Jemrock were found to contain asbestos (as

chrysotile). This study predated the demolition of the buildings so further validation is required to confirm the presence (or absence) of asbestos on the site.

11.2 Offsite Sources

11.2.1 Launceston Gasworks

The Launceston Gasworks once occupied much of the land located to the east of the site. Some of the original infrastructure still remains while some has been replaced; such as the Centerlink building at 8 Boland Street which was built on the LPG cylinder yard. The site was remediated in the early 2000's, however contaminants may have migrated from the gasworks to the site. CoPC's from the gasworks include;

- PAH's
- BTEX
- Asbestos
- Nitrates
- Phenols
- Sulfides
- Sulfates
- Metals (Pb, Hg, Zn, Fe)
- Cyanide

12 UPSS Removal

Tasman Geotechnics were commissioned in 2018 to remove the tank from the southern end of the site after potential stability issues caused the project (initially contracted out to Jemrock) to be delayed. Soil testing was carried out beneath (B1) and around the tank (W1-W4B) in accordance with AS 4482.1 – 2005. Samples were also taken of the stockpiled packing sands (SP1 & SP2). A summary of the CoPC's that were found to be above detection limits is shown below in Table 2. The full results can be found in Appendix 2.

Table 2: CoPC's found above detection limits

CoPC	B1	W1	W2	W3	W4A	W4B	SP1	SP2	HSL – B Clay (1-2 m)	HIL– B
Benzo (a) pyrene TEQ (medium band)	0.6	0.6	0.6	0.6	0.6	0.6	1.8	0.6		4
Benzo (a) pyrene TEQ (upper band)	1.2	1.2	1.2	1.2	1.2	1.2	2.1	1.2		
Total PAH	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	9.3	<0.5		400
F1	<20	<20	<20	<20	29	<20	<20	<20	90	

All CoPC's tested for by Tasman Geotechnics were found to be below the acceptable limits for a residential area.

13 Potential Receptors

A final Conceptual Site Model (CSM) (Table 3) was developed after consideration of risks to potential human receptors as outlined below.

Risks to human health from hydrocarbon contamination can arise via the inhalation route when people are exposed to vapours for extended periods, including from vapour intrusion into built spaces, and/or by direct contact with contaminated soil, surface water or groundwater (e.g., ingestion, dermal contact).

Future workers involved in the construction of the development were considered in the preliminary CSM, along with subsurface workers and future Residential Site Users.

14 Discussion

This assessment has reviewed the previous desktop and sampling results completed by Jemrock (2016) and Tasman Geotechnics (2018) and have compared these results to the NEPASCM screening levels for Residential B use.

CoPC's unique to the Gasworks for this investigation were assessed in the ESA. The contamination on the site is typical of Launceston contamination associated with early gas lines. These are at acceptable levels for residential development except for elevated levels of lead in one sample and the presence of asbestos. The site will therefore need to be remediated / validated as a precaution for lead and asbestos. Remediation and validation is typical for residential properties that are developed on a site previously for commercial use. EPA waste tracking requirements and OH&S protection will be required in the form of management measures.

A wide range of contaminants were checked for contamination from workshop operations, there was one sample that showed an elevated level of lead. All other CoPC's tested for were below the acceptable limits. This elevated level of lead and the presence of asbestos warrants validation of the

The UPSS Decommissioning Report was acceptable for commercial use and the review found that results meet the HSL levels and thus acceptable risk for residential use. There is a minor Ecological Screening exceedance but this will be remediated.

Subsurface and development work is assessed in the CSM risk assessment, but the risk of PAH will require dermal contact protection as a precaution. Council will review the validation and at this point vapour barriers are not expected to be required to allow the development proceed.

Table 3: Final Conceptual Site Model

Contamination Source	COPC	Pathway	Receptor
Underground petroleum storage systems (UPSS), and onsite workshop	<ul style="list-style-type: none"> ● Total Petroleum Hydrocarbons (TPH) ● Total Recoverable Hydrocarbons (TRH) ● BTEX ● Lead ● Phenols 	<p>Vapours & Dermal Contact</p> <p>NO PATHWAY CONCENTRATIONS BELOW HSL's Validation is required for Lead</p>	<ul style="list-style-type: none"> ● Future occupants ● Subsurface workers ● Surrounding site users
Launceston Gasworks	<ul style="list-style-type: none"> ● PAH's ● BTEX ● Phenols ● Cyanide ● Metals (Pb, Hg, Zn, Fe) 	<p>Vapours / fibers, Dermal Contact</p> <p>No Pathway concentrations acceptable Precautionary Validation and dermal protection</p>	<ul style="list-style-type: none"> ● Future occupants ● Subsurface workers ● Surrounding site users
Asbestos materials on buildings	<ul style="list-style-type: none"> ● Asbestos 	<p>Inhalation of Asbestos Fibers. Asbestos Clearance is required surface and subsurface check</p>	<ul style="list-style-type: none"> ● Workers ● Future Occupants

15 Conclusions and Recommendations

Environmental Service and Design (ES&D) were commissioned by their client, Daniel Young, to conduct a Preliminary Site Investigation for the proposed development at 4-6 Boland Street Launceston.

The results of the preliminary site investigation, based on the site history and desktop assessment, including a search of WorkSafe Dangerous Goods Records and previous assessments, indicated that although potentially contaminating activities have occurred on the site no results are above the HSL Residential B levels.

Offsite sources which may pose a risk to receptors at the site include the nearby Gasworks. The onsite validation and remediation measures that will be carried out on the site will detect any contamination resulting from the gasworks.

A CSM was constructed and is shown in Table 1. A risk assessment was then conducted according to the principles and methodology contained within the NEPM and found acceptable current risk. As a precautionary action management measures are required with council approval of the completion.

E2.5

P1. Land is suitable for the intended use, having regard to:

- (a) an environmental site assessment that demonstrates there is no evidence the land is contaminated; **or**
- (b) an environmental site assessment that demonstrates that the level of contamination does not present a risk to human health or the environment; **or**
- (c) a plan to manage contamination and associated risk to human health or the environment that includes:
 - (i) an environmental site assessment;
 - (ii) any specific remediation and protection measures required to be implemented before any use commences; and
 - (iii) a statement that the land is suitable for the intended use.



Management Measures:

- a. A Validation and Remediation Management Plan is required to clear the site of PAH, Lead and Asbestos. This will be required in the permit conditions and council will review results prior to construction.
- b. All sub-surface workers must wear dermal contact protection as a precautionary measure.
- c. Any removed soil must be disposed of under the EPA Waste Tracking System. This will be managed under a construction Environmental Management Plan.

(E2.5) of the Launceston Interim Planning Scheme 2015 the land is suitable for the intended use.

Yours sincerely,



Rod Cooper BSc., CEnvP Site Contamination
Principal Consultant ES&D



References

Department of Primary Industries, Parks, Water and Environment (DPIPWE) Groundwater Information Access Portal: <http://wrt.tas.gov.au/groundwater-info/>

FORSYTH, S.M. and CALVER, C.R. (compilers) 2005. Digital Geological Atlas 1:25 000 Scale Series. Sheet 5041. Launceston. Mineral Resources Tasmania.

Launceston City Council Interim Planning Scheme 2015

Land Information System Tasmania (the List): www.thelist.tas.gov.au

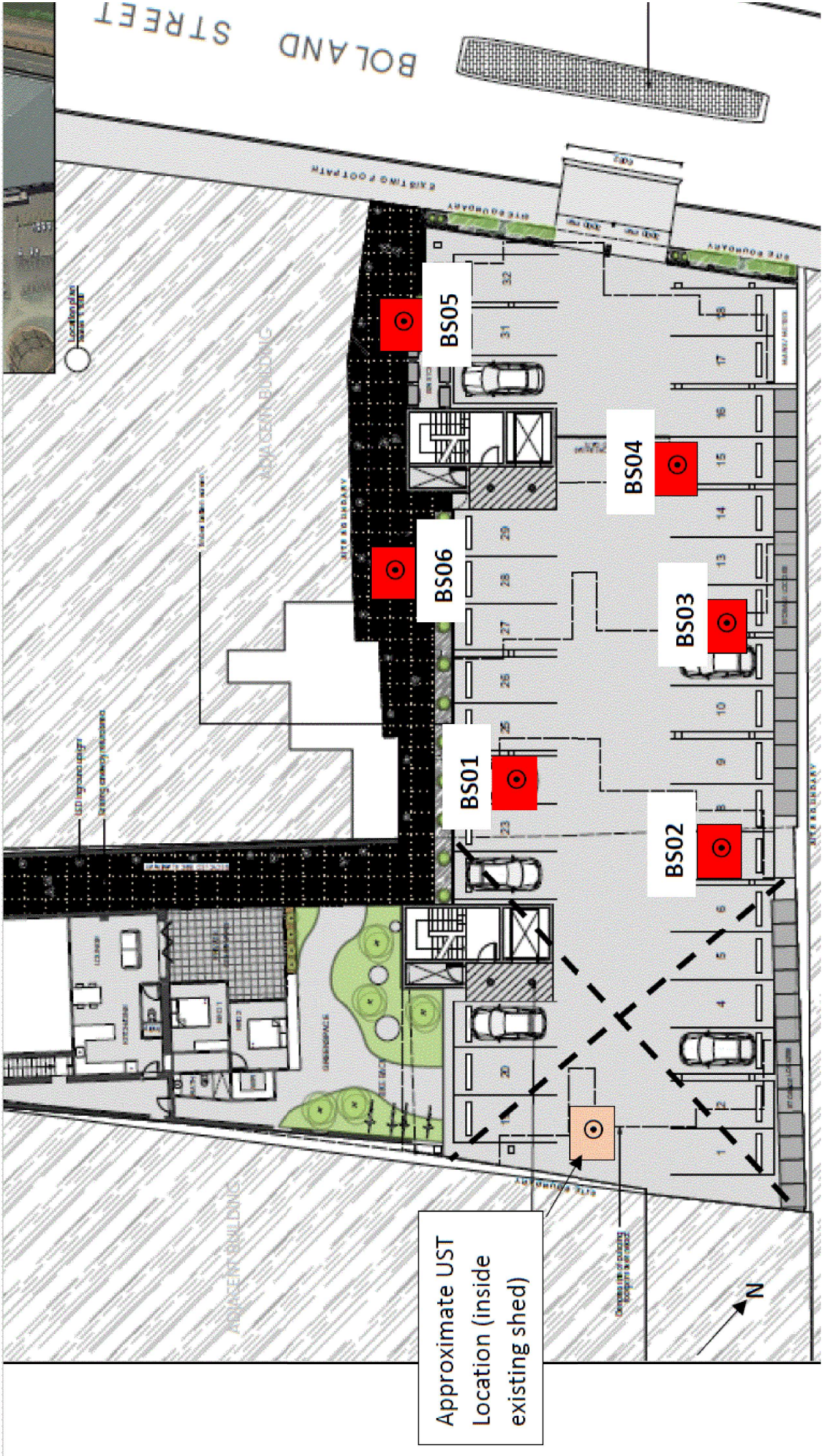
National Environmental Protection (Assessment of Site Contamination) Measure, *Guideline on the Investigation Levels for Soil and Groundwater*, Schedule B (1), (1999) as amended 2013

PSI – 4-6 Boland Street



Appendices
 Appendix 1 – Site Plan

Location of samples taken by Jemrock during the initial tank removal works.



