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## **NOTICE OF MEETING**

**Notice is hereby given of the Meeting of the  
Finance and Policy Committee  
to be held in the Council Chamber,  
First Floor, Civic Administration Building,  
101 Esk Street, Invercargill on  
Tuesday 5 December 2017 at 4.00 pm**

His Worship the Mayor Mr T R Shadbolt JP  
Cr D J Ludlow (Chairman)  
Cr G D Lewis (Deputy Chair)  
Cr R L Abbott  
Cr R R Amundsen  
Cr I R Pottinger  
Cr L S Thomas

EIRWEN HARRIS MITCHELL  
MANAGER, SECRETARIAL SERVICES

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**TO: FINANCE AND POLICY COMMITTEE**

**FROM: DIRECTOR OF FINANCE AND CORPORATE SERVICES**

**MEETING DATE: TUESDAY 5 DECEMBER 2017**

<b>LEVELS OF SERVICE REPORT – 1 JULY 2017 TO 31 OCTOBER 2017</b>
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**Report Prepared by:** Melissa Short – Strategy and Policy Manager

**SUMMARY**

Reporting on the Corporate Services levels of service measures for the period comprising 1 July 2017 to 31 October 2017.
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**RECOMMENDATIONS**

**That the report be received.**

**IMPLICATIONS**

1.	<i>Has this been provided for in the Long Term Plan/Annual Plan?</i> The report monitors performance in relation to levels of service measures identified in the Long Term Plan and Annual Plan.
2.	<i>Is a budget amendment required?</i> No
3.	<i>Is this matter significant in terms of Council's Policy on Significance?</i> No
4.	<i>Implications in terms of other Council Strategic Documents or Council Policy?</i> No
5.	<i>Have the views of affected or interested persons been obtained and is any further public consultation required?</i> No
6.	<i>Has the Child, Youth and Family Friendly Policy been considered?</i> No – not relevant

**FINANCIAL IMPLICATIONS**

No financial implications result from this report.

**DEMOCRATIC PROCESS**

<b>Democratic Activities</b>	<b>1 July 2017 to 31 October 2017</b>
Annual Report is completed within the statutory deadlines with an unmodified Audit Opinion.	The 2016/17 Annual Report was adopted by Council on 31 October. It received a clear audit opinion.

**Consultation:**

- Smokefree Areas Policy
- Significant Events Bylaw
- Imagine Invercargill Forum
- Trade Waste Bylaw
- Southland Regional Development Agency Consultation (undertaken by Environment Southland)
- Environmental Health Bylaw
- Water Supply Bylaw
- Urupa (Maori Burial Site) Te Hau Mutunga Bylaw
- Cemeteries and Crematorium Bylaw

**INVESTMENT PROPERTY**

	<b>1 July 2017 to 31 October 2017</b>
<b>Investment Property Activity</b>	
October 2017	<p><b>Sale</b> 2 Deveron Street, Invercargill Settlement: 31 October 2017</p> <p><b>Sale</b> 10 Deveron Street, Invercargill Settlement: 31 October 2017</p>
September 2017	<b>No Purchase or Sale Transactions</b>
August 2017	<b>No Purchase or Sale Transactions</b>
July 2017	<b>No Purchase or Sale Transactions</b>

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**TO:** FINANCE AND POLICY COMMITTEE  
**FROM:** DIRECTOR OF FINANCE AND CORPORATE SERVICES  
**MEETING DATE:** TUESDAY 5 DECEMBER 2017

**MONITORING OF FINANCIAL PERFORMANCE**

**Report Prepared by:** Mr Dale Booth – Manager, Financial Services

**SUMMARY**

Finance and Policy are \$342,432 under budget for the three months to 30 September 2017.

**RECOMMENDATIONS**

**That the report be received.**

**IMPLICATIONS**

1.	<i>Has this been provided for in the Long Term Plan/Annual Plan?</i> Yes.
2.	<i>Is a budget amendment required?</i> No
3.	<i>Is this matter significant in terms of Council's Policy on Significance?</i> No
4.	<i>Implications in terms of other Council Strategic Documents or Council Policy?</i> No
5.	<i>Have the views of affected or interested persons been obtained and is any further public consultation required?</i> No
6.	<i>Has the Child, Youth and Family Friendly Policy been considered?</i> Yes

**FINANCIAL IMPLICATIONS**

Financial commentary and financial accounts are provided for information.

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Business Unit **200000 - Finance and Corporate Services**

	Sep YTD			2017 / 18	
	Actual	Budget	Variance	Remaining Budget	Budget
Internal Revenue	1,708,694	1,646,008	62,686	4,875,339	6,584,034
Fees & Charges Revenue	624,381	541,594	82,787	2,602,419	3,226,801
Grants & Subsidies Revenue	399,397	396,090	3,306	1,225,243	1,624,640
Rates Revenue	289,605	318,346	(28,741)	340,395	630,000
Financial Revenue	158,351	398,941	(240,590)	9,043,616	9,201,967
<b>Total Revenue</b>	<b>3,180,428</b>	<b>3,300,979</b>	<b>(120,551)</b>	<b>18,087,013</b>	<b>21,267,441</b>
Internal Expenditure	1,054,272	1,039,574	14,698	3,104,023	4,158,295
Staff Expenditure	1,642,670	1,725,190	(82,520)	5,837,615	7,480,286
Administration Expenditure	599,311	548,597	50,714	1,318,410	1,917,721
Financial Expenditure	402,177	501,103	(98,926)	1,962,235	2,364,412
Grants & Subsidies Expenditure	1,574,227	1,568,842	5,385	3,878,648	5,452,875
Repairs & Maintenance Expenditure	42,809	74,548	(31,739)	260,382	303,191
Operational Expenditure	511,790	507,030	4,760	1,845,233	2,357,024
Depreciation Expenditure	103,191	97,113	6,078	285,260	388,451
<b>Total Expenditure</b>	<b>5,930,447</b>	<b>6,061,996</b>	<b>(131,549)</b>	<b>18,491,807</b>	<b>24,422,254</b>
<b>Operating Surplus / (Deficit)</b>	<b>(2,750,019)</b>	<b>(2,761,017)</b>	<b>10,998</b>	<b>(404,793)</b>	<b>(3,154,812)</b>
Capital Expenditure	967,376	1,121,344	(153,968)	1,363,524	2,330,901
Capital Funding	107,979	285,564	(177,585)	(2,152,226)	(2,044,247)
Cash Back Depreciation	104	223	(119)	787	891
<b>Rates Required</b>	<b>3,825,270</b>	<b>4,167,702</b>	<b>(342,432)</b>	<b>(384,696)</b>	<b>3,440,575</b>

**Commentary:**

Finance and corporate Services are \$342,432 under budget for the first three months of the year. A departmental breakdown and commentary follows -

Business Unit **150000 - Museum Operations**

	Sep YTD			2017 / 18	
	Actual	Budget	Variance	Remaining Budget	Budget
Fees & Charges Revenue	274,861	317,740	(42,879)	996,099	1,270,960
Grants & Subsidies Revenue	299,193	287,410	11,783	850,447	1,149,640
Financial Revenue	744	2,800	(2,056)	10,456	11,200
<b>Total Revenue</b>	<b>574,797</b>	<b>607,950</b>	<b>(33,153)</b>	<b>1,857,003</b>	<b>2,431,800</b>
Internal Expenditure	171,287	171,287	0	513,862	685,149
Staff Expenditure	271,064	257,760	13,304	842,242	1,113,306
Administration Expenditure	20,406	24,496	(4,090)	77,577	97,983
Financial Expenditure	0	224	(224)	894	894
Grants & Subsidies Expenditure	15,000	3,750	11,250	0	15,000
Repairs & Maintenance Expenditure	12,847	4,191	8,656	3,918	16,765
Operational Expenditure	70,398	112,642	(42,244)	380,172	450,570
Depreciation Expenditure	3,261	3,318	(57)	10,011	13,272
<b>Total Expenditure</b>	<b>564,263</b>	<b>577,669</b>	<b>(13,406)</b>	<b>1,828,676</b>	<b>2,392,939</b>
<b>Operating Surplus / (Deficit)</b>	<b>10,534</b>	<b>30,281</b>	<b>(19,747)</b>	<b>28,327</b>	<b>38,861</b>
Capital Expenditure	0	0	0	38,861	38,861
Cash Back Depreciation	0	(0)	0	(0)	(0)
<b>Rates Required</b>	<b>(10,534)</b>	<b>(30,281)</b>	<b>19,747</b>	<b>10,534</b>	<b>0</b>

**Commentary:**

Museum operations are \$19,747 over budget for the 3 months ended 30 September 2017.

Business Unit **210000 - Finance and Corporate Services Director**

	Sep YTD			2017 / 18	
	Actual	Budget	Variance	Remaining Budget	Budget
Internal Revenue	(42,500)	(42,500)	0	(127,500)	(170,000)
Grants & Subsidies Revenue	100,204	108,680	(8,477)	374,796	475,000
Rates Revenue	289,605	318,346	(28,741)	340,395	630,000
Financial Revenue	28,457	15,352	13,105	6,021,543	6,050,000
<b>Total Revenue</b>	<b>375,765</b>	<b>399,878</b>	<b>(24,113)</b>	<b>6,609,235</b>	<b>6,985,000</b>
Internal Expenditure	162,173	162,173	0	486,518	648,690
Staff Expenditure	83,349	110,380	(27,031)	390,598	473,947
Administration Expenditure	3,823	3,900	(77)	11,777	15,600
Repairs & Maintenance Expenditure	0	625	(625)	2,500	2,500
Operational Expenditure	92,351	20,125	72,226	30,149	122,500
Depreciation Expenditure	4,551	3,933	617	11,183	15,733
<b>Total Expenditure</b>	<b>346,247</b>	<b>301,136</b>	<b>45,111</b>	<b>932,723</b>	<b>1,278,970</b>
<b>Operating Surplus / (Deficit)</b>	<b>29,518</b>	<b>98,742</b>	<b>(69,224)</b>	<b>5,676,511</b>	<b>5,706,030</b>
Capital Expenditure	0	0	0	5,000	5,000
<b>Capital Funding</b>	<b>(80,003)</b>	<b>0</b>	<b>(80,003)</b>	<b>(194,997)</b>	<b>(275,000)</b>
Cash Back Depreciation	(0)	(0)	0	0	0
<b>Rates Required</b>	<b>(109,521)</b>	<b>(98,742)</b>	<b>(10,779)</b>	<b>(5,866,509)</b>	<b>(5,976,030)</b>

**Commentary:**

Finance and Corporate Services is under budget for the first three months of the year. This is a combination of some budgets being under while others are over - rate penalties revenue is under what was budgeted while staff expenditure to date is lower than budgeted. Operational expenditure is over budget due to the CBD Branding Implementation but this cost has been offset by an uplift from Reserves.



Business Unit **219000 - Finance and Corporate Services - Human Resources**

	Sep YTD			2017 / 18	
	Actual	Budget	Variance	Remaining Budget	Budget
Internal Revenue	229,966	229,966	0	689,896	919,862
Financial Revenue	1,020	500	520	980	2,000
<b>Total Revenue</b>	<b>230,985</b>	<b>230,466</b>	<b>520</b>	<b>690,877</b>	<b>921,862</b>
Internal Expenditure	5,378	5,378	0	16,133	21,510
Staff Expenditure	159,557	174,480	(14,923)	617,415	776,972
Administration Expenditure	7,338	8,654	(1,316)	27,276	34,614
Repairs & Maintenance Expenditure	8	774	(766)	3,089	3,097
Operational Expenditure	11,781	29,120	(17,340)	104,701	116,481
Depreciation Expenditure	2,430	2,297	133	6,758	9,188
<b>Total Expenditure</b>	<b>186,492</b>	<b>220,703</b>	<b>(34,211)</b>	<b>775,371</b>	<b>961,863</b>
<b>Operating Surplus / (Deficit)</b>	<b>44,494</b>	<b>9,763</b>	<b>34,731</b>	<b>(84,495)</b>	<b>(40,001)</b>
Capital Expenditure	0	0	0	1,549	1,549
Capital Funding	0	0	0	(41,549)	(41,549)
<b>Rates Required</b>	<b>(44,494)</b>	<b>(9,763)</b>	<b>(34,731)</b>	<b>44,494</b>	<b>0</b>

**Commentary:**

The Human Resources Department is \$34,731 under budget for the first three months of the year. This is due to lower than anticipated spend in the consultant budget but should even out as the year progresses. As reported last month staff expenditure is under budget due to the timing of staff leaving and vacant position being filled.

Business Unit **220000 - Finance and Corporate Services - Investment Property**

	Sep YTD			2017 / 18	
	Actual	Budget	Variance	Remaining Budget	Budget
Internal Revenue	6,250	6,250	(0)	18,750	25,000
Fees & Charges Revenue	294,682	172,522	122,159	1,446,367	1,741,049
Financial Revenue	17,252	13,668	3,584	880,002	897,254
<b>Total Revenue</b>	<b>318,184</b>	<b>192,440</b>	<b>125,743</b>	<b>2,345,119</b>	<b>2,663,303</b>
Internal Expenditure	11,946	0	11,946	(11,946)	0
Staff Expenditure	28,826	31,423	(2,597)	106,910	135,735
Administration Expenditure	83,506	96,465	(12,960)	56,065	139,571
Financial Expenditure	172,217	234,566	(62,349)	766,048	938,265
Repairs & Maintenance Expenditure	22,789	54,795	(32,006)	201,392	224,181
Operational Expenditure	89,961	144,407	(54,446)	487,668	577,629
Depreciation Expenditure	4,511	5,988	(1,477)	19,440	23,951
<b>Total Expenditure</b>	<b>413,756</b>	<b>567,645</b>	<b>(153,888)</b>	<b>1,625,576</b>	<b>2,039,332</b>
<b>Operating Surplus / (Deficit)</b>	<b>(95,572)</b>	<b>(375,204)</b>	<b>279,632</b>	<b>719,543</b>	<b>623,971</b>
Capital Expenditure	924,131	1,098,344	(174,213)	944,213	1,868,344
Capital Funding	178,121	0	178,121	(1,750,525)	(1,572,404)
Cash Back Depreciation	104	223	(119)	787	891
<b>Rates Required</b>	<b>1,197,721</b>	<b>1,473,326</b>	<b>(275,605)</b>	<b>(1,526,642)</b>	<b>(328,922)</b>

**Commentary:**

Investment Property is \$275,605 under budget for the first three months of the year. This is mainly due to Revenue from Milk Production being higher than anticipated (115K). Also interest and other holding cost from the Awarua Estate are lower than budget (40k). The net position for the Awarua Industrial Estate as at 30 September is a \$27,518 loss.

Business Unit **230000 - Finance and Corporate Services - Accounting and Finance**

	Sep YTD			2017 / 18	
	Actual	Budget	Variance	Remaining Budget	Budget
Internal Revenue	309,347	309,347	0	928,041	1,237,388
Financial Revenue	65,188	59,375	5,813	172,312	237,500
<b>Total Revenue</b>	<b>374,535</b>	<b>368,722</b>	<b>5,813</b>	<b>1,100,353</b>	<b>1,474,888</b>
Internal Expenditure	2,500	2,500	(0)	7,500	10,000
Staff Expenditure	216,609	219,512	(2,903)	734,594	951,203
Administration Expenditure	45,581	53,447	(7,865)	132,493	178,074
Financial Expenditure	49,286	68,950	(19,664)	256,514	305,800
Grants & Subsidies Expenditure	0	0	0	5,000	5,000
Repairs & Maintenance Expenditure	87	750	(663)	2,913	3,000
Operational Expenditure	7,711	14,087	(6,377)	228,039	235,750
Depreciation Expenditure	6,850	9,015	(2,166)	29,211	36,061
<b>Total Expenditure</b>	<b>328,624</b>	<b>368,262</b>	<b>(39,638)</b>	<b>1,396,264</b>	<b>1,724,888</b>
<b>Operating Surplus / (Deficit)</b>	<b>45,912</b>	<b>460</b>	<b>45,451</b>	<b>(295,911)</b>	<b>(250,000)</b>
Capital Expenditure	14,787	23,000	(8,213)	11,213	26,000
Capital Funding	0	0	0	(276,000)	(276,000)
Cash Back Depreciation	0	0	(0)	(0)	0
<b>Rates Required</b>	<b>(31,125)</b>	<b>22,540</b>	<b>(53,664)</b>	<b>31,124</b>	<b>(0)</b>

**Commentary:**

Accounting and Finance is \$53,664 under budget for the first three months of the year. This is the result of revenue being up on budget (Interest revenue) and expenditure lower than expected for this time of year.

Business Unit **236000 - Accounting and Finance - Treasury**

	Sep YTD			2017 / 18	
	Actual	Budget	Variance	Remaining Budget	Budget
Internal Revenue	16,521	(37,000)	53,521	(164,521)	(148,000)
Financial Revenue	26,424	293,349	(266,925)	1,933,576	1,960,000
<b>Total Revenue</b>	<b>42,945</b>	<b>256,349</b>	<b>(213,404)</b>	<b>1,769,055</b>	<b>1,812,000</b>
Staff Expenditure	0	0	0	1,000	1,000
Administration Expenditure	1,234	475	759	(234)	1,000
Financial Expenditure	166,691	170,625	(3,934)	845,809	1,012,500
Operational Expenditure	53,967	0	53,967	(6,467)	47,500
<b>Total Expenditure</b>	<b>221,893</b>	<b>171,100</b>	<b>50,793</b>	<b>840,107</b>	<b>1,062,000</b>
<b>Operating Surplus / (Deficit)</b>	<b>(178,948)</b>	<b>85,249</b>	<b>(264,197)</b>	<b>928,948</b>	<b>750,000</b>
Capital Funding	22,976	285,564	(262,588)	727,024	750,000
<b>Rates Required</b>	<b>201,924</b>	<b>200,315</b>	<b>1,609</b>	<b>(201,924)</b>	<b>0</b>

**Commentary:**

Treasury is \$1,609 over budget for the first three months of the year ended 30 September 2017.

Business Unit **240000 - Finance and Corporate Services - Corporate Services**

	Sep YTD			2017 / 18	
	Actual	Budget	Variance	Remaining Budget	Budget
Internal Revenue	669,858	660,693	9,165	1,972,914	2,642,772
Fees & Charges Revenue	48,850	44,107	4,743	137,045	185,895
Financial Revenue	5,455	1,859	3,595	(1,390)	4,065
<b>Total Revenue</b>	<b>724,162</b>	<b>706,659</b>	<b>17,503</b>	<b>2,108,569</b>	<b>2,832,731</b>
Internal Expenditure	254,633	254,736	(104)	764,312	1,018,945
Staff Expenditure	303,000	313,280	(10,280)	1,054,058	1,357,058
Administration Expenditure	51,897	53,101	(1,204)	160,506	212,402
Financial Expenditure	0	129	(129)	516	516
Repairs & Maintenance Expenditure	521	2,266	(1,745)	8,544	9,065
Operational Expenditure	42,048	47,058	(5,010)	146,183	188,231
Depreciation Expenditure	18,331	11,629	6,703	28,183	46,514
<b>Total Expenditure</b>	<b>670,429</b>	<b>682,198</b>	<b>(11,769)</b>	<b>2,162,302</b>	<b>2,832,731</b>
<b>Operating Surplus / (Deficit)</b>	<b>53,733</b>	<b>24,461</b>	<b>29,272</b>	<b>(53,733)</b>	<b>(0)</b>
Capital Expenditure	842	0	842	47,658	48,500
Capital Funding	0	0	0	(48,500)	(48,500)
Cash Back Depreciation	(0)	0	(0)	0	0
<b>Rates Required</b>	<b>(52,891)</b>	<b>(24,461)</b>	<b>(28,430)</b>	<b>52,891</b>	<b>0</b>

**Commentary:**

Corporate Services is under budget by \$28,430 for the first three months of the year. An increase in revenue of \$17,503 and lower than expected expenditure for the first quarter has resulted in this underspend.

Business Unit **250000 - Finance and Corporate Services - Information Services**

	Sep YTD			2017 / 18	
	Actual	Budget	Variance	Remaining Budget	Budget
Internal Revenue	358,019	358,019	(0)	1,074,059	1,432,078
Fees & Charges Revenue	39	7,224	(7,185)	28,858	28,897
Financial Revenue	4,918	7,035	(2,117)	27,082	32,000
<b>Total Revenue</b>	<b>362,976</b>	<b>372,279</b>	<b>(9,302)</b>	<b>1,129,999</b>	<b>1,492,975</b>
Staff Expenditure	125,238	122,312	2,927	403,237	528,475
Administration Expenditure	233,457	167,500	65,957	436,543	670,000
Repairs & Maintenance Expenditure	6,821	6,625	196	19,679	26,500
Operational Expenditure	13,668	35,750	(22,082)	129,332	143,000
Depreciation Expenditure	43,344	31,250	12,094	81,656	125,000
<b>Total Expenditure</b>	<b>422,528</b>	<b>363,437</b>	<b>59,091</b>	<b>1,070,447</b>	<b>1,492,975</b>
<b>Operating Surplus / (Deficit)</b>	<b>(59,551)</b>	<b>8,842</b>	<b>(68,394)</b>	<b>59,551</b>	<b>0</b>
Capital Expenditure	13,116	0	13,116	258,884	272,000
Capital Funding	(13,116)	0	(13,116)	(258,884)	(272,000)
<b>Rates Required</b>	<b>59,552</b>	<b>(8,842)</b>	<b>68,394</b>	<b>(59,552)</b>	<b>0</b>

**Commentary:**

Information Services is over budget by \$68,394 this is due to the timing of a number of annual fees being paid at the beginning of the year.

Business Unit **260000 - Finance and Corporate Services -  
Secretarial Services**

	Sep YTD			2017 / 18	
	Actual	Budget	Variance	Remaining Budget	Budget
Internal Revenue	161,233	161,233	(0)	483,701	644,934
Fees & Charges Revenue	5,950	0	5,950	(5,950)	0
Financial Revenue	6,182	5,003	1,179	1,767	7,948
<b>Total Revenue</b>	<b>173,365</b>	<b>166,236</b>	<b>7,129</b>	<b>479,518</b>	<b>652,882</b>
Internal Expenditure	12,889	12,289	600	36,268	49,157
Staff Expenditure	204,935	234,704	(29,768)	810,082	1,015,017
Administration Expenditure	76,939	74,850	2,089	222,461	299,400
Repairs & Maintenance Expenditure	178	2,750	(2,572)	10,822	11,000
Operational Expenditure	15,596	43,500	(27,904)	158,404	174,000
Depreciation Expenditure	9,734	15,743	(6,009)	53,237	62,971
<b>Total Expenditure</b>	<b>320,272</b>	<b>383,836</b>	<b>(63,564)</b>	<b>1,291,273</b>	<b>1,611,545</b>
<b>Operating Surplus / (Deficit)</b>	<b>(146,907)</b>	<b>(217,600)</b>	<b>70,692</b>	<b>(811,756)</b>	<b>(958,663)</b>
Capital Expenditure	14,500	0	14,500	25,500	40,000
Capital Funding	0	0	0	(100,000)	(100,000)
<b>Rates Required</b>	<b>161,407</b>	<b>217,600</b>	<b>(56,192)</b>	<b>737,256</b>	<b>898,663</b>

**Commentary:**

Secretarial Services is under budget for the first three months of the year. This is mainly due to staff changes and also the impact this has on operational expenditure, this is expected to even out in the coming months.

Business Unit **280000 - Hall and Theatre Operations**

	Sep YTD			2017 / 18	
	Actual	Budget	Variance	Remaining Budget	Budget
Internal Expenditure	276,808	276,808	(0)	830,424	1,107,232
Grants & Subsidies Expenditure	9,609	12,993	(3,385)	42,364	51,973
Repairs & Maintenance Expenditure	(478)	0	(478)	478	0
Depreciation Expenditure	3,149	6,194	(3,045)	21,628	24,776
<b>Total Expenditure</b>	<b>289,087</b>	<b>295,995</b>	<b>(6,908)</b>	<b>894,894</b>	<b>1,183,982</b>
<b>Operating Surplus / (Deficit)</b>	<b>(289,087)</b>	<b>(295,995)</b>	<b>6,908</b>	<b>(894,894)</b>	<b>(1,183,982)</b>
<b>Capital Expenditure</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20,647</b>	<b>20,647</b>
<b>Capital Funding</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>(21,008)</b>	<b>(21,008)</b>
<b>Rates Required</b>	<b>289,087</b>	<b>295,995</b>	<b>(6,908)</b>	<b>894,533</b>	<b>1,183,620</b>

**Commentary:**

Hall and Theatre Operations are \$6,908 under budget for the first three months of the year. This is due to lower than expected expenditure.



Business Unit **300000 - Finance and Corporate Services - Democratic Responsibility**

	Sep YTD			2017 / 18	
	Actual	Budget	Variance	Remaining Budget	Budget
Financial Revenue	2,713	0	2,713	(2,713)	0
<b>Total Revenue</b>	<b>2,713</b>	<b>0</b>	<b>2,713</b>	<b>(2,713)</b>	<b>0</b>
Internal Expenditure	79,166	79,166	0	237,498	316,664
Staff Expenditure	246,061	257,565	(11,504)	866,414	1,112,475
Administration Expenditure	71,539	50,281	21,258	132,086	203,625
Grants & Subsidies Expenditure	29,894	64,425	(34,532)	112,606	142,500
Repairs & Maintenance Expenditure	37	1,746	(1,709)	6,946	6,983
Operational Expenditure	87,495	34,875	52,620	52,005	139,500
Depreciation Expenditure	5,354	5,725	(371)	17,546	22,900
<b>Total Expenditure</b>	<b>519,546</b>	<b>493,783</b>	<b>25,763</b>	<b>1,425,101</b>	<b>1,944,647</b>
<b>Operating Surplus / (Deficit)</b>	<b>(516,833)</b>	<b>(493,783)</b>	<b>(23,050)</b>	<b>(1,427,813)</b>	<b>(1,944,647)</b>
Capital Expenditure	0	0	0	10,000	10,000
Capital Funding	0	0	0	(55,000)	(55,000)
Cash Back Depreciation	(0)	(0)	0	0	0
<b>Rates Required</b>	<b>516,833</b>	<b>493,783</b>	<b>23,050</b>	<b>1,382,813</b>	<b>1,899,647</b>

**Commentary:**

Democratic Responsibility is over budget by \$23,050 for the first three months of the year. Operational expenditure is up on budget as reported last month due to a contribution to SORDS.

Business Unit **313000 - Finance and Corporate Services -  
Corporate Planning**

	Sep YTD			2017 / 18	
	Actual	Budget	Variance	Remaining Budget	Budget
Internal Expenditure	63,561	63,561	(0)	190,684	254,245
Staff Expenditure	4,031	3,775	257	11,067	15,098
Administration Expenditure	3,590	15,429	(11,839)	61,861	65,451
Financial Expenditure	0	5,000	(5,000)	20,000	20,000
Repairs & Maintenance Expenditure	0	25	(25)	100	100
Operational Expenditure	26,814	25,465	1,349	135,049	161,862
Depreciation Expenditure	1,341	2,021	(680)	6,743	8,084
<b>Total Expenditure</b>	<b>99,337</b>	<b>115,275</b>	<b>(15,938)</b>	<b>425,503</b>	<b>524,840</b>
<b>Operating Surplus / (Deficit)</b>	<b>(99,337)</b>	<b>(115,275)</b>	<b>15,938</b>	<b>(425,503)</b>	<b>(524,840)</b>
Capital Funding	0	0	0	(80,000)	(80,000)
<b>Rates Required</b>	<b>99,337</b>	<b>115,275</b>	<b>(15,938)</b>	<b>345,503</b>	<b>444,840</b>

**Commentary:**

Corporate Planning is under budget by \$15,938 for the first three months of the year. Expenditure is lower than budget due to Annual Report expenditure still to come in although this will be lower than originally anticipated due to negotiation of an exceptionally good rate.

Business Unit **350000 - Finance and Corporate Services - Grants**

	Sep YTD			2017 / 18	
	Actual	Budget	Variance	Remaining Budget	Budget
Internal Expenditure	13,931	11,676	2,256	32,772	46,703
Financial Expenditure	13,983	21,609	(7,626)	72,454	86,437
Grants & Subsidies Expenditure	1,519,725	1,487,673	32,051	3,718,677	5,238,402
Depreciation Expenditure	335	0	335	(335)	0
<b>Total Expenditure</b>	<b>1,547,974</b>	<b>1,520,958</b>	<b>27,016</b>	<b>3,823,568</b>	<b>5,371,542</b>
<b>Operating Surplus / (Deficit)</b>	<b>(1,547,974)</b>	<b>(1,520,958)</b>	<b>(27,016)</b>	<b>(3,823,568)</b>	<b>(5,371,542)</b>
Capital Funding	0	0	0	(52,786)	(52,786)
<b>Rates Required</b>	<b>1,547,974</b>	<b>1,520,958</b>	<b>27,016</b>	<b>3,770,782</b>	<b>5,318,756</b>

**Commentary:**

Grants are over budget by \$27,016 for the first three months of the year, this is a timing variance expected to correct itself over the coming months.

**TO: FINANCE AND POLICY COMMITTEE**  
**FROM: THE DIRECTOR OF WORKS AND SERVICES**  
**MEETING DATE: TUESDAY 5 DECEMBER 2017**

<b>QUARTERLY REPORT – SOUTHLAND MUSEUM AND ART GALLERY</b>
--

**Report Prepared by:** Paul Horner – Manager, Building Assets and Museum

**SUMMARY**

Report about the operation of the Southland Museum and Art Gallery for the First Quarter of the 2017 - 2018 financial year.
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**RECOMMENDATIONS**

**That the report be received.**

**IMPLICATIONS**

1.	<i>Has this been provided for in the Long Term Plan/Annual Plan?</i> Yes.
2.	<i>Is a budget amendment required?</i> No.
3.	<i>Is this matter significant in terms of Council's Policy on Significance?</i> No.
4.	<i>Implications in terms of other Council Strategic Documents or Council Policy?</i> No.
5.	<i>Have the views of affected or interested persons been obtained and is any further public consultation required?</i> No.

**FINANCIAL IMPLICATIONS**

Variance to budget at the end of September is a deficit of \$19,747.

**LEVEL OF PERFORMANCE**

Target Levels of Performance Required by the Statement of Intent are:

<b>Service Level</b>	<b>Achievement, First Quarter</b>
Prepare for building refurbishment and extension to enable internal environmental conditions to meet national/international guidelines.	A new Redevelopment strategy has been approved by the Trust Board for the museum building to be redeveloped in 10 years. This will allow time for re-cataloguing of the collection, construction of a Regional Storage Building and removal of the collection.
No irreparable loss or damage is caused to collections or objects on loan.	No loss detected
100% of objects acquired entered into Vernon database and verified	10% of new acquisitions entered.
100% records on Vernon database maintained	100% maintained
Project planned to review, update and verify records on database  Work has begun on this project, assisted by the Collections Technician who is funded by Regional Heritage rates provided by SDC and ICC:	This project is dependent on achieving a further \$280,000 p.a. increase of funding  <u>Stage 1:</u> Full documentation: <b>1,968 objects completed</b> <u>Stage 2:</u> Stage 1 +Packaging for storage: <b>1,088 objects completed</b> <u>Stage 3:</u> Stage 1 & 2 +Digital imaging <b>269 objects completed</b>
Three semi-permanent exhibitions are delivered. A minimum of 12 short-term exhibitions, including 8 in the community access gallery, are presented annually.	3 semi-permanent exhibitions delivered.  3 short term exhibitions opened by the end of the First Quarter including 1 in the Community Access gallery.
Over 25 education programmes delivered to 4000 school students, including curriculum-linked and exhibition-related programmes.	LEOTC programmes delivered to 1,655 pupils by the end of the First Quarter
Iwi Liaison Komiti (representing the four Southland Runanga), meets four times a year.	One by the end of the First Quarter.
Annual visitor numbers exceed 210,000/annum	232,580 by the end of the First Quarter.

**OPERATIONAL COMMENTS**

Exhibitions which have been opened in the Community Access gallery this year have been:

- *Polyfest - 2017* (schools).

Art exhibitions which have been opened in the main galleries this year have been:

- *Fun and Fury* - Ewan McDougall.

Exhibitions which have been held in the minor galleries this year have been:

- *Rugby* – Rugby Southland.

The semi-permanent exhibitions at present are:

- Roaring 40's
- History Gallery – *Southern Seas*
- Maori Gallery
- Natural History Gallery
- Victoriana Gallery
- Southland's War Exhibition (re-opened after mid-war progression to the Western Front)
- Burt Munro replica motorbike

## **STAFF**

Selection of a Collection Technician was carried out during the First Quarter and the Technician will begin work on 21 November 2017. This position is funded by the increased contribution to the Regional Heritage Rate by Southland District Council for the current year. The position is a fixed term role for twelve months.

## **FUTURE ISSUES**

The earthquake strength of the Southland Museum and Art Gallery building is being reviewed following commencement on 1 July 2017 of the Building (Earthquake Prone Buildings) Amendment Act 2016. The DEE (Detailed Engineering Evaluation) carried out in October 2013 will be reviewed to ensure compliance with the evaluation methodology laid down by the Regulations to the Amendment Act.

An increase of funding of \$170,000 for the current financial year has been fundamental to employing two staff to begin the important task of cataloguing and packaging objects so that they are ready for eventual removal from the building, see the table of Service Level Achievements above. The staff and manager are extremely grateful for this funding. However to complete re-cataloguing within 6 years it is estimated that we require another \$280,000 p.a. of funding. The management of SMAG are investigating sources of grant funding where applications may be made, to provide this funding.

It is encouraging that this work will be progressing on a regional basis. Work at SMAG will be carried out and managed in parallel with the Southland Regional Heritage Committee's two year pilot scheme to catalogue the collections of district museums.

We welcome Cr Toni Biddle to the chair of the Southland Museum and Art Gallery Trust Board from November and Cr Rebecca Amundsen as an ICC Representative on the Board. Cr Lloyd Esler has retired as chair and from the board and his input and efforts over the last few years are appreciated.

\*\*\*\*\*

**TO: FINANCE AND POLICY COMMITTEE**  
**FROM: THE DIRECTOR OF ENVIRONMENTAL AND PLANNING SERVICES**  
**MEETING DATE: TUESDAY 5 DECEMBER 2017**

**ARCHAEOLOGICAL ASSESSMENT – 20 DON STREET, INVERCARGILL**

**Report Prepared by:** S Tonkin - Development Liaison Manager

**SUMMARY**

Council obtained an archaeological authority for the demolition of the buildings at 20 Don Street and excavation of the site in readiness for the redevelopment of the site. The report from New Zealand Heritage Properties Ltd is attached (**Appendix 1**) for Councillors' information.

**RECOMMENDATION**

**That the report be received.**

**IMPLICATIONS**

1.	<i>Has this been provided for in the Long Term Plan/Annual Plan?</i> N/A.
2.	<i>Is a budget amendment required?</i> N/A.
3.	<i>Is this matter significant in terms of Council's Policy on Significance?</i> N/A.
4.	<i>Implications in terms of other Council Strategic Documents or Council Policy?</i> N/A.
5.	<i>Have the views of affected or interested persons been obtained and is any further public consultation required?</i> N/A.
6.	<i>Has the Child, Youth and Family Friendly Policy been considered?</i> N/A.

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## Early Commerce and Industry in Central Invercargill

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Final Report for Archaeological Investigations at the Rialto (William Todd & Co; E56/59), the Black Eagle Brewery (E46/60), E46/61, and the Criterion Hotel (E46/62) under Archaeological Authority No. 2016/1193

Report Prepared for the Invercargill City Council  
Author: Julia Lewis  
Reviewed by: Dr Hayden Cawte  
28/11/2017

**New Zealand Heritage Properties Ltd**  
Salisbury House | 106 Bond Street | Dunedin  
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info@heritageproperties.co.nz  
www.heritageproperties.co.nz



# Early Commerce and Industry in Central Invercargill

Final Report for Archaeological Investigations at the Rialto (William Todd & Co; E56/59), the Black Eagle Brewery (E46/60), E46/61, and the Criterion Hotel (E46/62) under Archaeological Authority No. 2016/1193

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## Project Details

Archaeological Site No.	E46/59, E46/60, E46/61, E46/62
Archaeological Authority No.	2016/1193
Site Name	E46/59 (The Rialto – William Todd & Co.), E46/60 (The Black Eagle Brewery), E46/61 (no name), E46/62 (The Criterion Hotel)
Property Address and Appellation:	16-24 Don Street and 93-97 Spey Street, Invercargill; Sections 3, 4 (Lot 1 DP 1359), 18, and 19, Block LXXI, Town of Invercargill, Southland Land District
Property Owner:	Invercargill City Council
Client	Invercargill City Council
Client Contact	Simon Tonkin
Client Address	101 Esk Street Private Bag 90104, Invercargill 9840 simon.tonkin@icc.govt.nz
Report Authors	Julia Lewis (primary author), Dr Dawn Cropper (History), Dr Naomi woods (Artefacts), Sheryl Cawte (Artefacts), Phoebe Scrivener (contexts)
Reviewed By	Dr Hayden Cawte, Dawn Cropper
Approved Archaeologist	Dr Hayden Cawte
Report Submitted	28/11/17
Report Submitted To	Simon Tonkin
Report Version number	Version 1

## Ownership and Disclaimer

This report has been prepared for Invercargill City Council in relation to a specific work program at Sites E46/59, E46/60, E46/61, and E46/62 (16-24 Don Street and 93-97 Spey Street, Invercargill). This report and the information contained herein are subject to copyright. Ownership of the primary materials created in the course of the research remains the property of the named researchers and New Zealand Heritage Properties Ltd. This report remains the property of Invercargill City Council and New Zealand Heritage Properties Ltd.

The professional advice and opinions contained in this report are those of the consultants, New Zealand Heritage Properties Ltd, and do not represent the opinions and policies of any third party. The professional advice and opinions contained in this report do not constitute legal advice.

## Abbreviations

Abbreviation	Definition
ADP	Archaeological Discovery Protocol
ICC	Invercargill City Council
NZAA	New Zealand Archaeological Association
NZHP	New Zealand Heritage Properties Ltd.

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## 1 Introduction

New Zealand Heritage Properties Ltd (NZHP) was commissioned by the Invercargill City Council (ICC) to undertake archaeological investigations at 16 to 24 Don Street and 93 to 97 Spey Street, Invercargill in fulfilment of Archaeological Authority No. 2016/1193. The project area comprises Sections 3, 4 (Lot 1 DP 1359), 18, and 19, Block LXXI, Town of Invercargill, Southland Land District (Figure 1-1). The purpose of this final report is to present the findings of the archaeological investigations in fulfilment of condition 6 of archaeological authority 2016/1193.

This work follows on from the archaeological assessment conducted by NZHP, which determined that archaeological sites are present across each of the four properties in the project area (Cropper & Cawte, 2016). As the four town sections have unique and separate histories, they were each recorded as archaeological sites with the New Zealand Archaeological Association's (NZAA) site recording scheme (Archsite):

- E46/59 – Todd & Co. Auctions, the Rialto – Section 19, Block LXXI, Town of Invercargill.
- E46/60 – The Black Eagle Brewery - Section 3, Block LXXI, Town of Invercargill.
- E46/61 - Lot 1 DP 1359 (Section 4, Block LXXI, Town of Invercargill).
- E46/62 – The Criterion Hotel and Yards - Section 18, Block LXXI, Town of Invercargill.

Section 3 was the former location of one of Invercargill's earliest breweries, established in 1863 in by C. S Button (Button's Provincial Brewery) and then taken over by J. T. Martin in 1868 (the Black Eagle Brewery). There is historical evidence for both commercial and residential buildings on Section 4, which was described as a 'grand leasehold' that included a store, dwelling, stable, coach house, sheds, and poultry yards (Southland Times, 1887b). The Criterion Hotel was established on Section 18 in mid-1878, and at the same time the Criterion Yards were used for regular auctions (primarily horses). In 1897, William Todd established his auction house, the Rialto, on Section 19. Prior to this, the section had been largely vacant with just one building at the rear of the property, likely associated with the brewery on Section 3.

The ICC engaged Calder Stewart to manage site works. Ryal Bush Transport undertook works to demolish and remove the foundations of the Todd's Auction buildings (Sections 3, 4, and 19) and the Criterion building (Section 18), parts of which were constructed prior to 1900. South Roads and South Drill were contracted to complete excavation works for site redevelopment (see Redevelopment Plans) and undertook excavations for environmental testing, piling and excavations for new foundations for the construction of the new buildings for offices, retail and food premises. Arnott Drainage undertook excavation for new services.

Archaeological work was carried out in several phases. Buildings recording was undertaken of the Rialto (E46/59) and The Criterion Hotel (E46/62) in August 2016. Foundation removal and site clearance works undertaken by Ryal Bush Transport was monitored between July and September 2016. Test pits for environmental testing excavated by South Roads were monitored on 25 and 26 August 2016. Excavations for new foundations undertaken by South Roads were then monitored between September 2016 and January 2017 with a small portion carried out under Archaeological Discovery Protocol (ADP). Trenching for services were part monitored and part carried out under an ADP between October to December 2016. Works for the landscaping and development of the carpark area were carried out between May and August of 2017.

The archaeological investigations included recording the two remaining pre-1900 buildings (the Rialto and the Criterion Hotel) and monitoring the earthworks associated with the demolition and construction. Both the Rialto and the Criterion Hotel had been extensively altered in the past, and the primary aim of NZHP was to determine

- What original pre-1900 building fabric remained?
- How the buildings had been constructed, used, and changed over time?
- To document site modification and the presence of in-situ archaeology to assist with site management in the future.

- To compare with historical records and understand and nineteenth century life in Invercargill through a cross-section of archaeological site types, features and activities surviving below ground such as stables, building foundations, wells – perhaps brick lined, a cellar, cobbled surfaces, domestic and commercial refuse and latrines.
- Provide archaeological information which could be incorporated into the interpretive panels documenting site history planned for the parks.



Figure 1-1. Location of the project area (outlined in red), including Sections 3, 4 (Lot 1 DP 1359), 18, and 19, Block LXXI, Town of Invercargill. The project area is bounded by Don Street to the south and Spey Street to the north.

### 1.1 Project Background

The ICC have redeveloped the project area (Sections 3, 4 (Lot 1 DP 1359), 18, and 19, Block LXXI, Town of Invercargill) creating a modern three-storey mixed-use premises with the aim of contributing to the vitality and regeneration of the inner city and adjacent heritage buildings. The development included the construction of two buildings, the west building and the east building, which were planned to house hospitality and retail at ground level and commercial office space in the floors above (Figure 1-2 and Figure 1-3) (See Appendix A Redevelopment Plans).

The west building is constructed on Section 19 and is set back approximately seven metres from Don Street and houses a café on the ground floor, with courtyards to the north and south of the building. The east building occupies all of Section 18 and is a three-storey office building with a modern glazed façade. There is a laneway between the two buildings at ground level; however, the upper floors extend over the laneway, effectively forming

a single building. The laneway serves as a pedestrian link between Don Street and the proposed car parking on Spey Street, reflecting the historical access through Todd's Auction House.



Figure 1-2. Concept plan of the development showing the Don Street facades, facing north.

Two small urban parks were developed to the north and south of the west building. Planting, seating, and public sculpture will be included in the parks.

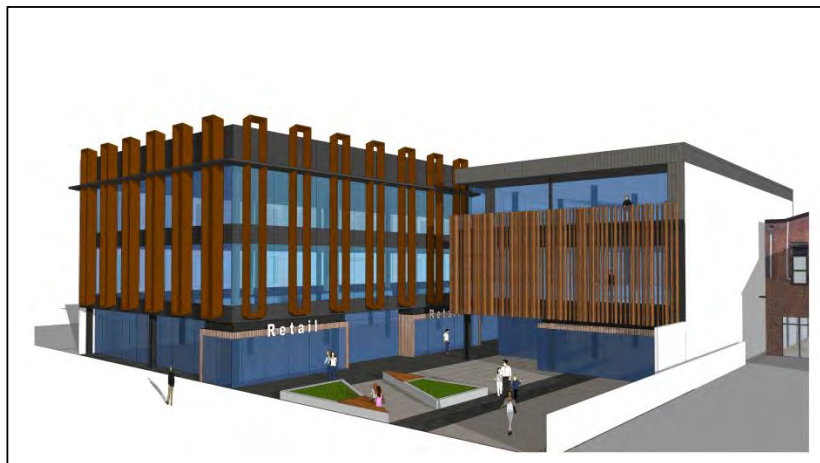


Figure 1-3. Concept plan of the development, looking south-east from Spey Street.

The development required the demolition of the existing structures within the project area, including two pre-1900 structures: The Rialto (E46/59) and the Criterion Hotel (E49/62). The building in the north-east corner of Section 4 is not currently scheduled for demolition because it is tenanted, and future plans for this building are yet to be determined. This type of high-quality urban precinct development, including pocket parks, a pedestrianised laneway and high interrelationship with ground floor tenancies would not have been possible with the original buildings in place. While the Criterion Buildings were listed on the ICC heritage register (No. 61), it was argued that the façade has small windows and did not provide a suitable exterior for a modern open-plan office, where natural light is essential. The facade of the Rialto (E46/59) was substantially modified over time and prima facie, did not appear to have significant heritage value.

The development included earthworks required for the demolition of the existing structures and for the construction of the new buildings. The existing buildings extended across four archaeological sites (E46/59-E46/62); thus, there was potential for encountering subsurface archaeological remains from each site during the

demolition phase of works. The new buildings were constructed within Sections 18 and 19; thus, the excavation required for the foundations and installation of services affected the Rialto (William Todd & Co.; E46/59; Section 19) and Criterion Hotel (E46/62; Section 18) sites. Similarly, any surface preparations for the car parking area in Sections 3 and 4 had the potential to effect archaeological sites.

## 1.2 Physical Environment and Setting

Invercargill is located on the bank of the Waihopai River and the New River Estuary. With the exception of the estuary to the south and west, the city is surrounded by plains which extend to the Longwood Range and Takitimu mountains to the west, Hokonui Hills to the north, and the higher country of the Catlins to the east.

Invercargill's soils are largely composed of a dark peat, formed from decomposed organic material, and clay. Soil formation can be quite significant, with depths reaching as much as 6m in some places. Soil overlays fine alluvial and gravel deposits (Crops for Southland 2002). Waikiwi soils are found throughout the town belt (Invercargill City Council 2013), and they can occur on the high terraces of the Southland Plain between the Maitai and Aparima Rivers (Crops for Southland 2002). In the Waikiwi soil profile, the topsoil typically has between 6 and 8% organic matter with a clay content from 25 to 30%, while the subsoil is silt to clay loam (Crops for Southland 2002; Greenwood and McNamara 1992: 71).

The project area comprises four properties within the city's main commercial centre: Sections 3, 4 (Lot 1 DP 1359), 18, and 19, Block LXXI, Town of Invercargill. Sections 3 and 4 front onto Spey Street, while Sections 18 and 19 have frontages on Don Street. The project area has close proximity to the two main thoroughfares through the city; it is in the first block east of Dee Street and is the third block north of Tay Street.

As Figure 1-4 demonstrates, the existing buildings covered the majority of the project area, and the remainder was utilised for car parking. Section 3 had a building covering the southern half of the property, while the northern half was predominantly an asphalt carpark, with a narrow carport along the western boundary. Section 4 (Lot 1 DP 1359) was the mirror image of Section 3, with a building on the southern half of the property, a carpark covering most of the northern half, and two buildings along the east property boundary. The Criterion Buildings occupied the southern half of Section 18, while the remaining portion of the property was a carpark. The rear of the property was accessed through a driveway along the east side of the building. Buildings covered all of Section 19.



Figure 1-4. Aerial photograph showing the extent of the buildings covering the project area prior to works commencing. Aerial image courtesy of the Invercargill City Council.



Figure 1-5. View of Sections 4 and 3 prior to the commencement of site redevelopment, with buildings on the left and car parking on the right. Photo facing west.



Figure 1-6. View of Sections 3 and 4 from Spey Street, prior to the commencement of site redevelopment with buildings on the left and buildings on the right. Photo facing east.



Figure 1-7. View of the Criterion Buildings on Section 18 from Don Street prior to site redevelopment; photo facing north. Note the driveway on the right.



Figure 1-8. Rear of the Criterion Buildings on Section 18, facing south, prior to redevelopment.



Figure 1-9. View of the William Todd & Co. in the Rialto Building on Section 19 from Don Street prior to site redevelopment; photo facing north.

### 1.3 Historical Background

#### 1.3.1 *Maori History*<sup>1</sup>

The southern coast was occupied by Waitaha, Ngāti Māmoē, and Ngāi Tahu, who have since amalgamated in the whakapapa Ngāi Tahu. In the area now known as Invercargill, permanent settlements were established around the mouth of the Ōreti River, which was an important pounamu trade route between the river mouth and Lake Wakatipu. The settlements along the river mouth include Ōmāui (on the east bank of the Ōreti estuary; Mokamoka/Mokomoko/Mokemoke) and Ōue (on the opposite bank). Associated with these settlements are several urupā (burial grounds) and Nohoanga (temporary campsites). When sealers arrived in the area in the early 1820s, Honekai, a principal chief of Murihiku, was resident at Ōmāui. In the 1850s, there were up to 40 people living at the settlement. The Murihiku purchase was signed on 17 August 1953, transferring most of what is now Southland to the Crown.

#### 1.3.2 *Early European History of Invercargill*

The site of Invercargill was selected by John Turnbull Thomson in 1856, and by December 1857 there were 15 houses, two hotels and three stores (Grant, 2015). Two years later, the settlement had grown considerably with approximately 200 dwellings and close to 1000 inhabitants in the town (Figure 5-1; Bailey, 1966). Whalers and sealers had been operating in the region prior to this. Invercargill's first settler is credited to John Kelly, who moored his boat in the Ōtepunī Creek in March 1856 and erected the first building in the town for his family (Grant, 2015). The town was initially called Inverkelly, after its first resident, until it was renamed in honour of Captain William Cargill (Grant, 2015).

<sup>1</sup> This section is summarised from Ngāi Tahu Claims Settlement Act 1998, Schedule 50, Statutory acknowledgement for Ōreti River, and Schedule 104, Statutory acknowledgement for Rakiura/Te Ara a Kiwa (Rakiura/Foveaux Strait Coastal Marine Area).





Figure 1-10. Invercargill in 1959, Corner of Tay and Dee Streets<sup>2</sup>.

The settlement grew fast and was regarded as quite successful, the region around it quickly becoming sold, stocked, and occupied. Southland separated from Otago in 1861, and Invercargill benefitted initially from the Otago gold rushes that lasted between 1862 and 1864 due to its proximity to the gold fields (Bailey, 1966). In 1871, the first borough elections took place. Industry began to develop through the nineteenth century, including gasworks in 1876, waterworks in 1888, and farming industries between the 1890s and early 1900s (Grant, 2015).

### 1.3.3 History of the Project Area

The project area consists of four sections within Block 71, Town of Invercargill, and historical research demonstrated that each property has evidence of nineteenth century commercial or residential occupation. While Sections 3, 4, and 19 were eventually purchased by William Todd & Co, the early history of each property is disparate. The following sections review the history of each section, focussing on the events of the nineteenth century and establishing a chronology of built structures on the properties. Table 1-1 below summarises the nineteenth century land transactions for each property; key twentieth century land transactions are also included.

Table 1-1. Summary of nineteenth century and selected twentieth century property transactions for Sections 3, 4, 18, and 19, Block 71.

Date	Nature	Parties	Source
<b>Section 3 - Brewery</b>			
3 December 1860	Conveyance	Asforay to Petrie	Deeds Index A201
19 August 1862	Conveyance	Petrie to McLeish	Deeds Index A201
6 September 1862	Conveyance	McLeish to Wilson	Deeds Index A201
19 November 1862	Conveyance	Wilson to Watson	Deeds Index A201
24 November 1862	Conveyance	Watson to Elles	Deeds Index A201
14 June 1864	Mortgage	Button to Button	Deeds Index A201
5 February 1863	Lease	Elles to Button	Deeds Index A201
14 June 1865	Grant	Queen to Asforay	Deeds Index A201
17 January 1873	Conveyance	Elles to Martin	Deeds Index A201
17 January 1873	Mortgage	Martin to Elles	Deeds Index A201
6 March 1874	Deed of Covenant	Elles to John Tice Martin	Deeds Index A201
27 January 1887	Mortgage	J. T. Martin to the Union Bank of Australasia	Land Transfer Register 5/135
24 December 1897	Transfer	The Union Bank of Australasia to Duncan McGregor	Land Transfer Register 5/135
18 February 1921	Transmission	David Sterling	Land Transfer Register 5/135
14 July 1922	Transfer	David Sterling to William Todd	Land Transfer Register 5/135

<sup>2</sup> Cuthbertson, J. R. (1859). Cnr Dee & Tay Sts & Tay Street [Sketch]. Dunedin: Hocken Snapshot. Retrieved from <http://hockensnapshot.ac.nz/nodes/view/13073>

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<b>Section 4</b>			
25 January 1862	Conveyance	Ordway to Walker	Deeds Index A205
27 January 1862	Conveyance	Walker to Smallfield	Deeds Index A205
12 August 1864	Deed of apt	Smallfield to Wilson	Deeds Index A205
11 November 1878	Agreement for Lease	Wilson to Martin	Deeds Index A205
10 August 1882	Lease	Wilson to Martin	Deeds Index A205
24 October 1885	Probate	W V Wilson	Deeds Index A205
7 October 1912		Jane Porter Wilson	Land Transfer Register 96/206
11 October 1912	Transfer	J P Wilson to George C A Todd and William S. Todd as Tenants in common	Land Transfer Register 96/206
2 August 1917	Lease	William Todd & Co from 14 years from 1 January 1917	Land Transfer Register 96/206
3 December 1920	Transmission	Of the interest of G. C. A. Todd to the Perpetual Trustees Estate and Agency Co	Land Transfer Register 96/206
13 September 1926	Transfer	The Perpetual Trustees Estate and Agency Co to William Skuse Todd	Land Transfer Register 96/206
20 February 1945	Transmission	To the Public Trustees	Land Transfer Register 96/206
21 June 1946	Transfer	The Public Trustees to Geoffrey Mervyn Todd and Margery Hope Prain	Land Transfer Register 96/206
<b>Section 18 – Criterion Hotel</b>			
14 January 1864	Conveyance Trust	Cheyne to Weston	Deeds Index A859
14 June 1864	Grant	Crown to Blacklock	Deeds Index A859
19 May 1868	Conveyance	Blacklock to Cameron	Deeds Index A859
31 October 1860	Conveyance	Blacklock to Mantell	Deeds Index A859
19 March 1874	Mortgage	Cameron to Otago and Southland Investment Company	Deeds Index A859
19 December 1877	Conveyance	Cameron & others to Galbraith	Deeds Index A859
24 July 1878	Mortgage	Galbraith to Otago and Southland Investment Company	Deeds Index A859
23 September 1879	Mortgage	Galbraith to Bank of Australia	Deeds Index A859
31 October 1879	Assignment	Galbraith to Perkins & others	Deeds Index A859
16 December 1879	Conveyance	Perkinsons to Mart & others	Deeds Index A859
3 February 1881	Reconveyance	Bank of Australia to Martin & others	Deeds Index A859
29 April 1881	Lease	Otago and Southland Investment Company to Hilton	Deeds Index A859
22 August 1881		Hilton to Martin & others	Deeds Index A859
20 March 1882	Conveyance	Martin & others to Martin & others	Deeds Index A859
14 December 1887	Conveyance	Regional Superintendent to Otago and Southland Investment Company	Deeds Index A859
25 January 1898	Transfer	Patrick Moloney	Land Transfer Register 59/71
25 January 1898	Mortgage	Patrick Moloney to the Otago and Southland Investment Company	Land Transfer Register 59/71
25 January 1898	Mortgage	Patrick Moloney to Robert Trapper	Land Transfer Register 59/71
24 October 1899	Transmission	Franis Downey, Josiah Alfred Hanan, and Jane Moloney	Land Transfer Register 59/71
24 October 1899	Transfer	Jane Moloney	Land Transfer Register 59/71
24 October 1899	Lease	Jane Maloney to William Hinchey	Land Transfer Register 59/71
15 January 1901	Transfer of Lease	William Hinchey to Maria Jackson	Land Transfer Register 59/71
7 February 1934	Transmission	Martin Brogan and Kate Brogan	Land Transfer Register 59/71
31 October 1944	Transmission	Agnes Brogan	Land Transfer Register 59/71
31 March 1949	Transfer	Agnes Brogan to Gavin Findlay Pattrick	Land Transfer Register 59/71
16 March 1961	Transmission	Kathleen Pollock	Land Transfer Register 59/71
1 October 1965	Transfer	Patrick McGrath	Land Transfer Register 59/71
<b>Section 19 – The Rialto Buildings - William Todd &amp; Co</b>			
11 June 1864	Grant	Crown to Cheyne	Deeds Index C1549
26 February 1880	Transfer	Andrew Leslie Cheyne to William Panton Grigor	Land Transfer Register 57/128
20 November 1880	Lease	W. P. Grigor to John Tice Martin	Land Transfer Register 57/128
9 August 1892	Lease	W. P. Grigor to Martin Hughes	Land Transfer Register 57/128
1 October 1897	Lease	W. P. Grigor to William Todd	Land Transfer Register 57/128
14 October 1909	Transmission	W. P. Grigor to William James Grigor, James Erskine Watson, and Herbert Alexander Macdonald	Land Transfer Register 57/128

*Section 3 – The Black Eagle Brewery (E46/60)*

The early property transactions for Section 3 show that it passed through the hands of numerous parties until it was leased to C. S. Button in 1863, who established the Provincial Brewery on the site (Southland Times, 1863b). The brewery was operational by July 1863, when C. S. Button and Co. placed an advertisement warning their customers against purchasing a spurious imitation, Button’s Southland Ale (recently having been sold at auction), and noting that the genuine article bears “C. S. Button and Co., Provincial Brewery, Invercargill; in black letters on a yellow ground” on a circular label on the cask (Southland Times, 1863a). From 1868, the brewery was referred to as the Black Eagle Brewery, leased by John Tice Martin (Southland Times, 1868). Martin later purchased the property in 1873 and had previously operated a brewery of the same name in Sylvan Bank (Mary Streets). When Martin took over the brewery on Spey Street, he took the name with him.

Under Martin, the brewery prospered and grew. Numerous buildings were constructed on the property over the years that the brewery operated, and this is demonstrated by Figure 1-11 (left), which shows buildings covering a large portion of the site. In 1872, tenders were advertised for the erection of an office (Southland Times, 1872), and this is likely the building marked ‘J T. Martin Offices’ in Figure 1-11 (left) below. The building, described as a store along the Spey Street frontage, was built of blue gum and measured 50 by 25 feet (Southland Times, 1874). A seven-roomed house, also constructed of blue gum and Baltic timber, was located on the site; however, Martin advertised their sale and removal from the site (Southland Times, 1874).

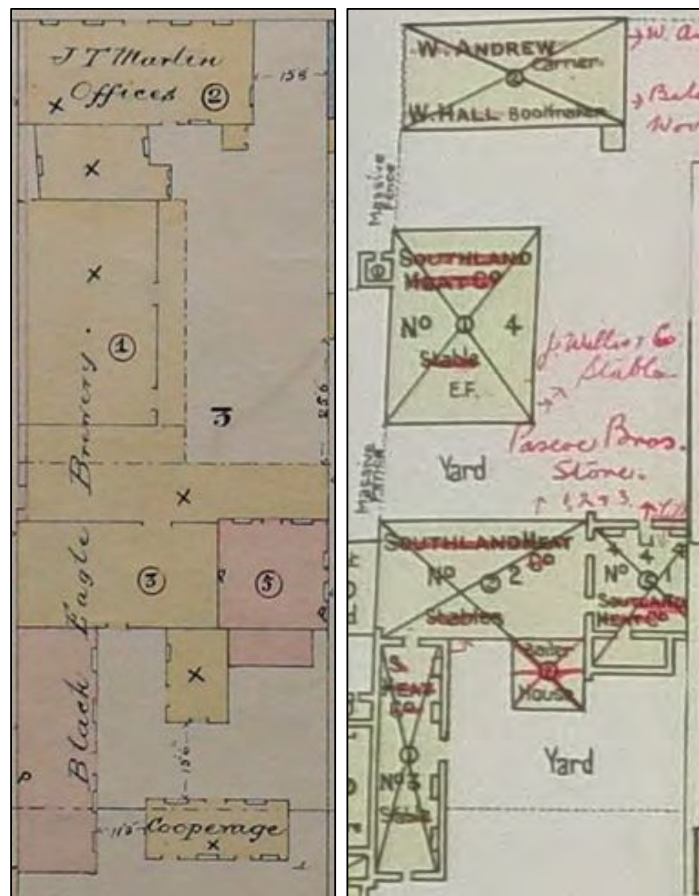


Figure 1-11. Buildings on Section 3 as of 1886<sup>3</sup> and 1913<sup>4</sup>.

<sup>3</sup> Burwell, F. W. (1886). Plans of Invergill Buildings, 1886. Invercargill: Invercargill City Library & Archives.

<sup>4</sup> Council of Fire Underwriters’ Association of New Zealand. (1925). Block Plans, Invercargill and Bluff. Hocken Library, University of Otago; Reference No. AG-291-001-016-025/029.

In 1873, tenders were called for the erection of a brick building, with plans having been drawn up by Angus Kerr, an architect with offices on Yarrow Street (Southland Times, 1873b). The five-storey brick building was a landmark for early Invercargill (Figure 1-12, Figure 1-13):

The Black Eagle Brewery is a boon to Invercargill in the way of furnishing a complete view of the town. Situated in a central position and of considerable height, it enables the eye of the spectator to take in the whole place at a glance. The summit of the building, which is reached by stairs within the walls, is a most convenient point from which to see, from time to time, and without the labor of walking, the progress which the town is making... (Southland Times, 1975)



Figure 1-12. The five-storey brick building at the Black Eagle Brewery<sup>5</sup>, constructed *circa* 1874-1875.

A brick and concrete storehouse and cellar, also designed by Andrew Kerr, was tendered in 1881 (Southland Times, 1881b). This building may be the brick (pink) structure located in the south-west corner of the property as depicted in Figure 1-11; however, another brick and concrete building (designed by F. W. Burwell, architect) was tendered in 1885 (Southland Times, 1885b). Alterations were made to a well in 1873 (Southland Times, 1873a); and while the location of the well was unknown prior to works, archaeological investigation has since located a well on the section, though there was no evidence of what the alterations involved. Martin also leased the adjacent properties, including Section 4 from November 1878 and Section 19 from November 1880; thus, the history of these properties are intertwined.

The economic depression of the late 1880s hit Martin hard, as he had heavily invested in hotels and the collapse of property values forced this once wealthy man into bankruptcy in 1887 (Southland Times, 1887a). Martin is

<sup>5</sup> Coxhead. (*circa* 1870s). INVERCARGILL. -“Spey St Brewery” Black Eagle Brewery, J Martin propr [Photograph; File No. 1454\_01\_002A]. Hocken Snapshot. Retrieved from <http://hockensnapshot.ac.nz/nodes/view/13203>

recorded as having taken out a mortgage on Section 3 in 1887, and by 1894, advertisements appeared for the sale or letting of the brewery and the house occupied by Martin (Southland Times, 1894b). The property was not sold until December 1897, when Duncan McGregor purchased the section. The history of the brewery following its sale is not well documented. It appears that it continued operating through the early twentieth century as it has been reported that despite prohibition, the Black Eagle Brewery continued brewing beer by establishing depots at the Waihopai River, beyond the town limits, where kegs could be purchased (J. Hall-Jones, 2013). Prohibition came into effect following the 6 December 1905 licensing elections, where 60.47% voted for 'no license', just a fraction above the 60% required to carry the vote (J. Hall-Jones, 2013). Invercargill remained 'dry' for the following 40 years (J. Hall-Jones, 2013).



Figure 1-13. Employees of the Black Eagle Brewery<sup>6</sup>. The staff are seated in front of the five-storey brick building.

It appears that by 1913, the brewery was no longer operational, as the 1913 fire insurance plan (Figure 1-11) records several businesses occupying the various buildings, including W. Andrew (a carrier) and W. Hall (a bootmaker) in the building fronting Spey Street, and the Southland Meat Company occupying the remaining buildings. In 1920, the acting borough inspector and health inspector served a notice to pull down the 'old brewery building' (Southland Times, 1920), likely referring to the five-storey brick building on the property. Shortly thereafter, the property was sold to David Sterling in 1921, who in turn sold the property to William Todd in July 1922.

#### Section 4 (E46/61)

The first recorded land transactions for Section 4 were in 1862, when Walker purchased the property from Ordway, selling it just two days later to Smallfield (see Table 1-1). Wilson purchased the property in 1864, and also owned Section 3. In 1878, John Martin, the owner of the Black Eagle Brewery next door, leased the property up until 1912, when it was leased to Todd's.

While the date of the initial occupation of the section has not yet been established, the Burwell plans demonstrate that there were numerous buildings on the property by 1886 (Figure 1-14). Notably, the dwelling marked on the plan was not aligned with the property, but faced north-west towards the neighbouring brewery. By 1912, most of the buildings present on the 1886 Burwell plans are gone. Two wood and iron buildings are present in 1912, including one in the south-west corner and one in the north-east corner. The building next to Spey Street also appears on the Burwell plans. In the following year, W. Todd & Co. have replaced the building at the rear of the property with a much larger poultry shed.

<sup>6</sup> Anonymous. (circa 1876). Staff of the Black Eagle Brewery [Photograph]. Invercargill City Library & Archives.

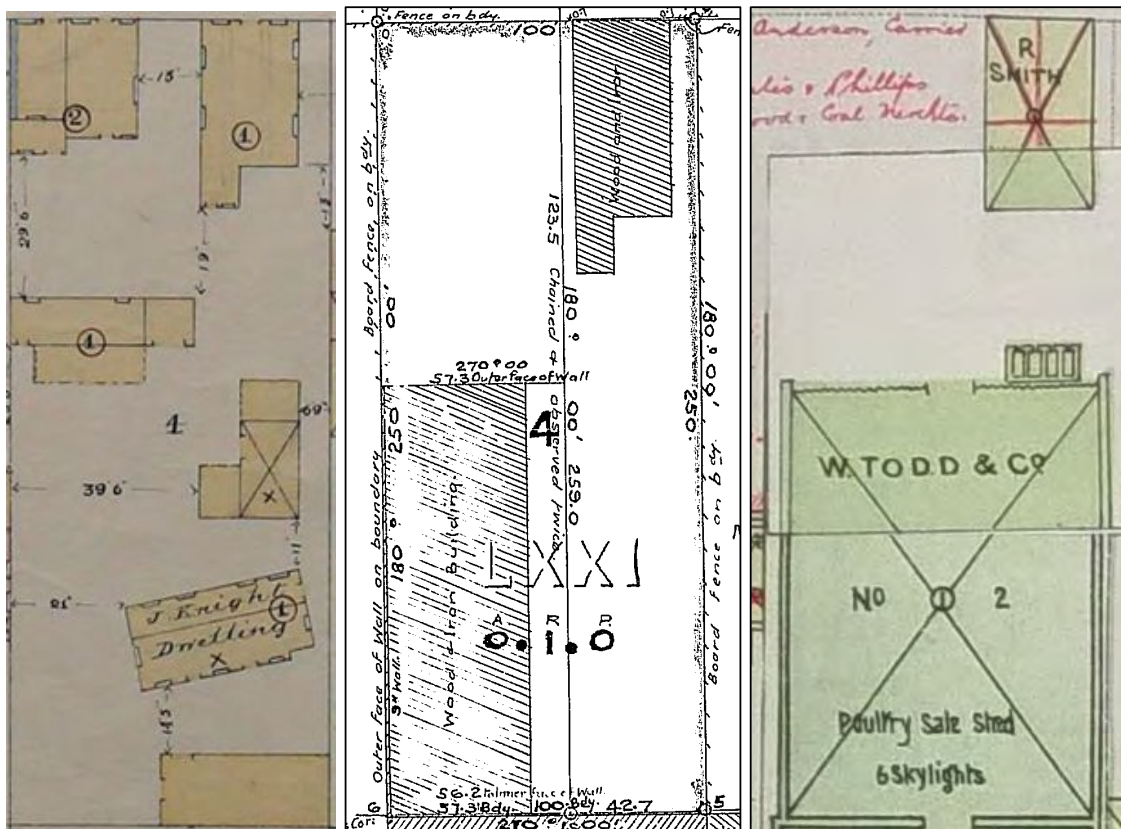


Figure 1-14. Buildings on Section 4 as of 1886<sup>7</sup>, 1912<sup>8</sup>, and 1913<sup>9</sup>.

*Section 18 – The Criterion Hotel and Yards (E46/62)*

James Galbraith opened the Criterion Hotel in mid-1878, and it is described as a new and commodious brick building (Southland Times, 1878a). Prior to this, the property appears to have remained vacant (Southland Times, 1876). Galbraith had long been a publican in Invercargill, with applications for licences appearing as early as 1866. An early photograph of the hotel (circa 1878-1880; see Table 1-2), seen in Figure 1-16, shows a central doorway framed by pilasters and topped by a pediment. An outbuilding is just visible on the west side of the hotel.

From the inception of the hotel, a horse bazaar operated from its backyard, which was often referred to as the Criterion Yards. Access to the yards was via a covered passage to the east of the hotel. Regular auctions were held here, including William Todd's (auctioneer, valuator, stock and land salesman, general commission agent) horse sales, which were held every Saturday (Southland Times, 1878c). It was also utilised as temporary offices by McArdele & Co., Auctioneers from November 1878 (Southland Times, 1878b). Carswell, White and Co. utilised the Criterion Yard for auctions.

<sup>7</sup> Burwell, F. W. (1886). Plans of Inver'gill Buildings, 1886. Invercargill: Invercargill City Library & Archives.

<sup>8</sup> Detail of DP 1359 (1912). Plan of Sec. 4. Blk. LXXI, Invercargill. Surveyed for Mrs J. P. Wilson

<sup>9</sup> Council of Fire Underwriters' Association of New Zealand. (1925). Block Plans, Invercargill and Bluff. Hocken Library, University of Otago; Reference No. AG-291-001-016-025/029.

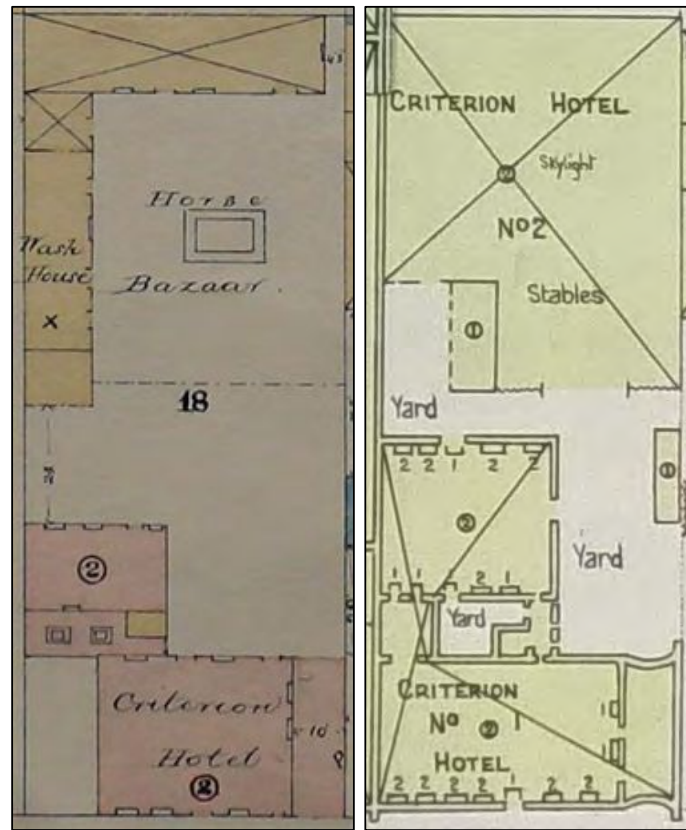


Figure 1-15. Buildings on Section 19 as of 1886<sup>10</sup> and 1913<sup>11</sup>.

The hotel underwent numerous alterations and additions, which often occurred as a new licensee or owner took over the hotel. These changes are illustrated by the stark differences in the footprint of buildings as seen in Figure 1-15. Tenders for the erection of a wood stable at the hotel were advertised in 1881 (Southland Times, 1881a), and the 1886 plan shows a large stable across the rear of the property. In 1885, Mr Potter (the lessee of the Criterion Hotel) made improvements to the yards and the 'house', including "covering a large portion of the yard with a circular iron roof, providing office accommodation for the auctioneer, and additional stabling and loose boxes, with such other requirements as will make the Criterion yards suitable for holding weekly sales of horses therein" (Southland Times, 1885a). Prior to 1886, the access way to the rear yard was covered (Figure 1-15, left). Further alterations were made between 1886 and 1908, when the hotel was extended to the west up to the property boundary.

Jane Moloney took over the hotel following the death of her husband in 1899. Mrs Moloney kept the Criterion as a private hotel and boarding house after 30 June 1906 (Southland Times, 1906), following the introduction of prohibition. In 1907, plans were drawn up by Mackenzie and Wilson Architects and tenders were advertised for an extension and renovations to the Criterion Hotel (Southland Times, 1907). The renovations were completed by January 1908 (Southland Times, 1908). As Figure 1-17 demonstrates, these alterations substantially increased the footprint rear extension of the hotel (see also Figure 1-15) and several new bedrooms were added.

According to the Wise's directories, the Criterion Hotel operated until 1948, after which a variety of businesses occupied the Criterion Buildings. Significant alterations were made to the building to transform it from a hotel into retail and office space (Figure 1-18). At this time, the art deco façade was installed.

<sup>10</sup> Burwell, F. W. (1886). Plans of Inver'gill Buildings, 1886. Invercargill: Invercargill City Library & Archives.

<sup>11</sup> Council of Fire Underwriters' Association of New Zealand. (1925). Block Plans, Invercargill and Bluff. Hocken Library, University of Otago; Reference No. AG-291-001-016-025/029.

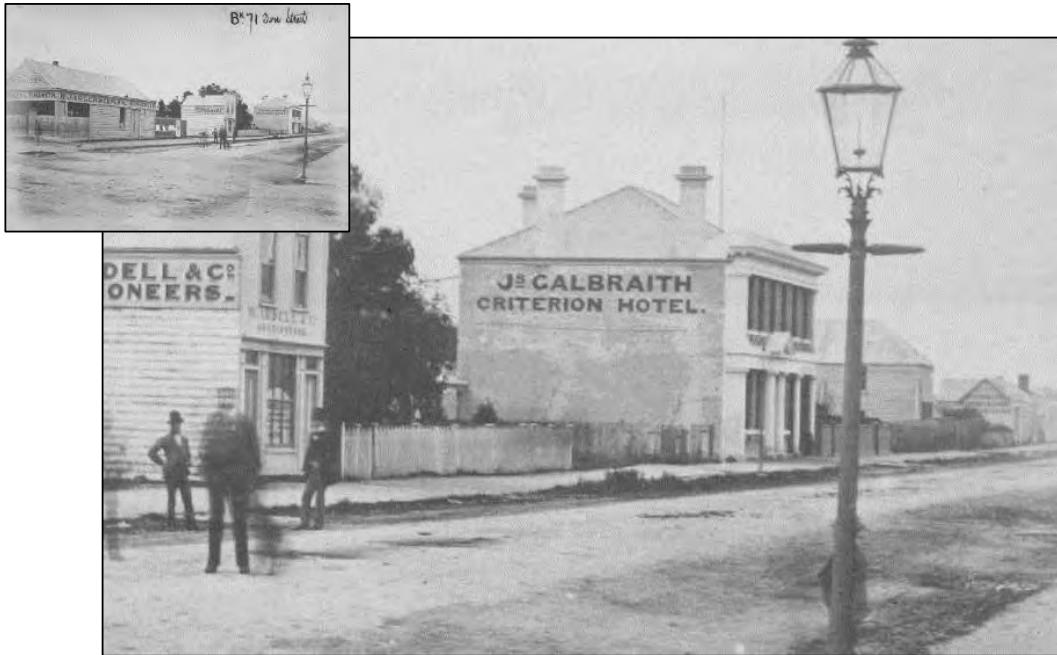


Figure 1-16. Detail of the Criterion Hotel from a photograph looking north-east along Don Street<sup>12</sup>.

Table 1-2. Nineteenth century license holders for the Criterion Hotel (Southland Times, PapersPast).

Year	License Holder
1878-1880	J. Galbraith
1881	F F Hilton
1882-1883	William Hogue
1884	James Milne
1885-1886	H. W. Potter
1887-1892	Mrs Helen Tulloch
1882	Louise Sullivan
1893	David Sullivan
1894-1896	William Collie
1897-1899	Patrick Moloney

<sup>12</sup> Anonymous. (circa 1878-1880). Bk 71 Don Street [Photograph]. Invercargill: Collection of Southland Museum, & Art Gallery.



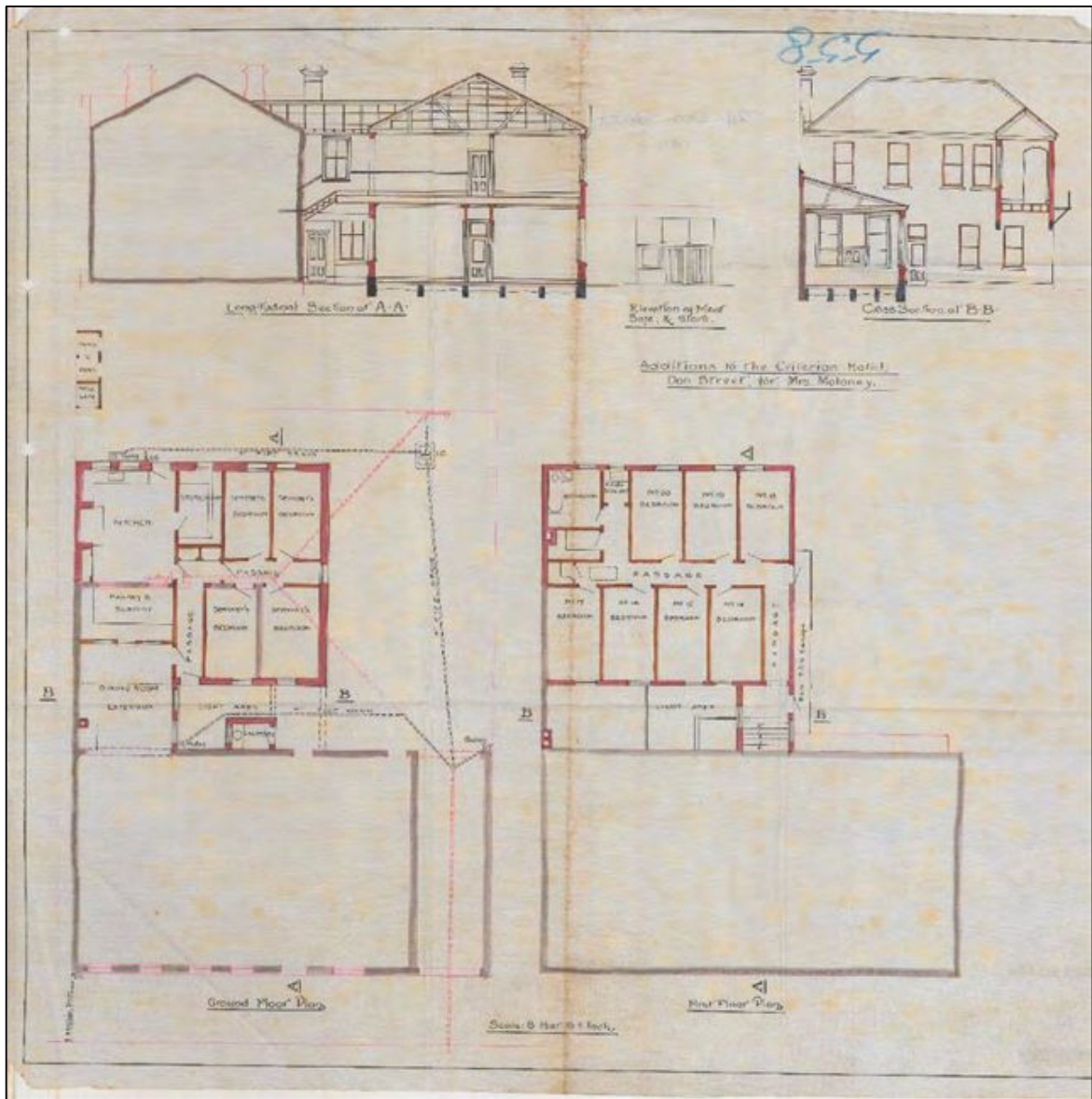


Figure 1-17. Additions to the Criterion Hotel, Don Street, for Mrs Moloney (ICC Property File). The additions are shown in pink and brown, while the original walls are shown in grey.

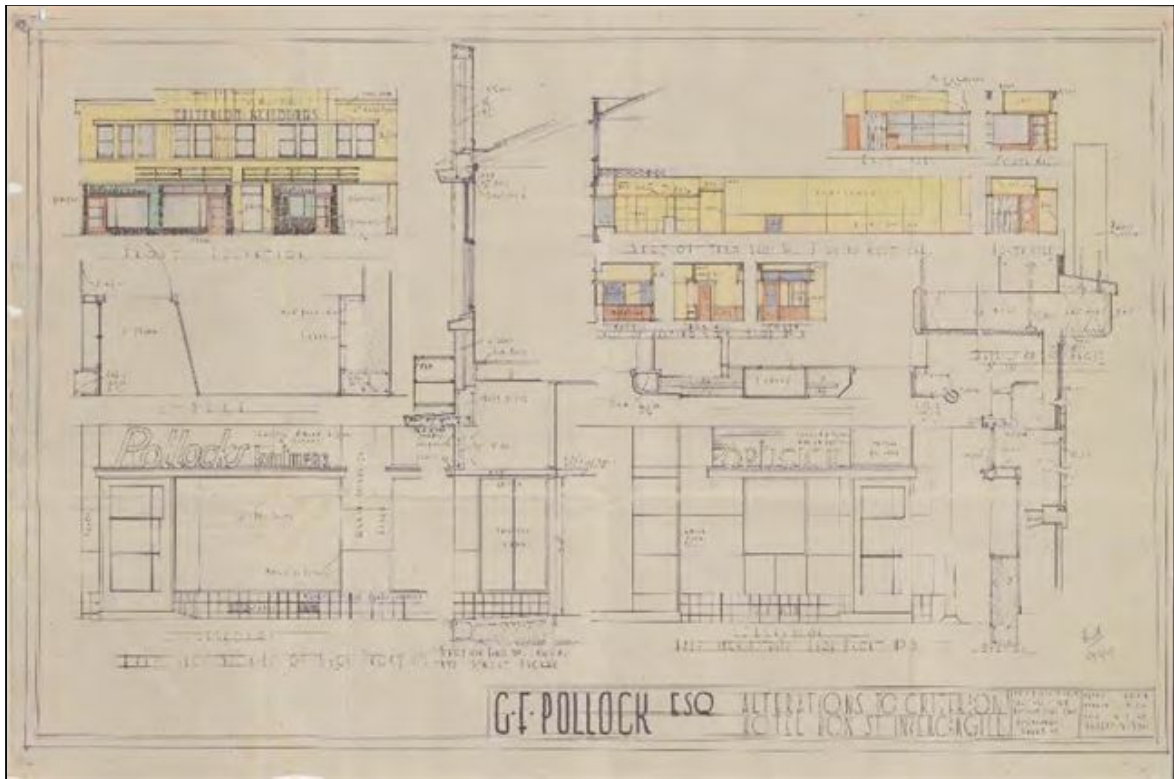
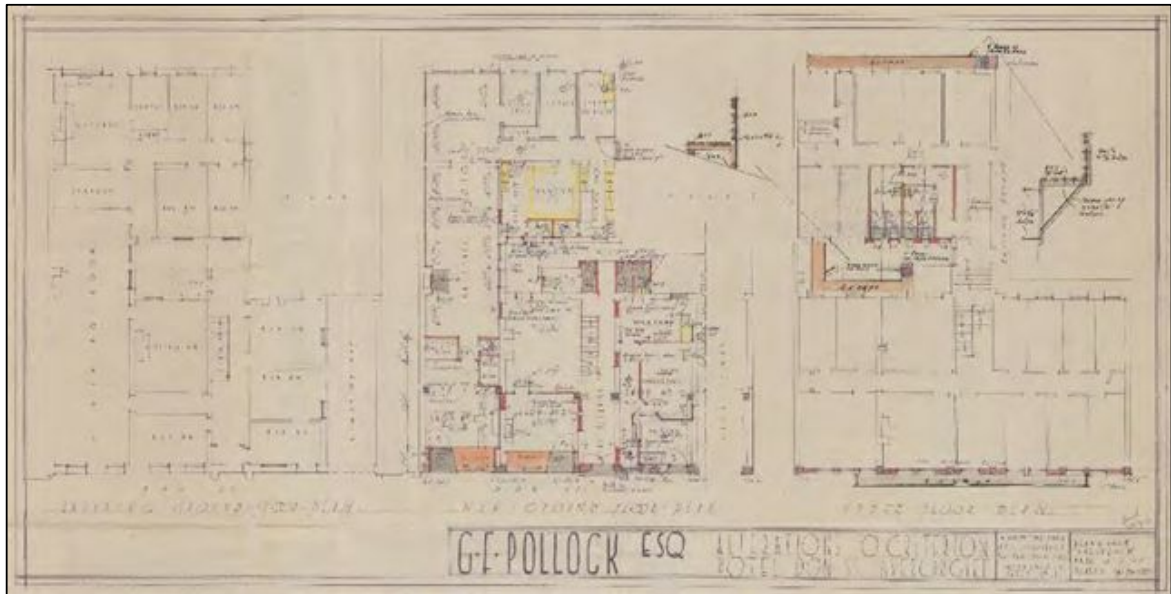


Figure 1-18. 1949 Alterations to Criterion Hotel, Don Street, Invercargill for G. F. Pollock by A. G. A. Milne, architect (ICC Property File).

*Section 19 – William Todd & Co. Auctions at the Rialto (E46/59)*

An advertisement for the sale of Section 19 indicates the property was unoccupied as of January 1880 (Southland Times, 1880), and the land transfer records show that Cheyne sold the property to William Panton Grigor just a month after the sale was advertised (Southland Land Transfer Register 57/128). By 1886, there was only a single building located near the rear of the property (Figure 1-19, left). This building is likely associated with the brewery on Section 3, as the property was leased by John T. Martin during this period (see Table 1-1). The lease was subsequently held by Martin Hughes between 1892 and 1897. Martin Hughes was a blacksmith (F. G. Hall-Jones, 1946), and it is possible that he ran a blacksmith shop from the property during this period.

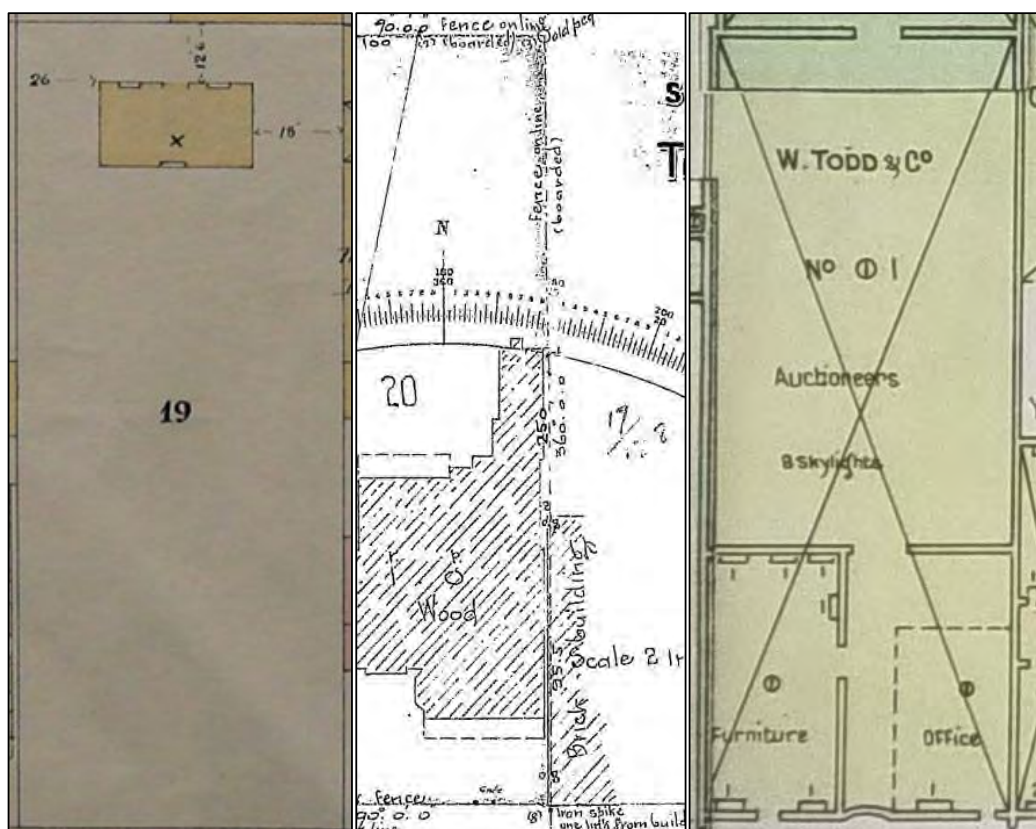


Figure 1-19. Buildings on Section 19 as of 1886<sup>13</sup>, 1912<sup>14</sup>, and 1913<sup>15</sup>.

October 1897 marks a significant change in the history of the property, with William Todd taking over the lease and establishing his auction house, ‘Rialto’, on the site (Southland Times, 1912), which stood on the site until it was demolished in 2016. William Todd was a prominent figure in Invercargill. He arrived in Invercargill in 1863 and later joined G. W. Binney’s auctioneering business in the Prince of Wales sale yard, and he later took over the business, taking out his first license in 1865 (F. G. Hall-Jones, 1946). Todd moved to the West Coast in 1868 and served as the Hokitika mayor twice (F. G. Hall-Jones, 1946). In 1878, Todd returned to Invercargill and opened a successful auction house, which was taken over by D. W. McKay in 1896 when he left for the West Australian goldfields (F. G. Hall-Jones, 1946). Returning a year later, Todd opened the Rialto, which he named in reference to the “oldest bridge across Venice’s Grand Canal, which has long provided an important trading link to the market area near its eastern entrance” (Southland Times, 2011).

<sup>13</sup> Burwell, F. W. (1886). Plans of Inver’gill Buildings, 1886. Invercargill: Invercargill City Library & Archives.

<sup>14</sup> Detail of DP 435, Plan of Section 20, Block LXXI, Town of Invercargill.

<sup>15</sup> Council of Fire Underwriters’ Association of New Zealand. (1925). Block Plans, Invercargill and Bluff. Hocken Library, University of Otago; Reference No. AG-291-001-016-025/029.

Auctions began to be held at the Rialto as of January 1898 (Southland Times, 1898). There are few details on the initial construction of the building; however, a photograph from circa 1901 shows the Rialto to be a Palladian-style single storey building, featuring pointed pediments with corbels above the windows, arched doorways, an arched access way through to the yard. Pilasters topped with pediments frame the doorways. A plan for the neighbouring property (Section 20) shows the western extent of the Rialto as of 1902 (Figure 1-19, centre). This plan also shows that there was a boarded fence between Sections 19 and 20. The extent of the brick building in the 1902 plans corresponds with the front portion of the building as it appears in the 1913 fire insurance plans; thus, it is only this part of the building that was constructed in the nineteenth century.

By 1913, buildings covered the entire section. The rapid succession of sizable additions to the auction buildings attests to the success of the company. Todd also expanded his business into the neighbouring properties. In 1912, Todd leased Section 4, and shortly thereafter he constructed a poultry sale shed, as it appears on the 1913 fire insurance plan. In 1922, William Todd purchased Section 3; thus, it is likely that the warehouse constructed on this property was constructed after 1922. Significant alterations to the Rialto were undertaken in the early 1960s, including the addition of a second storey to the building and a new façade (Figure 1-22 and Figure 1-22).



Figure 1-20. Photograph of the Rialto circa 1901<sup>16</sup>.

<sup>16</sup> News, S. D. (1961). The Southland daily news centennial supplement. Invercargill: Southland Daily News.

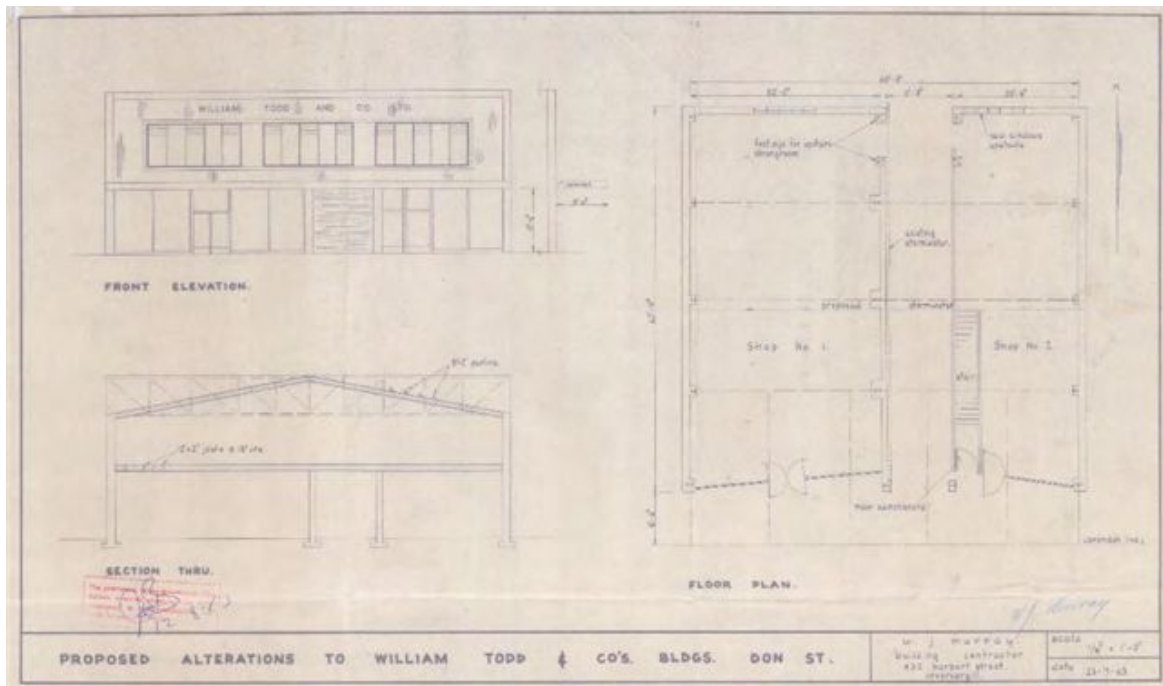


Figure 1-21. Proposed alterations to William Todd & Co's Buildings, Don Street, 1963 (ICC Property File).

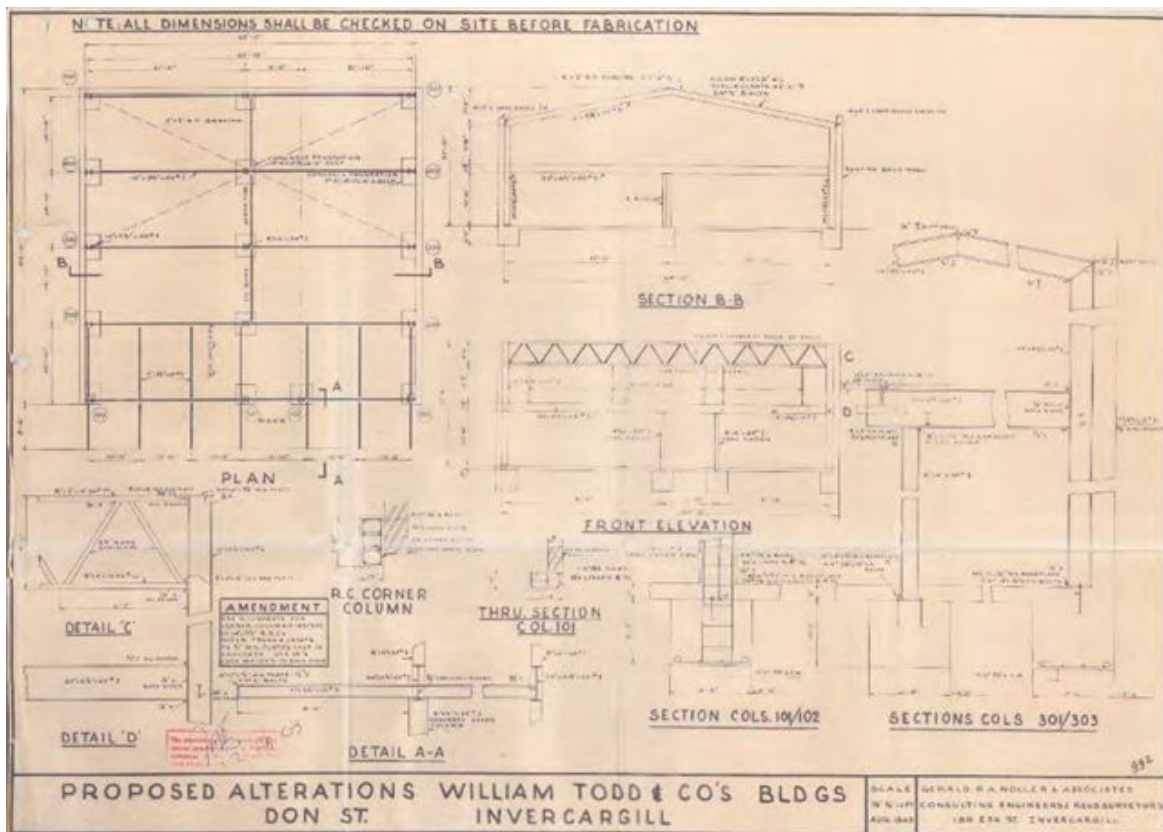


Figure 1-22. Proposed alterations to William Todd & Co's Buildings, Don Street, 1963 (ICC Property File).

### 1.4 Previous Archaeological Investigations

Several archaeological sites have been registered with ArchSite in the area surrounding the project area. A brief description of these sites is provided in Table 1-3, and their location is illustrated in Figure 1-23 below. Two wells (E46/32 and E46/45) have been previously identified just south of the project area and historical research has indicated that there was a well at the Black Eagle Brewery. Thus, these other sites may provide important comparative data. Both wells were approximately 1.5m in diameter, with one being brick lined and the other being unlined. More comparative data can be found further afield, as numerous hotels and several breweries have been registered as archaeological sites. Brief descriptions of these sites can be found in Appendix B.

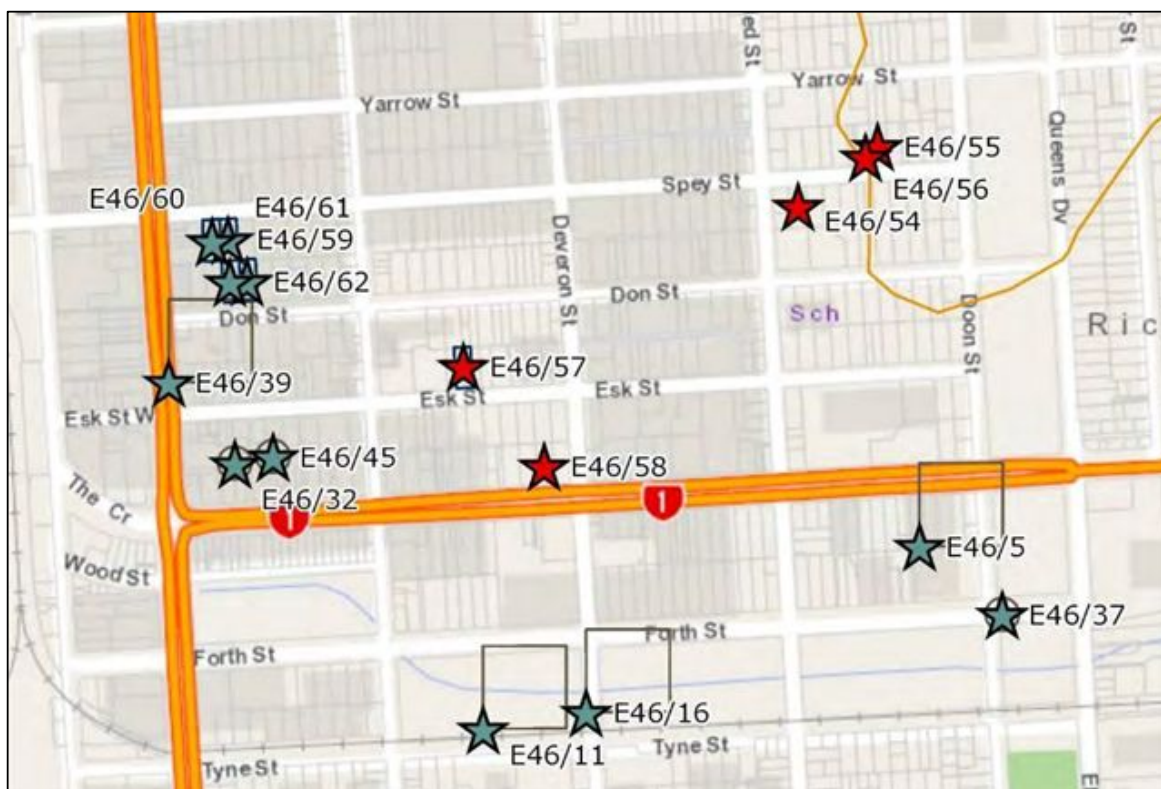


Figure 1-23. Location of archaeological sites near the project area (Note: approved sites are blue and pending sites are red; ArchSite).

Table 1-3. Archaeological sites near the project area (data from ArchSite).

Site	Name	Brief Description
E46/05	Invercargill 1	Findspot for side cutting adze. Made of green meta-basalt, 28.6cm long, cutting edge broken during use.
E46/11	No. 2 Gardens	Cockle shells and charcoal exposed on ridge of grassed sand dunes. Two exposures between the tree roots 6m apart. Some 10m west is a group of burnt stones which may be oven stones and some 20m to the east are more fragments of shell in a flower plot which is on the same sand hill ridge.
E46/16	Invercargill 2	Adze found when digging foundations in 1950s by donor Mr Whittle (no address). Given to Southland Museum December 1978. NFR. Basalt adze, Type 1B, broken, bevel end only, hammer dressed polished bevel. Grid reference for central Invercargill.
E46/32	Majestic Well	Brick-lined well, 1.5m diameter, approx. 6m depth. Believed to be one of the two wells which serviced the area ca. 1857 onwards.
E46/37	NA	Late 19 <sup>th</sup> century European midden
E46/39	NA	Kerbstones on Dee Street
E46/45	NA	Unlined well, 1.5m diameter (approx.). Depth of current water table approx. 6m. Probably associated with 19 <sup>th</sup> century bootmakers w. Mitchell (or Goodwillie who was a saddler).

Site	Name	Brief Description
E46/54	NA	Archaeology at 219 Spey Street indicates the presence and continual occupation of the Taylor family on the property from the early 1860s through to the twentieth century. Both archaeological features and artefactual remains suggest the presence of an early dwelling predating the twentieth century villa. The presence of the well, which was a common feature on Invercargill properties in the 1860s and 1870s, in combination with rubbish pits and glass dumps, as well as possible drain features, all reflect the outcomes of domestic activities of a household. The pit features, scattered around the site, but concentrated towards the rear, may indicate shallow cesspits, urban work areas or gardening activity. The presence of postholes, from both early and later contexts indicates that at least two main dwellings were built on the site. The Taylor's son William may have constructed the later twentieth century villa in the early twentieth century when the land ownership was transferred to him. This may have resulted in the destruction of an earlier dwelling, possibly a saltbox cottage type building that was common in the area. The well appears to have been in a state of disuse by the end of the nineteenth century, and subsequent extensions to the early twentieth century villa saw it capped until the building was demolished in 2013. The linear features running across the site may have been used as a drainage system, most likely at the rear of the property.
E46/55	NA	Section 16, Block LVI was first taken up by Crown Grant to John Hart in 1860. He lived there until 1878, when his bankruptcy likely forced him to sell his home. His neighbour James Harvey, a solicitor, real estate mogul, and money lender bought the property. It was probably tenanted until 1899. At this point the house was significantly renovated before being sold to William Gresham in 1904, a dentist practising in Invercargill. He moved his practice to the newly renovated building at the site before selling it to Helen Yule in 1910. Local anecdotal history has Helen Yule as a doctor, but this was unable to be confirmed. Her husband Garnet J. Yule was also dentist, and the couple likely practised out of their Spey Street home. In 1955 the section would become part of the new Montecillo Hotel and the historic building incorporated into structures associated with that business.
E46/56	NA	Section 17 was first taken up in 1859 by Henry H Harrison by crown grant. Little is known about this initial occupation, but it seems likely that Harrison dwelt in a home at the site during this period. In 1876 the site was sold to James Harvey, a solicitor, money lender, and real estate mogul. He lived nearby and, together with the neighbouring Section 16, likely leased the land/house during this period. In 1899 the house was sold and likely redeveloped or renovated to modernize the house before it was sold to George Gibbs, a carter. In 1924 the land was resurveyed (DP 2372). It would later be incorporated with the Montecillo Hotel in 1955, around which time the 19th Century house was demolished. A gravel car park now sits where the former dwelling stood. The rear of the property now has a modern hotel building associated with the Shiny Pawa Motel.
E46/57	Southland Coffee Mills Established 1872	The site consists of two parcels of land related to the 19th century Strang Spice and Coffee business. The beautiful Strang main office is on 100 Esk St. and was built in 1912. The second parcel contains the highly significant Strang "Southland Coffee Mills Established 1872" building. This is where it is believed David Strang invented instant coffee, the first of its kind in the world. Internationally it is accepted that Satori Kato of Chicago invented instant coffee in 1901. However, Strang was advertising and patented his soluble coffee in 1890 and it was well advertised in local papers of the day. In 1895 he also patented the blending of cocoa and powdered coffee to create perhaps the world's first mocha.

Just nine breweries have been registered with ArchSite<sup>17</sup> in the South Island, and a further four sites with hop kilns have been recorded. Brief descriptions of these sites are provided in Appendix B 10Appendix B. The two sites previously registered within Southland are not directly comparable to the current research due to their limited scale of production and early dates. Instead, the breweries within Dunedin provide much better comparisons to the Black Eagle Brewery, being operational during the same period and at a similar scale. Of particular interest is the Speights Brewery (144/233), which is the only brewery in the South Island to have had a final report submitted to Heritage New Zealand detailing the archaeology at the site (Gillies & Farminer, 2015). Early photographs of the Speights Brewery show a similar pattern of buildings on the site as seen at the Black Eagle Brewery. It is suggested that brewery sites will have a common set of inter-related buildings, such as the maltings/brewhouse, cellars, malt kiln, offices, due to the necessary functional requirements (Gillies & Farminer, 2015). Cobble floors were identified at the Speights Brewery, and such features were therefore expected at the Black Eagle Brewery (Gillies & Farminer, 2015).

Hotels are well-represented archaeological site types within the ArchSite dataset. In the South Island, there are 95 sites that include hotels in their feature descriptions. Over half of these sites were recorded in Otago (n=55), and just one hotel has been previously recorded thus far in Southland (E47/148). Heritage New Zealand currently holds at least 46 reports on hotels, including 18 from the South Island. These reports provide some precedent on and context to the material generally found at nineteenth century hotel sites. Of particular relevance is the archaeological investigation of the Royal Oak Hotel, Arrowtown (Peter Petchey, 2004). The investigation sets an important precedent for the sub-surface archaeology not only at other hotel sites, but for any site where there is potential for buried features and materials.

<sup>17</sup> It should be noted that the ArchSite dataset ONLY includes approved sites. It is not possible to download the data for pending sites, including previously approved sites that are considered pending following edits to the site record.

E47/148 is the Mokomoko Accommodation House, the sole hotel that has been registered in Southland. It was founded in the mid-1850s as a halfway house between Bluff and Invercargill. It continued to operate until the railway went through in 1867. Archaeological remains at the site consist of a 100m-long scatter of broken bottles. The site was first recorded in 1990, and it was site was re-visited in May 2015. It appears to now be almost completely eroded away and is only visible as deflated deposits on the beach. As the site pre-dates the Criterion Hotel, it is not directly comparable to the present study.

The Royal Oak was similarly established in the 1860s and experienced a catastrophic fire in 1924 followed by a rapid rebuild. The investigation followed the demolition of the twentieth century hotel. Several distinct features were observed and included post-holes from the original structure, pervasive evidence of fire, a disused beer cellar, and latrine. Archaeological deposits were found directly beneath the floorboards of the twentieth century hotel. This meant that the demolition of the building had to be undertaken carefully, with minimal disturbance to the ground prior to investigation. It was noted that the fire event provided an effective dating method of archaeological deposits, but that deposits were correspondingly in bad condition (Peter Petchey, 2004).

In contrast, the less sympathetically undertaken demolition of the Gladstone Hotel in Christchurch saw much grading of the ground beneath the building footprint. Although the hotel's beer cellar was able to be located, most archaeological material was removed/destroyed (Witter & Witter, 2005). These two excavations highlight the need for monitoring during the lifting of the floor and removal of the foundations.

#### *1.4.1 Expected Findings*

During work for the archaeological assessment, on site observations identified heavily modified pre-1900 buildings on Sections 18 and 19 and a photographic record was created. Building 1 on Section 19 was the only pre-1900 structure within the complex of buildings known as Todd's Auctions. Building 1 was a two-storey structure with a central accessway separating two commercial spaces and leading to further commercial warehouse type buildings at the rear (Buildings 2-4). Building 1 had been heavily modified, with office fit outs and a second story added circa 1963 as per documentary records and it was thought that it was likely only the exterior and internal load bearing walls were original. Surviving elements of the pre-1900 Rialto building would provide a rare example of a building used continuously for generations as part of the William Todd and Co. Auctions and one which played a strong role in central commercial Invercargill. On Section 18 pre-1900 parts of the Criterion Hotel faced Don Street also with heavy modification of the Victorian building for example during Edwardian and Art Deco eras. Observations during the assessment phase suggested that as well as exterior and interior load bearing walls being original there may be potential for original details beneath modern wall linings. Archaeological investigations of these two buildings were expected to assist with understanding the construction, use and changes of the Rialto and Criterion Hotel.

Previous archaeological work in Invercargill for comparative purposes has been limited. However, two wells (E46/32 and E46/45) were identified just south of the project area within central Invercargill. Historical research has indicated that there was a well at the Black Eagle Brewery and other wells may have existed for example for the Criterion Hotel, of which, both have had wells identified during archaeological works. Therefore, previous sites would provide important comparative data along with data of other commercial, industrial and residential sites recorded regionally or nationally in New Zealand. Given that the sites represent an intriguing palimpsest of Invercargill's history the opportunity to understand early nineteenth century life in Invercargill through a cross-section of site types was thought to be high. Given the density and the long sequence of occupation across all titled sections, it was anticipated that archaeological materials and features would be abundant including the potential for brewery related material on Section 3, stables, building foundations, wells – perhaps brick lined, a cellar and cobbled surfaces, domestic and commercial refuse and latrines. Of special note, any surviving archaeological remains related to brewery operations would be of special interest for comparison with historical records. It was expected that site redevelopment would remove all trace of any archaeological features encountered.



## 2 Description of Archaeological Work Undertaken

Archaeological work was carried out in several phases. A full summary with excavations areas, buildings investigated, dates, description of work and contexts recorded can be found in Appendix C. Environmental test pits were excavated in various areas of the sites. However, no contexts of consequence were identified during these and as all four sites were scraped in their entirety the data collected from the test pits has since been superseded.

### 2.1 Buildings Archaeology Methodology

Buildings recording was undertaken of the Rialto (E46/59) and The Criterion Hotel (E46/62) in August 2016. The Rialto and Criterion Hotel were recorded in accordance with the guidelines set out by the Heritage New Zealand (Heritage New Zealand, 2014). Archaeological Authority No 2016/1193 stipulated Level III recording of the buildings. Level III recording requires written records, photography, selective sampling, and annotated measured drawings of selective elevations (internal and external), cross sections, floor plans, roof plans, and ceiling plans (Heritage New Zealand, 2014).

NZHP aimed to identify the pre-1900 portions of the buildings, and any modifications, alterations, or additions to the structure. The fieldwork included creating a photographic record (to complement the photos taken during the initial assessment), drawing detailed plans of the structures, and investigating the exterior of the structures and each room in the pre-1900 (or potentially pre-1900) portion of the structures. For ease of reference, the rooms were arbitrarily numbered.

Investigation of the rooms was carried out through sampling the floors, walls, and ceilings (although all three may not be required for each room) in order to determine:

- If the room was an original feature of the structure?
- How it had been constructed?
- If and how it had been modified in the past?
- And what original features remain?

Sampling was undertaken by creating openings in each investigation area and carefully removing each layer until the structural components were revealed.

The objective of the investigation was to reconstruct the original layout of each structure. The information recorded in these rooms was also used to consider if there is evidence to suggest room function (and change through time) and interpret the changes and modifications to the building.

### 2.2 Monitoring Methodology

Due to the nature of site excavation works, monitoring occurred in many phases. This was especially so for piling and foundations which occurred intermittently over a duration of months to allow access for piling equipment. As a result of the work occurring in phases, 47 excavation areas were recorded (see sections 2.2.1, 2.2.2, 2.2.3 and 2.2.4).

Excavations were mostly undertaken initially by an excavator with a bucket, although at times a ripper was required to remove deeper foundations and footings with minimal disturbance to surrounding ground. Foundation removal and site clearance work undertaken by Ryal Bush Transport was monitored between July and September 2016. Test pits for environmental testing excavated by South Roads were monitored on 25 and 26 August 2016. Excavations for new foundations undertaken by South Roads were then monitored between September 2016 and January 2017 with a small portion carried out under ADP. These excavations involved trenching along the main numbered lines which ran north to south (lines A to G) or east to west (lines 1 to 9) as numbered on construction plans (Appendix A) unless it was required to excavate a hole for large pile placement required to be carried out in

advance of trenching works. Any foundation lines, for example between small piles including those generally marked ‘CB2’ on redevelopment plans, were not monitored or recorded directly by the archaeologist as these foundation lines were shallow and only extended into surface layers of shingle imported to site for the current project. Likewise, after site scrapes and clearance, small piles were drilled directly into the ground without prior excavation and so were not monitored or recorded. Trenching for services were part monitored and part carried out under an ADP intermittently between October to December 2016 (refer to Appendix C).

Contexts were identified based on sediment and matrix change or by the presence of archaeological material. Each context was photographed, mapped, and documented using standardised context recording form and excavated by hand to obtain information. Note that the “method of excavation” in tables below only refers to the main method of excavation used initially during monitoring by contractors carrying out site works not archaeological excavation methods. Basic attributes (dimensions, location, and description) were recorded for all features. Large or complex features were sectioned. Plan views and sections (where applicable) were drawn for each context. All artefacts recovered from the site were bagged according to their provenance.

2.2.1 Excavation areas: E46/60 – The Black Eagle Brewery

Works occurred in ten excavation areas at site E46/60 The Black Eagle Brewery (see Table 2-1). Area D was a large area of modern floor and foundation removal, site clearance and compaction undertaken for the positioning of a Calder Stewart site office for the project. Areas G-N were a series of small parallel trenches excavated for two small piles required as part of works to stabilise the neighbouring property wall on the western site boundary. Area AS was a site wide scrape to establish the western half of the parking lot. This also included the excavation for the installation of carpark kerbs, drainage, and landscaping including the installation of carpark lights.



Figure 2-1 Recording of trenches Area G (left) and Area H (right). Photo faces north-west.

Table 2-1 Details of excavation areas E46/60 The Black Eagle Brewery

Excavation Area	Location	Dimensions	Reason for excavation	Method of excavation	Comments on recording
D	South end of section 3	18.10m length x 19.70m width x	Area of modern foundation removal including a concrete slab, pile, perimeter	Excavator (Ryal Bush Transport)	Monitored removal of all modern foundations. Removal of modern asphalt between modern foundations and west site

		0.60m maximum depth	foundation and asphalt (see contexts D6, D7, D8 and D1 respectively in Table B-1). Clearance of modern foundations and asphalt only and then area compacted for positioning of site office for current project, site scrape to 100mm deep.	Ltd). Ripper used for concrete pile and perimeter foundation removal. Bucket for rest of works.	boundary was removed without monitoring. Stratigraphy recorded from a section exposed to approximately 590mm along western boundary only. An 8000mm long perimeter foundation with 2x2m pile was removed at the east boundary of this area to 600mm deep. The remaining area was only excavated to below modern concrete foundations (20mm deep) and exposing context D2 to maximum 100mm deep.
G	Part of a series of small trenches running east-west along the western boundary of section 3.	4000mm x 700mm x 700mm deep	Small trench excavated for piles required for bracing to stabilise neighbouring wall.	Excavator with bucket (SouthRoads)	Not monitored, excavated without notification to archaeologist. Excavation area and stratigraphy recorded in profile only.
H	Part of a series of small trenches running east-west along the western boundary of section 3.	4000mm x 700mm x 600mm deep	Small trench excavated for piles required for bracing to stabilise neighbouring wall.	Excavator with bucket (SouthRoads)	Not monitored, excavated without notification to archaeologist. Excavation area and stratigraphy recorded in profile only.
I	Part of a series of small trenches running east-west along the western boundary of section 3.	4000mm x 700mm x 400mm deep	Small trench excavated for piles required for bracing to stabilise neighbouring wall.	Excavator with bucket (SouthRoads)	Not monitored, excavated without notification to archaeologist. Excavation area and stratigraphy recorded in profile only.
J	Part of a series of small trenches running east-west along the western boundary of section 3.	3700mm x 700mm x 700mm deep	Small trench excavated for piles required for bracing to stabilise neighbouring wall.	Excavator with bucket (SouthRoads)	Not monitored, excavated without notification to archaeologist. Excavation area and stratigraphy recorded in profile only.
K	Part of a series of small trenches running east-west along the western boundary of section 3.	3700mm x 700mm x 500mm deep	Small trench excavated for piles required for bracing to stabilise neighbouring wall.	Excavator with bucket (SouthRoads)	Not monitored, excavated without notification to archaeologist. Excavation area and stratigraphy recorded in profile only.
L	Part of a series of small trenches running east-west along the western boundary of section 3.	3700mm x 700mm x 500mm deep	Small trench excavated for piles required for bracing to stabilise neighbouring wall.	Excavator with bucket (SouthRoads)	Not monitored, excavated without notification to archaeologist. Excavation area and stratigraphy recorded in profile only.
M	Part of a series of small trenches running east-west along the western boundary of section 3.	3700mm x 700mm x 500mm deep	Small trench excavated for piles required for bracing to stabilise neighbouring wall.	Excavator with bucket (SouthRoads)	Not monitored, excavated without notification to archaeologist. Excavation area and stratigraphy recorded in profile only.
N	Part of a series of small trenches running east-west along the western boundary of section 3.	3700mm x 700mm x 500mm deep	Small trench excavated for piles required for bracing to stabilise neighbouring wall.	Excavator with bucket (SouthRoads)	Not monitored, excavated without notification to archaeologist. Excavation area and stratigraphy recorded in profile only.
AS	Entire section	Entire section	Site scrape and trenches to required levels for landscaping and for carpark establishment.	Excavator with bucket (SouthRoads and Arnott Drainage)	Monitored and contexts recorded.

2.2.2 Excavation areas: E46/61 – Section 4

Works occurred in two excavation areas at site E46/61 – Section 4 (see Table 2-2).



Figure 2-2. Removal of post-1900 building foundations (Area AQ). Photo faces north.



Figure 2-3. Site scraping at south end of Area AR for carpark. Photo faces east.

Table 2-2 Details of excavation areas E46/61 - Section 4

Excavation Area	Location	Dimensions	Reason for excavation	Method of excavation	Comments on recording
AQ	Northeast corner of section	16500mm x 7000mm x 500mm deep	Removal of perimeter foundation of building 6, post-1900 citizens advice beaurau building.	Excavator with bucket (Ryal Bush)	Monitored and contexts recorded
AR	Entire section	Entire section	Site scrape to required levels for landscaping and for carpark establishment. Trench for services (power). Earthworks for drainage.	Excavator with bucket (Arnott Drainage, South Roads)	Monitored and contexts recorded. Some earthworks for drainage completed without archaeologist (See Appendix C)

2.2.3 Excavation areas: E46/62 – The Criterion Hotel and Yards

Works occurred in 21 excavation areas at site E46/62 The Criterion Hotel and Yards (see Table 2-3). Area A included excavations for foundation removal and site clearance of the Criterion Hotel and accessway. Area F was an area of site clearance. Areas O, P, R, S, T, U, V, W, X, Y, Z, AA, AC, AE, AK, AL, AO and part of Area A

were excavations required for new concrete foundations and piles. Areas AD and AN were trenches excavated for services.



Figure 2-4 Area A removal of The Criterion Hotel foundations (left) and cellar excavation (right).



Figure 2-5 Beginning of site clearance in Area F, looking south (left) and exposing brick floor in Area F, looking north (right).



Figure 2-6 Context of Area AH (line 5) in foreground with Area AE at rear, looking east. Note the example of a small pile in the foreground. (left) and Area R (line F) looking south (right).



Figure 2-7 Excavation of drainage trench Area AD, note drainage trench on left and line 8 on right (left) and drainage trench being excavated in centre and line F on left (right)



Figure 2-8 Site showing imported shingle surface and shallow excavations required for some foundation lines. Area AO (line D) in centre of photo, facing south.

Table 2-3 Details of excavation areas E46/62 The Criterion Hotel and Yards

Excavation Area	Location	Dimensions	Reason for excavation	Method of excavation	Comments on recording
A	In south part of site comprising footprint of the Criterion Hotel	20m wide x 30m long. Depths: 250mm deep for	Earthworks for removal of The Criterion Hotel foundations, cellar and	Foundation removal by excavator with ripper and bucket (Ryal Bush	Removal of foundations and access-way clearance monitored

	and access-way immediately adjacent to east.	hotel foundations, 1800mm deep cellar, 2500mm deep well, lines 9 and G 500mm deep.	adjacent access-way surface. Trenching for lines 9 and G for new foundations as per redevelopment plans.	Transport Ltd). Trenching by excavator with bucket (SouthRoads)	and recorded. Stratigraphy under access-way recorded as contexts A1-A7. Contexts under hotel footprint recorded as A1-A24 including stratigraphy observed on southern site boundary. Trenches for new foundations not notified to archaeologist and not monitored, although no concern about part of line 9 which extended through building footprint.
F	In north half of site, rear of property behind Criterion building footprint.	20m wide x 30m long. Maximum depth 600mm (post hole). Maximum depth of site scrape c450mm.	Area of site clearance and clean-up of mud and surface shingle due to weather.	Excavator with bucket (Ryal Bush)	Site clearance and scrape monitored, and contexts recorded.
O	Along eastern site boundary in Area F	1100x3000mm and 600-1050mm deep	Small trench excavated for pile hole and foundations associated with lift shaft.	Excavator with bucket (SouthRoads)	Not monitored. Excavated without notification to archaeologist. Contexts recorded in profile.
P	Along eastern site boundary in Area F.	1100x3000mm and 600-1050mm deep	Small trench excavated for pile hole and foundations associated with lift shaft.	Excavator with bucket (SouthRoads)	Not monitored. Excavated without notification to archaeologist. Contexts recorded in profile.
R	Along eastern boundary of site, north half of foundation line F as per redevelopment plans Appendix A, through Area F	1600mm width, 600mm deep and 22.25m long	Trench for foundations for line F.	Excavator with bucket (SouthRoads)	Not monitored. Excavated without notification to archaeologist. Trench photographed. See also information on context F005 in Appendix F.
S	Along eastern site boundary, trench running north-south extending though the already excavated Areas O and P and through Areas F and A	Three sub-areas 700mm deep, 1200mm wide, between Areas O and P and 1600mm long to north of Area O and south of Area P.	Trench for foundations for a lift shaft.	Excavator with bucket (SouthRoads)	Monitored and contexts recorded.
T	Area excavated adjacent to Areas O and U in Area A close to eastern site boundary.	2000mm x 1200mm x 480mm deep	Was a hole dug and extended for a pile (F5.5).	Excavator with bucket (SouthRoads)	Monitored and contexts recorded.
U	Along eastern boundary of site, south half of foundation line for line F as per redevelopment plans Appendix A.	1600mm width, 600mm deep and 21.5m long	Was a trench excavated for trench line F.	Excavator with bucket (SouthRoads)	Monitored and contexts recorded.
V	Adjacent to trench for line F (Area U) in line 6.	1600mm wide, 800mm long, 600mm deep	Small extension of Area U (line F) for hole for pile F6	Excavator with bucket (SouthRoads)	Monitored and contexts recorded.
W	Adjacent to trench for line F (Area U) in line 6.5.	1600mm wide, 800mm long, 600mm deep	Small extension of Area U (line F) for hole for pile F6.5	Excavator with bucket (SouthRoads)	Monitored and contexts recorded.
X	Adjacent to trench for line F (Area U) in line 8.	1600mm wide, 18m long, 600mm deep. 800mm monitored at east end for pile F8	Small extension of Area U (line F) for hole for pile F8. Trench for foundation line 8.	Excavator with bucket (SouthRoads)	Monitored and contexts recorded for first 800mm from east. Remainder of trench excavated under ADP as

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					through previously disturbed Area A under building footprint.
Y	Adjacent to trench for line F (Area U) in line 7.5	1600mm wide, 800mm long, 600mm deep	Small extension of Area U (line F) for hole for pile F7.5	Excavator with bucket (SouthRoads)	Monitored and contexts recorded.
AE	East – West trench for foundation line 6, adjacent to Area V.	1600mm wide, 650mm deep, 18m long	Trench for foundation line 6.	Excavator with bucket (SouthRoads)	12m monitored; 4m from east end to 16m, and contexts recorded. 4m of trench from east end and 2m for pile hole D6 were excavated without notification to the archaeologist.
Z	East-West trench for foundation line 7 adjacent to trench for line F (Area U).	1600mm wide, 18m long, 600mm deep	Small extension of Area U (line F) for hole pile F7 then extended as trench for foundation line 7	Excavator with bucket (SouthRoads)	Four metres of trench from east end monitored and contexts recorded. Remainder of trench excavated under ADP as no further contexts were being found.
AA	East-west trench for foundation line 1 between Area C and Area R.	1800mm wide, 16m long, 600mm deep	Boundary fence removed and trench excavated for trench line 1 as per construction plans	Excavator with bucket (SouthRoads)	Monitored and contexts recorded.
AC	East-west trench for foundation line 5 through middle of site.	1600mm wide, 17m long, 600mm deep.	Trench excavated for trench line 5 as per construction plans	Excavator with bucket (SouthRoads)	Monitored and contexts recorded.
AD	Portion of drainage trench on E46/62. Trench running north-south immediately to east of foundation line F and east-west trench 800mm north of foundation line 8.	600mm wide trench, 1900mm maximum depth at Don Street end. 18m long north of Area T, 9m long south of Area S.	Trench excavated for drainage.	Excavator with bucket (Arnott Drainage)	North-south trench monitored and contexts recorded. East-west trench through previously excavated building footprints under ADP.
AK	East -west trench for foundation line 2 at north end of site through Area F.	1400mm wide, 18m long and 500mm deep. [Note: depth of trench at 500mm is 900mm below floor of new building]	Trench excavated for foundation line 2.	Excavator with bucket (SouthRoads)	Monitored and contexts recorded. Noticeable that site clearance activities and brick floor removal carried out previously in Area F have effected some contexts.
AL	East -west trench for foundation line 3 at north end of site through Area F.	1400mm wide, 18m long and 500mm deep. [Note: depth of trench at 500mm is 900mm below floor of new building]	Trench for line 3	Excavator with bucket (SouthRoads)	Monitored and contexts recorded. Noticeable that site clearance activities and brick floor removal carried out previously in Area F have effected some contexts.
AN	East-west trench 600mm north of line 5 (Area AC)	800mm wide, 18m long, 900mm deep	Trench for power services required under building foundations	Excavator with bucket (SouthRoads)	Excavation not notified to archaeologist. Archaeologist called to site to hand excavate and record rubbish pit feature. Remainder of trench recorded in profile.
AO	North-south trench for line D through western edge of site.	1600mm wide, 50m long, 500-600mm depth only into imported site gravels or maximum 100mm below.	Trench for foundation line D.	Excavator with bucket (SouthRoads)	Not monitored, carried out under ADP due to depth of excavation not expected to affect archaeological sites. Check of excavation and recording of profile during compliance visit.



2.2.4 Excavation areas: E46/59 – William Todd & Co. Auctions at the Rialto

Works occurred in excavation areas at site E46/59 William Todd & Co. Auctions at the Rialto (see Table 2-4). Areas TP1 and 5 were test pits for environmental sampling. Areas B, C and E included excavations for foundation removal and site clearance of buildings. Areas AB, Q, AG, AH, AI, AJ, AM and AO were excavations required for new concrete foundations and piles and Area AF was for lift shaft foundations. Area AD was a trench excavated for services. Area AT of a site scrape for landscaping and trenching for services.



Figure 2-9 Removal of building foundations Area B (left) and site clearance Area E (right)



Figure 2-10 Area AF, hole area excavated for lift shaft, Photo faces south.



Figure 2-11 Excavation of north end of Area Q around small piles (left) and prior to excavation of Area AM facing east, note Area Q in foreground and excavated square with cover marked by cones is the well AM004 (right).



Figure 2-12 Trench for drainage, Area AD, filled in and marked by grey protruding pipes, photo faces south.

Table 2-4 Details of excavation areas E46/59 William Todd & Co. Auctions at the Rialto.

Excavation Area	Location	Dimensions	Reason for excavation	Method of excavation	Comments on recording
TP1	Southern test pit	3000x950x800mm deep	Test pit for environmental sampling for Davis Consulting Group	Excavator with bucket (SouthRoads)	Monitored and contexts recorded.

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TP5	Middle of section	3000x1400x600mm deep	Test pit for environmental sampling for Davis Consulting Group	Excavator with bucket (SouthRoads)	Monitored and contexts recorded.
B	South part of site under building (Rialto) footprint	20m x 20m. Maximum depth of large modern piles removed 650mm deep (context B9) and 800mm deep foundations removed (context B10)	Foundation removal under building footprint	Foundation removal by excavator with ripper and bucket (Ryal Bush Transport Ltd).	Monitored and contexts recorded.
C	Rear eastern boundary of site.	14m long, 600mm deep, 200mm wide.	Recorded during foundation removal of Todds extension.	Foundation removal by excavator with ripper and bucket (Ryal Bush Transport Ltd).	Monitored and contexts recorded. All contexts recorded in east baulk.
E	North portion of site behind the Rialto building.	20m wide x 30m long. Depth of site clearance c350-400 maximum.	Site clearance and foundation removal. Early phase of works to excavate beside a modern wall for stabilisation works.	Foundation removal by excavator with ripper and bucket (Ryal Bush Transport Ltd).	Monitored and contexts recorded. Note the early phase of works to excavate beside a modern wall for stabilisation works was originally recorded as "Area A" but actually within Area E as determined later. Context numbers have maintained original Area A numbers.
AB	Western boundary of site, south end of foundation line A, south of Area Q. Also trenches for foundation lines 7 and 8.	11.5m long, 600mm deep and 1400mm wide. Four areas extended for piles adjacent to main trench 1600mm wide and 800mm long. Trenches for lines 8 and 7 160mm wide, 600mm deep and 15.5m long.	Continuation of trench for trench line A (Area Q) as per construction plans and four adjacent holes for piles A6.5, A7, A7.5 and A8. Foundation lines for 7, 8 and C.	Excavator with bucket (SouthRoads)	Monitored and contexts recorded except for trenches for foundation lines 7 and 8 which occurred under ADP as within area of previous site disturbance of building footprint in Area B
Q	Western boundary of site, north end of foundation line A from line 6 north from Area AB.	18m long, 1400mm wide, 600mm deep. Four areas extended for piles adjacent to main trench 1600mm wide and 800mm long.	Continuation of trench for trench line A (Area AB) to north as per construction plans and four adjacent holes for piles A6, A5.5, A5, A4.5.	Excavator with bucket (SouthRoads)	Monitored and contexts recorded.
AF	Towards south end of site, to south and immediately adjacent to line 7.	3m x4.5m, 1450mm deep	Hole for lift shaft.	Excavator with bucket (SouthRoads)	Not monitored, carried out under ADP as within Area B previously disturbed.
AG	North of trench line 7.	Hole AG-A 120x170mm, 600mm deep. Hole AG-B 130x170mm, 600mm deep.	Two holes for piles. AG-A in trench line B (see Area AJ).	Excavator with bucket (SouthRoads)	Not monitored, not notified to archaeologist. Recorded contexts in profile only.
AH	East-west trench near middle of site for foundation line 5	15.5m long, 1400mm wide and 600mm deep	Trench excavated for foundation line 5	Excavator with bucket (SouthRoads)	Monitored and contexts recorded from east end to 10m. 10m to 15.5 carried out under ADP as no new contexts being recorded.
AI	East-west trench near middle of site for foundation line 6	15.5m long, 1400mm wide and 600mm deep	Trench excavated for foundation line 6	Excavator with bucket (SouthRoads)	Monitored and contexts recorded.
AJ	North-south trench near middle of site for foundation line B between lines 6 and 7.	5.5m, 1400mm, 600mm deep	Trench excavated for foundation line B	Excavator with bucket (SouthRoads)	Monitored and contexts recorded. [Note Area AG-A was not monitored in line B]

AM	East-west trench at rear of new building for foundation line 4	15.5m long, 1400mm wide and 600mm deep	Trench excavated for Line 4.	Excavator with bucket (SouthRoads)	Monitored and contexts recorded.
AD	Portion of drainage trench on E46/59. East-west trench north of Area AB, north-south trench from this trench through centre of site to Don Street and north-south trench to east of Areas AB and Q.	600mm wide trench, 1900mm maximum depth at Don Street end.	Trenching for drainage	Excavator with bucket (Arnott Drainage)	Not monitored, carried out under ADP as through previously excavated building footprints in Area B, and adjacent to Area Q where not recording new contexts.
AT	Trenching and scrape at rear of section for power, drainage and landscaping.		Trench and test pit for power and drainage. Test pits to determine levels for landscaping scrape followed by scrape.	Excavator with bucket (Arnott Drainage)	Monitored and contexts recorded

### 2.3 Laboratory Methodology

After site works are completed, all excavated material is returned to the NZ Heritage Laboratory in Dunedin. Material is washed and sorted into major material classes; ceramic, fauna, glass, metal and miscellaneous for analysis. Each material class is analysed using both qualitative and quantitative attributes. The qualitative variables are distinctive for each material class and will be discussed below under the relevant material class methodology. The quantitative measurements include a NISP (number of identified specimens) and MNV or MNI (minimum number of vessels or individuals). The NISP accounts for each discrete fragment recovered from site. The MNV or MNI count assesses how many artefacts the NISP represents and the minimum number of artefacts that had to be present at the site to account for all fragments. It is important to note that for the most part the minimum count was calculated by feature and not from the assemblage as a whole. This means that two similar fragments that would usually be conflated as a single artefact are calculated as two artefacts if they were recovered from separate features. The effect of this is the minimum count for the site is higher. The reason for calculating the minimum number with this method is that it allows each feature to be treated individually and allows greater comparison between features, while still allowing for the entire assemblage to be discussed as a whole.

**Ceramic Analysis Methodology:** The ceramic analysis is undertaken using methods outlined in the Otago Archaeological Laboratory Guidelines (I. W. G. Smith, n.d.) and Brooks (Brooks, 2005). Eleven variables are recorded based on material type (body fabric, body colour, glaze, glaze colour and ware), decoration (type, colour and pattern) and vessel form and portion recovered. If a backmark or makers mark is present it is also recorded. The total number of artefacts represented by the assemblage is calculated according to ware type, decoration and form to determine Minimum Number of Vessels (MNV).

**Glass:** Glass artefacts are analysed using the Society for Historical Archaeology Bottle Guide (Bill Lindsey, 2014) and described using the terminology outlined in Smith (I. W. G. Smith, 2004). This involves recording the glass colour, portion, manufacture technique, and the finish method, as well as any pontil marks or embossing that are evident. The glass is also allocated to vessel form (*i.e.*, bottle, tableware, window glass, *etc.*), a category based on function (*i.e.*, pharmaceutical, alcohol, ink, *etc.*), and a common name based on those outlined in the bottle identification guide (*i.e.*, black beer bottle, crown seal bottle, torpedo bottle, *etc.*). A NISP and MNV is also calculated. The MNV was calculated by colour, category, and vessel. Portion is also taken into consideration. For example, if within a single feature two black beer bottle bases and one top are recovered, then the MNV would be two. This method is also used for stoppers and bottles. If a bottle is recovered with an unmarked stopper, the stopper is not given an MNV considering that it was originally a part of a bottle.

**Faunal:** The faunal analysis is carried out using a reference collection collated by Faunal Solutions Ltd. The methods used to analyse the faunal material is based on standard Otago Archaeology Laboratory protocols (Reitz & Wing, 1999; Walter, Weisler, & Smith, 1996). The protocols involve a two-stage process. The first stage involves sorting the bones into primary anatomical units which are defined as the sided element. In the second stage these

units are identified to the lowest taxonomic level. These become the basic analytical units which are used for quantification purposes.

Each bag was analysed separately, and the bones were sorted into primary anatomical units and identified to the lowest taxonomic level. Where possible, epiphyseal fusion was recorded. Butchery marks and Minimum Number of Butchery Cuts (MNBC) were recorded using Watson's (Watson, 2000) methodology (Figure 2-13). Using this methodology, an approximate monetary value (high versus low) was determined for elements within the assemblage. Skeletal material was also examined for taphonomy (attrition and burning) and weathering.

Fish remains were identified using the standard 'big 5' and 'specials' methodology exercised in New Zealand fish bone analysis (Leach & Boocock, 1993). There are more fish bone elements in this assemblage that can be identified to species however this standard methodology is considered to provide a suitable picture of fish species quantities and relative abundance (Leach & Boocock, 1993).

To calculate MNI it was necessary to deal with the problem of aggregation (Grayson, 1984). It is important to note the frequency of bone elements that occur more than once in the skeleton (*e.g.*, teeth) and the frequency of element fragments (*e.g.*, long bone shaft fragments). This has the potential to over-estimate the quantity of mammals in an assemblage.

Skeletal elements were aged using known epiphyseal fusion dates and dental development and eruption sequences to divide animals into three age groups; foetal, juvenile and mature.

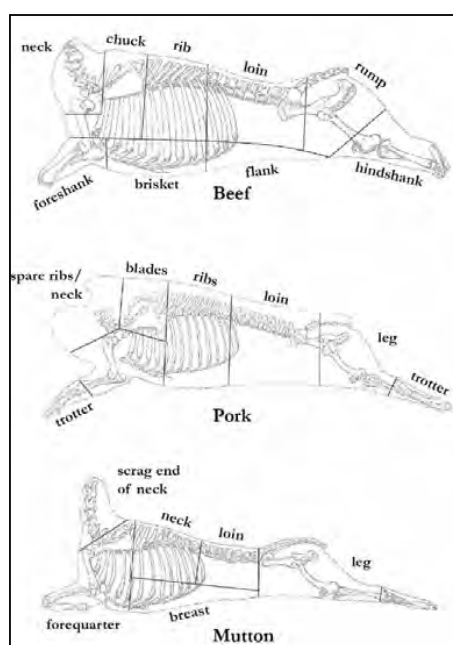


Figure 2-13. Meat cuts of the three main ungulates (Watson, 2000).

**Metal:** Metal artefacts are analysed and recorded by their material type, form and measurements if the fragment is diagnostic. If the artefact cannot be identified by form, a description of its appearance is included. Amorphous, sheet and strip metal are not given an MNI, but other forms are, based on material and form.

**Miscellaneous:** Miscellaneous artefacts from the site include building materials, textiles and other various unclassified objects. These artefacts are described and identified according to construction material, then the form of the item (*i.e.*, shoe). The MNI is calculated by each feature and then by material and item form. When concrete and other construction material (such as an unidentified piece of wood) is encountered it will not be given an MNI.

### 3 Constraints and Limitations

There were a number of factors that affected either the retrieval of information or the efficiency of data extraction:

- Wet weather during piling/drilling work resulted in the need to continually clear the mud from the surface of sites and bring in fresh gravel, especially E46/62 The Criterion Hotel and E46/59 William Todd & Co. at the Rialto. Much of this occurred without the archaeologist present and it likely effected and truncated the uppermost contexts of these sites. However, it is likely that these are mostly modern contexts.
- It was not possible to undertake all the archaeological monitoring works at once due to construction scheduling and the nature of the excavation work required for site redevelopment to allow drilling equipment access. Delays in this work resulted in delays for archaeological work. This has resulted in multiple phases of archaeological work and excavation areas which require interpretation and contributed to longer onsite archaeological hours than might have occurred if all the work was completed in one or a few phases.
- There were several instances where work that should have been monitored occurred without notification to the archaeologist. This was discussed repeatedly with the site team and Calder Stewart site manager. As a result, some excavation areas are recorded in profile only.
- During buildings recording at site E46/62 The Criterion Hotel limited sampling was carried out in Room 4 due to the presence of asbestos. Limited sampling was also made of some flooring as a result of the addition of modern flooring making sampling difficult.

## 4 Results – E46/60 – The Black Eagle Brewery

The 2016-2017 site works saw excavation across the site, including a site scrape and the excavation of multiple trenches for the installation of services. However, not all archaeological material has been cleared from the site. The following section provides an overview of the historical background of the sites before discussing the results of the archaeological monitoring and artefact analysis.

Site E46/60 comprises of Section 3 Block LXXI town of Invercargill, Southland District and was first occupied in 1863 when C. S. Button established the Provincial Brewery on the site. The name Black Eagle Brewery was used from 1868 when John Tice Martin began leasing the site which he later purchased in 1873. The brewery was made up of numerous buildings which covered a large portion of the site including Martins offices along the Spey Street frontage, built in 1872, and a five-storey brick building built in 1873 the height of which made it an early Invercargill landmark. Martin also leased the adjacent Section 4 (E46/61) from 1878 and Section 19 (later the Rialto, E46/59) from 1880. However, Martin was hit heavily by the economic depression of the 1880s forcing him into bankruptcy in 1887, and by 1894 the section was up for sale. Duncan McGregor purchased the section in 1897 and it appears the brewery continued to operate through the early twentieth century though by 1913 the buildings were all occupied by other businesses. The large five-storey brick building was demolished in 1920 on the orders of the borough and health inspectors. In 1921 David Sterling bought the property and sold it on the following year to William Todd. Any other pre-1900 buildings left on the site were also removed during the early twentieth century. Todd constructed two buildings on the section: a large warehouse building on the southern half of the site, extending across the full width of the property, and a narrow adjoining building ran along the west property boundary up to Spey Street. The remaining yard served as a parking lot and was covered with gravel. These structures were still present on the site at the time development works began in 2016.

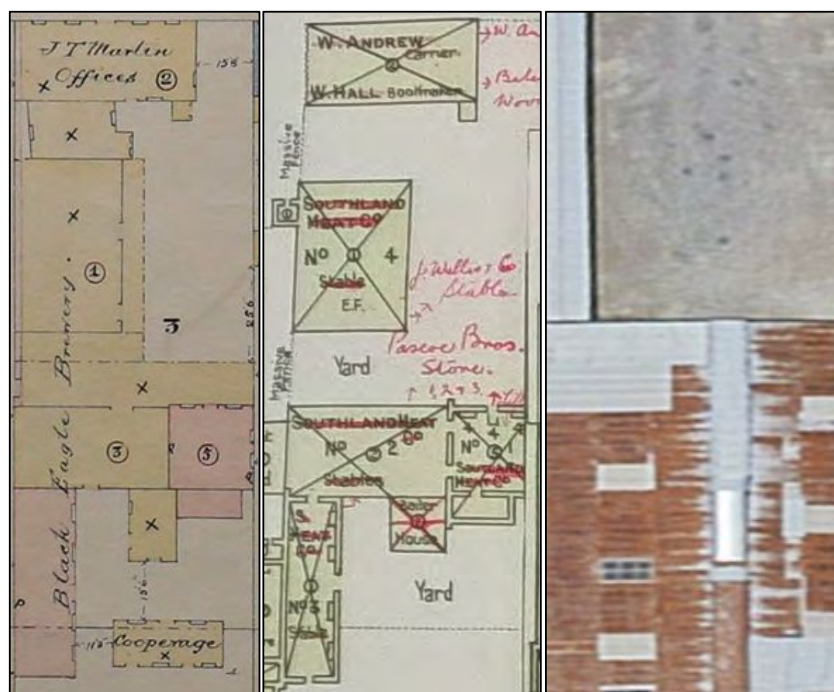


Figure 4-1. Buildings on Section 3 as of 1886<sup>18</sup>, 1913<sup>19</sup>, and 2016.

<sup>18</sup> Burwell, F. W. (1886). Plans of Inver'gill Buildings, 1886. Invercargill: Invercargill City Library & Archives.

<sup>19</sup> Council of Fire Underwriters' Association of New Zealand. (1925). Block Plans, Invercargill and Bluff. Hocken Library, University of Otago; Reference No. AG-291-001-016-025/029.

#### 4.1 Results of the Archaeological Monitoring

The earthworks across E46/60 were carried out in various stages during 2016 and 2017. When site works began in 2016, the present buildings were determined to be constructed post-1900 and were removed without recording down to the floor level. As the removal of the asphalt and concrete floor and foundations would disturb the underlying ground and any possible archaeological remains, this was left to be monitored during the demolition of the pre-1900 Criterion Hotel (E46/62) and Rialto Auction House (E46/59) buildings on the 31<sup>st</sup> of August 2016. In September 2016 eight trenches (Excavation Areas G through N) along the western boundary of the site were excavated for the construction of piles to support the neighbouring building. Between June and August of 2017, the entirety of the site was scraped, and trenches were excavated for the installation of carpark lighting, drainage, and tree planting (Excavation Area AS). The site scrape went to a maximum depth of 800mm while the drainage trench, at the north end of the site, extended to a maximum depth of 1600mm with sterile substrate only exposed here at a depth of 1500mm. Thus, not all archaeological material has been removed from the site. The site was backfilled with bluestone subbase aggregate once levels were achieved capping the remaining archaeological material.

128 contexts were identified during the archaeological monitoring, some of which spread beyond the property boundary into the neighbouring Section 4 (site E46/61), which was anticipated given the pre-1900 and modern joint history of the sections. A summary of the context types is provided in Table 4-1 where the contexts have been grouped into several interpretative categories including natural deposits, other deposits, services, structural features, and pit features, and artefact scatter. The following sections consider the stratigraphy, features, and condition of the site.

Table 4-1. Contexts identified at Site E46/60 – The Black Eagle Brewery.

Interpretation	Context designation	Count	Contexts
Natural deposit	Silt Loam substrate	5	D5, G6, I4, L3, AS68
	Topsoil	12	D3, H5, I3, J2, K2, L2, AS12, AS20, AS44, AS62, AS89, AS63
	<i>Subtotal</i>	<i>17</i>	
Other Deposit	Asphalt	2	D1, AS3
	Asphalt gravel	1	AS84
	Black grit	6	G2, G4, H3, AS16, AS34, AS55
	Brick rubble	1	AS56
	Clay	1	AS37
	Concrete	1	AS1
	Demolition rubble	4	AS10, AS14, AS24, AS40
	Gravel	5	AS2, AS42, AS43, AS52, AS53
	Silt fill	12	D2, G3, H1, I1, J1, K1, L1, AS4, AS12, AS13, AS20, AS47
	Silt and brick dust	1	AS58
	Silt and gravel	3	AS17, AS59, AS85
	Silt and rock	2	AS35, AS57
	Silt loam fill	8	G7, AS8, AS31, AS39, AS54, AS60, AS61, AS67,
	Topsoil fill	1	AS30
	Lime	1	AS48
<i>Subtotal</i>	<i>49</i>		
Services	Brick sump	1	AS6
	Ceramic drainpipe	2	AS7, AS71
	Service trench	2	AS33, AS72
	<i>Subtotal</i>	<i>5</i>	
Structural	Boxing	1	AS22
	Brick floor	3	G5, AS36, AS79
	Brick footing	1	AS69
	Concrete floor	8	D4, D6, H2, I1, M4, N4, AS45/AS46, AS50
	Foundation	5	D8, AS5, AS15, AS32, AS38
	Pile	4	D7, AS73, AS74, AS101
	Post	15	AS21, AS23, AS25, AS26, AS27, AS49, AS77, AS82, AS86, AS87, AS90, AS91, AS92, AS93, AS100
	Posthole	7	AS41, AS51, AS81, AS96, AS97, AS98, AS102



Interpretation	Context designation	Count	Contexts
	Wood floor	2	AS65, AS78
	<i>Subtotal</i>	46	
Pit Features	Circular Pit	1	AS95
	Well	1	AS80/AS94
	Concrete lined pit	1	AS83
	<i>Subtotal</i>	3	
Artefact scatter	Artefact Deposit	2	AS19, AS75 (Bucket), AS64 (beam)
	Plank	1	AS99
	Rubbish Deposit	5	H4/AS70, AS28, AS66, AS76, AS88
	<i>Subtotal</i>	8	
<b>Grand total</b>		<b>128</b>	

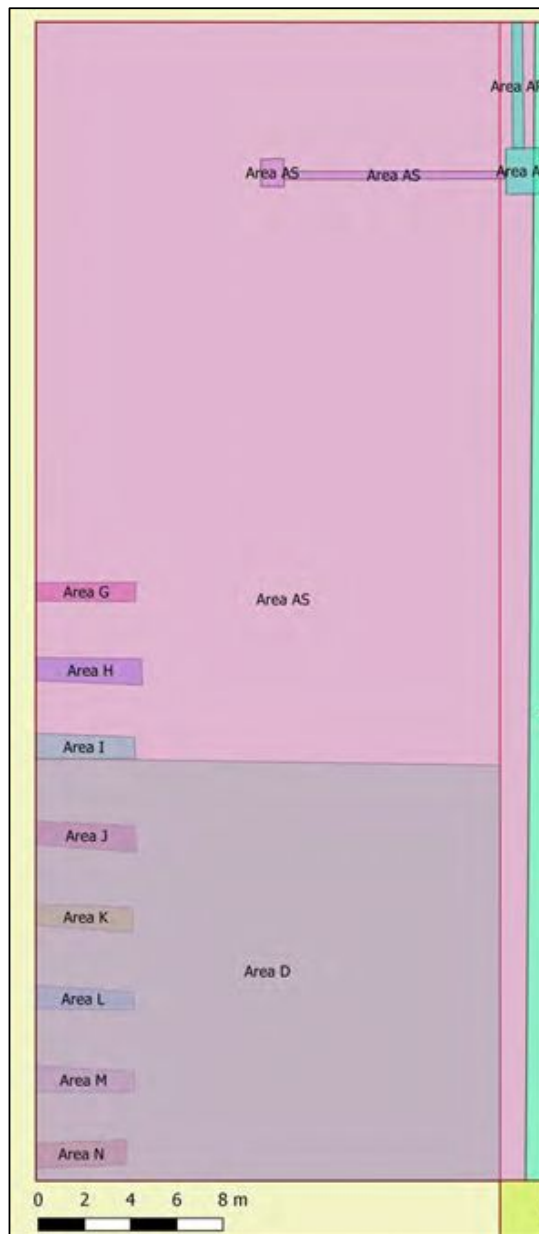


Figure 4-2. Excavation Areas on site E46/60 – The Black Eagle Brewery.

#### 4.1.1 Site Stratigraphy

A large proportion of the contexts recorded across E46/60 are deposits, including natural deposits, fill layers, and demolition rubble. The number of layers and deposits identified on the site is inflated by the use of different context numbers for the same deposit through the different excavation areas as well as within individual excavation areas due to adjacent or overlapping areas being dug at different times. The stratigraphy varied considerably across the site, and this is largely associated with the construction and demolition of former structures on the property associated with the brewery as well as the construction of the modern buildings and the establishment of a parking area.

After the demolition of the modern buildings, the site was covered in a layer of silt and demolition rubble (AS10, AS14, AS24, AS40). This demolition layer was concentrated within the footprint of the large building at the south of the section and was present in patches over the north of the site where it mixed with the gravel surface of the parking lot. During the removal of the floor of the large warehouse building, the demolition layer was partially cleared from this area. By the time the site was scraped in 2017 it had been mostly covered in layers of imported gravel mixed with debris from the construction on the site (AS53, AS43, AS42, AS2).

The southern half of the site was capped with the concrete and asphalt floor of the modern warehouse building (D6 and D1). Below the floor of the warehouse was a layer of yellow-brown silt fill (D2, G1, H1, I1, J1, K1, L1, AS4, AS47) (Figure 4-3). This fill layer was quite disturbed by the removal of the floor and was largely sterile though some artefacts were identified; however, it is likely that these were dragged up from lower layers by the demolition activity. The layer has been interpreted as a fill layer used to prepare the site for the construction of the most recent building as it is located only below the floor of the warehouse and caps lower fill and cultural layers. The exterior area on the northern half of the site was capped in a layer of gravel which became mixed with the demolition rubble and later layers of imported gravel. A layer of introduced topsoil was identified in the north-western corner of the site and along most of the northern boundary (AS30).

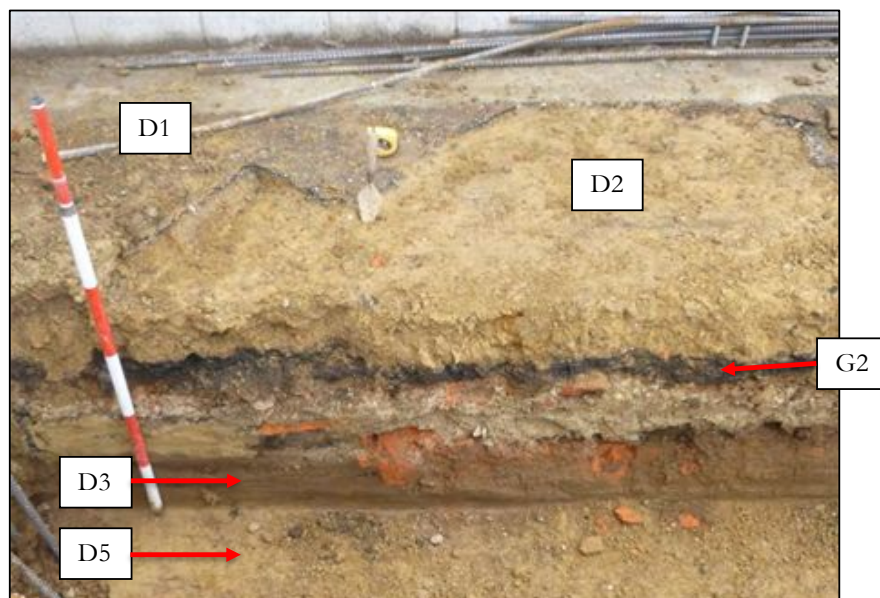


Figure 4-3. Stratigraphy identified at the south of the site, below the warehouse building. Photo faces north.

Below these modern layers, the underlying natural stratigraphy is heavily disturbed by the various phases of construction and demolition as well as the introduction of multiple fill layers to cap these and bring the site to level for later construction. Below the various fill layers, the natural topsoil was identified (D3, H5, I3, J2, K2, L2, AS12, AS20, AS44, AS62, AS89, AS63). The topsoil was interspersed with cultural material and was identified 200mm below the surface at the rear (south) of the site below the warehouse building and was between 150 and 200mm

thick. At the north of the site the topsoil was identified 750mm below the surface under a thick layer of silt loam fill (AS31 and AS67). This suggests that the gradient of the site was somewhat different earlier in its occupation with the northern end having been built up to match the height of the southern end. The natural topsoil is also very wet to at the north end of the site and measures up to 750mm thick. It is likely that the topsoil was built up over time before the site was filled in, as mud would likely have been an issue on the site.

The natural silt loam substrate (D5, G6, I4, L3, AS68) was identified below the natural topsoil. Due to the nature of the excavations and the apparent alteration to the gradient of the section the natural substrate was not reached across the entirety of the site. At the southern end of the section the natural yellow silt loam substrate was identified 400 to 500mm below the surface. At the northern end of the site, the natural substrate was only reached in the trench and pit excavated for drainage to be installed where it was identified 1500mm below the surface (Figure 4-4). In the north of the site the natural silt loam substrate was stained a bluish grey colour from being water logged (AS68).

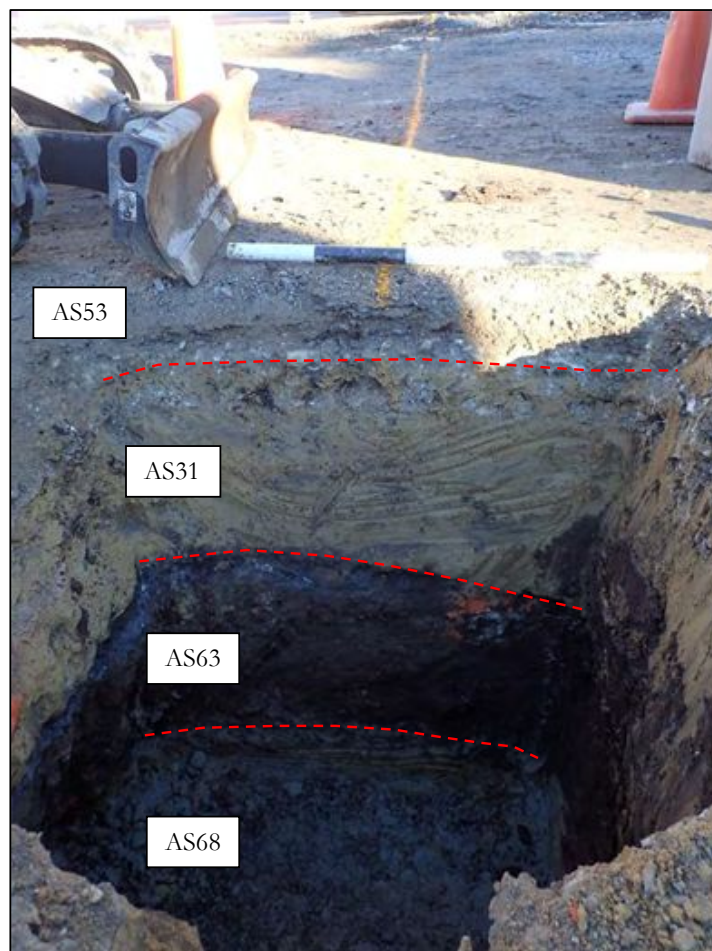


Figure 4-4. Stratigraphy identified at the north end of the site below the open yard space. Photo faces west.

Of the various demolition and fill layers found at the site, a layer of black grit was identified across a large portion of the northern half of the site (G2, G4, H3, AS16, AS34, AS55). This layer was between 50 and 200mm thick and for the most part was identified in the exterior area to the north of the modern warehouse building. However, it was also identified below the concrete floor of the warehouse building (G2, G4, H3) where it caps the remains of a brick floor (G5, AS36) and abuts the remains of a concrete floor (H2, AS50) at its southern extent. The black grit is likely incinerator ash, or a by-product of the gas works used as fill to resurface the site after the demolition of some of the early buildings and prior to the construction of the modern warehouse building. The construction

of the warehouse may have removed some of the black grit deposit. Deposits of the same material were identified across all four sites.

4.1.2 Features

Features identified on site E46/60 include service features, structural features, and pit features. Structural features are the most prevalent context type, and these include concrete floors, brick floors, and wooden floors as well as foundations, postholes and wooden posts. While some of these contexts are parts of the recently demolished modern buildings, when overlaid with the 1886 block plans of Invercargill, some contexts align with pre-1900 recorded structures (Burwell, 1886). All contexts are listed in Table F-1 in Appendix F.

The brick floor designated context AS36 (Figure 4-6) and G5 along the western boundary sits within the footprint of a timber building (Figure 4-5). The brick floor was constructed with wire cut bricks laid in stretcher bond and set on a thin layer of sand used to prepare the area for the floor. Beneath the brick floor was a deposit of reddish-brown silt loam fill (AS39) that was above the natural topsoil and would have been introduced to the site as a further prep layer for the laying of the floor. A post (AS49) was identified within the floor which would have been part of the same structure, likely one of many posts supporting interior walls and the roof. The surface of the floor was coated in a layer of lime that was of a gritty paste like consistency (AS48). The area had been capped with the deposit of black grit (AS34) (Figure 4-7).



Figure 4-5. Detail of site plan showing contexts AS36, G5, and AS49 overlaid with the 1886 Burwell plans.



Figure 4-6. Section of Brick floor AS36. Black grit layer which capped this surface is visible at the bottom of the photograph. East is to top of the photo, scale is in 20cm increments.



Figure 4-7. Remains of context AS36 with contexts AS34 and AS48 visible above it and AS39 visible below it. Photo faces west.



Figure 4-8. Context AS49, wooden post in the brick floor AS36.

The fragmented remains of the concrete floor of a brick building in the south-west corner of the brewery was also identified (D4, M4, AS41 and AS45/46) (Figure 4-10, Figure 4-9) as were a portion of brick footings. These footings were, one and a half bricks wide, likely associated with the same building (AS69) (Figure 4-11). The concrete of the floor was laid directly on the natural topsoil of the site (AS44) and is between 20 and 200mm thick, though this variation in thickness is partially due to damage to the feature which truncated it in areas. The surface of the floor is coated in a thin (30mm) red stained paste (AS45). The aggregate used in the concrete mixture (AS46) is different to that of another concrete floor identified further north (H2, AS50) (Figure 4-12) indicating they are not fragments of the same feature. This second concrete floor (H2, AS50) does not align with any early buildings but sits below the veranda which ran along the north side of two of the brewery buildings including the five-storey brick building. This floor was present on the section when the black grit deposit was added to the site (Figure 4-13).

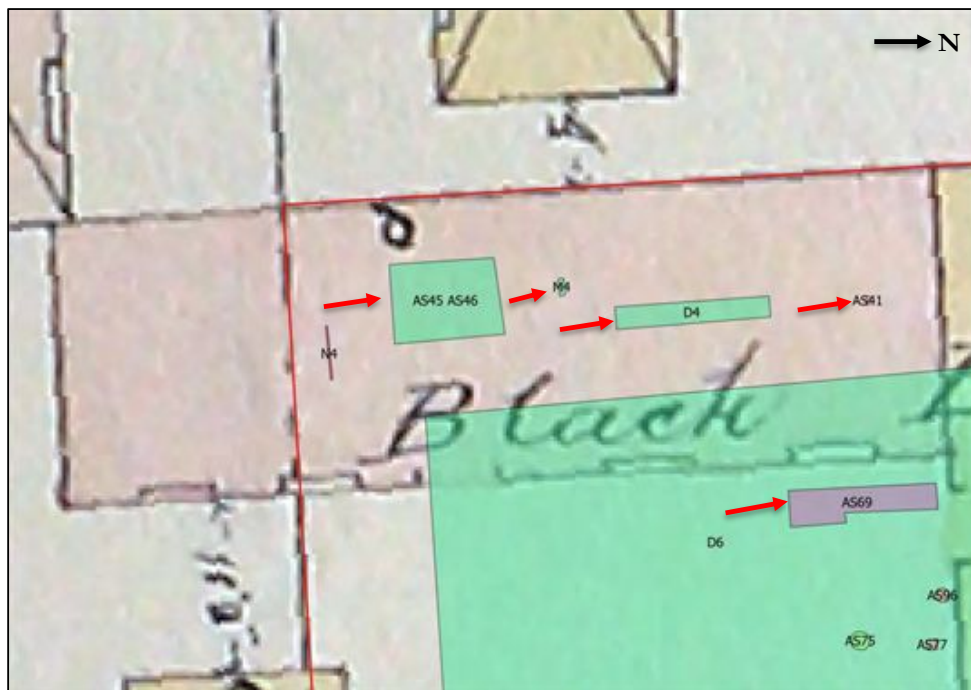


Figure 4-9. Detail of site plan showing contexts D4, AS45/AS46, M4, AS41, and AS69 overlaid with the 1886 Burwell plans.