Appendix 2 – Lab Results

Sample Reference	B1	W1	W2	W3	W4A	W4B	SP1	SP2	NEPM	ESL	MIL
Depth (m below ground level)	2.4	1.2	1.4	1.2	1.1	1.1			HIL-B	(coarse)	Residential
% Moisture	46	45	43	41	46	42	22	22			
BTEX											
Benzene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	1		50
Toluene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NL		85
Ethylbenzene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	NL		70
m&p-Xylenes	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2			
o-Xylene	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1			
Xylenes - Total	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	310		105
4-Bromofluorobenzene [surr.]	82	85	88	85	103	100	80	94			
Polycyclic Aromatic Hydrocarbons											
Acenaphthene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
Acenaphthylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
Anthracene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
Benzo[a]anthracene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.3	<0.5			
Benzo[a]pyrene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	<0.5			
Benzo[a]pyrene TEQ (lower band)	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.5	<0.5			
Benzo[a]pyrene TEQ (medium band)	0.6	0.6	0.6	0.6	0.6	0.6	1.8	0.6	4		0.7
Benzo[a]pyrene TEQ (upper band)	1.2	1.2	1.2	1.2	1.2	1.2	2.1	1.2			
Benzo[b]fluoranthene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	<0.5			
Benzo[g,h,i]perylene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
Benzo[k]fluoranthene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1	<0.5			
Chrysene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	<0.5			
Dibenz[a,h]anthracene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
Fluoranthene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.8	<0.5			
Fluorene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
Indeno[1,2,3-cd]pyrene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
Naphthalene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
Phenanthrene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5			
Pyrene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2	<0.5			
Total PAH*	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	9.3	<0.5	400		
p-Terphenyl-d14 [surr.]	98	97	121	95	70	106	72	111			
2-Fluorobiphenyl [surr.]	83	64	86	80	60	85	70	96			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions											
TRH C6-C9	<20	<20	<20	<20	<20	<20	<20	<20			
TRH C10-C14	<20	<20	<20	<20	120	<20	<20	<20			
TRH C15-C28	<50	<50	<50	<50	79	<50	84	<50			
TRH C29-C36	<50	<50	<50	<50	80	<50	<50	<50			
TRH C10-36 (total)	<50	<50	<50	<50	279	<50	84	<50			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions											
TRH C6-C10	<20	<20	<20	<20	29	<20	<20	<20			
TRH C6-C10 less BTEX (F1)	<20	<20	<20	<20	29	<20	<20	<20	90		180
Naphthalene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NL		
TRH >C10-C16	<50	<50	<50	<50	<50	<50	<50	<50			
TRH >C10-C16 less Naphthalene (F2)	<50	<50	<50	<50	<50	<50	<50	<50	NL		120
TRH >C16-C34	<100	<100	<100	<100	120	<100	120	<100			300
TRH >C34-C40	<100	<100	<100	<100	<100	<100	<100	<100			2800
											10,000



Construction Environmental Management Plan

4-6 Boland Street
and 13A Tamar
Street, Launceston

Project No: 6830

Date: April 2020



ABN: 97 107 517 144
74 Minna Road
Heybridge TAS 7316
Ph: (03) 6431 2999

ACN: 107 517 144
PO Box 651
Burnie TAS 7320
www.esandd.com.au

6830 – Construction Environmental Management Plan



Document Control

Prepared & Published by:	ES&D	
File:	6830	
Contact:	Carmel Parker	
Phone No:	0409 623 615	
Prepared For:	TAL GP Projects	
Version:		Date:
Draft 1	Carmel Parker	1/04/2020
Review	Rod Cooper	14/04/2020
Draft 2	Carmel Parker	14/04/2020

This report has been prepared, based on information generated by Environmental Service and Design Pty Ltd from a wide range of sources. If you believe that Environmental Service and Design Pty Ltd has misrepresented or overlooked any relevant information, it is your responsibility to bring this to the attention of Environmental Service and Design Pty Ltd before implementing any of the report's recommendations. In preparing this report, we have relied on information supplied to Environmental Service and Design Pty Ltd, which, where reasonable, Environmental Service and Design Pty Ltd has assumed to be correct. Whilst all reasonable efforts have been made to substantiate such information, no responsibility will be accepted if the information is incorrect or inaccurate.

This report is prepared solely for the use of the client to whom it is addressed and Environmental Service and Design Pty Ltd will not accept any responsibility for third parties. In the event that any advice or other services rendered by Environmental Service and Design Pty Ltd constitute a supply of services to a consumer under the Competition and Consumer Act 2010 (as amended), then Environmental Service and Design Pty Ltd's liability for any breach of any conditions or warranties implied under the Act shall not be excluded but will be limited to the cost of having the advice or services supplied again. Nothing in this Disclaimer affects any rights or remedies to which you may be entitled under the Competition and Consumer Act 2010 (as amended). Each paragraph of this disclaimer shall be deemed to be separate and severable from each other. If any paragraph is found to be illegal, prohibited or unenforceable, then this shall not invalidate any other paragraphs.



Contents

1	Introduction	5
1.1	Description of the Proposed Development	5
1.2	Site Description and Identification.....	5
2	Scope of the CEMP.....	6
3	Contamination Issues	6
4	Environmental Issues and Legislative Requirements.....	7
5	Management Controls	8
5.1	Heritage Screening and Management	8
5.2	Contaminated Soil Management	8
5.3	Contaminated Groundwater Management	9
5.4	Stormwater Runoff Management.....	9
5.5	Dust and Dirt Tracking Management.....	10
5.6	Noise Management.....	10
5.7	Weed Management	11
5.8	Asbestos Screening and Management.....	11
6	Site Visitors and Site Induction.....	11
7	Emergency and Incident Management	12
8	Complaints Handling.....	13
9	General Health and Safety	13
10	Roles and Responsibilities	14
Appendices		15
	Appendix A – Validation and Remediation Management Plan.....	16
	Appendix B – Aboriginal Heritage Search Request	17



List of Tables

Table 1: Site Description	5
Table 2: Summary of Environmental Issues.....	7
Table 3: Examples of Incidents that may require reporting to EPA Tasmania.	12
Table 4: Key Roles and Responsibilities	14

Abbreviations

BTEXN	Benzene, Toluene, Ethylbenzene, Xylenes, Naphthalene
EIL	NEP(ASC)M 1999 Ecological Investigation Level
EMPCA	Environmental Management and Pollution Control Act 1994
ESL	NEP(ASC)M 1999 Ecological Screening Level
GIL	NEP(ASC)M 1999 Groundwater Investigation Level
HIL	NEP(ASC)M 1999 Health Investigation Level
HSL	NEP(ASC)M 1999 Health Screening Level
Mbgs	Metres below ground surface
M.T.M	Modern Transport and Metal Industries Company
NEPASCM	<i>National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended 2013</i>
PHCs	Petroleum hydrocarbons
TCE	Trichloroethylene
TRH	Total Recoverable Hydrocarbons
VOCs	Volatile organic compounds



1 Introduction

This Plan has been developed by Environmental Service and Design (ES&D) in response to the City of Launceston *Further Information Request* for the proposed development of a commercial accommodation facility with ground floor carpark. The development will utilize two lots, namely, 4-6 Boland Street and 13A Tamar Street (124938/1 only).

1.1 Description of the Proposed Development

The development is to construct a commercial accommodation facility and lower ground carpark on the two lots.

1.2 Site Description and Identification

The site is located near the Launceston CBD and the Tamar Street Bridge ‘Victoria Bridge’. The site is located approximately 35 metres from the North Esk River on the lower side of the levee bank.

Table 1: Site Description

Street Address	4-6 Boland Street and 13 A Tamar Street
Landowner	Beecroft Nominees Pty Ltd
Title 1: 13A Tamar Street	C.T 124938/1, PID 3457882
Title 2: 4-6 Boland Street	CT 153116/1, PID 2853701
Assessment Area (approx.)	1473m ²



2 Scope of the CEMP

The scope of the CEMP is as follows;

1. Identify potential environmental issues arising from construction on the site
2. Identify potential sensitive ecological and human receptors
3. Outline legislative requirements with regard to pollution emissions
4. Identify key environmental aspects requiring specific control measures to prevent environmental and human health impacts
5. Specify control measures and implementation of measures
6. Specify corrective actions required in the event of the escape of pollution from the site

3 Contamination Issues

Potential contamination issues arise from the following activities and past activities and environmental assessments;

- Recent demolition of buildings on both land titles, 4-6 Boland and 13A Tamar Street and remnants of building materials remaining on the site
- Removal of an underground petroleum tank and the associated environmental assessment by Tasman Geotechnics (2018)
- Phase 1 - Environmental Assessment by Jemrock (2017)
- Land filling of the site up to unconfirmed depths

In addition, the construction activity will need to consider the outcomes of the Remediation and Validation actions which will be contained with the *Validation and Remediation Management Plan*, which will be issued once the remediation and validation actions are completed. The construction management will need to consider the outcomes of that report to understand the likely remaining concentrations of contaminants in soils and presence of other contaminants such as asbestos.

4 Environmental Issues and Legislative Requirements

Table 2: Summary of Environmental Issues

Environmental Issue	Identified for this Site Y/N	Legislative Requirements
Heritage Issues	Y	Desktop Review of Aboriginal and European Heritage required. Aboriginal relics Act Heritage Act
Contaminated Soil	To be confirmed based on the outcome of the <i>Remediation and Validation Report</i>	EMPCA NEPASC
Contaminated Groundwater	To be confirmed based on the outcome of the <i>Remediation and Validation Report</i>	EMPCA NEPASC
Stormwater Runoff	Y	EMPCA
Dust impacts to adjoining landowners	Y	
Direct contact risks to contaminants for the public and visitors	Y	NEPASC WHS Act
Direct contact risks to contaminants for construction workers	Y	NEPASC WHS Act
Inhalation risks of contaminants to the public and site visitors	Y	NEPASC WHS Act
Inhalation risks of contaminants for construction workers	Y	NEPASC WHS Act
Noise Nuisance	Y	EMPCA EMPC (Noise Control) Regulations

5 Management Controls

5.1 Heritage Screening and Management

A search of the aboriginal heritage register has been requested from Aboriginal Heritage Tasmania (refer Appendix B)

Requirement 1

If a worker on the site observes an object which is suspected to be an aboriginal relic the worker must cease excavation work immediately and notify the site superintendent that a suspected aboriginal relic has been found. The location of the suspected relic must be secured /marked so that no activity, such as excavation or construction will continue in this area until the site has been inspected by a suitably qualified aboriginal heritage consultant to confirm or deny the presence of an aboriginal relic. The site superintendent is to notify Aboriginal Heritage Tasmania immediately and within 24 hours of the finding.

5.2 Contaminated Soil Management

The *Validation and Remediation Management Plan* will provide details of the soil results and will determine the likely contamination status of the soil on the site.

Requirement 2

If the remediation and validation assessment finds that contaminants in soils are above levels specified in the *Information Bulletin 105: Classification and Management of Contaminated Soil for Disposal* (EPA Tasmania, V3 2018) for Level 1 (fill material) then all excavated material will be required to be stockpiled onsite, sampled and held onsite awaiting approval for disposal.

Requirement 3

All soil which is required to be held onsite awaiting classification must be isolated/fenced from onsite workers to prevent dermal contact and must only be disposed of to an approved facility in accordance with the EPA Disposal Approval.

Requirement 4

The works contractor is responsible for arranging for a suitably qualified environmental consultant to collect and coordinate the testing of soil samples and for obtaining EPA Tasmania approval for the disposal of soil. The environmental consultant must base the testing regime and the need to hold and classify soil on the soil results provided in the *Validation and Remediation Management Report* and in accordance with Requirement 2.

If the Validation and Remediation Management Report shows that previous testing has shown that all soils meet the soil parameters listed in Bulletin 105 for 'Level 1 – fill material' then further stockpiling and testing of excavated soils will not be required during the construction phase.

Requirement 5

All soil which is stockpiled onsite awaiting approval for disposal must be stored so that the stockpiled soil is fully enclosed either wrapped with an impervious sheet to prevent the ingress of rainwater into the stockpile and placed on an impervious surface or is contained within a leak proof skip bin with a lid. Stockpiled soil must be stored in a way that soil particles and contaminants do not wash across the site and into the stormwater thereby preventing the spread of contaminants across the site and also into the stormwater system.

5.3 Contaminated Groundwater Management

The Remediation and Validation Report will provide details of the groundwater results and these results will be considered in the management of groundwater on the site during construction. The extraction of groundwater will be avoided where possible.