Figure 4-10. Context AS45/46 in the western baulk of Area AS.



Figure 4-11. Context AS69, brick footing. Photo faces east.



Figure 4-12. Context AS50. Photo faces east.



Figure 4-13. Detail of site plan showing contexts H2 and AS50 overlaid with the 1886 Burwell plans.

Numerous postholes and posts were identified across the site, and some appear to correspond with the location of former buildings. However, as most of the postholes are isolated (do not form identifiable patterns), ascribing individual posts or postholes to particular buildings is tenuous.

The well of the brewery site (AS80/94) was a circular wood lined structure dug into the natural topsoil and substrate (Figure 4-15, Figure 4-14). The cut for the well was larger than the structure itself and the area around the well had been filled in with a yellow sediment, similar to the natural silt loam substrate (Figure 4-14). From the historical research we know that alterations were made to the well in 1873 meaning the well existed on the site prior to this date. The well is located in roughly the centre of the site in what would have been the open yard area of the Brewery complex. It measures 1100mm in diameter and was backfilled with sterile silt loam. The well was not excavated and has been left *in-situ* on site capped by the new parking lot.



Figure 4-14. Context AS94 the brewery well. Photo faces west.





Figure 4-15. Context AS80, the burnt top of the brewery well, prior to further investigation. Photo faces north.

The well of the brewery was one of three wells identified across the four sites excavated during this development project. The other wells were identified on the Criterion site (E46/62 Context A12) and Todd's Auction House site E46/59 Context AM4). The Criterion well was circular, and brick lined while the Todd's well was square, and wood lined. Wells are a common feature of urban sites within Invercargill as they were the only source of potable water for most of the nineteenth century with most properties having their own well (Southland Times, 1883). It was not until 1886 that plans for the town water supply were drawn up and begun to be put in place (Southland Times, 1888). Construction of the water supply continued into the early twentieth century (Cyclopedia Company Ltd, 1903). Interestingly it appears that once the Breweries well had been backfilled the wood of the structure was burnt, and a large number of oyster shells were disposed of in the fire (Figure 4-15). Possibly a celebration of a job well done and the connection of the section to the towns water supply. The provisioning of city water services after 1886 does suggest that all wells on site, are likely to pre-date 1886.

Excavations for the installation of channelling in the parking lot cut through a large metal lined pit feature (AS95) the top of which was identified within the natural topsoil and it continued to the base of the excavation area cutting through the natural silt loam substrate (Figure 4-16). The top of the feature is concave and it appears as though it has caved in. As the feature was only identified in profile the full dimensions are unknown however, based on the profile it is believed to be circular with a diameter of more than 900mm. It is at least 400mm in depth and is filled with a dark brown gritty silt. The majority of the feature has been left *in situ* and it is not clear from the excavations what it is. When compared with the 1886 Burwell plans the feature falls within the boundaries of the wooden building next to the large five-storey brick tower. Due to its depth on the site, approximately 600mm below the surface, it is likely associated with early use of the site. The size of this feature suggests it could be an early well, this could be confirmed by further excavations.



Figure 4-16. Context AS95 in the eastern baulk of the channelling trench.

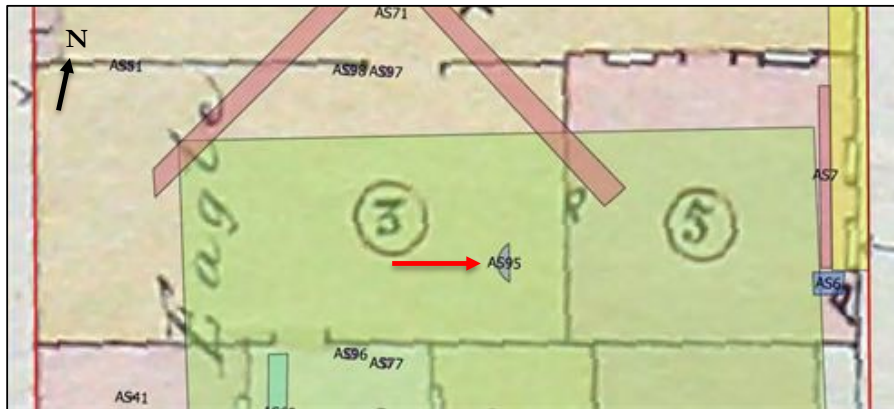


Figure 4-17. Detail of site plan showing context AS95 overlaid with the 1886 Burwell plans.

To the north of the section a large sand filled concrete lined pit was identified beneath a concrete cap (AS83) (Figure 4-19). The purpose of the pit prior to its being filled in is unknown though it likely post-dates the brewery as it cuts the silt loam fill (AS31, AS67) identified over the natural topsoil where contexts associated with the brewery were identified. The full depth of the pit was not determined during excavations as it was not fully excavated, however, a number of large objects including six metal drums of bitumen and car parts including an engine and chassis were identified within the sand fill (Figure 4-18). The pit measured approximately 4000mm in length and 5000mm wide, due to damage to the feature by the digger, exact dimensions could not be taken. It is likely a basement or cool store that has been filled in associated with twentieth century use of the site.



Figure 4-18. Car engine identified in context AS83.



Figure 4-19. Context AS83 after excavation. Photo faces south.

Service features identified on the site include a brick sump, ceramic drainpipes, and a service trench. The brick sump is believed to have been an internal drain within the modern warehouse building. The other services are also interpreted as being twentieth century due to their association with the modern building and as they also cut through the black grit fill layer (G2, G4, H3, AS16, AS34, AS55).

#### 4.1.3 Condition

The site works removed the modern twentieth century buildings in their entirety. Various excavations including a scrape of the entire site was carried out and sterile substrate was exposed at the southern end of the site. However, at the northern end of the site the archaeology is located at greater depths and some material remains intact below

the surface. The area was backfilled with bluestone aggregate and the site is now part of the parking lot for the new development.

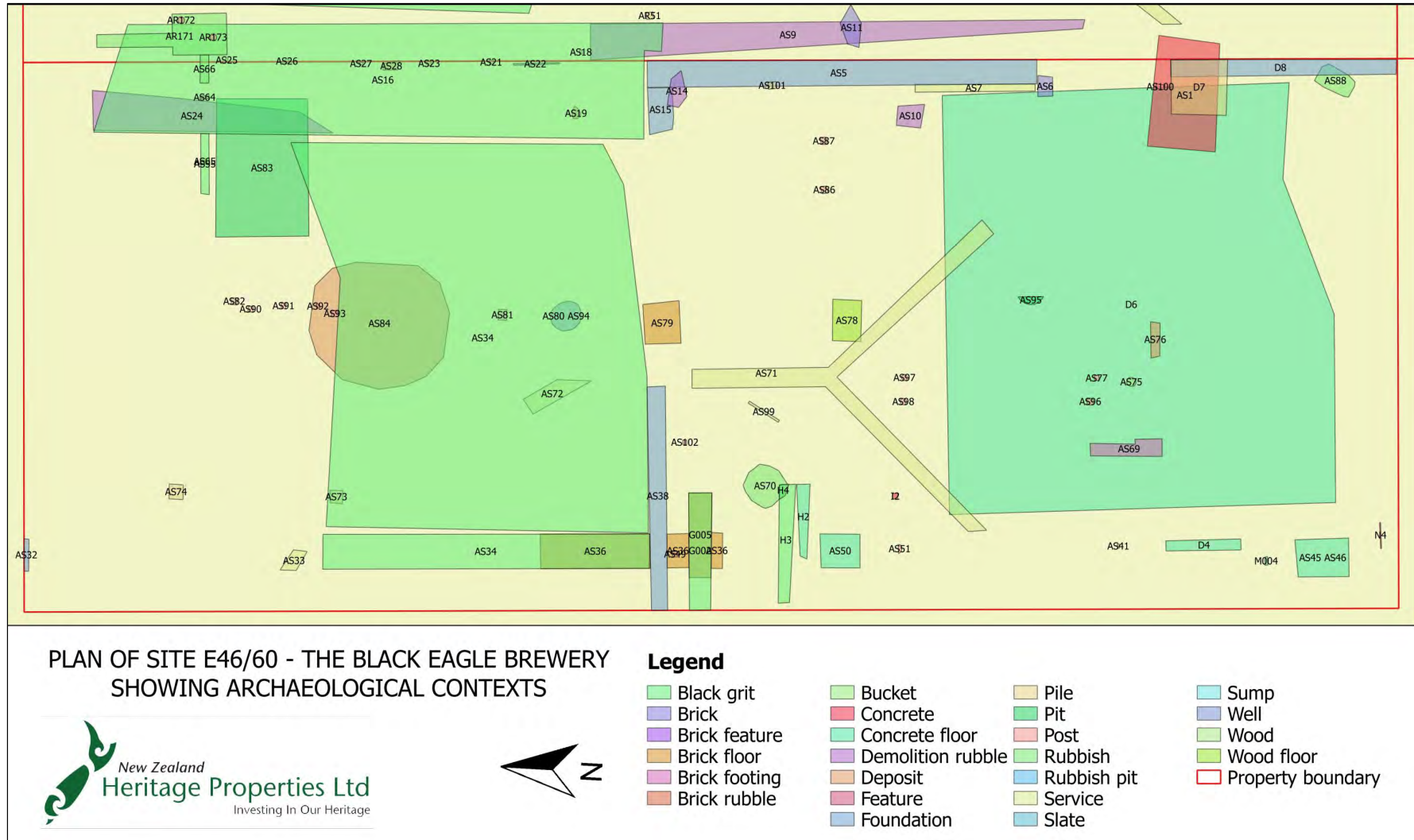


Figure 4-20. Site plan of subsurface archaeology at E46/60 – The Black Eagle Brewery

## 4.2 Artefact Analysis

Artefacts were collected from 13 contexts in E46/60. Almost 70% of the overall artefact assemblage consisted of glass vessels (Table 4-2), and of those 206 (76%) were the form colloquially known as “black beers.” The majority of these bottles were found in two discrete bottle dumps (AS66 and AS88) which suggests that the brewery disposed of some of their waste on-site. The rest of the assemblage is made up of structural, household and industrial artefacts, however as most were collected from fill layers and other non-discrete deposits, their contextual value is limited. The faunal assemblage was moderate, collected from nine contexts in E46/60 and represents three taxon; shell, mammal and bird (Table 4-3).

**Table 4-2. Summary of artefact assemblage recovered from site E46/60.**

Material	NISP	MNI
Ceramic	102	64
Glass	451	270
Metal	57	44
Other	30	10
Faunal	88	20

**Table 4-3. Summary of faunal species recovered from site E46/60.**

Species	NISP	MNI
Cockle	1	1
Oyster	56	13
Rabbit	4	1
Cow	19	1
Sheep	7	1
Pukeko	1	1
<b>Total</b>	<b>88</b>	<b>20</b>

### 4.2.1 Context D003

Context D003 was a brown silty deposit with artefacts scattered throughout. One dip moulded “black beer” bottle base was recovered as a sample. It had no maker’s marks or other embossing.

### 4.2.2 Context AS012

This context was an artefact bearing layer of silty loam. A sample consisting of two artefacts was collected: the top from a turn moulded ring seal bottle and a fragment of a salt-glazed stoneware drain pipe. Three rabbit skeletal elements and one cow element were identified. The cow femur had evidence of dog attrition and one rabbit femur was unfused.

### 4.2.3 Context AS019

Context AS019 was a discrete deposit of metal fasteners within a silty loam (AS020). The fasteners included ten iron nails (nine wire and one cut) and 17 wire bolts (Figure 4-21).



Figure 4-21. Selection of metal fasteners collected from Context AS19.

#### 4.2.4 Context AS020

Context AS020 was a layer of dark brown silty loam mixed with rock and slate fragments. Artefacts were distributed throughout this context and a small sample was collected for analysis. A rim fragment of an undecorated white ware plate, a wire iron bolt and the bone handle of a table knife as well as nine glass fragments. The glass fragments represent eight vessels (two dip-moulded “black beers,” two turn moulded ring-seals, two Codd’s, an aqua blue pharmaceutical bottle and an unidentified turn moulded aqua green bottle with a round cross-section). Embossing was present on one of the Codd bottles (“THOMSON & CO/ CRYSTAL SPRINGS/TRADE PURITY MARK/REGISTERED/MINERAL WATER WORKS/INVERCARGILL,” Figure 4-22) which allows it to be attributed to Thomson & Co, an aerated water company that was established in Dunedin and expanded to several other centres, including Invercargill in 1893 (Robson, 1995). The base of this bottle was also embossed with “1900” which provides a *terminus post quem* (TPQ) for the deposit. One sheep femur fragment was identified.



Figure 4-22. Thomson & Co Codd bottle from Context AS020.

#### 4.2.5 Context AS029

Context AS029 was a deposit of friable dark brown silty loam located along the eastern boundary of the site. Seven faunal fragments representing two species were identified in this deposit; oyster and cow. One cow fragment was butchered, representing a chuck cut. This is considered to be a low value cut.

#### 4.2.6 Context AS030

Context AS030 was a topsoil layer which covered most of the site. One fragment of a slip-glazed stoneware bottle was recovered from this context.

#### 4.2.7 Context AS31

Context AS031 was a yellowy brown silty loam fill layer which covered the northern part of the site and sat below AS030. Artefacts were distributed throughout the fill and a sample was collected for analysis (Table 4-4).

Table 4-4. Summary of artefact sample collected from Context AS031.

Material	NISP	MNI
Ceramic	6	2
Glass	50	33
Metal	8	7
Other	17	6
Faunal	15	3

Glass made up the majority of the artefact sample collected from this context, with at least 33 vessels represented. Seventeen of these were the most common forms found in nineteenth century New Zealand: 12 dip-moulded “black beers” and five turn moulded ring seals. These forms held a variety of products (Woods, 2017) but in a brewery context such as this site they can be confidently interpreted as beer bottles. Four vessels could confidently be identified as alcohol related, including two flasks, a dark green spirit bottle and the top of a Case Gin or schnapps bottle (Figure 4-23).

Two Codd bottle held aerated water or soda; both were made by the Kilner Brothers glass factory in London and had “1907” embossed on the base, providing a manufacture date and TPQ for the assemblage. The body embossing was not complete enough on either bottle to identify the brand, however part of “Invercargill” was



present, suggesting they contained a local product. Food related bottles included two complete Paterson's Ess Coffee square-sectioned bottles (Figure 4-23, right) and a ketchup bottles. The Ess Coffees had "B & Co Ld/K/1869" embossed on the base which allowed the bottle manufacturers (Bagley & Co Ltd) to be identified and a manufacture date range of 1898-1920 assigned (Lindsey, 2015).



Figure 4-23. Left: Spirit, schnapps bottle tops and flask base from AS031. Right: Paterson Ess Coffee bottles and flask from AS031.

The other glass vessels collected were a colourless rectangular-bevelled and two unidentified round cross-sectioned bottles, two tumblers, a decanter stopper and an unidentified pressed glass dish.

The ceramic items recovered consisted of a whiteware plate decorated with a flow blue oriental under-glaze transfer print (UGTP) pattern and fragments of a whiteware toilet. Metal artefacts included three fasteners (a wire nail, cut spike and unidentified bolt), the tang and heel of a file, a shotgun cartridge case, an unidentified container and a thin iron disk of unknown function. Miscellaneous artefacts included structural materials (fragments of ribbed and flat plate window glass, a burnt brick, pieces of turned timber bannister (Figure 4-24) and roofing slate), and a complete men's left nailed and pegged Balmoral boot with broguing on the toe and a repaired sole (Figure 4-24).



Figure 4-24. Left: burnt timber bannister from AS031. Right: leather Balmoral boot from AS031.

Fifteen skeletal elements were identified in this feature representing three species; cow, rabbit and sheep. Dog attrition was present on one sheep and one cow fragment. Weathering was noted on half of the cow faunal material. One meat cut was identified; a beef soup cut. This meat cut is considered to be of low value.

#### 4.2.8 Context AS44

This context was a layer of brown silty loam found across the southern portion of the site. A sample of the artefacts distributed throughout was collected for analysis (Table 4-5).

**Table 4-5. Summary of artefact sample collected from Context AS44.**

Material	NISP	MNI
Ceramic	4	2
Glass	27	18
Metal	7	7
Other	1	1
Faunal		

Four fragments from two ceramic vessels were recovered from this context. A complete ink well was made of salt-glazed stoneware while the remaining fragments belonged to a Bristol-glazed stoneware bottle. No maker's marks were recorded on either vessel.

Glass vessel fragments accounted for the majority of the AS44 artefact sample. Over 80% (15) of these were dip moulded "black beers," one of which had "COOPER & WOOD PORTOBELLO/MANUFACTURERS" embossed on the base. This mark was used by the Scottish glass manufacturers Cooper & Wood from 1859 to 1866 (Lindsey, 2015). The remaining glass vessels were a ring seal, an aqua blue square sectioned and an aqua blue rectangular bevelled bottle. None of the other vessels bore any embossing.

In addition to these vessels, two draught horse shoes, the head of a spade (Figure 4-25), part of a door latch, a length of metal pipe and a fragment of woven natural fibre textile were also collected from context AS44. Two further metal artefacts were unable to be identified.



**Figure 4-25. Left: horseshoes from AS044. Right: Spade head from AS044.**

#### 4.2.9 Context AS63

This context was a layer of dark brown silty loam found across this and the neighbouring sites. It is equivalent to AS63 and AR174. A small collection of artefacts was recovered from within this context, including the top of a Bristol-glazed stoneware bottle, a complete right hobnailed boot of pegged construction (Figure 4-26), seven dip-moulded "black beer," one Codd and one dark green round cross-sectioned bottle. The Codd bottle was embossed with "MITCHELL & CO/REGISTERED/TRADE (cross) MARK/MINERAL WATERS/INVERCARGILL//REGISTERED PATENT/4/SOLE MAKER/DAN RYLANDS/BARNSLEY" which identifies the bottle manufacturer as Dan Rylands and the contents manufacture as Mitchell & Co. Mitchell & Co were a short lived Invercargill soda company who were only in operation from 1892 to 1893 before being purchased by Thomson & Co (Robson, 1995). This provides a TPQ of 1892 for the assemblage.



Figure 4-26. Right hobnailed boot from AS63.

One sheep femur with a green break was identified in this feature.

#### 4.2.10 Context AS66

Context AS66 was a discrete artefact dump within a dark brown silty loam layer (AS62). The assemblage was almost entirely glass bottles with a small number of ceramic fragments (Table 4-6).

Table 4-6. Summary of artefacts from Context AS66.

Material	NISP	MNI
Ceramic	8	6
Glass	84	49
Metal	0	0
Other	0	0
Faunal	0	0

A total of 49 glass bottles were represented by the fragments collected from this context. Of these, 44 were dip-moulded “black beers.” Four of these bottles had embossing on the base but none of the marks were able to be attributed to a manufacturer or date range. The other glass vessels included a turn moulded ring seal, dip-moulded Case Gin, a shoo fly flask, a pressed tumbler and a colourless rectangular-bevelled bottle. No embossing was recorded on any of the other vessels.

The small ceramic assemblage (Figure 4-27) consisted of one Bristol and one slip-glazed stoneware bottle and four UGTP whiteware vessels (a Rhine pattern plate, blue marble pattern hollow vessel, blue printed eggcup and blue printed chamberpot). No maker’s marks or other chronological markers were present on any of the ceramic sherds.



Figure 4-27. Ceramic vessels from AS66. Clockwise from left: Bristol-glazed stoneware bottles, Rhine whiteware plate, blue UGTP eggcup and blue UGTP chamberpot.

#### 4.2.11 Context AS76

Context AS76 was a concentration of artefacts within AS47. The assemblage from this context was almost exclusively made up of glass bottles (Table 4-7).

Table 4-7. Summary of artefacts from Context AS76.

Material	NISP	MNI
Ceramic	1	1
Glass	21	13
Metal	5	1
Other	0	0
Faunal	0	0

All 13 of the glass bottles recovered from this feature were dip-moulded “black beer” bottles. Two had “COOPER & WOOD PORTOBELLO/MANUFACTURERS” embossed on the base, a mark that was used between 1859 and 1866. Also collected from this feature was a set of copper alloy eyelets from an item of footwear and a single body sherd from a Bristol-glazed stoneware bottle.

#### 4.2.12 Context AS84

This context was a localised deposit of asphalt. It contained a small assemblage of fragmentary artefacts (Table 4-8).

Table 4-8. Summary of artefacts from Context AS84.

Material	NISP	MNI
Ceramic	0	0
Glass	18	6
Metal	0	0
Other	1	1
Faunal	0	0

Fragments from six glass vessels were collected from Context AS84, including two turn moulded ring seals, a dip-moulded “black beer,” a dip-moulded handy flask, closed moulded schnapps and two-piece cup-bottom moulded round cross sectioned bottle. The schnapps bottle had partial body embossing visible (“SCH...//...HEI...//..WO...”) which identifies it as an Udolpho Wolfe’s Aromatic Schnapps bottle. This product was first advertised in New Zealand in 1863 and these bottles are commonly found in archaeological sites around the country (Woods, 2017). The only other artefact collected from this context was a rectangular carbon rod embossed with “...BIUS HENRION – NANO” (Figure 4-28).



Figure 4-28. Embossed carbon rod from AS84.

#### 4.2.13 Context AS88

Context AS88 was a rubbish deposit located in the rear corner of the site. It appears to have been a surface accumulation rather than a rubbish pit. A large assemblage of mostly glass bottles was collected from this feature for analysis (Table 4-9).

Table 4-9. Summary of artefacts from Context AS88.

Material	NISP	MNI
Ceramic	10	4
Glass	187	102
Metal	0	0
Other	2	1
Faunal	2	2

The AS88 deposit was dominated by glass bottles, 98 (96%) of which were dip moulded “black beers.” The other bottles included a dip-moulded Case Gin, a cobalt blue castor oil, a ketchup and an unidentified aqua green round cross-sectioned bottle. None of the bottles were intact and only one (a “black beer”) was embossed with an identifiable mark. This embossing read “COOPER & WOOD/ PORTOBELLO” and dates to between 1859 and 1866 (Lindsey, 2015).

The four ceramic vessels represented within this assemblage were; a Willow pattern whiteware plate, an undecorated whiteware cup and two stoneware bottles (one salt-glazed and the other Bristol-glazed). No maker’s marks were present on any of the fragments. The hem of a machine-woven textile garment was also recovered.

Two faunal fragments were identified; one sheep radial shaft and a complete cow distal femur epiphysis. The sheep element had evidence of weathering and surface cuts.

#### 4.2.14 Context AS89

Context AS89 was a layer of medium brown silty loam found across the northern portion of the site. Artefacts were distributed throughout this context and a sample was collected for analysis (Table 4-10).

**Table 4-10. Summary of artefact sample from Context AS89.**

Material	NISP	MNI
Ceramic	27	15
Glass	30	22
Metal	1	1
Other	2	1
Faunal	6	3

The ceramic assemblage collected from this context was dominated by complete stoneware bottles, one of which was Bristol-glazed (Figure 4-29) and the other 11 slip-glazed. Three of the slip-glazed vessels were stamped “PRICE/ BRISTOL” on the heel, a mark used by the Price pottery from 1820 to 1906 (Mernick, 2017). The other three ceramic vessels were represented by fragments and included a Willow pattern whiteware tureen, a blue UGTP whiteware cup and a blue dyed-body ware jug with grape and vine motifs moulded on the body (Figure 4-29).

A total of 22 glass vessels were represented in the AS89 sample. This included eight dip-moulded black beer bottles, five of which had “K 3” embossed on the base, three turn moulded ring seals, five generic spirit shaped bottles (Figure 4-29) in dark and aqua green and made in dip or turn moulds, a dip moulded schnapps bottle, a wide-mouthed pickle, two rectangular-bevelled (Figure 4-29) and two unidentified round cross-sectioned bottles. The schnapps bottle had partial body embossing which allowed it to be identified as an Udolpho Wollfe’s Aromatic Schnapps bottle, but none of the other glass vessels had identifiable embossing.



Figure 4-29. Left: ceramic vessels from AS89, from left: Willow pattern plate, Bristol-glazed bottle, blue UGTP cup (top) and dyed-body ware jug (bottom). Right: dark green spirit and colourless pharmaceutical bottles from AS89.

The only other artefacts recovered from Context AS89 were the head of a small pointed shovel and two fragments of a leather boot upper.

Six faunal elements were identified representing three species; cow, sheep and pukeko. The cow skeletal material was butchered, however, specific meat cuts could not be identified. One sheep element was juvenile and had evidence of dog attrition. Pukeko are a member of the rail family and a native New Zealand species. They are usually found in and around swamps throughout New Zealand and thrive in areas where forests have been cleared and changed into grasslands. It is unlikely to be associated with human consumption.

#### 4.2.15 Context H004

Feature H003 was a discrete oyster shell lens, measuring approximately 90mm in depth. While the NISP value was 49 suggesting a large concentration of oyster shell, the MNI is only 11 and was likely to be created during a one-off event.

#### 4.2.16 Context J002

Context J002 was a deposit of brown silty clay sitting above the natural, and is equivalent to context H005. Three shell fragments representing two species were collected from this deposit; one cockle fragment and two oyster fragments.

#### 4.2.17 Surface Scatter

A small assemblage of artefacts was also collected from the surface of the site. This included fragments from two ceramic vessels and eight glass vessels. The ceramic vessels were a refined red earthenware teapot and slip-glazed stoneware bottle. One of the glass vessels was complete (a squat “black beer” made in a three-piece dip mould) while the others were represented by tops and/or bases. Four other dip moulded “black beers,” two turn moulded ring seals and the top of an unidentified aqua blue bottle with an applied and tooled finish were collected.

### 4.3 Interpretation

In the course of this development archaeological monitoring of earthworks was carried out across the entirety of site E46/60 – The Black Eagle Brewery, following the demolition of the modern buildings. The following sections discuss the interpretations of the results obtained from this work

#### 4.3.1 *Stratigraphy and Archaeological Contexts*

The stratigraphy of the Black Eagle Brewery site has been heavily disturbed by multiple fill and demolition layers as well as archaeological features. The natural topsoil and subsoil were identified across the site with the topsoil especially having been disturbed by human activity. The natural substrate was identified across the southern half of the site at a depth of approximately 400 to 500mm. However, at the northern end of the site it was identified at a depth of 1500mm. This demonstrates the change to the gradient of the site with the front half having been significantly built up to match the height of the southern end of the section. The topsoil of the northern half of the section is also thicker likely having been built up to help manage mud at his end of the site.

A 50 to 200mm thick deposit of black grit was identified across a large portion of the northern half of the site. This layer sat directly on top of the topsoil of the site in some areas and in others capped layers of demolition associated with the removal of some of the pre-1900 buildings identified on the 1886 Burwell Plans of Invercargill. Some structures would have still been present on the site when the deposit was introduced to the section as it abuts the remains of a concrete floor at its southern extent. The layer is likely incinerator ash, or a by-product of the gas works, used as fill to resurface the site after the demolition of some of the early buildings and prior to the construction of the modern (post-1900) warehouse building.

The archaeological features identified on the site relate to both the pre-1900 as well as twentieth century occupation of the site. The earliest known occupation of the site dates to 1863 when the Provincial Brewery was established on the site by C. S. Button. When John T. Martin took over the Brewery in 1868 the brewery was renamed The Black Eagle Brewery. Multiple structures were present on the site by the time the 1886 Burwell plans of Invercargill were produced. The remains of some of these buildings were identified on the site in the form of brick and concrete floors as well as postholes. Besides these, some features were identified that could not be attributed to any known structures or activity on the site. The most interesting of these being the large concrete pit filled with sand that contained among many things the engine of a car. This context likely post-dates the brewery as it cuts through some modern fill layers that cap the natural topsoil where contexts associated with the brewery were identified.

A circular, timber-lined well was also identified in the front yard space of the site. This is likely to have been the brewery's private well and its main water supply. Private wells are a common feature of Invercargill sites as the city only began to establish a town water supply in 1886.

#### 4.3.2 *Artefacts*

Artefacts were collected from 16 contexts across this site including nine fill or surface layers and four artefact dumps (Table 4-11). A sample of artefacts from the site surface was also recovered. The four dumps were dominated by glass bottles, in particular dark olive round cross-sectioned vessels (“black beers”), suggesting they relate to the brewery operations on site. This is supported by the chronological evidence from these deposits, all of which have TPQ's of between 1859 and the 1870s. The inclusion of so many “black beers” and smaller number of ring seals suggests that these dumps relate to the decommissioning of the older style of bottles to the newer ring seals. Around New Zealand this is commonly understood to have occurred by the early 1880s (Petchey, 2013; Tasker, 1989), however regional information for Southland is not available. Alternatively, these could have been dumps of bottles broken during the brewing and bottling process. The fact that very few intact bottles were recorded lends weight to this theory, however taphonomic processes and mechanical excavation methods have the potential to damage and break glass bottles. Twenty-three stoneware bottles and a stoneware demijohn were also recovered from the site and may have been used by the brewery.



Table 4-11. Summary of context types and terminus post quem (TPQ) for E46/60 artefact-bearing deposits.

Context	Type	TPQ (source)
D003	Layer	?
AS012	Layer	~1870s (Ring seal bottle)
AS019	Demolition Dump	~1870s (Wire nails)
AS020	Layer	1900 (Thomson & Co bottle mark)
AS029	layer	?
AS030	Layer	?
AS031	Layer	1907 (Codd bottle mark)
AS044	Layer	1859 (Cooper & Wood mark)
AS063	Layer	1892 (Mitchell & Co bottle)
AS066	Glass Dump	~1870s (Ring seal bottle)
AS076	Glass Dump	1859 (Cooper & Wood mark)
AS084	Layer	1863 (Udolpho Wolfe bottle)
AS088	Glass Dump	1859 (Cooper & Wood mark)
AS089	Layer	1863 (Udolpho Wolfe bottle)
H004	Oyster shell deposit	?
J002	Layer	?

The other artefacts collected from this site were made up of structural remains and household items typical of late nineteenth and early twentieth century contexts. The structural components provided limited chronological information and so could relate to any or all of the multiple phases of construction and deconstruction of the brewery and associated buildings. The household related artefacts such as the ceramic tea, table and kitchenware, food and pharmaceutical bottles and leather footwear would have been used by the occupants of the house on site (potentially the Martin family), the brewery staff or visitors to the site. The table and tea wares were decorated with patterns characteristic of the mid to late-nineteenth century, such as Willow, Rhine, Rouen, Teddesley and gilt banding, however some popular styles are notable through their absence. No banded or Asiatic Pheasant vessels were recovered from this site, which may suggest an earlier date for the domestic occupation, as these styles are most common in the late nineteenth century (Woods, 2012), or they may have simply not been to the Martin family's taste.

Of the total faunal assemblage analysed for the project (n=344), 26% of the faunal remains were located on this site. The majority of the faunal remains are concentrated in H004, a discrete oyster shell dump. As a result, oyster is the dominant species identified at the site.

The portion of butchered elements within this site assemblage is not high, however, the absence of butchery does not necessarily mean meat was not consumed. In general, butchery occurs in three phases:

- 1) Initial slaughter and evisceration
- 2) Division of the carcass into the major portions (starting with the splitting of the carcass in half along the vertebral column longitudinally)
- 3) Final division before and during consumption

On E46/60, butchery was recorded on five cow and sheep bone in Contexts AS029, AS031, AS088 and AS089. There is evidence of both butchery phases two and three by the presence of vertebra fragments longitudinally butchered and specialist/retail soup/shank meat cuts. The two meat cuts identified are those considered 'lower value'. Drawing from the information provided from the skeletal portions of butchered mammals analysed, it appears that occupants were most likely acquiring from a source - experienced retail butcher, rather than butchering their own, or butchering on site.

Weathering was recorded on skeletal material from AS031, AS088 and AS089 while dog attrition was present on material from AS012, AS031 and AS089. In the assemblage, no dog bone was identified yet there are several elements showing they were present through their attrition. This data presents two probable scenarios; the purposeful feeding of animals and/or the opportunistic scavenging of animals. It is difficult to ascertain whether opportunistic scavenging of easily available food scraps is the most plausible or feeding 'pet' dogs.

## 5 Results – E46/61 – Section 4

The 2016-2017 site works saw excavation across the site, including a site scrape and the excavation of multiple trenches for the installation of services. However, not all archaeological material has been cleared from the site. The following section provides an overview of the historical background of the sites before discussing the results of the archaeological monitoring and artefact analysis.

Site E46/61 comprises of Section 4 (Lot 1 DP 1359). The first land transactions for this section were in 1862. In 1878 John Martin, the owner of the Black Eagle Brewery next door, leased the property up until 1912, when it was leased to Todd's. Historical research was not able to establish the date of initial occupation of the site, however, the Burwell plans demonstrate that there were numerous buildings on the property by 1886 (Figure 5-1). There is no mention of what these properties were with the exception of a single storey structure marked "J. Knight Dwelling" which notably is not orientation with the property boundaries. As the section was leased by Martin at this stage it is possible that the other buildings were associated with the brewery to some degree. In 1912 Only two buildings are present on the site; one in the north-east corner which is also on the 1886 plan and another new building in the south-east corner. W. Todd & Co. would later replace the building in the south-east with a larger poultry shed also removing a small out building from the eastern boundary present on the 1913 plan. The smaller building was extended, and later demolished. At the time development works began in 2016, the poultry shed building, now a warehouse, was still present on the site along with a modern office building in the north-east corner. The remaining yard served as a parking lot and was capped with gravel.

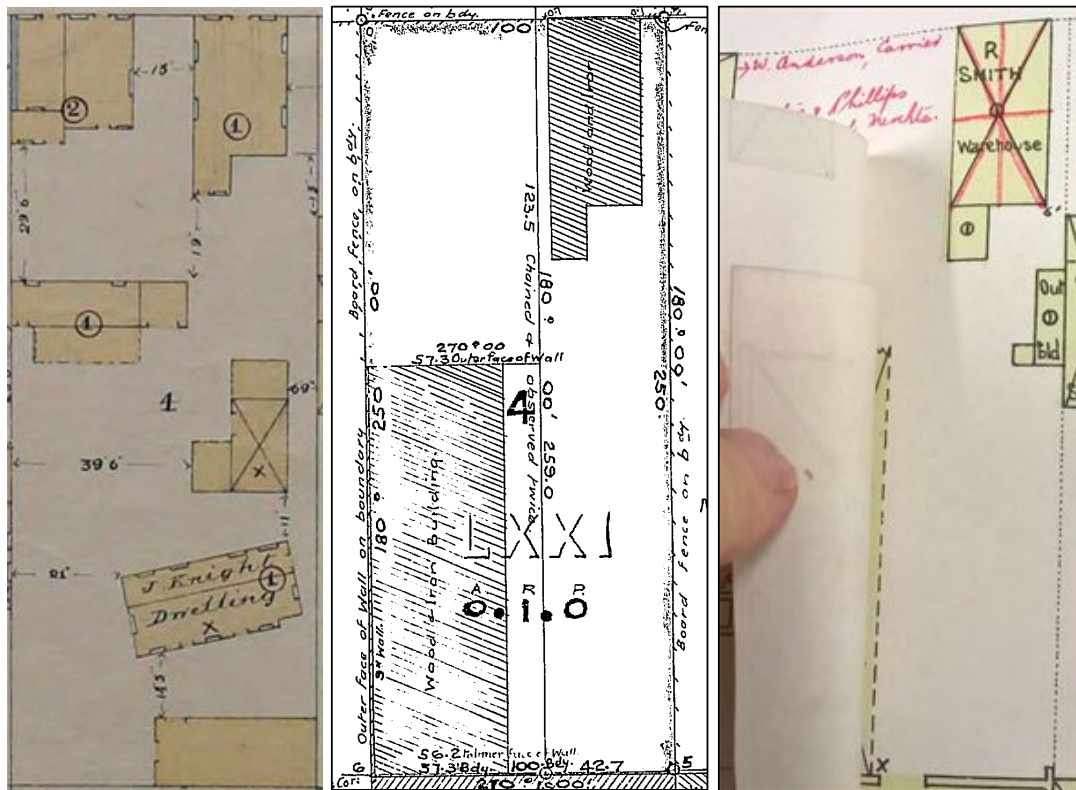


Figure 5-1. Buildings on Section 4 as of 1886<sup>20</sup>, 1912<sup>21</sup>, and 1913<sup>22</sup>.

<sup>20</sup> Burwell, F. W. (1886). Plans of Invercargill Buildings, 1886. Invercargill: Invercargill City Library & Archives.

<sup>21</sup> Detail of DP 1359 (1912). Plan of Sec. 4. Blk. LXXI, Invercargill. Surveyed for Mrs J. P. Wilson

<sup>22</sup> Council of Fire Underwriters' Association of New Zealand. (1925). Block Plans, Invercargill and Bluff. Hocken Library, University of Otago; Reference No. AG-291-001-016-025/029.

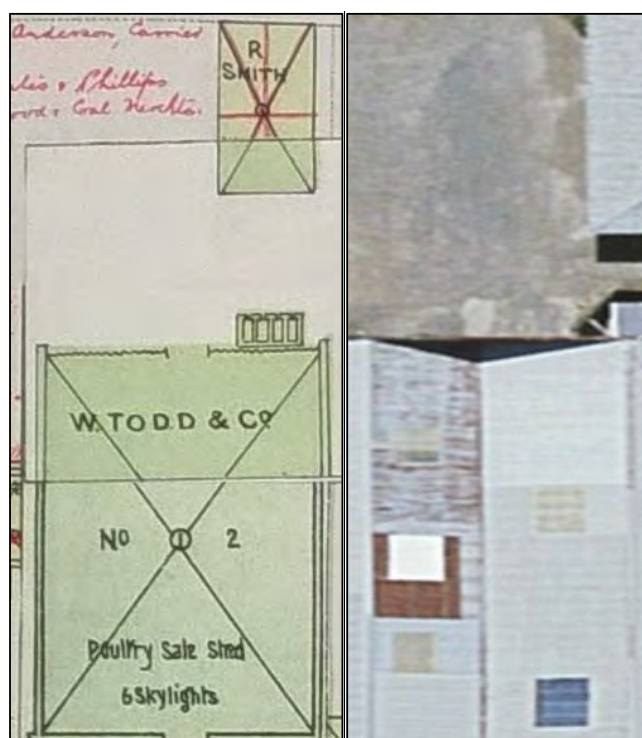


Figure 5-2. Modifications to the 1913<sup>23</sup> plans and the 2016 aerial photograph showing building on Section 4.

### 5.1 Results of the Archaeological Monitoring.

The earthworks across E46/61 were carried out in various stages during 2016 and 2017. When site works began in 2016, the extant buildings were determined to be constructed post-1900 and were removed without recording to floor level. As the removal of the floor and foundations would disturb the underlying ground and any possible archaeological remains, their removal was to be monitored by archaeologists. In May 2017 after the demolition of the smaller building, a small area of the site was cleared (Excavation Area AQ) followed by a full site scrape and the excavation of trenches for the installation of drainage and electrical services as well as tree planting between June and August (Excavation Area AR). The site scrape went to a maximum depth of 700mm being shallower toward the boundaries and deeper through the centre of the site to facilitate drainage on the parking lot surface. The trenches were dug to a maximum depth of 1500mm. Due to the nature of the excavations, the site was not cleared of archaeological remains. The site was backfilled with bluestone subbase aggregate once levels were achieved capping the remaining archaeological material.

Two hundred contexts were identified during the archaeological monitoring, some of which spread beyond the property boundary to the neighbouring Brewery site (E46/60), which was anticipated given the pre-1900 and modern joint history of the sections. A summary of the context types is provided in Table 4-1 where the contexts have been grouped into several interpretive categories including natural deposits, other deposits, services, structural features, artefact scatter and pit features. The following sections consider the stratigraphy, features, and condition of the site.

Table 5-1. Contexts identified at Site E46/61 – Section 4

Interpretation	Context designation	Count	Contexts
Natural deposit	Silt Loam substrate	1	AR27
	Topsoil	16	AQ14, AQ20, AQ21, AR6, AR22, AR27, AR40, AR60, AR111, AR123, AR125, AR139, AR147, AR158, AR170, AR174
	<i>Subtotal</i>	17	

<sup>23</sup> Council of Fire Underwriters' Association of New Zealand. (1925). Block Plans, Invercargill and Bluff. Hocken Library, University of Otago; Reference No. AG-291-001-016-025/029.

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Interpretation	Context designation	Count	Contexts	
Other Deposit	Asphalt	6	AQ16, AR2, AR75, AR104, AR164, AR166	
	Black grit	4	AQ7, AR10, AR37, AR94	
	Brick rubble	12	AR13, AR24, AR28, AR29, AR45, AR48, AR90, AR103, AR109, AR132, AR143, AS11	
	Clay	2	AQ19, AR169	
	Concrete	1	AR167	
	Demolition rubble	8	AQ8, AQ12, AR19, AR36, AR72, AR87, AR105, AS9	
	Gravel	7	AQ2, AQ17, AR3, AR39, AR43, AR152, AR165	
	Gravel and sand	1	AR163	
	Line of bricks	1	AR156	
	Sand	3	AQ11, AR21, AR35	
	Sand and gravel	1	AQ4	
	Silt and gravel	2	AQ10, AR71	
	Silt and lime	1	AR78	
	Silt loam	1	AR124	
	Silt loam and gravel	9	AQ5, AQ6, AR12, AR55, AR57, AR110, AR122, AR161, AR162	
	Silt loam and sand	2	AR115, AR160	
	Silt loam fill	15	AR5, AR25, AR31, AR64, AR65, AR95, AR134, AR136, AR144, AR145, AR146, AR148, AR157, AR159, AR168	
	Topsoil imported	1	AR17	
	Toilet block	1	AR4	
	<i>Subtotal</i>		<i>78</i>	
Services	Box drain	2	AR79, AR155	
	Brick sump	1	AR62	
	Ceramic drainpipe	6	AR120, AR127, AR128, AR142, AR32, AR82	
	Concrete sump	3	AR15, AR151, AR73	
	Metal water pipe	1	AR8	
	Power cable	1	AR20	
	Power trench	2	AR101, AR102	
	PVC pipe	2	AR129, AR130	
	Trench	11	AR11, AR119, AR153, AR154, AR16, AR30, AR42, AR58, AR59, AR76, AR92	
	<i>Subtotal</i>		<i>29</i>	
	Structural	Boxing	1	AQ18
Brick floor		2	AR68, AR77	
Brick footing		2	AR33, AR46	
Chimney		1	AR140	
Concrete floor		3	AQ1, AQ9, AR14	
Foundation		2	AQ3, AR1	
Pile		5	AR47, AR86, AR93, AR96, AR97	
Post		29	AR41, AR44, AR61, AR66, AR69, AR70, AR74, AR80, AR81, AR88, AR9, AR98, AR99, AR100, AR116, AR118, AR121, AR131, AR133, AR135, AR138, AR141, AR149, AR150, AR172, AR173, AS18, AT11, AT8	
Posthole		14	AR26, AR49, AR50, AR51, AR52, AR53, AR54, AR56, AR89, AR106, AR108, AR112, AR113, AR114,	
Wood floor		5	AR23, AR34, AR38, AR107, AR137	
<i>Subtotal</i>		<i>64</i>		
Pit Features	Circular Pit	1	AQ15	
	Rubbish pit	5	AR63, AR83, AR84, AR85, AR91	
	Charcoal filled pit	1	AR117	
	<i>Subtotal</i>		<i>7</i>	
Artefact scatter	Artefact Deposit	2	AR7, AR171	
	Planks	1	AR18	
	Rubbish Deposit	1	AR67	
	Charcoal	1	AQ13	
	<i>Subtotal</i>		<i>5</i>	
<b>Grand total</b>		<b>200</b>		

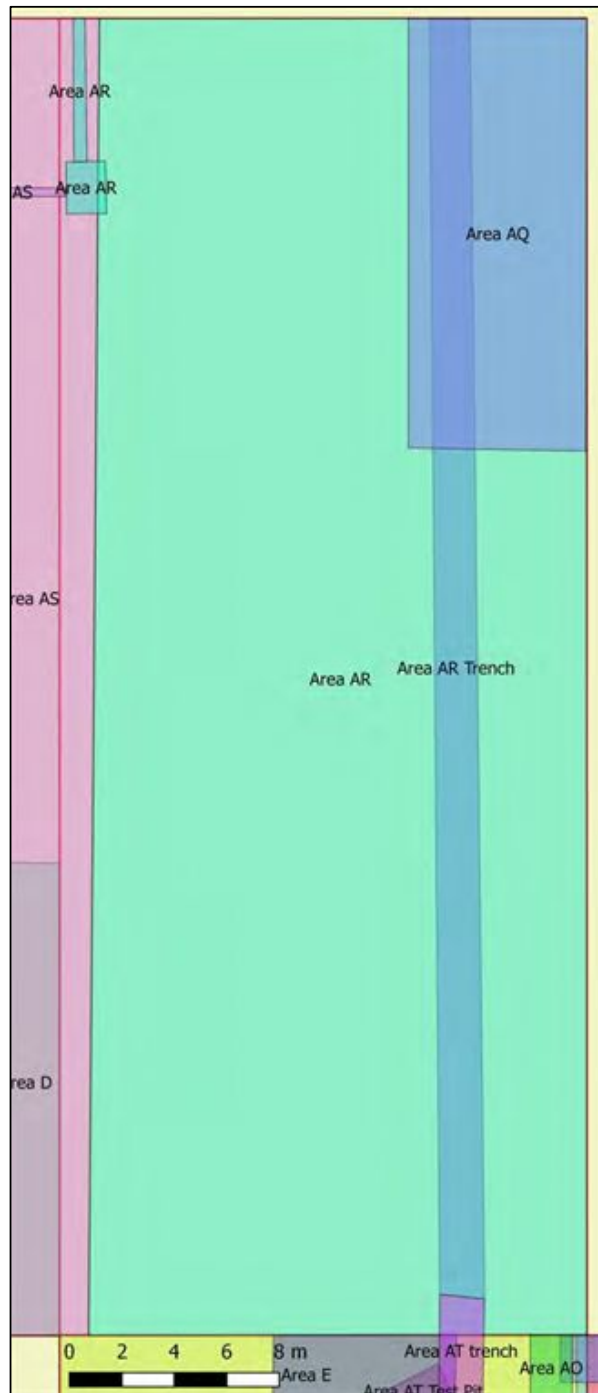


Figure 5-3. Excavation areas on site E46/61 - Section 4

5.1.1 Site Stratigraphy

A large portion of the contexts recorded across E46/61 are deposits or layers, including natural deposits, fill layers, and brick and demolition rubble. The number of layers and deposits identified on the site is partially inflated by the use of different context numbers for the same deposit due to different areas being dug at different times. The stratigraphy varied considerably across site, and this is largely associated with the construction and demolition of former structures on the property as well as the construction of the modern buildings and the establishment of a parking area at the front of the section.

After the demolition of the modern buildings, the majority of the site was capped with a layer of imported gravel fill which mixed with debris from the construction work happening on site (AR3) (Figure 5-4). Along the eastern boundary within the footprint of the recently demolished warehouse building was the remains of its asphalt floor (AR2) (Figure 5-5) which had been laid directly onto an earlier timber floor surface (AR23). To the north of the warehouse building along the eastern boundary was a layer of imported topsoil.



Figure 5-4. Excavation Area AR prior to scrape. Context AR3 covers the site. Photo faces north.



Figure 5-5. Excavation Area AR prior to scrape. Photo shows asphalt of Context AR2. Photo faces north.

Beneath these surface layers the underlying natural stratigraphy is heavily disturbed by the various phases of construction and demolition as well as the introduction of a multitude of fill layers. Below these various layers the underlying natural stratigraphy was identified. The topsoil (AQ14, AQ20, AQ21, AR6, AR22, AR27, AR40, AR60, AR111, AR123, AR125, AR139, AR147, AR158, AR170, AR174) was identified between 300mm and 700mm below the surface and was interspersed with cultural material. At the southern end of the site the topsoil was approximately 100 to 200mm thick and gradually graded into the underlying silt loam substrate (AR27) (Figure 5-6). However, similar to the neighbouring Black Eagle Brewery site, at the northern end of the Section 4 the topsoil was much thicker and deeper with the natural silt loam substrate never being encountered at this end of the site despite excavating to depths of 1500mm (Figure 5-7). At the northern end of the site the topsoil measures up to 800mm thick, though it is likely that at least in part, this has been built up through human activity. Excavations in the northwest corner of Section 4, which cut slightly into the adjacent footpath, revealed the

footpath has been built on a thick layer of silt loam fill (AR168). The silt loam fill is sterile and is likely made up of the natural yellowish silt loam substrate redeposited here from elsewhere in the city.

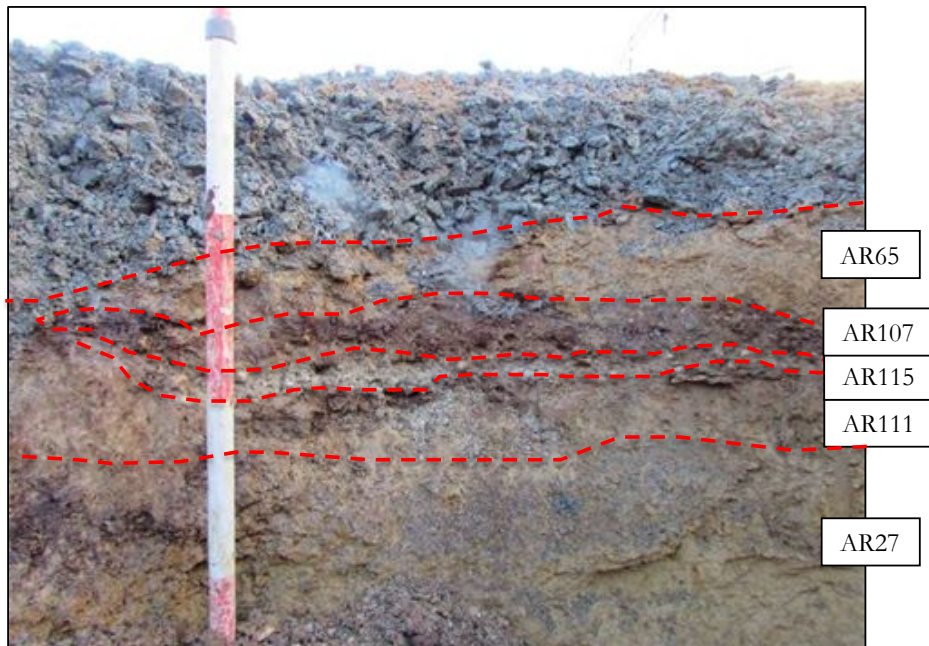


Figure 5-6. Stratigraphy identified in the south end of the trench excavated through Area AR. South end of wooden floor AR107 is also visible in the baulk. Photo faces north.



Figure 5-7. Stratigraphy identified in the north end of the trench excavated through Area AR. Photo faces west.

Of the various demolition and fill layers identified at the site a layer of black grit was identified across a large portion of the northern half of the site, again, much like the Black Eagle Brewery site (AQ7, AR10, AR37, AR94) (Figure 5-8). This layer was between 50 and 200mm thick and for the most part was identified in the exterior area to the north of the warehouse building. A small concentration of the deposit was identified in the southern area of the site (AR94) covering a deposit of brick rubble (AR90). The black grit, likely a by-product of the gas works,

would have been the surface material of the site at some point. The deposit was disturbed by the construction of the modern smaller building with a number of service trenches related to this structure cutting through it. It was possibly disturbed by the construction of the warehouse though it was not clear if the deposit was present on the site before the building was erected or excavated after. It is also possible that the separate areas of the deposit represent different stages of deposition altogether.



Figure 5-8. Photos showing the black grit layer (red arrows). Left: Black grit over AR65 in western baulk of scrape. Right: patches of black grit over AR65. Photos face west.

#### 5.1.2 Features

Features identified on site E46/61 include service features, structural features, and pit features. Structural features are the most prevalent context type, and these include boxing, a concrete floor, brick and wooden floors, posts, postholes, and a large brick feature that has been interpreted as part of a brick chimney. While some of these contexts are parts of the recently demolished modern buildings, when overlaid with the 1886 block plans of Invercargill, some contexts align with pre-1900 recorded structures (Burwell, 1886). All contexts are listed in Table F-4 in Appendix F.

The brick floor designated context AR77, located in the southern half of the section, sits within the footprint of the askew timber building on the Burwell plans labelled 'J. Knight Dwelling' (Figure 5-10). The floor was built of wire cut bricks oriented north-east to south-west and set directly into the underlying natural topsoil. The floor has been disturbed in areas including being cut by service trench AR76. There are two isolated posts and a posthole that line up or fall within the foot print of this building; AR66 aligns with the eastern wall, AR74 falls within the footprint of the building possibly representing an internal element of the building, and AR106 is located near the north wall. AR106 also aligns with a series of rubbish pits that run along the north wall of this structure (AR83, AR84, AR85, and AR91). Besides AR91 these pit features are small 200mm diameter circular pits similar to postholes which were filled with mostly glass material. AR91 is an elongated rubbish pit containing similar material that falls within the same alignment along the northern wall of the dwelling. These pits are thought to be related to each other as well as the dwelling due to their location along its northern wall especially as the building is out of alignment with the rest of the section.



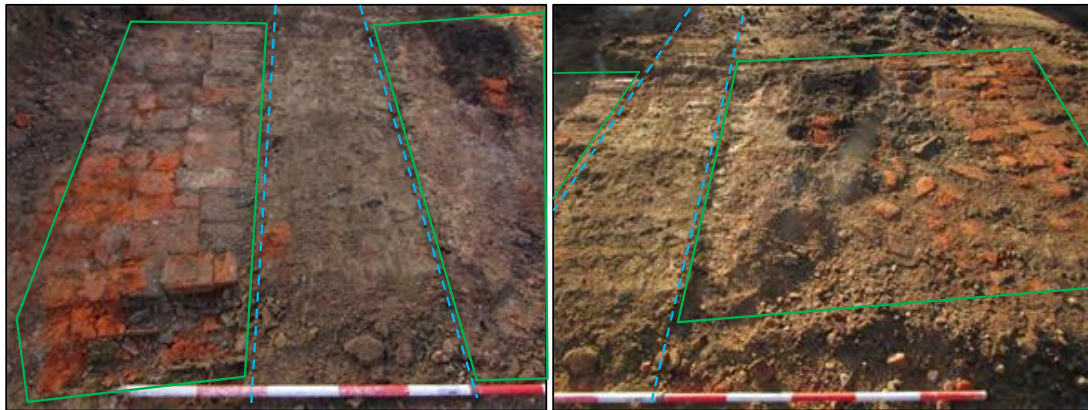


Figure 5-9. Context AR77, outlined in green, cut by service trench AR76 outlined in blue. Photos face north, scale in 20cm increments.



Figure 5-10. Detail of site plan showing context AR77 overlaid with the 1886 Burwell plans.

The brick floor designated context AR68 (Figure 5-11), located toward the southern boundary of the site, sits within the footprint of a timber structure in the south-east corner of the section. The floor was constructed of wire cut bricks oriented east to west set on the underlying natural topsoil. The floor had been disturbed by later development on the site as well as by the excavator. The remains of decaying wooden beams were identified along the northern and western boundaries of the floor. These edges align with the northern and western walls of the building and were likely bottom plates for these external walls. A number of wooden posts also align along the northern wall of this building (AR61, AR70, AR69, AR80, AR81, AR99, AR100), and post AR98 aligns with the western wall.



Figure 5-11. Context AR68. Photo faces north scale in 20cm increments.



Figure 5-12. Detail of site plan showing context AR68 overlaid with 1886 Burwell plans.

Contexts AR33 and AR46 are both sections of brick footing which are positioned within the footprint of a timber building on the Burwell plans located toward the centre of the site on the western boundary (Figure 5-14, Figure 5-15, Figure 5-13). Neither contexts align perfectly with the structure but are most likely associated with it. AR33 is short section of footings over which fragments of a decayed wood floor were identified (AR34 and AR38). The bricks were aligned side by side in a single course and had a layer of lime mortar over their surface. AR46 was located further west of AR33. This section, like AR33, consisted of bricks laid side to side in a single course with a layer of lime mortar over their surface. The bricks of AR46 formed a rough H shape.

A series of postholes with concrete in their base identified to the south of these brick footing features. The posts align with the southernmost wall of the same building on the 1886 Burwell plans. However, when overlaid with the 1912 and 1913 plans the postholes also align with the northern wall of the long building in the south-west corner of the site that was later replaced or extended by Todd into the larger poultry sale shed. Which building these features relate to could not be determined, though the use of concrete in these postholes contrasts with the

other earlier posthole identified across the sites excavated during this development which were set directly in the topsoil and substrate. This suggests that these are possibly related to one of the more recent structures.

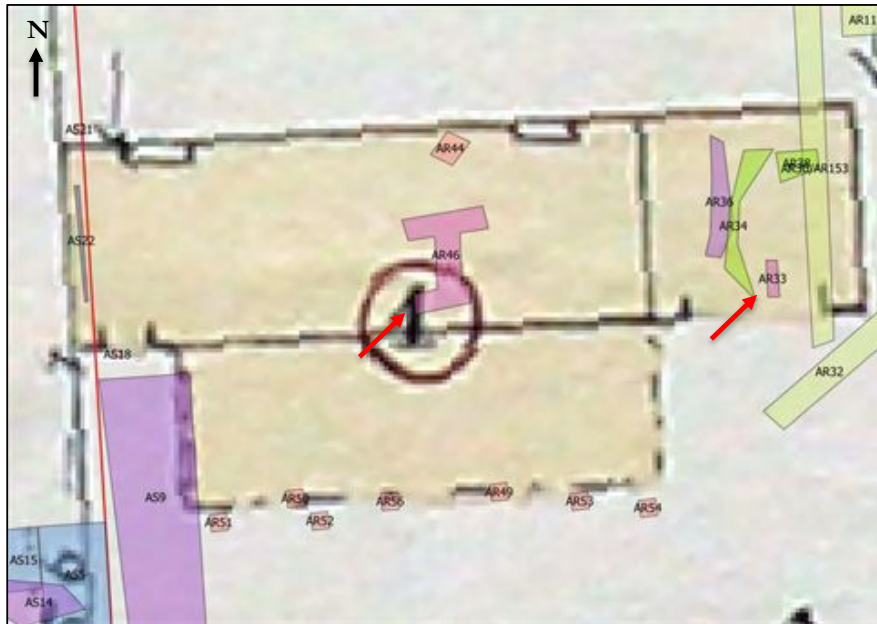


Figure 5-13. Detail of site plan showing contexts AR46 and AR33 overlaid with the 1886 Burwell plan.



Figure 5-14. Brick footing AR33 exposed beneath decayed remnants of wooden floor AR34, photo faces west.

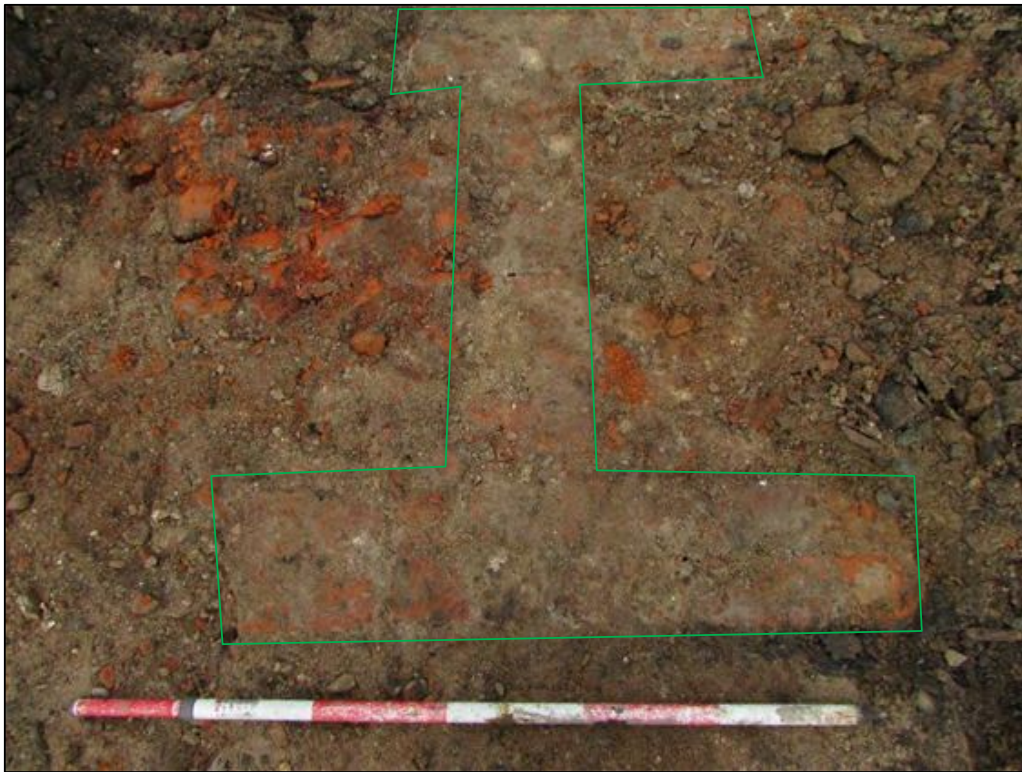


Figure 5-15. Brick footing AR46, photo faces south.

Context AR107 is the decayed remains a wooden floor feature identified toward the eastern boundary of the site (Figure 5-17). It is associated with a series of postholes (AR108, AR112, AR113, AR114, AR116, AR118) that run along its western side, which were identified in the west baulk of the trench excavated through Excavation Area AR. These features align with a timber building on the 1886 Burwell plans located toward the centre of the site near the eastern boundary (Figure 5-16). The section of the wooden floor exposed sits in the south-west corner of part of the building and the postholes align with the adjacent western wall. The floor was in poor condition, but it appeared that the floor joists, which were in better condition, were oriented east to west and the floorboards ran north to south.



Figure 5-16. Detail of site plan showing context AR107 overlaid with the 1886 Burwell plans.



Figure 5-17. Photo of context AR107, joists are indicated by the red arrows, one of the few intact floorboards indicated by the green arrow. Photo faces north, scale is in 20cm increments.

A brick structure that has been interpreted as the remains of a chimney/fireplace (AR140) was identified toward the north-east corner of the site (Figure 5-19, Figure 5-20). The feature consists of three walls, the east, west, and south which cuts across the trench excavated through Excavation Area AR. The feature is open to the north. The walls are a brick wide and laid in running bond. A 2m scatter of bricks (AR143) was identified to the south of the feature which is likely part of the demolished chimney. The feature is 600mm long and extends beyond the width of the trench (1000mm) with the distance between the east and west wall being 930mm. It had been filled in with silt loam and rubbish and capped with whale bone and sheet metal. The structure continued beyond the base of the trench, which was 1500mm deep. The south wall was removed as part of the excavations, while portions of the east and west walls remained *in situ* in the baulk of the trench. When overlaid with the 1886 Burwell plans this feature aligns with the south wall of the building in the north-east corner of the site, suggesting this is the remains of the fireplace of this structure (Figure 5-18).



Figure 5-18. Detail of site plan showing context AR140 overlaid with the 1886 Burwell plans.



Figure 5-19. Context AR140 prior to excavation, green arrows indicate whale bones. Photo faces west.



Figure 5-20. Context AR140 at end of excavation. Photo faces south.

Context AR14 is a concrete floor feature located on the eastern boundary of the site north of the modern warehouse building (Figure 5-21). It has a tiled surface and was poured directly onto a bed of sand (AR21). This feature appears to align with the outbuilding on the 1913 Invercargill block plans. This building seems to have been constructed around 1913 as it is not present on the 1912 plan of the section. The later modifications to the 1913 plans show it was demolished to make room for Todd's poultry sale shed.



Figure 5-21. Left: 1913 Block plans of Invercargill<sup>24</sup>. Right Context AR14, photo faces east.

<sup>24</sup> Council of Fire Underwriters' Association of New Zealand. (1925). Block Plans, Invercargill and Bluff. Hocken Library, University of Otago; Reference No. AG-291-001-016-025/029.

Numerous different service features were identified across the site including modern power cables, waterpipes, concrete sumps, and service trenches. Besides these, the remains a brick sump and two box drains were also identified on the site. The brick sump (AR62) (Figure 5-22) is located on the eastern boundary of the site with one of the box drains (AR79) extending south-west from it (Figure 5-23). The second box drain (AR155) was identified in the centre of the northern half of the excavation area within the natural topsoil (Figure 5-24).



Figure 5-22. Context AR62 remains of a brick sump. Photo faces east.





Figure 5-23. Context AR79, box drain. Photo faces south-west.



Figure 5-24. Context AR155, box drain. Photo faces south.

### 5.1.3 Condition

The site works removed the modern twentieth century buildings in their entirety. Various excavations including a scrape of the entire site, were carried out and sterile substrate was exposed at the southern end. However at the northern end of the site the archaeology is located at greater depths and some material remains intact below the surface. The area was backfilled with bluestone aggregate and the site is now part of the parking lot for the new development.

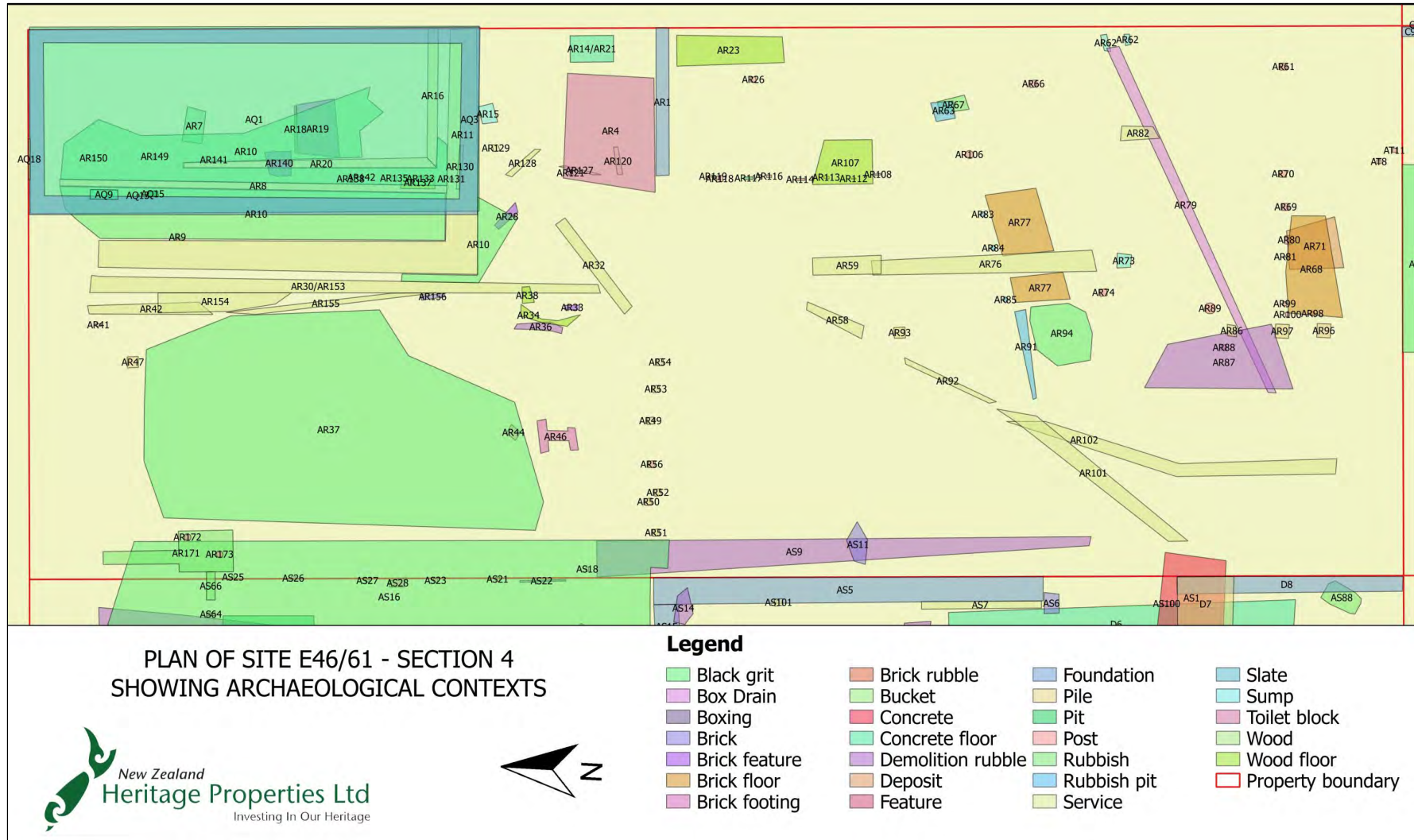


Figure 5-25. Site plan of subsurface archaeology at E46/61 – Section 4.

## 5.2 Artefact Analysis

Artefacts were recovered from 27 contexts in E46/61. Artefact results are presented by context, with photographs of selected artefacts included. A summary of the artefacts recovered from E46/61 is shown in Table 6-4. The faunal assemblage was small, collected from 17 contexts in E46/61 and represents four taxon; shell, mammal, cetacean and bird (Table 5-3).

**Table 5-2. Summary of artefacts recovered from E46/61.**

Material	NISP	MNI
Ceramic	211	104
Glass	503	259
Metal	43	38
Other	80	34
Faunal	43	8

**Table 5-3. Summary of faunal species recovered from E46/61.**

Species	NISP	MNI
Chicken	1	1
Cow	14	1
Sheep	18	2
Oyster	8	3
Whale sp.	2	1
<b>Total</b>	<b>43</b>	<b>8</b>

### 5.2.1 Context AR005

Context AR005 was an orange mottled clay fill layer with fragmentary artefacts scattered throughout. A small sample of material was collected for analysis (Table 5-4).

**Table 5-4. Summary of artefact sample collected from AR005.**

Material	NISP	MNI
Ceramic	0	0
Glass	9	8
Metal	2	2
Other	3	3
Faunal	0	0

Seven “black beer” bases and one dark green round cross-section bottle top and base were collected from this context. All were made in dip moulds and four had pontil scars (three bare iron and one sand). One base was embossed with “B C,” however this mark was unable to be attributed to a manufacturer. Also recovered from this context were a complete stirrup iron, an unidentified aluminium object, fragments of flat glass from two different windows and an iron and rubber caster (Figure 5-26).



Figure 5-26. Iron and rubber caster (top) and stirrup iron (bottom) from AR005.

5.2.2 Context AR006

Context AR006 was a dark brown clay deposit found in the northeast corner of the site. Artefacts were scattered throughout, and a sample was collected for analysis (Table 5-5).

Table 5-5. Summary of artefact sample collected from AR006.

Material	NISP	MNI
Ceramic	10	3
Glass	1	1
Metal	1	1
Other	1	1
Faunal	0	0

Fragments from three ceramic vessels were recovered: a green floral UGTP whiteware cup (Figure 5-27, left), an undecorated whiteware plate and a complete salt-glazed stoneware ink bottle (Figure 5-27, right). The ink bottle was stamped with "DOULTON & CO LIMITED/36/LAMBETH," a mark that was used by Staffordshire pottery manufacturers Doulton & Co Ltd from 1882 to 1901 (Birks, 2016). A complete aqua green glass flask made in a two-piece cup-bottom mould, an iron gate latch and piece of colourless glass from an oil or kerosene lantern were also collected.



Figure 5-27. Left: green UGTP cup from AR006. Right: Salt-glazed stoneware ink bottle from AR006.

5.2.3 *Context AR011*

This context was a modern foundation trench for the Citizens Advice Bureau building. One piece of undecorated whiteware from an unidentified vessel was recovered from Context AR011.

5.2.4 *Context AR017*

Context AR017 was a layer of brown friable topsoil. One rim fragment from a floral decal decorated whiteware saucer (Figure 5-28), a single piece of dark green bottle body glass, a lump of coarse concrete and two rectangular lead glazed whiteware wall tiles were collected from this context. The presence of a decal decorated vessel confirms this as a post-1900 context as this decorative technique was not used on ceramics during the nineteenth century (Brooks, 2005).



Figure 5-28. Decal decorated whiteware saucer from AR017.

Five sheep skeletal elements were identified in this feature. None had evidence of butchery or taphonomy.

### 5.2.5 Context AR022

Context AR022 was a layer of dark brown friable clay soil with brick and artefact inclusions. A sample of the artefacts was collected for analysis (Table 5-6).

**Table 5-6. Summary of artefact sample collected from AR022.**

Material	NISP	MNI
Ceramic	7	3
Glass	4	3
Metal	2	1
Other	0	0
Faunal	0	0

Fragments from two whiteware and one Bone China ceramic hollow ware vessels were recovered. The whiteware examples were both decorated with unidentified UGTP patterns, one floral flow blue and the other geometric blue, while the Bone China vessel had polychrome floral designs enamelled over the glaze (Figure 5-29, left). Two complete glass bottles were collected: a colourless round cross-section bottle made in a three-piece dip mould (Figure 5-29, right) and an aqua green flask made in a two-piece post bottom mould. A dip moulded “black beer” base was also recovered, with “S & L C” embossed inside the kick-up. This mark was unable to be attributed to a manufacturer. The only other artefact collected from AR022 was a copper alloy curtain ring.



**Figure 5-29. Left: ceramic vessels from AR022, clockwise from left: flow blue UGTP whiteware, blue UGTP whiteware and enamelled Bone China vessels. Right: colourless round cross-sectioned bottle from AR022.**

### 5.2.6 Context AR025

Context AR025 was a deposit of orange clay with artefacts throughout. A sample of material was collected for analysis (Table 5-7).

**Table 5-7. Summary of artefact sample collected from AR025.**

Material	NISP	MNI
Ceramic	17	6
Glass	13	10
Metal	0	0
Other	2	2
Faunal	1	1

Fragments from six ceramic vessels were collected, three of which were Chinese porcelain bowls with the same polychrome floral enamelled decoration and backmarks which featured Chinese characters (Figure 5-30). These marks were not able to be identified. The other ceramic vessels were a Bone China gilt saucer, a brown floral UGTP whiteware hollow vessel and an unidentified whiteware vessel decorated with a purple UGTP design.



Figure 5-30. Chinese porcelain bowls with maker's mark from AR025.

The glass vessel assemblage from this context consisted of three ring seal, one club sauce, two soda, a rectangular bevelled, one brown triangular poison and two unidentified round cross-sectioned bottles as well as a milk glass cosmetics jar. Several of the bottles had body embossing which allowed their manufacturers and contents to be identified. One of the ring seals had a horse rampant with "...[S]YDN[EY]" below (Figure 5-31, left), a mark that was able to be attributed to Tooth's Brewery in New South Wales and to date to before 1888 when the company became Tooth & Co (Hamilton & Andersen, 2004). The two soda bottles had partial embossing ("MANUFACTUR.../INVERCARGILL/NZ/LUMB & CO MAKERS CASTLEFORD") which allowed the bottle manufacturer to be identified. Lumb & Co were a Yorkshire bottle manufacturers who operated under this name from the 1870s to 1905 (Corbin, 2000a). Whilst the brand name was not present on either soda bottles, there were only three Invercargill based soda manufacturers operating during the late nineteenth century: Moffett & Co (1876-1927), Mitchell & Co (1892-1893) and Thomson & Co (1893-1969) (Robson, 1995), and so this bottle must be associated with one of these companies.

The only other artefacts collected were two fragments of flat glass: one cobalt blue with a frosted floral design on one side and the other aqua green with ridges on one side (Figure 5-31, right).



Figure 5-31. Left: brown triangular poison bottle and Tooth's beer bottle from AR025. Right: Cobalt blue frosted and aqua green ridged plate window glass from AR025.

One cow radius was identified, representing a beef soup cut. This is considered a low value meat cut. The element also had evidence of dog attrition.

5.2.7 Context AR034

Context AR034 was a timber feature with laid boards running north to south. A rim fragment from a whiteware tureen decorated with the Asiatic Pheasants pattern and one fragment of dark green bottle body glass were associated with this feature.

5.2.8 Context AR048

Context AR048 was a concentration of bricks and wood close to the western boundary of the site. A single dip-moulded “black beer” bottle base was collected from this context. This base did not have any embossing.

5.2.9 Context AR054

Context AR054 was a concrete pile. One butchered sheep rib was recorded as being related to this context.

5.2.10 Context AR060

Context AR060 was a deposit of dark brown silty clay with artefacts and demolition rubble distributed throughout. A sample of material was collected for analysis (Table 5-8), but bricks and timber were also present within the deposit.

Table 5-8. Summary of artefact sample collected from AR060.

Material	NISP	MNI
Ceramic	66	28
Glass	59	35
Metal	15	14
Other	17	10
Faunal	7	3

Sixty-six ceramic fragments from at least 28 vessels were collected from this context. Whiteware was the most common ware type, accounting for over 70% of the ceramic assemblage (20 vessels). Of these, nine were plates, one a tureen, two cups, one a kitchen mixing bowl, one a baby feeder and seven were unidentified forms. Seventeen of the whiteware vessels were decorated with UGTP designs, including all plates, the tureen, cups, baby feeder and five of the unidentified vessels. Five patterns were identified (Figure 5-32, left): Rouen on two plates, Rhone on one plate, Teddesley on one plate, Poppy on one plate and Willow on an unidentified vessel. One of the unidentified vessels was moulded and another had polychrome floral decal decoration. The kitchen bowl was the only undecorated whiteware vessel recovered. Two Bone China vessels were also collected (one gilt saucer and one undecorated flatware vessel) while other ware types were represented by single vessels: A Bristol-glazed



stoneware bottle, creamware cup, blue dyed-body ware saucer (Figure 5-32, left), a yellowware crock and an unidentified modern refined earthenware vessel with a green slip glaze.

Two identifiable marks were recorded on the ceramic vessels. One of the Rouen pattern plates had a partial Pinder Bourne & Co mark within a garter printed on the base. Pinder Bourne & Co were a Staffordshire pottery manufacturer who operated under that name from 1862 to 1882 (Godden, 1991). The other marked vessel was the baby feeder which was printed with “MATHER'S/ INFANT FEEDING BOTTLE/LONDON/MANCHESTER” (Figure 5-32, right). Little information is available about the manufacturer but these bottles are commonly found in nineteenth century New Zealand sites and were commonly referred to as “murder bottles” due to the fact that they were difficult to clean and would regularly make babies ill (Bone, 2013; Carter, 2012).



Figure 5-32. Left: ceramic vessels from AR060, clockwise from top left: Rhone plate, Rouen plate, dyed-body saucer, Poppy plate and Teddesley plate. Right: Mather's infant feeding bottle.

The glass vessel assemblage included in this sample contained a range of bottle forms and types. Six dip-moulded “black beer” bottles were represented by bases. Two were embossed: one with “A” and the other “C/ 500,” but neither mark was able to be identified. Four turn-moulded ring seal bottles were represented by tops and bases. Alcohol bottles included a dip-moulded Case Gin, closed moulded Schnapps and a dip moulded spirit bottle. Six Codd bottles held non-alcoholic beverages and all were manufactured by Dan Rylands of Barnsley, England, for A B Moffett & Co, an Invercargill aerated water manufacturer who operated from 1876 to 1927 (Robson, 1995). This date range can be narrowed further due to the presence of base embossing on five of the bottles which read “1896,” suggesting that they were produced during that year. Two of these Codd's had distinctive cobalt blue finishes (Figure 5-33, left).

Three food related bottles were recovered: one cathedral shaped pickle and two round cross-sectioned sauce bottles. All were made in cup bottom moulds and none were embossed. Two round and two square cross-sectioned bottles were recorded as pharmaceutical vessels, although again all were unmarked. Two round cross-sectioned bottles were unable to be identified to function. Tableware vessels represented included four pressed glass tumblers (Figure 5-33, right), a blue candlestick holder, a pedestalled dish and a red and white striped hollow vessel.



Figure 5-33. Left: Codd bottles from AR060. Right: tumblers from AR060.

The metal artefacts collected from this context included a range of structural and household items. Structural artefacts included two cut brads, two hinges (one gate and one door), lengths of strip iron (Figure 5-34, left) and a brass door knob. Household items collected were an enamelled kettle, the handle of an enamelled saucepan and the head of a rake. Four metal items collected were unable to be identified but appeared structural or mechanical in nature.

Miscellaneous artefacts included in the AR060 sample included structural and personal items (Figure 5-34, right), as well as the rubber seal from a bottle. Fragments of a sink, fireplace tiles, roofing slate and window glass relate to the structures that once occupied this and/or neighbouring sites, while the bite of a clay tobacco pipe, the pedestal base of a ceramic ornament and part of a leather shoe upper relate to the occupants of and visitors to these structures.



Figure 5-34. Left: strip iron (top) and hinges from AR060. Right: (clockwise from top left) leather shoe upper fragment, clay pipe mouthpiece, rubber bottle seal and slate tiles.

Seven skeletal elements were identified in this feature, representing two species; sheep and cow. All but two of the elements had evidence of butchery. Surface cuts were recorded on the two sheep femur and two meat cuts were identified; one leg cut and one hind foot. The leg cut is considered to be of high value while the hind foot is low value. One beef soup cut was also identified.

#### 5.2.11 Context AR062

Context AR062 was a brick sump close to the eastern site boundary. The artefacts associated with this feature (Table 5-9) are noted as having been collected from “directly around” the sump and so they are probably actually

related to AR060 into which this feature was cut. Two of the ceramic fragments and three of the glass are from the same vessels as those found in AR060, which further supports this interpretation.

**Table 5-9. Summary of artefact sample collected from around AR062.**

Material	NISP	MNI
Ceramic	14	2
Glass	13	6
Metal	0	0
Other	2	0
Faunal	7	2

Fourteen fragments from four ceramic vessels were recovered from around this context (Figure 5-35), however, two of these (a Rouen whiteware plate and a yellowware crock) were also represented in the AR060 sample and so have not been included in the minimum vessel count. The fragments of the yellowware crock found near to the sump revealed that the vessel had a darker glaze around the top, presumably an attempt to emulate Bristol-glazed stoneware. The two vessels only found around AR062 were a pink and gold enamelled Bone China saucer and a buff-bodied earthenware roasting dish.