If groundwater is required to be extracted to allow construction the following requirements will apply;

Requirement 6

Onsite storage and testing of extracted groundwater will be required prior to disposal offsite.

Requirement 7

Fully sealed leak proof containers must be provided for onsite storage of potentially contaminated groundwater.

Requirement 8

Vessels containing extracted groundwater must be protected from damage by excavators and onsite machinery and storage a minimum of thirty (30) metres from the nearest stormwater drain.

5.4 Stormwater Runoff Management

The site frontage which is adjacent to the footpath is currently lower than the footpath on Boland Street. This low point should be maintained to allow for any runoff to be captured onsite until the entire ground surface is sealed with concrete.

Requirement 9

Install sediment fencing and sandbags along the Boland Street boundary to the edge of the footpath allowing for site access entry.

Requirement 10

Seal the entrance with coarse aggregate to prevent the tracking of mud onto the roadway and into the stormwater drain.

Requirement 11

Check sediment fencing and sandbags daily and after rainfall events. Improve fencing and sandbags where needed to contain all stormwater onsite and complete a visual check of the turbidity (clarity) of the water leaving the site.

Requirement 12

During construction sandbags must be placed around newly formed stormwater pits to prevent sediment from entering Councils stormwater system.

5.5 Dust and Dirt Tracking Management

The construction activity is likely to create dust which will reduce once the ground surface has been hard sealed. The rear part of the site is sheltered with high buildings and dust creation along the middle to rear of the property is not expected to be a concern.

The entrance (access point) will be temporarily sealed with large sized aggregate (25-50mm) to prevent the tracking of dirt and mud onto the roadway and into the stormwater drain during construction and prior to hard sealing of the ground surface. (refer to Requirement 10)

Requirement 13

Install dust screening along the Boland Street boundary.

5.6 Noise Management

The construction is likely to create noise however noise pollution can be minimized through a range of mitigation measures.

Requirement 14

The construction activity must only operate during the hours permitted by Council and EMPCA.

Requirement 15

Activities that create a high level of noise (such as piling) and likely to cause disturbance to adjoining and surrounding businesses and residents must be planned in advance so that the time of day and rest periods can be scheduled to minimize the noise impacts.

Requirement 16

Where possible noise disturbance to surrounding residents and businesses must be minimized.

5.7 Weed Management

A review of the preliminary building plans indicate that the entire ground surface will be hard sealed and based on the future use the introduction of weeds is not likely to be a concern.

5.8 Asbestos Screening and Management

Whilst the past and planned environmental assessments will screen for the presence of asbestos fragments there is the potential for asbestos fragments to be uncovered during construction and construction workers should visually inspect their excavated material for fragments. If fragments are suspected to be asbestos, work shall cease in that area and the environmental consultant will be contacted to inspect and identify possible asbestos fragments. Work can commence in the area where the suspected asbestos fragment/s were found once the area the presence or absence of asbestos has been confirmed. Failure to report suspected asbestos will put site workers, visitors, the public and adjoining land occupiers at risk of inhalation of asbestos fibres.

Requirement 17

Heavy machinery operators and spotters on the ground will visually inspect the excavated material for signs of foreign material such as asbestos fragments. If a fragment/s are suspected to be asbestos work must cease in the area of the find until an environmental consultant confirms the presence or absence of asbestos. Work will resume in the location of the find once the consultant has determined that acceptable levels are present or asbestos was not found to be present.

6 Site Visitors and Site Induction

For the safety of the site works and site visitors a site induction program must be implemented. All persons who enter the site to undertake any activity must have undertaken a safety induction and this induction process should be documented in site records kept by the contractor.



Requirement 18

All workers and visitors must complete site and safety induction prior to entering the site. The induction will be part of the contractors formal Workplace Health and Safety System.

Requirement 19

The induction session must include an overview of the CEMP requirements contained herein.

7 Emergency and Incident Management

The following emergency situations where there is a possible or likely release of pollutant to the environment should be managed in the following ways.

Requirement 20

It is the Site Superintendents responsibility to notify the EPA if there is likely to be or has been an uncontrolled or controlled release of a pollutant, which his likely to cause a nuisance or harm to others or the environment. Examples of possible incidents are provided in the Table below.

Table 3: Examples of Incidents that may require reporting to EPA Tasmania.

Example of Incidents	Actions	Contact
<i>Fire</i>	Once the fire has been contained by the Fire Department place additional materials such as sandbags to prevent the escape of fire fighting foams and liquid materials (water) from the site.	EPA Tasmania on 1800 005 171 – in the event that liquid has entered the stormwater drain or excess smoke is likely to cause a pollution hazard.
<i>Water</i>	If a liquid material has escaped from the site and is likely or has entered the stormwater system in quantities likely to cause environmental harm to aquatic organisms or a health risk to persons likely to come into contact with the substance.	EPA Tasmania on 1800 005 171

Example of Incidents	Actions	Contact
<i>Noise</i>	If excessive noise has been created or likely to be created so that members of the public are likely to be significantly affected and cannot be avoided.	EPA Tasmania on 1800 005 171

8 Complaints Handling

Requirement 21

The Site Superintendent must record all complaints received and must maintain records of complaints and follow up actions until the completion of the project. The Site Superintendent must provide the complaint record to the Council or EPA Tasmania upon request.

9 General Health and Safety

Requirement 22

All construction workers and persons likely to come into contact with environmental hazards such as contaminated soil, dust, stormwater or groundwater and noise emissions on the site must wear personal protective equipment to prevent direct contact with soil, dust or water on the site and minimize exposure to noise. Personal protective equipment shall include, safety glasses, earmuffs, long sleeve pants and shirt, gloves. Staff should be advised to avoid direct contact with soil and water and wash their hands before eating.

10 Roles and Responsibilities

The roles and responsibilities of key personal and construction staff are outlined in Table 4.

Table 4: Key Roles and Responsibilities

Task	Who is Responsible
Minimise creation of noise, dust, stormwater	All workers
Not to cause environmental nuisance through the creation of excessive noise, dust, polluted stormwater	All workers and the Site Superintendent
Complete a visual check of the turbidity (clarity) of stormwater leaving the site and discharging to Councils stormwater system	Site Superintendent (atleast once daily and after rain events)
Ensure all excavated soil material, if required to be stockpiled onsite prior to transport and disposal is sealed in a leak proof container or is sealed to prevent the ingress of rainwater.	Site Superintendent
Ensure all workers and visitors comply with this CEMP and the Validation and Remediation Management Report (when issued).	Site Superintendent

Appendices



Appendix A – Validation and Remediation Management Plan



30 March 2020

Duncan Payton
Town Planner
City of Launceston
PO Box 396
Launceston TAS 7250

Dear Mr Payton,

RE: Remediation and Validation Plan – 4-6 Boland Street, Launceston 7250

Environmental Service and Design (ES&D) has previously completed a Preliminary Site Investigation for 4-6 Boland Street Launceston Tasmania “the site” and as part of that investigation ES&D reviewed the previous environmental assessment results and findings by Jemrock 2016 and Tasman Geotechnics 2018. To address the City of Launceston, *Request for Further Information* (RFI) dated 20 February 2020, ES&D have prepared a Remediation and Validation Plan for the site.

Development of the Plan was guided by the principles and requirements contained within the ***National Environmental Protection (Assessment of Site Contamination) Measure, 1999 (as amended 2013)*** (NEPASCAM) according to its status as a state policy and the *National Remediation Framework*.

The objectives of the Plan are to;

- identify potential sources of contamination and determine potential contaminants of concern;
- identify areas of potential contamination;
- identify potential human and ecological receptors;
- identify feasible pathways by which contaminants and receptors may be linked;

6830 – Remediation and Validation Plan for 4-6 Boland St and 13A Tamar Street



- identify potentially affected media (soil, sediment, groundwater, surface water, indoor and ambient air)
- undertake remediation of soils where required to ensure that the site will be suitable for the future land use
- where remediation is required ensure that validation samples are collected to confirm that the remediation has been successful to ensure that remaining soils comply with the NEPASCM Screening levels.
- identify health risks which may arise from development activities such as excavation.

If you have any questions regarding this Plan, please contact me by telephone on (03) 64 31 2999 or email to rcooper@esandd.com.au.

Yours sincerely,



Rod Cooper BSc., CEnvP Site Contamination
Principal Consultant ES&D



Remediation and Validation Plan

4-6 Boland Street
and 13A Tamar
Street Launceston,
TAS 7250

Project No: 6830

Date: March 2020



environmental service & design

ABN: 97 107 517 144
74 Minna Road
Heybridge TAS 7316
Ph: (03) 6431 2999

ACN: 107 517 144
PO Box 651
Burnie TAS 7320
www.esandd.com.au

6830 – Remediation and Validation Plan for 4-6 Boland St and 13A Tamar Street



Document Control

Prepared & Published by: ES&D
 File: 6830
 Contact: Rod Cooper
 Phone No: (03) 6431 2999
 Prepared For: City of Launceston

Version:		Date:
Draft 1	Carmel Parker	27/03/2020
Review	Issue to Client Rod Cooper	30/03/2020

This report has been prepared, based on information generated by Environmental Service and Design Pty Ltd from a wide range of sources. If you believe that Environmental Service and Design Pty Ltd has misrepresented or overlooked any relevant information, it is your responsibility to bring this to the attention of Environmental Service and Design Pty Ltd before implementing any of the report's recommendations. In preparing this report, we have relied on information supplied to Environmental Service and Design Pty Ltd, which, where reasonable, Environmental Service and Design Pty Ltd has assumed to be correct. Whilst all reasonable efforts have been made to substantiate such information, no responsibility will be accepted if the information is incorrect or inaccurate.

This report is prepared solely for the use of the client to whom it is addressed and Environmental Service and Design Pty Ltd will not accept any responsibility for third parties. In the event that any advice or other services rendered by Environmental Service and Design Pty Ltd constitute a supply of services to a consumer under the Competition and Consumer Act 2010 (as amended), then Environmental Service and Design Pty Ltd's liability for any breach of any conditions or warranties implied under the Act shall not be excluded but will be limited to the cost of having the advice or services supplied again. Nothing in this Disclaimer affects any rights or remedies to which you may be entitled under the Competition and Consumer Act 2010 (as amended). Each paragraph of this disclaimer shall be deemed to be separate and severable from each other. If any paragraph is found to be illegal, prohibited or unenforceable, then this shall not invalidate any other paragraphs.

Contents

1	Executive Summary	7
2	Author Details	8
3	Site Description	8
3.1	Site Identification	8
3.2	City of Launceston Request for Further Information	9
3.3	City of Launceston Contaminated Land Code	11
3.4	Identified Hotspots and Areas of Concern	12
4	Contaminants of Concern	12
5	Remediation	13
5.1	Remediation Objectives	13
5.2	Remediation Criteria	14
5.3	Description of Remediation Work.....	14
5.4	List of Samples and Analytes.....	16
6	Validation.....	19
6.1	Validation Objectives	19
6.2	Validation Criteria	19
6.3	Validation Sampling Plan.....	19
6.3.1	Quality Assurance	19
	Appendix A - Assessment and Remediation Sampling Plan.....	20

List of Tables

6830 – Remediation and Validation Plan for 4-6 Boland St and 13A Tamar Street



Table 1: Site Details.....	8
Table 2: List of Sampling Points and Analytes for Assessment and Remediation	17

List of Figures

Figure 1: Land Titles Affected by the Development	9
Figure 2: Extract from the New South Wales Assessment Guidelines ³	16

Abbreviations

BTEXN	Benzene, Toluene, Ethylbenzene, Xylenes, Naphthalene
EIL	NEP(ASC)M 1999 Ecological Investigation Level
ESL	NEP(ASC)M 1999 Ecological Screening Level
GIL	NEP(ASC)M 1999 Groundwater Investigation Level
HIL	NEP(ASC)M 1999 Health Investigation Level
HSL	NEP(ASC)M 1999 Health Screening Level
NEPASC	<i>National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended 2013</i>
PHCs	Petroleum hydrocarbons
TRH	Total Recoverable Hydrocarbons



1 Executive Summary

The landowner of the subject sites, 4-6 Boland Street and 13A Tamar Street Launceston Tasmania 7250 have commissioned Environmental Service and Design (ES&D) to prepare this *Remediation and Validation Plan* in response to the City of Launceston Request for Further Information (RFI).

A Phase 1 Environmental Investigation was completed of 4-6 Boland Street in 2017 by Jemrock¹ and an underground tank decommissioning assessment was completed by Tasman Geotechnics at 13A Tamar Street in 2018². The Phase 1 Investigation¹ revealed that the underground tank located on 13A Tamar Street required removal and further assessment and remediation was required prior to development of the site.

In 2017, Jemrock completed a Phase 1 Investigation of the two titles 4-6 Boland Street and 13 Tamar Street and Jemrock recommended that further assessment of the two titles be completed, including decommissioning and assessment of the underground petroleum tank located at 13 Tamar Street. The underground tank removal and assessment was later completed by Tasman Geotechnics the following year in 2018.

In 2017, Jemrock collected shallow surface soils only up to 0.5 metres below the ground surface (mbgs). Jemrock found all soil results from six sampling points to comply with commercial screening levels of the *National Environmental Protection (Assessment of Site Contamination) Measure 1999* (as amended) (NEPASCAM) with the exception of one sample that exceeded the Health Investigation Levels (HIL's) for Commercial use due to elevated lead concentrations and the presence of asbestos. The investigation was limited to the top 0.5m and further assessment was recommended.

The underground tank decommissioning works found low level contaminated soils on the eastern wall of the tank pit however levels were below commercial use criteria. Low level contaminated soil which met the NEPASCAM commercial use screening levels was used to backfill the tank pit. Groundwater was not encountered in the excavated tank pit up to 2.4 metres below the ground surface (mbgs). The depth of groundwater was not confirmed during the tank decommissioning investigation however groundwater depth in this area is estimated to be around 4 mbgs. However, the soil results obtained from the tank decommissioning were found to be compliant with Commercial Use limits and were not compared to Residential use limits.

¹ Jemrock Pty Ltd, *Phase 1 Investigation 4-6 Boland Street and 13 Tamar Street*, 10 July 2017.

² Tasman Geotechnics, *Decommissioning Assessment Report 4-6 Boland Street*, 21 May 2018.



This Plan provides for the further assessment, remediation and validation of the site prior to development of the site for accommodation and commercial use.

2 Author Details

This Plan was prepared by Carmel Parker, Senior Environmental Scientist and reviewed by Rod Cooper, CEnvP Site Contamination and Principal Consultant, ES&D.

3 Site Description

The sites are located in the Launceston Central Business district and 30 metres from the Tamar River levee bank. The site is also located on land or adjacent to land that was formerly used as the old Launceston Gasworks.

3.1 Site Identification

The two land titles have been identified and details provided in Table 1.

Table 1: Site Details

Street Address	4-6 Boland Street
Landowner	Beecroft Nominees Pty Ltd
Title 1: 13A Tamar Street	C.T 124938/1, PID 3457882
Title 2: 4-6 Boland Street	CT 153116/1, PID 2853701
Assessment Area (approx.)	1473m ²

The site address 13A Tamar Street, is divided into two land titles. One of the titles known as C.T 124939/1, PID 3457890 is not part of the development area. However, buildings have been recently demolished in this area and the potential impact of that demolition on the development area needs to be considered in the further assessment to ensure that the status of the title C.T 124939/1 does not impact the development area.

The 13A Tamar Street title which is not within the development area will not be fully assessed under this Plan for future development. Further assessment of this title may be required separate to this Plan.



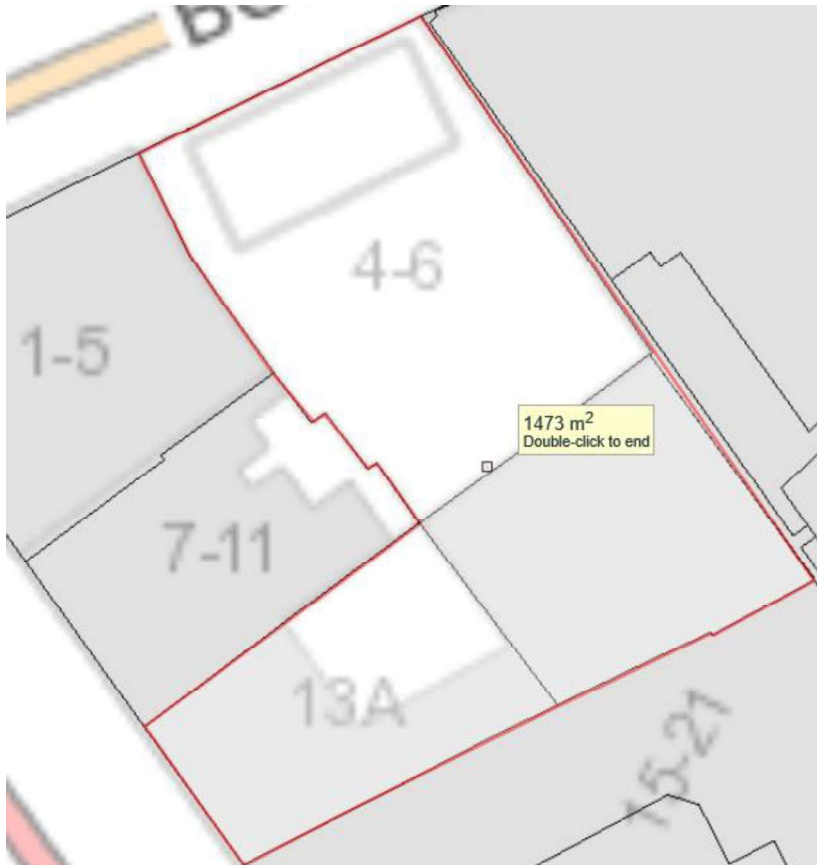


Figure 1: Land Titles Affected by the Development

3.2 City of Launceston Request for Further Information

A *Further Information Request* was issued by the City of Launceston requiring the preparation and submission of a Remediation and Validation Plan. This Plan has been prepared by ES&D to address that request. The City of Launceston Request for Further Information required the submission of the following documents;

“B. Environmental Health

6. Provide a Validation and Remediation Management Plan for the site. The plan is to be prepared and certified by a Certified Site Contamination Practitioner.

7. Provide a Construction Environmental Management Plan by a suitably

qualified person, which is to include the removal, transport and disposal of any controlled waste.”

The following issues raised in the PSI (ES&D, 2020) were noted by Council;

“The following is noted in the ESA by ES&D:-

- *Section 9.2 of the ESA indicates that due to the proximity of the site to the former Launceston Gasworks, and that the city has a network of unmarked gas lines and PAH (Polycyclic Aromatic Hydrocarbons) are a risk.*
- *Section 11.1.2 provides information in regard to soil samples collected by Jemrock with lead measured in those samples above the Health Investigation Level (HIL).*
- *Section 11.1.3 provides information regarding the demolition of buildings that predated 1980 and that two of the samples collected by Jemrock contained asbestos (as chrysotile). The plan includes screening for asbestos fragments.*
- *Section 11.2.1 details that contaminants from the gasworks site at 8 Boland Street, may have migrated to the site. [The Plan includes screening for PAHs and organics]*
- *Section 14 - the UPSS Decommissioning Report found that there is minor Ecological screening exceedance. [As required by the NEPASC, ecological risks will be considered in the Remediation and Validation works]”*

The issues noted by Council have been addressed in this Plan as follows;

- The former Gasworks activity has been considered in the sampling plan to ensure that potential contaminants of concern from gasworks operations are tested in soil samples.

- The area 'BS06' will be further assessed to delineate the extent of lead contamination to ensure that remaining soils meet the HILs for Residential- B and Commercial use. The proposed future use as accommodation will present a risk similar to that of a Residential – B use where there is limited or no contact with soil (i.e. no gardens) and the use is for longer periods than 8 hours a day. Therefore, the Residential-B use was considered a more conservative use than the 'Commercial use' classification. As there will also be staff operating on the site the assessment will compare the results to both 'Residential – B' and 'Commercial use' screening criteria from the NEPASC. In the absence of NEPASC screening criteria for any analyte an appropriate criteria may be sought from a reputable and acceptable agency such as the USA EPA with justification provided in the report.
- A full site asbestos clearance will be completed of surface soils. In addition, during sub-surface soil sampling, any fragments that are suspected asbestos will be sent for analysis. If asbestos fragments are found to be buried under the surface this will require removal and remediation.
- Further analysis of remaining soils near the western side of the former location if the underground tank and bowser will be undertaken to ensure that remaining soils comply with the NEPASC screening levels for Residential – B and Commercial use.

3.3 City of Launceston Contaminated Land Code

The *Potentially Contaminated Land Code (Code E2) of the Launceston Interim Planning Scheme 2015* stipulates that use or development of potentially contaminated land must not adversely impact on human health or the environment.

In accordance with E2.5.1 a plan to manage the contamination has been prepared;

E2.5.1 states as follows;

“Suitability for Intended Use

To ensure that potentially contaminated land is suitable for the intended use.

Land is suitable for the intended use having regard to;

- a) an environmental site assessment that demonstrates there is no evidence the land is contaminated; or



- b) an environmental site assessment that demonstrates that the level of contamination does not present a risk to human health or the environment; or
- c) a plan to manage contamination and associated risk to human health or the environment that includes:
 - i. an environmental site assessment;
 - ii. any specific remediation and protection measures required to be implemented before any use commences; and
 - iii. a statement that the land is suitable for the intended use.”

3.4 Identified Hotspots and Areas of Concern

The following areas have been identified for further assessment, remediation if necessary and validation;

- Sampling Point BS06 for lead contamination
- East of the tank pit and south of the pit to exclude offsite migration
- Surface inspection for asbestos fragments at BS06 and BS03 and the entire site

4 Contaminants of Concern

The following contaminants of concern will be considered in the further assessment, remediation and validation based on previous assessment and the past land use activities.

Asbestos

A visual surface inspection for asbestos will be completed across the entire site. During soil sampling visual checks for asbestos fragments and evidence of asbestos burial will be carried out.

Total Recoverable Hydrocarbons and Aromatic Hydrocarbons (BTEXN)

TRH and BTEXN compounds will be tested randomly in soil samples across the site due to the former industrial/commercial nature of the site and as there is the potential for vapour intrusion risk from depths up to 8 m + then soil samples from depths will also be randomly tested for TRH. Also TRH will be tested in samples from near the former tank pit.

Polycyclic Aromatic Hydrocarbons (PAH's)



Elevated levels of PAHs were found in soil samples in the western wall of the tank at 1.1 mbgs. Further sampling is required to confirm PAHs in remaining soils do not exceed Residential – B HIL's

Metals

One exceedance of HILs for lead was found at BS06¹. Further testing of soils from this area will confirm or deny the presence/absence of asbestos fragments and elevated lead concentrations.

Inorganics

Random testing for organics likely to be associated with former gasworks sites will be completed to ensure that the site does not show historical signs of legacy contaminants from the former gasworks operation.

5 Remediation

If contaminants of concern are found in concentrations above Residential – B Screening Levels (NEPASCAM HILs and HSL's) then removal of further soils will be completed and validation samples taken to show that remaining soils meet the NEPASCAM screening levels for future site use.

5.1 Remediation Objectives

The objectives of the remediation are to;

- Confirm that lead concentrations at BS06 meet the Residential – B, HILs and HSLs.
- Confirm that the site has not been impacted by the previous Gasworks activity by broadening the testing suite to include potential contaminants of concern for Gasworks sites in accordance with the Gasworks Assessment Guidelines³
- Confirm that the remainder of the site does not contain asbestos surface or sub-surface fragments above the acceptable screening levels for future site use

³ NSW Department of Environment and Conservation, *Information for the Assessment of Former Gasworks Sites*, July 2005.