**Figure 5-35. Clockwise from top left: roasting dish, Rouen plate, yellowware crock with faux Bristol-glaze and pink and gold enamelled saucer from AR062.**

The glass bottles recovered from near the sump were the base of a dip-moulded “black beer” bottle, one complete and one fragmentary ring seal bottle, a closed moulded Case Gin and an unidentified round cross-sectioned bottle. Glass tableware was also collected from this area in the form of a stemmed drinking glass. Fragments from another round cross-sectioned bottle, a pressed glass dish and a tumbler match those found in AR060.

Two fragments of aqua green plate window glass also appeared to be from the same windows as those found in AR060.

Seven oyster fragments were identified, representing an MNI of two.

5.2.12 *Context AR063*

Context AR063 was a shallow rectangular rubbish pit which was filled mainly with glass. A sample of material was collected for analysis Table 5-10.

**Table 5-10. Summary of artefact sample collected from AR063.**

Material	NISP	MNI
Ceramic	1	1
Glass	12	9
Metal	0	0
Other	0	0
Faunal	1	1

One piece of ceramic was collected from this feature. It was the whiteware lid of an unidentified hollow vessel and had a green enamel coating on the outer surface.

The glass vessels collected from AR063 included fragments from three dip-moulded "black beers," one turn moulded ring seal, the base of a dark green "skittle" shaped bottle, a Codd bottle (Figure 5-36) and the tops of two bottles that were unable to be identified to function. The Codd bottle was embossed with "MOFFETT & CO/ INVERCARGILL/ TRADE MARK/ M & CO/ 1891" and "RELIANCE PATENT/ 4/ SOLE MAKER/ DAN RYLANDS/ BARNESLEY," which dates it to between 1891 and 1927 as with the Moffett bottles found elsewhere on the site, but with the additional TPQ of 1891 from the embossed date.



**Figure 5-36. Moffett & Co Codd bottle from AR063.**

One unfused sheep tibia was identified in this context.

5.2.13 *Context AR065*

Context AR065 was a brown/yellow mottled clay deposit which merged and is potentially equivalent with AR060. A sample of artefacts was collected from this deposit (Table 5-11), which mostly covered the northern end of the site.

Table 5-11. Summary of artefact sample collected from AR065.

Material	NISP	MNI
Ceramic	7	5
Glass	7	7
Metal	0	0
Other	0	0
Faunal	1	1

Fragments from seven ceramic vessels were collected from AR065 (Figure 5-37). This included a Rockingham style teapot, an undecorated whiteware mixing bowl and three UGTP whiteware vessels (a plate, a cup and a jug). The UGTP plate was decorated with the Willow pattern while the cup and jug bore unidentified purple and brown designs respectively. No maker’s marks were present on any of the vessels.



Figure 5-37. From left: Rockingham teapot handle, whiteware cup handle and Willow pattern plate from AR065.

The glass vessel assemblage included two dip-moulded “black beer” bases, a dip-moulded Case Gin base, a cathedral style salad oil bottle and rectangular bevelled bottle made in cup-bottom moulds and an unidentified round cross-sectioned bottle. No base or body embossing was present on any of the glass vessels.

One butchered sheep radius was identified in this context representing low value forequarter meat cut.

5.2.14 Context AR067

Context AR067 was a concentration of artefacts within AR065. A sample of artefacts was collected from this concentration (Table 5-12).

Table 5-12. Summary of artefact sample collected from AR067.

Material	NISP	MNI
Ceramic	2	1
Glass	5	4
Metal	0	0
Other	2	2
Faunal	0	0

The artefacts recovered from this context consist of a Bone China Imitation Jasper side plate, two dip-moulded “black beer” and two turn moulded ring seal bottles, a fragment of thick (6mm) aqua green plate glass and a fragment of a slate roofing tile (Figure 5-38). None of the artefacts collected were complete or had any identifiable marks.



Figure 5-38. Thick aqua green flat glass (left) and slate roofing tile from AR067.

#### 5.2.15 Context AR077

Context AR077 was a laid brick feature. A small sample of artefacts was recorded as being associated with this feature (Table 5-13), although it is not clear whether they were sitting on it, in which case they may relate to AR078 which covered the feature, or from between the bricks.

Table 5-13. Summary of artefact sample collected from AR077.

Material	NISP	MNI
Ceramic	4	3
Glass	2	2
Metal	0	0
Other	0	0
Faunal	1	1

The artefacts associated with the brick feature were a whiteware plate decorated with the Teddesley pattern, a small undecorated whiteware roasting dish, the top of a slip-glazed stoneware ginger beer bottle, the base of a dip-moulded “black beer” and the base of a turn-moulded ring seal bottle. The roasting dish had “TRADE MARK/PREMIUM SEMI-PORCELAIN/T & R BOOTE/ENGLAND/[WATER]LOO POTTERIES/...EY & Co Ltd/...TREAL” printed on the base. T & R Boote Ltd were a Staffordshire pottery firm who commenced operations in 1843 (Birks, 2016). The inclusion of “ENGLAND” in the mark dates the manufacture of this vessel to after 1891 when the McKinley tariff came into effect and required export wares to bear their country of origin (Godden, 1991). The “black beer” was also marked, with “G W & J” embossed inside the kick-up. Lindsey (B. Lindsey, 2015) suggests a date range of 1880 to 1910 for this mark but the manufacturer is unknown. This date range is relatively late for this type of bottle, so it should not be relied upon.



Figure 5-39. Clockwise from top left: slip-glazed stoneware bottle, small whiteware roasting dish and Teddesley plate from AR077.

One complete chicken tibiotarsus was identified in this context.

5.2.16 Context AR079

Context AR079 was a historic service trench filled with demolition rubble and brown/yellow mottled clay fill. A sample of artefacts was collected from the base of the trench around an area of decayed wood (Table 5-14).

Table 5-14. Summary of artefact sample collected from AR079.

Material	NISP	MNI
Ceramic	3	2
Glass	1	1
Metal	0	0
Other	1	0
Faunal	0	0

The AR079 artefact sample consisted of the rim of a red UGTP whiteware cup (Figure 5-40), the rim of a polychrome painted Bone China saucer, one fragment of body glass from a dark green round cross-sectioned bottle and one fragment of aqua green plate window glass. The window glass was of the same thickness and colour as fragments collected from AR060 and so was not included in the minimum artefact count. No marks or embossing were present on any of the fragments.



Figure 5-40. Red UGTP cup and Bone China saucer from AR079.

5.2.17 Context AR083

Context AR083 was one of three circular pits filled with broken glass cut into AR065. A sample of the material within the feature was collected for analysis (Table 5-15).

Table 5-15. Summary of artefact sample collected from AR083.

Material	NISP	MNI
Ceramic	0	0
Glass	65	7
Metal	2	2
Other	0	0
Faunal	0	0

Fragments from at least six turn-moulded ring seal bottles were collected from this feature, all of which were highly fragmented. A single piece of body glass from an unidentified round cross-sectioned aqua green bottle, a complete metal matchbox (Figure 5-41) and a cut nail were also recovered.





Figure 5-41. Metal matchbox from AR083.

5.2.18 Context AR084

Context AR084 was one of three circular pits filled with broken glass cut into AR065. A sample of the material within the feature was collected for analysis (Table 5-16Table 5-15).

Table 5-16. Summary of artefact sample collected from AR084.

Material	NISP	MNI
Ceramic	0	0
Glass	21	8
Metal	4	4
Other	0	0
Faunal	0	0

The sample taken from this feature contained fragments from at least seven turn-moulded ring seal bottles, one dark olive stout shaped bottle (Figure 5-42, left), a cut unused horseshoe nail and three wire nails (Figure 5-42, right). No embossing was present of any of the glass fragments.



Figure 5-42. Left: dark olive stout bottle from AR084. Right: horseshoe nail (top) and wire nails.

5.2.19 Context AR085

Context AR085 was one of three circular pits filled with broken glass cut into AR065. A sample of the material within the feature was collected for analysis (Table 5-17Table 5-15).

Table 5-17. Summary of artefact sample collected from AR085.

Material	NISP	MNI
Ceramic	0	0
Glass	8	2
Metal	0	0
Other	1	1
Faunal	0	0

The sample of material from AR085 included fragments from a ring seal bottle made in a cup-bottom mould, a fragment of body glass from a dark olive bottle and a piece of aqua blue window glass. The ring seal bottle had “N & C...XXXII” embossed on the base which was able to be attributed to St Helens (England) glass manufacturers Nuttall & Co and dates to between 1872 and 1913 (Lindsey, 2015).

5.2.20 Context AR091

Context AR091 was a shallow rectangular pit filled with glass and other artefacts cut into AR065. A sample of material was collected from this feature for analysis (Table 5-18).

Table 5-18. Summary of artefact sample collected from AR091.

Material	NISP	MNI
Ceramic	1	1
Glass	30	13
Metal	3	3
Other	2	2
Faunal	1	1

Glass accounted for most of the artefact sample collected from AR091. Fragments from at least eight turn-moulded ring seal bottles, the base of a dip-moulded “black beer,” the top of a Codd and three unidentified bottles (one brown, one light green and one aqua blue) were recorded (Figure 5-43) as well as an aqua green glass stopper. No embossing was present on any of the fragments, however a TPQ can be taken from the presence of the Codd bottle as this form was introduced in 1872 (Munsey, 2010). One piece of an unidentified whiteware vessel, three fasteners (one wire roofing, one wire and one cut nail) and two pieces of window glass (one flat and one green textured) were also recovered.



Figure 5-43. Unidentified bottle finishes from AR091.

One sawn cow rib was identified in this context.

*5.2.21 Context AR107*

Context AR107 was a decayed, in situ timber floor found directly under AR065. An artefact sample consisting of a ring seal bottle base and a large, heavily worn horseshoe (Figure 5-44) was collected from this feature but probably relates to the AR065 fill.



Figure 5-44. Horseshoe recovered from AR107.

5.2.22 Context AR125 and AR139

Context AR125 and AR139 were a medium brown friable clay fill that had artefacts dispersed throughout. A small artefact sample was gathered from this context (Table 5-19).

Table 5-19. Summary of artefact sample collected from AR125/AR139

Material	NISP	MNI
Ceramic	7	5
Glass	5	3
Metal	0	0
Other	2	2
Faunal	0	0

The artefact sample from this fill deposit included ceramic, glass and leather items. Five ceramic vessels were represented: a moulded Bone China child’s cup, a buff-bodied earthenware colander, a Teddesley pattern whiteware plate, Rhine pattern whiteware tureen and an unidentified Chinese-style UGTP whiteware cup (Figure 5-45). The child’s cup was the only complete vessel, and none bore a maker’s mark. The three glass vessels were a turn-moulded ring seal, salad oil and aqua blue pharmaceutical bottle, none of which were embossed. Two other artefacts were collected: the base of a Bone China ornament (Figure 5-45) and the tacked sole and stacked heel of a leather shoe. The ornament had “III YL/1911” painted on the base, suggesting that the item was manufactured in 1911.

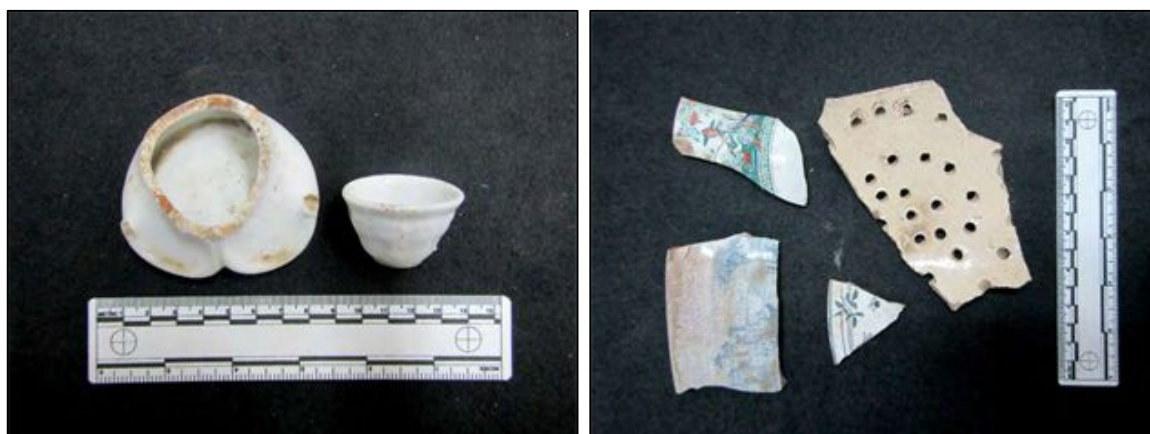


Figure 5-45. Left: Porcelain ornament and child's cup from AR139. Right: (clockwise from top left) Chinese-style UGTP cup, buff-bodied earthenware colander, Teddesley plate and Rhine tureen.

#### 5.2.23 Context AR140

Context AS140 was a brick chimney base with a whale bone cap. Five skeletal elements were identified in this context. This included three sawn cow long bones representing two beef foreshanks of low meat cut value. Within this context were also two whale skeletal elements. While species could not be determined, its size and morphology suggests it could be a right whale.

#### 5.2.24 Context AR143

Context AR143 was a deposit of brown clay with brick fragments and artefacts distributed through it. A small artefact sample was collected from this context for analysis (Table 5-20).

Table 5-20. Summary of artefact sample collected from AR143.

Material	NISP	MNI
Ceramic	7	3
Glass	12	6
Metal	3	3
Other	0	0
Faunal	4	1

Three ceramic vessels were included in the sample: a Rouen whiteware ashette, an unidentified Willow whiteware vessel and a whiteware mug with green floral UGTP decoration. Glass vessels recovered from AR143 included fragments from two dip-moulded "black beer," one turn-moulded ring seal, a Codd bottle, a cranberry glass bowl and a lid from a hollow vessel made from uranium glass (Figure 5-46). The Codd bottle was embossed with "1900" on the base and "PURITY/ TRADEMARK/ REGISTERED" "MITCHELL & CO/ CRYSTAL SPRINGS/ MINERAL WATER WORKS/ INVERCARGILL" and "CANNINGTON SHAW & CO MAKERS ST HELENS" on the body (Figure 5-46). Mitchell & Co were an Invercargill soda manufacturer that began operations in 1892 but were purchased by Thomson & Co in 1893. This bottle, which was made in 1900, suggests that Thomson & Co continued to sell products under the Mitchell & Co title after the merger. The rest of the embossing is identical to that found on contemporary Thomson & Co bottles, which suggests that the bottle manufacturers (Cannington Shaw & Co) simply swapped out part of the mould during the manufacture process.



Figure 5-46. Left: 1900 Mitchell & Co Codd bottle from AR143. Right: cranberry glass bowl and uranium glass hollow ware lid.

Three metal artefacts were also recovered from this context: a horseshoe, the head of a rake and the head of a large screw. The horseshoe was from a large draught horse, had caulks on the heel and was heavily worn around the toe, which is evidence of the horse straining while pulling a heavy load (Woods, 2017).

Four cow skeletal fragments were identified. One fragment had evidence of butchery.

#### 5.2.25 Context AR145

Context AR145 was a deposit of dark brown soil to the north of a brick chimney feature (AR140). A sample of the artefacts scattered throughout this deposit were collected for analysis (Table 5-21).

Table 5-21. Summary of artefact sample collected from AR145.

Material	NISP	MNI
Ceramic	2	2
Glass	4	4
Metal	2	2
Other	8	3
Faunal	0	0

The AR145 artefact sample included two ceramic vessels (a gilt Bone China saucer and a polychrome enamelled European porcelain flatware vessel (Figure 5-47)), four glass vessels (a dip-moulded ‘black beer,’ a flask made in a post-bottom mould and a ring seal and Bordeaux bottle, both turn-moulded), two metal artefacts (a horseshoe and part of a circular drum) and three leather shoes. The horseshoe was unusual in that it had a clip on the toe and on the left side (Figure 5-48, left), presumably to fit a horse with unusual conformation. Two of the leather shoes form a pair of boots with stacked heels and possible hand stitched uppers, while the third was a right shoe with homemade in-sole (Figure 5-48, right), and multiple sole repairs.



Figure 5-47. Enamelled European porcelain vessel from AR145.



Figure 5-48. Left: modified horseshoe with toe and side clip. Right: leather shoe with homemade replacement insole.

5.2.26 Context AR147

Context AR147 was a deposit of wet brown clay with lenses of artefacts throughout. These lenses were sampled but combined into one assemblage in the field (Table 5-22).

Table 5-22. Summary of artefact sample collected from AR147.

Material	NISP	MNI
Ceramic	21	10
Glass	40	18
Metal	5	3
Other	7	6
Faunal	3	2

Fragments from ten ceramic vessels were collected from AR147, including seven whiteware, two buff-bodied earthenware and one refined red earthenware vessel (Figure 5-49, left). The whiteware vessels were three saucers (one gilt Tea Leaf, one green UGTP Flora and one decorated with an unidentified blue sheet UGTP pattern), two cups (one red banded and the other red and blue engine-turned), one Asiatic Pheasants plate and a Rhine platter.

Two jam jars (one complete) were made from buff-bodied earthenware and a teapot with a silver lustre glaze from refined red earthenware. The UGTP saucer had “FLORA/ F JONES/ LONGTON” printed on the base, which was a mark used by F Jones, a Staffordshire potter, from 1865 to 1886 (Godden, 1991), while the gilt vessel was printed with “BRITISH/POTTERY/LTD/ENGLAND” which dates its manufacture to between 1920 and 1926 (Godden, 1991) (Figure 5-49, right).



**Figure 5-49.** Left: (clockwise from top left) Silver lustre teapot, red banded cup, Rhine platter, engine turned cup, Tea Leaf saucer, Asiatic Pheasants plate, blue sheet UGTP saucer and Flora saucer (centre). Right: F Jones (left) and British Pottery Company Ltd (right) maker's marks.

The glass assemblage recovered from this context included a range of nineteenth and twentieth century vessels of various function. A dip-moulded “black beer” and turn moulded ring seal may have held a variety of contents and date to the mid to late nineteenth century (Tasker, 1989). A Case Gin bottle made in a dip mould and a flask held nineteenth century alcoholic beverages while two brown crown top beer bottles date to the twentieth century. One of the beer bottles (Figure 5-50, left) had “BOTTLED BY/ R POWLEY & CO/MOA BRAND/TRADE MARK/REGISTERED/DUNEDIN NZ/THE CONTENTS ARE SUPPLIED ON/THIS CONDITION ONLY//THIS REGISTERED TRADEMARKED BOTTLE/IS/THE SOLE PROPERTY OF/R POWLEY & Co & IS NOT SOLD/THOUGH A DEPOSIT MAY HAVE BEEN TAKEN” embossed around the heel, meaning that this bottle was manufactured after 1914 when R Powley & Co began trading (Harvey, 2012). The non-alcoholic beverage bottles also represent nineteenth and twentieth century manufacture methods. A machine-made crown top soda (Figure 5-50, left) with “THOMSONS / TRADE MARK/PURITY/REGISTERED/PURITY//DALE BROWN & CO LTD/SWINTON” embossed on the body dates to the twentieth century while a Maugham patent bottle embossed with “...MOFFETT...” is more typical of a late nineteenth century bottle shape.

In contrast, the food and pharmaceutical bottles all date to the late nineteenth century. A Lea & Perrins Worcestershire Sauce bottle, two salad oils, a wide-mouthed pickle and a fluid magnesia bottle were all made in cup-bottom moulds which was one of the most common bottle manufacture techniques used in the final decades of the nineteenth century. The magnesia bottle was embossed with “SIR J. MURRAY'S/PATENT/FLUID MAGNESIA//LONDON & DUBLIN.” Sir J. Murray was the inventor of milk of magnesia in the early nineteenth century and hailed from Northern Ireland (Ulster History Circle, 2009). His fluid magnesia continued to be popular after his death in 1871 and so narrowing down the date range for this vessel is difficult. Blown blue vase base and the rim of a pressed glass bowl with amber staining around the rim (Figure 5-50, right) were also recovered.





Figure 5-50. Left: (from top) Moa brand beer bottle, Sir J Murray's Fluid Magnesia, Thomson & Co crown soda, and salad oil bottle. Right: Pressed glass bowl with amber staining round rim.

The other artefacts collected from this context related to the structures on site and their occupants. Two earthenware wall or fireplace tiles (one with a manganese glaze and the other a blue slip glaze), fragment of aqua blue, plate window glass with white paint on both sides and a sample of plaster would have originated from one of the buildings on this or a neighbouring site. A pair of woman's boots of pegged construction with visible heel repairs may have been worn by one of the occupants of these buildings. Three unidentified metal items were also recovered.

Three skeletal fragments representing two species were identified in this context; cow and sheep. Weathering was recorded on all of the bones and the cow skeletal material had evidence of butchery. This included one low value beef foot meat cut was identified. The cow skeletal material was all charred black from burning.

#### 5.2.27 Context AR153

Context AR153 was a narrow trench filled with mottled clay and quartz pebbles and sat directly underneath a layer of modern gravel (AR043). A single dip-moulded "black beer" base was collected from this context which was embossed with "NEW C[ASTLE]/ DOBESON & WARR[EN]..." This mark dates to the 1860s (Ross, 1982).

#### 5.2.28 Context AR157

Context AR157 was a layer of yellow mottled clay encountered beneath the surface gravel layer (AR043). One oyster shell was recovered from this context.

#### 5.2.29 Context AR170

Context AR170 was a deposit of brown silty loam which sat directly above an artefacts deposit (AR171). An iron crank handle (Figure 5-51) was recovered from this context and one sawn cow tibia. This represents a low value beef foot meat cut.



Figure 5-51. Crank handle recovered from AR170.

#### 5.2.30 Context AR171

Context AR171 was an artefact deposit consisting mainly of broken glass bottles and is equivalent to AS062. A sample of the deposit was collected for analysis (Table 5-23).

Table 5-23. Summary of artefact sample collected from AR171.

Material	NISP	MNI
Ceramic	33	18
Glass	150	98
Metal	1	1
Other	4	3
Faunal	4	1

This deposit contained a range of household ceramics (Figure 5-52), including vessels intended specifically for children. Whiteware was the most common ware type, represented by eight vessels. Four of these were plates, one a serving dish, two cups and one saucer. All but the saucer were decorated with UGTP designs, including Willow (the serving dish), Asiatic Pheasants (plate), Teddesley (plate), British Rivers (plate), Ivy (plate) and Prince of Wales (one of the cups). The other cup was decorated with an unidentified purple floral UGTP pattern and the saucer was decorated with a blue and green cut-sponge design. Three Bone China vessels were represented: a moulded child's toy saucer (Figure 5-53, right), an undecorated saucer and a pink and gold enamelled cruet. The other ware types were represented by single vessels: a creamware mixing bowl, moulded and UGTP pearlware child's plate (Figure 5-53, right), a European porcelain hollow vessel, a Bristol-glazed stoneware bottle and a salt-glazed stoneware ink bottle.

Three maker's marks were recorded among the AR171 ceramic vessels (Figure 5-53, left). The Teddesley plate had "DOULTON/TEDESLEY" printed and "DOULTON/BURSLEM" impressed on the base, marks which were used by Doulton from 1882 to 1891 (Godden, 1991). The British Rivers plate had "BRITISH RIVERS/C P Co" printed on the reverse, a mark belonging to the Clyde pottery Company, who operated from 1850 to 1903 (Birks, 2016). The British Rivers pattern was popular until at least the 1870s (Club, 2016). The final mark was found on

the Ivy pattern plate and read “...MS TUNSTALL/...VY,” however it was unable to be attributed to a manufacturer.

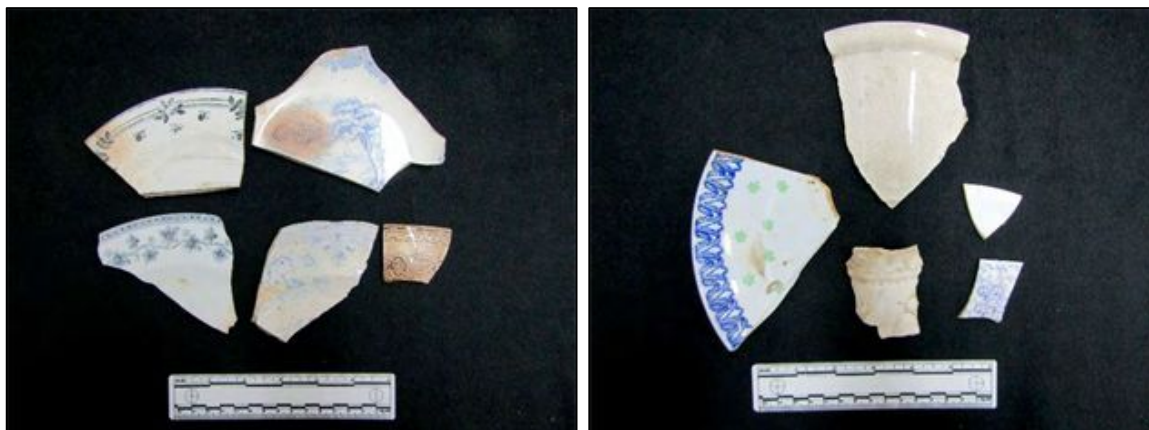


Figure 5-52. Left: (clockwise from top left) Teddesley plate, British Rivers plate, Prince of Wales cup, Asiatic Pheasants plate and Ivy plate. Right: (clockwise from top) whiteware mixing bowl, Bone China saucer, blue UGTP cup, porcelain hollow vessel and spongeware saucer.



Figure 5-53. Left: ceramic maker's marks from AR171. Right: child's UGTP and moulded plate and toy saucer.

Almost 70% of the glass assemblage recovered from this deposit (67 vessels) were dip-moulded “black beer” bottles, only two of which (a stout shaped and small generic “black beer” (Figure 5-54, left)) were intact. Five marks were found embossed on the bases of six of these bottles, however three (a sunburst, “C S & L” and another illegible mark) were unable to be assigned to a manufacture or date range. Two bases were marked with “RICHD COOPER & Co/PORTOBELLO” which was a mark used by Scottish glass manufacturer Richard Cooper & Co from 1868 to 1885 and another base with “G W & J” which has been tentatively dated to 1880 to 1910 but the manufacturer remains unknown (Lindsey, 2015). Twenty-one of the other glass vessels were of a similarly ubiquitous form: ring seal bottles.

Four glass vessels held alcoholic beverages: two dip-moulded Case Gins, a dark green, turn-moulded spirit and an aqua green shoo-fly flask made in a two-piece cup-bottom mould (Figure 5-54). Two non-alcoholic beverage bottles were recorded: one torpedo (Figure 5-54, right) and one patent soda bottle base with partial body embossing present (“...FACTUR.../...CARGIL.../NZ/...Co MAKERS...”). The manufacturer or brand of this product was unable to be identified, however it must have been one of the three Invercargill soda manufacturers discussed in previous contexts (Moffett, Mitchell or Thomson). Bottles which held food products included a salad oil and a vinegar bottle, both made in cup-bottom moulds. One oval cross-sectioned pharmaceutical bottle, also made in a cup-bottom mould, was embossed with “Y G/ CO” on the base and “J HATCH/ INVERCARGILL” on the body. This base mark belongs to the York Glass Company and was used between the 1870s and 1920, while J.

Hatch was the first chemist to set up shop in Invercargill in 1862. His business continued to be successful until his death in 1928 (*New Zealand Herald*, 1928). Part of what appeared to be a sarsaparilla bottle was also collected.



Figure 5-54. Left: small "black beer," stout and Case Gin bottle from AR171. Right: dark green spirit bottle, shoo-fly flask and torpedo bottle.

The other artefacts collected from AR171 were the head of an iron chisel, a fragment of writing slate with etched lines, a bone-handled carving knife (Figure 5-55) and a hob-nailed leather shoe of nailed construction.



Figure 5-55. Clockwise from top left: fragment of writing slate, chisel head and bone carving knife from AR171.

Four sheep skeletal elements were identified in this context. The skeletal elements are still fusing, weathered and have evidence of dog attrition. One high value lamb leg meat cut is present.

### 5.3 Interpretation

In the course of this development archaeological monitoring of earthworks was carried out across the entirety of site E46/61 – Section 4, following the demolition of the modern buildings. The following sections discuss the interpretations of the results obtained from this work

#### 5.3.1 *Stratigraphy and Archaeological features*

The stratigraphy of Section 4 has been heavily disturbed by the various phases of construction and demolition on the section. It is very similar to the neighbouring brewery section to the west. The natural topsoil was identified across the entirety of site and was considerably thicker at the northern end of the site, likely having been built up to manage the mud on the site. The natural substrate was only identified at the southern end of the site despite excavations to a depth of 1500mm in areas at the north. Like the brewery section, the northern end of this site has been built up to match the height of the southern end.

Again, similar to the neighbouring brewery site a layer of black grit was identified across a large portion of the northern half of the section. A smaller deposit of the same material was identified in the southern half of the section capping a deposit of brick rubble. The black grit, likely incinerator ash, or a by-product of the gas works, would have been the surface material of site at some point. The deposit was disturbed by the construction of the modern smaller building and was possibly disturbed by the construction of the warehouse though it was not clear if the deposit was present on the site before the construction of this building or if it was introduced after. It is also possible that the separate areas of the deposit represent different stages of deposition altogether.

The archaeological features identified on the site relate to both pre-1900, as well as the modern twentieth century activity at the site. Historical research was unable to determine the initial date of occupation at the site however, John T. Martin the owner of the Black Eagle Brewery next door leased the property from 1878 until 1912. The 1886 Burwell plans demonstrate that by this time multiple structures were present on the site at least some of which were likely associated with the brewery. Though one of the structures toward the rear of the section is labelled J. Knight dwelling. The remains of some of these buildings were identified in the archaeological record. These features included brick and wooden floors as well as posts, postholes, footings and a chimney. A number of brick rubble deposits were identified on the site which are thought to be associated with the demolition of some of these buildings. Though the Burwell plans have identified these as timber structures it is possible that some of them had brick elements such as fireplaces, as well as possible cobbled floors, which have been displaced by both the demolition and subsequent construction on the site.

#### 5.3.2 *Artefacts*

Artefacts were collected from 30 contexts on this site, including 12 fill or surface layers, eight discrete dumps and seven other contexts (Table 5-24). Like in the neighbouring site, most of the artefact dumps were dominated by broken glass bottles. This is unsurprising given the fact that this section was leased by John Tice Martin of the Black Eagle Brewery from 1878 until 1912 and so similar types of activity would have occurred here and at site E46/60. It is notable that there appears to be more dumps on Section 4 than the Brewery site, and they contained more ring seal bottles than “black beers,” suggesting a slightly later deposition date. This pattern fits with the expansion of Martin’s property in the late 1870s and the desire to dump waste further away from the brewery building. Again, almost all of the bottles were broken which may mean that these were dumps of bottles damaged during the bottling process. The dump with the latest TPQ was AR063 which must have been deposited after 1891; this still fits with the interpretation of it as a brewery waste dump as Martin occupied this section until 1912. The fact that all the dumps on this site and E46/60 were mainly glass and all appeared to date to the nineteenth century is evidence that the Brewery was the sole creator of these features while other site occupants disposed of their waste off-site.

Table 5-24. Summary of context types and terminus post quem (TPQ) for E46/61 artefact-bearing deposits.

Context	Type	TPQ (source)
AR005	Layer	?
AR006	Layer	1882 (Doulton & Co Ltd mark)
AR011	Modern Trench	?
AR017	Layer	~1900 (Decal decorated ceramic vessel)
AR022	Layer	~1870s (Post-bottom moulded bottle)
AR025	Layer	~1876 (Invercargill based soda manufacturer)
AR034	Timber Feature	?
AR048	Demolition Dump	?
AR054		
AR060	Layer	1896 (Moffett & Co bottle mark)
AR062	Brick Sump	?
AR063	Refuse Dump	1891 (Moffett & Co bottle mark)
AR065	Layer	~1870s (Cup-bottom moulded bottle)
AR067	Glass Dump	~1870s (Ring seal bottle)
AR077	Brick Feature	1891 (Inclusion of "ENGLAND" in ceramic backmark)
AR079	Historic Service Trench	?
AR083	Glass Dump	~1870s (Ring seal bottle)
AR084	Glass Dump	~1870s (Ring seal bottle)
AR085	Glass Dump	1872 (Nuttall & Co mark)
AR091	Glass Dump	1872 (Codd bottle)
AR107	Timber Floor	?
AR125/139	Layer	1911 (Backmark on ornament)
AR140		
AR143	Layer	1900 (Mitchell & Co bottle mark)
AR145	Layer	~1870s (Ring seal bottle)
AR147	Layer	1920 (British Pottery Company mark)
AR153	Trench	1860s (Dobeson & Warren mark)
AR157		
AR170	Layer	?
AR171	Refuse Dump	1882 (Doulton mark)

Three draught horseshoes were found and may have been worn by horses used by the Brewery. Each had a heavily worn toe, which is evidence of the animals straining while carrying heavy loads, perhaps cart loads of beer kegs. Horses were the main form of transportation for people and goods until well after the Brewery closed, so while it is likely, this link is a tentative one.

Household and structural artefacts were collected from across the site, however most were highly fragmented and recovered from fill layers so were potentially redeposited. Many of the layers had twentieth century TPQs which suggests that they are related to site transformations after the Black Eagle Brewery leased the property, or were disturbed during the demolition of the pre-1900 structures. Overall, the material found in these contexts was typical of late nineteenth and early twentieth urban sites and few artefacts could be directly associated with known occupants or uses of this site.

Of the total faunal assemblage analysed at Don Street (n=344), 12.5% of the faunal remains were located on this site, the smallest quantity of faunal remains. By context, the largest faunal concentration is in AR062, a discrete oyster shell dump. However, NISP values by context vary between 1 and 7 so the range is not large. By species, sheep and cow dominate the site, representing 70% of all faunal species identified. The presence of whale skeletal material is somewhat an anomaly. Based on the context it was found in, it is likely that it was used opportunistically to "fill up" the context. These are at the larger end of the whale size spectrum and known to be easily hunted by whalers.

As discussed above when interpreting E46/60, there is evidence of both butchery phases two and three by the presence of vertebra fragments longitudinally butchered and specialist/retail soup/shank meat cuts. Butchery was recorded on 20 skeletal remains across 10 contexts; AR025, AR054, AR060, AR065, AR091, AR140, AR143, AR147, AR170 and AR171. The majority are concentrated in AR140 and AR060 with a 50/50 split between sheep and cow bones. Both high and low value mutton and beef cuts were identified; mostly one

offs in a context. Drawing from the information provided from the skeletal portions of butchered mammals analysed, it appears that occupants were most likely acquiring from a source (experienced retail butcher).

Material from AR147 and AR171 had evidence of weathering while dog attrition was noted on only two skeletal elements from AR025 and AR171. Again, in the assemblage, no dog bone was identified yet there they were present through their attrition. It is difficult to ascertain whether opportunistic scavenging of easily available food scraps is the most plausible or feeding 'pet' dogs. Two cow skeletal elements from AR147 had evidence of surface charring.

## 6 Results – E46/62 – The Criterion Hotel and Yards

The 2016-2017 site works began with the demolition of the existing pre-1900 building followed by excavation across the site. However, not all archaeological material has been cleared from the site. The following sections provide an overview of the historical background of the site before discussing the results of the buildings archaeology, the archaeological monitoring, and the artefact analysis.

Site E46/62 comprises of Section 18 block LXXI town of Invercargill, Southland District which was first occupied in 1878 when James Galbraith opened the Criterion Hotel on the section. From the inception of the hotel a horse bazaar opened from its rear yard, often referred to as the Criterion Yards. Regular Auctions were held here including William Todd's horse sales every Saturday. The hotel underwent numerous alterations and additions throughout its lifetime. The hotel operated until 1948, after which a variety of businesses occupied the Criterion buildings. Significant alterations were made to the building to transform it from a hotel into a retail and office space at which time the art deco façade was installed. A large stable building at the rear of the site, which had replaced an earlier L shape building by 1913, was also demolished sometime in the twentieth century and the yard was converted into parking space and sealed with asphalt. The hotel building remained on the site until development works began in 2016.

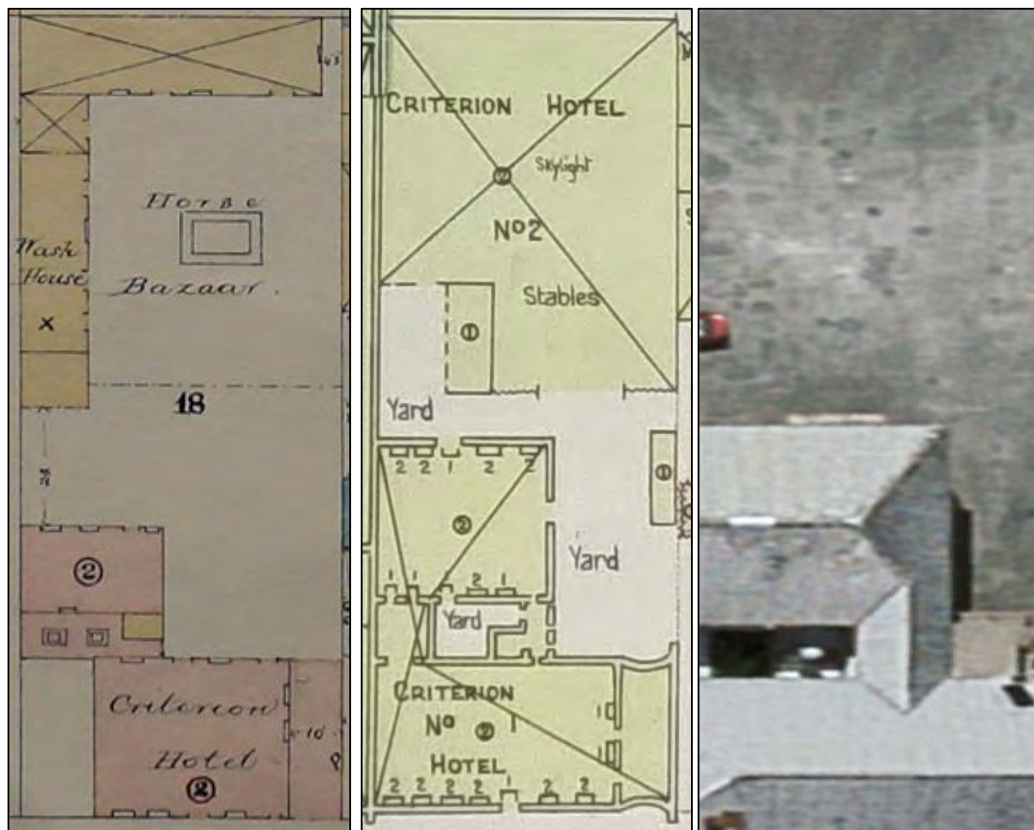


Figure 6-1. Buildings on Section 19 as of 1886<sup>25</sup>, 1913<sup>26</sup>, and 2016.

<sup>25</sup> Burwell, F. W. (1886). Plans of Invercargill Buildings, 1886. Invercargill: Invercargill City Library & Archives.

<sup>26</sup> Council of Fire Underwriters' Association of New Zealand. (1925). Block Plans, Invercargill and Bluff. Hocken Library, University of Otago; Reference No. AG-291-001-016-025/029.



## 6.1 Results of the Buildings Archaeology

The structure comprising the Criterion Hotel was investigated and recorded to a Level III standard, as stipulated in Condition 4 of Archaeological Authority No. 2016/1193. The buildings archaeology was undertaken on the 4<sup>th</sup> to the 6<sup>th</sup> of August 2016 by Eva Garbutt, Carl Murray, and Julia Lewis and on the 18<sup>th</sup> of August by Hayden Cawte and Amy McStay, with the aim of determining the construction of the building, how it was altered, and how it was utilised. By matter of process, the results of the buildings archaeology are presented as though the structure remains extant, despite the fact that at the time of writing, the structure had been demolished.

The Criterion Hotel is a two-storey structure situated at the southern end of Section 18, fronting onto Don Street. The current configuration of the Criterion is divided into the front and rear sections linked together through Rooms 6 and 23 on the ground floor and Room 10 on the first floor, creating a space referred to as the void (Figure 6-2). The front section of the building measures 20m wide and 10.8m in length. The rear section of the building abuts the southern property boundary is 12m wide and 10.6m in length. There is a covered access way through to the rear of the property on the east side of the building.

The Criterion has undergone multiple phases of construction, modifications, and renovations resulting in its current form. For the purpose of this report, this history of changes has been divided into the following phases:

- Phase 1. Phase 1 marks the initial construction of the Criterion Hotel in 1878. During this phase, the building consisted of the main front section and a small two storey rear section behind and offset slightly north-west of the main structure (Figure 6-3). There was a covered access way on the east side of the hotel, providing access to the Criterion Yards behind the hotel. There was a small open space between the front portion of the hotel and the west property boundary.
- Phase 2. Phase 2 marks the addition of the western extension sometime between 1886 and 1908. During this phase, the front section of the hotel was extended to the western boundary of the property.
- Phase 3. Phase 3 marks the extension of rear section of the hotel in 1908, as detailed in Figure 6-4. The existing outbuilding appears to have been extensively remodelled and the structure was extended to the north and east. The renovations were undertaken following the introduction of prohibition, with the hotel being converted to a private hotel and boarding house. The alterations saw the addition of numerous bedrooms in the rear section, and much of the ground floor of the original hotel also appears to have been divided into bedrooms (see Figure 6-5). A lavatory was also added to the ground floor, in the space between the front and rear portions of the building.
- Phase 4. Phase 4 marks the next phase of major alterations, which are detailed in the 1949 plans (Figure 6-5). These alterations are in the art deco style and included the remodelling of the front façade, extensive alterations to the layout of the ground floor, creating shops along the front of the building and converting the rear to a knitting factory and yarn store. The Phase 3 lavatory was extended to the east. There were only minor alterations to the first floor, including the conversion of part of three bedrooms into toilets and the addition of fire escapes. New linings were installed throughout the building.
- Phase 5. Phase 5 marks the next known phase of alterations which are detailed in the 1958 plans (Figure 6-6). These alterations were made to the layout of the office space now comprised of Rooms 11 to 14 and 17. These plans also show that between 1949 and 1958, the strong room was constructed on the first floor (supported by columns).

The layout of the Criterion has undergone further changes since the Phase 4 and Phase 5 alterations however no records of these were able to be identified, therefore a specific date and phasing cannot be applied.

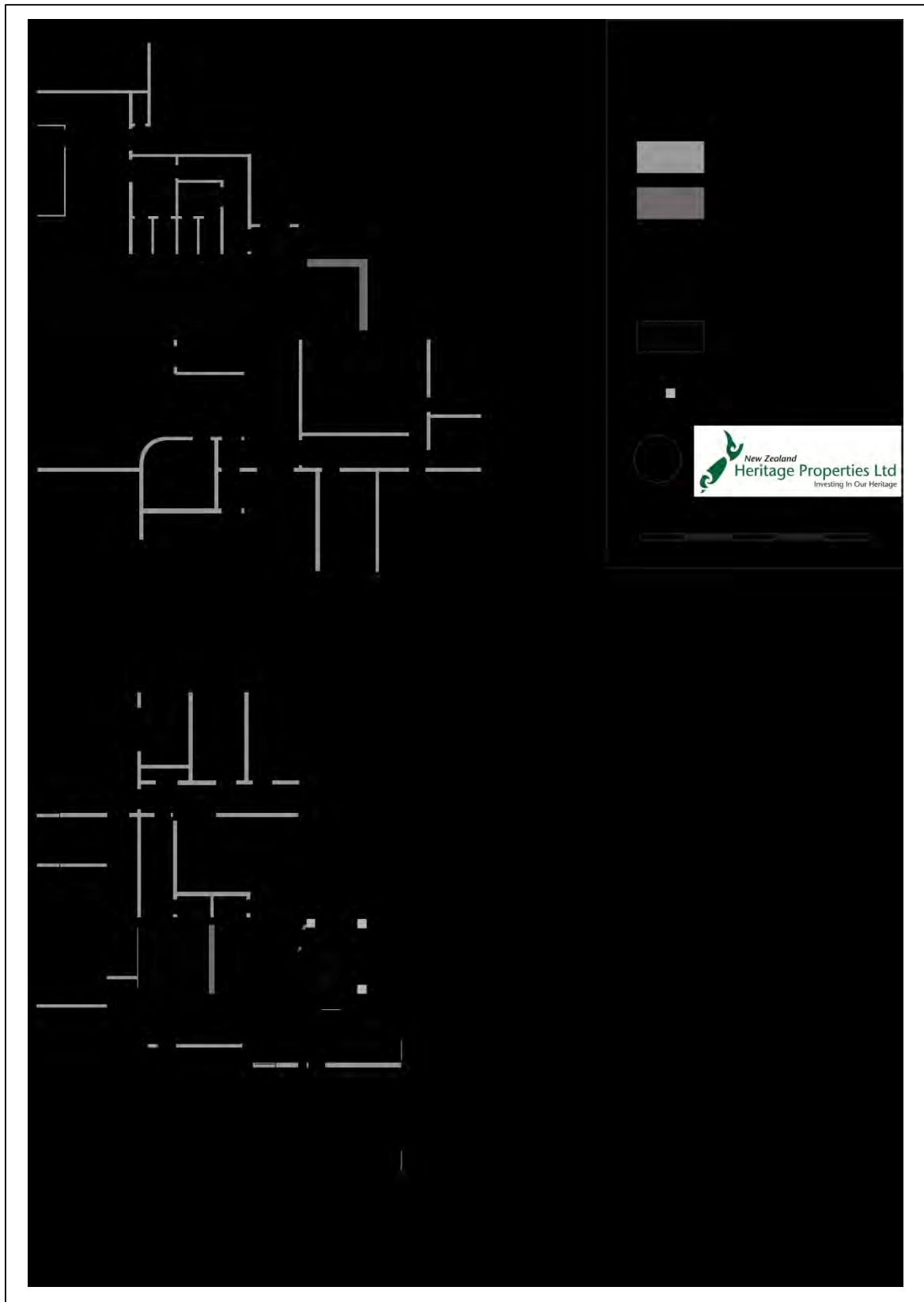


Figure 6-2. The Criterion Hotel – current plan.

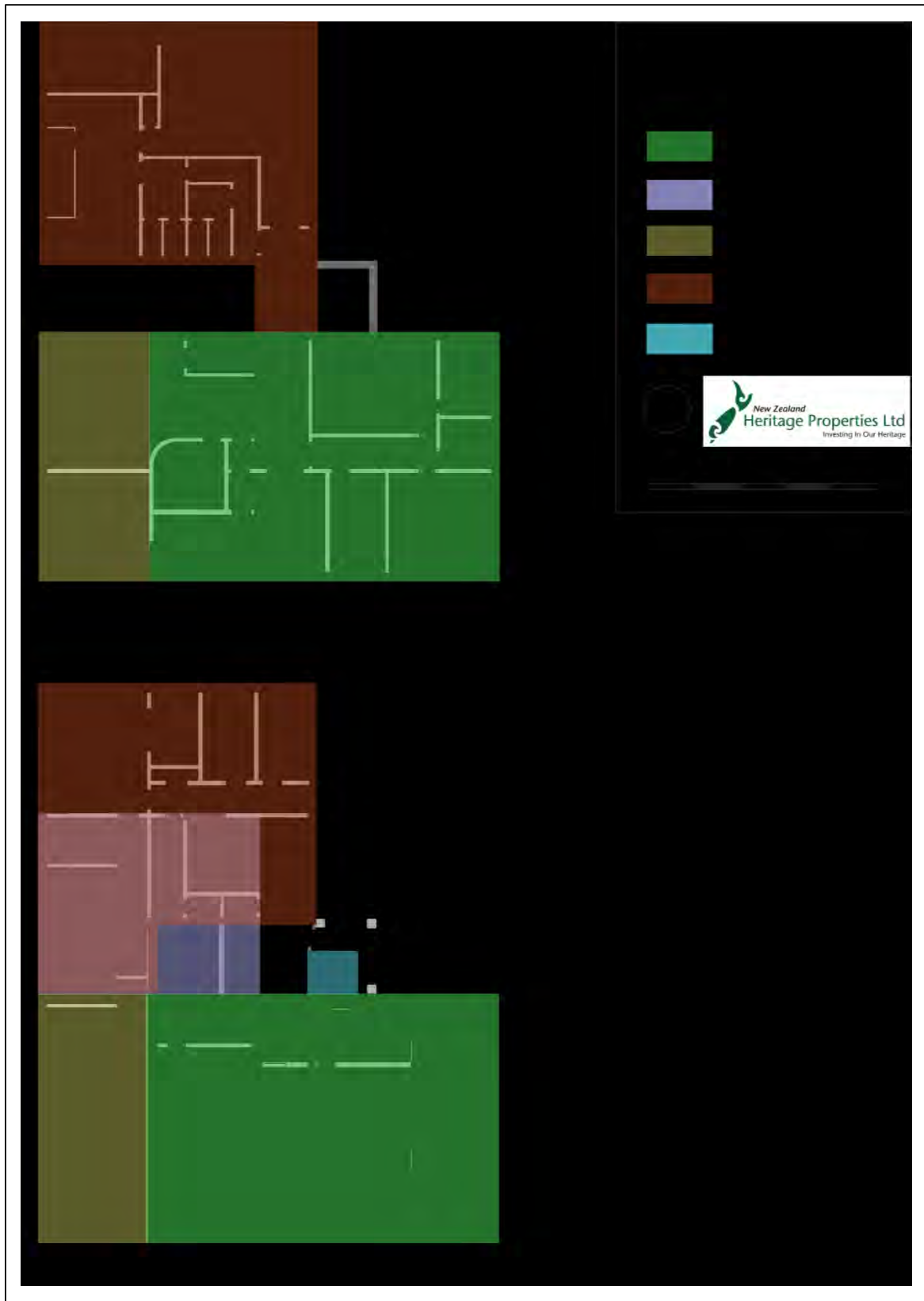


Figure 6-3. The Criterion Hotel – current plan showing location of different sections.

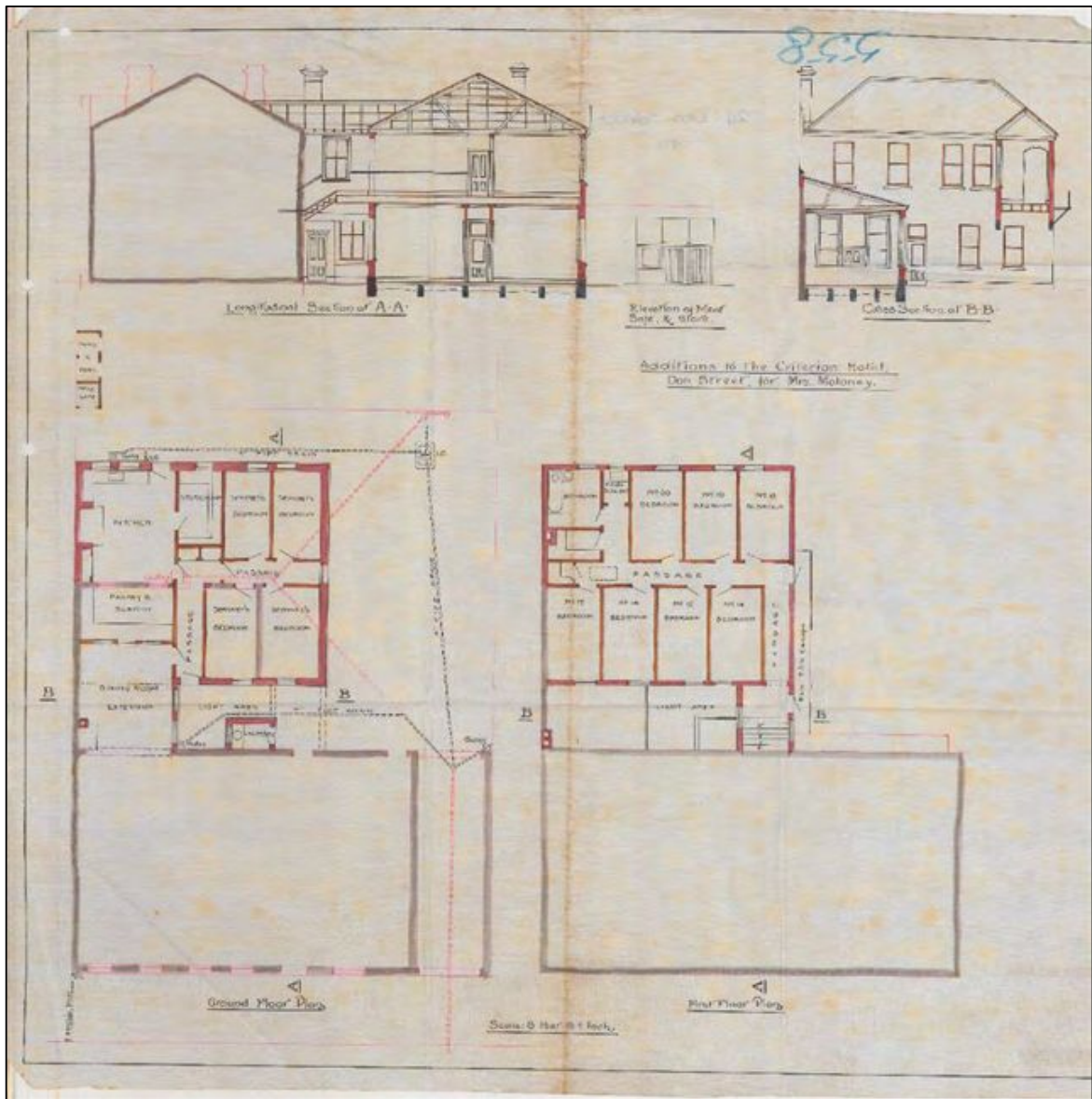


Figure 6-4. 1908 Phase 3 additions to the Criterion Hotel, Don Street, for Mrs Moloney (ICC Property File). The additions are shown in pink and brown, while the original walls are shown in grey

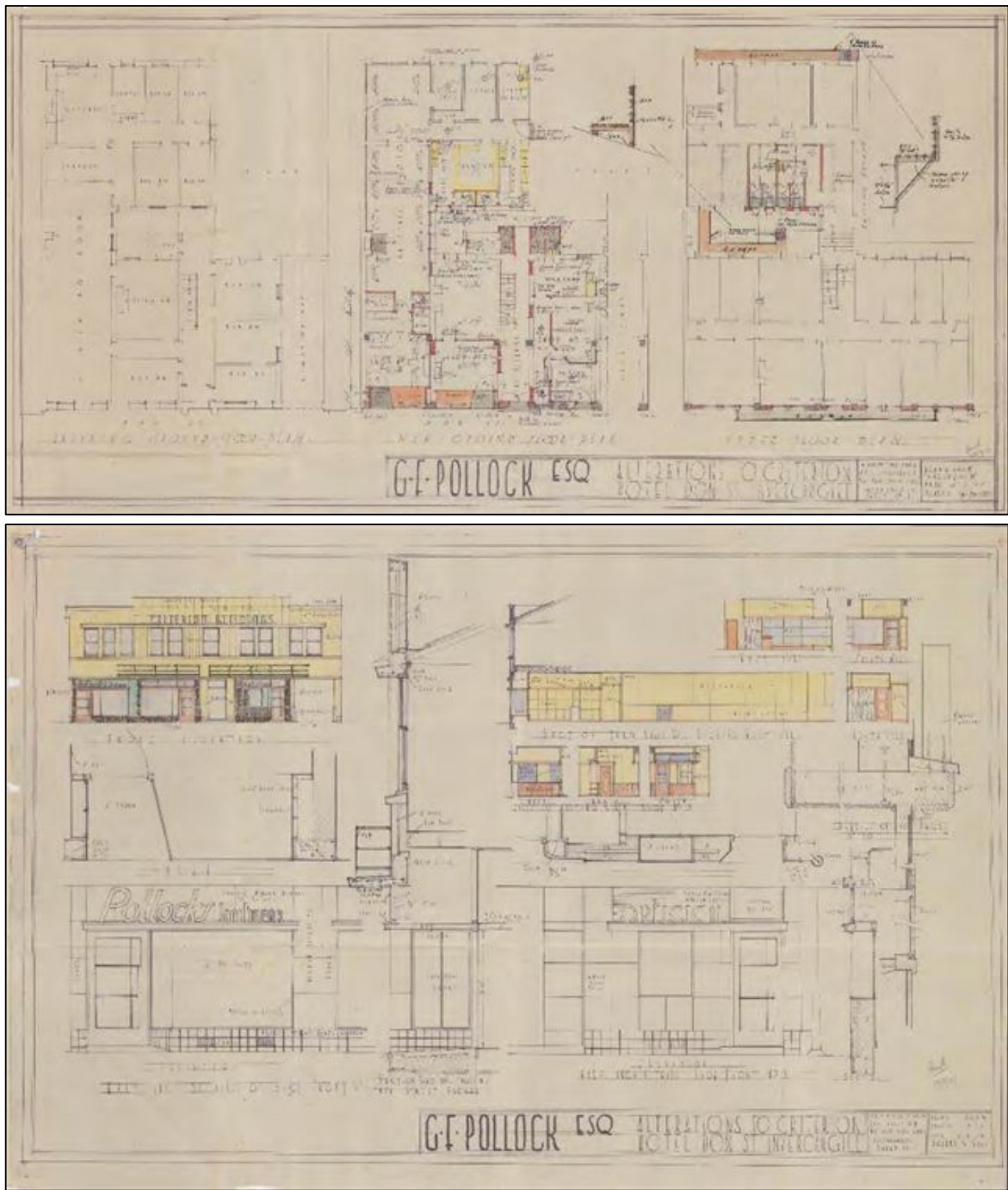


Figure 6-5. 1949 Phase 4 alterations to Criterion Hotel, Don Street, Invercargill for G. F. Pollock by A. G. A. Milne, architect (ICC Property File).

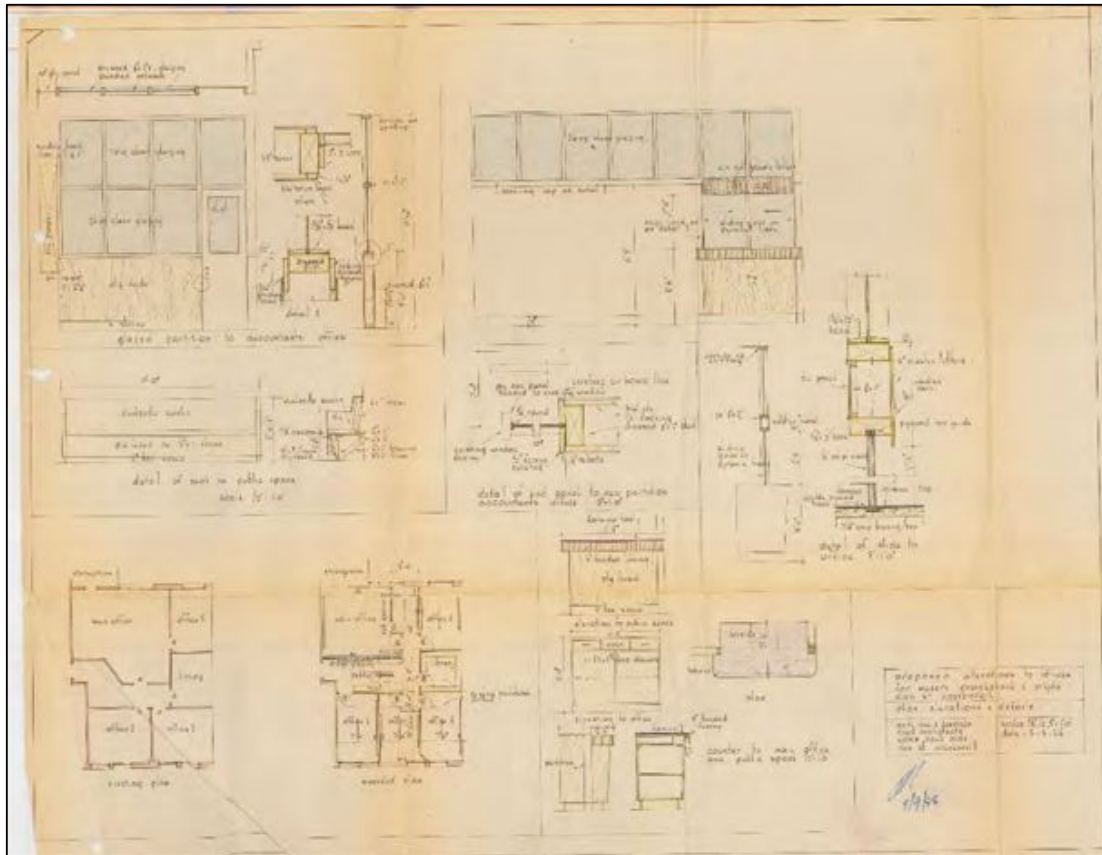


Figure 6-6. 1958 Phase 5 alterations to offices for Cruickshank & Pryde, Don Street, Invercargill by Smith Rice and Lawrence, architects (ICC Property File).

### 1.1.1 Exterior

The front (south) façade of the Criterion building has modern cladding from the Phase 4 alterations in the art deco style. The ground floor is comprised of glass shop fronts and a driveway on the east end (Figure 6-7). The first floor has ten sash windows facing onto Don Street, and the 1949 plans indicate that the installation of these required the reconstruction of some of the brick wall and the addition of concrete pillars for support. Most of the building's brick exterior walls are roughcast, the exception being the cement panel and reed detailing on the front façade above and between the first-floor windows.



Figure 6-7. Photo of the front façade of the Criterion Building (photo faces north).



Figure 6-8. Section of the 1949 plans for Alterations to the Criterion Hotel, Don Street, Invercargill for G. F. Polluck by A. G. A. Milne, architect showing detail of the front elevation (ICC Property File)

The north and east façades of the Criterion building are plain painted roughcast over brick (Figure 6-9 and Figure 6-10). The walls are a neutral light grey with contrasting red guttering and darker grey window sills. Both façades can be divided into the rear and east walls of the front section and the rear and east walls of the rear section.

The north façade of the front section of the hotel features the access way and entrance to Room 2 on the ground floor and two sets of casement and fanlight windows on the first floor. The walkway of the fire escape runs along below the first-floor windows and around the strongroom. One of the original chimneys extends above the strongroom and also has been roughcast. On the ground floor below the strongroom and to the west of the Room 2 door is a modern toilet block.

As the east wall of the front section is shared with neighbouring property, the east façade consists of the ground floor west wall of the access way. This wall features two sash windows covered with security bars.

The north façade of the rear section of the building features five sash windows and one door to Room 31 on the ground floor. The first floor features a further five sash windows. Below the two eastern most windows is a small fire escape platform. The east façade of the rear extension features one sash window and a door to Room 32 on the ground floor. The first floor features a single door from Room 25, which opens onto the fire escape that continues around from the rear façade of the front section and the strongroom to the south.



Figure 6-9. Left: Photo of the rear façade of front section. Right: Photo of the rear façade of rear section.



Figure 6-10. Left: Photo of the east façade of the front section. Right: Photo of the east façade of the rear section.

As the west wall of the Criterion is shared with the neighbouring building (the Rialto), the majority of the wall is not visible from the exterior. However, some of the wall is visible where it extends above the roofline of the Rialto. The west façade is plain brick with metal flashing along the top. The bricks are laid in an English garden wall bond with one row of header bricks between every three rows of stretcher bricks.





**Figure 6-11.** Photo of the west façade of the rear section, white painted bricks are part of the neighbouring building which has been mostly demolished.

The building has hip roofs, clad in corrugated asbestos, over the front and rear sections of the building, which are connected by a ridged roof over Room 10 (Figure 6-13). In the void between the front and rear sections of the building, there is a corrugated iron lean-to roof over Room 23. The strong room (Room 16), added between 1949 and 1958, has a flat roof. The historic photograph picturing the Criterion in Figure 6-12 shows that the original roof of the building was a hipped corrugated iron roof. The roof would have been extended to cover the Phase 2 west extension when it was built in 1894. The current rear section of the building was constructed in Phase 3, and the roof joining the two structures would have been tied into the original roof at this time.



**Figure 6-12.** Detail of the Criterion Hotel from a photograph looking north-east along Don Street<sup>27</sup>.

The Criterion has a combination of sash, casement, fanlight, and louvre windows, in addition to the modern glass shopfronts in the ground floor front façade. The first-floor front façade features ten sash windows. It is not clear if these are original to the building; however, the 1949 plans indicate that older windows were reused here. The

<sup>27</sup> Anonymous. (circa 1878-1880). Bk 71 Don Street [Photograph]. Invercargill: Collection of Southland Museum, & Art Gallery.

casement windows in Rooms 15 and 14 were added at some point between Phase 4 and Phase 5, likely when the strong room was built. The sash windows are largely the same throughout the building with some variation in size. The two sash windows looking onto the access way from Rooms 1 and 2 are potentially original to the structure though the glass has been replaced. They differ from most of the other sash windows as they have a centre bar dividing the sashes into two lights each except for the bottom sash in Room 1 which is missing this feature. The only other window with this detail is in Room 23 looking into Room 7 (the void). The louvre windows were installed in accordance with the 1949 plans and are in Rooms 28, 29, and 36.

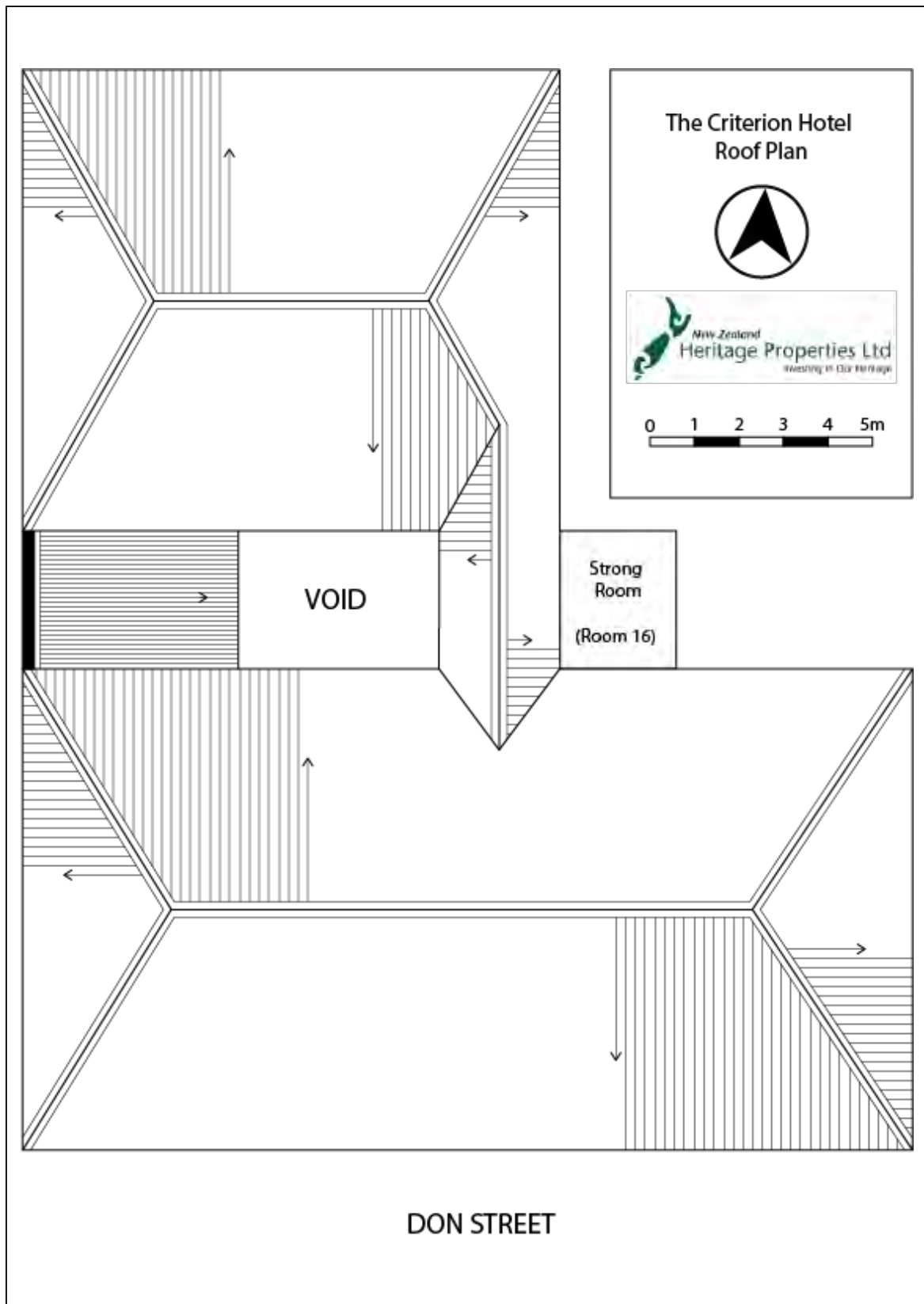


Figure 6-13. Roof plan for the Criterion Hotel, arrows indicate the downward slope of the roof sections.

### 1.1.2 Form and Structural Elements

All areas of the Criterion building have concrete footings, foundations, and piles with wooden bearers and joists. Under the Phase 1 footprint of the building, which includes rooms 1 through 5, and 9, the bearers run east to west, the joists run north to south. The exception to this is Room 4, which has a modern concrete floor that continues through to Room 6. Room 6 is an addition from the later twentieth century after Phase 5, and the concrete floor likely dates to its construction. The Phase 2 western extension (Room 23) and Phase 3 rear extension have the reverse; the bearers run north to south and, joists run east to west. Further to this, the joists of the Phase 2 extension are notched where they rest on the bearers, a feature not present in the Phase 1 or Phase 3 areas (Figure 6-14). The joists were likely notched to achieve the correct floor height in the extension. The measurements for the bearers and joists are the same for all areas of the building, with the exception of the Phase 2 bearers (see Table 6-1).

**Table 6-1. Average measurements of structural elements by location.**

	Phase 1	Phase 2	Phase 3
<b>Floors</b>			
Bearers	100mm by 70mm	100mm by 80mm	100mm by 70mm
Joists	50mm by 150mm	50mm by 150mm	50mm by 150mm
<b>Walls</b>			
Studs	50mm by 100mm	75mm by 100mm	45mm by 95mm
<b>Ceilings (ground floor ceiling joists are first floor, floor joists)</b>			
Ceiling Joists	50mm by 270mm	50mm by 270mm	40mm by 290mm
Ceiling Joists (first floor)	50mm by 100mm	50mm by 165mm	NR
<b>Roof</b>			
Vertical bracing	200mm by 20mm	200mm by 20mm	200mm by 20mm
Struts	200mm by 20mm	200mm by 20mm	200mm by 20mm
Collar ties	200mm by 20mm	200mm by 20mm	200mm by 20mm
Rafters	50mm by 145mm	50mm by 145mm	50mm by 145mm
Sarking	175mm (visible) by 18mm	175mm (visible) by 18mm	190mm by 18mm

The walls of the Criterion building include brick, timber partition, and concrete block walls, and Figure 6-2 illustrates the layout of these walls over both the ground and first floors. The exterior brick walls are laid in the English garden wall bond. As the plan of the first floor has been heavily modified, there are no surviving pre-1900 partition walls. However, one original Phase 1 partition wall was identified in Room 10, and a Phase 2 timber wall was identified between Rooms 22 and 24. The measurements of the studs from the various areas of the building are included in Table 6-1.

The ceilings of the ground floor are consistently 3.6m high, though most rooms have modern linings or dropped ceilings at varying heights. The ground floor ceiling joists in the Phase 1 and Phase 2 sections run east to west, while in the Phase 3 extension they run north to south. The measurements of the ceiling joists from the various areas of the building are included in Table 6-1. The ceiling joists also serve as the floor joists for the first floor.

The ceilings are 3m high throughout the first floor. All the rooms have modern ceiling linings covering earlier layers, and Room 10 has a modern dropped ceiling that is 2.6m high. The ceiling joists of the first floor run north to south in the Phase 1 and Phase 3 sections. In the Phase 2 extension, they run east to west. In the Phase 1 section where the ends of two joists meet below the ridge of the roof they are joined with a lap joint.

The roof space measures 2.75m high at the ridge of the front and rear sections, while the ridge running between the two is slightly lower. The roof structure has vertical bracing from every joist, struts that extend diagonally north and south from the joists out to the rafters, and collar ties between the rafters. The rafters are spaced approximately 400mm apart extending up from the ends of the joists. In the original Phase 1 eastern end of the roof, the collar ties extend into the hip running between the rafters though the vertical bracing stops at the end of the ridge. The collar ties do not extend into the western hip over the Phase 2 extension.

Sarking was laid over the rafters (Figure 6-15), and two different configurations were identified. In the front section of the roof (over the Phase 1 and 2 areas of the building), the sarking boards are laid so that they overlap like weatherboards. There is no visible transition where the sarking boards cross from the Phase 1 section of the roof into the Phase 2 western extension, suggesting that the roof was re-lined when the Phase 2 extension was built. In the rear section of the roof, the sarking boards do not overlap and instead they are laid flush side by side.



Figure 6-14. Top: Photo of subfloor in original building (Room 3) (photo faces north). Bottom Left: Photo of subfloor in 1894 extension showing notched joists circled in red (photo faces west). Bottom Right: Photo of subfloor in 1908 extension (Room 8) (photo faces west).



Figure 6-15. Roof space above original building showing sarking board cladding and roof structure (photo faces up and west from roof access in Room 15).

### 1.1.3 Interior Linings

The Criterion Hotel has been relined with a combination of modern soft, hard, and plaster board. In some areas of the building older layers of linings dating to Phases 1, 2, and 3 were identified. These are summarised below and in Table 6-2 and detailed further under the discussions of the individual rooms.

Five different floorboards widths were observed throughout the building. The Phase 1 area of the hotel has 150mm wide tongue-and-groove floorboards. This area also has 80mm wide, 85mm wide, and 90mm wide tongue-and-groove floorboards in various areas. The 150mm wide floorboards are in Room 5, Room 2, the north 1.44m of Room 1, and the north 2.22m of Room 9. The 85mm wide floorboards were laid in the remainder of Rooms 1 and 9, and Room 3. The 80mm and 90mm wide tongue-and-groove was identified as repairs at the southern end of Room 18. The Phase 2 and Phase 3 areas of the building have 100mm wide tongue-and-groove floorboards.

On the ground floor, the floorboards run east to west in the Phase 1 area of the building and run north to south in the Phase 2 and Phase 3 extensions. On the first floor the floorboards run north to south in the Phase 1 and Phase 2 areas of the building and run east to west in the Phase 3 extension.

The interior brick walls of the Phase 1 Criterion Hotel were plastered, while the timber walls were lined with lath and plaster. The plaster consisted of a scratch coat covered with a fine coat and was then wallpapered. The hallways (Rooms 9 and 10) had painted tongue-and-groove wainscoting with plaster above. The Phase 2 area of the building featured wallpapered scrim and sarking and vertical tongue-and-groove panelling in service areas. The Phase 3 area of the building also has wallpapered scrim and sarking.

The Phase 1 area of the building has painted tongue-and-groove ceiling boards that are 75mm wide and run north to south. The Phase 2 extension had wallpapered scrim and sarking on the first-floor ceiling; however, it is unclear

if it was the same on the ground floor. Due to time constraints, not all ceilings were sampled in the Phase 3 extension though 85mm wide tongue-and-groove running east to west was identified in Room 8 and upstairs in Room 25.

**Table 6-2. Summary and measurements of interior linings from Phases 1, 2 and 3.**

	Phase 1	Phase 2	Phase 3
<b>Floors</b>			
Lining	Tongue-and-groove	Tongue-and-groove	Tongue-and-groove
Measurement	150mm wide (replaced in some areas)	100mm wide	100mm wide
<b>Walls</b>			
Lining	Lath and plaster	Scrim and sarking, and tongue-and-groove	Scrim and sarking
Measurement	Laths: 23mm wide	Sarking: 150mm wide Tongue-and-groove: 80mm wide	Sarking: 150mm wide
<b>Ceilings</b>			
Lining	Tongue-and-groove	Scrim and Sarking	Tongue-and-groove
Measurement	75mm wide	Sarking: 160mm wide	85mm wide

#### 1.1.4 Individual Room Descriptions

In its current state, the Criterion Hotel building has 37 rooms or spaces over two storeys, and a plan of each floor is provided in Figure 6-2. The rooms and spaces have been arbitrarily numbered for ease of reference. To understand how the Criterion has been modified and utilised over time, 17 of the rooms were sampled. The sample areas were guided by the existing plans of the building, which were identified during the historic research of the structure and show some of the alterations that have been made since 1908. Many of the room were not sampled as the plans provided evidence of their post-1900 construction date as well as modern modifications. For each of the 17 rooms that were sampled, the fabric of the room is described from the floor to ceiling. The layers encountered for each sample area are detailed in Table D-1. The dimensions for each room are reported with the north to south measurement (i.e., length) by the east to west measurement (i.e., width).

##### 1.1.4.1 Room 1

Room 1 is in the south-east corner of the ground floor, and this room recently served as a shop. The room measures 7.5m long, 4.14m wide, and has a ceiling height of 2.8m. The south wall is the glass shopfront onto Don Street, and it is entirely modern dating to the late twentieth century. The east wall is an external brick wall that backs onto the access way, and the west wall is a load-bearing brick wall. The rear wall is a modern timber partition wall. There are two access points into the room: the main entryway from Don Street and a doorway on the rear (north) wall that leads to Room 2. The room has modern flooring, wall linings, and a dropped ceiling; no period features are visible. Four sample areas were opened in Room 1, and the layers identified are recorded in Table D-1.

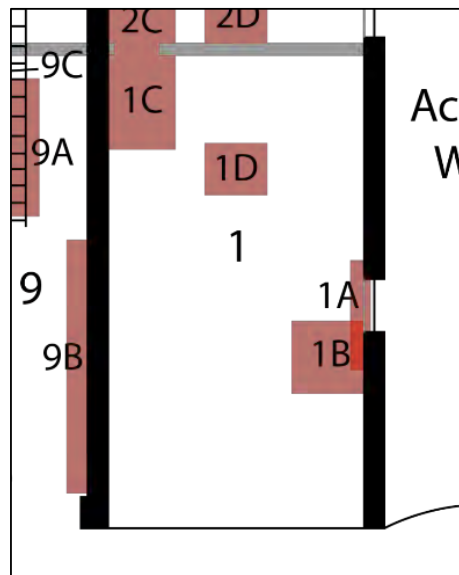


Figure 6-16. Plan of Room 1 showing sample areas.

Tongue-and-groove floorboards were identified beneath the modern carpet and underlay. Two different widths of floorboards were identified (85mm and 150mm wide; Figure 6-17, left) and both were laid running east to west. The narrow floorboards were used throughout most of the room. The wide floorboards were laid at the northern end of the room (1440mm from the north wall), and they continue into Room 2 (to the north). In Sample Area 1B, a shadow of a former wall was noted on the floor in line with the window. The position of this shadow corresponds with the location of a partition wall dividing the consulting and waiting rooms in the 1949 alteration plans (see Figure 1-18).



Figure 6-17. Left: photograph of Sample Area 1C showing the transition from narrow to wide floorboards (photo facing west). Right: photograph of the sash window and brickwork exposed in Sample Area 1A (photo facing east).

The east and west walls are brick, with the east wall being sampled in this room and the west wall being sampled in Rooms 2 and 9. Sample Area 1A targeted a window that had been covered over on the interior, but visible in the access way (Figure 6-17, left). After removing the modern linings, a double-hung sash window was revealed. The window was 920mm above the floor, and the top of the window remained obscured by the dropped ceiling. The window has ribbed glass in it, which was likely installed for privacy in the late 1940s when this room was converted to a consulting room. The sample area demonstrated that the original wall linings had been removed



down to the brick during later alterations. The brick wall was laid in an English garden wall bond, with three courses of stretchers between every course of headers.

Room 1 has a modern dropped ceiling with ceiling tiles. A plasterboard ceiling was identified 800mm above the dropped ceiling. The plasterboard was stopped, but never painted. A tongue-and-groove ceiling with the boards (75mm wide) running north to south was identified above the plasterboard ceiling.

#### 1.1.4.2 Room 2

Room 2 is situated to the north of Room 1 and is in the north-east corner of the ground floor. The room last functioned as a storeroom for the shop at the front. The room measures 2m long and 4.2m wide, and has a ceiling height of 3.6m. The east, west, and north walls are brick, while the south wall is a modern timber partition wall. There are three access points into the room: a doorway on the south wall through to Room 1, a doorway on the west wall through to Room 5, and an external doorway on the north wall. The room has modern linings and no period features are visible. Four sample areas were opened in Room 2, and the layers identified are recorded in Table D-1.

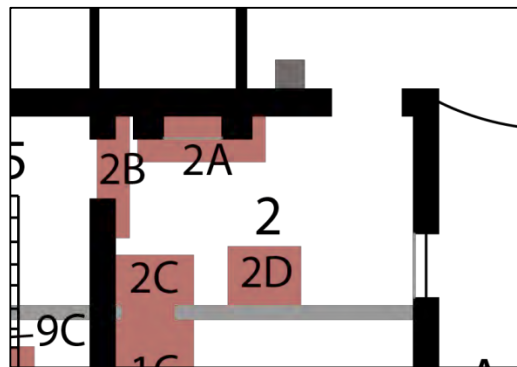


Figure 6-18. Plan of Room 2 showing sample areas.

Modern carpet with underlay covers the floor of Room 2. Tongue-and-groove floorboards (150mm wide), laid east to west, were identified beneath the modern linings. These floorboards are a continuation of the wide tongue-and-groove in Room 1.

Sample areas were opened on walls to investigate the possible presence of a fireplace on the north wall and the location of a former doorway on the west wall. Several layers of modern linings (corflute, hardboard, and softboard) were installed over a brick fireplace. Two layers of wallpaper over blue-painted lime plaster were identified on the chimney breast. The first (newer) wallpaper (Figure 6-20 Left) was a multi-coloured floral printed (ground) design on paper. The second (older) wallpaper (Figure 6-20 Right) featured a geometric floral design with a fine grid pattern over the top, printed on paper. The fireplace surround and mantle had been previously removed, leaving the brickwork exposed. The fireplace was constructed with an arched opening to the firebox. There was little soot on the lower portion of the firebox, thus, it is likely that there had been a cast iron fireplace insert.