- Confirm that the PAH levels to the west and south of the former tank pit do not contain PAHs that are likely to present a direct contract risk for future construction workers and future Residential -B use.
- Provide a *Remediation and Validation Report* providing details of the assessment, remediation and validation that was completed and reporting to be in accordance with the assessment requirements of the NEPASC. The Report will report on all matters as required by a detailed site investigation under the NEPASC. The Report will provide a statement whether or not the site is suitable for its intended use and will be signed by a Certified Environmental Practitioner CEnvP (Site Contamination Specialist).

5.2 Remediation Criteria

The following criteria have been adopted to ensure that the site will be suitable for the future use as accommodation/residential and commercial use.

- Health Investigation Levels - 100% of sample results below HILs
- Health Screening Levels - 100% of sample results below HSLs
- Ecological Screening Levels – if results are not below ESLs complete an Ecological risk assessment
- In the absence of NEPASC screening criteria for any analyte appropriate criteria may be sought from an alternative and appropriate agency such as the USA EPA with justification provided in the report.

5.3 Description of Remediation Work

The following further remediation and assessment is recommended;

1. Validate that the remaining soils in and around the former underground tank meet the screening levels (HILs) for Residential – B and Commercial use.
2. Confirm the depth of groundwater in relation to the base of the tank pit.
3. Complete an asbestos surface clearance of the entire site in light of asbestos fragments observed at locations BS03 and BS06. This assumes that asbestos has not been buried and is only found on the surface. A visual observation and previous assessments indicate that the site is not likely to contain fill material or buried asbestos. The absence of fill material will be confirmed across the site to ensure that contaminated fill, including asbestos, has not been buried on the site.



4. Complete further soil samples up to 4 metres or to the depth of groundwater if groundwater is shallower than 4 mbgs at 7 sampling points.



5.4 List of Samples and Analytes

The list of analytes for soil analysis were selected based on previous findings^{1,2} and gasworks assessment guidelines³.

Table 2: Principal chemicals of interest at gasworks sites

Inorganic compounds	Metals and metalloids	Monocyclic aromatic hydrocarbons (MAHs)	Phenolics	Polycyclic aromatic hydrocarbons (PAHs) ³
Ammonia	Aluminium	Benzene	Phenol	Acenaphthene
Cyanide	Antimony	Ethyl benzene	2-Methylphenol	Acenaphthylene
Nitrate	Arsenic	Toluene	4-Methylphenol	Anthracene
Sulfate	Barium	Total Xylenes	2,4-Dimethylphenol	Benzo(a)anthracene
Sulfide	Cadmium			Benzo(a)pyrene
Thiocyanate	Chromium			Benzo(b)fluoranthene
	Copper			Benzo(g,h,i)perylene
	Iron			Benzo(k)fluoranthene
	Lead			Chrysene
	Manganese			Dibenzo(a,h)anthracene
	Mercury			Fluoranthene
	Nickel			Fluorene
	Selenium			Naphthalene
	Silver			Phenanthrene
	Vanadium			Pyrene
	Zinc			Indeno (1,2,3-cd) pyrene

Figure 2: Extract from the New South Wales Assessment Guidelines³



Table 2: List of Sampling Points and Analytes for Assessment and Remediation

Sample ID	Details	Asbestos ²	TRH	BTEXN	PAH	Metals	Inorganics ¹
Tank South 2.4m, 3.0, 4.0	Confirm no migration offsite	X	X	X	X	X	
GWB1- 2.6m and additional up to 8m or GW	Confirm PAHs acceptable at 2.6 and confirm depth and quality of groundwater	X	X	X	X*		
SB1 – 1.0 m SB1 – 2.0 m SB1 – 3.0 m	Confirm no TPH, TRH, PAH at this location		X	X	X		
SB2 – 0.5 m SB2 – 2.5 m SB2 – 4.0 m	Confirm no offsite migration and conversely no potential impact from the adjoining site including remnant demolition material i.e. asbestos Possible test pit in this area. Area has been covered with road base material recently.	X	X	X			
SB4 - 0.5 m SB4 – 2.0 m	Random depths selected and actual sample depths may depend on observations during sampling	X	X	X		X	X
SB5 – 1.0 m SB5 – 2.5 m		X	X	X		X	X
SB6 – 1.0 m SB6 – 0.5 m Sb6 – 3.0 m		X	X	X	X	X	X
SB7 – 1.5 m SB7 – 3.0 m SB7- 2.5 m SB7 - 3.5 m		X	X	X	X	X	X



Sample ID	Details	Asbestos ²	TRH	BTEXN	PAH	Metals	Inorganics ¹
SB3 – 0.5 m & 1.0m	Check extent of Lead and presence /absence of asbestos	X				X	
<ol style="list-style-type: none"> Inorganics include Ammonia, cyanide, nitrate, sulfate, sulfide, Thiocyanate Fragments found at any depth during sampling will be collected for identification of absence /presence. GWB1 – soil and groundwater samples collected. Soil samples not analysed for PAH. 							



6 Validation

6.1 Validation Objectives

Validation objectives are to;

- Confirm that contaminants are at acceptable concentrations for future Residential-B and Commercial land use in compliance with the Validation Criteria
- Confirm that the presence/absence of asbestos fragments on the surface and sub-surface

6.2 Validation Criteria

Validation Criteria as are follows;

Contaminants of Concern comply with the following limits;

- Health Investigation Levels - 100% of sample results below HILs
- Health Screening Levels - 100% of sample results below HSLs

6.3 Validation Sampling Plan

The Validation Sampling Plan will depend on the findings of the further assessment and any remediation that was required to be undertaken. If all samples comply with the remediation Criteria then no further validation is required. However, if the sample results from the further assessment and remediation fail to comply with the remediation criteria then further validation sampling must be completed to provide evidence that any remediation works have been completed successfully and to meet the future use screening levels.

6.3.1 Quality Assurance

All sampling will be completed in accordance with Quality Assurance protocols that meet the requirements of the NEPASCM.

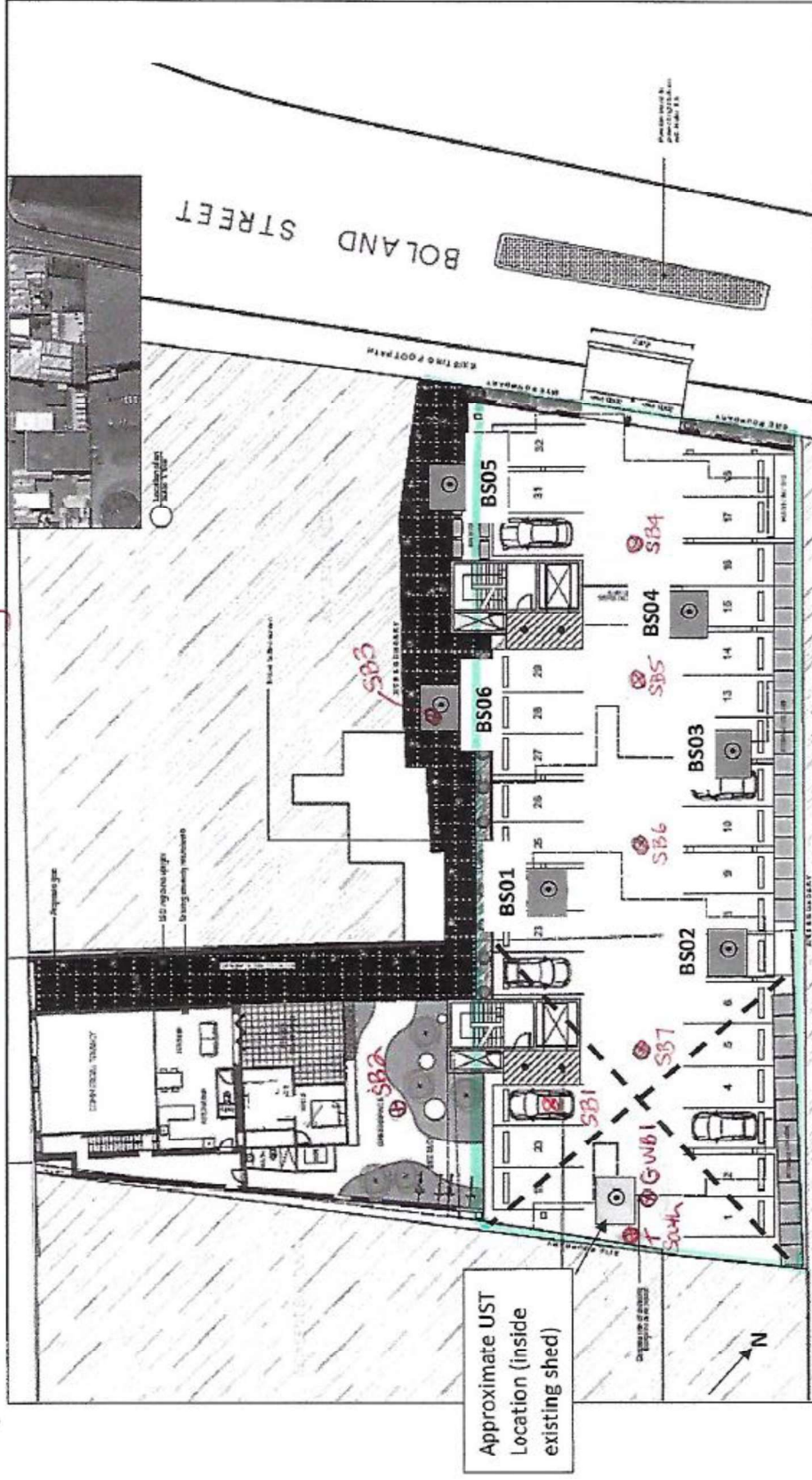


Appendix A - Assessment and Remediation Sampling Plan



6830 – Remediation and Validation Plan for 4-6 Boland St and 13A Tamar Street



Assessment and Remediation Sampling Plan



Sampling Locations Plan – 4-6 Boland Street, Launceston

-  - soil sampling location (6 total)
-  - Approximate UST location

Approximate Development Envelope

Sampling Points and Groundwater Bore

0830 – Remediation and Validation Plan for 4-6 Boland St and 1-3A Lamar Street



Appendix B – Aboriginal Heritage Search Request



Aboriginal Heritage Register

Search Request

This form initiates an Aboriginal Heritage Register (AHR) search request. Aboriginal Heritage Tasmania will check the AHR and contact you with the search results or to request further information within ten working days. Aboriginal heritage site records and unpublished reports will be made available for review on request. Information on the assessment process can be found at www.aboriginalheritage.tas.gov.au

1. Project Title

Project Title	Accommodation Facility 4-6 Boland Street and 13A Tamar Street
AHTP Number	

2. Applicant

Organisation	Environmental Service and Design
Name	Carmel Parker
Postal Address	74 Minna Road Heybridge TAS
Telephone	0409 623 615
Email	cparker@esandd.com.au

3. Proponent

As above

Organisation	
Name	
Postal Address	
Telephone	
Email	

4. Location of Development or Activity

Street Address	4-6 Boland Street and 13A Tamar Street Launceston TAS 7250
Property ID (PID)	2853701 and 3457882
Coordinates (GDA94) (Please note we cannot accept latitude and longitude coordinates)	Easting <input type="text" value="5"/> <input type="text" value="1"/> <input type="text" value="1"/> <input type="text" value="7"/> <input type="text" value="1"/> <input type="text" value="0"/> Northing <input type="text" value="5"/> <input type="text" value="4"/> <input type="text" value="1"/> <input type="text" value="3"/> <input type="text" value="3"/> <input type="text" value="5"/> <input type="text" value="0"/>
Search Identification Number (if known)	



continued over page

5. Development or Activity Description

Please provide a detailed description of the proposed development or activity including all associated ground disturbance or excavation activities. Please include details to identify the footprint and where on the property the development or activity will take place. Specify the intended use of the information requested.

Proposed construction of an accommodation facility including excavation of piers if required. Information requested will be contained within a Construction Environmental Management Plan.

6. Supporting Information

Please provide spatial and image data if available to enable effective assessment. Please provide digital data in zipped format.

Aerial image showing footprint of development or activity	<input type="checkbox"/>
GDA94 shapefiles of the development or activity area (if available)	<input type="checkbox"/>
Technical/design plans (if available)	<input type="checkbox"/>
Images of the proposed development or activity area (if available)	<input type="checkbox"/>
Evidence of land use history or prior disturbance (if available)	<input type="checkbox"/>

Date: 8/4/20

Incomplete forms will be returned to the applicant.

Please **save the form** and click **HERE** to submit to Aboriginal Heritage Tasmania.

Aboriginal Heritage Tasmania
Natural and Cultural Heritage Division
Department of Primary Industries, Parks, Water and Environment
GPO Box 44 Hobart TAS 7001

Telephone: **1 300 487 045**
Email: **aboriginal@heritage.tas.gov.au**
Web: **www.aboriginalheritage.tas.gov.au**

This publication may be of assistance to you but the State of Tasmania and its employees do not accept responsibility for the accuracy, completeness, or relevance to the user's purpose, of the information and therefore disclaims all liability for any error, loss or other consequence which may arise from relying on any information in this publication.



Personal Information Statement:

- Personal information will be collected from you for the purpose of managing Tasmania's Aboriginal heritage and will be used by DPIPWE for assessing, considering, advising upon, managing and/or determining the relevant application and may be used for other purposes permitted by the *Aboriginal Heritage Act 1975*.
- Your personal information will be used for the primary purpose for which it is collected, and may be disclosed to contractors and agents of Aboriginal Heritage Tasmania, law enforcement agencies, courts and other organisations authorised to collect it.
- Your basic information may be disclosed to other public sector bodies where necessary for the efficient storage and use of the information.
- Personal information will be managed in accordance with the *Personal Information Protection Act 2004* and may be accessed by the individual to whom it relates on request to DPIPWE. You may be charged a fee for this service



30 March 2020

Duncan Payton
Town Planner
City of Launceston
PO Box 396
Launceston TAS 7250

Dear Mr Payton,

RE: Remediation and Validation Plan – 4-6 Boland Street, Launceston 7250

Environmental Service and Design (ES&D) has previously completed a Preliminary Site Investigation for 4-6 Boland Street Launceston Tasmania “the site” and as part of that investigation ES&D reviewed the previous environmental assessment results and findings by Jemrock 2016 and Tasman Geotechnics 2018. To address the City of Launceston, *Request for Further Information* (RFI) dated 20 February 2020, ES&D have prepared a Remediation and Validation Plan for the site.

Development of the Plan was guided by the principles and requirements contained within the ***National Environmental Protection (Assessment of Site Contamination) Measure, 1999 (as amended 2013)*** (NEPASCAM) according to its status as a state policy and the *National Remediation Framework*.

The objectives of the Plan are to;

- identify potential sources of contamination and determine potential contaminants of concern;
- identify areas of potential contamination;
- identify potential human and ecological receptors;
- identify feasible pathways by which contaminants and receptors may be linked;

6830 – Remediation and Validation Plan for 4-6 Boland St and 13A Tamar Street



- identify potentially affected media (soil, sediment, groundwater, surface water, indoor and ambient air)
- undertake remediation of soils where required to ensure that the site will be suitable for the future land use
- where remediation is required ensure that validation samples are collected to confirm that the remediation has been successful to ensure that remaining soils comply with the NEPASCMS Screening levels.
- identify health risks which may arise from development activities such as excavation.

If you have any questions regarding this Plan, please contact me by telephone on (03) 64 31 2999 or email to rcooper@esandd.com.au.

Yours sincerely,



Rod Cooper BSc., CEnvP Site Contamination
Principal Consultant ES&D





Development Site – Boland St Hotel
4-6 Boland Street
LAUNCESTON. TAS. 7250
Historic Heritage Assessment
- Launceston Interim Planning Scheme 2015
and State Planning Provisions
April 2021



Contents

1.0	General Overview	3
2.0	Outline of Proposed Development	3
3.0	The Cultural Significance of the Place & Environs	3
4.0	Impact on Cultural Heritage Significance	13
5.0	Appendices	20

Picture on Cover: Boland Street Site - GPA Photo 22 March 2018



Boland Street Site - GPA Photo 22-3-2018



*Rear of building directly behind Boland St Site
- GPA Photo 22-3-2018*

An Assessment of Historic Heritage Impact against Launceston Interim Planning Scheme 2015 (Code E 13.0 Local Historic Cultural Heritage Code) and State Planning Provisions (SPP C6.0 Local Historic Heritage Code) for 4-6 Boland Street, Launceston:

1.0 General Overview

The cottages at 4-6 Boland St, Launceston were previously on the THC register/list as No. 4195. The site is now locally listed with the Launceston City Council after the buildings were demolished in 2017. Title details are: Volume 153116; Folio 1; Property ID 2853701.

Since the buildings (cottages) on the site have been demolished the main relevance for historic heritage assessment/review is in relation to:

- the archaeology of the site, and;
- the new building proposed in relation to the surrounding Tasmanian Heritage Council registered buildings and Launceston (LCC) locally listed buildings.

This report is a revised version of a report completed in Dec 2019 and, again, the contents of this report will provide an understanding of the significance of the site and its relationship to surrounding extant buildings from the 19thC and 20thC. Particular changes relate to Section 4.0 and the new design proposed for the Hotel.

2.0 Outline of Proposed Works

The **proposed new works** are for a hotel development of Six (6) Levels (Ground Level; Five (5) Standard Levels) and Roof Level (Plant and Lift Overrun) as fully outlined in the document submitted concurrently with this assessment, Boland St Hotel Development Application, as provided by Telha Clarke, dated 25 March 2021.

The proposed works will be described in further, and more specific, detail in the following sections with particular reference to archaeology and the surrounding State and Local listed buildings.

3.0 The Cultural Significance of the Place

The cottages at 4 to 6 Boland Street were demolished in 2017 after falling into a state of disrepair over many years. Refer to the sequence of photos shown in the attached Archaeological Significance Report, Appendix 5.

Launceston City Council have retained the listing for this property on the locally listed heritage places after it was removed from the State listing. It was further assessed in 2018 as part of a Stage 1 review of LCC's local heritage places for the City Industrial Precinct and found to be retained as a listed place of significance, in relation to archaeology and the precinct, inclusive of a number of State and Local listed buildings in close proximity.

For reference only, the previous THC listing details were:

Name: House

THR ID Number: 4195

Status: No Longer Registered

Municipality: Launceston City Council

Tier: State

3.1 Cultural Heritage Significance and General History:

3.1.1 4-6 Boland Street

The site of the former cottages at 4 to 6 Boland Street has historic heritage significance for its ability to potentially demonstrate archaeologically the remnants of earlier inhabitation and built forms.

All evidence of the previous structures has been removed above ground level. However, evidence of the built structures (some not originally of significance) at the rear of the site remains in part walls, openings/doors, and connections to early brick walls on adjacent sites.

Of high significance, as already noted, is the archaeology. Refer to the attached Archaeological Significance Brief – 4-6 Boland St, Launceston by Southern Archaeology, dated 17 December 2019, for a summary of the history of the site and the potential archaeological significance.

Additional significance of the site relates to the precinct setting and surrounding buildings of high significance. Of particular significance are:

- Former Bridge Hotel, 1-5 Tamar Street (State ID 4649);
- Commercial Retail, 7-11 Tamar Street (Local);
- Commercial Retail, 13 Tamar Street (State ID 4634);
- Commercial Retail, 15-21 Tamar Street (Local - No. 15 specifically being significant);
- Gasworks, 8 Boland Street and 6-18 Willis Street (State ID 4205).

Other buildings along Tamar Street are also of State Local significance but are further distant from the property being reviewed, e.g. 35, 37 and 39-41 (41-41A) Tamar Street and significant buildings from the corners of George and Tamar up to the corner of Cimitiere and Tamar Streets.

The adjacent State listed former Bridge Hotel at 1-5 Tamar Street is of most importance in relation to this assessment. It has a long history as a hotel which is summarized as following.

3.1.2 Former Bridge Hotel History (Adjoining boundary of proposed development site)

An hotel was established at this location in 1854, as the Ferry House Inn. The hotel as it is today was known as Tynan's Bridge Hotel from 1888 and through the 1890s (at one time also advertised as Davies Hotel), the Bridge Hotel (officially from 1903), Victoria Bridge Hotel (from 1908) and later Backwater Creek Hotel around

the mid-1990s. Closed as an hotel in the late 1990s, re-opened later and currently functioning as a nightclub.

Located on the SE corner of Tamar Street and Boland St (previously the Esplanade). The following information is an edited version of the history outline on at <http://monissa.com/hotels/tynans-hotel/>



Photo - October 2008

Known as Tynan's Bridge Hotel during the 1890s, Bridge Hotel (officially from 1903), Victoria Bridge Hotel (from 1908) and later Backwater Creek Hotel.

- 1888-91 Patrick Tynan, Tynan's Hotel, Tamar Street bridge/Tamar Street & Esplanade
- 1892-93 Sarah Davies, Tynan's Hotel, Tamar Street (advertised as Davies' Hotel)
- 1894 Elizabeth Mary Davies, Tynan's Hotel, Tamar Street
- 1895 Sarah Davies, Tynan's Hotel, Tamar Street
- 1896 Robert Earl, snr, Tynan's Bridge Hotel, Tamar Street
- 1897-99 Patrick Murphy, Tynan's Hotel, Tamar Street and Esplanade



1940s as Victoria Bridge Hotel -
Libraries Tasmania LPIC 33-4-119



As Backwater Creek Backwater Creek Hotel, Launceston 1995 - National Library PIC Box P1728 #P1728/39/R/nla.obj-142954964



Photo - October 2008

From: Trove Digitised Newspapers, National Library of Australia:

TOWN IMPROVEMENTS. - Another handsome addition is about to be made to our list of hotels, the accommodation in connection with which has during the past two or three years been greatly extended. Tenders were opened on the 7th instant for a new hotel, which is to be erected at the corner of Tamar-street and the Esplanade for Mr. P. Tynan, and which will bear the designation of the All Nations Hotel. The successful tenderers were Messrs. J. and T. Gunn, the amount being £2500. Five other tenders were sent in. The building will consist of hotel premises, additions to shop, and a new shop. The hotel will have a frontage of 56ft. on Tamar-street, and 80ft. on the Esplanade. It will in all respects be of the Venetian and Elizabethan order of architecture, being cemented, with cornices, mouldings, architraves, imposts, entablatures, pediments, pilasters, and blocking courses.
[continues with a detailed description as in Daily Telegraph's story]

Launceston Examiner, 15 February 1888

TOWN IMPROVEMENTS.— Tender's for the erection of Mr P. Tynan's hotel, at the corner of Tamar-street and the Esplanade, the designs and specifications for which were prepared by Messrs. Harry Conway and Son, were opened on Tuesday, February 7, six tenders being to hand. That of Messrs. J. and T. Gunn was accepted at £2500. The building will consist of hotel premises, additions to shops, and a new shop. The hotel will have 66ft on Tamar-street, 80ft on the Esplanade, and will have on the ground floor-bar, 29ft x 17ft; bar parlor, 19ft x 14ft; private parlor, 16ft x 14ft, store, 15ft x 14ft ; dining-room, 25ft x 14ft ; kitchen, 21ft x 16ft ; pantry, 11ft x 9ft 6in ; servants' bedroom, lift 6in x 10ft 6in. On the Tamar-street side there will be an entrance 5ft wide, and on the Esplanade an entrance hall 6ft wide leading to a staircase 9ft wide, with the usual verandah in front, 6ft wide. The staircase will be a massive newel stair, constructed of cedar and kauri pine, with moulded hand-rail and ornamental cast-iron balusters. The first-floor will consist of five bedrooms, 10ft x 7ft 6in ; three bedrooms, 14ft x 8ft ; and five bed rooms, 14ft x 14ft ; bathroom, 10ft x 6ft, with patent w.c. attached ; store, 8ft x 5ft, and three corridors 4ft 6in wide ; and from the landing will be a hall corresponding to the one downstairs, leading on to a balcony 6ft wide. The rooms will be 12ft 6in high down stairs and lift 6in upstairs. The front will be cemented with cornices, moulding, architraves, impost, emtablatures, pediments, pilasters, and blocking courses, and will in all respects be of the Venetian Elizabethan order of architecture. The front windows will be ornamented with the top sash in colored cathedral glass, and the entrance doors will have side lights and fanlights with ornamental figured glass. In the yard of the hotel there will be two urinals, each 6ft x 4ft 6in ; two patent w.c.'s, 6ft by 4ft, and wood and coal sheds 15ft 6in by 6ft. The yard will be asphalted and drained, so as to make the whole clean. The w.c.'s, yards, and sheds at back will be in all respects the same as for hotel premises. The present hay and corn store lately occupied by Mr O. Lloyd will be converted into a shop 18ft x 18ft, sitting-room 12ft x 12ft, and store 12ft x 6ft. The present right-of-way will have a shop 12ft 6in x 18ft and sitting-room 12ft x 12ft 6in, and at the rear of these will be two kitchens 10ft x 8ft. Upstairs over these shops will be one bedroom 18ft x 18ft, one 18ft x 12ft 6in, one 12ft x 12ft 6in, and one 18ft- x 12ft, with the necessary newel staircases. The front of this new portion of shops will be constructed to correspond with the present shops.