The west wall was sampled in order to identify a former doorway that was visible on the 1949 alteration plans (see Figure 1-18). This doorway had been previously bricked up, but was re-opened and was made taller and wider (to the north). The original wall linings had been removed down to the brick during later alterations. Small patches of lime plaster remained on some of the bricks; thus, it was likely that the west wall was finished the same as the chimney breast.

Two layers of modern linings (plasterboard and softboard) were identified on the ceiling atop of tongue-and-groove boards (75mm wide) laid north to south. The tongue-and-groove was attached to the ceiling joists using rose-head nails. The tongue-and-groove floor of Room 15 was also visible in this sample area.



Figure 6-19. Brick fireplace exposed beneath several layers of modern linings in Room 2 of the Criterion Hotel.



Figure 6-20. Left: wallpaper 1 from Room 2. Right: Wallpaper 2 from Room 2.

#### 1.1.4.3 Room 3

Room 3 is at the front of the building along Don Street, and it has the hallway (Room 9) to the east and another shop to the west (Room 23). The room measures 8.4m long, 4.14m wide, and has a ceiling height of 3.6m. The east and west walls are brick, with the west wall being the external wall of the original building. The south wall is the glass shopfront, and there is a modern timber-partition wall along the north end of the room. There are two access points into the room, including the exterior door along the south wall, and a doorway through to Room 4 on the north wall. The room has modern linings and no period features are visible. Three sample areas were opened in Room 3, and the layers identified are recorded in Table D-1.

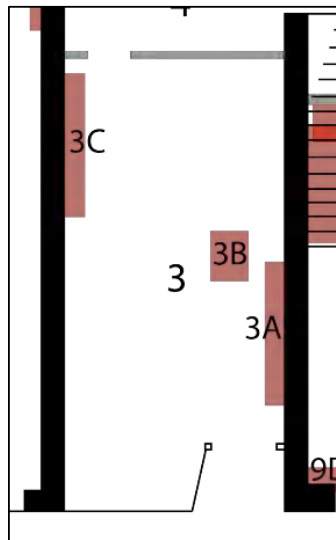


Figure 6-21. Plan of Room 3 showing sample areas.

A sample area was opened in the floor of Room 3, and it revealed that there were several layers of modern linings over tongue-and-groove floorboards. The floorboards run east to west and are 85mm wide.

Sample areas were opened on the east and west walls of Room 3. Both walls had modern hardboard and softboard linings that were fixed to modern timber framing erected in front of the brick walls. The new framing was likely done to provide straighter walls to facilitate the new linings, wiring, and plumbing. The sample area on the east wall was opened up to investigate the presence of two bricked up doors. The area has clearly been bricked up, with concrete mortar having been used in this area and lime mortar is used elsewhere. A sample area was opened on the west wall in order to locate a former fireplace. The partially demolished fireplace and chimney were identified beneath the modern linings and framing. When the fireplace was demolished, it exposed the cavity between the interior brick wall and the exterior brick wall and shows the metal ties between the internal and external walls.



Figure 6-22. Left: photograph of the partially demolished fireplace and chimney on the west wall of Room 3. Right: photograph of the cavity wall between Rooms 3 and 23 (photo facing south).

#### 1.1.4.4 Room 6

Room 6 is situated on the ground floor to the north of Rooms 4 and 5. The room measures 3.4m in length, 3.98m wide and has a ceiling height of 2.3m. The room was likely added in the second half of the twentieth century, as it is not included in the 1949 plans. The south wall is the original brick rear wall of the criterion building, the north wall is the south wall of the rear extension added by Mrs Moloney in 1908 and the east, and west walls are modern concrete brick walls dating to the construction of the room. There are three access points into the room, one in the south wall leading to Room 4, one in the north wall leading to Room 8, and one in the east wall leading outside to the rear of the building. The room has a modern concrete floor, and modern wall and ceiling linings. A small area of the southern brick wall was visible in the back of a cupboard showing an arch of bricks above a boarded-up opening that (Figure 6-23). The doorway would have opened into what is now Room 5. The frame of the doorway and part of the east wall are roughcast indicating that at least part of the east wall is from an earlier structure, most likely the toilet block on the 1949 plans. The brick arch appears to be two rows of header bricks.



Figure 6-23. Photo of brickwork and roughcast walls identified in Room 6, scale is in 20cm increments (photo facing south).

#### 1.1.4.5 Room 8

Room 8 is located on the ground floor to the north of Room 6, in the south-east corner of the 1908 rear extension. The room is 4.3m in length, 5.418m wide and has a ceiling height of 3.6m. The room includes part of the 1908 additions as well as part of the pre-1886 rear outbuilding. The south and east walls are the south and east brick exterior walls of the 1908 rear extension, the western half of the north wall is part of the north wall of the pre-1886 outbuilding while the eastern half and the west wall are modern timber partition walls dating to the 1908 extension. There is one access point in the room leading to room 6 in the south wall. There is a sealed doorway in the north wall that would lead to Room 32. There is one sash window in the east wall the date of which is unclear as it is not included on any plans. The room has modern linings and no period features are visible. Three sample areas were opened in Room 8 one of which was accessed through the room above due to the height of the ceiling. The layers identified are recorded in Table D-1.

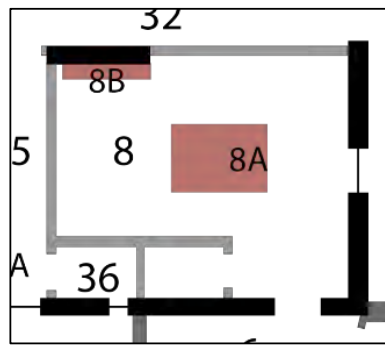


Figure 6-24. Plan of Room 8 showing sample areas.

Sample Area 8A was opened in the floor to investigate the previous configuration of the rear extension, which had a smaller footprint than the current one built in 1908. Tongue-and-groove floorboards measuring 100mm wide and running north to south were identified under multiple layers of modern linoleum. Beneath the floor, a course of header bricks resting on concrete foundations running north to south was identified (Figure 6-25 left). This feature is likely part of the exterior east wall of the previous pre-1886 outbuilding, which the 1908 plans show would have run through this area of the room.

Sample area 8B was opened in the north wall to further investigate what remained of the pre-1900 rear extension. Below several layers of modern linings, the north brick exterior wall of this structure was identified (Figure 6-25 right). Scrim and sarking covered in green painted wallpaper was identified lining it which had later been covered by wall papered MDF and later again by painted plasterboard. It was not clear if there had been other wall linings, such as plaster as seen in the earliest areas of the hotel, prior to the sarking that have been removed.

The ceiling of the room was sampled from above from Room 25. The sample area identified that the modern plasterboard lining was covering tongue-and-groove ceilings (85mm wide).



Figure 6-25. Left: photo of sample area 8A showing row of bricks below tongue-and-groove floorboards (north is to the top of the photograph). Right: photo of sample area 8B in north wall showing brick wall below various layers of linings.

#### 1.1.4.6 Room 9

Room 9 is situated on the ground floor between the shops in Rooms 1 and 3. It is the original entry and hallway of the Criterion Hotel and would have originally included Room 5. The room now serves as the main entrance

from Don Street to the first floor via the stairs in the north-west of the room, which lead up to Room 10. The room measures 6.8m in length, 2m wide, and has a ceiling height of 3m. The south, east and, west walls are brick, while the north wall is a modern timber partition. There are two access point in the room; the front door located in the south wall leading onto Don Street and the staircase leading to the first floor. The room has modern flooring, wall linings, and dropped ceiling; no period features are visible. Five sample areas were opened in Room 9, and all the layers identified are recorded in Table D-1.

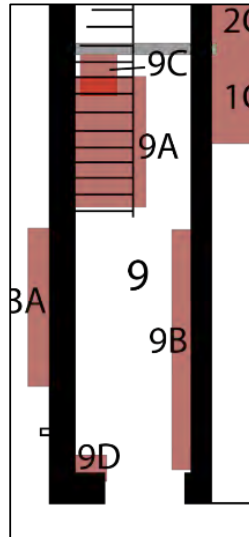


Figure 6-26. Plan of Room 9 showing sample areas.

Tongue-and-groove floorboards were identified beneath the modern linoleum in Room 9. The floorboards are oriented east to west and are in two sizes; 150mm and 85mm wide. The wider floorboards are in the north 2217mm of the room and the narrower ones are to the south of those (Figure 6-27).

The east and south brick walls were sampled in this room (sample areas 9B and 9D). The west wall was sampled in Room 3, and the northern end of the east wall was sampled in Room 2. Sample area 9D was opened in the south wall to investigate the structure of the front façade of the building. A brick wall was identified behind the modern softboard wall lining demonstrating that the original wall linings had been removed down to the brick during later alterations (Figure 6-28). The brick was laid in the English garden wall bond.

Sample area 9B was opened in the east wall of Room 9 to investigate the original layout of the hallway which would have provided access to the rooms to the east and west. The sample area showed that the hallway originally had tongue-and-groove wainscoting (Figure 6-29 left), and that the upper portion of the wall was lime plastered (Figure 6-30 left). At the southern end of the east wall a former doorway was identified, which had been bricked up as per the 1949 plans (Figure 6-29 right). After the doorway was blocked, sarking was installed over the lower portion of the wall and the upper portion was rendered to match the surface to the level of the wainscoting and plaster. The rough finish of the concrete and sarking show that this surface would have then been covered by new linings. The sample area demonstrates that some of the decorative elements of the room, like the dado rail and possible wallpapers, had been removed prior to the installation of the modern linings.

The tongue-and-groove ceiling of Room 9 was identified 600mm above the modern dropped ceiling. The tongue-and-groove boards are 75mm wide and run north to south, they are painted white along with the period style cornice (Figure 6-30 right). A profile of the cornice is provided in Figure 6-31.



Figure 6-27. Photo of sample area 9A showing tongue-and-groove floorboards, red dashed line marks end of wider floorboards (photo facing south) (scale in 20cm increments).



Figure 6-28. Photo of sample area 9D showing brick wall behind modern linings (Photo faces south).



Figure 6-29. Photos of sample area 9B. Left: photo showing tongue-and-groove wainscoting and the sarking boards installed after the door was blocked. Right: photo showing edge of bricked up doorway outlined in red identified behind sarking boards (photos face east).



Figure 6-30. Left: Photo of sample area 9B showing plaster coat and fine concrete coat transition outlined in red (photo faces east). Right: Photo of space above dropped ceiling showing period style cornice in place and tongue-and-groove ceiling (photo faces south east).

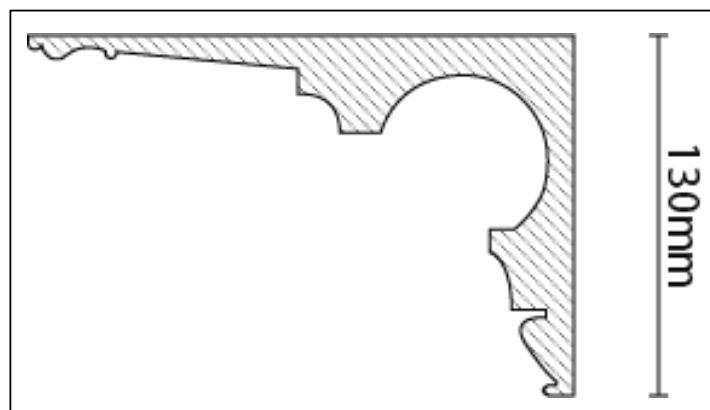


Figure 6-31. Profile of period style cornice from Room 9.



#### 1.1.4.7 Room 10

Room 10 is the first-floor landing above Room 9 it is situated in the centre of the first floor extending north into the rear extension and south into the front of the building. The room measures 10.4m in length, 2m wide, and has a ceiling height of 2.6m. There is a lot of variation in the wall structures of Room 10, as it crosses from the original Criterion into the 1908 rear extension and has since been modified further. The southern half of the east wall, above the original building is the original timber partition sitting on top of the eastern brick wall of Room 9. The northern half of the east wall is brick. The west wall is a combination of original brick, brick from the 1908 extension, and modern timber partitions. The south and north walls are both modern timber partitions. The room has modern flooring, wall linings, and dropped ceiling; no period features are visible. Two sample areas were opened in Room 10, and all the layers identified are recorded in Table D-1.

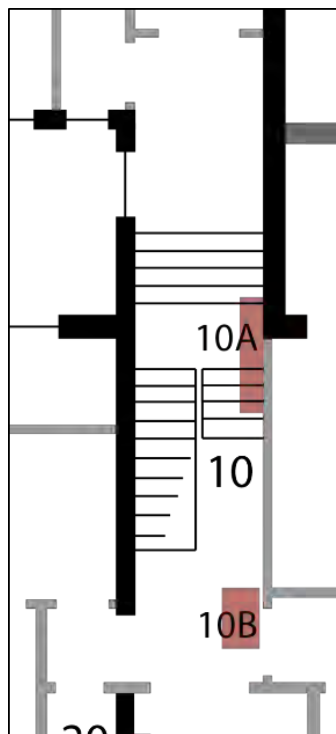


Figure 6-32. Plan of Room 10 showing sample areas

Sample area 10A was opened in the east wall of Room 10 targeting the area between the original building and the 1908 rear first floor extension (Figure 6-33). After removing the modern linings (timber dado rail with softboard above and hardboard below), vertical tongue-and-groove wainscoting was revealed that carried through into the extension. The dado rail and skirting boards had been removed. The paint on the tongue-and-groove boards indicate that the skirting was approximately 200mm high. Above the dado within the original building, a lath and plaster wall was identified, while scrim and sarking lined the extension. Small fragments of wallpaper were identified on the scrim demonstrating that these were removed during alterations after the 1908 extension was built. Behind the tongue-and-groove wainscoting, the top of the eastern brick wall of Room 9 was identified along with the framing for the first floor. The northern brick exterior wall of the original hotel was found having been cut through to link the 1908 extension.

The tongue-and-groove ceiling of Room 10 was identified 400mm above the modern softboard dropped ceiling. The boards were painted white, measure 80mm wide, and run east to west.



Figure 6-33 Sample area 10A showing join between original building and 1908 first floor extension, yellow dashed line outlines cut brick rear wall, red dashed line outlines the space between the ground floor ceiling and the first floor (photo faces east).



Figure 6-34. Sample area 10B showing tongue-and-groove ceiling above modern dropped ceiling (north is to left).

#### 1.1.4.9 Room 11

Room 11 is on the first floor in the south-east of the building and most recently it served as office space. The room measures 3.9m in length, 2.3m wide and has a ceiling height of 3m. The south wall is an external brick wall with two sash windows looking onto Don Street. The east, west and north walls are all timber partition walls and are entirely modern. There is one access point into the room in the north wall leading to Room 12. The room has modern flooring, wall, and ceiling linings; no period features are visible. One sample area was opened in Room 11, and all the layers identified are recorded in Table D-1.

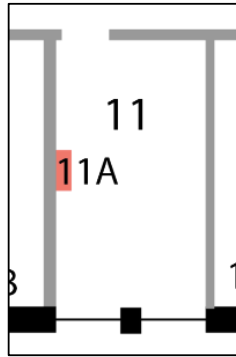


Figure 6-35. Plan of Room 11 showing sample area.

Sample area 11A was opened in the west wall of Room 11 in order to confirm the date of the wall. The Phase 4 plans of the Criterion show that a wall was in this location prior to the Phase 4 modifications. However, the Phase 5 plans indicate this area has been remodelled at least twice since the Phase 4 changes. A modern timber wall was identified behind the wallpapered plasterboard lining.



Figure 6-36. Photo of sample area 11A showing modern timber wall exposed behind plasterboard lining (photo facing west).

#### 1.1.4.10 Room 13

Room 13 is located at the eastern end of the first floor, positioned above the accessway, and most recently served as a kitchenette. The room measures 2.2m in length and 2.2m wide. And has a ceiling height of 3m. The east wall is an external brick wall shared with the neighbouring building. The north south and west walls are timber partitions and are entirely modern. There is one access point to the room in the west wall leading to Room 12. The room

has modern flooring, wall, and ceiling linings; no period features are visible. During the demolition of the Criterion hotel a bricked-up window cavity was identified in the eastern wall of Room 13. The window would have been located at the eastern end of a hallway running east to west through the first floor and would most likely have been bricked up when the neighbouring building was constructed.



Figure 6-37. Photo showing window cavity identified in Room 13 during demolition. Photo facing east.

1.1.4.11 Room 17

Room 17 is in the south-east corner of the first floor, positioned partially above the access way, and most recently served as office space. The room measures 3.9m in length, 4.5m wide, and has a ceiling height of 3m. The south and east walls are external brick walls with two sash windows looking onto Don Street in the south wall. The west and north walls are timber partitions and are entirely modern. There is one access point in the room in the north wall leading to Room 12. The room has modern flooring, wall, and ceiling linings; no period features are visible. One sample area was opened in Room 17, and all the layers identified are recorded in Table D-1.

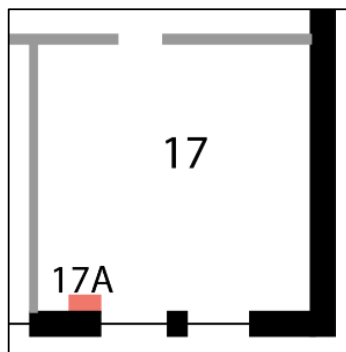


Figure 6-38. Plan of Room 17 showing sample area.

Sample area 17A was opened over an engaged column next to the windows in the south wall of Room 17. A concrete column was identified behind the modern softboard linings and timber framing. The column is a modern addition dating to the modification detailed on the 1949 plans.



Figure 6-39. Left: Sample area 17A with concrete column exposed. Right: south wall of room 17 showing column still covered by softboard lining (photos face south).

#### 1.1.4.12 Room 18

Room 18 is to the south of Room 10 at the centre front of buildings first floor. The room measures 4.4m in length, 2.7m wide, and has a ceiling height of 3m. The south wall is an external brick wall with one sash window looking onto Don Street. The west wall is an original brick load bearing wall and the east and north walls are timber partitions and are entirely modern. There are two access points in the room one in the north wall from Room 10 and one in the west wall leading to Room 19. The room has modern flooring, wall, and ceiling linings; no period features are visible. Three sample areas were opened in Room 18, and all the layers identified are recorded in Table D-1.

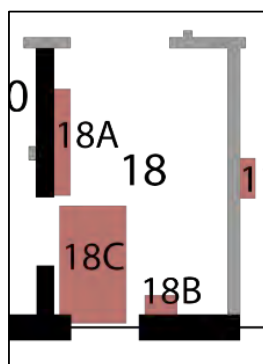


Figure 6-40. Plan of Room 18 showing sample areas.

Tongue-and-groove floorboards were identified beneath the modern carpet and underlay. There are three different sizes of floorboard 150mm, 90mm, and 80mm and all were laid running north to south (Figure 6-41). The wide floorboards (150mm) were used throughout most of the room with the narrower ones along the south side.

Sample area 18A was opened in the west wall to investigate the layout of the original hotel. An interior brick wall directly above the west brick wall of Room 9 on the ground floor was identified behind the modern softboard wall lining and timber framing. The brick wall was plastered and coated with four different layers of wallpaper (Figure 6-43). Wallpaper 1 (newest) features an oriental floral design in pink, blue, and green printed on paper. Wallpaper 2 features a gilded geometric floral design in buff and silver printed on paper. Wallpaper 3 features a floral design in yellow, green, pink, and brown printed on paper. Wallpaper 4 (oldest) is very degraded making it difficult to photograph but features a geometric floral design in blue, purple, and cream printed on fine paper.

Sample area 18B on the south wall of the room exposed the south brick exterior wall behind the same modern linings 18A. The bricks were laid in a running bond different to the rest of the building, which is laid in the English garden wall bond. Thin planks of wood were also identified in the bed joints between some of the courses of bricks in sample area 18B. This difference is likely due to the reconstruction of parts of the south wall during the Phase 4 renovations.

The ceiling of Room 18 was sampled from the roof space above where a tongue-and-groove ceiling was identified above the modern softboard ceiling lining. The boards are 75mm wide and run east to west.

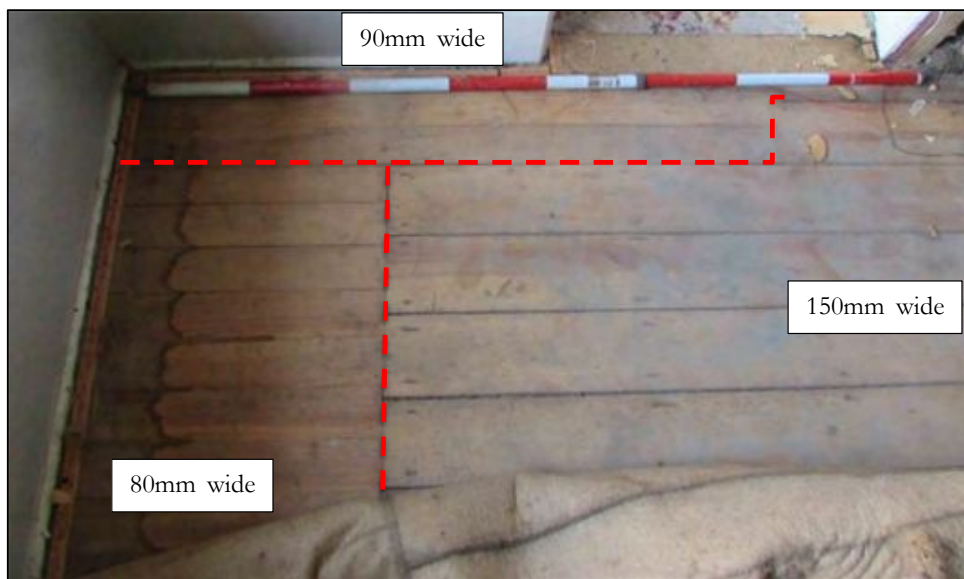


Figure 6-41. Photo of sample area 18C showing location different floorboard widths within Room 18 as indicated by red dashed lines (photo facing west).



Figure 6-42. Left: photo of sample area 18A with wallpaper 1 exposed behind modern linings (photo faces west). Right: photo of brick wall exposed in sample area 18B red arrows point to planks identified between courses (photo faces south).





Figure 6-43. Top Left: sample of Room 18 wallpaper 1. Top Right: sample of Room 18 wallpaper 2. Bottom Left: sample of Room 18 wallpaper 3. Bottom Right: Room 18 wallpaper 4 photographed in place, pattern has been damaged by the adhesive of wallpaper 3.

#### 1.1.4.13 Room 19

Room 19 is situated to the west of Room 18 toward the south-west corner of the first floor. The room measures 2.5m in length, 5m wide, and has a ceiling height of 3m. The south wall is an external brick wall with two sash windows looking onto Don Street. The east wall is the original brick load bearing wall identified in Room 18 and the west and north walls are timber partitions and entirely modern. There is an internal window situated on the north wall through to Room 21, it is a modern louvre style window with textured glass panes. There are three access points in the room; one in the east wall to Room 18, one in the north wall to Room 20, and one in the west wall to Room 24. The room has modern flooring, wall, and ceiling linings; no period features are visible. Three sample areas were opened in Room 19, and all the layers identified are recorded in Table D-1.

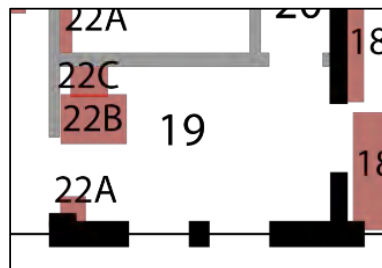


Figure 6-44. Plan of Room 19 showing sample areas.

Sample area 22B was opened in the floor of Room 19 where hardwood floors were identified below multiple layers of modern linings (carpet, underlay, linoleum, and MDF). Due to the difficulty of removing these layers the hardwood could not be exposed to determine its style, though it is likely to be tongue-and-groove boards like the adjacent rooms.

Sample area 19A was opened to investigate the location of the former exterior brick wall of the original hotel in the south-west corner of the room. The remains of a brick wall, extending north from the south, were identified behind the modern softboard wall lining and timber framing. The brick is part of the original west exterior wall of the Criterion prior to the 1894 extension. The wall was most likely cut through during modifications in the latter half of the twentieth century, as the 1949 plans of the building show the brick wall to still be in place.



The ceiling of Room 19 was sampled from the roof space above where a tongue-and-groove ceiling was identified above the modern softboard ceiling lining. The boards are 75mm wide and run east to west. The chimney flue and firestop from a previous fireplace covered by a metal sheet are visible on the ceiling in the north-west corner of the room.



Figure 6-45. Photos of sample area 19A showing the remains of the original exterior wall of the hotel (photos facing south).



Figure 6-46. Photo of chimney flue and firestop with metal cover removed in north-west corner of Room 19.

#### 1.1.4.14 Room 21

Room 21 is situated on the first floor to the north of Room 19 in the western half of the building. The room measures 3.1m in length, 3.3m wide, and has a ceiling height of 3m. The walls are modern timber partitions. The jalousie window from Room 19 can be seen in the south wall, and the room has one access point in the north wall to Room 22 and a sealed door that would lead to Room 10. The room has modern flooring, wall, and ceiling linings; no period features are visible. One sample area was opened in Room 21, and all the layers identified are recorded in Table D-1.

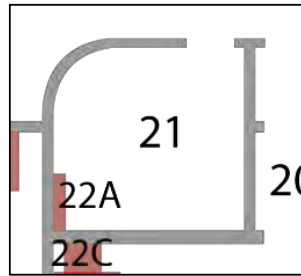


Figure 6-47. Plan of Room 21 showing sample area.

Sample area 21A was opened on the west wall in the south-west corner of Room 21. The sample area exposed a modern timber partition wall lined with softboard. As the 1949 plans indicate that this wall was still brick, this wall is a recent addition.



Figure 6-48. Sample area 21A with timber framing exposed (photo facing west).

#### 1.1.4.15 Room 22

Room 22 is situated on the first floor in the front section of the building directly south of the void. The room measures 6m in length, 9m wide, and has a ceiling height of 3m. The 1949 alteration plans show that this space was previously 3 rooms and part of the hallway that extended west from Room 10 into the Phase 2 extension. The north, west, and east walls are brick. The north is an external wall with three sash windows overlooking the void, the west wall is the shared exterior brick wall with the Rialto, and the east is an internal load bearing brick wall. The south wall is a timber partition parts of which date to the Phase 2 modifications. There is a small space in the north-east corner of the room divided off by modern partial walls. There are two access points in Room 22, both in the south wall; one leads to Room 12 the other to Room 21. The room has modern flooring, wall, and ceiling linings; no period features are visible. Five sample areas were opened in Room 22, and all the layers identified are recorded in Table D-1.

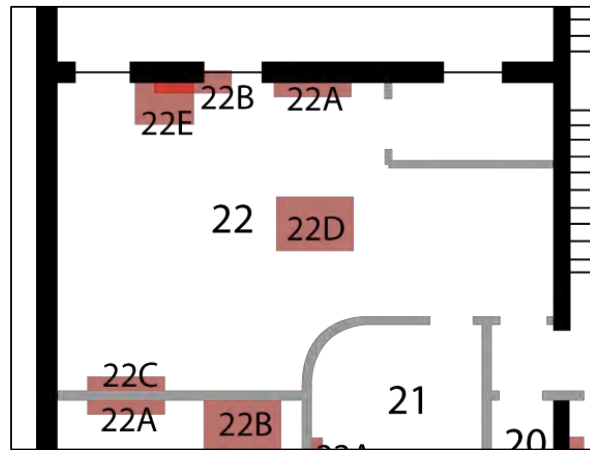


Figure 6-49. Plan of Room 22 showing sample areas.

Sample area 22E was opened in the floor of the 1894 western extension, which comprises the western half of the room. Tongue-and-groove floorboards were identified beneath the modern linoleum. The floorboards were laid north to south and measured 100mm wide. The floor had been lined with MDF boards, likely to even out the surface.

Two sample areas (22A and 22B) were opened in the north wall of Room 22 to investigate the construction of the western extension. After removing the modern linings in sample area 22A, the juncture of the original north and original west exterior walls was exposed (Figure 6-50 left). The west wall had been cut through and was visible in cross section. The north wall was rendered with lime plaster, which would have continued around onto the west wall. The cavity between the interior and exterior brick walls was also apparent. The west wall was removed in the recent past, as it appears to still be in place in the 1949 plans. Sample area 22B exposed the northern brick wall of the western extension (Figure 6-50 right). Behind the modern softboard lining timber, sarking was exposed fixed to timber framing over the exterior brick wall. The bricks were laid the English garden wall bond.

One sample area was opened in the south wall of Room 22, an area that was previously the south wall of the hallway that extended west from Room 10 (sample area 22C). Beaded tongue-and-groove panelling was exposed behind the modern softboard lining in this area (Figure 6-51 left). The boards had been painted a neutral colour and ran vertically. Small nails holding fragments of scrim to the tongue-and-groove boards were identified (Figure 6-51 right). This indicates that at some stage the panelling was covered with scrim, and wallpapered, which had been removed before the modern softboard was installed.



Figure 6-50. Left: photo of sample area 22A showing plaster coat of north wall and cross section of original west wall. Right: photo of sample area 22B showing sarking and brick wall partially exposed (photos face north).



Figure 6-51. Left: photo of sample area 22C showing tongue-and-groove panels behind modern softboard. Right: close-up of nails with remnants of scrim circled in red (photos face south).

Sample area 22D was opened in the ceiling of Room 22 to target the transition from the original hotel to the western extension. After the modern hardboard lining was removed, beaded tongue-and-groove (75mm wide) and sarking (160mm wide) ceiling linings were revealed (Figure 6-52). Tongue-and-groove ceiling was used to line the ceiling in the original part of the building, and it ran east to west. The ceiling in the western extension was lined with sarking, and it ran north to south. The paint on the tongue-and-groove ceiling panels finishes abruptly indicating that cornices had been removed during later alterations. The ends of the tongue-and-groove panels are

also uneven indicating that they did not continue further beyond this point as if they did and had been cut during alterations the ends would be even.



Figure 6-52. Left: photo of sample area 22D showing exposed tongue-and-groove, and sarking ceiling linings. Right: photo of tongue-and-groove lining showing edge of paint (east is to the left).

1.1.4.16 Room 23

Room 23 is situated on the ground floor in the south-west corner of the building and recently served as a shop. The room is part of the Phase 2 1894 western extension and measures 18.4m in length, 4.4m wide and has a ceiling height of 3.6m. The south wall is the modern shop front onto Don Street. The east and west walls are brick, the west being the shared wall with the Rialto next door. The north wall is a modern timber partition wall. There are two access points in the room one in the south wall onto Don Street and one in the north wall to Room 31. There are modern stairs in the north-west corner of the room that lead to room 27 on the first floor. The room has modern floor, wall, and ceiling linings; no period features are visible. Five sample areas were opened in Room 23, and all the layers identified are recorded in Table D-1.

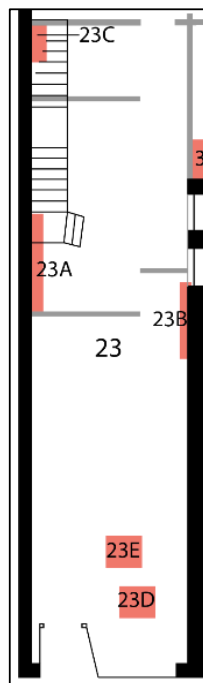


Figure 6-53. Plan of Room 23 showing sample areas.

Tongue-and-groove floorboards were identified beneath the modern carpet and underlay. The boards measure 100mm wide and run north to south.

The east and west brick walls were sampled in this room to investigate the construction and layout of the western extension. Sample area 23A was opened in the west wall targeting a fireplace shown on the 1908 plans. The partially demolished fireplace and chimney were identified beneath the modern linings and framing (Figure 6-54). Directly south of the fireplace, the remnants of a previous brick wall that would have run east to west through Room 23 was identified. Sarking boards were identified lining the brick west wall to the south of the removed wall (150mm wide) and to the north of the fireplace (200mm wide). The narrower sarking boards finish neatly abutting the remnants of the removed wall indicating that they were likely put in prior to its removal (Figure 6-55). The wider sarking boards however, may date to a later period of alterations as the same size boards were identified in sample area 23B covering a doorway bricked up in accordance with the Phase 4, 1949 plans. Scraps of scrim were identified held onto the wider sarking boards by small nails indicating that some layers of previous wall linings were removed during later alterations.

Sample area 23B was opened in the east wall to investigate the extension of the brick wall from the 1908 plans and a previous doorway that was bricked up in accordance with the 1949 plans. Timber sarking boards were identified behind the modern wall lining (slat wall panels) in two different sizes; 150mm wide and 200mm wide. The bricked-up doorway was identified behind the wider sarking boards with the narrower boards directly to the south. The remnants of a brick wall that had been removed was identified in the north of the sample area behind the wider sarking boards (Figure 6-56). This aligns with the remnants of a brick wall identified in sample area 23A indicating they are from the same wall. The Phase 3 northern extension of the east brick wall is visible to the north of this (Figure 6-57).

Sample area 23C was opened on the west wall in the north-west corner of the room to investigate the extent of the Phase 1 rear outbuilding. Recycled tongue-and-groove boards (90mm wide) were identified behind the modern hardboard (Figure 6-58). The boards were used as part of the wall frame to support the modern lining; they are attached to the wall studs, laid horizontally, and spaced 50mm apart. As the boards are painted it is likely that they are recycled from another part of the building. The remnants of a previous brick wall were identified in line with the current timber partition wall that is the north wall of Room 23. This is the location of the original north wall of the pre-1886 outbuilding, per the 1908 plans.

Due to the height, the ceiling was sampled by accessing it from Room 24 above. The softboard ceiling panels are attached directly to the ceiling joists showing that earlier ceiling linings had been removed during earlier alterations. There is no indication of what the earlier ceiling lining would have been.



Figure 6-54. Left: photo of the partially demolished fireplace and chimney on the west wall of Room 23, remnants of removed brick wall outlined in red. Right: photo of the west brick wall exposed behind the wider sarking boards to the north of the fireplace.



Figure 6-55. Close-up photo of the remnants of the removed brick wall, the ends of the sarking boards can be seen to the left out lined in yellow (photo faces west).

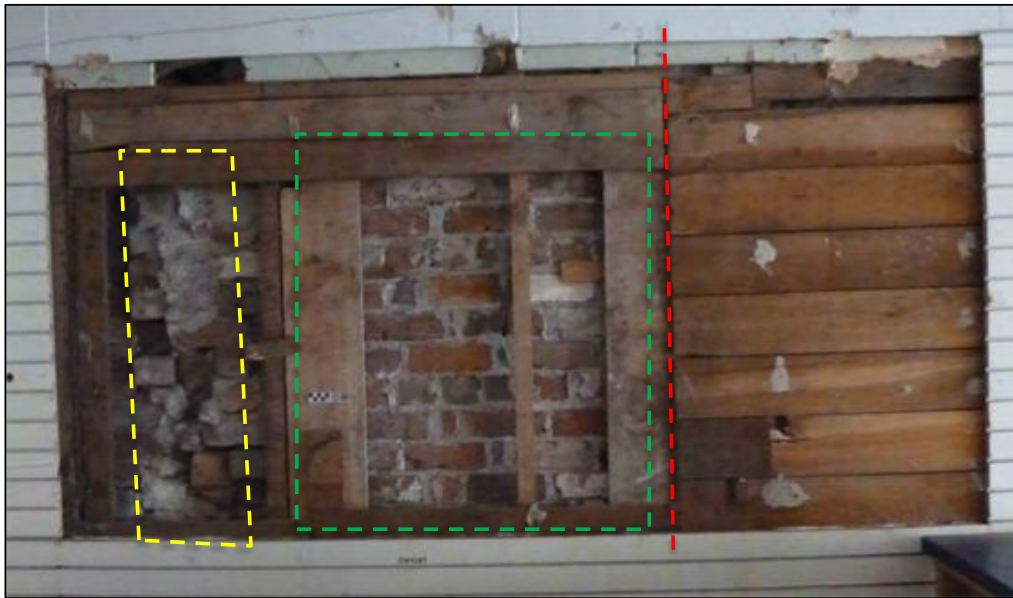


Figure 6-56. Photo of sample area 23B on east wall showing narrow sarking boards (right of red line), wider sarking boards (left of red line, mostly removed), remnant of removed brick wall (yellow outline), and bricked up doorway behind timber framing (green outline).

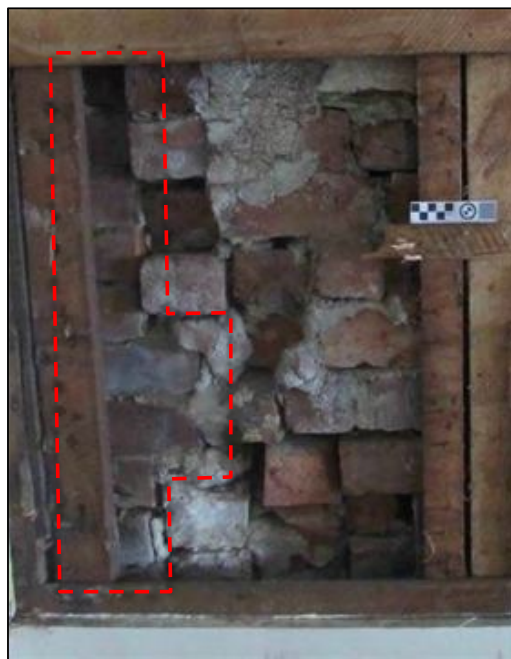


Figure 6-57. Photo of sample area 23B showing section of brick wall extension (outlined in red) visible extending north of the remnants of the removed wall (photo faces east).





Figure 6-58. Photo of sample area 23C showing tongue-and-groove boards behind hardboard lining, remnants of previous brick wall outlined in red (photo faces west).

1.1.4.17 Room 24

Room 24 is on the first floor in the south-west corner of the building and is situated in part of the 1894 extension. The room measures 3.83m in length, 4.4m wide, and has a ceiling height of 3m. The south wall is the external brick wall with three sash windows looking onto Don Street. The west wall is the exterior brick wall shared with the Rialto next door. The north wall is a timber wall, likely dating to the 1894 modifications. The east wall is a modern timber partition wall. There is one access point in the room on the east wall to Room 19. The room has modern floor, wall, and ceiling linings; no period features are visible. Two sample areas were opened in Room 24, and all the layers identified are recorded in Table D-1.

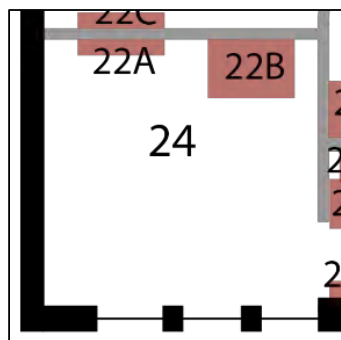


Figure 6-59. Plan of Room 24 showing sample areas.

Sample area 24B was opened in the floor of Room 24. Tongue-and-groove floorboards in two sizes, 100mm wide and 80mm wide, running north to south were identified below modern linings in Room 24 (Figure 6-60 left). The wider floorboards are present throughout the room while the narrower ones are present in a small area at the base of the north wall. The floorboards had been covered by MDF, likely to even out the surface for the modern linings to be adhered to.

Sample area 24A was opened in the north wall (Figure 6-60 right). Sarking boards (150mm wide) were identified behind the modern softboard lining. Small nails holding fragments of scrim to the sarking boards were identified in this area. This indicates that the walls were covered with wallpaper which, along with the scrim, has been removed prior to the modern softboard being installed.



Figure 6-60. Right: sample area 24B showing area of narrow floorboards (north to top of photo). Left: photo of sample area 24A showing sarking behind modern softboard lining (photo faces north).

#### 1.1.4.18 Room 25

Room 25 is situated on the first floor in the north-east corner of the Phase 3 rear extension. The room measures 8.5m in length, 6.7m wide, and has a ceiling height of 3m. The north and east walls are brick exterior walls and the south and west walls are timber partitions. The north wall has three sash windows with security bars overlooking the parking area at the rear of the building. There are four access points in Room 25; one in the southern wall to Room 10, two in the east wall to Rooms 26 and 27, and one in the west wall to the external fire escape. The room has modern, floor, wall, and ceiling linings; no period features are visible. Three sample areas were opened in Room 25 in order to understand the materials used in the Phase 3 addition for comparison of materials used elsewhere in the building. The layers identified in the sample areas are recorded in Table D-1.

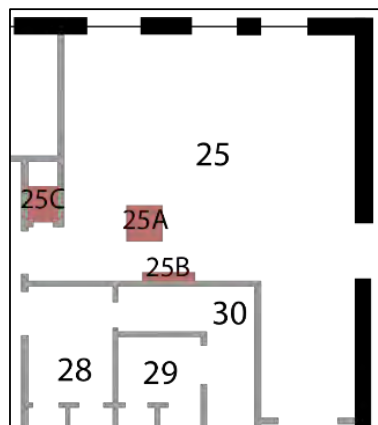


Figure 6-61. Plan of Room 25 showing sample areas.

Sample area 25A was opened in the floor of Room 25. Tongue-and-groove floorboards, running east to west, were identified under the modern carpet and underlay. The boards measure 100mm wide.

Sample area 25B was opened in the south wall of Room 25 (Figure 6-62). Timber sarking boards (150mm wide) were identified behind the modern softboard lining. Small nails holding scraps of scrim to the sarking boards were identified. This indicates that prior to the installation of the modern softboard some earlier wall linings were removed.

The ceiling is lined with softboard tiles except in the storage closet in the south-west of the room where the tongue-and-groove ceiling boards are still visible (Sample area 25C). The boards run east to west and are 85mm wide. The boards are not painted along the western and southern edge showing where the cornice and corner of a previous room would have been. On the east side of the sample area, the wall covers the painted tongue-and-groove, demonstrating the wall was added after 1908. In addition, the beam shown in Figure 6-63 (right) is in the location of an earlier wall that has since been knocked through.



Figure 6-62. Right: sample area 25A showing tongue-and-groove floorboards (north is to right of photo). Left: sample area 25B showing sarking boards (photo faces south).

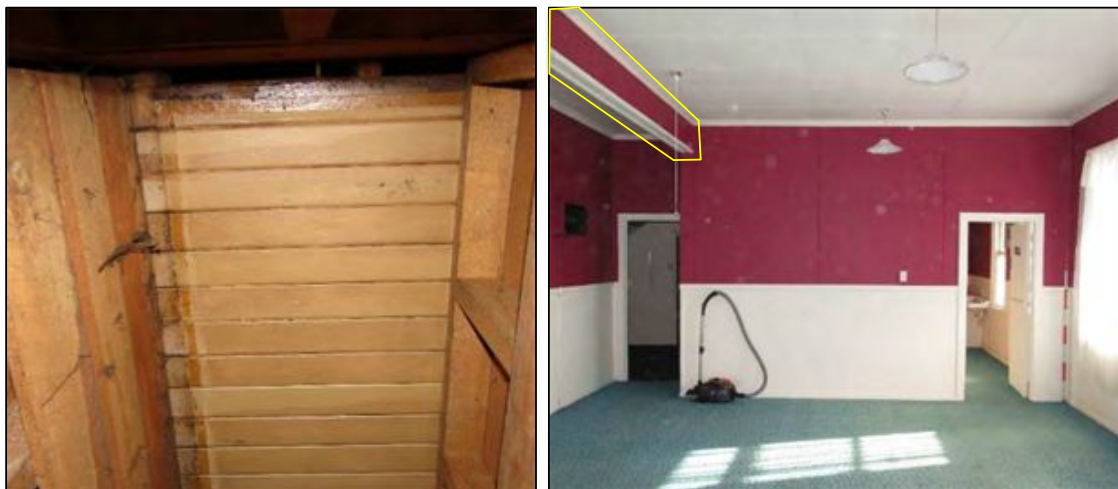


Figure 6-63. Right: photo of the tongue-and-groove ceiling visible in storage closet, note the paint (north is to the bottom of the photo), Left: photo of Room 25 facing west, beam outlined in yellow in the top left is in line with previous wall.

1.1.4.19 Room 35

Room 35 is a hallway situated on the ground floor in the rear extension to the west of Room 8. The room measures 4.5m in length, 1.2m wide, and has a ceiling height of 3.6m. The south wall is a brick exterior wall with a sash window looking onto the void. The east, west, and north walls are timber partitions dating to the 1908 modifications. There are two access points in Room 35; one in the north wall leading to Room 32 and one in the east wall leading to Room 36. The room has modern linings; no period features are visible. One sample area was opened in Room 35, and all the layers identified are recorded in Table D-1.

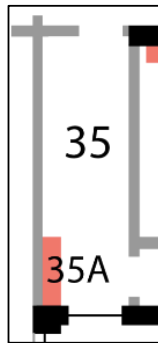


Figure 6-64. Plan of Room 35 showing sample areas.

Sample area 35A was opened in the in the south-west corner of the room on the west wall to investigate the structure of the wall and a door that was removed as per the 1949 plans. Sarking boards (200mm wide) on a timber framed wall were identified behind the softboard lining.

1.1.4.20 Cellar

The cellar of the Criterion was identified below Room 1 during the demolition and site clearance (Figure 6-65). The cellar measures 2.9m in length and 3.6m wide with a ceiling height of at least 1.8m. It has thick concrete walls and floor. The door to the cellar was identified to the east in the access way covered by the modern asphalt surface. The entrance had been filled in with bricks before being sealed.

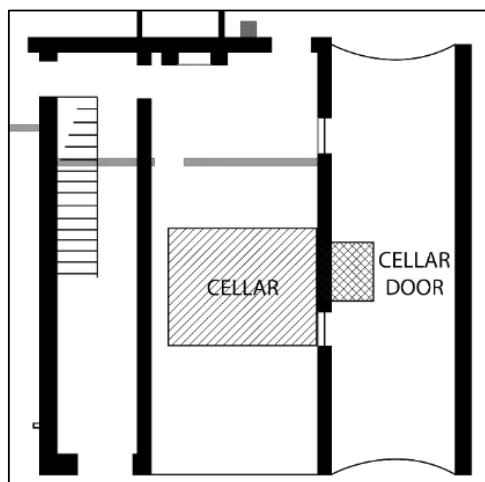


Figure 6-65. The Criterion - Location of the cellar below Room 1, with the cellar door being located in the access way.

## 6.2 Results of the Archaeological Monitoring

The earthworks across E46/62 were carried out in various stages during 2016. When site works began in 2016, the building on the section was determined to be constructed pre-1900. Therefore, the demolition of the structure was monitored by archaeologists subsequent to completion of the buildings archaeology. Once the building was demolished, the area within its footprint was cleared of foundations, requiring excavation to varying depths (Area A). In September 2016 the rear of the site was scraped (Area F) to bring the site down to level for the construction of the new building and trenches were dug across the site for the construction of piles, foundations, and the installation of services into December of 2016 (Areas O, P, S, T, U, V, W, X, Y, Z, AA, AC, AD, AE, AL, and AN). The removal of the pre-1900 building required excavation to a maximum depth of 2500mm for the removal of the cellar and 600mm for the removal of the foundations, whereas the rear site scrape went to a maximum depth of 600mm. The depth of the trenches went a further 450mm to a maximum total depth of 1050mm in some areas. Due to the nature of the excavations it is likely that not all archaeological material has been removed from the site, but it has been significantly disturbed across its entirety. The concrete floor of the new building caps any remaining archaeological material.

A total of 174 contexts was identified during the archaeological monitoring. A summary of the context types is provided in Table 6-3 where the contexts have been grouped into several interpretive categories including natural deposits, other deposits, services, structural features, artefact scatter and pit features. The following sections consider the stratigraphy, features, and condition of the site.

Table 6-3. Contexts identified at Site E46/62 – The Criterion Hotel and Yards.

Interpretation	Context designation	Count	Contexts
Natural deposit	Silt Loam substrate	13	A4, A32, C8, O3, P3, S5, T4, U4, AE5, AC6, AD4, AL3, AN3
	Topsoil	11	A3, A5, A31, C7, O1, O2, P2, U6, AD5, AD9, F40
	<i>Subtotal</i>	24	
Other Deposit	Asphalt	3	A1, A26, F1
	Black grit	3	A7, F7, F38,
	Clay	1	A6,
	Demolition rubble	3	A24, AE3, AE9,
	Brick rubble	3	C3, C5, A28
	Gravel	7	A2, A27, C6, F2, AE6, AN1, AL1
	Silt	1	A10,
	Silt and brick dust	1	A29,
	Silt and gravel	15	F3, S1, S2, T1, U1, AE1, AE2, AA1, AC1, AA2, AC2, AD1, AD7, AL2, AN2
	Silt loam fill	1	A30,
	Sand	2	A8, F33
<i>Subtotal</i>	40		
Services	PVC drainpipe	1	T5
	Ceramic drainpipe	13	O4, P4, U5, AC4, AC5, AC7, AC8, AD2, AD3, AD11, AL4, AL5, AN4
	Service trench	8	F5, S8, T3, T7, U2, AE4, AA11, AD6
	<i>Subtotal</i>	22	
Structural	Cellar	1	A9,
	Brick floor	9	F4, F6, F19, F22, F25, F26, F31, F32, F34
	Brick footing	1	F35
	Beam	3	F16, F28, F30
	Foundation	2	A25, P1
	Pile	15	A13, A14, A15, A16, A17, A18, A19, A20, A21, A22, A23, F10, F20, F21, F24
	Post	8	F44, S6, T6, AE7, AC12, AC13, AL6, AL7
	Posthole	24	C1, F12, F13, F14, F15, F18, F23, F27, F29, F37, F39, AE8, AE10, AA4, AA5, AA6, AA7, AA8, AA10, AA13, AA14, AC11, AD12, AD13/AD14
	Wood floor	6	F9, F17, F36, F43, AA12, AC9
<i>Subtotal</i>	69		
Pit Features	Wood Pit	2	F11, AD10
	Well	1	A12,

Interpretation	Context designation	Count	Contexts
	Rubbish Pit	4	C4, S3, S7, AN5
	Square Pit	1	S4
	<i>Subtotal</i>	8	
Artefact scatter	Artefact Deposit	1	C2
	Plank	4	T2, U3, AC3, AD8
	Rubbish Deposit	2	F41, AA3
	Charcoal deposit	4	A11, F42, AA9, AC10
	<i>Subtotal</i>	11	
Grand total		174	

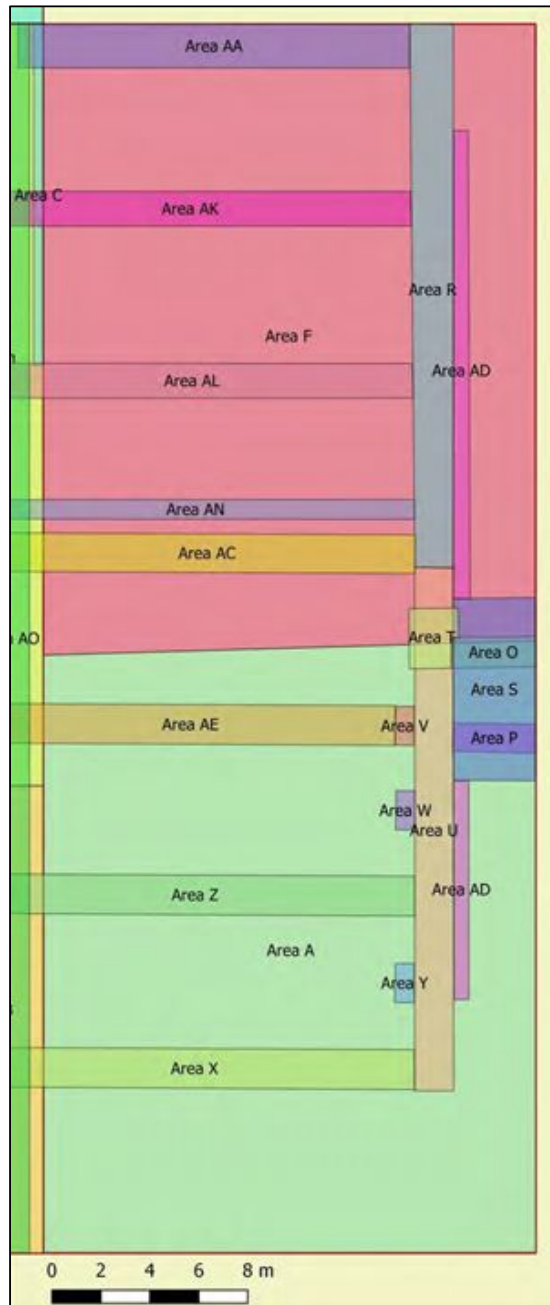


Figure 6-66. Excavation areas on site E46/62 – The Criterion Hotel and Yards.

### 6.2.1 Site Stratigraphy

A large portion of the contexts recorded across E46/62 are deposits, including natural deposits, fill layers, and demolition rubble, the number of layers and deposits identified on the site is inflated by the use of different context numbers for the same deposits through the different excavation areas. The stratigraphy of the site was relatively consistent and can be split into two areas; The front (south), under the Criterion Hotel, and the rear (north), under the Criterion Yards.

After the demolition of the hotel building the entire site had a layer of demolition rubble mixed with silt across its surface (A24). This layer was removed from the front section during the removal of subsurface features of the building (foundations, cellar, piles) and was cleared from the rear of the section prior to the site scrape as it sat on the modern asphalt surface of the parking area. Later, during the excavation of some of the trenches for the construction of the new building, a layer of imported gravel which mixed with debris from the construction covered the site (AE6, AN1, AL1).

The front half of the site had a very basic stratigraphy below the demolition rubble consisting of the natural topsoil interspersed with cultural material measuring 100-200mm thick (A3, A5, A31, C7, O1, O2, P2, U6, AD5, AD9, F40) over the natural silt loam substrate (A4, A32, C8, O3, P3, S5, T4, U4, AE5, AC6, AD4, AL3, AN3) (Figure 6-67).



**Figure 6-67. Photo of Excavation Area A showing natural topsoil exposed below the buildings footprint and patches of demolition rubble in the foreground. Photo faces south-west.**

The rear of the section had the same underlying natural stratigraphy, however, it was beneath a series of cultural deposits, fill layers, and features. The surface of the rear section was covered by the modern asphalt parking lot surface (F1) beneath which was a layer of gravel (F2) imported to the site as prep for the asphalt. A fill layer of silt and quartz pebbles (F3) was identified below the gravel prep covering the pre-1900 features (Figure 6-68).



Figure 6-68. Photo showing some of the layers identified at the rear of the site during the site scrape F1 asphalt, F2 gravel, and F3 silt and gravel. Photo faces south-east.

Below F3 a patchy, 30mm to 100mm thick deposit of black grit (F7, F38) (Figure 6-69) was identified covering the centre of the rear of the site, south of the brick floor features identified along the northern end of the site during the site scrape (F4, F6, F22). This layer was also identified in the access way on the east side of the hotel building but not beneath the hotel itself (A7). The layer sits directly on the natural topsoil (F40, A3, A5, A31, C7, O1, O2, P2, U6, AD5, AD9). It is likely that at some stage prior to the construction of the larger stable building in the Criterion Yards, the black grit was the surface layer in the outdoor area to the south of the original stables and east of the wash house. This black grit deposit consists of the same material identified on the other three sites and has been interpreted as a fill layer used to resurface the site and identified as a by-product of the local gasworks.



Figure 6-69. Context F38 a section of the black grit deposit identified in Excavation Area F. Photo faces west.



There is a distinct lack of demolition layers associated with the removal of the earlier buildings from the Criterion Yards especially when compared with the brewery and Section 4. This suggests that the site was thoroughly cleared of debris when these were removed leaving only the floors behind.

6.2.2 Features

Features identified on site E46/62 include service features, structural features, and pit features. Structural features are the most prevalent context type, and these include brick floors, wood floors, brick footings, concrete piles, postholes, and wooden posts. Some of these contexts are part of the recently demolished Criterion Hotel building and were reported on in section 6.1. Others when overlaid with the 1886 block plans of Invercargill, align with pre-1900 recorded structures (Burwell, 1886). All contexts are listed in Table F-2 in Appendix F.

**A series of brick (F4, F6, F22, F31) and wooden floors (F9) were identified along the rear (north) of the site. These in combination with a series of posts and postholes (F39, F14, F13, F15, F12, F44, F18, F23, F27, F29, F37) align with the stable building on the 1886 Burwell plans (**

**Figure 6-70).** The floors were all laid on a bed of sand (F33), which sat directly on the natural topsoil. These brick floor features were all distinct from each and laid in different orientations and separated by wooden beams in places, some of which may be bottom plates for walls and mark separate areas of the building (Figure 6-72). Context F28 in particular is a wooden beam running along the southern boundary of brick floor F22. This beam measures 4200mm by 100mm and five notches 100mm by 30mm notches were identified cut into it spaced at regular intervals (Figure 6-71). Wall studs would have been inserted and secured to the beam at these notches in mortise and tenon joints, while the postholes around the floors would have been loadbearing elements of the structure. These brick floors were all capped with deposit F3 and brick floor F4 was cut by F5 a modern service trench filled with sand.



Figure 6-70. Detail of site plan showing contexts that intersect with the timber building detailed on the 1886 Burwell Plans.



Figure 6-71. Detail of three of the notches identified in the wooden beam/bottom plate (F28).



Figure 6-72. Various floor features identified along the northern boundary of the site. Photo faces west.

Besides this series of brick and wood floors, others were identified that do not clearly align with any pre-1900 structures but clearly date to a similar period stratigraphically. F32, and F19 are brick floors identified to the south of Brick floor F4, both of these were also cut by F5. F32 is a small heavily disturbed area of brick floor that is at the same level as F4 but directly outside the pre-1900 stables. These bricks run mostly east to west though some are oriented north to south in no clear pattern (Figure 6-74). F19 is 1000mm further south and is less disturbed having clear edges on all four sides. The bricks are aligned east to west with the exception of those on the eastern most part of the floor which are jumbled up (Figure 6-73), it is not clear why, but these may have been disturbed during later works on the site or represent an area or demolished wall. These two contexts are likely paved external areas. F25 and F26 which are located even further south of F4 toward the hotel building were likely also paved exterior areas. Considering the yard would have seen significant food and horse traffic, external areas of paving are not surprising.



Figure 6-73. Photo of context F19 showing F5 (outlined in red) cutting through the feature and jumbled area of bricks at the east of the floor. Photo faces north.



Figure 6-74. Photo of Context F32. Photo faces south.

The most complicated of the brick floor features is context F34 (Figure 6-77). This feature sits close to the western boundary of the site and partially overlaps with the buildings in this location on the 1886 Burwell plan (Figure 6-75). It was also identified beneath the same layer of silt and quartz pebbles as the other brick floors (F3). However, it extends significantly further east and was identified 200mm higher in the stratigraphy than the brick floors along the northern boundary. The floor may be associated with the later, larger stable building constructed in the Criterion Yards present on the 1913 block plans (Figure 6-76). This floor feature suffered some damage from the digger during excavation: the portion that was uncovered measured 5800mm wide and 3150mm long. The floor is made up of multiple smaller sections of brick paving separated by wooden beams and planks, there are also three large slate tiles on the western side of the feature.



Figure 6-75. Detail of site plan showing context F34 overlaying the 1886 Burwell Plans.

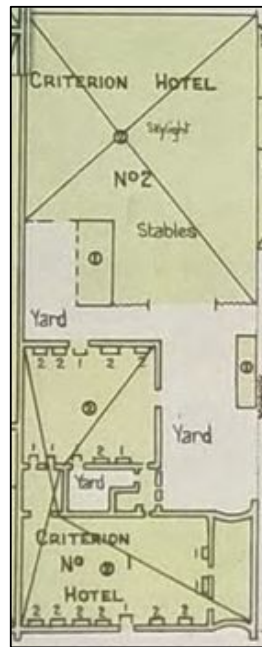


Figure 6-76. Buildings on Section 19 in 1913<sup>28</sup>.



Figure 6-77. Section of context F34 showing various sections of brick, slate, and wood. Photo faces north.

<sup>28</sup> Council of Fire Underwriters' Association of New Zealand. (1925). Block Plans, Invercargill and Bluff. Hocken Library, University of Otago; Reference No. AG-291-001-016-025/029.

The well of the Criterion Hotel site (A12) was a circular brick lined structure dug into the natural topsoil and substrate (Figure 6-78). The well is located just south of the building identified as a wash house on the 1886 Burwell plans, to the north of the hotel. The well had been cut by the foundations of the 1908 Phase 3 extension to the Criterion Hotel building though it likely went out of use prior to this when the section was connected to the new town water supply sometime after 1886. The well was half sectioned by the digger during the excavations with the south half remaining *in situ* (Figure 6-79). Once the well went out of use it was filled in with a combination of rubbish and silt loam. The well of the Criterion was one of three wells identified across the four sites excavated during this development project. The other wells were identified on the Todd's Auction House site E46/59 (Context AM4) and the Black Eagle Brewery site E46/60 (Context AS80/AS94). Todd's well was square, and wood lined while the breweries well was circular, and wood lined.

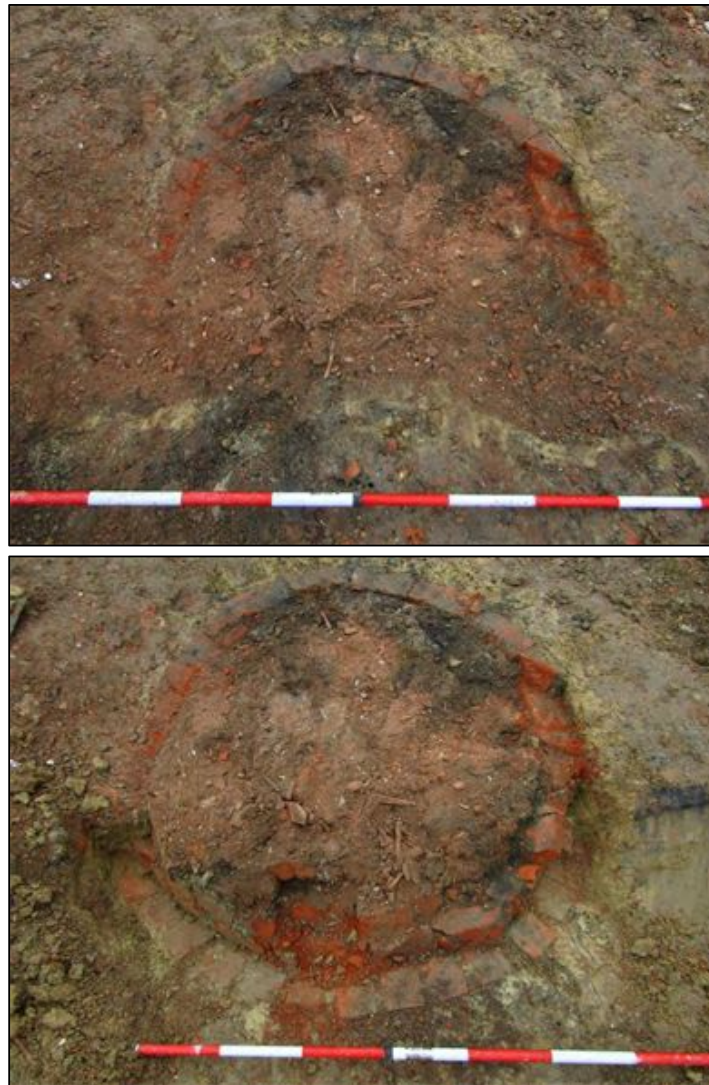


Figure 6-78. Context A12, the Criterion well. Top: surface of feature showing damage to northern side of well by the foundations of the hotel extension. Bottom: full circumference of the well exposed after partial excavation. Photos face south.



Figure 6-79. Section of the Criterion well. Photo faces south.

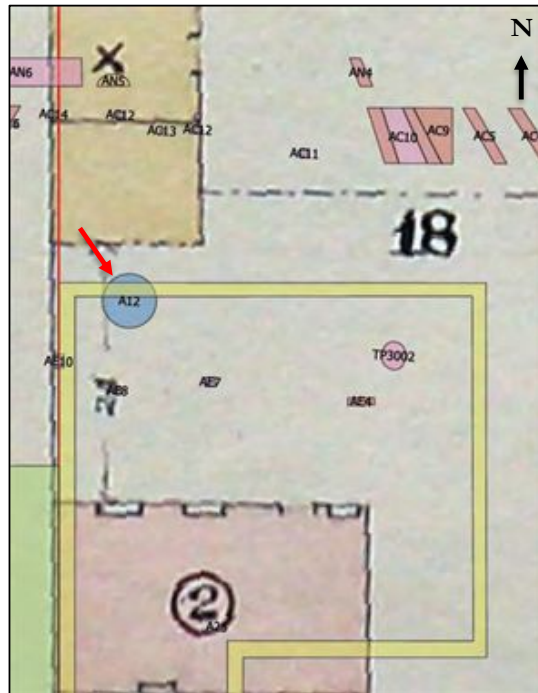


Figure 6-80. Detail of site plan showing context A12 overlaid with 1886 Burwell Plans.

Service features identified on the site include a PVC pipe, ceramic drainpipes, and service trenches. Though all features are associated with the hotel building and rear stable building it could not be determined when the services were installed and if any date to the nineteenth century.

*6.2.3 Condition*

The site works removed the pre-1900 building and its modern extensions in their entirety. Various excavations including a scrape of the entire site and trenching for the construction of the new buildings were carried out. The majority of the archaeological material from the site was removed during the excavations however, sterile substrate was not exposed across the entirety of the site and it is likely some archaeological material remains *in-situ* below the surface.



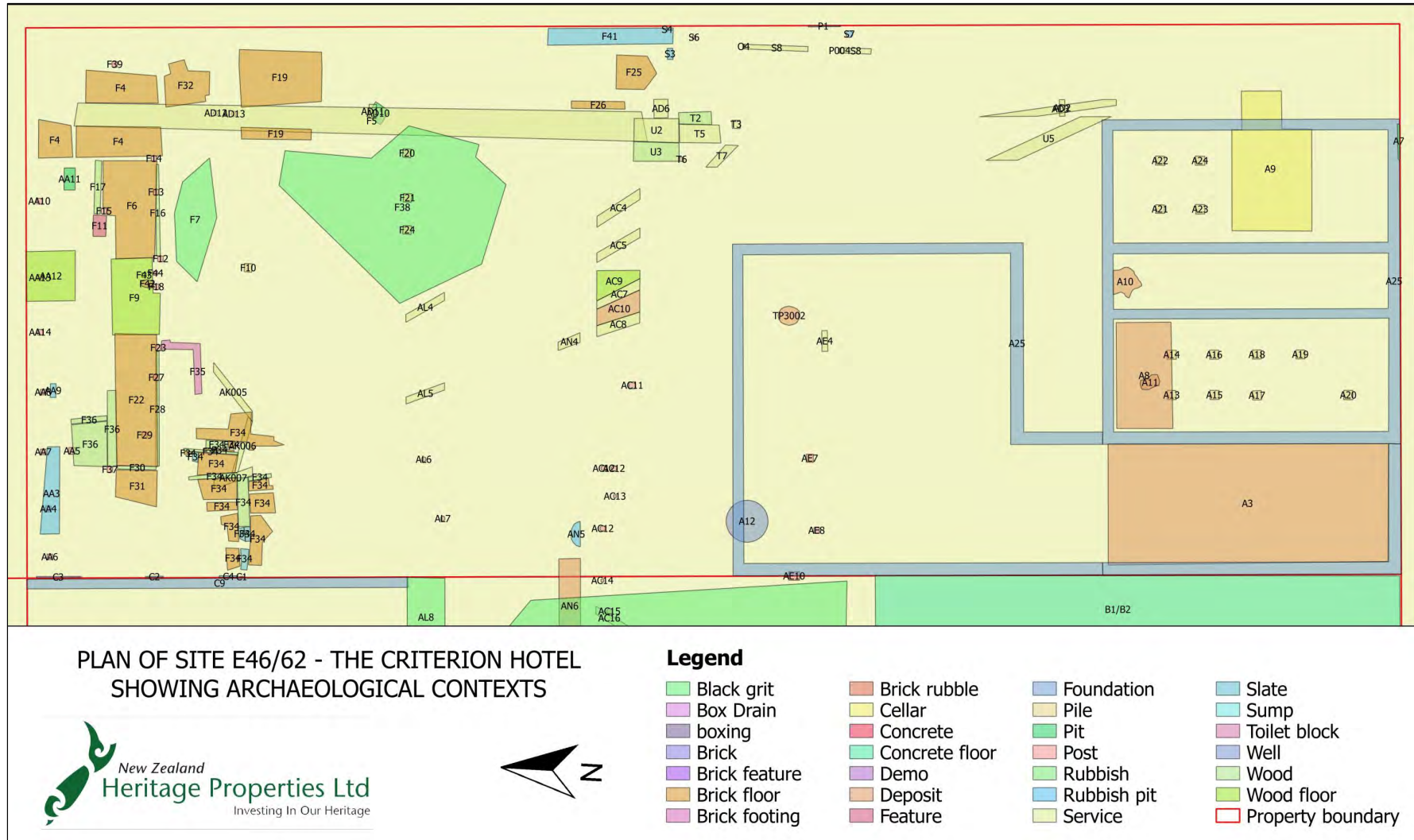


Figure 6-81. Site plan of subsurface archaeology at E46/62 – The Criterion Hotel and Yards.

### 6.3 Artefact Analysis

Artefacts were recovered from 39 contexts in E46/62. Brief context descriptions are included in the results tables below. Contexts containing artefacts varied from discrete features such as rubbish pits and a well, to differing deposit layers. Where artefacts were recorded as coming from the brick floor, they were sitting on top of the floor. Artefact results are presented by material type, with photographs of selected artefacts included. A summary of the artefacts recovered from E46/62 is shown in Table 6-4. Almost half the total of faunal material analysed came from this site, collected from 14 contexts. Four taxon were identified; mammal, bird, shell and cetacean (Table 6-5).

**Table 6-4. Summary of artefacts recovered from E46/62.**

Material	NISP	MNI
Ceramic	955	147
Glass	2922	231
Metal	139	81
Other	143	51
Faunal	125	13

**Table 6-5. Summary of faunal species recovered from site E46/62.**

Species	NISP	MNI
Unidentified gastropod	1	1
Oyster	21	7
Rabbit	4	1
Cow	29	2
Pig	4	1
Sheep	28	3
Chicken	3	1
Goose	4	2
<b>Total</b>	<b>94</b>	<b>13</b>

#### 6.3.1 Context A003

Context A003 was a deposit of brown clay with artefacts scattered throughout. A sample of these artefacts was collected for analysis (Table 6-6).

**Table 6-6. Summary of artefact sample collected from context A003.**

Material	NISP	MNI
Ceramic	17	7
Glass	32	7
Metal	11	10
Other	12	9
Faunal	1	1

The A003 ceramic vessel sample consisted of a whiteware chamber pot with gilt banded decoration, whiteware plates, one of which was decorated with Rouen and the other undecorated, an undecorated whiteware saucer, two bone china saucers with gilt decoration, and a bone china hollow vessel handle. No maker's marks were recorded on any of the fragments.

The glass vessel assemblage recovered from this context consisted of fragments from at least seven bottles. Five were able to be identified to function or common name: Bordeaux, vinegar, a Codd and two pharmaceutical bottles. With the exception of the Bordeaux, which was turn-moulded, all were made in two-piece moulds with cup bottoms. Two additional bottles (one dark olive and one dark green) were represented by small body fragments. Embossing was present on the vinegar, Codd and one of the pharmaceutical bottles. The vinegar bottle was embossed with "[CHAMPIONS]," identifying the brand of vinegar as Champions. This was one of the most popular brands of vinegar in New Zealand during the late nineteenth century. The Codd was embossed with "[THOMSON & Co / REG[ISTERED]/ MAKERS [CANNINGTON] SHAW & [CO LTD] ST HELENS"

and “1899” on the base, which provides a TPQ for the assemblage. The aqua green pharmaceutical bottle had “1876” embossed on the base.

The A003 sample contained a variety of metal artefacts. These included two horseshoes, three fasteners (one brad, one wire and one roofing nail), a hook, wire handle, strip iron, part of the heel plate of a shoe. A small metal disk, possibly an extremely accreted coin was also recovered.

The miscellaneous artefacts recovered from A003 included structural and personal items. Structural artefacts included fragments of brick, bluestone, glass from at least two windows (one plain and one ribbed) and a fragment of a mirror. Personal items included a Ben Nevis clay pipe bowl, dating between 1850 and 1900 (Burke, H., Smith, C., Zimmerman, 2009) and a white stone toy marble. A fragment of sheep’s fleece and a white rounded pebble were also recorded.

One chicken radius was identified in this context. It showed no evidence of butchery or taphonomic processes.

### 6.3.2 Context A004

Context A004 is described as the natural yellow clay subsoil.

**Table 6-7. Summary of artefact sample collected from context A004.**

Material	NISP	MNI
Ceramic	8	7
Glass	1	1
Metal	1	1
Other	2	2
Faunal	8	

The ceramic vessel assemblage collected from A004 included a Chinese hard-paste porcelain ointment jar with painted floral decoration, a bottle and jar of unidentified refined earthenware, and four whiteware vessels (one hollowware, a saucer, a cup and a small roasting dish). The hollowware fragment was decorated with a UGTP pattern similar to Fibre, the saucer was decorated with Teddesley, and the cup with a black floral transfer-print (Figure 6-82). No maker’s marks were recorded.



**Figure 6-82. Ceramic vessels from A004. Left: (clockwise from top left) Teddesley saucer, roasting dish, refined earthenware jar, Chinese porcelain jar and black UGTP cup. Right: Unidentified hollowware vessel decorated with a UGTP pattern similar to Fibre.**

Also collected from this context were a single fragment from an unidentified aqua green bottle, a fragment of strip iron, a piece of window glass and a fragment of asphalt. A total of eight faunal fragments representing four species were identified in this context; sheep, chicken, oyster and rabbit. One sheep rib has been sawn.

### 6.3.3 Context A012

Context A012 was a brick lined well that was half-sectioned and a sample of artefacts collected from the fill (Table 6-8).

**Table 6-8. Summary of artefact sample collected from context A012.**

Material	NISP	MNI
Ceramic	8	6
Glass	10	8
Metal	4	2
Other	9	6
Faunal	35	5

The ceramic vessel assemblage from the well contained a whiteware cup and saucer with gilt banding, a whiteware cup with an unidentified blue UGTP design, an undecorated whiteware plate, a salt-glazed stoneware bottle, and an undecorated bone china plate.

The glass vessel sample recovered from A012 contained five complete and three fragmentary bottles (the top of a sauce bottle and body fragments from a dark green and a dark olive bottle). One of the complete bottles was a machine-made wide-mouth pickle bottle, a machine-made soda bottle and three Codd bottles made in post-bottom moulds. Embossing was present on all complete bottles. The machine manufactured wide-mouth pickle jar was embossed with “THOMPSON & HILL/ LTD/ AUCKLAND” and dates to the twentieth century due to its manufacture method (Figure 6-83). The machine-made soda was embossed with “THOMSON'S (trademark) PURITY// THIS TRADE MARKED BOTTLE IS THE PROPERTY OF THOMSON & CO/ DUNEDIN CONTENTS ARE SUPPLIED ON THIS CONDITION ONLY” and likely post-dates 1910 as Thomson & Co were typically still using Codd bottles during the early 1900s (Tasker, 1989). Two of the Codds (a Purdie & Co and a Moffett & Co) have “1900” embossed on the base and the other (Mitchell & Co) has “1902,” suggesting they all date to the early twentieth century (Figure 6-83).



**Figure 6-83. Left: Thompson & Hill pickle jar dating to the twentieth century. Right: Codd bottles dating between 1900 and 1902 from A012.**

Other artefacts collected from the well were a metal bottle cap, a fragment of steel lacework, two amorphous metal fragments, and a number of wooden artefacts. One of these was a dipstick, embossed with “GLICO MOTOR// GALLS/ 51/2,” one was a clothes peg, and the other two were unidentified round-cross sectioned wooden objects (Figure 6-84). A piece of lime render and a cotton clothing fragment with twill weave were also recovered.



Figure 6-84. Unidentified round-cross sectioned wooden artefact and steel lacework fragment from A012.

Thirty five faunal fragments representing five species were identified in this feature; cow, pig, sheep, rabbit and oyster. Twenty two elements had evidence of butchery, representing the following meat cuts:

- 1 x mutton hind foot
- 1 x mutton forefoot
- 1 x mutton leg
- 1x beef rump
- 1 x pork neck

These are a mixture of both high and low value meat cuts. Surface cuts were also identified on a rabbit ulna. Several beef and mutton vertebra were seen in both plains indicating specialist butchery undertaken by a professional. Rat attrition was recorded on several skeletal elements.

#### 6.3.4 Context AA003

Context AA003 was a potentially disturbed rubbish pit. It was not clear whether all artefacts were collected from this feature or a sample taken, but a relatively large assemblage was recovered for analysis (Table 6-9).

Table 6-9. Summary of artefact sample collected from context AA003.

Material	NISP	MNI
Ceramic	54	18
Glass	75	27
Metal	37	5
Other	44	10
Faunal	9	3

The AA003 ceramic assemblage contained a variety of ware types and vessel forms. Whitewares were all tablewares, with fragments from two bowls, two cups, four plates, four saucers, a soup plate, and a tureen recovered. These were mostly decorated with UGTP designs; however, a grey version of Asiatic Pheasant and Rouen were the only identifiable patterns, on a plate and soup plate respectively. One of the unidentified patterns on a cup featured a railway scene with a train pulling carriages. The Rouen decorated soup plate was manufactured by Pinder Bourne & Co and can be dated to January 1876 based on the backmark (“PINDER/BOURNE/& CO/ 76.1”) (Godden, 1991). Only single examples of other ware types were recovered. These vessels included a painted bone china saucer, a Chinese brown-glazed stoneware jar, an undecorated creamware bowl, a buff-bodied earthenware teapot decorated with Rockingham glaze and an agateware hollowware body fragment. A selection of these vessels is shown in Figure 6-85.



Figure 6-85. Ceramics from AA003. Clockwise from top left: storage vessels, agateware, Pinder Bourne & Co mark dating to 1876, decorative tiles.

The AA003 rubbish pit contained a mixture of bottle types from a variety of functions. Five “black beer,” two ring seal and one Bordeaux shaped bottle may have held a variety of contents. Alcohol bottles included a case gin, an Uldolpho Wolfe schnapps, a flask, and a demijohn. Two Maugham bottles once held soft beverages. One held soda made by Invercargill manufacturers Moffett & Co and was manufactured by Lumb & Co, dating from the 1870s through to 1905 (Corbin, 2000b). The other was embossed with “J. T. REGISTERED” (Figure 6-86), but this mark was unable to be attributed to a bottle or soda manufacturer. Food bottles included two sauce bottles and a Lea & Perrins Worcestershire Sauce stopper. Three pharmaceutical bottles were recovered. One of these was JNO-H Power & Co castor oil. A glass tumbler was also recovered.



Figure 6-86. Glass bottles from AA003. Left beverage bottles, right generic bottles.

AA003 contained two horse shoes, a matchbox, and a teapot spout (Figure 6-87). Amorphous iron fragments were also recovered. The miscellaneous artefacts recovered were mostly leather shoe fragments. Three children’s hob nailed boots with wooden peg construction, and an adult shoe sole were able to be identified (Figure 6-88). Leather reins, and what is thought to be a fragment of a moleskin clothing garment were also collected. A clay pipe stem embossed with “105 DAVIDSON/ GLASGOW,” window glass, lime render, and wood fragments were also present.



Figure 6-87. Metal artefacts from AA003. Left: horseshoe and unidentified metal items. Right: teapot spout.



Figure 6-88, Left: Child's hob-nailed boot (AA003). Right: ?moleskin garment fragment (AA003).

Nine faunal fragments representing three species and one unidentified gastropod were identified in this feature; cow, oyster and sheep. All of the mammal bones except one complete sheep femur have evidence of butchery. Two low value beef cuts, one high value beef cut and one low value mutton cut were identified. Weathering is present on three skeletal elements and dog attrition is noted on two.

### 6.3.5 Context AA009

Context AA009 was a deposit of dark brown/black charcoal rich soil with artefacts scattered throughout. It was interpreted as a disturbed rubbish pit. A small assemblage of artefacts was recovered from this deposit (Table 6-10).

Table 6-10. Summary of artefact sample collected from context AA009.

Material	NISP	MNI
Ceramic	1	1
Glass	1	1
Metal	0	0
Other	1	1
Faunal	2	1

The AA009 assemblage consisted of the rim of a yellowware roasting dish, a fragment of a machine-made glass bottle and a piece of leather. Two cow skeletal fragments were identified from this context. One high value veal rump meat cut was present.

#### 6.3.6 Context AA011

Context AA011 was interpreted as a “rectangular pit for services” and contained a small artefact assemblage, dominated by glass (Table 6-11).

**Table 6-11. Summary of artefact sample collected from context AA011.**

Material	NISP	MNI
Ceramic	4	4
Glass	35	14
Metal	3	2
Other	2	2
Faunal	0	0

The glass vessels recovered from this context included three ring-seal, one “black beer” and one Bordeaux bottle which could have held a variety of contents, four alcohol bottles (two aqua green spirit and two schnapps), two food bottles (a sauce and a vinegar), two unidentified bottles and a pressed glass tumbler. The schnapps bottles were both embossed with “UDOLPHO WOLFE’S /AROMATIC SCHNAPPS” which was an incredibly common herbal tonic throughout the second half of the nineteenth century, as discussed in the previous site sections.

The AA011 ceramic vessel assemblage contained a whiteware Rouen plate and Teddesley tureen lid (Figure 6-89), a slip-glazed stoneware bottle and creamware flatware fragment. The other artefacts collected from this context were a matchbox, an unidentified iron object and two bottle corks.



**Figure 6-89. Ceramics from AA011 (clockwise from top right): slip-glazed stoneware bottle, Rouen plate and Teddesley tureen lid.**

#### 6.3.7 Context AA012

Context AA012 was a timber floor. A sample of the timber was collected but could not be identified to species. A sample of fasteners were also recovered, including 12 wire nails (Figure 6-90) and one large bolt.





Figure 6-90. Wire nails from AA012.