Daily Telegraph, 15 February 1888



Photo - April 2016

TO LET, with immediate possession—
That valuable hotel property known
as
TYNAN'S HOTEL,
 Now in the occupation of the proprietor,
Mr Patrick Tynan. The house, being one
 of the latest erected in Launceston, has
 been constructed especially with a view to
 the comfort and convenience of the travel-
 ling public, and being in immediate
 proximity to the railway terminus and
 wharf, is largely patronised by tourists.
 The large and rapidly increasing business
 being done is a sufficient guarantee that
 all requirements are fully met.
 The proprietor is reluctantly obliged
 through ill health to relinquish this
 valuable business.
 For particulars apply to the proprietor
 at
TYNAN'S HOTEL,
Tamar-street and Esplanade, Launceston.

Launceston Examiner, 13 February 1892

**TRANSFERS.—CITY OF LAUN-
CESTON.**

Clarke, Edward, from Digney, George
James, Queen's Head Hotel, Welling-
ton-street.
Doolan, John Lawrence, from Chester,
Hannah, Star Hotel, Charles-street.
Davies, Sarah, from Tynan, Patrick,
Tynan's Hotel, Tamar-street and
Esplanade.

Launceston Examiner, 6 April 1892

Mrs **MUNRO**,
Upper Charles-street.

WANTED—A Good **YOUTH**, as Groom ;
references required.

Apply

SARAH DAVIES,
Tynan's Hotel, Wharf.

WANTED—On liberal terms, **HORSE**,
about 6 years, suitable light and

Daily Telegraph, 23 April 1892

Davies's Hotel

(LATE **TYNAN'S HOTEL**),
NEAR TAMAR BRIDGE, LAUNCESTON.

**Excellent Accommodation for Visitors at
Moderate Rates.**

**Furnished with all the latest conveniences
for the comfort of guests.**

**Spacious and well ventilated bedrooms,
newly furnished sitting and
smoking rooms. Hot and
cold water baths.**

**FIRST-CLASS TABLE WITH CHOICE
LIQUORS.**

**The hotel is situated within two minutes'
walk of both railway stations and wharves,
and commands a magnificent view of the
River Tamar.**

MEALS AT ALL HOURS.

Launceston Examiner, 25 May 1892

DAVIES' CITY HOTEL, 93 St. John-street. Good accommodation for visitors. One door from Brisbane-street.

DAVIES' HOTEL (late Tynan's), next Bridge and Railway Station. Smoking Rooms, Baths. First-class Table and Liquors.

SPLANADE HOTEL, Inveresk. Every

Daily Telegraph, 5 November 1892

City Police Court. — The only business at this court on Saturday was the granting of a permit to Sarah Davies to sell liquors at Tynan's Hotel under the license; held by Elizabeth Mary Davies until the next quarterly licensing meeting. Messrs. E. Whitfeld, P.M., and D. Ritchie, J.P., occupied the bench.
Daily Telegraph, 18 February 1895

20th NOVEMBER, 1895.

TENDERS will be received until 10 o'clock on Monday, 9th December, erection of Stables, etc., at Tynan's Hotel, Tamar-street. Plans and specifications can be seen at my house, 10 Ann-street.
W. CONWAY, Architect.

Launceston Examiner, 30 November 1895

Police Court:
Robert Earl, sen., received permission to sell liquors at Tynan's Hotel under the license held by Sarah Davies until next meeting of the Licensing Bench.
Launceston Examiner, 4 August 1896

TYNAN'S HOTEL,
 Tamar-street Bridge, Launceston.
ROBERT EARL, Sen., the well-known caterer to the public for the past 30 years, has taken the above First-class Hotel, and invites the patronage of all friends, old and new, who may rely on every attention.
Hot, Cold, and Spray Baths.
Perfect Cuisine. Terms Moderate.
NOTE.—Free Stabling for country friends only.
R. EARL, Proprietor.

Launceston Examiner, 6 August 1896

TYNAN'S HOTEL,
TAMAR-STREET (opposite the Bridge).
A first-class hotel.
One minute from railway, one minute from
wharf.
The best hotel in Launceston for visitors.
P. MURPHY.

PRIVATE BOARD AND RESIDENCE

Daily Telegraph, 24 November 1897

Police Court.-There was no business to transact at yesterday's sitting of the City Police Court beyond the granting to Mr. Patrick Murphy, licensee of Tynan's Bridge Hotel, of a permit to sell liquors at, the show on the 3rd, 4th, 5th, and 6th inst.

Launceston Examiner, 3 October 1899

W. Stewart, 149 Charles-street, city.

F O R S A L E

**THE LEASE, LICENSE, GOODWILL,
 AND FURNITURE OF**

TYNAN'S HOTEL,

Tamar Bridge, as a going concern.

**IMMEDIATE POSSESSION IF
 REQUIRED.**

P. MURPHY.

LAND FOR SALE—500 acres, George

Daily Telegraph, 27 November 1902



Photo - April 2016

3.1.3 7-11 Tamar Street (Adjoining boundary of proposed development site)

These properties can be traced back to at least the early 1890s in the Tasmanian Post Office Directories.

In 1894/95 they were occupied by Fred Hollingworth (no. 7), James Barnes, boot maker (no. 9) and Stephen Matthews (fruiterer) (no. 11). Number 7 was occupied by Jonathon Munro as a boot shop with residence above from the 1920s until the 1940s. No. 9 was occupied as a ham, beef and small goods shop run by Cornelium McCarthy in the 1920s and 1930s.

In the 1940s it was run by W. Marshall. No. 11 was occupied as a bakery and confectionery business from the 1910s and then as a bakery run by Cecil McCarthy from c1925 to 1948 at least. The bakery was at the rear (Tasmania Post Office Directories).

In 1950 the neighbouring former Bridge Hotel and adjoining properties, including 7-11 Tamar Street, were put up for sale. They were described as 'each consisting of a two storey brick shop and dwelling', with a bakehouse at the rear of number 11. (Examiner 2/9/1950, p. 3).



7-11 Tamar Street – GPA Photo 2018

3.2 Description/Condition and Integrity:

A viewing of the site at 4-6 Boland Street, Launceston was carried out in March 2018 and again on the 12th December 2019.

As the buildings have been demolished there are no structures of integrity or any way of describing condition other than – site vacant with some evidence of former structures remaining attached or where attached to structures/walls remaining on adjacent sites.

Adjacent (sharing boundary line) structures of significance previously noted at 1-5 and 7-11 Tamar Street are in good condition and well utilised.

4.0 Impact on Cultural Significance

4.1 Impact Assessment Framework

In general, in relation to any remaining evidence of the cottages (generally archaeological) - application of the ICOMOS Australia *Burra Charter* process (accepted philosophy for conservation) involves **understanding the significance** of a place, **developing policy** to manage that significance and then **to manage the place according to those policies** (with review where appropriate).

More specifically is review against the **Launceston Interim Planning Scheme 2015, Local Historic Cultural heritage Code (E13)**; and, the **State Planning Provisions - SPP C6.0 Local Historic Heritage Code**.

4.2 Assessment of Heritage Impact

For the purposes of reviewing the proposed new works, in the form of a multi-level hotel as outlined and detailed in Boland St Hotel Development Application, as provided by Telha Clarke , dated 25 March 2021, Code E13 must first be considered.

Section E13.1 'Purpose of the Local Historic Cultural Heritage'

Under Code E13.1.1 'The purpose of the provision' outlines four (4) criteria of which only three (3), as fully quoted in italics below, have relevance in relation to the site and adjoining buildings as part of heritage places and precincts rather than any buildings on the site:

- (a) *Protect and enhance the historic cultural heritage significance of local heritage places and heritage precincts;*
- (b) *Encourage and facilitate the continued use of these places;*
- (c) Not applicable as the building on site have been demolished;
- (d) *Ensure that development is undertaken in a manner that is sympathetic to, and does not detract from, the historic cultural significance of the places and their settings.*

Protection and enhancement of the historic cultural heritage significance of the local heritage precinct (**as noted in E13.1.1 (a)**) in this instance is the main concern. As noted in 3.1 there are several buildings State and Local listed which form part of a precinct which has historic cultural significance and the relationship of the proposal needs to be assessed in relation to that.

The proposed hotel building structure at the ground level does not abut the southern boundary lines with the adjoining the former Bridge Hotel property, but, does abut the boundaries shared with the commercial retail buildings next to the hotel at 7-11

Tamar Street. Those buildings themselves (along with 13 Tamar Street) are set away from their rear boundaries leaving substantial clearance to the proposed new building. The front façade/elevation follows the front boundary line and, additionally, is set away from the side boundary equal to the fire easement on the former Bridge Hotel side. This allows those significant buildings to maintain clear separation and differentiation from the proposed new hotel.

On the other northern boundary the building is modern and not of historic cultural significance and does not require further detailed comment. Suffice to note that the ground level does abut the boundary line but Level 2 only partially abuts the boundary line and Levels 3 and above are set back from the boundary line and side wall of this building's wall/boundary.



Image taken from Boland St Hotel Development Application, by Telha Clarke, 25 Mar 2021
 – Drawing TP.2.10

The main impact on significance on the State and Local listed buildings adjoining relates specifically to the height of the proposal at six (6) levels (the seventh level being generally open roof space) compared to essentially two (2) levels of the significant buildings. The two levels, however, have high floor to floor distances along with a deep parapet around a high-pitched roof which equates the total height at the parapet being 8.984m. This does, consequently, visually reduce the disparity with the new building at 20m along the front edge of the roof down to approximately 1:2.2 roughly from views more distant up to those closer. Some moderation of this is given by the proposed new building maintaining a line equating to the modern building and thereby maintaining a two-storey boundary façade nearly 1.0m lower than the former Bridge Hotel with the upper levels set back marginally. From very close pedestrian level, and view, the proposed building will therefore appear less imposing and the roof over the pathway at the lower level will also help to moderate the disparity. Refer to comments under Section E13.6 'Development Standards'.