6.3.8 Context AC003

Context AC003 was a deposit of brown clay with artefacts dispersed throughout. A sample of material was collected for analysis.

Table 6-12. Summary of artefact sample collected from context AC003.

Material	NISP	MNI
Ceramic	3	2
Glass	25	5
Metal	7	6
Other	2	1
Faunal	5	

AC003 contained two whiteware plates and a whiteware crock base. The plates were decorated with black and blue UGTP designs, but neither patterns were able to be identified. The glass vessels recovered included a small wide-mouth pickle jar, two pharmaceutical bottles, and two unidentified bottles. One of the unidentified bottles was a small cobalt blue bottle (Figure 6-92). Based on the colour of the glass this is probably a poison bottle (Lindsey, 2015). Five wire nails, a screw and two fragments of window glass were also recovered. Five mammal fragments were identified in this context. One of the four cow fragments were sawn however meat cut could not be determined.



Figure 6-91. Possible poison bottle from AC003.

6.3.9 Context AC007

Context AC007 was a drainage trench. The portion excavated contained a fragment of a slip-glazed stoneware bottle and the base of a pressed glass tumbler.

*6.3.10 Context AC010*

Context AC010 was a deposit consisting mainly of metal and charcoal. A wire nail and what were interpreted as roof flashings were recovered from this context.

*6.3.11 Context AD008*

Context AD008 was a deposit of brown soil and decomposed wood. The only artefacts recovered from this context were body fragments from three round cross-sectioned bottles (one light olive, one dark olive and one aqua green).

*6.3.12 Context AD010*

Context AD010 was a square, wood-lined pit. A sample of the wood was collected but was unable to be identified. Two cut nails were also recovered.

*6.3.13 Context AD014*

Context AD014 was a deposit of dark brown soil with artefacts scattered throughout. A sample of artefacts was recovered for analysis. This sample consisted of a complete dip-moulded “black beer” bottle, the base of a turn-moulded ring-seal bottle and body fragments of a schnapps bottle. A fragment of sheet iron was also collected.

*6.3.14 Context AK008*

Context AK008 was a deposit of brown clay with artefacts throughout. The only artefact recovered was a broken turn-moulded ring-seal bottle.

*6.3.15 Context AL004*

Context AL004 was a drainage trench. A single, intact turn-moulded ring-seal bottle was recovered from within the trench (Figure 6-92).



**Figure 6-92. Ring-seal bottle from AL004.**

*6.3.16 Context AL008*

Context AL008 was a coarse black charcoal layer with demolition rubble and artefact inclusions, possibly the same as context E017 on site E46/59. Two fragments of a hollow whiteware vessel decorated with an unidentified grey UGTP design, a fragment from an unidentified buff-bodied earthenware vessel and the base of a dip-moulded “black beer” bottle was recovered from this context.

*6.3.17 Context AN005*

Context AN005 was a shallow circular rubbish pit with a brick rubble and pebble cap. The feature was half-sectioned and all artefacts from the excavated half were collected for analysis (Table 6-13).

Table 6-13. Summary of artefact sample collected from context AN005.

Material	NISP	MNI
Ceramic	729	45
Glass	2245	57
Metal	0	0
Other	8	3
Faunal	0	0

AN005 contained the most ceramic fragments from E46/62, more than the other contexts combined. These were mainly whiteware body fragments. Vessel forms included table bowls, crocks, cups, plates, saucers, tureens, and a soup plate. Decoration was mainly UGTP, with Willow (one plate), Asiatic Pheasant (one soup plate), Fibre (one tureen), and Rhine (three plates and a tureen) being the only identifiable patterns. Whilst backmarks were present, these were too fragmented to allow for identification. The only mark which was able to be dated was a fragment of an undecorated plate with the royal coat of arms, meaning the plate must post-date 1837 (Burke, H., Smith, C., Zimmerman, 2009). Unidentified fragments included 274 undecorated whiteware body sherds which were too fragmented to be identified. The high number of unidentified sherds means the MNV for the context is likely higher than what has been able to be identified. Five bone china vessels were recovered, two mugs, an egg cup, and two saucers. The egg cup and one of the saucers were sprigged with the Chelsea Sprig and Imitation jasper patterns respectively, and one of the mugs had enamelled floral decoration. Bristol and slip-glazed stoneware bottles were recovered, as was a salt-glazed stoneware ink bottle. A buff-bodied earthenware roasting dish and Rockingham teapot were also found. See Figure 6-93, Figure 6-94, and Figure 6-95 for images of a selection of the ceramic vessels.



Figure 6-93. Left: plates and utilitarian dishes from AN005. Patterns include Asiatic Pheasant, Rhine, and Chelsea Sprig. Right: hollowware vessels from AN005, including tureens, tea pot, cup, and mugs.

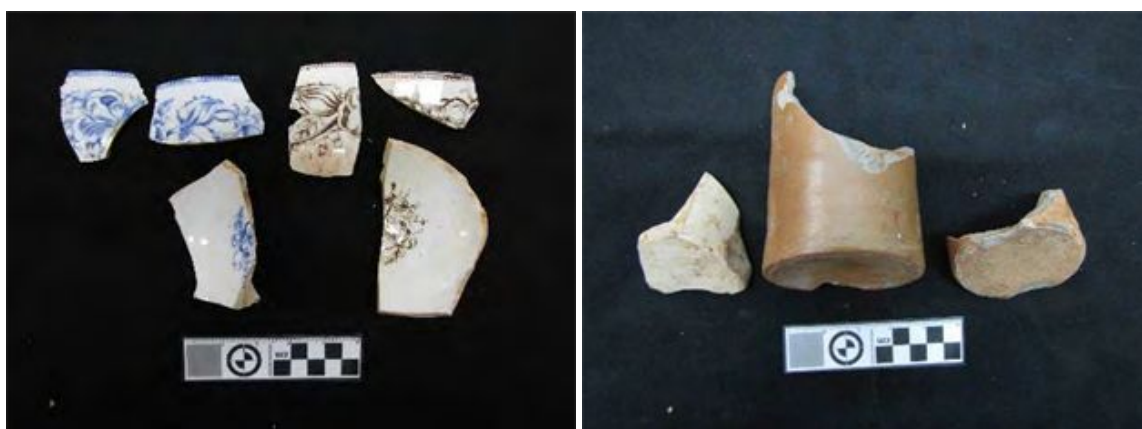


Figure 6-94. Left: unidentified pattern found in different colours on cups from AN005. Right: stoneware bottles.



Figure 6-95. Left: Willow pattern plate fragments. Right: Unidentified marks on the back of Willow pattern plates.

AN005 contained the most glass out of all the contexts from E46/62. A large amount of this was dark olive body glass, with a minimum of 37 “black beer” bottles recovered from the rubbish pit (Figure 6-96). Of these, one was manufactured by G. W. Weston & Co and was able to be dated to between 1848 and 1861 based on the embossing (“G W & Co”) on the base (Lindsey, 2015). Another was embossed with “DOBESON & WARREN NEWCASTLE,” however no information was able to be found on this company. Two ring-seal bottles were also recovered. Five dip-moulded case gins and one sarsaparilla bottle once held alcoholic contents. The only food bottle to be recovered was a Lea & Perrins Worcestershire Sauce bottle, which had “A C B Co” embossed on the base which dates it to between ca. 1865 and 1919 (Lindsey, 2015). However, some aqua green bottle tops were tentatively identified as being food related based on their form. Two tumblers and a stemmed drinking vessel were the only tableware items found in the context. A relatively high amount of bottle glass was unable to be identified. The majority of this was aqua green bottle body glass. As aqua green coloured glass is used commonly for a variety of contents, it is particularly difficult to assign a function when it is highly fragmented.



Figure 6-96. “Black beer” bottle glass recovered from AN005.

No metal artefacts were recovered from this feature. The miscellaneous items collected include brick and fire brick fragments and part of a leather shoe.

#### 6.3.18 Context F003

Context F003 was a black charcoal rich deposit which contained an unidentified cast iron artefact which was not recovered, pictured in Figure 6-97. Due to the artefacts location near the stables it was hypothesised it may be a carriage part, potentially part of the hub. It appears to be the wrong size and shape to be a railway spike, however it potentially could be a railway screw spike.



Figure 6-97. Unidentified metal artefact from F003.

#### 6.3.19 Context F006

Context F006 was a brick floor. A small sample of artefacts was collected from the surface of this feature. This sample included one ring-seal bottle made in a turn mould, three Codd's and two Maugham's. The Codd bottles include two Moffett & Co examples, dating to 1899 and 1906 based on the embossed dates on the bases, and a Mitchell & Co bottle, also dating to 1899. One of the Maugham's was also a Moffett & Co bottle (Figure 6-98, left). These two aerated water firms operated in Invercargill from the late-nineteenth to the early-twentieth century (Robson, 1995), and are discussed in more detail in the previous site discussions. A copper alloy door knob was the only other artefact collected from above F006 (Figure 6-98, right).



Figure 6-98. Left: Maugham (left) and Codd (right) bottles from F006 dating to 1899. Right: door knob from F006.

#### 6.3.20 Context F009

Context F009 was a feature consisting of timber planks, interpreted as either a floor or an overturned wall. One brad, six wire nails, fragments of slag and two sheep skeletal elements were collected from the surface of this feature. One sheep bone had evidence of dog attrition while the other was weathered. No evidence of butchery was present.

#### 6.3.21 Context F022

Context F022 was a brick floor found along the northern boundary of the site. Artefacts were collected from the surface of this feature (Table 6-14).

Table 6-14. Summary of artefact sample collected from context F022.

Material	NISP	MNI
Ceramic	15	5
Glass	17	9
Metal	4	2
Other	7	3
Faunal	42	4

Fragments from five ceramic vessels were collected from the top of the bricks: a whiteware plate and saucer decorated with Rouen, an undecorated whiteware bowl and two undecorated whiteware plates. The Rouen plate had a maker's mark which read "ROUEN/ P B & Co" within a garter, meaning it was manufactured by Pinder Bourne & Co between 1862 and 1882 (Godden, 1991).

The glass vessel assemblage from F022 contained fragments from two "black beer" and one ring-seal bottle that may have held a variety of contents. A schnapps bottle held alcohol, specifically Udolpho Wolfe's Aromatic Schnapps, the top of an amber brown bottle with a white residue on the inside probably held pharmaceutical product, while the function or common name of four bottles were unable to be identified. A machine manufactured bottle top and piece of milk glass date to the twentieth century and provide an approximate TPQ for the deposition of these artefacts.

Other artefacts collected from the surface of this feature were the tang of a metal file, an unidentified cuprous artefact (Figure 6-99), and fragments from three earthenware wall or fireplace tiles with polychrome lead glazes. The unidentified artefact was a small gold-plated funnel, with a hinged mesh attachment, and may have been part of an oil or gas lamp.



Figure 6-99. Unidentified cuprous artefact from F022.

Forty-two skeletal fragments were identified from this context and represented four species; cow, sheep, chicken and goose. Almost half of the skeletal elements were sheep vertebral and rib fragments with another quarter comprising of cow vertebral and rib fragments. A large portion had evidence of butchery and indicate specialist carcass processing by a professional. Two low value mutton meat cuts were identified in addition to surface cuts on several sheep and goose elements. Both rat and dog attrition is present on multiple elements from the context.

### 6.3.22 Context F031

Context F031 was a brick floor to the west of F030. One ceramic sherd from an Asiatic Pheasants UGTP whiteware plate, a wire nail and lead weight (Figure 6-100) were recovered from the surface of the bricks along with a small faunal assemblage. Seventeen skeletal elements were identified, representing four species; sheep, cow, pig and rabbit. The majority of the elements were weathered, and one had evidence of dog attrition. The rabbit femur had no evidence of butchery and was juvenile. Twelve elements were butchered and represented four meat cuts:

- 2 x mutton hind feet
- 1 x beef soup cut
- 1 x mutton leg

These are a mix of both high and low value meat cuts.



Figure 6-100. Lead weight from F031.

#### 6.3.23 Context F034

Context F034 was a raised brick floor with timber cross beams, though to be bases for partitions. A small assemblage of artefacts was collected from on top of this feature (Table 6-15).

Table 6-15. Summary of artefact sample collected from context F034.

Material	NISP	MNI
Ceramic	3	3
Glass	15	10
Metal	8	8
Other	2	1
Faunal	4	1

Sherds from three ceramic vessels were recovered from this context: a whiteware gilt saucer, an undecorated whiteware cup and a salt-glazed stoneware crock. The glass vessel assemblage included one squat “black beer” (one squat), three complete ring-seals (Figure 6-101), one cup-bottom mould beer, one Udolpho Wolfe’s Aromatic Schnapps, three unidentified bottles (two aqua green and one colourless) and one tumbler. The cup-bottom mould beer bottle was an Auckland Lion Ale & Stout bottle, embossed with “...RRY LTD/ ...AT NO.../ AUCKLAND/LION ALES & STOUT.” Lion Brewery was the result of the amalgamation of two Auckland brewing companies (Campbell and Ehrenfried Company and the Great Northern Brewery) in 1915 (*New Zealand Herald*, 1915), and as such this bottle provides a TPQ of 1915 for the deposition of these artefacts.

The F034 assemblage also contained several metal artefacts. Identified artefacts included a crown seal bottle cap, tin can, enamel sauce pan, brad, spark plug, and a file. A cast iron bar was tentatively interpreted as being part of a set of scales based on its size and shape. An iron peg screwed to a rectangular base was unable to be identified. An earthenware tile with coloured lead glaze was also recovered (Figure 6-101), as were three cow ribs and one unidentified cow skeletal fragment. One had evidence of butchery.



Figure 6-101. Left: squat “black beer” (far left) and ring-seal bottles from F034. Right: earthenware wall or fireplace tile with coloured lead glaze.

6.3.24 Context F035

Context F035 was a brick footing. The leather heel of a shoe and two butchered sheep elements were associated with this feature. One low value mutton hind foot meat cut was identified.

6.3.25 Context F041

Context F041 was a trench filled with gritty black silt with artefact inclusions. A sample of artefact material was collected from this context (Table 6-16).

Table 6-16. Summary of artefact sample collected from context F041.

Material	NISP	MNI
Ceramic	8	4
Glass	135	38
Metal	0	0
Other	2	2
Faunal	1	1

Four ceramic vessels were recovered from F041: three whiteware Rouen pattern plates and a bone china gilt banded cup. Maker’s marks were present on each of the Rouen plates, with “ROUEN/ P. B. & Co” within a garter (Figure 6-102) on two and “DOULTON/BURSLEM” on the third. The former mark dates to between 1862 and 1882 while the Doulton mark was used after the company purchased Pinder Bourne and Co in 1882 until 1891 (Godden, 1991).



Figure 6-102. Pinder Bourne & Co maker’s mark on a Rouen plate from F041.



The black grit deposit contained a variety of bottles. At least 12 ring-seal bottles and one “black beer” could have held a range of contents. Nine schnapps bottles, an amber brown beer and two dip-moulded case gins represent alcoholic products (Figure 6-103). As well as the ever ubiquitous Uldolpho Wolfe schnapps, the J. H. Henke brand was also present. J. H. Henke Schnapps was being advertised for sale in New Zealand at least as early as 1875 (*New Zealand Herald*, 1875). Two soda bottles of unidentified brand, a Lea & Perrins Worcestershire Sauce, salad oil, two pharmaceutical, and unidentified bottles were also recovered from the context (Figure 6-103).



Figure 6-103. Left: Schnapps bottles from F041. Right: unidentified bottles from F041.

Other artefacts recovered from this context were a wooden gravitational stopper from an aerated water bottle, a fragment of window glass and one oyster shell fragment.

#### 6.3.26 Context O003

Context O003 was a deposit of light brown clay. The base of a turn-moulded ring-seal bottle and top of a schnapps bottle were recovered from this context.

#### 6.3.27 Context S002

Context S002 was a deposit of clay with quartz pebble and artefact inclusions. The sample of artefacts collected from this context included fragments from a whiteware Rouen plate, a gilt banded bone china saucer, a whiteware cup with black floral UGTP decoration (Figure 6-104), the base of a ring seal and top of a “black beer” bottle, one pig and one sheep skeletal element. The sheep femur has evidence of dog attrition and surface cuts.



Figure 6-104. Whiteware cup with unidentified UGTP design from S002.

*6.3.28 Context S003*

Context S003 was interpreted as a shallow rubbish pit. The only artefact recovered, however, was a single salt-glazed stoneware blacking jar.

*6.3.29 Context S007*

Context S007 was another shallow rubbish pit. It contained a single undecorated whiteware hollowware ceramic fragment, the base of a dark green dip moulded bottle, three tumblers and two stemmed glasses.

*6.3.30 Context T002/U003*

Context T002/U003 was a deposit of dark brown friable soil with decomposed wood. A fragment of whiteware plate with a purple unidentified UGTP design, the base of an aqua green round cross-sectioned bottle made in a dip mould and several lumps of amorphous iron were the only artefacts recovered from this deposit.

*6.3.31 Context T003*

Context T003 was a trench filled with yellow mottled clay and quartz pebbles. One cow sacrum with evidence of dog attrition was collected from this context.

*6.3.32 Context U005*

Context U005 was a drainage trench. The section excavated contained four slip-glazed stoneware bottles, a salt-glazed stoneware ink bottle, a whiteware hollow vessel fragment with blue UGTP decoration similar to Fibre, the base of a vinegar bottle and a concentration of oyster shells (N=14). One of the slip-glazed bottles bore a mark for H. Kennedy & Sons, Barrowfield Pottery (Figure 6-105). A date was unable to be found for this mark.



Figure 6-105. Stoneware bottles from U005.

## 6.4 Interpretation

In the course of this development both buildings archaeology and archaeological monitoring of earthworks were carried out on site E46/62 – The Criterion Hotel and Yards. Buildings archaeology was carried out on the hotel building located on the front half of the section, and archaeological monitoring of earthworks was carried out across the site following the demolition of the structure. The following sections discuss the interpretations of the results obtained from this work.

### 6.4.1 Buildings archaeology

Historic research into the Criterion Hotel demonstrates that it was opened for business by James Galbraith in 1878. At this stage, the hotel consisted of a large two-storey brick building with an access way along the eastern boundary, covered over by the first floor, providing passage to the rear of the property. A smaller two-storey rear section was located behind the main building and aligned against the western boundary. At some point between 1886 and 1908, the main building of the hotel was extended to the western property boundary. Jane Moloney took over the hotel after the death of her husband in 1899. She made further modifications in 1908 following prohibition and changed the Criterion from a hotel to a boarding house. These modifications were extensive, the internal layout of the existing front section was altered to add more bedrooms on the ground floor and the rear section was partially demolished and extended. In 1949 the Criterion Hotel was converted into office space on the first floor and three shop spaces on the ground floor. The plans show that larger western shop space was occupied by Pollock Knitwear and the eastern shop space was occupied by an optician. The plans do not include a reference to who occupied the central shop space. Alterations continued to be made throughout the latter half of the twentieth century to bring the Criterion to its contemporary form. Building archaeology was carried out in order to understand how the building was constructed and how it has changed and been utilised over time.

While the hotel has undergone extensive modifications, a historic photograph (Figure 6-106), extant features of the original structure, and architectural plans provide valuable information to help us understand how the building has changed from its original configuration. The ground floor of the original Phase 1 hotel was divided into three sections by structural brick walls (east, west, and centre). The main entrance of the hotel opened into the main hallway in the centre section of the ground floor. The hallway had doors on either side to rooms in the east and west sections, a staircase to the first floor in the north-west corner, and an external door in the north wall. The west section had two fireplaces in the west external wall but how the space was divided into rooms could not be determined. However, as the staircase blocks the northern half of the wall between the west and central section's there is a limited space for doorways suggesting that at most, the west section was divided into two rooms, each with a fireplace, in the original layout. Having fireplaces indicates that these were more likely to have been public spaces, possibly the dining and sitting rooms.

The east section of the ground floor had one fireplace in the north wall and an external door to the east of this. It appears there was also an external door in the south wall of the east section, this is visible in the 1886 Invercargill Block plan of Section 18 and in the 1949 plans (Figure 6-107). Two doorways were identified in the brick wall between the centre and east sections during the buildings archaeology, one at the north end and one at the south end. Both doors had been bricked up, however, the northern one had since been reopened. The 1949 plans detail a third door existing in this wall that was also bricked up however, the extensive modifications to the wall made it difficult to identify in the field. The hotel's cellar was identified during the demolition below the eastern section and was entered via a cellar door located in the accessway. This suggests that the hotel bar was located in the eastern section.

The first floor of the Criterion Hotel was accessed via the stairs in the main central hallway. It is likely that the first-floor space was taken up entirely by bedrooms, these were accessed through a central hallway that ran east to west from the landing. Guestrooms would have run along the northern and southern walls with the western most rooms having fireplaces. These western rooms may have belonged to the hotel keeper.

The layout of the Phase 1 outbuilding was considerably altered during the Phase 3 renovations (Figure 6-107). It is likely that that it housed work areas like the kitchen space and possibly servant’s quarters.



Figure 6-106. Detail of the Criterion Hotel from a photograph looking north-east along Don Street<sup>29</sup>.



Figure 6-107. Section 18 from the 1886 block plans of Invercargill<sup>30</sup>

The 1894 western extension was added by James Knight who took over the lease that same year. The extension is documented as including the addition of three sitting rooms (Southland Times, 1894a). These were likely on the ground floor with more guestrooms being added to the first floor and the central hallway extended to access these. The plans for the 1908 build refer to the space directly north of this extension as “Dining Room Extension”

<sup>29</sup> Anonymous. (circa 1878-1880). Bk 71 Don Street [Photograph]. Invercargill: Collection of Southland Museum, & Art Gallery.

<sup>30</sup> Burwell, F. W. (1886). Plans of Inver’gill Buildings, 1886. Invercargill: Invercargill City Library & Archives

indicating at least part of the extension was utilised this way. To access the extension, doors were cut through the original western exterior wall. The 1949 plans show two passageways providing access into the western extension on the ground floor and one on the first floor. Of these the doorway in the north-west corner of the ground floor was identified during the buildings archaeology.

The 1908 plans lack detail of the layout of the main section of the building. However, they show that the hotels dining room was located in the western extension and extended into the renovated rear section (Figure 6-109). It also numbers the seven bedrooms on the first floor of the rear extension beginning at 14 suggesting that 13 bedrooms are present in the main section of the hotel (Figure 6-108). The 1949 alteration plans provide a further indication of the layout of the ground floor of the hotel. This is because the 1908 plans indicate that no alterations were made to existing areas of the hotel other than to join it to the extension in this phase. There is also no evidence to suggest that the floor plan of the pre-1900 section of the Criterion changed between 1908 and 1949. The buildings archaeology supports this interpretation. It should be noted that the functions of the rooms as they are labelled on the plans also cannot be taken as evidence of their original purpose.



Figure 6-108. Detail of 1908 renovation plans showing first floor extension with rooms numbered 14 to 20 (ICC Property File).

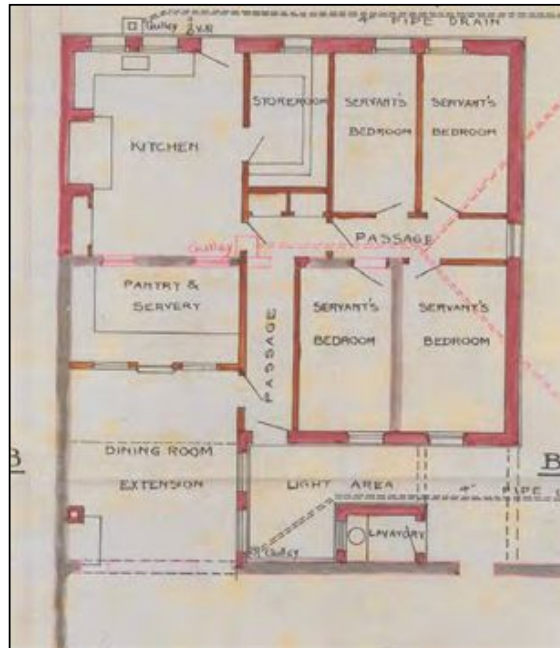


Figure 6-109. Detail of 1908 renovation plans showing ground floor extension. Note the room in the south-east corner is labelled 'DINING ROOM EXTENSION' (ICC Property File).

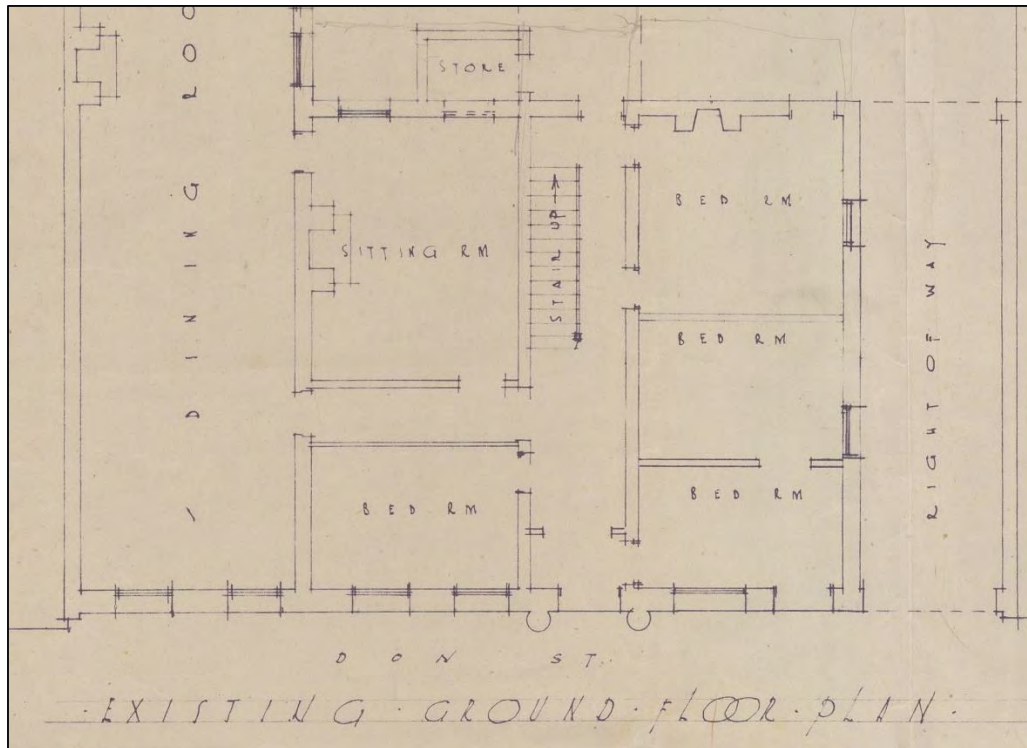


Figure 6-110. Plan of existing ground floor as it was in 1949 cropped from the 1949 plans for Alterations to Criterion Hotel, Don Street, Invercargill for G. F. Pollock by A. G. A. Milne, architect (ICC Property File).

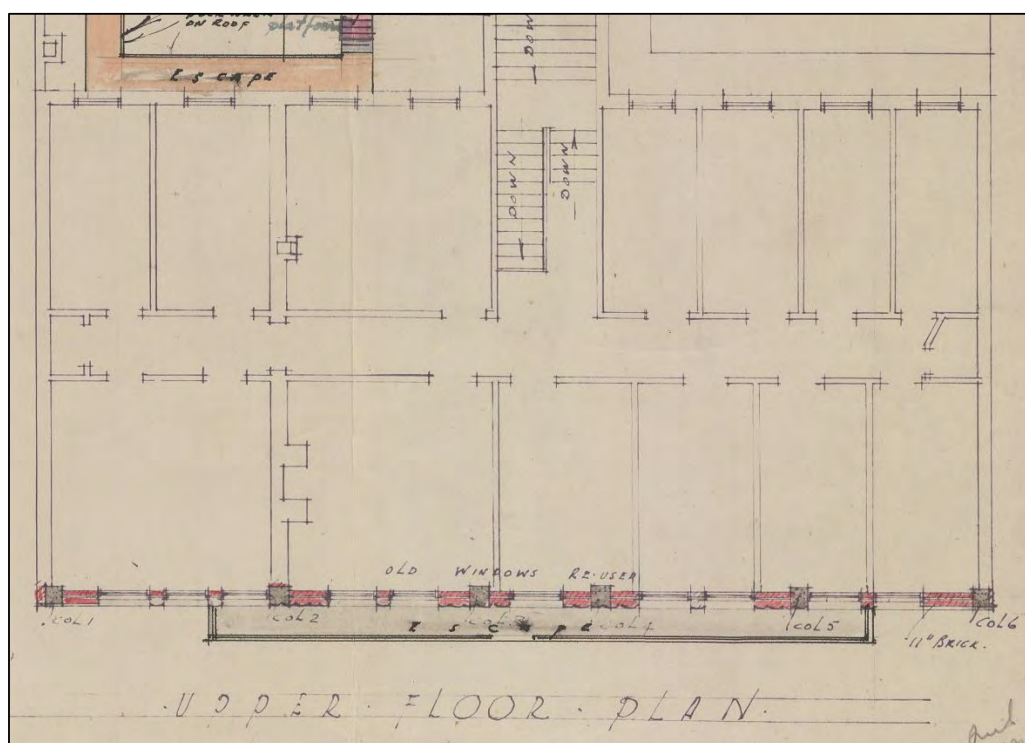


Figure 6-111. Plan of first floor showing planned alterations to south wall cropped from the 1949 plans for Alterations to Criterion Hotel, Don Street, Invercargill for G. F. Pollock by A. G. A. Milne, architect (ICC Property File).

The 1949 plans show the existing ground and first floor layout. They show that the ground floor had three rooms in the east section accessed from the main hallway. Two rooms in the original western section divided by a passageway providing access to the western extension. The buildings archaeology confirmed this layout. The plan shows that the first floor of the main section had 13 rooms with a hallway running the full width of the building with cupboard spaces at both ends. The buildings archaeology confirmed this layout, though due to numerous modern alterations not all of the rooms could be confirmed. The buildings archaeology also revealed that the cupboard at the eastern end of the hallway was not an original component of the Phase 1 building as during the demolition a window was identified in Room 13 which would have been positioned at the eastern end of the hallway. This would have been bricked up when the neighbouring building was constructed. The buildings archaeology also revealed that the landing was lined with tongue-and-groove wainscoting with wallpapered plaster above. The rooms were wallpapered and the hallway, at least within the western extension was lined with tongue-and-groove boards. The ceilings in the Phase 1 building were lined with tongue-and-groove whereas in the western extension they were lined with sarking boards.

In the late 1940s, the building was divided into various commercial spaces which were altered further throughout the latter twentieth century to accommodate the various businesses that have utilised the spaces.

#### 6.4.2 Stratigraphy and Archaeological Features

The stratigraphy of the site is relatively uniform. The natural topsoil and silt loam substrate were identified across the site below the hotel building and various deposits asphalt and fill. Within the area of the Criterion Yard a patchy deposit of black grit between 30 and 100mm thick was identified. This layer sat directly on top of the natural topsoil and would have been introduced to the site as a surface layer for part of the exterior yard area and accessway along the eastern boundary. It is made up of a fine ashy black grit that is either incinerator ash or possibly an 'asphalt' by-product of the gas works.

The archaeological features identified on the site relate to both the modern twentieth century and pre-1900 occupation of the site. The earliest known occupation of the site dates to 1878 when the hotel was opened by James Galbraith. From this time sales were held in the Criterion Yards Horse Bazaar behind the hotel. The 1886 Burwell plans of Invercargill show that at this time an L shaped timber building was located along the western and northern boundaries of the site. This served as both the stables and wash house of the site. Partial remains of this building in the form of postholes, wooden beams, and brick and wooden floors were identified along the northern boundary of the site. Further brick floors were identified beyond the footprint of the building and are believed to be external paved areas related to the use of the area as a sales yard. This first building was replaced with a larger stable building by 1913. One further brick floor (F34) was identified on the side believed to be associated with this structure due to its location 200mm higher in the stratigraphy of the site than the other floor surfaces.

A circular brick lined well was identified in the rear yard space of the site. This would have served as the sections private well positioned toward the western boundary between the rear of the Phase 1 hotel building and the L shaped wash house and stable building. The well was out of use by 1908 as the foundation of the Phase 3 rear extension cut through the feature and is further confirmed as the approximate date by the artefactual material encountered in it. Private wells are a common feature of Invercargill sites as the city only began to establish a town water supply in 1886.

#### 6.4.3 Artefacts

The artefact assemblage recovered from the Criterion Hotel and its associated auction yards provides us with a deeper insight into how the site was used. As a hotel, it is expected that the artefacts recovered from the site will reflect how the hotel was run and managed. Ceramics were largely whiteware tablewares, with plates, cups, and saucers being the most common vessel types recovered. This is to be expected, as these vessel types would have been handled more frequently than others, and so were more susceptible to breakages. Whitewares were largely decorated with simplified patterns where decoration was focused on the border, such as Rouen, Teddesley, and banded wares. The 1880s saw a move to these simplified pattern styles (Woods, 2013) The purchasing of these styles of decoration on whitewares as opposed to bone china, suggests that whilst the hotel was trying to remain up-to-date in terms of trends, they were not purchasing expensive wares. This was perhaps to counter the expense of having to replace vessels as they broke, something which was no doubt common in the hospitality industry. Backmarks on Rouen decorated plates showed that the hotel was purchasing from Pinder Bourne & Co and Doulton & Co. Pinder Bourne & Co. operated between 1862 and 1882, after which time they were taken over by Doulton & Co (Birks, 2017). The presence of these two marks from differing time periods suggests that Rouen decorated vessels continued to be re-purchased, suggesting that whilst the hotel was trying to keep up with trends of the time, it was also eager to maintain sets and similar ceramics. Rouen appears to have been a popular choice for hotel ceramics. Petchey's (Petchey, 2004) investigations at the Royal Oak Hotel in Arrowtown similarly found Rouen to be the most popular choice of decoration. The interpretation that the hotel was trying to follow trends and maintain similar sets in its ceramic vessels is somewhat confused by the amount of pattern variation seen across the site. This variation is centred in context AN005, a rubbish pit, which will be discussed below. When AN005's artefacts are separated from the rest of the site's, the ceramics appear to follow these patterns.

**Table 6-17. Summary of context types and terminus post quem (TPQ) for E46/62 artefact-bearing deposits.**

Context	Type	TPQ (source)
A003	Layer	1899 (Thomson aerated water bottle mark)
A004	Natural	?
A012	Well fill	1910 (Machine-made Thomson's soda bottle)
AA003	Refuse dump	1876 (Pinder Bourne & Co mark)
AA009	Layer	~1900 (Machine-made glass bottle)
AA011	Services pit	1863 (Udolpho Wolfe bottle)
AA012	Timber floor	?
AC003	Layer	?
AC007	Drainage trench	?
AC010	Layer	?
AD008	Layer	?



AD010	Pit	?
AD014	Layer	~1870s (Ring seal bottle)
AK008	Layer	~1870s (Ring seal bottle)
AL004	Drainage trench	~1870s (Ring seal bottle)
AL008	Layer	?
AN005	Refuse dump	~1870s (Ring seal bottle)
F003	Layer	?
F006	Brick floor	1906 (Moffett & Co aerated water bottle mark)
F009	Timber floor/wall	?
F022	Brick floor	~1900 (Machine-made glass)
F031	Brick floor	?
F034	Brick floor	1915 (Lion Brewery bottle)
F035	Brick footing	?
F041	Trench fill	1882 (Doulton mark)
O003	Layer	~1870s (Ring seal bottle)
S002	Layer	~1870s (Ring seal bottle)
S003	Refuse dump	?
S007	Refuse dump	?
T002/U003	Layer	?
T003	Trench fill	?
U005	Drainage trench	?

Whilst tablewares were the most common ceramic vessels recovered from the site, a relatively high number of stoneware bottles were also found. These bottles likely held beer and other alcoholic beverages. Alcohol related bottles were by far the most common bottle types recovered from the site. With the hotel advertising its sale of liquor, it is not surprising the amount of alcohol bottles recovered (Southland Times, 1978). Petchey also found at the Royal Oak Hotel that the bottle assemblage was mostly alcohol, suggesting this is a common feature in hotel sites (Peter Petchey, 2004), as expected. The majority of contexts contained a mixture of different types, with ring-seal beers tending to dominate. This fits with the chronology of the site, which remained unoccupied until 1878. Ring-seal beers were the most popular bottle type for beer and other alcohols from 1880 onwards. The exception to this, as it was with the ceramics, was AN005, which was mostly black beer bottles. Other beverage, food, and pharmaceutical bottles were seen in similar levels across the site. Food and other beverage bottles likely relate to the running of the hotel and the serving of meals and beverages. Pharmaceuticals could belong to either the hotel guests or the license holders of the hotel. A relatively high number of glass tablewares were also recovered. Similar to the ceramics, this likely reflects the nature of the hospitality industry and the higher rate of breakages which occur when compared to normal household settings.

The location of the auction yards at the rear of the hotel made it difficult to distinguish which artefacts related to the hotel and which to the yards, as rubbish was commonly deposited at the rear of a property meaning hotel related rubbish could have been located on the auction yards (Butcher & Smith, 2010). No doubt the horse shoes and saddle fragments relate to the auction yards, but it is hard to assign any other artefacts specifically to them. The majority of metal and miscellaneous artefacts were structural related, meaning there is little which can be said about them having been removed from their contexts. One point of interest is the amount of shoes recovered from the site. These were highly fragmented; however, some sizes and styles were able to be distinguished. Four of the shoes were children's boots, all from the rubbish pit AA003. Of these, three boots were hobnailed. Area AA was located at the very rear of the site, meaning it may have been a rubbish pit relating to the auction yards.

As already mentioned, rubbish pit AN005 is somewhat unusual compared to the rest of the site. AN005 contained over double the artefacts in the rest of the contexts combined. With regards to ceramics, decoration was of styles more common pre-1880. All of the Willow fragments recovered from the site were from this context, and most of the Fibre, Asiatic Pheasant, and Rhine patterned vessels. No banded ware or patterns where the decoration is focused on the border like Rouen were present. With regards to the bottles recovered from the context, they are almost entirely black beer bottles, with over 1400 fragments recovered. One of these had a base mark dating its manufacture to between 1841 and 1861. Based on the artefacts recovered from the rubbish pit, it likely pre-dates 1880. With the section vacant until 1878, the rubbish pit either dates very early in the Criterion's history, or the rubbish was deposited on the section whilst it was still empty, and is related to one of the neighbouring properties.

The contents of the rubbish pit itself are somewhat confusing. Given the scarcity of bottles in the nineteenth century and the need for bottle re-use, it seems strange for so many to have been dumped, particularly so close to a brewery. This may have been explained if the bottles were broken ones dumped by the brewery itself. Yet the number of ceramic fragments suggest otherwise.

When identifying sites near the project area, it was noted that two wells were located close by. Unfortunately, these were recorded under the old site-recording scheme, and no report was written on them. This means that the artefacts recovered from A012, the well at the rear of the Criterion are unable to be compared to those recovered from the neighbouring wells. Relatively few artefacts were recovered from the well, suggesting it was in use for the majority of the site's occupation and kept clear so as not to pollute the water supply. From the artefacts which were deposited, most have a post 1900 date. This would suggest that the well was in use until at least the early 1900s. The lack of artefacts recovered from the well differs greatly from the well found in E46/59. More on the differences between the two will be discussed below.

Of the total faunal assemblage analysed at Don Street (n=344), 36% of the faunal remains were located on this site. This is the largest quantity of material across all four sites. By Context, faunal material is concentrated in F022 and A012; 34% and 28% respectively. The remaining contexts contain no more than 7% of the total site assemblage. Both of these contexts also have the largest diversity of species. By species, cow and sheep dominate the assemblage, closely followed by oyster. The presence of pork suggests earlier dates of occupation as pork is predominant until the 1860s when mutton became a more major protein source (Watson 2000).

Again, on this site there is evidence of both butchery phases two and three by the presence of vertebra fragments longitudinally butchered and specialist/retail soup/shank meat cuts.

Butchery was recorded on 60 skeletal remains across nine contexts; A004, A012, AA003, AA009, AC003, F022, F034, F035 and S002. The majority are concentrated in A012 and F022. Both high and low value mutton and beef cuts were identified. Drawing from the information provided from the skeletal portions of butchered mammals analysed, it appears that occupants were most likely acquiring from a source (experienced retail butcher).

This site has the greatest quantity of bird remains, concentrated mostly in F022. Evidence of butchery is only seen on one goose humeri. The lack of butchery on the domestic fowl and other goose elements can be attributed to the small size of the skeletons and cooking methods. As an example, a chicken cooked as a roast would require no element reduction and leave no evidence for butchery. There is one case where butchery is recorded on rabbit bone (A012, well) on a lower extremity. This suggests rabbits were being consumed. The lack of butchery marks on the other skeletal material does not exclude these from consumption. It is probable these were prepared in same manner as domestic fowl and cooked whole.

A012 and F022 are the only two contexts with evidence of animal attrition. Rat attrition is only present on material from A012 while both rat and dog attrition were present on material from F022. Again, in the assemblage, no dog or rat bone was identified yet there they were present through their attrition. The presence of rat attrition tends to suggest opportunistic scavenging of easily available food scraps is the most plausible.

## 7 Results – E46/59 – William Todd & Co. Auctions at the Rialto

The 2016-2017 site works began with the demolition of the existing buildings, including one pre-1900 structure, followed by excavation across the site. However, not all archaeological material has been cleared from the site. The following sections provide an overview of the historical background of the site before discussing the results of the buildings archaeology, the archaeological monitoring, and the artefact analysis.

Site E46/59 comprises of Section 19 block LXXI town of Invercargill, Southland District. The first evidence of occupation at the site is the 1886 Burwell plans which show a single building located to the rear of the section. This building was likely associated with the brewery on Section 3, as the property was leased by John T. Martin during this period. The property was later leased from 1892 to 1897 by Martin Hughes, a blacksmith, after which William Todd took over the lease establishing his auction house 'Rialto' on the site. Initially the Rialto consisted of a single-storey Palladian-style brick building at the front of the property which was extended 1913 to cover the entire section. The business later expanded onto Section 4 which Todd leased in 1912 and Section 3 which Todd purchased in 1922. Significant alterations were made to the original Rialto building in the early 1960s, including the addition of a second storey and a new façade. These buildings remained on the site until development works began in 2016.

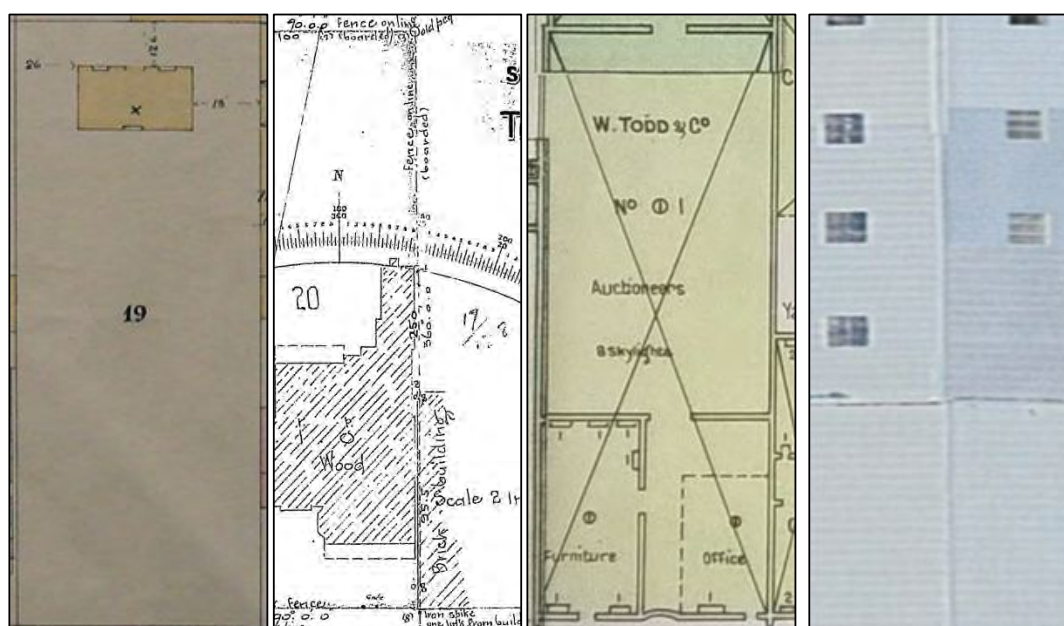


Figure 7-1. Buildings on Section 19 as of 1886<sup>31</sup>, 1912<sup>32</sup>, 1913<sup>33</sup>, and 2016.

### 7.1 Results of the Buildings Archaeology

The structure comprising The Rialto was investigated and recorded to a Level III standard, as stipulated in Condition 4 of Archaeological Authority No. 2016/1193. The buildings archaeology was undertaken on the 4<sup>th</sup> to the 6<sup>th</sup> of August 2016 by Eva Garbutt, Carl Murray, and Julia Lewis, with the aim of determining the construction of the building, how it was altered, and how it was utilised. By matter of process, the results of the buildings archaeology are presented as though the structure remains extant, despite the fact that at the time of writing, the structure had been demolished.

<sup>31</sup> Burwell, F. W. (1886). Plans of Invercargill Buildings, 1886. Invercargill: Invercargill City Library & Archives.

<sup>32</sup> Detail of DP 435, Plan of Section 20, Block LXXI, Town of Invercargill.

<sup>33</sup> Council of Fire Underwriters' Association of New Zealand. (1925). Block Plans, Invercargill and Bluff. Hocken Library, University of Otago; Reference No. AG-291-001-016-025/029.

Historical research demonstrates that the only section of the structures associated with The Rialto that dates to the nineteenth century is the two-storey building situated at the front (southern end) of Section 19. The front (south) wall of the pre-1900 Rialto building spans the full width of the southern boundary (20m). The east and west side walls of the structure are shared with the neighbouring buildings. The rear (north) wall is 20m back from the front wall and shared with the modern extension behind it.

In its extant state, this building has 30 rooms or spaces over two storeys, however the historical research demonstrates that the first floor is a modern addition. A plan of each floor is provided in Figure 7-2. The dimensions for each room are reported with the north to south measurement (i.e., length) by the east to west measurement (i.e., width). For each of the rooms sampled (Rooms 1, 2, 4, 5, and 11), the fabric of the rooms is described from the floor to ceiling, as determined through sampling. The layers encountered for each sample area are detailed in Table A-2.

The changes to the Rialto building can be divided into the following three phases:

- Phase 1. Phase 1 marks the initial construction of the Rialto in 1878. During this phase, the building consisted of the single storey building pictured in Figure 7-4 (right). The building had a central access way leading to the rear open yard behind the structure.
- Phase 2. Phase 2 marks the massive renovations carried out in the 1963's. This work included alterations to the front façade of the building as well as the addition of a second storey (Figure 7-3).
- Phase 3. Phase 3 marks the alterations made to the internal layout of the of the Phase 2 building. Multiple renovations were carried out throughout the late twentieth century to adapt the office and shop spaces to its twentieth century tenants.

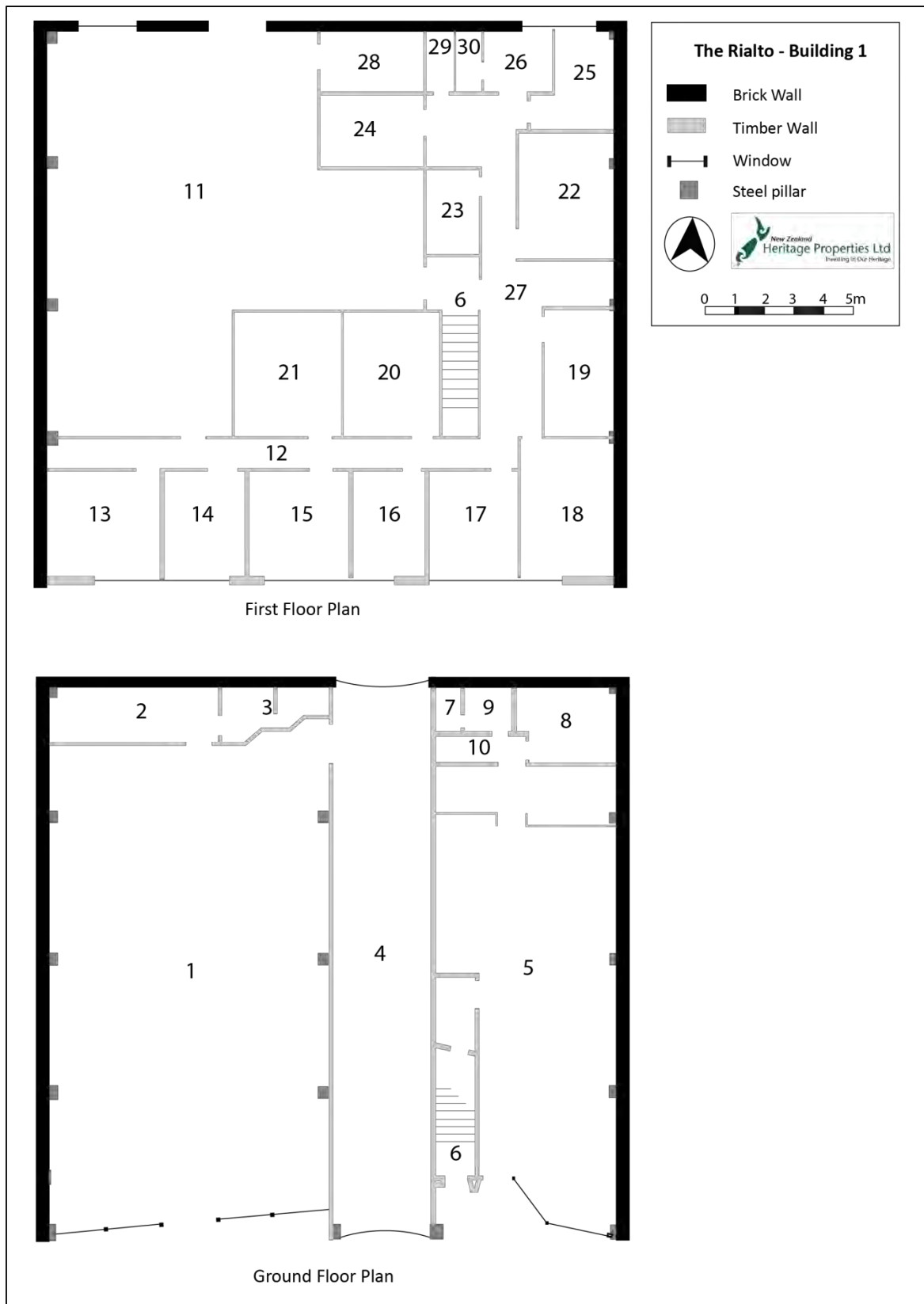


Figure 7-2. The Rialto – Current Plan.

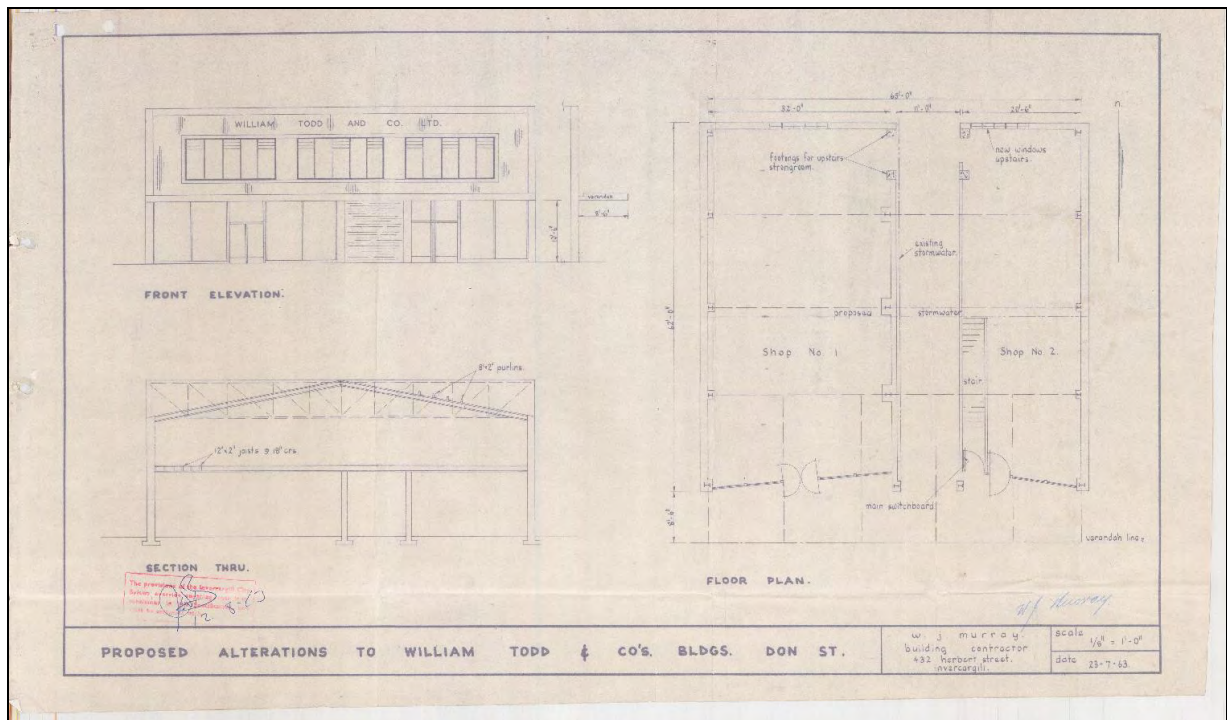


Figure 7-3. Proposed alterations to William Todd & Co's Buildings, Don Street, 1963 (ICC Property File).

#### 7.1.1 Exterior

The front façade dates to the Phase 2 renovations and is entirely modern with corrugated iron cladding on the first-floor and glass shop fronts and the roller door of the access way (Room 4) on the ground floor. The first-floor façade also features three groups of modern casement windows (Figure 7-4). The entirety of the original façade of the building has been removed. The building has a modern corrugated iron gabled roof. The rear façade of the building shows some of the original features including the roof line, arched access way, and windows which reflect the original front façade (Figure 7-5). Some of the original windows have been bricked up, but the shape of the window and brick lintel are still visible (Figure 7-6).

#### 7.1.2 Form and Structural Elements

The original Rialto building was a single storey brick building that shared its east wall with the neighbouring Criterion Hotel, its west wall later became a shared wall with neighbouring building at 14 Don Street. The current building has large concrete piles supporting a large steel frame around which the modern building has been constructed within the confines of the original east, west, and north brick walls (Figure 7-7). The front exterior wall and all internal walls are entirely modern as are the floors, ceilings, and roof.



Figure 7-4. Left: photograph of the current William Todd & Co. Ltd. Building façade (photo facing north), Right: photograph of the original Rialto façade c. 1901<sup>34</sup>.



Figure 7-5. Photo of the rear wall of the Rialto red dashed lines indicate the original shape of the structure and window and arched access way locations (photo facing south).

<sup>34</sup> News, S. D. (1961). The Southland daily news centennial supplement Invercargill: Southland Daily News.

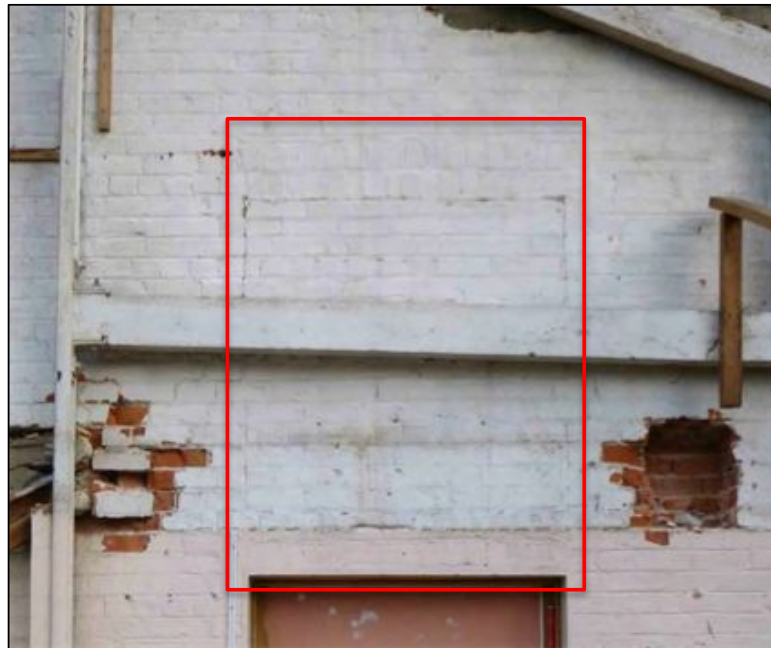


Figure 7-6. Photo of bricked up window and lintel above more recent doorway (photo facing south).



Figure 7-7. Photograph of the Rialto building during demolition showing the exposed steel frame, partially demolished eastern brick wall and intact west brick wall (photo facing south-west).

### 7.1.3 Room 1

Room 1 is situated on the ground floor on the west side of the building and to the west of the access way (Room 4). Most recently the room served as office space for Todd and Co. Realty. The room measures 16m long, 9.5m wide and has a ceiling height of 2.7m. The north and east walls are modern timber partition walls while the south wall is the modern glass shop front looking out onto Don Street. The west wall is brick and shared with the neighbouring property. There are three access points in the room: the main entryway from Don Street a side entryway from room 4 at the north end of the east wall and the entrance to room 2 in the north wall. The room has modern flooring, wall linings, and a dropped ceiling; no period features are visible. Four sample areas were opened in Room 1 and the layers identified are recorded in Table A-2.



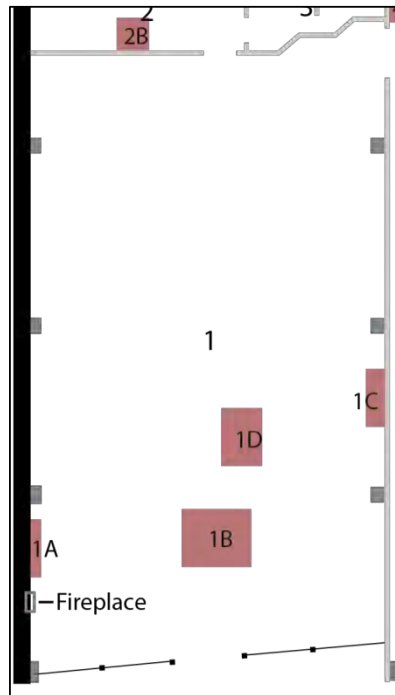


Figure 7-8. Plan of Room 1 showing sample areas.

A sample area was opened in the floor of this room. The floor was identified as modern concrete covered with linoleum that had been later covered with underlay and carpet. No pre-1900 flooring features were identified.

Two sample areas were opened in the walls one in the east and one in the west to investigate whether any pre-1900 features remained. The east wall (sample Area 11C) was identified to be an entirely modern timber framed wall with hardboard and plasterboard lining. The brick exterior wall shared with the neighbouring property was identified in sample Area A on the west wall behind modern hardboard and plasterboard linings attached to timber framing. The sample area demonstrated that the original wall linings had been removed down to the brick during later alterations. The brick wall was laid in an English garden wall bond, with three courses of stretchers between every course of headers.

Room 1 has a modern dropped ceiling with ceiling tiles. A battened hardboard ceiling is 670mm above the dropped ceiling. No pre-1900 ceiling features were identified.

During the demolition of the building the remains of a brick fireplace and chimney were identified behind the modern linings in the west wall 1900mm from the south-west corner of the building (Figure 7-9). It appears a small internal room was constructed in this area. The lack of paint and marks left on the brick from framing and ceiling joists point to this. It is not clear when this room was in use as it does not feature on any plans of the property though the fireplace is likely original.



Figure 7-9. Right: brick fireplace and chimney in west wall of Rialto identified during demolition, scale is in 20cm increments. Left: photo showing full extent of fireplace and chimney with surrounding unpainted wall section (photos facing west).

#### 7.1.4 Room 2

Room 2 is situated in the north-west corner of the building on the ground floor to the north of Room 1. Most recently the room served as a staffroom. The room measures 2m long and 6m wide with a ceiling height of 2.4m. The east and south walls are modern stud walls and the north and west walls are brick laid in the English garden wall bond style. There are two access points in the room: one in the south wall leading to room 1 and one in the east wall leading to room 3. The room has modern flooring, wall linings and ceilings; no period features are visible. Two sample areas were opened in room 2 and the layers identified are recorded in Table A-2.

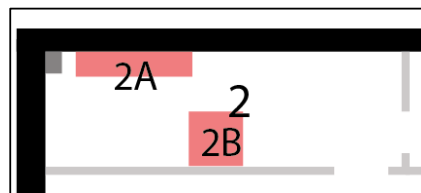


Figure 7-10. Plan of Room 2 showing sample areas.

A sample area was opened in the floor of this room. The floor was identified to be modern concrete covered with linoleum. No pre-1900 flooring features were identified.

A sample area was opened in the north wall to investigate a window that was covered on the interior but visible from the northern exterior of the building (Figure 7-11). After removing the modern linings, the four-paned fixed window was revealed. The window was 1110mm from the north-west corner of the room and 1200mm from the floor. The sample area demonstrated that any original wall linings had been removed down to the brick during later alterations. Though the bricks were painted white, which indicates that at some point the bricks were exposed on the interior with no other wall linings. The demolition of the building revealed that much of the west brick wall was also painted (Figure 7-12). The brick wall was laid in an English garden wall bond.

Room 2 has a modern dropped plasterboard ceiling. A battened hardboard ceiling is 960mm above the dropped ceiling. No pre-1900 features were identified.



Figure 7-11. Right: photo of covered window in room 2 from exterior (photo facing south) Right: interior detail of window from Sample Area 2A (photo facing north).

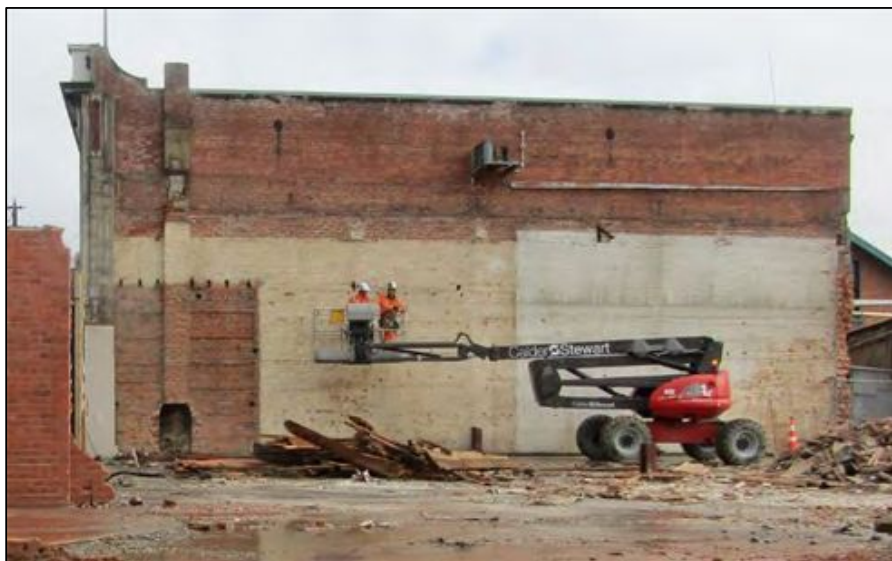


Figure 7-12. West wall of the Rialto exposed during demolition showing painted sections.

#### 7.1.5 Room 4

Room 4 is roughly centrally located on the ground floor extending the length of the building and served as an access way through into the extension at the rear of the property. The room measures 18.5m long, 3.5m wide and has a ceiling height of 3.1m. The north and south walls are large access points, the south is framed in timber and has a roller door, the north is framed with plastered brick and is part of the original rear brick wall. The east and west walls are modern timber framed walls. There are four access points in the room; the two large openings at the north and south that lead to the rear of the property and Don Street respectively, a doorway through to room 1 in the west wall and a doorway to room 5 in the east wall. The room has modern bare concrete flooring, wall linings and ceilings. Part of the original rear brick wall is visible framing the access point in the north wall. Two sample areas were opened in room 4 and the layers identified are recorded in Table A-2.

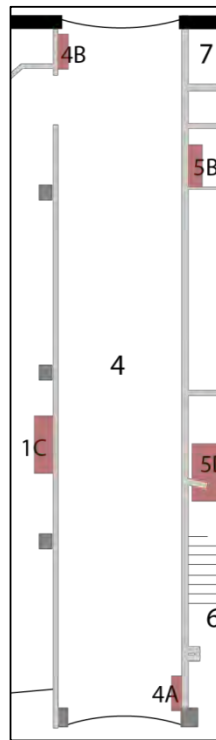


Figure 7-13. Plan of Room 4 showing sample areas.

Two sample areas were opened in the walls on in the east and one in the west (Figure 7-14). Both walls were identified to be modern timber framed walls with modern linings (plasterboard and hardboard). These sample areas demonstrated that any original walls lining in the access way had been removed during later alterations.



Figure 7-14. Left: sample Area 4A showing plasterboard lining (photo facing east), Right: sample Area 4B showing hardboard lining and timber framing (photo facing west).

#### 7.1.6 Room 5

Room 5 is situated in the south-east corner of the building on the ground floor, most recently this room served as a hair salon. The room measures 15.9m long, 5.9 m wide and has a ceiling height of 2.7m. The south wall is the

glass shop front onto Don Street. The east wall is a brick wall shared with the Criterion and the north and west walls are modern timber framed walls. There are four access points in the room; the main entry way from Don Street, a doorway in the rear that leads to room 10, and two doorways on the west wall one that leads to a storage area under the stairs in room 6 and another further north that leads to room 4. The room has modern flooring, wall linings and ceilings; no period features are visible. Four sample areas were opened in room 5 and the layers identified are recorded in Table A-2.

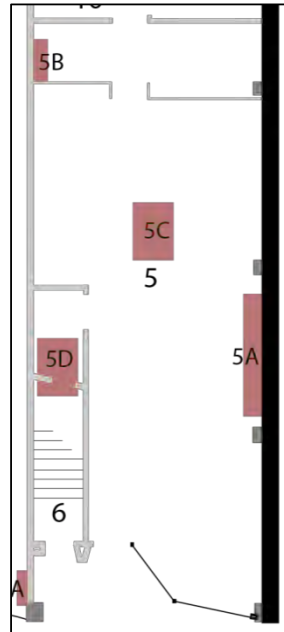


Figure 7-15. Plan of Room 5 showing sample areas.

A sample area was opened in the floor of this room. The floor was identified as modern concrete below linoleum.

Two sample areas were opened in the walls one in the east and one in the west to investigate whether any pre-1900 features remained. The west wall was identified to be an entirely modern timber framed wall with painted plasterboard lining. The brick wall shared with the Criterion was identified in sample Area A on the east wall behind modern plasterboard and two layers of timber framing (Figure 7-16). The sample area demonstrated that the any original wall linings had been removed down to the brick during later alterations. The brick wall was laid in an English garden wall bond, with three courses of stretchers between every course of headers.

Room 5 has a modern dropped ceiling with ceiling tiles running diagonally (north-west to south-east). A hardboard and batten ceiling is 510mm above the dropped ceiling. No pre-1900 ceiling features were identified.



Figure 7-16. Photograph of sample Area 5A showing the original brick wall shared with the criterion behind two layers of timber framing (photo facing east).

7.1.7 Room 11

Room 11 is in the north-west corner of the buildings first floor and recently served as office space. The room measures 18.5m long, 18.9m wide and has a ceiling height of 4.17m at the peak of the gable. The west wall is brick laid in the English garden wall bond style and shared with the neighbouring western property the north wall is a combination of brick and modern timber. The east and south walls are both modern timber stud walls. There are four access points in the room: a doorway on the south wall through to room 12, a doorway on the north wall through to the extension, a doorway in the east wall that leads to room 6, and a doorway that leads to a storage area in the north-east corner of the room. The room has modern linings and no period features are visible. Three sample areas were opened in room 11 and the layers identified are recorded in Table D-1.



Figure 7-17. Plan of Room 11 showing sample areas.

A sample area was opened in the floor of this room to investigate the possibility of previous ceiling structures being present below the floor. Modern carpet, underlay and an area of linoleum covered modern tongue-and-

groove floor boards. The modern ceilings of the ground floor rooms were identified 860mm below the floor and no pre-1900 ceiling features were uncovered.

Sample areas were opened on walls to investigate the original brick exterior walls to the north and west and how the modern modifications had been tied into these. Modern stud walls supporting hardboard lining had been erected to cover the northern and western brick walls. A newspaper dating to April 13 1957 was found behind the wall lining. Steel frame work that was not tied into the brick wall was identified to be supporting the modern building. The original brick Rialto building was a single storey structure and timber framing had been erected on top of the north brick wall to add the necessary height for the modern first floor roof and exterior wall (Figure 7-18). In the brick work a relieving arch was identified above the bricked-up window visible from the exterior with wooden lintel visible below that (Figure 7-19, Figure 7-6).



Figure 7-18. Photograph of sample Area 11A showing the modern stud wall in front of the original north brick exterior wall with modern timber framing on top, brick relieving arch and lintel are visible at the bottom of the image (photo facing north).



Figure 7-19. Detail of relieving arch and lintel in north wall (photo facing north).

## 7.2 Results of the Archaeological Monitoring

The earthworks across E46/59 were carried out in various stages during 2016 and 2017. When site works began in 2016, the rear warehouse on the section was determined to have been constructed post-1900 and was removed without recording to floor level with the exception of the south wall which is shared with the office building at the front of the section which was constructed pre-1900. As the office building dates to pre-1900 the demolition of the structure was monitored by archaeologists once buildings archaeology had been carried out. Once the building was demolished the area within its footprint was cleared of foundations requiring excavation of varying depths to remove the concrete foundations and footings (Area B). In September 2016 the entirety of the site was scraped (Area B, and E) to bring the site down to level for the construction of the new building and trenches were dug across the site for the construction of piles, foundations, and the installation of services into December of 2016 (Areas Q, AF, AG, AH, AI, AJ, AK, AM, AO, AT, and AU). A small 200mm deep scrape was carried out at the rear of site to prepare the area for landscaping (Area AT). The removal of the pre-1900 building required excavation to a maximum depth of 700mm for the removal of piles and foundations, whereas the site scrape went to a maximum depth of 350mm. The depth of the trenches went a further 600mm to a maximum total depth of 950mm in some areas. Due to the nature of the excavations it is likely that not all archaeological material has been removed from the site, but it has been significantly disturbed across its entirety. The concrete floor of the new building caps any remaining archaeological material.

A total of 121 contexts were identified during the archaeological monitoring. A summary of the context types is provided in Table 7-1 where the contexts have been grouped into several interpretive categories including natural deposits, other deposits, services, structural features, artefact scatter and pit features. The following sections consider the stratigraphy, features, and condition of the site.

Table 7-1. Contexts identified at Site E46/59 – William Todd & Co. Auctions at the Rialto.

Interpretation	Context designation	Count	Contexts
Natural deposit	Silt Loam substrate	12	B5, AB3, Q8, AF3, AH4, AI4, AJ5, AK4, AT9, AT10, AT17, AU8
	Topsoil	12	B4, E3, AB2, Q2, AF2, AH3, AI3, AI5, AJ4, AK8, AM8, AT6
	<i>Subtotal</i>	24	
Other Deposit	Asphalt	2	B6, AM5
	Black grit	10	E17, Q3, AH2, AI2, AJ2, AM2, AM10, AT3, AU5, AN6
	Demolition rubble	4	B8, AK1, AU4, AL9
	Gravel	13	B7, E2, AH1, AI1, AJ1, AK2, AM1, AO1, AT1, AT4, AT22, AU2, AU7
	Silt and gravel	4	AB1, Q1, AF1, AC15
	Silt loam and sand	1	B3
	Silt loam fill	4	E1, AM6, AO2, AT2
	Sand	1	B2
<i>Subtotal</i>	39		
Service	Ceramic drainpipe	14	E7, E19, AH6, AH10, AI6, AK5, AK6, AK7, AT13, AT14, AT15, AT21, AU6, AC16
	Service trench	7	E5, E18, AH8, AM9, AT5, AU1, AU3
	<i>Subtotal</i>	21	
Structural	Concrete floor	1	B1
	Brick footing	1	AJ3
	Foundation	2	B10, C9
	Pile	1	B9
	Post	13	E6, E8, E9, E10, E11, E12, E15, AH5, AH7, AT7, AT12, AC14, AT16
	Posthole	9	E4, E13, E14, AH9, AM11, AM12, AT18, AT19, AT20
<i>Subtotal</i>	26		
Pit Features	Well	1	AM4
	Rubbish Pit	5	E16, Q4, Q6, Q7, AM3
	<i>Subtotal</i>	6	
Artefact scatter	Charcoal deposit	4	Q5, AK3, AM7, AL8
	<i>Subtotal</i>	4	
<b>Grand total</b>		121	



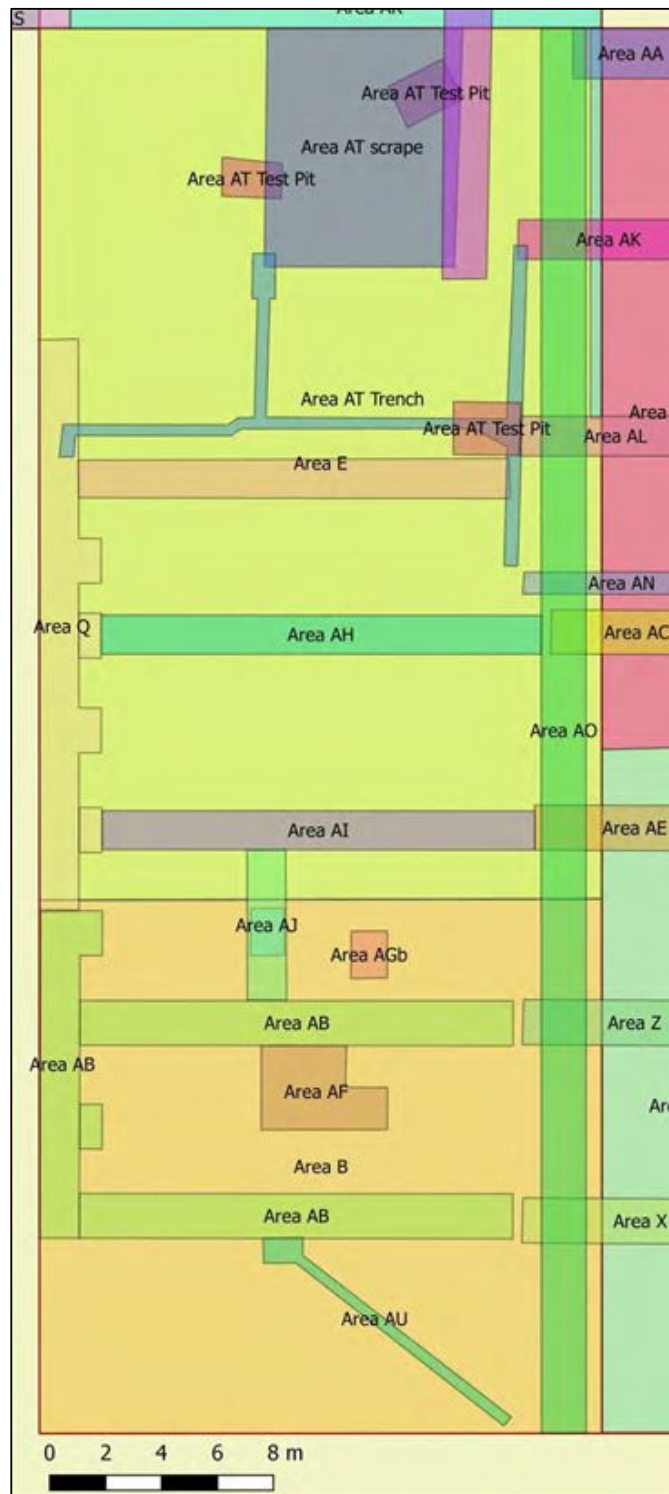


Figure 7-20. Excavation areas on site E46/59 - William Todd & Co. Auctions at the Rialto.

7.2.1 *Site Stratigraphy*

A large portion of the contexts recorded across E46/59 are deposits, including natural deposits, fill layers, and demolition rubble. However, the number of layers and deposits identified on the site is inflated by the use of different context numbers for the same deposits through the different excavation areas. The stratigraphy of the

site was relatively consistent and can be split into two areas; The front (south), under the pre-1900 Rialto building, and the rear (north), under the modern extension.

The front half of the was capped with the modern concrete floor of the pre-1900 Rialto building (B1). Below the concrete floor a layer of sand was identified (B2). This is a modern fill layer used to prepare the surface of the site for the laying of the concrete floor. Below the sand was a 300mm thick layer of silt loam and sand fill (B3). This has been interpreted as a fill layer possibly associated with the extensive alterations carried out in the 1960s. B3, for the most part, sat directly on the natural topsoil (B4, E3, AB2, Q2, AF2, AH3, AI3, AI5, AJ4, AK8, AM8, AT6) below which was the natural silt loam substrate (B5, AB3, Q8, AF3, AH4, AI4, AJ5, AK4, AT9, AT10, AT17, AU8) (Figure 7-21). In other areas of the front section a layer of black grit (AJ2, AU5), like that identified on the other three sites, was identified between B3 and the natural topsoil and substrate, in these areas B3 was thinner between 150 and 200mm thick. The deposits of this black grit in the front on the site roughly align with the central accessway that cut through the Rialto building to the rear of the site. It was likely the previous surface of this area.



Figure 7-21. Contexts B3 (red arrow), B4 (green arrow), and B5 (blue arrow) photographed along the western boundary of the site. Photo faces west, scale is in 20cm increments.

The rear of the section had the same underlying natural stratigraphy covered with a different combination of fill layers. Below the floor of the modern extension the rear of the site was covered in heavily compacted layer of silt loam fill (E1). Below this fill layer the black grit deposit (E17, Q3, AH2, AI2, AM2, AM10, AT3, AN6) was identified over the natural topsoil covering the majority of the rear of the site (Figure 7-22). This deposit was up to 200mm thick in some areas and likely covered the entirety of the yard behind the Rialto building before the extension was built.



Figure 7-22. Deposit of black grit photographed in profile in the northern baulk Excavation Area AH. The deposit sits atop the natural topsoil which grades into the natural substrate.

### 7.2.2 Features

Features identified on site E46/59 include service features, structural features, and pit features. Structural features are the most prevalent context type, and these include a concrete floor, piles, foundations, a brick footing, wooden posts, and postholes. The vast majority of the features were identified to the rear of site which is likely, in part, due to both the original construction of Todd's Rialto Auction House as well as its 1960s renovation. All contexts are listed in Table F-3 in Appendix F.

When the contexts were overlaid with the 1886 Burwell plans that feature the earliest known structure at the rear of the site, a series of post and posthole features were shown to align with this building (Burwell, 1886) (Figure 7-23). Postholes AT18, AT19, and AT20 which were identified below the black grit deposit align with the north wall of this building while post AT12 aligns with its southern wall. A further smaller post (AT16) falls within the footprint of the building, and as it was identified within the same stratigraphic context as these other four it may be the remains of an internal post from the building. A number of post features were identified along the western boundary of the site directly north of the rear wall of the original Rialto building (E8, E9, E10, E11, and E12). These are likely part of an early boundary fence on the site.



Figure 7-23. Detail of site plan showing postholes aligning with the timber building detailed on the 1886 Burwell Plans.

Of the structural features identified on the site only one is located in the front half of the site that cannot be directly linked to a known structure. B1 is the modern concrete floor laid during the 1960's renovations and B10 is the original foundations of the rear wall of the Rialto building. On the other hand, context AJ3 is a small section of brick footing that was identified abutting the black grit deposit located within the accessway of the Rialto building (Figure 7-24). The bricks were set directly into the natural topsoil of the site and covered in a layer of lime mortar. The footing is likely the remains of an earlier wall from the western side of the accessway. These are the only remains of the building prior to the renovations that were identified during the site works.



Figure 7-24. Photo of context AJ3 (brick footing) and AJ2 (black grit), photo faces east scale is in 20cm increments.

The well of the Todd's Auction House site (AM4) was a square wood lined structure dug into the natural top soil and substrate. It measured 1000mm by 1000mm and was located toward the centre rear of the site. The well was

half sectioned by the digger during works to a depth of 3200mm where it met the natural water table. It had been backfilled with silt loam and rubbish after it had gone out of use and then capped with asphalt. This is one of three wells identified across the four sites excavated during this development project. The other wells were identified on the Criterion Hotel & Yards site E46/62(Context A12) and the Black Eagle Brewery site E46/60 (Context AS80/AS94). The Criterion well was circular, and brick lined while the breweries well was circular, and wood lined.



Figure 7-25. Surface of context AM4, Todd's well. Photo faces north.



Figure 7-26. Context AM4, Todd's well during excavation, remain s of timber lining is visible in the baulk in the top left corner of the image (red outline). Photo faces west.

Service features identified on the site include ceramic drainpipes, and service trenches. Some of these are modern and part of the current development but most are interpreted as being associated with the modern building. This is because the trenches for these services cut through the black grit deposit which is believed to have been the surface layer of the site prior to the construction of the extension.

### 7.2.3 Condition

The site works removed the pre-1900 and modern twentieth century buildings in their entirety. Various excavations including a scrape of the entire site and trenching for the construction of the new buildings were carried out. The majority of the archaeological material from the site was removed during the excavations however, sterile substrate was not exposed across the entirety of the site and it is likely some archaeological material remains *in-situ* below the surface.

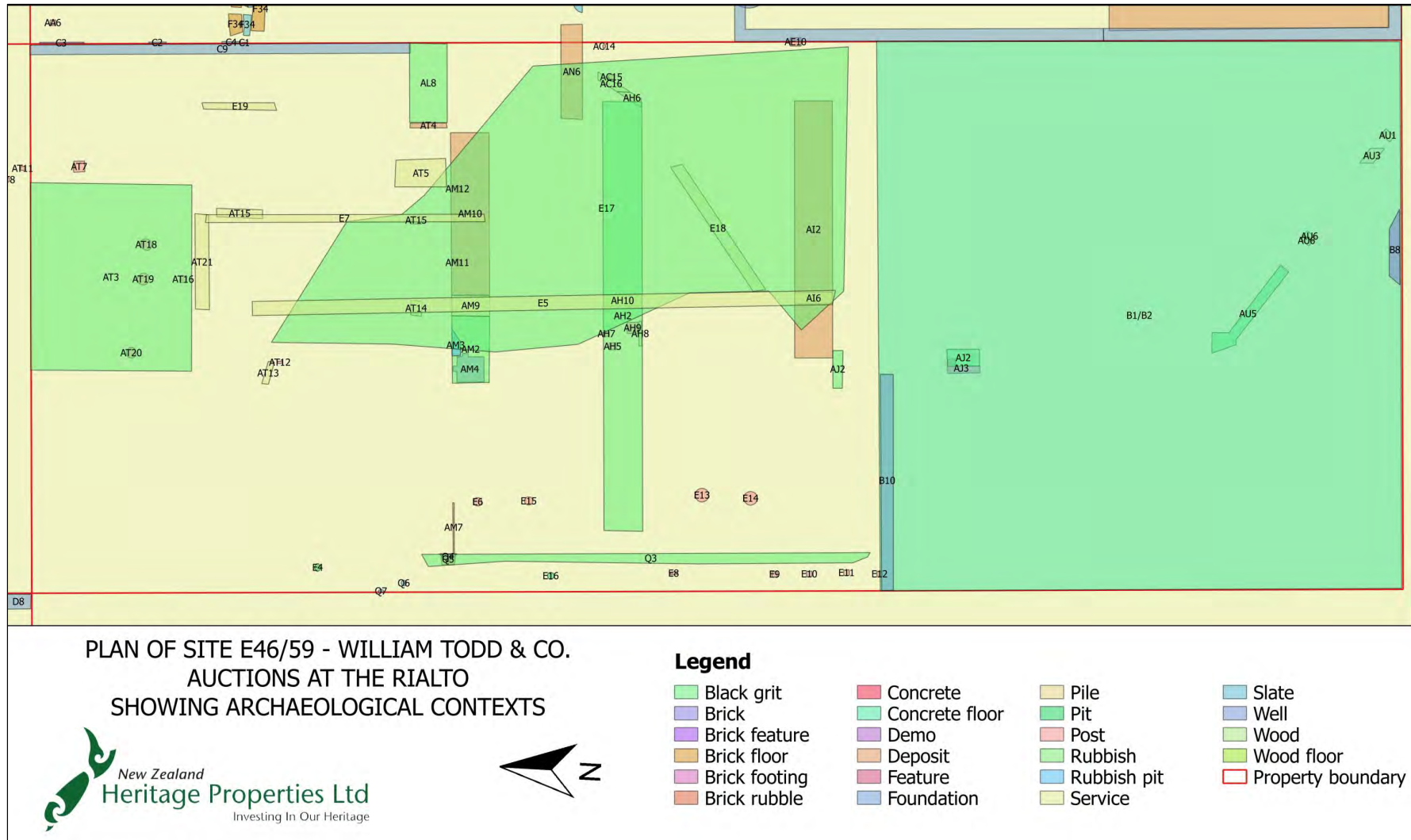


Figure 7-27. Site plan of subsurface archaeology at E46/59 – William Todd & Co. Auctions at the Rialto.

### 7.3 Artefact Analysis

Artefacts were recovered from 21 contexts in E46/59. Brief descriptions of the contexts are included in the artefact tables below. Note that contexts AM003 and AM004 both relate to the same feature and so are treated as the same context. The results from the artefact analysis are summarised in Table 7-2 and discussed by context. The faunal assemblage was moderate, collected from 15 contexts in E46/59 and represents three taxon; shell, mammal and bird (Table 7-3).

**Table 7-2. Artefact summary from E46/59.**

	NISP	MNI
Ceramic	671	128
Glass	341	135
Metal	90	45
Other	48	25
Faunal	88	19

**Table 7-3. Summary of faunal species recovered from site E46/60.**

Species	NISP	MNI
Oyster	32	14
Rat	1	1
Cow	20	1
Sheep	11	2
Chicken	3	1
<b>Total</b>	<b>67</b>	<b>19</b>

#### 7.3.1 Context AB002/AH003/AI003

Context AB002/AH003/AI003 was a deposit of brown soil with artefacts distributed throughout. A sample of these artefacts was recovered for analysis (Table 7-4).

**Table 7-4. Summary of artefact sample collected from Context AB002/AH003/AI003.**

Material	NISP	MNI
Ceramic	86	25
Glass	26	12
Metal	6	6
Other	4	3
Faunal	15	4

Ceramic vessels represented within the artefact assemblage collected from the brown soil included tea and table wares, kitchen items, household vessels and a miscellaneous vessel. The tea and table wares included nine UGTP whiteware plates (one Willow, two Asiatic Pheasant, one Teddesley, two Rouen, one Rhine and two unidentified black patterns), a whiteware Teddesley tureen, two undecorated mugs (one whiteware and one Bone China), three cups (one undecorated Bone China, one undecorated whiteware and one whiteware with black UGTP decoration), a gilt Tea Leaf Bone China saucer and a Rockingham teapot. Kitchen vessels were two buff-bodied earthenware roasting dishes and a whiteware mixing bowl, while household items included an undecorated creamware chamber pot and salt-glazed stoneware blacking bottle. The other vessel was a small lead-glazed stoneware crucible. No maker's marks were recorded on any of the fragments (Figure 7-28).





Figure 7-28. Left: (clockwise from top) Willow plate, Teddesley plate, undecorated mug, Teddesley tureen, salt-glazed stoneware blacking jar. Right: stoneware crucible.

The AB002 assemblage also contained three “black beer” bases, two aerated water bottles (a torpedo and another unidentified form), three food bottles (a vinegar, wide-mouthed pickle and club sauce), a pharmaceutical bottle and three unidentified bottles (Figure 7-29). Both the aerated water bottles had “INVERCARGILL” embossed on them, but the vessels were too fragmented for a brand to be identified.

Other artefacts collected from AB002 were a pipe fitting with a flat exterior and an interior screw, the heads of an axe and a pick-axe (Figure 7-30), three wire nails, a clay pipe stem with “MURRAY” embossed on the side, a window glass fragment and a brick fragment (Figure 7-29). The brick fragment had lime render on the outside and a green glaze, possibly from industrial activities.

Fifteen faunal fragments were also recovered from this context, representing four species: oyster, cockle, cow and sheep. The cow skeletal elements were weathered with one showing evidence of rat attrition and surface cuts, and another showing signs of dog attrition. One sheep hind foot low value meat cut was also identified.

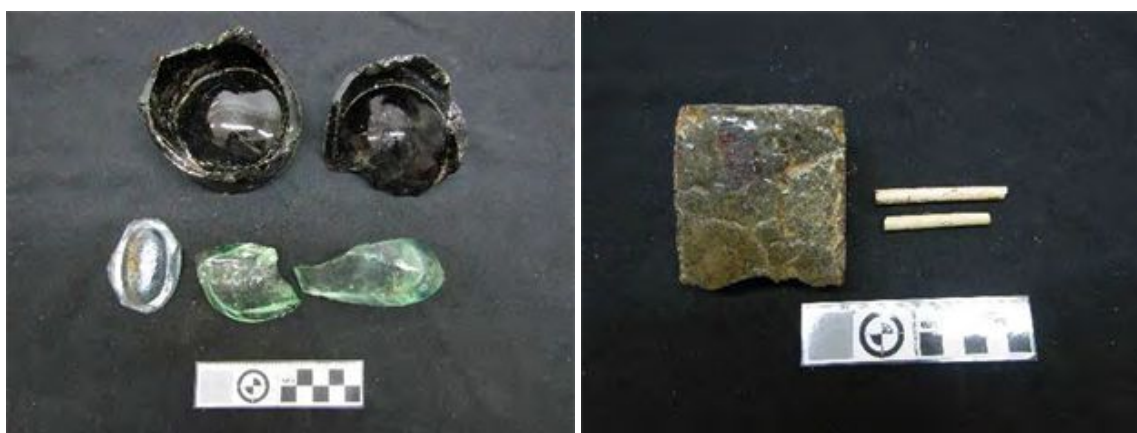


Figure 7-29. Left: glass vessels from AB002. Right: glazed brick fragment and clay pipe stems.



Figure 7-30. Tools from AH003. Left: pickaxe. Right: axe.

### 7.3.2 Context AM003/AM004

Context AM004 was a square-shaped well with associated cut (AM003), possibly an entrance pit. The two artefact samples have been analysed as one deposit (Table 7-5) owing to the high number of joins and matches between ceramic vessels. Only one vessel (a colander) was only represented by fragments from AM003, the other seven vessels found in the smaller feature all had fragments found in the well.

Table 7-5. Summary of artefact sample collected from Context AM003/AM004.

Material	NISP	MNI
Ceramic	438	56
Glass	206	69
Metal	41	16
Other	24	12
Faunal	20	6

Table and tea ware vessels dominated the ceramic vessel assemblage collected from the well fill, accounting for 77% of the assemblage (43 vessels). This included fifteen plates (13 whiteware, one creamware and one Bone China), fourteen saucers (ten whiteware and four Bone China), six cups (three whiteware and three Bone China), four table bowls (all whiteware), two jugs (one Bone China and one Japanese porcelain), one buff-bodied earthenware tankard and one whiteware coaster. The most common form of decoration was UGTP, recorded on 22 table and tea ware vessels (51%). Asiatic Pheasants (Figure 7-31) was the most common pattern (ten plates and one bowl), followed by Willow (two bowls and one saucer), Rouen (one plate and one bowl) and Teddesley (one plate). Five vessels had unidentified UGTP patterns including romantic and floral designs. Gilt/enamelling was found on nine vessels and banding on five. One plate and four saucers had green bands around the rim, one cup had an enamelled pink rim band and a Japanese porcelain jug had red floral enamelling. Three saucers were

decorated with the gilt Tea Leaf motif while two cups, a saucer and a jug had simple gilt bands. Other decoration styles recorded were blue sponged decoration (one cup), Moulding on two saucers and Rockingham style decoration on the tankard. A cup, a saucer and one plate were undecorated.

Seven kitchenware vessels were collected from this context, including four jars, a ginger jar, a mixing bowl and a colander. The mixing bowl and one of the jars were buff-bodied earthenware, the ginger jar was Chinese brown-glazed stoneware and the other vessels were whiteware. Two chamberpots and a basin related to personal hygiene practices and were made of whiteware and had UGTP decoration. The basin was decorated with the Teddesley pattern and both chamberpots had unidentified floral designs. A complete salt-glazed stoneware blacking bottle and two whiteware vessels of unknown form were also recovered.

Five maker's marks were recorded on the ceramic vessels. Several of the Asiatic Peasant plates had "T B" printed on the base, which was attributed to Thomas Bevington between 1877 and 1891 (Birks, 2016). A plate with an unidentified romantic blue UGTP design had a partial mark on the reverse that read "...9/78" which suggests it was registered or manufactured in 1878. The blacking bottle had "42/ DOULTON/ LAMBERT" stamped on the heel, a mark used by the Doulton pottery works from 1854 onwards (Godden, 1991). A coaster decorated with a polychrome UGTP design featuring a bulldog (Figure 7-31) had "W. T. COPELAND/ & SONS/ STOKE ON TRENT/ ENGLAND" printed on the base. This coaster was advertising Read Brothers Bass & Co Pale Ale and dates to after 1891 based on the presence of "ENGLAND" in the mark (Burke, H., Smith, C., Zimmerman, 2009). A Bone China saucer with polychrome floral UGTP decoration had a partial mark reading "...RINCESS/N..." but it was unable to be identified. One green banded plate had a mark on the rim (Figure 7-31) which was not a maker's mark ("SEARLE'S ALBION HOTEL/ INVERCARGILL/ NZ"). This identifies the establishment this vessel was commissioned for, and presumably the other four matching items. Walter Searle was the proprietor of the Albion Hotel from 1890 to 1898 (*Southern Cross*, 1898; *Southland Times*, 1890).



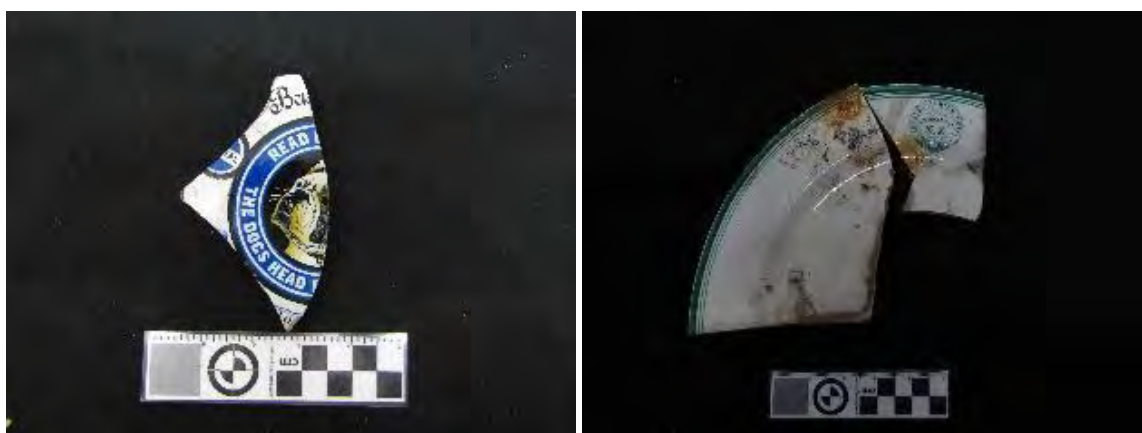


Figure 7-31. Ceramics recovered from AM004 and AM003. Clockwise from left: Asiatic Pheasant fragments, assorted ceramic patterns including Rouen, Searle’s Albion Hotel plate, Read Brothers coaster.

A large glass assemblage was collected from AM003/AM004. Sixty-nine vessels were represented, 13 of which were complete. A variety of functional types were recorded (Table 7-6). Fifteen of the glass vessels from this context could have held a wide range of contents and were regularly re-used, and for this reason have been placed under a “generic” functional class (Woods, 2017). Eleven of these were turn-moulded ring-seals and four were dip-moulded “black beers.” One of the “black beers” was of the squat type and had a prunt (glass seal) on the shoulder. No base embossing or other maker’s marks were recorded on any of the generic vessels.

Table 7-6. Functions of glass vessels from AM003/AM004.

Vessel function	MNV
Generic	15
Alcohol	11
Non-alcoholic	3
Food	14
Pharmaceutical	11
Household	2
Tableware	6
Unidentified	5

The alcohol-related glass vessels included four dip-moulded case gins, four dip-moulded spirit, two closed mould bitters and one closed mould sarsaparilla bottle. The bitters bottles were embossed with “HARTWIG KANTOROWIGZ/ POSEN/ HAM/BURG/GER/MANY” (Figure 7-32). Hartwig Kantorowicz was a German bitters manufacturer who operated from ca. 1823 to 1920 (Lindsey, 2015). The sarsaparilla bottle was embossed “AYER’S//SARSAPARILLA//LOWELL/MASS USA//COMPOUND EXT.” Ayers was an American sarsaparilla manufacturer who began production in 1848 (Lindsey, 2015).



Figure 7-32. Glass bottles from AM004. Left: Hartwig Kantorowicz bitters bottle. Right: "black beer," case gin and ring seal bottles.

A relatively small collection of soft beverage bottles was recovered from this context, with only three such vessels represented. Two Codd bottles contained Moffett & Co aerated water and had "1897" embossed on the base. The third bottle was a Lamont patent aerated water bottle with no brand embossing. Lamont patents were first manufactured in 1874 and were out of use by the early 1900s (WA, 2016).

Fourteen food related bottles were represented in this assemblage, all of which were made in cup-bottom moulds with the exception of one machine made wide-mouth pickle bottle. Six of these bottles once held Mellin's infants food, a mass-produced baby formula popular during the last quarter of the nineteenth century (Griffin, 2012), and another was an infant feeding bottle embossed with "THE /CONO.../ CALISTER & CO/FEEDING/BOTTLE" (Figure 7-33). This mark was unable to be identified or dated, however the presence of so many infant food related bottles suggests the presence of a baby nearby. The other food related bottles were typical of food bottles found in late nineteenth century New Zealand sites (two wide-mouth pickle, two club sauce, a vinegar, a coffee and chicory, and a salad oil). The only brand other than Mellin's that was identified was Symington & Co on the coffee and chicory essence bottle.



Figure 7-33. Mellin's Infant Food and baby feeding bottle from AM004.

Eleven of the glass vessels once held pharmaceutical or cosmetic products, including six rectangular bevelled, four cylindrical and one oval cross-section bottle (Figure 7-34). All were made in cup-bottom moulds with the exception of one of the cylindrical bottles which was dip-moulded. Two patent medicines were able to be identified through embossing: St Jakob's oil ("ST JAKOBS OEL/ THE CHARLES A. VOCELER COMPANY/ BALTIMORE MP U S A) on a cylindrical bottle and Eno's Fruit Salt ("[EN]O'S/ [FRUIT SA]LT") on a rectangular bevelled bottle. St Jacob's Oil was a liniment for easing joint pain and was manufactured in America from ca. 1880 to the

1940s (I. Smith & Garland, 2012). Eno's fruit salt was a popular antacid developed in the 1850s and advertised in New Zealand at least as early as 1878 (*New Zealand Herald*, 1878). Two Invercargill chemists were represented in the assemblage, but only one had a complete enough name to identify. F. H. Hall took over the chemist shop previously owned by J. Hatch & Co in 1896 (*Southland Times*, 1896), and the presence of this bottle provides a TPQ for the deposit.



Figure 7-34. Pharmaceutical bottles from AM004.

The other glass vessels recovered from the well fill were two ink bottles made in cup-bottom moulds, six tableware vessels (three tumblers, one stemmed glass, a pedestalled bowl and an unidentified hollow vessel, Figure 7-35) and five unidentified bottles in emerald green, milk glass, mint green, blue and aqua blue.

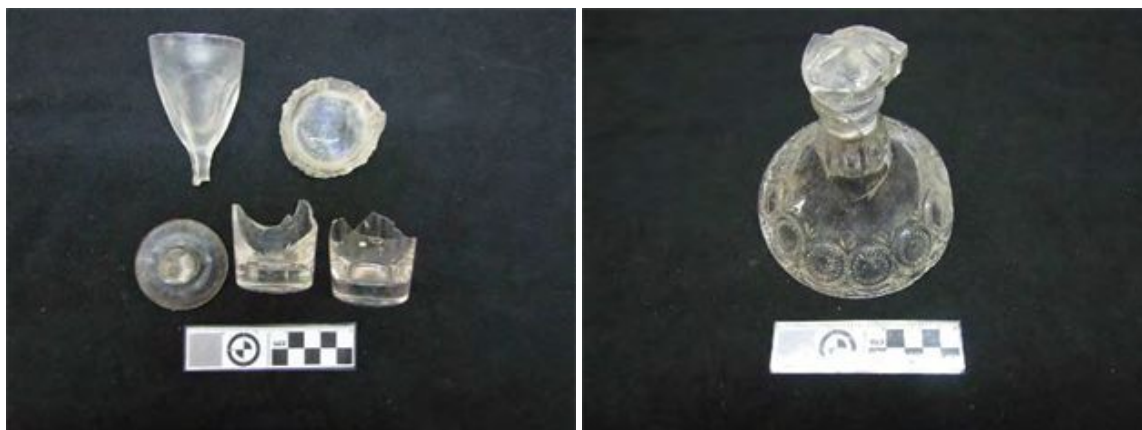


Figure 7-35. Glass tablewares from AM004.

Metal artefacts from this context (Figure 7-36) included structural artefacts, containers, a copper alloy buckle frame, a shovel head, part of an oil lamp and various unidentified metal objects. Structural artefacts included a wire bolt, a metal grate and a fragment of metal lacework. Five containers were identified: the lid of a mason jar, base of a tin can, a bucket handle and two unidentified containers.



Figure 7-36. Metal artefacts from AM003 and AM004. Clockwise from top left: Oil lamp part; tools; unidentified corroding artefact; unidentified handle.

Miscellaneous artefacts recovered from the well fill included structural, personal and equine artefacts. Structural items included fragments of glass from at least two windows, part of a slate tile, and a square timber post. Personal artefacts from this context were all items of clothing and footwear, with one leather belt and two shoes (one adult and one child) collected. Part of a leather saddle and a bottle cork were also recovered.

Twenty faunal fragments were recovered from this context, representing three species: cow, oyster and chicken. All of the cow skeletal remains have evidence of butchery although meat cuts cannot be determined. Butchered elements indicate specialist processing by a butcher. Both rat and dog attrition were present on the skeletal material.

### 7.3.3 Context AI006

Context AI006 was a drainage trench with a concrete cap. A sample of metal artefacts was collected from this feature. AI006 contained a cast iron hinge and three round rings which were thought to be machinery parts. One of the rings was embossed with "5-1 ROYE." A cast iron 'brick' with a hole through the centre was recovered, as well as a 'D' shaped ferrous object (Figure 7-37). A single sheeting fragment was also found.



Figure 7-37. Metal artefacts from AI006.

### 7.3.4 Context AM008

Context AM008 was a deposit of brown soil with artefacts dispersed throughout. A sample of material was collected for analysis (Table 7-7).

Table 7-7. Summary of artefact sample collected from Context AM008.

Material	NISP	MNI
Ceramic	76	8
Glass	16	6
Metal	2	2
Other	0	0
Faunal	2	2

Ceramic vessels recovered from AM008 included a green banded chamber pot, crock, jar, a pink painted and moulded mixing bowl (Figure 7-38, left), a Teddesley cup, Rhone plate, and a plate and saucer decorated with unidentified floral UGTP designs. Aside from the jar which was salt-glazed stoneware, all vessels were whiteware. The Rhone pattern plate had a printed backmark (Figure 7-38, right) that was tentatively attributed to Thomas Brownfield & Sons and dated to between 1877 and 1891 (Godden, 1991).

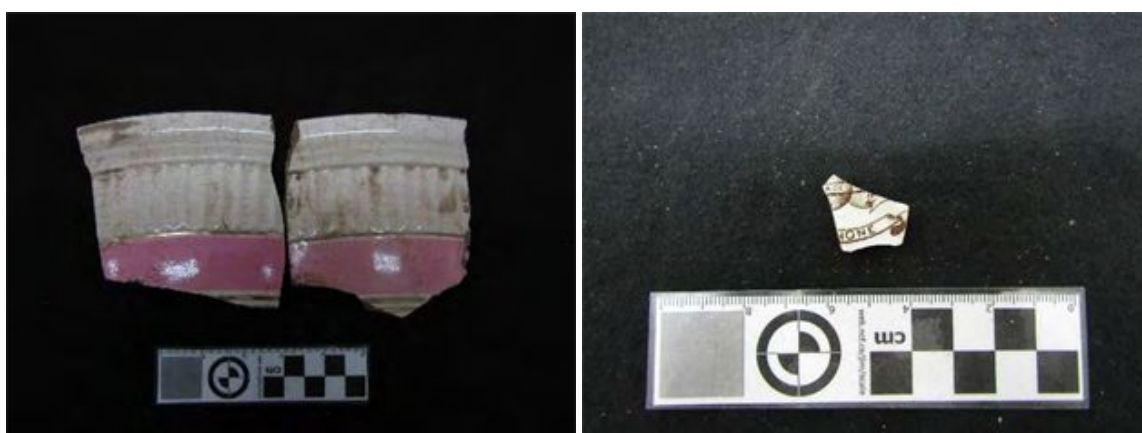


Figure 7-38. Left: pink moulded mixing bowl. Right: Rhone plate backmark.

AM008 contained fragments from six glass vessels. These included three “black beer,” a ring-seal, a vinegar bottle, and a pharmaceutical bottle. One of the “black beers” had a pontil scar on the base. The pharmaceutical example was a United Friendly Society bottle. Friendly societies were established in the late nineteenth and early twentieth century to provide assistance for people of lower socio-economic status to access medical care (Te Ara, 2011).



Other material sampled from this context was two iron headed roofing nails, one cow skeletal fragment and one oyster fragment. There were no signs of butchery or taphonomic process identified on the faunal material.

#### 7.3.5 Context AM009

Context AM009 was a drainage trench. One fragment of salt-glazed stoneware drain pipe was recovered from this trench. The collar looks to be applied and has an abrupt shoulder, which is typical of nineteenth century drain pipe manufacture.

#### 7.3.6 Context AM014

One oyster fragment was identified in this context.

#### 7.3.7 Context AT003

Context AT003 was a deposit of black gritty silt, equal to AL008 on site E46/62. One sheep humerus was recovered from this deposit on the Todd & Co site.

#### 7.3.8 Context AT006

Context AT006 was a deposit of brown clay, possibly equal to AB002/AH003/AI003. One sheep skeletal element was recovered from this context representing a mutton soup cut which is considered low value.

#### 7.3.9 Context B001

Context B001 was a modern concrete slab floor which covered a large part of the site. A sample of artefacts was recorded as associated with B001 (Table 7-8) but in reality, they were recovered from underneath the slab and so are more representative of a surface scatter which was in place prior to the laying of the concrete. As such, their interpretive value is limited.

**Table 7-8. Summary of artefact sample collected from Context B001.**

Material	NISP	MNI
Ceramic	26	10
Glass	15	6
Metal	0	0
Other	6	5
Faunal	4	2

Fragments from ten ceramic vessels were recovered from below B001, all of which were whiteware. Two plates were decorated with the willow and Sicily UGTP patterns, a tureen with an unidentified blue floral UGTP design, a table bowl with Rouen, a cup with the sprigged Chelsea Sprig pattern, a saucer with an unidentified blue UGTP design, while a mixing bowl was undecorated. Three unidentified vessels were represented, two of which were decorated with black UGTP patterns: Asiatic Pheasant and an unidentified floral motif. A maker's mark was present on the Sicily pattern plate and read "SICILY/ No/ WB" within a floral garter (Figure 7-39). This mark belongs to William Brownfield, a Staffordshire pottery manufacturer, and was used between 1850 and 1871 (Godden, 1991).

Six glass vessels were represented by the fragments gathered from below B001: two dip-moulded "black beers," a dip-moulded case gin, an aerated water bottle and two aqua blue rectangular pharmaceutical bottles. The aerated water bottle had partial embossing ("[INVE]RC[ARG]IL[L]") which was not able to be attributed to a specific factory but does provide a TPQ of 1876 as this was the year the first Invercargill based soda manufacturer's (Moffett & Co) was established (Robson, 1995). Based on manufacture methods, all the bottles within this assemblage are typical of the 1870s, with none which must have been made after this decade.

Four clay pipe stems and one bowl were also recovered from beneath B001 (Figure 7-39). The bowl was ribbed and based on its shape dates ca. 1810 to 1840 ((Burke, H., Smith, C., Zimmerman, 2009). Of the stems one had a green glaze, one a yellow glaze, and one was embossed with “GLASGOW.”



Figure 7-39. Left: William Brownfield maker’s mark (1850-1871) on the Sicily pattern plate. Right: clay pipes from B001.

Three weathered sheep skeletal elements and one oyster shell fragment were identified in this context. The material had no evidence of butchery or taphonomy.

#### 7.3.10 Context B008

Context B008 was a layer of bricks. It contained a frogged brick which was not recovered (Figure 7-40). Embossing within the frog reads “C MYERS” and attributes the brick to C. Myers, the first brickmaker in Invercargill. Myers established his brickworks in 1863 and it operated until 1959 (Invercargill City Council Parks Division, 2012).



Figure 7-40. Frogged Myers brick from B008.

#### 7.3.11 Context C002

Context C002 was a concentration of artefacts within a brown clay deposit (C007). A sample of this artefact cluster was collected for analysis (Table 7-9).

Table 7-9. Summary of artefact sample collected from Context C002.

Material	NISP	MNI
Ceramic	15	4
Glass	12	3
Metal	5	4
Other	2	2
Faunal	4	2

C002 contained a Rouen plate, a Teddesley plate (Figure 7-41, left), a floral UGTP tureen lid, and a salt-glazed stoneware jar. The Rouen plate had the backmark "CABLE" (Figure 7-41, right) whilst the Teddesley plate had the backmark "SLATE." No information was able to be found on these marks.



Figure 7-41. Left: Rouen and Teddesley pattern plates. Right: "CABLE" backmark on the Rouen plate.

Glass vessels recovered from this context included a glass bowl, a ring-seal bottle, and a Warner's Safe Kidney & Liver Cure bottle (Figure 7-42, left). H. H. Warner was a well-known American patent medicine manufacturer who had a foreign office in Melbourne from 1887 to 1915 (Jackson, 2008). C002 also contained sheet metal, three wire nails, an iron grate fragment (Figure 7-42, right), twill weave woollen clothing fragment, and a window glass fragment.



Figure 7-42. Left: Warner's Safe Kidney & Liver Cure bottle. Right: cast iron fire grate.

Two butchered cow vertebra, an unidentified mammal fragment and one chicken humerus were identified in this context. While no meat cuts could be ascertained, the butchery indicates specialist processing undertaken from a professional.

### 7.3.12 Context C003

Context C003 was a deposit of demolition rubble within context C007. A sample of material was collected for analysis. This sample consisted of a gilt-banded whiteware chamber pot, a soda water bottle, a tumbler, an unidentified machine-manufactured bottle top and a fragment of lime render. The aerated water bottle base was

embossed with the interlocking letters “KCB,” a mark used by the Kilner Brothers glass factory from 1857 to 1937 (B. Lindsey, 2015).

One sheep and one cow element were identified in this context. Both were butchered, representing a low value mutton hindfoot meat cut and one high value beef rump meat cut.

#### 7.3.13 Context C004

Context C004 was a rectangular shaped rubbish pit filled with dark brown/black clay and soil. A sample of artefacts was collected from this feature, consisting of a bone china gilt banded saucer, a Teddesley plate, an undecorated whiteware cup, a tumbler base, a wheel axle, a bucket, and ferrous wire, strip, and amorphous fragments. No identifiable marks or embossing was present on any of the context C004 artefacts.

#### 7.3.14 Context C005

Context C005 was a layer of brick rubble. A small artefact assemblage was collected from this deposit, including a gilt whiteware cup, two UGTP whiteware chamber pots (one Rhone and the other an unidentified pattern, Figure 7-43), a brown UGTP whiteware saucer, a slip-glazed bottle, a ring-seal bottle, and tumbler, a stemmed glass, a wire nail, a lead headed roofing nail and a fragment of a toilet or sink.

Six skeletal elements representing two species were identified in this context; cow and sheep. Butchered vertebra from both species were identified indicating specialist meat processing. Some weathering was noted on a couple of elements.



Figure 7-43. Rhone (left) and unidentified UGTP pattern chamberpots from C005.

#### 7.3.15 Context E004

Seven faunal fragments representing two species were identified in this context; oyster and sheep. No evidence of butchery or taphonomy was present on the material.

#### 7.3.16 Context Q004

Context Q004 was a deposit of medium brown clay with scattered artefacts. A salt-glazed stoneware blacking bottle, whiteware banded cup, an ink bottle, whiteware mug, two unidentified flatware ceramic fragments, a “black beer” bottle, ring-seal bottle, Codd bottle, unidentified aerated water, Champion’s Vinegar bottle, several unidentified glass bottle fragments, a plumbing fixture and fragments of slate roofing tile (Figure 7-44). The Codd bottle was embossed with “BENNET & SON/ DUNEDIN N.Z. //RELIANCE PATENT/ SOLE MAKER/DAN RYLANDS/BARNSLEY” and dates to the late nineteenth century, while the other aerated water was embossed with “ANUFACTURERS/ INVERCARGILL/NZ/LUMB & CO MAKERS// ..ERS/ AERATED/ CASTLEFORD,” which does not allow the brand to be identified but the manufacturers (Lumb & Co) were operating under that name from the 1870s to 1905, and the first aerated water manufacturers in Invercargill (Moffett & Co) began operations in 1876 (Robson, 1995), so this bottle date to the last quarter of the

nineteenth century. One of the unidentified bottles was manufactured by Hero Glass Works (“H 3 with their symbol was embossed on the base) and dates to between 1882 and 1884 (B. Lindsey, 2015).

Six faunal fragments were identified from this context. There was no butchery or taphonomy present.



Figure 7-44. Right: slate tiles and plumbing fitting from Q004.

#### 7.3.17 Context Q006

Context Q006 was a small circular rubbish pit filled with dark brown friable clay soil. Q006 contained a single whiteware flatware fragment, an alcohol flask (Figure 7-45), dark green bottle, an aerated water bottle, a tumbler, two unidentified metal artefacts, one of which was tentatively interpreted as a cog, the other as a latch (Figure 7-45), a container base, sheeting, amorphous iron fragments, rock fragments and a cobalt blue marble with opaque white air twists in the centre (Figure 7-46).



Figure 7-45. Left: alcohol flask from Q006. Right: possible latch from Q006.



Figure 7-46. Glass marble from Q006.

Nineteen faunal fragments representing four species were identified in this context; cow, sheep, rat and oyster. One cow skeletal element was butchered, representing a beef soup meat cut. Rat and dog attrition and minor weathering were present on material from this context.

#### 7.4 Interpretation

In the course of this development both buildings archaeology and archaeological monitoring of earthworks were carried out on site E46/59 – William Todd & Co.’s Auctions at the Rialto. Buildings archaeology was carried out on the pre-1900 Rialto building located on the front half of the section, and archaeological monitoring of earthworks was carried out across the site following the demolition of the structures. The following sections discuss the interpretations of the results obtained from this work.

##### 7.4.1 Buildings Archaeology

Historic research into William Todd & Cos. Rialto Auction House demonstrates that it was built in 1897 with auctions beginning in January 1898. It was built as a Palladian style single storey brick building with an access way running through its centre to the rear of the property. The building was heavily altered in the early 1960s. Buildings archaeology was carried out in order to understand how the building has changed and been utilised over time, and how it was constructed. This work identified that as part of the 1960s alterations almost the entirety of the Original Rialto building was demolished. The only parts of that remained of the pre-1900 building were the east west and north exterior walls. The modern timber building has been constructed in the cavity between these on a steel frame. The first-floor north wall was built partially on top of the original brick north wall as this was one storey high originally.

These extensive modifications make interpreting how that internal space was original utilised very difficult. However, block plans from 1913 and an old photograph from circa 1901 give some details. Besides the arched central access way, the rialto had three large windows and two doorways in its front wall. These doors are represented on the 1913 block plans one leading to the western half of the auction house which is labelled “Furniture” and the other to a smaller area in the eastern half of the suction house labelled “Office”. This suggests that at the time the block plans were produced the interior was laid out roughly in this fashion, any further division of these spaces is unknown.

The buildings archaeology uncovered a partially removed fireplace in the western wall. It also revealed that part of the bricks had been painted and that a small area around the fireplace had been left bare. The bricks in this area of the wall were laid so that every few courses protruded slightly from the wall which may have facilitated the attachment of linings. This suggests that there was a small room in the southwest corner of the building not detailed on the block plans but within the area labelled “Furniture”. Perhaps this area served as a shopfront.



Figure 7-47. Right: brick fireplace and chimney in west wall of Rialto identified during demolition, scale is in 20cm increments. Left: photo showing full extent of fireplace and chimney with surrounding unpainted wall section (photos facing west).



Figure 7-48. Photograph of the Rialto circa 1901<sup>35</sup>.

<sup>35</sup> News, S. D. (1961). The Southland daily news centennial supplement. Invercargill: Southland Daily News.

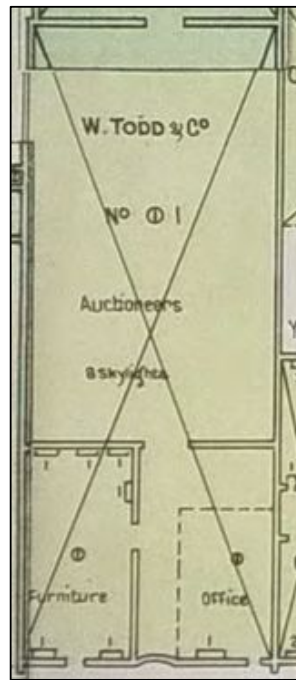


Figure 7-49. Section 19 from the 1913 Block plans of Invercargill. <sup>36</sup>

#### 7.4.2 Stratigraphy and Archaeological Features

The stratigraphy of the site is relatively uniform. The natural topsoil and silt loam substrate were identified across the site below a few deposits of fill and demolition rubble. There were some locations where the topsoil had been scraped off, either partially or completely, which are associated with the construction of the Rialto building and the later rear extension. A 50 to 200mm thick layer of black grit was identified over a large portion of the rear of the site and in a strip through the accessway of the Rialto building. This layer sat directly on top of the natural topsoil and substrate and was introduced to the site as the surface layer of the accessway and rear yard of the Rialto. It is made up of a fine ashy black grit that likely clinker a by-product of the local gasworks.

The archaeological features identified on the site relate to both the modern twentieth century and the pre-1900 occupation of the site, including occupation prior to Todd & Co.'s Rialto. The earliest known occupation of the site dates to the 1880's with a single timber structure present on the site in the 1886 Burwell Plans. This building is thought to be associated with the brewery on the diagonally adjacent Black Eagle Brewery as the breweries owner John T. Martin was leasing the section at his time. Postholes from the north and south walls of this structure were identified on the site below the black grit surface layer of the Rialto yard.

The buildings archaeology revealed that the majority of the pre-1900 Rialto building was removed during the 1960's renovations. Thus, the internal layout and structure of the building could only be surmised from photos and plans of the site. However, during the excavations part of the brick wall or footing of the west wall of the accessway was identified abutting the black grit deposit. This was the only element of the original Rialto building identified during the works besides the east west, and north walls and foundations which were still part of the structure. These walls featured concrete foundations with large basalt rocks. There was no evidence of concrete foundations around the feature, suggesting this wall and its foundations were entirely constructed from brick.

<sup>36</sup> Council of Fire Underwriters' Association of New Zealand. (1925). Block Plans, Invercargill and Bluff. Hocken Library, University of Otago; Reference No. AG-291-001-016-025/029.



Of the other archaeological features identified a series of postholes along the western boundary of the site are also associated with the pre-1900 and early twentieth century occupation of the site. The posts have been identified as part of the boarded fence that ran along the western boundary of the section as shown on the 1912 plan of the neighbouring Section 20 which would have been removed with the 1913 construction of the rear extension to the Rialto building that covered the entire yard space.

A square timber lined well was identified in the rear yard space of the site. This would have served as the sections private well. Private wells are a common feature of Invercargill sites as the city only begun to establish a town water supply in 1886.

#### 7.4.3 *Artefacts*

Prior to William Todd establishing his auction house on the site in 1897, the site had two occupiers. Between 1880 and 1892 the land was leased to the brewery, with a building connected to the brewery established in 1886. From 1892 to 1897 the land was leased to Martin Hughes, a blacksmith. Following Hughes, Todd established his auction house at the site. No artefacts were able to be attributed directly to the brewery's time at the site. Whilst alcohol bottles were recovered, they were typically in mixed deposits meaning they could have been deposited by any of the sites occupants. This would suggest that whilst the brewery was leasing the land, most of their activities were focused at their main site.

It appears that the majority of the artefacts date to the time of Martin Hughes' and his family. Whilst Hughes was a black smith by profession, it does not seem that he was operating a business at the site. Whilst charcoal stained soils were found at the site, these likely relate to the black grit layers and not smithing activities. In terms of the artefacts, there were very few artefacts recovered that indicate smithing. Smithing generates large amounts of scrap metal. These metal artefacts ranged from industrial waste products such as slag and amorphous fragments, to tools and horse shoes. No horse shoes were recovered from E46/59, and only three tools. When compared to known sites where smithing has taken place, it is highly unlikely that Hughes was smithing at the site.

Instead it appears he was living there with his family. The majority of artefacts recovered from the site were domestic artefacts related to a household context. It is this household nature of the site's assemblage which means it likely dates to Hughes' time there as opposed to Todds. Todds, as an auction house, was a public space. Public areas typically do not accumulate as many artefacts as households as there are not the same levels of consumption and use. As an auction house, low levels of teawares and tablewares, as well as beverage bottles might be expected, but not artefacts such as chamber pots, pharmaceutical bottles, and kitchenwares in high levels as is seen at the site. As far as is clear in the historical record, Todd was not living on the site, and it operated solely as a business from 1897 onwards. This means the household waste must relate to Hughes.

Having established that the majority of the artefacts are likely related to Martin Hughes five years at the site, these can be looked at in more depth to give detail on the family. It is clear their family included a baby. Multiple bottles of Mellin's infant food were recovered, as well as a baby feeding bottle. Mass-produced infant food only arose in the 1880s, with baby food traditionally being homemade. Increasing innovations in food technology allowed for ever more food to be mass-manufactured. Mellin's infant products were first advertised in New Zealand newspapers in 1893, meaning the bottles likely post-date this time period. This would fit with them belonging to the Hughes family. The Hughes choosing to buy such products shows they were willing to try new products and not stuck in their ways. Also interesting were the milk glass bitters bottles, embossed with "HARTWIG KANTOROWIGZ/ POSEN/ HAM/BURG/GER/MANY". Bitters in the nineteenth century were commonly used as a medicinal product. Whilst bottle collector websites from North America cite the bottle as being common, they appear to be rare in New Zealand contexts. Similar to the Mellin's baby food, this shows the Hughes trying different products. Looking more broadly at the glass vessels recovered from the site, the artefacts fit patterns typically seen in household sites. Whilst alcohol bottles were the most common vessels recovered, the ratio of alcohol to non-alcohol bottles is not extreme. Typical bottle types and brands such as Champion Vinegar, Lea & Perrins Worcestershire Sauce, black beers, ring-seal beers, and codd bottles were all recovered.

In terms of the ceramic assemblage it was largely whiteware teawares and tablewares. Patterns ranged from earlier decoration styles like Willow and Rhine to later patterns such as Tea Leaf, Rouen and Teddesley. Asiatic Pheasant was the most common decoration style, with 235 fragments recovered. The majority of these fragments were found in the well, where it appears at least 11 plates had been disposed of. The quantity of fragments allowed for some refitting of plates to take place. This refitting indicated that the plates had been disposed of intact, suggesting that the dinner set had been thrown away. With patterns such as Asiatic Pheasant diminishing in popularity for simpler banded and bordered wares in the late nineteenth century, the set may have been disposed of as the Hughes updated their dining set. Other interesting ceramics recovered from the site included a plate from Searle's Albion Hotel. Whilst the Albion Hotel was operating from the 1860s, Searle appears to have been the owner during the 1890s. Branding tableware, as has been done with the Albion Hotel plate, acts to deter theft of objects belonging to a business, something which does not appear to have worked in this case. A similar thing was done with the teawares at railway station tearooms. The presence of the plate in the assemblage provides a tangible link to a past Invercargill business.

The majority of artefacts recovered from the site were located in contexts AM004 and AM003, a well and its associated scatter. With the number of artefacts to come out of the well, it is highly unlikely it was still functioning as a well during the 1890s as the rubbish being deposited into it would have contaminated the water supply. Instead it is likely that it was instead used as the main location for rubbish disposal. This also fits with the other contexts found in the site, with only a few rubbish pits being identified, most of which contained minimal artefacts. The artefacts which had identifiable manufacture dates are summarised in Table 7-10. There is a range of dates, indicating deposition of items into the well took place over a long time.

**Table 7-10. Summary of context types and terminus post quem (TPQ) for E46/62 artefact-bearing deposits.**

Context	Type	TPQ (source)
AB002/AH003/AI003	Layer	~1876 (Invercargill based soda manufacturer)
AM003/AM004	Well fill	1896 (F. H. Hall pharmaceutical bottle)
AI006	Drainage trench	?
AM008	Layer	1977 (Thomas Brownfield & Sons mark)
AM009	Drainage trench	?
AM014	?	?
AT003	Layer	?
AT006	Layer	?
B001	Concrete floor/surface layer	~1876 (Invercargill based soda manufacturer)
B008	Layer	1863 (Myer brick)
C002	Refuse dump	1887 (Warner's bottle)
C003	Layer	1857 (Kilner Brothers mark)
C004	Refuse dump	?
C005	Layer	~1870s (Ring seal bottle)
Q004	Layer	1882 (Hero Glass Works mark)
Q006	Refuse dump	?

Of the total faunal assemblage analysed at Don Street (n=344), 26% of the faunal remains were located on this site. By context, the largest faunal concentrations are in Q006 (22%), AM004 (16%) and AI003 (14%). The remaining contexts represent no more than 8% of the total assemblage analysed from the site. The high NISP values of these contexts are largely attributed to the presence of oyster shells, which is also the most abundant faunal species identified.

There is evidence of both butchery phases two and three by the presence of vertebra fragments longitudinally butchered and specialist/retail soup/shank meat cuts. Butchery was recorded on 22 skeletal remains across eight contexts; AI003, AM003, AM004, AT006, CC003, C005 and Q006. Butchered elements were not concentrated in any particular context. Of the meat cuts identified, these tended to be considered of lower value. Drawing from the information provided from the skeletal portions of butchered mammals analysed, it appears that occupants were most likely acquiring from a source (experienced retail butcher).

Rat and dog attrition are present on four contexts; AB002, AI003, AM004 and Q006. Rat attrition is only present on material from AI003 and dog is only present on material from AB002 while both rat and dog attrition were present on material from AM004 and Q006. One rat bone was identified in Q006, however, no dog bone was identified across the site. The presence of rat attrition tends to suggest opportunistic scavenging of easily available food scraps is the most plausible.

## 8 Interpretation

Across the four sites a few patterns were recognised within the archaeology that can be related to human activity within a broader Invercargill context. When Invercargill was first settled both residents and businesses drew their drinking water from private wells constructed on their own properties. The wells only began to be replaced with a public water supply in the late 1880's. Plans for the water supply were drawn up in 1886, and by January 1888 a 100-foot deep iron cylinder well, pumps and a water tank had been constructed along with tenders accepted for the laying of house connections (Southland Times, 1888). As a result, wells are common features of nineteenth century archaeological sites in Invercargill. Three previously identified archaeological sites within the central city are, or included a well (E46/32, E46/45, and E46/54). During the course of the Don and Spey Street development, three wells were identified across the four sites; A12 a brick lined circular well on site E46/62 – The Criterion Hotel and Yards (context AM4), a wood lined square well on site E46/59 – William Todd and Co.'s Auctions at the Rialto, and AS80/AS94 a circular wood lined well on site E46/60. Linked to the use of private wells as the main water supply in Invercargill is the lack of latrines or cesspits identified on any of the sites. The wells were easily susceptible to contamination from cesspits and latrines, unsealed drainage channels, and from the polluted surface water which accumulated in many parts of the town. Therefore in 1873 the Municipal Council decreed that earth closets, rather than cesspits were not to be used and started a nightsoil collection (Southland Times, 1883).

Identified on all four sites were deposits of an ashy black grit substance used to resurface exterior areas of the sections. The exact origins of the material are unclear; however, it is most likely a form of clinker. Clinker refers to a form of waste material produced from industrial processes, particularly the smelting/smithing of metals, use of a blacksmiths forge, and the burning of fossil fuels. It is likely that the black grit material found on the sites is clinker produced by Invercargill's gasworks which was built in 1874 over 3 acres of land on the north side of Spey Street to the west of the railway line (Cyclopedia Company Ltd, 1905). The Gasworks used coal from the Brunner mines on the west coast to produce gas for the town. The presence of this material across all four sites suggests it may have been common practice to pave areas with clinker from the gasworks and similar deposits may be found throughout Invercargill.

Sites E46/60 – The Black Eagle Brewery, and E46/61 – Section 4 are the northern two site which front onto Spey Street. The archaeological investigations revealed at the time of the first occupation of these sections their northern ends sat significantly further below the current surface than the southern ends of the site. Excavations in the northwest corner of Section 4 which cut slightly into the footpath revealed the footpath and likely the adjacent area of Spey Street itself have been built on a thick layer of silt loam fill (context AR168). The silt loam fill is likely made up of the natural yellowish silt loam substrate redeposited here from elsewhere in the city. The northern ends of the two sections as well as the footpath, and likely the road itself, would have been raised as a way of dealing with the boggy nature of the natural ground, which was seen to be very waterlogged and muddy. The southern ends of the sections as well as the other two sites sat higher above the water table and were much drier.

In a broad sense, archaeological investigations have provided the most in depth look at the pre-1900 urban landscape of Invercargill yet to be undertaken. Investigation has identified how people adapted to socio-political changes with the introduction of prohibition, changing the economic environment for at least two of the sites present here. There was little future for an urban brewery during prohibition which ultimately sealed the fate of what was a landmark building in Invercargill, the Black Eagle Brewery. Similarly, Mrs Moloney the proprietor of the Criterion Hotel, adapted to this social environment by commissioning not only the repurposing of the hotel, but expanding its footprint and presence by offering rooms for boarders.

The adaptation and change though time is prevalent within all sections of the development area. From residential to commercial, industrial to retail. The archaeology presents a picture of a dynamic, hardy, and prudent population going about their lives in mid to late Victorian Invercargill.

## 9 Conclusions

As part of the development of Sections 3, 4 (Lot 1 DP 1359), 18, and 19, Block LXXI, Town of Invercargill, Southland District by the Invercargill City Council archaeological investigations were undertaken on all four sections under archaeological authority 2016/1193. The four sections located in the heart of Invercargill have an intertwining history dating back to the 1870s. The archaeological investigations at sites (E46/59, E46/60, E46/62, and E46/62) have added to our understanding of the human occupation of the sections themselves as well as providing a unique look into early commerce and occupation in the centre of Invercargill. Despite the extensive redevelopment of the sites, to fit with their modern uses, numerous archaeological contexts were identified *in situ*. This has allowed for the most comprehensive investigation of pre-1900 European occupation in Invercargill to date. The archaeology of this urban environment provides insight into the social, political, and economic environment of the time, and has allowed for discrete snap shots of individuals, of families, and of commerce and industry, and how they have interacted and contributed to the development of the city of Invercargill.

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## Appendix A Redevelopment Plans



## Appendix B Previously Recorded Breweries and Hotels

### Breweries and Hop Kilns

NZAA ID	Name	Short Description	Site Type	Site Features	TLA	Region
M35/1093	Suffolk Brewery	Brick well and possible head wall. Potentially associated with the Suffolk Brewery site.	Historic - land parcel	Well, Rubbish dump/ pit	Christchurch City	Canterbury
M35/373		Site of 19th century brewery and pickle factory. Prior to 1890, a brewery (initially Phoenix Brewery) operated on Town Section 143. In 1890, the Hawayrd brothers moved their pickle factory to this site, later enlarging their business to include Town Section 145 (in 1902).	Industrial	Unclassified	Christchurch City	Canterbury
I44/639	Caversham Brewery	Site of part of the old Caversham Brewery, first established as the White Star Brewery in about 1863 and which operated until the 1920s. The surviving evidence includes the old malt house and adjoining brick building on bluestone foundations.	Commercial	Building - brewery, Foundations	Dunedin City	Otago
I44/233	Speights Brewery	Brewery with five interconnected buildings. The brewery has been operating from this area since the 1870s, however most of the buildings on this side of Rattray Street were constructed well after that time.	Industrial	Building - brewery	Dunedin City	Otago
I44/382		The brewery was established in 1862 by John Marshall and James Copeland. It moved to premises in the Cumberland Street near lower Stuart Street in 1879. A grain house still exists on the site, behind the present Leisure Lodge.	Industrial		Dunedin City	Otago
I44/380		The site of Wilson's Distillery has long been associated with alcohol manufacture, namely the Well Park Brewery (est. 1862), Wilson Malt & Extract Co Ltd (1913), Dunedin Brewery and Wilson Malt & Extract Co Ltd (1926) and the Dunedin Brewery (1935). It is a site of historical significance because of its association with national and international alcohol production as well as with notable brewers such as James Wilson and James Speight.	Industrial		Dunedin City	Otago
H44/1112	Hart's Black Horse Brewery	This is the site of Hart's Black Horse Brewery. It consists of the ruins of the malthouse, a number of other ruins and foundations, the derelict wooden Hart house, the remains of the old gardens around the house, and the large areas of daffodils.	Commercial	Building - cottage, Ruins - building or structure, Building - malt house	Clutha District	Otago
B44/7		Brewery. Soon after the arrive of the 'Resolution' into Ship Cove on Thursday April 1 <sup>st</sup> 1773, Capt. Cook began to brew beer beside Cook Stream. The historic significance of the site is that this is the first recorded brewery in New Zealand. Cook gives full details for how to make his antiscorbutic beer. The beer was produced from a mixture of the leaves of the rimu and Manuka.	Industrial	Building - brewery	Southland District	Southland
E47/65		Brewery / distillery. Owen McShane, the first white man to settle at Sandy Point, built his house and distillery for brewing cabbage tree rum on Coopers Creek. Artefacts exposed and eroding in dune but mixed with modern rubbish.	Industrial	Building - distillery	Invercargill City	Southland
N28/26		Hop kiln with cob chimney believed to be built by William Cropp in the 1880s.	Industrial	Kiln - hops, Chimney	Tasman District	Tasman
M27/20		Hop kiln. Stones approximately 3 m long and 1 1/2 m high, stacked against the bank wall. The base of the area is recorded as a moss covered mound of stones.	Industrial	Kiln - hops	Tasman District	Tasman
N27/153		Hop kiln.	Industrial	Kiln - hops	Tasman District	Tasman
P28/75		Hop kiln site.	Industrial	Building	Marlborough District	Marlborough

### Hotels

NZAA ID	Name	Short Description	Site Type	Site Features	TLA	Region
L29/23		There was an accommodation house/hotel, stables, etc, built on this flat c.1865. Chimney remains had been bulldozed to the edge of a terrace above the Inangahua River. An old road formation crosses the terrace, and there is a hut site (marked by large	Commercial	Building - hotel	Buller District	Westcoast
L29/84	Post Office Hotel	The remains of the Post Office Hotel.	Commercial	Building - hotel	Buller District	Westcoast
L31/13	Antonios Flat Town Site	Probable hotel site. Includes two fireplace hearths and shallow alluvial workings.	Commercial	Building - hotel, Fireplace/ hearth, Mining workings	Buller District	Westcoast
K31/140		The site of Seatons Hotel.	Commercial	Artefact	Grey District	Westcoast
K32/20	Brown's Hotel	Hotel site, "Browns Terrace", recorded from hearsay.	Commercial	Building - hotel	Grey District	Westcoast
K31/29	Croesus Track	Pack track. The original bridges have been replaced by steel suspension bridges. Occasional sleepers in track below the second hotel site to Croesus battery site.	Transport/ communication	Track - pack	Grey District	Westcoast
K31/26		Hotel & hut sites	Commercial		Grey District	Westcoast
K31/25		Hotel & hut sites	Commercial		Grey District	Westcoast
J32/25		Hotel site	Commercial	Building - hotel	Grey District	Westcoast
J33/8		Hotel/coach stop	Health care		Westland District	Westcoast

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NZAA ID	Name	Short Description	Site Type	Site Features	TLA	Region
I33/2		Hotel site	Commercial	Building - hotel	Westland District	Westcoast
J32/88		Hotel	Commercial	Building - hotel	Westland District	Westcoast
J32/58		Hotel	Commercial	Building - hotel	Westland District	Westcoast
J33/77		House/hotel	Cement/ lime works		Westland District	Westcoast
J33/80		Hotel/shop/etc	Cement/ lime works		Westland District	Westcoast
J33/81		Hotel	Cement/ lime works		Westland District	Westcoast
J33/78		Ironmongers/hotel	Cement/ lime works		Westland District	Westcoast
J33/76		Hotel/timber yard	Cement/ lime works		Westland District	Westcoast
J33/79		Hotel/timber yard	Cement/ lime works		Westland District	Westcoast
J32/139	Commercial Hotel	Hotel site.	Commercial		Westland District	Westcoast
J32/130	Club Hotel	Hotel site.	Commercial	Building - hotel	Westland District	Westcoast
J32/129	British Empire Hotel	Hotel site.	Commercial	Building - hotel	Westland District	Westcoast
J32/138	Commercial Hotel	Shop/hotel site.	Commercial	Building	Westland District	Westcoast
J32/128	Plough Inn	The site of various commercial enterprises including a fruit shop, fancy goods store, tearooms and hotel.	Commercial	Building - commercial	Westland District	Westcoast
K33/13	Wright's	Accommodation house, recorded from local accounts. Owned by Wright, kept by Ray, who was licensee in 1870. Keane purchased the hotel in 1878 and was there for 7 years. The hotel was swept away in a flood in 1886. In 1888 Cassidy & partner built a new hotel.	Commercial	Building - accommodation/boarding house	Westland District	Westcoast
I33/3	Manera's Accommodation house	The house built in the 1920s, failed to be granted a hotel license, and so served as an accommodation & boarding house. It has been modified by the removal of the top storey, and has been kept in good repair	Commercial	Building - accommodation/boarding house	Westland District	Westcoast
K33/10	Alexanders Lower House	Accommodation house, recorded from local accounts. Adam & Michael Jackson came to Wainihinihi, Adam took over the lower house. A big flood destroyed the lower house, so soon after a new place was built as Jacksons Hotel.	Commercial	Building - accommodation/boarding house	Westland District	Westcoast
K33/12	Kellys Hotel	Accommodation house, recorded from local accounts. In October 1865, Kelly had an inn, changing station and store 10 miles down the Otira River. Kelly applied for a hotel license - the building was burnt down in 1870.	Commercial	Building - accommodation/boarding house	Westland District	Westcoast
L29/9	Inangahua Junction	A small township, with a hotel, grew in this place and was a regular coach stop. There were a couple of small shops here and some houses.	Health care		Buller District	Westcoast
L29/7	Berlins	Hotel site.	Commercial	Building - hotel, Building - accommodation/boarding house	Buller District	Westcoast
L29/29		Hotel site. Terrace and stone wall.	Commercial	Stone wall, Terrace, Building - hotel	Buller District	Westcoast
M36/214	Lincoln Hotel	19th century hotel.	Commercial	Building - hotel	Selwyn District	Canterbury
K37/37	New Inn	The site of a 19th century hotel.	Commercial	Building - hotel	Ashburton District	Canterbury
K37/33	Somerset Hotel	Hotel.	Commercial	Building - hotel	Ashburton District	Canterbury
O31/71	Pier Hotel	Concrete foundations of the Pier Hotel, dating to 1885.	Commercial	Building foundations (unspecified)	Kaikoura District	Canterbury
M33/27	Leith's Black Hotel	1865 hotel in the Waitohi Gorge settlement on the gold rush trail over Harpers Pass.	Historic - domestic	Building - hotel	Hurunui District	Canterbury
M33/24	Great Northern Hotel	Great Northern Hotel associated buildings.	Historic - land parcel	Building - hotel, Building - stable, Building - blacksmiths	Hurunui District	Canterbury
M35/477	Railway Hotel	Two hotels occupied the site in the 19th century, and Blackwells Department Store occupied the site in the 20th century. The oldest section of the store was demolished February/March 2011 due to damage caused by the Canterbury earthquake.	Commercial	Building - hotel	Waimakariri District	Canterbury
M36/239	Cambridge Hotel	1860s hotel.	Commercial	Building - accommodation/boarding house	Christchurch City	Canterbury
M35/711	Oxford-on-Avon Hotel	The site of an 1860s hotel. Maori camp site prior to European use of the site.	Historic - land parcel	Building - hotel, Artefact - historic	Christchurch City	Canterbury
M35/524		Location of nineteenth century hotel.	Commercial	Artefact - bottle, Building - hotel, Artefact	Christchurch City	Canterbury

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NZAA ID	Name	Short Description	Site Type	Site Features	TLA	Region
				- ceramic, Artefact - historic		
M35/830	Provincial Hotel	Site of the 19th century Provincial Hotel.	Historic - land parcel	Artefact - bottle, Building - hotel, Well	Christchurch City	Canterbury
M35/857	Cokers Hotel	The site of a 19th century hotel.	Commercial	Building - hotel	Christchurch City	Canterbury
M35/592	Lancaster Park Hotel	The site of the Lancaster Park Hotel.	Commercial	Building - hotel	Christchurch City	Canterbury
N36/134	Cave Rock Hotel	The site of a 19th century hotel.	Commercial	Building - hotel	Christchurch City	Canterbury
M35/859	The Grenadier Hotel	Site of a 19th century hotel.	Commercial	Building - hotel	Christchurch City	Canterbury
M35/503		Historic hotel.	Commercial	Building - hotel	Christchurch City	Canterbury
M35/822	The City Hotel	The site of a 19th century hotel.	Commercial	Building - hotel	Christchurch City	Canterbury
M35/519	Zetland Arms Hotel	The site of a 19th century hotel.	Commercial	Artefact - historic, Building - hotel	Christchurch City	Canterbury
M35/388		Historic hotel site.	Commercial	Building - hotel, Building foundations (unspecified), Rubbish dump/pit, Artefact - bottle	Christchurch City	Canterbury
M36/182		Site of early hotel associated with route to Christchurch that was constructed in 1851. Date of demolition unknown.	Commercial		Christchurch City	Canterbury
M35/406		Hotel. Historic occupation.	Commercial		Christchurch City	Canterbury
M35/409		Hotel. Historic occupation.	Commercial		Christchurch City	Canterbury
M36/170		Hotel.	Health care		Christchurch City	Canterbury
M36/183		Hotel.	Commercial		Christchurch City	Canterbury
I42/200	Australasian Hotel	Site of hotel, recorded from historic photographs.	Commercial	Unclassified	Waitaki District	Otago
I42/196	United Kingdom Hotel	Site of hotel.	Commercial	Unclassified	Waitaki District	Otago
I42/211	Pigroot Halfway House Hotel	This is the site of the old Pigroot Halfway House Hotel. No surface remains are visible but the site is marked by large macrocarpa and poplar trees.	Commercial	Tree, House floor/ site	Waitaki District	Otago
I42/193	Commercial Hotel	Site of hotel.	Commercial	Unclassified	Waitaki District	Otago
F41/160	Kirtleburn Hotel	"Kirtleburn Hotel. Was established in the 1860s, burnt down in the 1880s. No trace of its building in 1978. Limited test excavations under authority No. 1996/34 located structural remains and recovered artefactual and faunal material."	Commercial	Building - hotel, Artefact - historic	Central Otago District	Otago
I44/260	Occidental Hotel	19th century building. In 1887 the building was the Occidental Hotel, later known as the Melbourne Hotel.	Commercial	Building - hotel	Dunedin City	Otago
G41/640		Schist stone cottage built for Susan Marsh, widowed daughter in law of John Marsh, Hotel proprietor and mayor of Cromwell. Date of construction about 1895.	Historic - domestic	Building - cottage	Central Otago District	Otago
H41/172		Ballarat Hotel.	Commercial	Building - hotel	Central Otago District	Otago
H41/193	Vulcan Hotel Billiards Room and Stables (Former)	The nineteenth century Vulcan Hotel Billiards Room and Stables (Former).	Commercial	Building, Building - stable, Stone retaining/ facing	Central Otago District	Otago
I44/602	Royal Tavern	Brick hotel built circa 1891.	Commercial	Building - hotel	Dunedin City	Otago
I44/599	Crescent Bay Hotel	Careys Bay Historic Hotel.	Commercial	Building - hotel	Dunedin City	Otago
E41/226	Eichardt's Hotel	Eichardt's Hotel. A hotel has stood on the site since 1862 and undisturbed archaeological evidence survives beneath the building.	Commercial	Building - hotel	Queenstown-Lakes District	Otago
I44/255	Grand Hotel	Formerly the Grand Hotel (1883). The Bare Block Plans (1887) show buildings associated with Watsons Hotel, The D.I.C. and The Grand Hotel in the area now occupied by The Southern Cross. Modified in the 1960's.	Commercial	Building - hotel	Dunedin City	Otago
H43/93	Serpentine Hotel	The remains of the Serpentine Hotel. The site consists of low mud ridges 40cm high enclosing an area 11 x 9m with two smaller enclosures at the SE corner.	Commercial	Foundations	Central Otago District	Otago
G42/324	Chatto Creek Hotel	Historic hotel, also site of former stables.	Commercial	Building - hotel, Rubbish dump/pit	Central Otago District	Otago
I44/689	European Hotel	Historical research on the property has identified a long history of occupation. The earliest known building to be constructed on-site is the European Hotel, built in 1863.	Commercial	Building - hotel	Dunedin City	Otago

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NZAA ID	Name	Short Description	Site Type	Site Features	TLA	Region
F41/642		Stone hotel and stables.	Commercial		Central Otago District	Otago
G42/303		The site consists of a massive chimney and the outline of a building that is thought to have been a store and a hotel.	Commercial	Building, Chimney	Central Otago District	Otago
G41/281		Hotel	Commercial	Building - hotel	Central Otago District	Otago
H43/27		Hotel	Commercial	Building - hotel	Central Otago District	Otago
F42/286	Lower Nevis	Old township. The first group of stores and hotels was at the Nevis Crossing in 1862 and it is not clear when settlement moved to the upper township. As well as the cemetery at the north end, there are c.13 remaining ruins as well as cottages.	Health care	Cemetery/ urupa, Building - cottage, House floor/ site	Central Otago District	Otago
H42/69		Hotel	Commercial	Building - hotel	Central Otago District	Otago
G41/67		Hotel	Commercial	Building - hotel	Central Otago District	Otago
G41/446		Hotel	Commercial	Building - hotel	Central Otago District	Otago
G41/230		Hotel	Commercial	Building - hotel	Central Otago District	Otago
F41/332		Hotel	Commercial	Building - hotel	Central Otago District	Otago
G41/324		Hotel	Commercial	Building - hotel	Central Otago District	Otago
G41/447		Hotel	Commercial	Building - hotel	Central Otago District	Otago
E41/186		Hotel	Commercial	Building - hotel	Queenstown-Lakes District	Otago
E41/154		Hotel	Commercial	Building - hotel	Queenstown-Lakes District	Otago
F40/21		Hotel	Commercial	Building - hotel	Queenstown-Lakes District	Otago
E41/156		Hotel	Commercial	Building - hotel	Queenstown-Lakes District	Otago
F41/416		Hotel	Commercial	Building - hotel	Queenstown-Lakes District	Otago
G41/297		Hotel stables	Commercial	Building - stable	Central Otago District	Otago
F41/56		Hotel	Commercial	Building - hotel	Queenstown-Lakes District	Otago
F41/585		Hotel site	Commercial		Queenstown-Lakes District	Otago
H44/1006		Hotel	Commercial	Building - hotel	Dunedin City	Otago
H44/1007		Hotel	Commercial	Building - hotel	Dunedin City	Otago
I44/219		Hotel	Commercial	Building - hotel	Dunedin City	Otago
F42/203	Nevis Crossing Hotel Ruin	Hotel ruin and associated features.	Commercial	Fence - wire, Fence post, Building - hotel, Fence/ fence line	Central Otago District	Otago
I43/133	Talty's Hotel	Hotel ruin.	Commercial	Building - hotel	Waitaki District	Otago
F42/172	Nevis Hotel Ruins	Hotel ruins.	Commercial	Building - hotel, Building foundations (unspecified)	Central Otago District	Otago
H41/12		Hotel site	Commercial	Building - hotel	Central Otago District	Otago
F41/490		Hotel/stables	Commercial		Queenstown-Lakes District	Otago
G40/28		Hotel site	Commercial	Building - hotel	Central Otago District	Otago
E40/35		Hotel site	Commercial	Building - hotel	Queenstown-Lakes District	Otago
F41/202	Edwards Ferry Hotel	Hotel site. The remains of this hotel date back to before the first Victoria Bridge in the 1880's.	Commercial	Building - hotel	Queenstown-Lakes District	Otago
H44/381		Hotel walls 8.8 m x 12.5 m long, 1 m wide, 70 cm high. Hotel surrounded by sod wall 100 m to 210 m long, 40-80 cm high and 70 cm wide	Mining - gold	Building - hotel, Building - hotel	Clutha District	Otago
F41/159	Kirtleburn Hotel Complex	First described as a possible tent or hut site with cut ground and stone fireplace. This was actually the location of the stockyards associated with the nearby Kirtleburn Hotel.	Agricultural/ pastoral	Stock yard/ enclosure	Queenstown-Lakes District	Otago
F41/195	Victoria Bridge Hotel	Hotel was built by Mr J. McCormick sometime after 1874. Oats and chaff were grown on the land associated with the hotel. There were about 4 buildings in the hotel complex, including the main hotel buildings and stables.	Commercial	Building - hotel	Queenstown-Lakes District	Otago
I44/453	Larnach's Red Brick Hotel	Hotel.	Historic - land parcel	Building - hotel	Dunedin City	Otago

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NZAA ID	Name	Short Description	Site Type	Site Features	TLA	Region
E41/275	McBride's Family Hotel (and others)	'The site now occupied by the Beach Street casino had earlier been the location of numerous early hotels, including the Harp of Erin and McBride's Family Hotel. Excavations carried out in 2000 revealed wells, pits, post-holes and latrines.'	Commercial	Pit, Well, Cellar, Foundations	Queenstown-Lakes District	Otago
F41/754	Royal Oak Hotel	The Royal Oak Hotel was established in 1863 and burnt down in 1924. Archaeological excavations in 2003 found extensive evidence of the 1924 fire, together with features of the original buildings including the schist-lined beer cellar.	Commercial	Cellar, Artefact - historic, Building foundations (unspecified)	Queenstown-Lakes District	Otago
F41/411		Hotel?	Commercial	Building - hotel	Queenstown-Lakes District	Otago
G42/11		Site of a hotel and outbuildings that served a road coming down the south bank of the Manorburn. Wheel ruts can be seen in the schist near the existing dam.	Commercial	Building - hotel	Central Otago District	Otago
H41/168		Site of early hotel and subsequently Colonial Bank of New Zealand.	Commercial	Building - hotel, Building - Bank	Central Otago District	Otago
I42/192		Stanley's Hotel Complex.	Commercial	Building - stable, Building, Building - hotel	Waitaki District	Otago
I44/306	Kedzlies Farm	The site of a very early cow farm and hotel beside the West Taieri Road, an 1860's road to the goldfields. The site consists of an old house, cow byre, garden, farmyard, stone walls and historic period farm equipment (including milk cart).	Agricultural/pastoral	Garden - historic, Stone wall, Cow byre, Artefact - historic, House floor/ site	Dunedin City	Otago
G40/204	Queensberry	Stone hotel.	Commercial	Building - hotel	Central Otago District	Otago
I44/232		The site of various hotels in operation from the 1860's onwards. Hotels included the Shakespeare, Gladstone, Squatters Club, Old Dunedin Club, Scandinavian, Albion and Club.	Commercial		Dunedin City	Otago
I44/279	Red Lion Hotel	The site of buildings associated with the Red Lion Hotel. Buildings were demolished in 1966.	Commercial		Dunedin City	Otago
G42/248	Cape Broome	Stone hotel. Like many of the old coaching stops, there were once stables on the other side of the road from the hotel building.	Commercial	Building - hotel	Central Otago District	Otago
I44/270		The site of a number of 19th century buildings including D.I.C (1870's) and Watsons Hotel (1850's). Levelled in the 1960's. Visible archaeological evidence is restricted to a remnant of a brick arch probably associated with the D.I.C building.	Commercial	Building foundations (unspecified)	Dunedin City	Otago
E41/252	The Arthurs Point Tavern	The c. 1890 Junction Hotel and surrounding outbuildings	Historic - domestic	Building - hotel, Building - stable, Building - accomodation/ boarding house	Queenstown-Lakes District	Otago
I44/252	Crown Hotel	The Crown Hotel was established on this site in 1862-63 and has operated from here since that time. The building has a small basement. The floor is c.2m below the level of Rattray Street, and the walls are stone lined.	Commercial	Building - hotel	Dunedin City	Otago
I44/242	Excelsior Hotel	The Excelsior Hotel was constructed in 1890, replacing the Oriental Hotel which had stood on this site since the 1860's.	Commercial	Building - hotel	Dunedin City	Otago
I44/278	The Provincial Hotel	The hotel was established between 1858 and 1860 and at one time extended all the way to the corner of Manse and Stafford Streets. The basement cellar bar may be part of the original structure.	Commercial	Building - hotel	Dunedin City	Otago
E41/273	Mountaineer Hotel	'The Mountaineer Hotel comprised a series of different building events beginning in 1873. Evidence for activity from the 1860s including rubbish pits, barrel latrines, paved floors and outline of earlier buildings was found during redevelopment work.'	Commercial	Rubbish dump/pit, Building foundations (unspecified), Building - hotel	Queenstown-Lakes District	Otago
E41/83	Otago Hotel, Skippers	The site consists of the stone ruin of part of the old Otago Hotel at Skippers, that was established in the mid-1860s, and closed in 1919.	Commercial	Building - hotel	Queenstown-Lakes District	Otago
I44/225	Anchor Hotel	Remnant walls of two pre-1887 wool store buildings, probable infilled basement of Anchor Hotel (1872-1894) and possible subsurface remnants of other 19th century commercial buildings.	Commercial	Stone wall, Building foundations (unspecified)	Dunedin City	Otago
I44/285		The site of an hotel build in 1858. Archaeological material relating to the period from 1848-1858 possibly exists beneath the present floor.	Commercial	Building - hotel	Dunedin City	Otago
I44/246	The Bank of New Zealand	The Bank of New Zealand building. This building was constructed in 1879 and replaced the 1st BNZ building (1863). Archaeological material relating to the Royal Hotel (located on the site in 1848) may be present underneath.	Administrative	Building - Bank	Dunedin City	Otago
I44/95	Highcliff Hotel	The site of the old Highcliff Hotel known locally as Donaldson's. The hotel closed c.1914-15. The brick ruins of this building are still standing. The site was originally recorded as a forge.	Commercial	Building - hotel	Dunedin City	Otago
I44/537	Hindon Hotel	Hindon hotel and store.	Commercial	Unclassified	Dunedin City	Otago
E41/162	Green Gates Hotel	This hotel was built by John Balderson and his wife Margaret in 1864. Two structures made of schist- described as main hotel and sleepout.	Commercial	Building - hotel	Queenstown-Lakes District	Otago
G40/18	Lindis Pass Hotel Ruins	Three split schist and mortar buildings: hotel, stable/shed, dwelling. Hotel closed in 1917 when R.K. Smith bought the lease. After that date it was run as a boarding house. The old Lindis School was in the hotel.	Commercial	Building - hotel	Central Otago District	Otago

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NZAA ID	Name	Short Description	Site Type	Site Features	TLA	Region
I44/223	Abbeyleix Hotel	Two sets of building remnants. a) infilled basement of Universal Hotel (constructed 1867) b) possible subsurface features relating to the Abbeyleix Hotel (1861-1863) c) possible mid-19th century material in fill on southern part of site.	Commercial	Building - hotel	Dunedin City	Otago
H45/42	Vauses Hotel	Site of Vauses Hotel built c.1862 and later renamed the White Horse Hotel. Not on the site of the present White Horse Inn.	Commercial	Unclassified	Clutha District	Otago
H44/1012		A township that is now largely underwater due to Dunedin City hydro schemes. The town was at its height in 1865. When the lake is low the foundations of the school and Criterion Hotel can be seen.	Health care	Building foundations (unspecified)	Clutha District	Otago
D49/15		Historic settlement associated with mining of gold, tin and other minerals. Site consists of two large areas bearing evidence of hut/hotel sites, tramways and midden.	Health care	Hut floor/ site, Midden, Tramway	Southland District	Southland
D49/46		HOTEL	Commercial		Southland District	Southland
E47/148	Mokomoko Accommodation House	Site of hotel/halfway house. Findspot for historic artefacts.	Commercial	Artefact - ceramic, Building - hotel, Artefact - bottle, Building - accomodation/boarding house	Invercargill City	Southland
N27/193	Moutere Inn	Historic Pub and Hotel.	Commercial	Building - hotel	Tasman District	Tasman
N27/180	Railway Hotel	Hotel site.	Commercial	Building - hotel	Tasman District	Tasman
N27/194	Wyperserfontein	Historic hotel.	Commercial	Building - hotel	Tasman District	Tasman
N27/209	Plough Inn	Site of 1840s hotel.	Commercial	Rubbish dump/pit, Building - hotel, Foundations	Tasman District	Tasman
L29/13	Newton Flat	Settlement, including hotel, built during early days of travel down the Buller River. Alluvial gold mining took place nearby.	Health care	Building - hotel	Tasman District	Tasman
M25/76		Tailings and hotel.	Mining - gold	Tailings	Tasman District	Tasman
M27/2	Baton	Townsite on upper terrace, recorded as bulldozed, with walnut trees and daffodils indicating where buildings once stood. Taylors Hotel and several hundred miners occupied site from 1854 - 1880's. Old road with stone bridge, tailraces and tailings.	Mining - gold	Bridge, Road, Garden - historic, Tailings, House floor/ site, Water race - tail race, Tree	Tasman District	Tasman
O27/71	Globe Hotel	Site of hotel.	Commercial	Building - hotel	Nelson City	Nelson
O28/17	Criterion Hotel	Hotel site.	Commercial	Chimney, Building - hotel	Marlborough District	Marlborough
P28/86	Parker's Hotel	Hotel site.	Commercial	Mound	Marlborough District	Marlborough
P28/84	Macdonald's Hotel	Hotel site.	Commercial	Stone alignment, Mound	Marlborough District	Marlborough
P27/298		Hotel.	Commercial		Marlborough District	Marlborough

## **Appendix C Full Summary of Archaeological Work Undertaken**

Appendix D Buildings Archaeology Contexts



Figure 10-1. The Criterion – Current plan showing sample areas



Table D-1. Contexts identified during the buildings archaeology of the Criterion Hotel by room.