The former Bridge Hotel does have strength and good contrast in style by the prominent corner placement and elevations to both Tamar and Boland Streets, and, with the highly detailed façade. In comparison, this current version of the proposed hotel appears to have taken the two neighbouring fenestration styles and created a closely repetitive version that sits modestly between the two styles. The squarer form of the hotel above the main lower street façade line with repetitive glazing elements, and, set back from the boundary allows further contrast to the intricate and decorative detailed facade of the adjacent hotel, permitting the former Bridge Hotel to remain aesthetically dominant. The use of a living wall of greenery over the upper levels contributes greatly to the differentiation of low general town levels to higher new levels. Selection of recycled brick from the site (dark colours), or a match thereof, is positive in two ways – it recedes that facade further at the lower levels allowing a clear definition of the former Bridge Hotel, and, a tribute to the cottages that were on the site. It must be noted that dark façade receding to allow the listed building to have clarity is only possible whilst the former Bridge Hotel is painted in light colours and not darker colours of other potential colour schemes.

Various streetscape views of the building have been provided which showed visual representation of the proposed form and scale with the adjoining buildings on Boland and Tamar Streets In those perspectives the greatest visual impact of the proposed hotel is evident in the view from the south west. From this view the height and depth (bulk) of the building is most evident however, the use of the repetitive windows/fenestrations with differing window type does make the large portion of the building interestingly appears separate and slightly disconnected from all the facades at street level.



Image taken from Boland St Hotel Development Application, by Telha Clarke, 25 Mar 2021 – Pg 12

The brick architectural interpretation of the façade, paying homage to the Boland Street cottages formerly on the site, allows the lower section of the proposal to be aesthetically more diminutive in scale and context with the adjoining former bridge Hotel. The use of lighter colours, repetitive window/fenestration and living wall ensures that the higher levels appear as a recessive/diminutive element despite the bulk/scale.

In regards to points **E13.1.1 (b) and (d)** please note the following:

- Continuation of use of the site (since no buildings remain) is important rather than leaving a vacant site. It could be remarked that carparking, as a very low visual impact use next to the State listed former Bridge Hotel, may be preferable, it would not be representative of the historically high use and density of buildings in this area. A structure with use as a hotel (accommodation) does somewhat fit historically with the site and adjoining buildings.
- The development being undertaken in a sympathetic manner, and not detracting from, the historic cultural heritage significance of the places and their settings has been covered by the comments above in relation to the precinct as such.

Section E13.2 'Application of this Code'

In relation to Section E13.2, the site is listed for Local Heritage Significance related most importantly to: the precinct and archaeological evidence that may be found relating to past structures on the site. Of high importance and high significance is the archaeology potential. For a detailed review of this archaeological potential refer specifically to the attached Archaeological Significance Brief – 4-6 Boland St, Launceston by Southern Archaeology, 17 December 2019, in its entirety.

Section E13.4 'Use or Development Exempt from this Code'

This development and use as proposed in not exempt from the E13 Code under Section E13.4.

Section E13.6 'Development Standards'

Several section under E13.6 are relevant to the assessment of the proposed development in relation to adjoining buildings rather than buildings directly on the site:

- E13.6.4 Site Coverage;
- E13.6.5 Height and Bulk of Buildings;
- E13.6.6 Siting of Buildings and Structures;
- E13.6.8 Roof Form and Materials;
- E13.6.9 Wall Materials;
- E13.6.13 Signage.

Two of these clauses (E13.6.5, E13.6.6) have been considered generally within Clause E13.1. With the site being vacant, the development has been considered in relation to adjoining and nearby significant buildings only and not in relation to buildings (now non-existent) within the site boundaries.

More specifically in relation to **E13.6.4 Site Coverage**, the immediately adjoining buildings cover a high percentage of the blocks on which they are located – nominally

95%-100%. This is also consistent with a number of the Tamar Street commercial sites with some covering 100% of their site. The footprint of the proposed building is less than this and coverage at the Level 1 floor line again less than the adjacent buildings. The site is also flat as are the sites in the vicinity, and therefore, consistent. Unfortunately, this does not allow for any gradients or moderation of building heights due to slope which will be further analysed with E13.6.5.

The height and bulk of the proposed building, **E13.6.5**, has been assessed as noted previously under E13.21. Further to those notations:

- The height of the adjacent buildings (notably the former Bridge Hotel) is relatively noted as 2.2 times higher than the former Bridge Hotel from a distance where the parapet and roof of the listed Hotel are more visible. At pedestrian eye level from across the road, the proportion would seem be slightly greater, but, at immediate street level the height difference is mitigated by the combined roof over the pathway, dark colour (recessive), the set back above the second level and material differentiation of the upper levels of the proposed development. It must be also reiterated that the first levels align more distinctly with the other adjoining building which is nearly 1.0m lower than the street façade level of the key listed building.
- Slightly further distant are the higher buildings of the Launceston Gasworks, which when viewed from various angles on the higher slopes, have a similar height to the proposal and sit more randomly in the block formed by Boland, Willis, Cimitiere and Tamar Streets. An aspect which also follows into the next notations on bulk;
- The Launceston Gasworks Vertical Retort Building and the former CWG Plant/Office Building are proportionally similar to the proposed development, are not abutting and are sited slightly apart from each other. Also of large scale, but currently transparent as such, is the Gasholder 4 (former No 5). These Gasworks structures appear as a distinct collection but their bulk and height sit more randomly compared to the general continuous (boundary to boundary) lower height buildings and open areas in the vicinity. This random aspect, with similar height/bulk, is how the proposed development would then appear in this same environment.

When assessing siting, **E13.6.6**, the immediately adjacent buildings are aligned on the street boundaries of their sites. The proposed development follows the pattern by abutting the street boundary, but, is set back from the side boundary to allow the fire easement/‘Right of Way’ so there is clear definition and separation from the State listed former Bridge Hotel.

The roof form and materials, **E13.6.8**, of the proposed development are in-keeping with the flat roof parapet style roof line and flat roof of the adjoining modern building. Keeping the roof form as low as possible and the upper levels set back from the frontage does help to mitigate the height of the building and is consistent with the majority of later period buildings in the vicinity, i.e., distinctly modern in form and does not attempt to mimic earlier pitched roof periods.

Wall materials, **E13.6.9**, are of greater importance in the visual and aesthetic context of the streetscape. The adjacent former Bridge Hotel has rendered brickwork and the



other adjoining building is painted off-form concrete – smooth texture of light colour. The cottages previously on the site were brick with corrugated metal sheet roofs. The proposed materials allow some connectivity to the former Boland Street cottages but also combine with a modern palette. Colour as noted earlier is of considerable importance in relation to highlighting the lower two levels as part of the streetscape, and, using darker colours to allow the light-coloured former Bridge Hotel to remain dominant visually. The use of a living wall of greenery, stepped brickwork and lighter colours with the repetitive windows/fenestrations provides a modern but simple form to the bulk of the proposed building.

Signage, **E13.6.13**, has been indicated as being discrete which visually does not impact the adjoining significant buildings.

State Planning Provisions

As further review, the State Planning Provisions Section C6.0 Local Historic Heritage Code have been considered. Of particular relevance due the archaeological significance, as an additional factor, is Section C6.2 C6.2.1 (iv) in relation to excavation only.

Under Section C6.4 and Table C6.4.1 the proposed development is not exempt from Code C6.0.

Within Section C6.6 Development Standards for Local Heritage Places and C6.7 Development Standards for Local Heritage Precincts and Local Historic landscape Precincts, and C6.8 Development Standards for Places or Precincts of Archaeological Potential, the following Clauses are pertinent:

- C6.6.2 Site Coverage;
- C6.6.3 Height and Bulk of Buildings;
- C6.6.4 Siting of Buildings and Structures;
- C6.6.9 Driveways and Parking for Non-residential Purposes;
- C6.7.3 Buildings and Works, excluding Demolition;
- C6.8.1 Building and Works.

Again, the first three of these clauses (C6.6.2, C6.6.3, C6.6.4) and C6.7.3 have been considered generally within the outlines of the Launceston Planning Scheme sections and clauses previously. With the site being vacant, the development has been considered in relation to adjoining and nearby significant buildings only and not in relation to buildings (now non-existent) within the site boundaries.

Carparking is behind the line of the proposed building façade as per the acceptable solution A1. In relation to the performance criteria, the site is vacant and P1 is not applicable generally and ingress and egress of vehicles would be covered under Launceston Planning Scheme standard planning clauses being reviewed by the Consultant Planner.

Again, the most important of the sections and clauses is that relating to archaeology - Section C6.8. The attached Archaeological Significance Brief – 4-6 Boland St, Launceston recommendations for investigation and management of excavations on the site fit within the C6.8.1 performance criteria P1.

Additionally, in relation to consideration of the adjoining significant properties, any excavation, digging, footing or pile works must be highly respectful of the adjoining highly significant structures and their continuing integrity and stability. This aspect must be stressed to all contractors on the site and suitable work practices must be incorporated into work methods to eliminate or minimise excessive vibration during the progress of the works. Detailed photographic record before work commences of adjoining significant buildings (and the other adjoining buildings) is recommended and further photographic recording carried out on completion of the excavation stage and after practical completion of the proposed structure.

Finally, in reference to the document, Works Guidelines for Historic Heritage Places, November 2015 by Tasmanian Heritage Council and Tasmanian Government, two chapters are particularly pertinent – Chapter 7 Excavation and archaeological Investigation and Chapter 8. New Buildings. The first has already been clearly reviewed and defined with the Archaeological Significance Brief. The second has been addressed through the Launceston Planning Scheme pertinent section and State Planning Provisions review and resultant comments.

4.3 Recommendations

Arising from the review comments on previous proposals for this site a number of recommendations were made, and, after review of the designs of this proposal, the following recommendations have been met:

- Allowing general evidence of past structures remain evident on adjoining structures/walls where possible as an indication of previous buildings on this site;
- The use of recessive dark colours/tones/shades as back-drops to the significant former Bridge Hotel (significant building side). Keeping fenestrations discrete (potentially with verticality) in a regular grid which reads more as a simple background pattern from various locations. Patterned or bright colouring to the side elevations/facades to be avoided so as not to be visually intrusive and further allow the former Bridge Hotel to dominate the aesthetic and the proposed structure to recede;

The following recommendation remains:

- Ensuring specifications and contract documents for execution of the works include photographic records of adjoining significant buildings before and after the works, and, work methods eliminating or reducing vibration impact during excavation, footings and general construction.

Directly from the Archaeological Significance Brief:

"The following points set out the best practice recommendations made by Southern Archaeology for the works at the study area:

- *Archaeological monitoring (physical observation) is recommended, by a qualified archaeologist, during any sub-surface works or activities associated with the development at 4-6 Boland St Launceston.*
- *If archaeological material is exposed during works, work should cease while the situation is assessed by the qualified archaeologist on-site. Archaeological recording and collection of artefacts should occur. The aim of this will be to*

complete recording in a timely and efficient manner to allow the development to continue.

- Archaeological remains may exist anywhere on this site. Any disturbance in this area should consider the **archaeologically sensitive and significant nature of the site.**
- Any archaeological features discovered on the site should be assessed, photographed and recorded for future management and research purposes. This might include walls, floors, fences, paths, cesspits, foundations, artefact concentrations, drainage systems or evidence of former road surfaces.
- If artefacts are found on site, it is recommended that they be recorded and collected in a timely and efficient manner for further analysis.
- An archaeological report be prepared to document and record the monitoring and/or any excavation.
- Any Aboriginal cultural heritage material found during works will require work to stop immediately while this is assessed by the qualified archaeologist and an Aboriginal Heritage Officer, with consideration of statutory requirements. An Unanticipated Discovery Plan (UDP) is included in **Appendix 2** and this details the procedure if Aboriginal heritage is discovered during works."

5.0 Appendices.

The following is attached, after this title page, as the Appendices:

Report:

Archaeological Significance Brief – 4-6 Boland St, Launceston by Southern Archaeology, dated 17 December 2019.

Drawing Documents:

21005-210325 Boland Street Hotel Arch DA (02)

21005-210325 Boland Street Hotel Dwg (02)

21005-210325 Boland Street Hotel Development Application (02)