Sample Area	Sample Type	Description of the Layers Encountered
<b>Room 1</b>		
1A	Wall	<ol style="list-style-type: none"> <li>1. Corflute (plastic hollow core board; 3mm thick) printed with Coca-Cola advertising.</li> <li>2. Wallpaper</li> <li>3. Softboard (12mm thick)</li> <li>4. Timber battens</li> <li>5. Exterior brick wall (English garden wall bond)</li> </ol>
1B	Floor	<ol style="list-style-type: none"> <li>1. Carpet</li> <li>2. Underlay</li> <li>3. Tongue-and-groove floorboards (85mm wide), running east to west</li> </ol>
1C	Floor	<ol style="list-style-type: none"> <li>1. Carpet</li> <li>2. Underlay</li> <li>3. Tongue-and-groove floorboards (85mm wide), running east to west</li> <li>4. Tongue-and-groove floorboards (150mm wide), running north to south</li> </ol>
1D	Ceiling	<ol style="list-style-type: none"> <li>1. Painted soft board tiles</li> <li>2. Void (800mm)</li> <li>3. Plasterboard ceiling</li> <li>4. Tongue-and-groove ceiling boards (75mm wide), running north to south</li> </ol>
<b>Room 2</b>		
2A	Wall	<ol style="list-style-type: none"> <li>1. Corflute (plastic hollow core board; 3mm thick) printed with Coca-Cola advertising.</li> <li>2. Painted (cream) softboard (12mm thick)</li> <li>3. Painted (cream) hardboard (3mm thick)</li> <li>4. Painted (green) softboard on the chimney (12mm thick)</li> <li>5. Timber framing covering the fireplace opening</li> <li>6. Timber battens installed on the chimney to affix the softboard.</li> <li>7. Wallpaper 1</li> <li>8. Wallpaper 2</li> <li>9. Painted (blue) lime plaster (22mm thick) covering the chimney, consisting of a coarse scratch-coat and a finish coat.</li> <li>10. Brick fireplace with an arched opening, measuring 940mm high, 930mm wide.</li> </ol>
2B	Wall	<ol style="list-style-type: none"> <li>1. Corflute (plastic hollow core board; 3mm thick) printed with Coca-Cola advertising.</li> <li>2. Painted (pink) softboard (12mm thick)</li> <li>3. Battens (22mm thick)</li> <li>4. Thin patches of lime plaster (previously removed)</li> <li>5. Brick wall (2 rows of brick, English garden wall bond)</li> </ol>
2C	Floor	<ol style="list-style-type: none"> <li>1. Carpet</li> <li>2. Underlay</li> <li>3. Tongue-and-groove floorboards (150mm wide), running east to west</li> </ol>
2D	Ceiling	<ol style="list-style-type: none"> <li>1. Painted (cream) plasterboard (25mm thick)</li> <li>2. Painted (cream) softboard (20mm thick)</li> <li>3. Painted (yellow) tongue-and-groove ceiling boards (75mm wide), running north to south</li> <li>4. Joists (75mm wide and 270mm thick, with a spacing of 400mm) running east to west with rose-head nails</li> </ol>
<b>Room 3</b>		
3A	Wall	<ol style="list-style-type: none"> <li>1. Painted (cream) hardboard (6mm thick)</li> <li>2. Painted (yellow) softboard (9mm thick)</li> <li>3. Timber battens (36mm thick)</li> <li>4. Void (10mm)</li> <li>5. Brick wall (English garden wall bond)</li> </ol>
3B	Floor	<ol style="list-style-type: none"> <li>1. Linoleum (faux timber floor)</li> <li>2. Concrete (10mm thick)</li> <li>3. Fibrous sheeting to prepare wooden floor for concrete</li> <li>4. Tongue-and-groove floorboards (85mm wide), running east to west</li> <li>5. Joists</li> <li>6. Bearers</li> <li>7. Concrete pile</li> </ol>
3C	Wall	<ol style="list-style-type: none"> <li>1. Painted hardboard (4mm thick)</li> <li>2. Painted hardboard (4mm thick)</li> <li>3. Painted softboard (15mm thick)</li> <li>4. Timber framing covering the fireplace cavity (studs and dwangs (50mm thick))</li> <li>5. Void (25mm thick)</li> <li>6. Brick wall (100mm thick), stretcher bond</li> <li>7. Void (90mm)</li> <li>8. Brick wall, English garden wall bond</li> <li>9. Remnants of brick fireplace (850mm wide) and chimney (450mm wide)</li> </ol>
<b>Room 8</b>		
8A	Floor	<ol style="list-style-type: none"> <li>1. Linoleum (modern)</li> <li>2. Linoleum (modern)</li> <li>3. Linoleum (modern)</li> <li>4. Linoleum (modern)</li> <li>5. Tongue-and-groove floor boards, running north to south (100mm wide, 24mm thick)</li> <li>6. Particle board covering gap in floorboards over 8</li> <li>7. Floor joists, running east to west (50mm wide 150mm thick, 420mm spacing)</li> </ol>

		<ol style="list-style-type: none"> <li>8. Course of header bricks</li> <li>9. Concrete footing</li> </ol>
8B	Wall	<ol style="list-style-type: none"> <li>1. Painted (white) plaster board</li> <li>2. Wallpaper</li> <li>3. MDF</li> <li>4. Painted (green) wallpaper</li> <li>5. Scrim</li> <li>6. Sarking</li> <li>7. Brick wall</li> </ol>
8C	Ceiling	<p>Accessed from room above – modern linings not included.</p> <ol style="list-style-type: none"> <li>1. Tongue-and-groove (85mm wide)</li> <li>2. Ceiling joists (40mm wide and 290mm thick)</li> </ol>
<b>Room 9</b>		
9A	Floor	<ol style="list-style-type: none"> <li>1. Linoleum</li> <li>2. Tongue-and-groove floorboards, running east to west (146mm wide, 26mm thick)</li> <li>3. Floor joists (50mm wide, 150mm thick, 380mm spacing)</li> <li>4. Bearers (100mm wide, 70mm thick, 1470mm spacing)</li> <li>5. Void (60mm)</li> <li>6. Ground level</li> </ol>
9B	Wall	<ol style="list-style-type: none"> <li>1. Skirting board (10mm)</li> <li>2. Painted (blue) hardboard</li> <li>3. Painted (cream) softboard</li> <li>4. Sarking – vertical (200mm wide, 15mm thick)</li> <li>5. Tongue-and-groove panelling – vertical (80mm wide, 55mm thick)</li> <li>6. Timber battens installed on the brick wall to affix wainscoting</li> <li>7. Plaster, scratch coat and fine coat (12mm)</li> <li>8. Concrete render</li> <li>9. Brick wall, English garden wall bond</li> </ol>
9C	Ceiling	<ol style="list-style-type: none"> <li>1. Painted (cream) softboard tiles</li> <li>2. Void (600mm)</li> <li>3. Painted (white) tongue-and-groove boards (75mm wide), running north to south</li> </ol>
9D	Wall	<ol style="list-style-type: none"> <li>1. Softboard</li> <li>2. Timber studs (55mm thick)</li> <li>3. Void (55mm)</li> <li>4. Brick wall, English garden wall bond</li> </ol>
<b>Room 10</b>		
10A	Wall	<ol style="list-style-type: none"> <li>1. Painted (blue) hardboard</li> <li>2. Tongue-and-groove panelling – vertical (80mm wide)</li> <li>3. Painted (cream) softboard</li> <li>4. Wallpaper</li> <li>5. Wallpaper</li> <li>6. Wallpaper</li> <li>7. Skrim</li> <li>8. Sarking (200mm wide, 12mm thick)</li> <li>9. Timber battens</li> <li>10. Brick wall, English garden wall bond</li> <li>11. Plaster, scratch coat and fine coat (24mm)</li> <li>12. Laths</li> <li>13. Timber studs (50mm wide, 100mm thick)</li> </ol>
10B	Ceiling	<ol style="list-style-type: none"> <li>1. Painted (cream) softboard and batten</li> <li>2. Void (400mm)</li> <li>3. Painted (white) tongue-and-groove boards (75mm wide), running east to west</li> </ol>
<b>Room 11</b>		
11A	Wall	<ol style="list-style-type: none"> <li>1. Wallpaper</li> <li>2. Plasterboard</li> <li>3. Sarking (modern)</li> </ol>
<b>Room 17</b>		
17A	Wall	<ol style="list-style-type: none"> <li>1. Wallpaper</li> <li>2. Softboard</li> <li>3. Timber battens</li> <li>4. Concrete</li> </ol>
<b>Room 18</b>		
18A	Wall	<ol style="list-style-type: none"> <li>1. Painted (grey) wall paper</li> <li>2. Softboard</li> <li>3. Timber framing (studs 40mm wide 75mm thick)</li> <li>4. Wallpaper 1</li> <li>5. Wallpaper 2</li> <li>6. Wallpaper 3</li> <li>7. Wallpaper 4</li> <li>8. Plaster, scratch coat and fine coat</li> <li>9. Brick wall, English garden wall bond</li> </ol>
18B	Wall	<ol style="list-style-type: none"> <li>1. Painted (grey) wallpaper</li> <li>2. Softboard</li> </ol>

		<ol style="list-style-type: none"> <li>3. Timber battens</li> <li>4. Brick wall, stretcher bond</li> </ol>
18C	Floor	<ol style="list-style-type: none"> <li>1. Carpet (modern)</li> <li>2. Underlay (modern)</li> <li>3. Tongue-and-groove wide (150mm wide)</li> <li>4. Tongue-and-groove medium (90mm wide)</li> <li>5. Tongue-and-groove narrow (80mm wide)</li> </ol>
<b>Room 19</b>		
19A	Wall	<ol style="list-style-type: none"> <li>1. Wallpaper</li> <li>2. Softboard</li> <li>3. Timber frame</li> <li>4. Cut brick wall</li> </ol>
19B	Floor	<ol style="list-style-type: none"> <li>1. Carpet</li> <li>2. Underlay</li> <li>3. Vinyl</li> <li>4. Possibly hardboard (unable to break through floor)</li> </ol>
19C	Ceiling	<ol style="list-style-type: none"> <li>1. Painted (white) softboard</li> <li>2. Metal plate covering flue</li> <li>3. Firestop</li> <li>4. Tongue-and-groove (75mm wide)</li> </ol>
<b>Room 21</b>		
21A	Wall	<ol style="list-style-type: none"> <li>1. Painted (yellow) wallpaper</li> <li>2. Softboard</li> <li>3. Timber framing</li> </ol>
<b>Room 22</b>		
22A	Wall	<ol style="list-style-type: none"> <li>1. Painted (yellow) wallpaper</li> <li>2. Modern wallpaper x3 layers</li> <li>3. Softboard</li> <li>4. Timber studs (74mm wide, 38mm thick)</li> <li>5. Plaster scratch coat and fine coat</li> <li>6. Brick wall, English garden wall bond</li> </ol>
22B	Wall	<ol style="list-style-type: none"> <li>1. Painted (yellow) wallpaper</li> <li>2. Softboard</li> <li>3. Sarking (150mm wide, 18mm thick)</li> <li>4. Timber battens (50mm wide, 28mm thick)</li> <li>5. Brick wall, English garden wall bond</li> </ol>
22C	Wall	<ol style="list-style-type: none"> <li>1. Painted (yellow) wallpaper</li> <li>2. Modern wallpaper x layers</li> <li>3. Softboard</li> <li>4. Tongue-and-groove vertical panelling (80mm wide)</li> </ol>
22D	Ceiling	<ol style="list-style-type: none"> <li>1. Painted (cream) hardboard</li> <li>2. Sarking (160mm wide), running north to south</li> <li>3. Tongue-and-groove (75mm wide), running east to west</li> <li>4. Ceiling joists</li> </ol>
22E	Floor	<ol style="list-style-type: none"> <li>1. Linoleum</li> <li>2. MDF (3mm thick)</li> <li>3. Tongue-and-groove floorboards (100mm wide running north to south)</li> </ol>
<b>Room 23</b>		
23A	Wall	<ol style="list-style-type: none"> <li>1. Painted (cream) perforated hardboard</li> <li>2. Timber framing (56mm wide, 48mm thick)</li> <li>3. Void</li> <li>4. Brick wall</li> <li>5. Hardboard</li> <li>6. Softboard</li> <li>7. Sarking</li> <li>8. Timber framing</li> <li>9. Void</li> </ol>
23B	Wall	<ol style="list-style-type: none"> <li>1. Slat wall panels</li> <li>2. Sarking (14mm thick)</li> <li>3. Timber framing</li> <li>4. void</li> <li>5. Brick wall (original exterior wall of hotel)</li> </ol>
23C	Wall	<ol style="list-style-type: none"> <li>1. Hardboard</li> <li>2. Painted (yellow) tongue-and-groove</li> <li>3. Timber framing</li> <li>4. Brick wall</li> </ol>
23D	Floor	<ol style="list-style-type: none"> <li>1. Carpet</li> <li>2. Underlay</li> <li>3. Tongue-and-groove floorboards</li> <li>4. Joists</li> <li>5. Bearers</li> <li>6. Concrete piles</li> </ol>
23E	Ceiling	<ol style="list-style-type: none"> <li>1. Softboard</li> </ol>

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		2. Joists
<b>Room 24</b>		
24A	Wall	<ol style="list-style-type: none"> <li>1. Painted (grey) wallpaper</li> <li>2. Painted (white) softboard</li> <li>3. Sarking</li> <li>4. Timber framing</li> </ol>
24B	Floor	<ol style="list-style-type: none"> <li>1. Carpet</li> <li>2. Underlay</li> <li>3. Linoleum</li> <li>4. Fibreboard</li> <li>5. Tongue-and-groove floorboards (100mm wide, 20mm thick)</li> </ol>
<b>Room 25</b>		
25A	Floor	<ol style="list-style-type: none"> <li>1. Carpet</li> <li>2. Underlay</li> <li>3. Tongue-and-groove floorboards (100mm wide running east to west)</li> </ol>
25B	Wall	<ol style="list-style-type: none"> <li>1. Painted (purple) softboard</li> <li>2. Sarking (150mm wide 17mm thick)</li> <li>3. Timber framing</li> </ol>
25C	Ceiling	<ol style="list-style-type: none"> <li>1.</li> </ol>
<b>Room 35</b>		
35A	Wall	<ol style="list-style-type: none"> <li>1. Painted (cream) softboard</li> <li>2. Sarking (200mm wide 15mm thick)</li> <li>3. Timber framing</li> </ol>

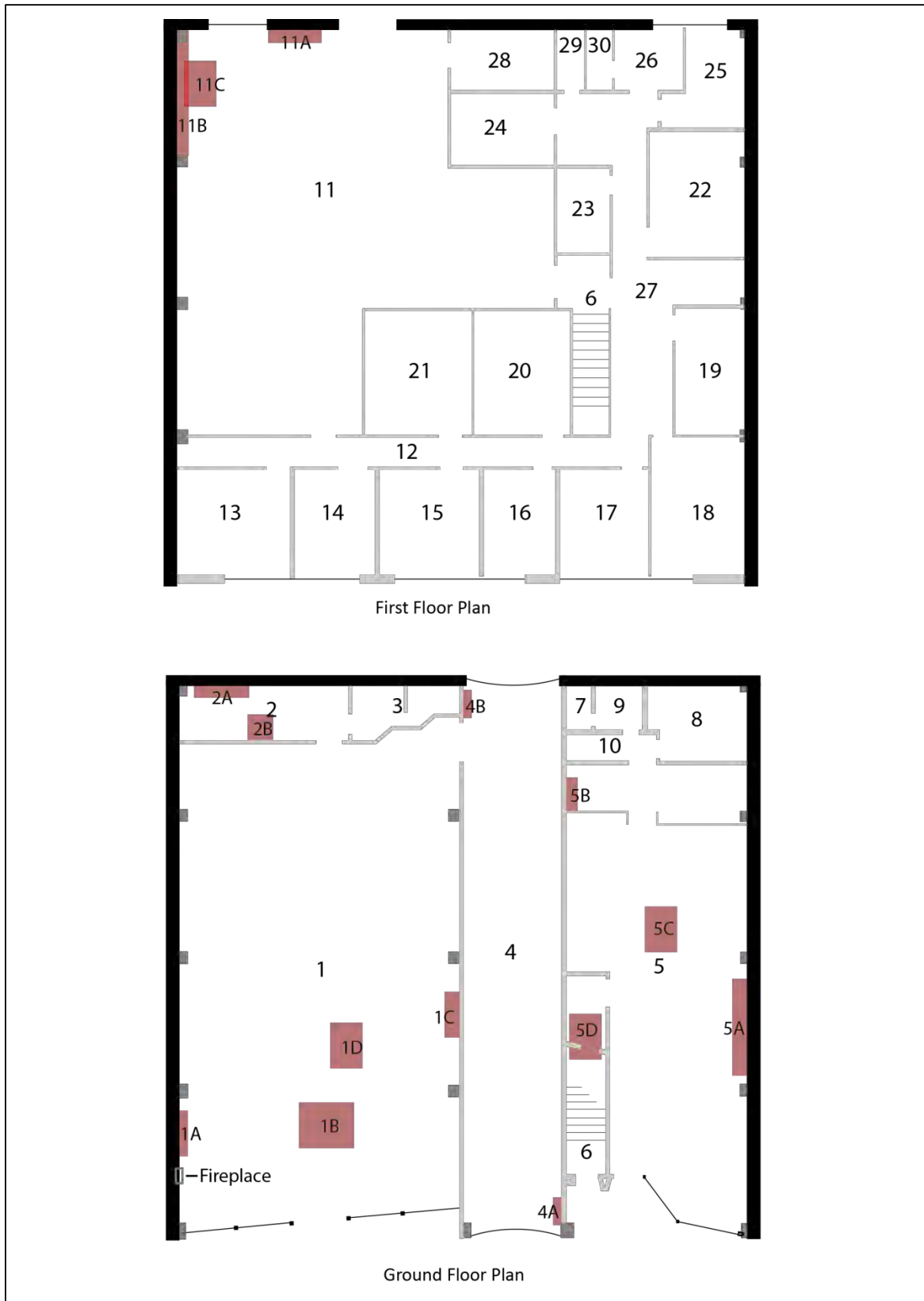


Figure 10-2. The Rialto – Current plan showing sample areas

Table D-2. Contexts identified during the buildings archaeology of The Rialto by room.

Sample Area	Sample Type	Description of the Layers Encountered
<b>Room 1</b>		
1A	Wall	<ol style="list-style-type: none"> <li>1. Painted (grey) plasterboard</li> <li>2. Painted (cream) perforated hardboard</li> <li>3. Foiled building paper</li> <li>4. Timber framing</li> <li>5. Exterior brick wall, English garden wall bond</li> </ol>
1B	Floor	<ol style="list-style-type: none"> <li>1. Carpet</li> <li>2. Underlay</li> <li>3. Linoleum</li> <li>4. Concrete</li> </ol>
1C	Wall	<ol style="list-style-type: none"> <li>1. Painted (grey) plasterboard</li> <li>2. Painted (green) hardboard</li> <li>3. Timber frame</li> <li>4. Hardboard lining of room 4</li> </ol>
1D	Ceiling	<ol style="list-style-type: none"> <li>1. Painted (cream) fibreboard suspended in metal frame (dropped ceiling)</li> <li>2. Hardboard</li> </ol>
<b>Room 2</b>		
2A	Wall	<ol style="list-style-type: none"> <li>1. Painted (grey) hardboard (3mm thick)</li> <li>2. Foil building paper</li> <li>3. Timber frame</li> <li>4. Window</li> <li>5. Brick exterior wall (English garden wall bond)</li> </ol>
2B	Wall	<ol style="list-style-type: none"> <li>1. Corflute (plastic hollow core board; 3mm thick) printed with Coca-Cola advertising.</li> <li>2. Painted (pink) softboard (12mm thick)</li> <li>3. Battens (22m thick)</li> <li>4. Thin patches of lime plaster (previously removed)</li> <li>5. Brick wall (2 rows of brick, English garden wall bond)</li> </ol>
2C	Floor	<ol style="list-style-type: none"> <li>4. Carpet (5mm thick)</li> <li>5. Underlay (5mm thick)</li> <li>6. Tongue-and-groove floorboards, running east to west (150mm wide)</li> </ol>
2D	Ceiling	<ol style="list-style-type: none"> <li>5. Painted (cream) plasterboard (25mm thick)</li> <li>6. Painted (cream) softboard (20mm thick)</li> <li>7. Painted (yellow) tongue-and-groove (15mm, laid north to south)</li> <li>8. Joists (75mm wide and 270mm thick, with a spacing of 400mm) running east to west with rose-head nails</li> </ol>
<b>Room 4</b>		
4A	Wall	<ol style="list-style-type: none"> <li>1. Painted (pink) plasterboard</li> <li>2. Timber framing</li> <li>3. Hardboard</li> </ol>
4B	Wall	<ol style="list-style-type: none"> <li>1. Painted (pink) hardboard</li> <li>2. Timber framing</li> </ol>
<b>Room 5</b>		
5A	Wall	<ol style="list-style-type: none"> <li>1. Painted plasterboard</li> <li>2. Timber framing</li> <li>3. Timber framing</li> <li>4. Brick wall</li> </ol>
5B	Wall	<ol style="list-style-type: none"> <li>1. Painted plasterboard</li> <li>2. Timber framing</li> </ol>
5C	Ceiling	<ol style="list-style-type: none"> <li>1. Painted (cream) fibreboard suspended in metal frame (dropped ceiling)</li> <li>2. Insulation</li> <li>3. Hardboard</li> </ol>
5D	Floor	<ol style="list-style-type: none"> <li>1. Linoleum</li> <li>2. concrete</li> </ol>
<b>Room 11</b>		
11A	Wall	<ol style="list-style-type: none"> <li>1. Wallpaper</li> <li>2. Wallpaper</li> <li>3. Hardboard</li> <li>4. Timber battens</li> <li>5. Timber framing</li> <li>6. Void</li> <li>7. External brick wall</li> </ol>
11B	Wall	<ol style="list-style-type: none"> <li>1. Wallpaper</li> <li>2. Wallpaper</li> <li>3. Hardboard</li> <li>4. Timber framing</li> <li>5. Void</li> <li>6. Exterior brick wall</li> </ol>
11C	Floor	<ol style="list-style-type: none"> <li>1. Linoleum</li> <li>2. Tongue-and-groove floorboards (85mm wide), running east to west.</li> <li>3. Joists</li> <li>4. Herringbone struts</li> </ol>



## Appendix E Buildings Photography Record

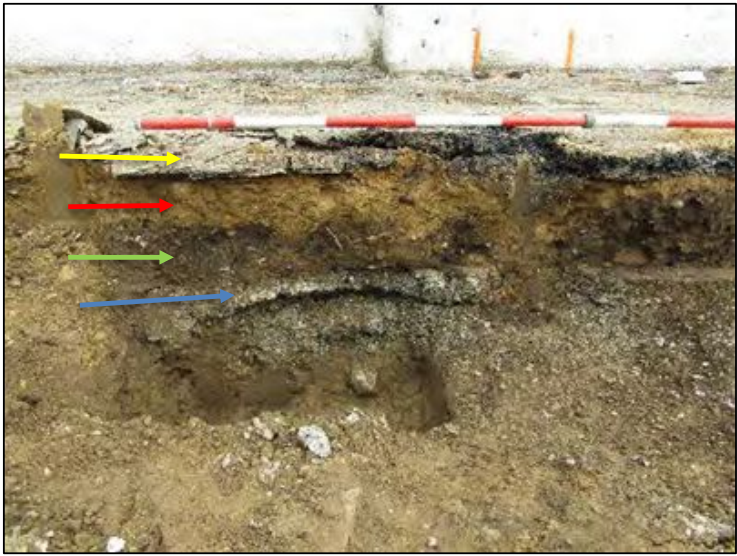





## Appendix F Monitoring Contexts


623 contexts within 47 excavation areas were identified and recorded during the monitoring of foundation removal, trenches and holes dug for new foundations and piles, site stripping and preparation, landscaping and for services and descriptions of each context are provided below in Table F-1, Table F-2, Table F-3 and Table F-4 respectively for each site. These tables describe the contexts as they were recorded during the various phases of site works and so maintain their original numbering despite duplication. However, it is noted in the tables when they equal other contexts recorded in other excavation areas or phases of work and what the stratigraphic relationship is between contexts. Contexts include both features and stratigraphic layers or deposits that occur across the two sites. Twentieth century contexts were also noted and recorded basically during monitoring work as this assists with building an understanding of site formation processes and provide context or chronological information for nineteenth century contexts, for example assist with identifying when older artefacts are disturbed and redeposited. Photographs are provided for all unique contexts, while representative photographs are provided for features that were repeatedly encountered (such as trenches for drains or post holes). Due to the nature of the ongoing investigations and the fact that the surface layer had been disturbed during the demolition of the building, foundation removal, site clearance and for new foundations, many of the contexts have been slightly truncated. New working surface layers were added to the sites within the project duration. It is also clear that there have been previous earthworks on both sites, likely, site clearance or site preparation, which initially truncated the archaeological deposits (this is further discussed in Section 7). Dimensions of the contexts provided in the text below record the length in a north/south direction and width in an east/west direction.

Table F-1 Archaeological contexts by excavation area at site E46/60 The Black Eagle Brewery

Context	Site	Designation and Description
<b>AREA D</b>		
D1	E46/60	<b>Modern asphalt:</b> modern asphalt surface layer 2100mm wide along western boundary of site. Would have been part of the floor of building 4. See Figure 10-4.
D2	E46/60	<p><b>Yellow/brown silt deposit:</b> Thickness varies, 40-130mm thick observed in section under context D1 modern asphalt and over context D3 brown deposit with artefacts. See also Figure 10-4 and G1.</p>  <p>Figure 10-3 Exposure of yellow/brown clay deposit (D2) beneath the modern concrete slab (D6) across Area D</p>



Context	Site	Designation and Description
D3	E46/60	<p><b>Brown silt deposit with artefacts:</b> Mid-brown silty deposit with artefacts (sampled). Varies in thickness from 205mm to 130mm as observed in section under D2 yellow/brown clay deposit and over D4 concrete floor.</p>  <p>Figure 10-4 Layers observed in profile in Area D. D1 yellow arrow; D2 red arrow; D3 green arrow; D4 blue arrow</p>
D4	E46/60	<b>Concrete floor:</b> 20mm thick concrete floor. See also Figure 10-4 and Areas H to N where concrete extends through, although sometimes different thicknesses were observed.
D5	E46/60	<b>Yellow silt loam substrate:</b> sterile natural yellow clay
D6	E46/60	<p><b>Modern concrete slab:</b> concrete slab foundation removed across Area D which was part of building demolished at the rear (southern) end of section as part of this project.</p>  <p>Figure 10-5 Removal of modern concrete slab (D6) in Area D.</p>
D7	E46/60	<b>Modern concrete pile:</b> A 2000x2000mm concrete pile associated with context D8 modern concrete foundation was removed along the eastern boundary of the section. From modern building, which was at rear of the section.
D8	E46/60	<b>Modern concrete foundation:</b> 250mm wide 8300mm long 600mm deep section of foundations running north-south associated with the modern building at the rear (southern) end of this section removed during this project.
<b>Area G</b>		
G1	E46/60	<b>Yellow/brown silt loam deposit:</b> with rust coloured mottling 100mm thick over G2. Equal to D2.
G2	E46/60	<b>Black gritty silt:</b> dark gritty layer 150mm thick under G1 and over G3.

Context	Site	Designation and Description
G3	E46/60	<b>Grey/brown silt deposit:</b> with quartz pebble inclusions. 100mm thick under G2 and over G4.
G4	E46/60	<b>Brown/black gritty silt deposit:</b> 40mm thick under G3 and over G5 and G7.
G5	E46/60	<b>Brick:</b> 110 to 180mm thick brick layer. Appears to be one layer but is fragmented towards east end of trench. West end truncated by G7. Purpose or formation unknown, possible floor or path. 
<b>Figure 10-6 Profile in north baulk showing all contexts G1-G7</b>		
G6	E46/60	<b>Yellow silt loam substrate:</b> natural yellow sterile clay under G5 and G7.
G7	E46/60	<b>Light grey/brown silt loam deposit:</b> with orange mottling adjacent to G5 and cut into Yellow silt loam substrate. Purpose or formation unknown, rectangular profile in cross-section in north baulk approximately 500mm wide and 200mm thick, but not viewed in south baulk.
<b>AREA H</b>		
H1	E46/60	<b>Yellow/brown silt loam deposit:</b> equal to G1. Over H2 and H3.
H2	E46/60	<b>Concrete slab:</b> 130mm thick. Under H1 and over H5. Similar to D4 but thickness different and no artefact bearing layer (D3) extends across here. 
<b>Figure 10-7 Profile in east baulk showing all contexts H1-H5</b>		
H3	E46/60	<b>Black grit layer:</b> Equal to G2. Under H1 and over H4.
H4	E46/60	<b>Oyster shell deposit:</b> A lens of oyster shell 90mm thick under H3 and over H5
H5	E46/60	<b>Brown silt loam deposit:</b> 300mm thick layer under H4 and over Yellow silt loam substrate.
<b>AREA I</b>		
I1	E46/60	<b>Yellow/brown silt loam deposit:</b> equal to G1.

Context	Site	Designation and Description
I2	E46/60	<p>Concrete slab: 100mm thick. See also D4.</p>  <p>Figure 10-8 Profile in east baulk showing all contexts I1-I4. Note new pile and new concrete also.</p>
I3	E46/60	<p>Brown silt loam deposit: 300mm thick. Equal to H5</p>
I4	E46/60	<p>Yellow silt loam substrate: sterile natural clay</p>
<p>AREA J</p>		


Context	Site	Designation and Description
J1	E46/60	<p>Yellow/brown silt loam deposit: equal to G1. 500mm thick here.</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Figure 10-9View of Area J and contexts J1 and J2 looking east.</p>
J2	E46/60	<p><b>Brown silt loam deposit:</b> 200mm thick here. Equal to H5</p>
<b>AREA K</b>		
K1	E46/60	<p><b>Yellow/brown silt loam deposit:</b> equal to G1. 150mm thick here.</p>


Context	Site	Designation and Description
K2	E46/60	<p><b>Brown silt loam deposit:</b> 400mm thick here. Equal to H5</p>  <p style="text-align: center;">Figure 10-10 Typical profile of Area K.</p>
<b>AREA L</b>		
L1	E46/60	<b>Yellow/brown silt loam deposit:</b> equal to G1. 200mm thick here.
L2	E46/60	<p><b>Brown silt loam deposit:</b> 140mm thick with brick inclusions here. Equal to H5.</p>  <p style="text-align: center;">Figure 10-11 View of Area L looking north.</p>
L3	E46/60	<b>Yellow silt loam substrate:</b> natural sterile clay
<b>AREA M</b>		
L1	E46/60	<b>Yellow/brown silt loam deposit:</b> equal to G1. 200mm thick here.



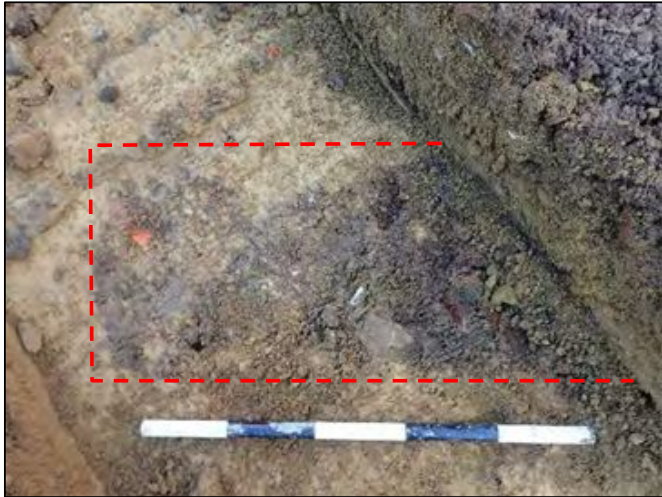
Context	Site	Designation and Description
L2	E46/60	<p><b>Brown silt loam deposit:</b> 140mm thick with brick inclusions here. Equal to H5.</p>  <p style="text-align: center;"><b>Figure 10-12</b>View of Area M looking north.</p>
L3	E46/60	<b>Yellow silt loam substrate:</b> natural sterile clay
M4	E46/60	<b>Concrete slab:</b> A short section of concrete 100mm thick viewed in north baulk. See also D4 and Figure for L2 above.
<b>AREA N</b>		
L1	E46/60	<b>Yellow/brown silt loam deposit:</b> equal to G1. 200mm thick here.
L2	E46/60	<p><b>Brown silt loam deposit:</b> 140mm thick with brick inclusions here. Equal to H5.</p>  <p style="text-align: center;"><b>Figure 10-13</b>View of Area N looking south.</p>
L3	E46/60	<b>Yellow silt loam substrate:</b> natural sterile clay
N4	E46/60	<b>Concrete slab:</b> A short section of concrete 100mm thick viewed in south baulk. See also D4 and Figure for L2 above.
<b>AREA AS</b>		
Site scrape for carpark/landscaping. Removal of foundations. Earthworks for drainage and kerbing/channelling.		

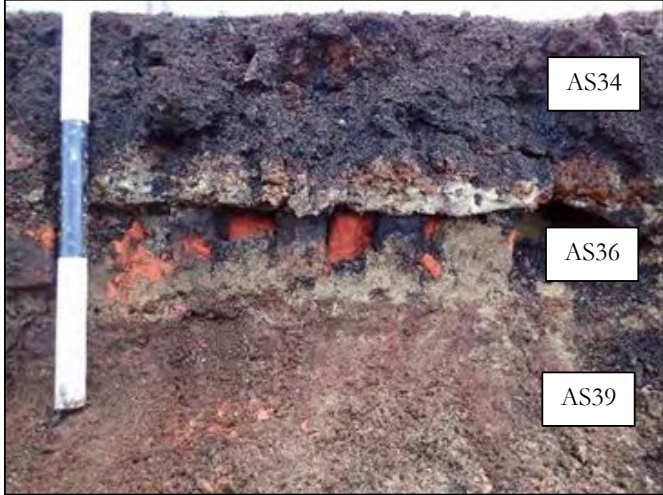


Context	Site	Designation and Description
AS1	E46/60	<p><b>Modern concrete:</b> A modern concrete slab laid during site works to deal with mud on site.</p>  <p style="text-align: center;">Figure 10-14.</p>
AS2	E46/60	<p><b>Modern imported gravel:</b> surface layer c.200mm thick imported to site during works equal to AR3</p>
AS3	E46/60	<p><b>Asphalt:</b> modern asphalt 50mm thick remnants of floor of demolished building 4 below AS2.</p>
AS4	E46/60	<p><b>Yellow silt with inclusions:</b> yellow/brown clay with angular rocks, brick, modern ceramic, plastic, PVC. Highly disturbed layer with bits of asphalt and timber.</p>  <p style="text-align: center;">Figure 10-15. AS4</p>





Context	Site	Designation and Description
AS5	E46/60	<p><b>Foundation:</b> Modern concrete foundations from demolished building running north to south 400mm thick</p>  <p>Figure 10-16. AS5 outlined in red broken concrete foundation in background.</p>
AS6	E46/60	<p><b>Brick feature:</b> possible remains of a brick sump measures identified below AS4</p>  <p>Figure 10-17. AS6</p>
AS7	E46/60	<p><b>Ceramic pipe:</b> ceramic drain pipe set in concrete running north to south. Identified cutting through AS8.</p>  <p>Figure 10-18. AS7</p>
AS8	E46/60	<p><b>Yellow silt loam:</b> A fill layer of fine mottled silt loam identified below As3 and AS2.</p>
AS9	E46/60	<p><b>Stone rubble:</b> stone rubble from demolition of building foundations mixed with friable silt loam like AS8</p>

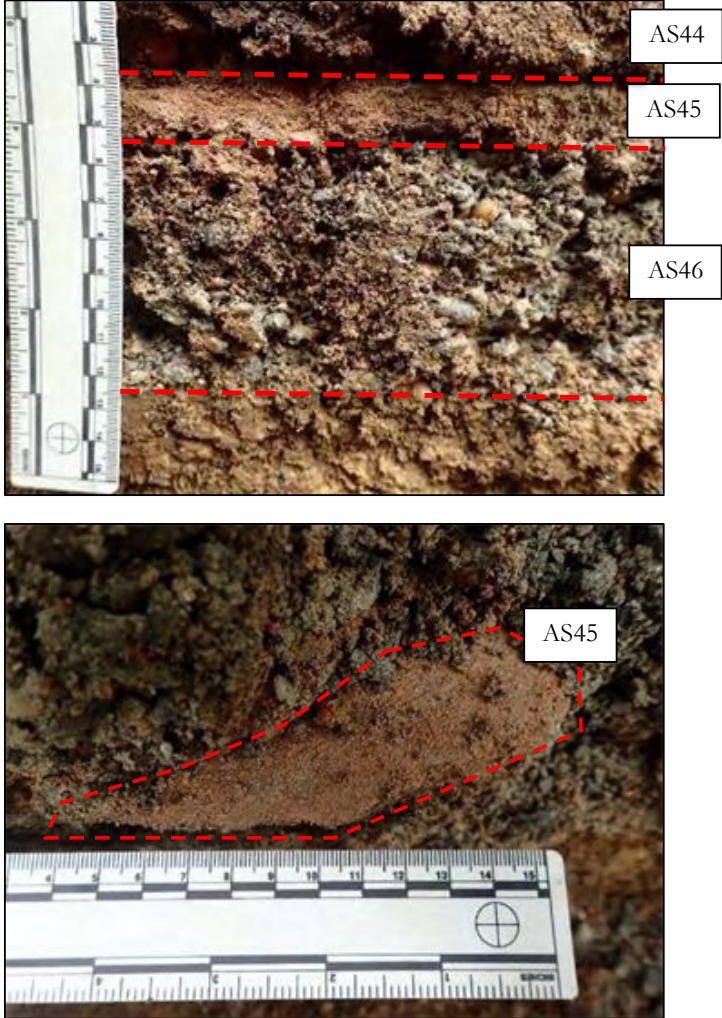
Context	Site	Designation and Description
AS10	E46/60	<p><b>Demolition rubble:</b> Concentration of brick rubble, sand, oyster shell, and window glass in AS8.</p>  <p style="text-align: center;"><b>Figure 10-19: AS10</b></p>
AS11	E46/60	<b>Brick scatter:</b> A scatter of bricks partially fragmented, likely part of a previously demolished structure. Identified below AS8 and over AS13
AS12	E46/60	<b>Dark brown silt loam:</b> artefact bearing layer of dark brown silt loam likely extends beyond area exposed during the site scrape. Below AS8 begins 250mm below surface. Scraped through 150mm of the layer during the site scrape and did not reach base of the layer. Equal to AS20.
AS13	E46/60	<b>Mottled yellow silt loam:</b> A layer of mottled yellow silt loam similar to AS8 identified below AS12
AS14	E46/60	<b>Slate:</b> A concentration of slate tile fragments identified below AS8 and over AS15
AS15	E46/60	<b>Concrete foundations:</b> modern concrete foundations from recently demolished building.
AS16	E46/60	<b>Gritty black layer:</b> A dark black gritty layer 150-200mm thick. Likely the ashy remains of incinerated material used as fill.
AS17	E46/60	<b>Compact yellow silt with gravel:</b> Densely compacted fine yellow silt mixed with small pebbles. Identified over AS16
AS18	E46/60	<b>Post:</b> a square wooden post measuring 100mm long by 150mm wide identified below AS16
AS19	E46/60	<b>Concentration of artefacts:</b> a discrete deposit of artefacts identified within layer AS20. Distinct from the general scatter of artefacts found within AS20.
AS20	E46/60	<b>Dark brown silt loam:</b> An artefact bearing layer of dark brown silt loam mixed with rock and slate fragments. Identified below AS16 and equal to AS12
AS21	E46/60	<b>Post:</b> a square wooden post measuring 150mm long by 150mm wide identified below AS2 cutting into AS20
AS22	E46/60	<b>Wood plank:</b> part of the timber boxing used in the construction of the foundations of the demolished modern building.
AS23	E46/60	<b>Post:</b> a square wooden post measuring 150mm long by 150mm wide identified below AS2 cutting into AS20
AS24	E46/60	<b>Rubble layer:</b> layer of demolition rubble located across the site left over from the demolition of the modern buildings
AS25	E46/60	<b>Post:</b> a rectangular wooden post measuring 90mm long by 130mm wide identified below AS2 cutting into AS20
AS26	E46/60	<b>post:</b> a square wooden post measuring 150mm long by 150mm wide identified below AS2 cutting into AS20
AS27	E46/60	<b>post:</b> a rectangular wooden post measuring 100mm long by 150mm wide identified below AS2 cutting into AS20
AS28	E46/60	<b>Oyster Shell:</b> Concentration of oyster shell in AS29. Measuring 1000mm long and 400mm wide and at most 100mm thick.
AS29	E46/60	<b>Friable dark brown silt loam:</b> Deposit of friable dark brown silt loam mixed with metal, bone, oyster shell, and medium sized pebbles. The deposit is located along the eastern boundary of the section and measures 5 to 6m in length and 2m wide identified below AS20

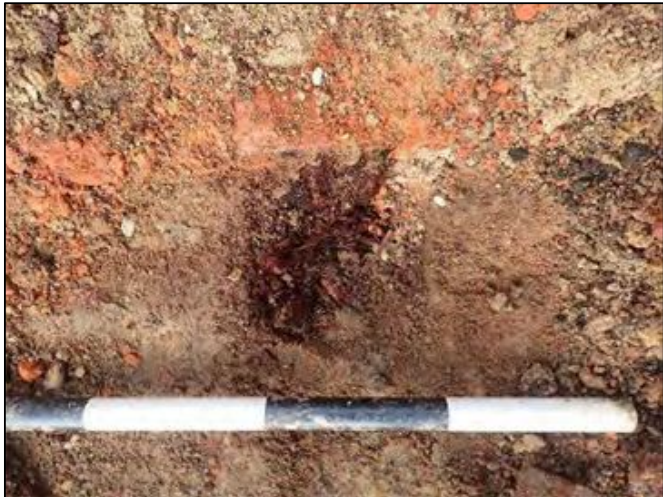

Context	Site	Designation and Description
AS30	E46/60	<p><b>Top Soil:</b> dark brown friable topsoil located on the surface of the site in the north-west corner partially mixed with demolition rubble, brick and concrete fragments.</p> 
AS31	E46/60	<p><b>Yellow silt loam fill:</b> A fill layer of yellowish brown silt loam covering the section north of the modern concrete foundations AS38 which run east to west across the site. The fill is located below AS30 and equal to</p> 
AS32	E46/60	<p><b>Concrete footing:</b> concrete footing of the modern lean-to located in the north-west corner of the section</p>
AS33	E46/60	<p><b>Service trench:</b> greyish stained silt loam filled service trench cutting AS31 running south east to north west.</p> 

Context	Site	Designation and Description
AS34	E46/60	<p><b>Gritty black layer:</b> Equal to AS16 and G2 and H2. Identified over AS36 and below AS47.</p> 
AS35	E46/60	<p><b>Rock and rubble concentration in AS31:</b> Area of AS31 with large rock inclusions.</p> 
AS36	E46/60	<p><b>Brick Floor:</b> Floor surface made of wire cut bricks set in a layer of sand with a thin layer of lime across the surface (AS48) identified below AS34 and above AS39.</p> 


Context	Site	Designation and Description
AS37	E46/60	<p><b>Hard packed dark clay:</b> Area of hard packed darker silt loam below AS31. Measures 1700mm in length and 600mm in width full extent of the deposit was not exposed due to the nature of the excavation trench.</p> 
AS38	E46/60	<p><b>Concrete foundation and footing:</b> Concrete foundation of recently demolished modern building running east to west through the section. Cuts AS34, AS36, and AS39. AS30 and AS31 abut the northern side of the foundations. The foundations are 600mm thick 600mm in length and run the full 20m of the section in width.</p> 
AS39	E46/60	<p><b>Reddish brown silt loam:</b> Layer of reddish brown silt loam identified below AS36. At least 200mm thick depth extending beyond the base of the trench.</p> 


Context	Site	Designation and Description
AS40	E46/60	<b>Demolition rubble mixed with silt:</b> Layer of demolition rubble mixed with silt 50 to 100mm thick located along the western boundary of the site, equal to AS24.
AS41	E46/60	<p><b>Posthole:</b> Small rectangular posthole measuring 60mm long and 80mm wide cutting AS31. Identified 550mm below surface the posthole extends 250mm into AS47.</p> 
AS42	E46/60	<p><b>Modern imported gravel:</b> surface layer c.100 to 250mm thick imported to site during works equal to AS2.</p> 
AS43	E46/60	<b>Modern imported gravel:</b> An earlier layer of modern gravel imported to the site prior to AS42. c.100-250mm thick below AS42.
AS44	E46/60	<b>Medium brown silt loam:</b> A 100mm thick layer of brown silt loam first identified below AS47. The layer was later identified across the southern half of the section below AS47 and AS50.




Context	Site	Designation and Description
AS45 and AS46	E46/60	<p><b>Concrete floor:</b> A 70mm thick layer of concrete (AS46) with a 30mm thick layer of red dyed fine concrete (AS45) over its top surface. The feature was identified in a 1200mm wide trench between Excavation Areas M and N measuring 1800mm in length. It is located within AS44 C.500mm below the surface.</p>  <p style="text-align: center;">Figure 10-20. Detail of AS45 from above</p>
AS47	E46/60	<p><b>yellow silt:</b> A 50 to 200mm thick layer of fine yellow silt identified in the southern half of the section below AS42 and AS43 and over AS44 and AS50.</p>
AS48	E46/60	<p><b>Lime layer:</b> A 70mm thick layer of lime identified over AS36 (brick floor). The layer is very wet and of a gritty paste consistency.</p>


Context	Site	Designation and Description
AS49	E46/60	<p><b>Post:</b> a square wooden post measuring 200mm long by 200mm wide identified below AS36 cutting AS39</p> 
AS50	E46/60	<p><b>Concrete slab:</b> remains of modern concrete floor from the demolished building. Identified below AS47 70mm below the surface. The concrete is different form that identified in context AS45/46 and is located higher in the strata. Sections of this concrete floor were identified over the southern half of the site south of AS38. The section pictured below measured 130mm thick.</p> 
AS51	E46/60	<p><b>Posthole:</b> A circular posthole with fragments of concrete measuring 350mm wide and 250mm long however the northern half of the feature has been cut by earlier excavation area I. Identified below AS42 cutting AS44.</p> 







Context	Site	Designation and Description
AS52	E46/60	<b>Modern imported gravel:</b> surface layer c.200mm thick of imported gravel laid to prep the area for the laying of the asphalt car park surface. identified over AS61 and AS57 200mm below the surface of the site.
AS53	E46/60	<b>Modern imported gravel:</b> surface layer c.200mm thick imported to site during works equal to AR3 and AS2
AS54	E46/60	<b>Yellow silt loam:</b> A 50mm thick layer of yellow silt loam identified 50mm below the surface under AS53 and over AS55. The deposit is 1900mm wide.
AS55	E46/60	<b>Gritty black deposit:</b> An 80mm thick layer of a gritty black deposit similar to AS identified 100mm below the surface under AS54 and over AS56. The layer is 2500mm wide and equal to AS16.
AS56	E46/60	<b>Sandy silt mixed with brick rubble:</b> A 40mm thick layer of sandy silt mixed with brick rubble. The layer was identified 180mm below the surface under AS55 and over AS57. The layer abuts AS52 at its eastern extent and fades into AS67 at its western extent c.6000mm from the eastern boundary of the section. The layer is 2800mm wide
AS57	E46/60	<b>Rock mixed with blueish yellow silt loam:</b> A 50 to 200mm thick layer of blueish yellow silt loam mixed with rock identified 220mm below the surface under AS52 and AS56 and over AS58. The layer abuts AS61 at its eastern extent where it is thinner and positioned under AS52. The layer fades into AS67 at its western extent c.5000mm from the eastern boundary of the section. The layer is 4800m wide.
AS58	E46/60	<b>Silt loam stained with brick dust:</b> A 150mm thick layer of silt loam stained red with brick dust identified c.400mm below the surface under AS57 and over AS59. The layer abuts AS61 at its eastern extent and fades into AS67 at its western extent c.5000mm from the eastern boundary of the section. The layer is 4800mm wide.
AS59	E46/60	<b>Small pebbles in yellow silt:</b> A 80mm thick layer of small quartz pebbles in yellow silt identified 520mm below the surface under AS58 and over AS60. The layer abuts AS61 at its eastern extent and fades into AS67 at its western extent c.5000mm from the eastern boundary of the section. The layer is 4800mm wide.
AS60	E46/60	<b>Blueish grey silt loam:</b> A150mm thick layer of blueish grey silt loam identified 600mm below the surface under AS59 and over AS63. The layer abuts AS66 at its eastern extent and fades into AS67 at its western extent c.5000mm from the eastern boundary of the section. The layer is 4900m wide
AS61	E46/60	<b>Brown silt loam equal to AR170:</b> Layer of dark brown silt loam identified 400m below the surface above AS66. The layer is 200mm thick and was identified below AS52.
AS62	E46/60	<b>Brown silt loam equal to AR174:</b> The sterile dark brown silt loam below AS66. AS66 is mixed with the same silt loam and gradually fades into AS62 between 700 and 1000mm below the surface. The layer is equal to AS63 and AR174.
AS63	E46/60	<b>Brown silt loam equal to AS62:</b> Dark brown silt loam layer identified 750mm below the surface under AS67 and AS60. The layer is equal to AS62 and AR174
AS64	E46/60	<p><b>Wood beam:</b> A 150mm by 150mm wooden beam running north to south identified in the 300mm wide drainage trench in the north of Area AS within AS63. The beam was identified 900mm below the surface.</p> 




Context	Site	Designation and Description
AS65	E46/60	<p><b>Wood beam and boards:</b> A 200mm diameter wooden beam running north to south with two 20mm thick planks of wood on top of it also running north to south identified in the 300mm wide drainage trench in the north of Area AS within AS63. The feature was identified 900mm below the surface.</p> 
AS66	E46/60	<p><b>Deposit of bottles:</b> A dense deposit of bottles in AS62. The deposit is equal to AR171. The deposit was identified below AS61 600mm below the surface in the 300mm wide drainage trench in the north of Area AS. The deposit extends 1000mm into the trench from its eastern end and is 400mm thick. <b>in AS62 equal to AR171</b></p>
AS67	E46/60	<p><b>Yellow silt loam:</b> Equal to AS31. Identified in drainage trench and hole for sump in north of Area AS. The layer is 750mm thick and located above AS63 and below AS53.</p>



Context	Site	Designation and Description
AS68	E46/60	<p><b>Blueish grey clay:</b> natural substrate of blueish grey stained silt loam identified 1500mm below the surface under AS63</p> 
AS69	E46/60	<p><b>Brick footing:</b> A stretch of brick footing identified under AS42 measuring in length and wide.</p> 
AS70	E46/60	<p><b>Oyster shells:</b> A deposit of oyster shell mixed with black gritty silt similar to AS34. The deposit is equal to H4 and was identified under AS50. It measures c.1200mm in length and c.1150 in width.</p> 

Context	Site	Designation and Description
AS71	E46/60	<p><b>Drainpipe:</b> A ceramic drainpipe set in concrete identified below AS50 and cutting through AS44. The concrete surround measures 400mm wide. The pipe runs south west to north east toward the centre of the section before turning and running north toward Spey Street.</p> 
AS72	E46/60	<p><b>Service trench:</b> A linear service trench filled with silt loam mixed with brick fragments and rock. The trench is 700mm wide and 2300mm in length. The full extent of the trench was not exposed during excavations.</p> 
AS73	E46/60	<p><b>Pile:</b> measuring 400mm by 400mm identified in AS44 c250mm below the surface.</p>
AS74	E46/60	<p><b>Pile:</b> measuring 400mm by 400mm identified in AS44 c250mm below the surface.</p>




Context	Site	Designation and Description
AS75	E46/60	<p><b>Bucket base:</b> The decayed base of a wooden container with metal hoop, likely a bucket, measuring 300mm diameter. There was a layer of sand covering the wooden base that was not present in the surrounding silt loam indicating the bucket had been filled with sand.</p> 
AS76	E46/60	<p><b>Bottles:</b> A concentration of bottles in AS47.</p>
AS77	E46/60	<p><b>Posthole:</b> a square wood post measuring 150mm long and 150mm wide cutting AS44</p> 




Context	Site	Designation and Description
AS78	E46/60	<p><b>Wood planks:</b> An area of wooden planks possibly an old floor surface identified within AS31 c300mm below the surface. The feature measures 1000mm in length and 900mm wide. The planks run east to west and are in very poor condition.</p> 
AS79	E46/60	<p><b>Brick Floor and wall:</b> An area of brick floor with the base of a wall along the east and south sides. The feature measures 1366mm in length and 1360 in width. The floor was identified c300mm below the surface in AS44 and is set in a layer of sand. The feature has been cut on its west side by AS38.</p> 



Context	Site	Designation and Description
AS80	E46/60	<p><b>Burnt wood and oyster shell.</b> A circular deposit of burnt wood and oyster shell. This feature was later identified to be the burnt top of a well and is equal to AS94. The deposit has a diameter of 1100mm and cuts AS31 it was identified 400mm below the surface.</p> 
AS81	E46/60	<p><b>Posthole:</b> A square posthole filled with sand. The hole measures 250mm by 250mm and 300mm deep. The posthole was identified cutting AS31 500mm below the surface.</p> 
AS82	E46/60	<p><b>Posthole:</b> A square wooden post measuring 150mm by 150mm cutting into AS44.</p> 



Context	Site	Designation and Description
AS83	E46/60	<b>Concrete lined pit filled with sand:</b> A large concrete lined pit. The pit was capped in concrete and filled with sand. Various modern artefacts were identified within the pit including six metal drums of bitumen car parts including an engine and chassis and the axel and wheels of a train. The pit was c4000mm in length and 5000mm wide.
AS84	E46/60	<b>Asphalt scatter:</b> A deposit of asphalt gravel identified under AS31 c.200mm max thickness covering an area 5000mm in length and 4500mm wide.
AS85	E46/60	<b>Silt and aggregate:</b> A deposit of very dry bluish grey silt mixed with aggregate identified 100mm below the surface under AS34 and over AS44. The deposit is amorphous in shape covering an area approximately 2000mm in length by 1500mm in width.
AS86	E46/60	<p><b>Posthole:</b> A square post measuring 100mm by 100mm identified 300mm below the surface cutting into AS44</p> 
AS87	E46/60	<p><b>Posthole:</b> A square post measuring 100mm by 100mm identified 300mm below the surface cutting into AS44</p> 






Context	Site	Designation and Description
AS88	E46/60	<p><b>Rubbish deposit:</b> deposit of broken bottles in the corner of the site measuring 1500mm in length and 1000mm wide. There is no distinct cut into the surrounding sediment indicating this was not a rubbish pit but more likely an accumulation of broken bottles on the surface of the site.</p> 
AS89	E46/60	<p><b>Brown silt loam:</b> A layer of medium brown silt loam identified below AS31 and AS84 600mm below the surface extending to the base of the excavation area c.300mm. The layer is located in the northern half of the section and fades out toward the centre of the site. Equal to</p> 
AS90	E46/60	<p><b>Post:</b> A wooden post identified cutting AS89 under AS31. The post measures 150mm by 150mm.</p> 

Context	Site	Designation and Description
AS91	E46/60	<p>Post: A wooden post identified cutting AS89 under AS31. The post measures 150mm by 150mm.</p> 
AS92	E46/60	<p>Post: A wooden post identified cutting AS89 under AS84. The has a length of 80mm and a width of 50mm.</p> 
AS93	E46/60	<p>Post: A wooden post identified cutting AS89 under AS84. The post measures 150mm by 150mm.</p> 

Context	Site	Designation and Description
AS94	E46/60	<p><b>Well:</b> A timber lined well identified cutting through AS89. The well has a diameter of 1100mm with a larger cut 2000mm in diameter. The well has been backfilled with a friable brown silt loam. This feature is equal to AS80 which had been identified earlier.</p> 
AS95	E46/60	<p><b>Pit feature:</b> a large pit feature identified in the eastern baulk of the trench excavated down the centre of Area AS to prep the site for the laying of the central concrete gutter. The feature cuts through AS44 and was not fully excavated but measures at least 400mm in depth and presumed to be circular based on the cross section. It is filled with dark brown friable gritty silt and lined with metal. It measures 900mm in length with 250mm of the western side cut away by the digger.</p> 

Context	Site	Designation and Description
AS96	E46/60	<p>Posthole: A round posthole identified cutting AS44 c.500mm below the surface measuring 400mm in length and 300mm in width.</p> 
AS97	E46/60	<p>Posthole: A circular posthole identified cutting AS44 c.500mm below the surface with a 300mm diameter.</p> 
AS98	E46/60	<p>Posthole: A circular posthole with a 300mm diameter identified cutting AS44 c.500mm below the surface.</p> 

Context	Site	Designation and Description
AS99	E46/60	<p><b>Wooden plank:</b> A narrow wooden plank identified in AS44 500mm below the surface. The plank is at an angle oriented south west to north east and measures 1250mm long and 100mm wide.</p> 
AS100	E46/60	<p><b>Posthole:</b> posthole identified in the baulk of a pit excavated for the installation of carpark lighting within Area AS the posthole cuts through AS101. The posthole measures 200mm in length and 300mm thick with its base 600mm below the surface.</p> 
AS101	E46/60	<p><b>Brick pile:</b> A brick pile identified in the baulk of a pit excavated for the installation of carpark lighting within Area AS. AS101 was identified within AS44 and is 300mm in length and 600mm below the surface.</p> 








Context	Site	Designation and Description
AS102	E46/60	<p>posthole: Small posthole measuring 100mm in length by 150mm in width cutting AS44.</p> 



Table F-2 Archaeological contexts by excavation area at site E46/62 The Criterion Hotel and Yards




Context	Site	Designation and Description
<b>AREA A</b>		
A1	E46/62	<p><b>Asphalt footpath:</b> 35mm thick recent asphalt layer which was immediately in front (Don Street) of the Criterion building. Overlays other contexts visible following foundation removal at south (Don Street) end of building in southern baulk. This did not extend onto the site.</p>  <p style="text-align: center;"><b>Figure 10-21 Asphalt footpath (A1) lying on top of an aggregate base course (A2)</b></p>
A2	E46/62	<p><b>Aggregate base course for footpath:</b> 100mm thick layer under the asphalt foot path (A1). This layer did not extend onto the site from below the footpath.</p>
A3	E46/62	<p><b>Silt loam topsoil with artefact scatter:</b> 110mm thick silty loam layer with mottling in area of extension in west of original Criterion building. Artefacts sampled and scattered throughout layer generally in uppermost portion. Layer is over Yellow silt loam substrate.</p>  <p style="text-align: center;"><b>Figure 10-22 Close up plan views of deposit brown clay with artefact scatter (A3)</b></p>
A4	E46/62	<p><b>Yellow silt loam substrate:</b> natural yellow silt loam substrate</p>
A5	E46/62	<p><b>Natural silt loam topsoil:</b> equal to A3</p>
A6	E46/62	<p><b>Orange mottled clay:</b> 80mm thick deposit of clay over A7.</p>
A7	E46/62	<p><b>Black grit:</b> 50mm thick layer of black grit substance identified below A6</p>


Context	Site	Designation and Description
A8	E46/62	<p><b>Modern sand deposit:</b> deposit of clean sand identified below concrete floor of Room 4. This deposit would have been laid to prepare the area for the concrete floor.</p>  <p>Figure 10-23. Sand deposit (A8) within context of Area A below Criterion Hotel floor</p>

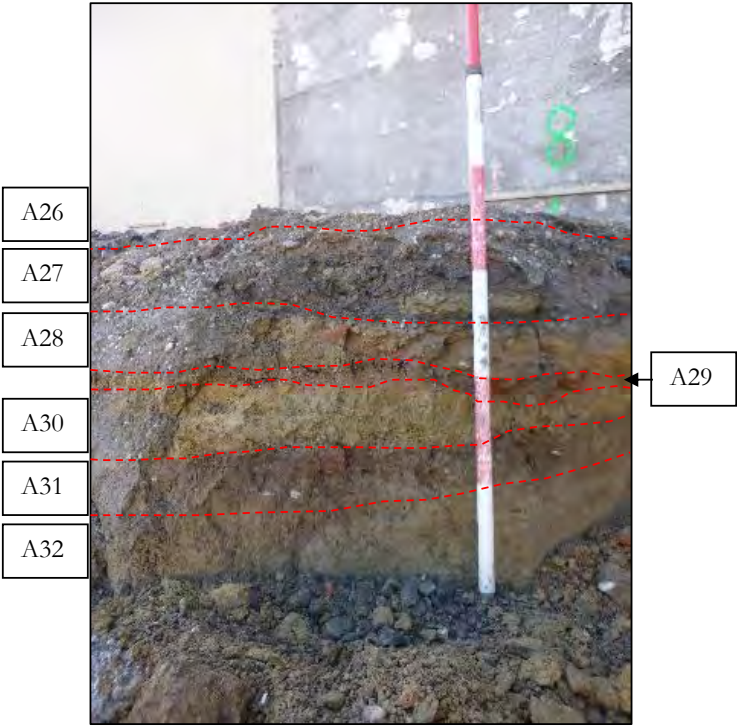




Context	Site	Designation and Description
A9	E46/62	<p><b>Cellar:</b> 2900x3700mm rectangular cellar with base approximately 1800mm below ground cut into Yellow silt loam substrate and filled with building rubble and pebbles, no artefacts. Had concrete sides and floor. Cellar entrance(1400x1400mm) was located in the access way to the east of the cellar and had a concrete ramp.</p> <div>  </div> <p>Figure 10-24 Cellar (A9) as exposed looking north (left) and exposing cellar door (right)</p> <div>  </div> <p>Figure 10-25 Cellar (A9) excavated (left) and with concrete base removed (right)</p> <div>  </div> <p>Figure 10-26 Cellar (A9) door close up facing east (left) and during removal plan view looking south (right)</p>



Context	Site	Designation and Description
A10	E46/62	<p><b>Grey brown deposit:</b> A mid grey brown silty friable soil with inclusions of mottling, brick and artefacts (sampled). An irregular shape approximately 1000x800mm located beneath the hallway of the Criterion hotel. Identified on the surface below the demolition rubble A24.</p>  <p style="text-align: center;">Figure 10-27.</p>
A11	E46/62	<p><b>Charcoal feature:</b> A deposit of charcoal identified below context A sitting on the natural topsoil A3/A5.</p>  <p style="text-align: center;">Figure 10-28.</p>



<p><b>A12</b></p>	<p><b>E46/62</b></p>	<p><b>Well:</b> A well with brick lining on upper portion. The top portion of the well with brick lining was cut by the foundations of the Criterion Hotel extension. The brick lining consisted of three courses of single brick with running/stretcher bonds on top of one course of header bricks pointing outwards from the well centre. Bricks were unmarked measuring 230Lx110Wx75Dmm Well was half sectioned with excavator, south half approximately still remains in-situ. Well was excavated to 2500mm deep where a gravel layer below the water table was reached below the clay. The well fill was stratified. Within the brick lining were two uppermost layers. The first A12a was a twentieth century layer with clay fill mixed with building rubble. Beneath this A12b comprised a compacted grey/brown clay with brick fragments, window glass and charcoal. Beneath the brick lining the well fill (A12c) was friable grey/brown clay with quartz pebbles and some artefacts (sampled) with an area (A12ci) of lighter yellow clay with sand inclusions.</p>  <p><b>Figure 10-29</b> Well (A12) plan view as exposed showing top truncated by Criterion Hotel foundations in lower part of image</p>  <p><b>Figure 10-30</b> Well (A12) plan view (left) and profile view showing brick lining (right)</p>  <p><b>Figure 10-31</b> Well (A12) profile view during half sectioning.</p>
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Context	Site	Designation and Description
		 <p>Figure 10-32 Well (A12) plan view of remaining in-situ portion</p>
A13	E46/62	<p><b>Concrete pile:</b> 250x250mm square and 250mm deep but truncated by digger. A13-A20 under rooms 3 and 4 and A20-23 under rooms 1 and 2.</p>  <p>Figure 10-33 Area A during foundation and pile removal. See also Figure X for A8.</p>
A14	E46/62	<p><b>Concrete pile:</b> 250x250mm square and 250mm deep but truncated by digger. A13-A20 under rooms 3 and 4 and A20-23 under rooms 1 and 2.</p>
A15	E46/62	<p><b>Concrete pile:</b> 250x250mm square and 250mm deep but truncated by digger. A13-A20 under rooms 3 and 4 and A20-23 under rooms 1 and 2.</p>
A16	E46/62	<p><b>Concrete pile:</b> 250x250mm square and 250mm deep but truncated by digger. A13-A20 under rooms 3 and 4 and A20-23 under rooms 1 and 2.</p>
A17	E46/62	<p><b>Concrete pile:</b> 250x250mm square and 250mm deep but truncated by digger. A13-A20 under rooms 3 and 4 and A20-23 under rooms 1 and 2.</p>
A18	E46/62	<p><b>Concrete pile:</b> 250x250mm square and 250mm deep but truncated by digger. A13-A20 under rooms 3 and 4 and A20-23 under rooms 1 and 2.</p>
A19	E46/62	<p><b>Concrete pile:</b> 250x250mm square and 250mm deep but truncated by digger. A13-A20 under rooms 3 and 4 and A20-23 under rooms 1 and 2.</p>
A20	E46/62	<p><b>Concrete pile:</b> 250x250mm square and 250mm deep but truncated by digger. A13-A20 under rooms 3 and 4 and A20-23 under rooms 1 and 2.</p>
A21	E46/62	<p><b>Concrete pile:</b> 250x250mm square and 250mm deep but truncated by digger. A13-A20 under rooms 3 and 4 and A20-23 under rooms 1 and 2.</p>
A22	E46/62	<p><b>Concrete pile:</b> 250x250mm square and 250mm deep but truncated by digger. A13-A20 under rooms 3 and 4 and A20-23 under rooms 1 and 2.</p>
A23	E46/62	<p><b>Concrete pile:</b> 250x250mm square and 250mm deep but truncated by digger. A13-A20 under rooms 3 and 4 and A20-23 under rooms 1 and 2.</p>
A24	E46/62	<p><b>Demolition Layer:</b> a layer of debris from the demolition process mixed with silt located across whole area, 200mm thick.</p>
A25	E46/62	<p><b>Concrete Foundation:</b> The concrete foundations of the Criterion hotel building. The foundations have been grouped into one feature but various parts of the foundations date to the various construction phases of the hotel.</p>

Context	Site	Designation and Description
A26	E46/62	<p><b>Asphalt:</b> 40mm thick modern asphalt surface of the access-way located to the east of the Criterion Hotel building.</p>  <p style="text-align: center;">Figure 10-34 Stratigraphy under access-way (Area A).</p>
A27	E46/62	<b>Aggregate basecourse for access-way:</b> Modern deposit of pebbles 250mm thick under asphalt (A26) and over orange brown clay with brick inclusions (A28)
A28	E46/62	<b>Orange brown clay with brick inclusions:</b> 100mm thick deposit with brick rubble under aggregate basecourse for access-way (A27) and over A29.
A29	E46/62	<b>Silt and brick dust deposit:</b> 40mm thick layer under A28 and over A30.
A30	E46/62	<b>Grey brown silt loam fill:</b> 100mm thick fill deposit under A29 and over the natural topsoil A31.
A31	E46/62	<b>Brown silt loam topsoil:</b> the natural topsoil 60mm thick under A30 and over A32.
A32	E46/62	<b>Yellow silt loam substrate:</b> natural sterile clay
AREA C		




Context	Site	Designation and Description
C1	E46/59	<p><b>Post hole with wood:</b> post hole 150mm wide and 250mm thick. Top of post at 500mm deep under deposit C7 brown clay deposit with artefacts and cut through context C8 Yellow silt loam substrate. See also Figure for C5.</p>  <p>Figure 10-35 Profile view of post hole (C1) in eastern baulk</p>
C2	E46/59	<p><b>Cluster of artefacts:</b> a concentrated area of scattered artefacts (sampled) 500mm in length and 200mm thick within context C7 brown clay deposit with artefacts about 4500mm from the northern boundary of the section.</p>  <p>Figure 10-36. Profile view of the cluster of artefacts (C2) within the brown clay deposit with artefacts (C7).</p>




Context	Site	Designation and Description
C3	E46/59	<p><b>Building rubble:</b> a concentrated area of building rubble including brick, stone and potential roofing tiles (sampled) within context C7 brown clay deposit with artefacts at the northern end of Area C. 2000mm long and 700mm thick in a partial lens shape with concave base.</p>  <p>Figure 10-37 Profile view of building rubble (C3) in eastern baulk (yellow arrow) in relation to the concrete foundations (C9) removed (red arrow)</p>
C4	E46/59	<p><b>Rubbish pit:</b> in profile a rectangular shaped pit with near vertical tapering in sides and a shallow concave base. Fill was dark black/brown clay moist soil with artefacts (sampled) and charcoal with a layer of sandy soil at the top. 300mm thick and 700mm wide exposed in baulk and cut into contexts C7 and C8.</p>  <p>Figure 10-38 Profile view of rubbish pit C4.</p>

Context	Site	Designation and Description
C5	E46/59	<p><b>Brick rubble layer:</b> a fine layer of brick rubble in the top of context C7 brown clay deposit with artefacts. Starts 6250mm from northern boundary of section and extends over contexts C1 post hole with wood and C4 rubbish pit for approximately 1750mm. [This may have been part of the floor recorded on Criterion Hotel site?]</p>  <p>Figure 10-39 Profile view of brick rubble layer (yellow arrow) in relation to rubbish pit (C4, red dash) and post hole (C1, yellow dash)</p>
C6	E46/59	<p><b>Modern shingle deposit:</b> surface layer of greywacke shingle 250mm thick.</p>
C7	E46/59	<p><b>Natural silt loam topsoil:</b> mid brown silt loam topsoil with artefacts, including bone, ceramic, metal and window glass, scattered throughout. Approximately 250mm thick below a modern shingle deposit (C6) and above the Yellow silt loam substrate (C9)</p>  <p>Figure 10-40 Profile view of brown clay deposit with artefacts (C7)</p>
C8	E46/59	<p><b>Yellow silt loam substrate:</b> natural sterile substrate.</p>







Context	Site	Designation and Description
C9	E46/59	<p><b>Foundations:</b> Concrete foundations from the modern Todd's building extensions 1400mm long, 600mm thick and 200mm wide. Cut the features (contexts C1, C2, C3, C4, C5) observed in the east baulk behind the foundations on Criterion section when removed.</p>  <p style="text-align: center;">Figure 10-41View of Area C with foundations (C9) removed, looking northeast.</p>
<b>AREA F</b>		
F1	E46/62	<p><b>Surface Layer:</b> The surface layer is asphalt from the open-air car park that was constructed at this location - the asphalt layer of F1 covers the areas entirety. This context is 20mm thick from surface level.</p>
F2	E46/62	<p><b>Medium grey gravel pebble layer:</b> Possibly the preparation layer for the asphalt of the carpark, therefore covering the entirety of this area. The boundary of this context is not ascertainable, and it measures 200mm thickness. This layer is below F001.</p>
F3	E46/62	<p><b>Compact orangey brown silt with fine pebbles:</b> This context is extremely compact due to the considerable weight of the above contexts (F001 and F002). This layer covered much of the brick floor features that will be detailed later in this report and had a direct effect on some features and contexts as it took considerable force to remove, consequently damaging the concealed features.</p>  <p style="text-align: center;">Figure 10-42Compact orange silt of F003 laying on top of F004</p>




Context	Site	Designation and Description
F4	E46/62	<p><b>Brick Floor:</b> Under F001, F002 and F003 and cut by F005. This brick floor runs north - south and has been cut by a modern trench that is filled with bricks and pebbles. Some patches of lime were still present on top of the bricks. There was a considerable amount of digger damage to the south end of the brick flooring. This section of brick flooring was 3200mm long and 3100 wide, with the bricks one layer deep and 110 mm thick. The bricks mainly ran lengthways from east to west however some bricks were arranged lengthways north – south. More of the flooring was uncovered the following day when much of floorings had been removed.</p>  <p>Figure 10-43The brick flooring at F004 viewed facing north, trench at F005 clearly cutting through the centre of the feature</p>  <p>Figure 10-44The extension on F004 that was exposed in the succeeding days work</p>
F5	E46/62	<p><b>Modern service trench with sand fill:</b> located under F001 and F002. The trench ran from north - south cutting the brick flooring at F004 and F019. Equal to T5. F5 aligned with Area R, a trench excavated for a foundation line and this context was removed as part of the excavation of Area R.</p>  <p>Figure 10-45Modern trench cutting the brick flooring at F004</p>



Context	Site	Designation and Description
F6	E46/62	<p><b>Brick Floor:</b> Running from east to west for 3500mm, with a width of 2000mm, this brick flooring was one brick deep with each brick measuring at 90mm thick. The bricks appeared to be older than those found at F004 as they were smaller, and more rounded. The east face of the wall abutted F004 but lay 10mm lower. Most bricks were aligned north - south, with a small amount running east - west. There were several smaller bricks in the centre of the flooring that were set in a decorative manner. The perimeter is marked by wooden beams and the west side of the flooring leads out on to the wooden walkway of F009. There are numerous postholes around the outside of F006 – these each have their own context number and will be detailed later.</p> <div>  </div> <p>Figure 10-46 Left: Brick Flooring at F006 viewed facing north. Right: Facing west</p> <div>  </div> <p>Figure 10-47. Worn stone found in the centre of the west side of the flooring at F6.</p> <div>  </div> <p>Figure 10-48 Wooden beam running the perimeter of F6.</p>

Context	Site	Designation and Description
		<div> </div> <p>Figure 10-49. Brick detail on centre perimeter of the north side of the flooring at F6.</p> <div> </div> <p>Figure 10-50. Brick detail on the northwest corner of the flooring at F6.</p>
F7	E46/62	<p><b>Black grit layer:</b> A thin layer at 90mm – this gritty black layer seems to cover area of the rear of the section. Interpreted as a previous imported surface layer.</p>


Context	Site	Designation and Description
F9	E46/62	<p><b>Wooden Planks with Nails:</b> The planks here are aligned east to west, 1730mm wide by 2800mm long. Some of the wooden planks have been truncated by digger and there is some disturbance by hand excavation. The wood itself is very fragile and the top surface of the planks were lost with the removal of F3 so thickness/depth is difficult to ascertain. Possibly wooden flooring or a wooden wall knocked flat during demolition. The wooden planks about F6 on the west and F22 on the east. There are several nails at regular intervals in the wooden planks.</p>  <p>Figure 10-51. Left: Initial phases of the excavation at F9 - the southeast corner viewed facing west.</p>  <p>Figure 10-52. Detail of the nails that were found along the planks of wood at F9.</p>
F10	E46/62	<p><b>Concrete Pile:</b> Concrete pile found below the surface of the asphalt and preparation layer (F1 and F2). The concrete pile is 350mm wide by 350 long and 380mm deep. Like concrete piles found at F24, F21 and F20. Possibly a structure in the forecourt of the criterion hotel. These piles were in the centre of E46/63, west of the previously mentioned features.</p>




Context	Site	Designation and Description
F11	E46/62	<p><b>Wooden feature infilled with brick rubble:</b> An interesting feature on the north side of F6. A rectangular arrangement made up of various sized planks of wood and infilled with brick and stone fragments. The feature is 800mm long by 500mm wide. There was little present in the subsequent contexts beneath F11 however the delicate wooden planks of the feature could have extended further north – beyond the boundaries of E46/63 and the project site. There were some striations and nails found in the wooden plank on the south of the feature (see</p>  <p>Figure 10-53. Left: The wooden feature at F11 viewed facing west. Right: Detail of the striations in some of the wooden planks.</p>
F12	E46/62	<p><b>Square post hole:</b> On the south west corner of F006 is a square post hole 200mm long by 200mm wide and 500mm deep, there were no remains of the wooden posthole.</p>  <p>Figure 10-54. Square wooden posthole (highlighted in yellow) the wooden flooring or F009 can be seen on the right. Viewed facing west.</p>

Context	Site	Designation and Description
F13	E46/62	<p><b>Square post hole:</b> Equal to F0012 due east. The second posthole on the south side of F006. This post-hole has similar measurements to the previously mentioned post hole; 200mm long, 200mm wide and 600mm. A large section of the posthole was beneath the brick flooring of F006 (110mm).</p>  <p>Figure 10-55. Wooden posthole at F013 - the brick surface of F0006 conceals a large portion of the post-hole.</p>
F14	E46/62	<p><b>Square post hole:</b> Again – 200mm long, 200mm wide and 600mm deep. This posthole ran beside and under the south west corner of F006. There were remains of the original post however these were in poor condition and could not be rescued.</p>  <p>Figure 10-56. Post hole at F014 with remains of the fragile wooden post visible inside.</p>
F15	E46/62	<p><b>Wooden post hole:</b> Similar measurements to the previous mentioned post holes; 200mm long, 200mm wide and 500mm deep. This post hole is equal to and below F006 and is situated north of the brick flooring. There were very few remains of the wooden post, and any evidence of wood was too fragile to recover.</p>  <p>Figure 10-57. Square post hole at F015.</p>




Context	Site	Designation and Description
F16	E46/62	<p><b>Wooden beam:</b> Running parallel and abutting the south boundary of F006. This beam connected posts that would have been evident at F012, F013 and F014. The surface of the beam was damaged during the removal of layer F003 as a considerable amount of was force was used due to it being so compact. This wooden beam is missing along some sections, possibly lost during the removal of surface material from F006. The wooden beam is 3250mm long and 150 wide. Its depth was not ascertainable.</p>  <p>Figure 10-58. The shadow along the southern side of F006 marks the location of the wooden beam.</p>
F017	E46/62	<p><b>Wooden planks:</b> Several wooden planks were located on the north side of F006, abutting and equal to the brick flooring. These could have been an extension to the wooden feature located at F011, perhaps wooden flooring.</p>  <p>Figure 10-59. The wooden planks of F017 can be seen highlighted in yellow. Viewed facing east.</p>





Context	Site	Designation and Description
F018	E46/62	<p><b>Posthole:</b> A square wooden posthole much the same dimensions as the previous post holes mentioned: 200mm length, 200mm width and 500mm deep. There were some remains of the wooden post however these were in poor condition.</p>  <p>Figure 10-60. Post hole at F018 – the fragile remains of the wooden post can be seen to the bottom right of the image.</p>




Context	Site	Designation and Description
F19	E46/62	<p><b>Brick floor:</b> A paved brick floor with the bricks mostly aligned east – west. There is some digger damage on the south side of the flooring and it has been cut by trench F5. It is at the same stratigraphic level as F4 which it is located to the south of. On the east side of the flooring is an area paved in a non-uniform manner. The bricks used here are generally smaller than those used in the main section of the flooring. The entire floor measures 3330mm width by 2920mm length and the bricks lie one deep at 100mm. The messy area of brickwork is 500mm wide.</p>  <p>Figure 10-61. A view of the brick flooring at F019 facing east. F005 clearly visible through the centre.</p>  <p>Figure 10-62. The main section of the brick flooring showing clearly the messy brick used on the east.</p>  <p>Figure 10-63. Detail on the messy area of bricks to the east of the flooring.</p>
F20	E46/62	<b>Concrete pile:</b> A concrete pile with similar dimensions to F10.
F21	E46/62	<b>Concrete pile:</b> A concrete pile with similar dimensions to F20 and F24.




<p>F22</p>	<p>E46/62</p>	<p><b>Brick floor:</b> A brick floor extending along the northern end of the criterion section. The majority of bricks are aligned north – south. There is a small break in the brickwork to the western end of the floor with a posthole in the centre 4800mm wide and 1500mm long with a thickness of one brick at 100mm. This context is equal to the brick flooring at F006 and abuts F009 and F028. The bricks at the perimeter of F022 have sunk giving the flooring a bowed appearance. This due to the rotting of the wooden beams that ran its boundary, as well as the large post-holes that surround the brick flooring.</p> <div> </div> <p>Figure 10-64. Left: the east side of F22 viewed facing south. Right: the west side of F22 viewed facing south.</p> <div> </div> <p>Figure 10-65. The length of the brick flooring at F22 viewed facing west.</p>
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Context	Site	Designation and Description
		 <p>Figure 10-66. Detail of some of the brick work along the north side of F22.</p>
F23	E46/62	<p><b>Post hole:</b> Square wooden post hole partially concealed under the south-east corner of the brick flooring at F22; measuring 200mm in length, 200mm in width and 500mm in depth. Remains of the wooden post are clearly visible in the post-hole although the wood is extremely fragile and fragmented in parts.</p>  <p>Figure 10-67. Plan view of post hole F23.</p>
F24	E46/62	<p><b>Concrete pile:</b> Parallel and west of concrete piles at F20 and F21 – similar in measurement as well although the depth cannot be ascertained as the pile was left in the ground and compacted under the weight of the digger. Another part of the structure to the rear of the criterion building.</p>
F25	E46/62	<p><b>Brick paving:</b> Unfortunately, much of this brick paving was damaged by digger activity so the length of this feature is not available. Located towards the southern end of E46/62, most of the bricks are aligned north – south with a total width of 1250mm, the length of remaining pavement is 1450mm and its depth is one brick at 100mm.</p>  <p>Figure 10-68. The brick paving at F25 with the digger damage clearly visible.</p>

Context	Site	Designation and Description
F26	E46/62	<p><b>Brick paving:</b> Equal to F25 and located a short distance north west (just visible in the top left of Figure 10-68) this section of brick paving is aligned mostly north-south however there are some bricks set east-west. 1960mm long and 300mm wide, this section of brick paving is one brick deep at 100mm.</p>  <p>Figure 10-69. The brickwork at F26 viewed facing north - the brick paving of F025 is visible in the bottom right of the image.</p>
F27	E46/62	<p><b>Post hole:</b> Parallel with the post-hole at F23 and abutting the south side of the brick flooring at F22, this square post – hole measures at 200mm long and 200mm wide with a depth of 500mm – there were few remains of the fragile wooden beam with the post hole.</p>  <p>Figure 10-70. Square wooden post-hole at F27 (highlighted in yellow) - note the slumping of bricks to the right of the post hole mentioned in F22.</p>

Context	Site	Designation and Description
F28	E46/62	<p><b>Wooden beam with notches:</b> A well preserved wooden beam and an excellent example of the beams that have been prevalent on this site. Abutting the south side of F22 and the west side of F9, long beam measures 4200mm wide and 100mm long. There are small rectangular notches at regular intervals along the beam where upright beams would have been in place. Each notch is 30mm long and 100mm wide and there is a total of five notches evident along the wooden beam.</p>  <p>Figure 10-71. The long wooden beam here running the length of the south side of F22. Viewed facing west.</p>  <p>Figure 10-72. Detail of the rectangular notches in the wooden beam.</p>

Context	Site	Designation and Description
F29	E46/62	<p><b>Post hole:</b> Square wooden post holes in the brickwork of F22. Smaller than the previously mentioned post-holes of this structure; 100mm long and 150mm wide and 300mm deep – the post that would have been located here would have been within the confines of the structure. Perhaps marking a doorway or partition between rooms. Small sections of the beam no longer remain intact as it has collapsed in to post-hole (F27).</p>  <p>Figure 10-73. The posthole at F29 with the wooden beam of F028 visible on the left.</p>  <p>Figure 10-74. A view of the features in relation to the brick flooring at F22. Viewed facing west.</p>
F30	E46/62	<p><b>Wooden beam:</b> A short wooden beam aligned north - south between the brick flooring of F22 and F31. Signifying a partition between rooms or an entranceway. There are two notches on each end of the wooden beam both measuring 100mm long and 30mm wide. This would have held vertical wooden beams.</p>  <p>Figure 10-75. Wooden beam seen here running left to right - the flags signifying the location of the notches. Viewed facing west.</p>

Context	Site	Designation and Description
F31	E46/62	<p><b>Brick floor:</b> Equals to F22 and located west separated by the wooden beam at F30. This brick flooring, measuring 1540mm long by 1400mm wide, are loose bricks that are greatly disturbed by digger activity. Most bricks are aligned east- west however some are set at a diagonal, possibly through disturbance of the brick work in later phases of construction or demolition. There are some decorative bricks along the south side of the flooring that are smaller in size (halved) then the main section of the brick floor.</p>  <p>Figure 10-76. The brick flooring of F031 just visible under F3. The diagonal bricks are clearly visible here.</p>
F32	E46/62	<p><b>Brick floor:</b> A small section of paved brick floor on the east area of site E46/62. Equal to F6 and located to its south, there is a small separation between the two contexts (350mm). The feature is 1640mm wide and 1580mm long. The bricks are aligned mainly east – west, with some aligned to the contrary. There is the inclusion of some sandstone bricks within this section of flooring.</p>  <p>Figure 10-77. The paved bricks at F32 viewed facing south. Note the inclusion of sandstone to the south end of the brickwork.</p>
F33	E46/62	<p><b>Sand:</b> Located beneath the brick flooring of F4 and F19 this layer of sand is 60mm thick. Possibly a preparation layer for the construction of the brick floor.</p>  <p>Figure 10-78. The sandy context beneath the brick flooring at F4.</p>



Context	Site	Designation and Description
F34	E46/62	<p><b>Brick and wood floor:</b> Although the materials used on the flooring found at F34 are much the same to the previously mentioned brick flooring there is a notable amount of distinction in its alignment, size and layout. The entire floor is raised a considerable amount higher than the other floors. The brick work is aligned mostly north – south however there are several wooden beams signifying partitions within the floor. These beams are a harder wood and are heavier and larger than any other beams located at this site. Although there is a great deal of digger damage to the south section of this feature, there is still a good amount of detail evident. The entire floor measures 5800mm wide and 3150mm long. To the west side of the brick flooring are several slates laid flat – possibly suggesting an entrance point to the structure that was located here.</p> <div> </div> <p>Figure 10-79. The western most section of F34, viewed facing south.</p> <div> </div> <p>Figure 10-80. The central section of F34, viewed facing south.</p> <div> </div> <p>Figure 10-81. The eastern most section of F34, viewed facing south.</p>







Figure 10-82. Detailed view of the slates at the west side of the flooring at F34.








Figure 10-83. The central beam of F34, viewed facing east.







Context	Site	Designation and Description
		<p>Figure 10-84. The remains of a wooden feature within the brick flooring of F34. Some section of wood as well as the surrounding brick work appear to be burnt.</p>
F35	E46/62	<p><b>Brick footing:</b> Two layers of bricks in an L shape that appear as though they would have continued further east and west although digger damage or damage that occurred during the construction of the carpark has meant that it is no longer in situ. The sections of brickwork that is aligned running east to west is 1930mm long by 220mm wide. There are two sections where the bricks are built higher. Each brick measures 220mm long, 100mm wide and 70mm deep. The section of brickwork aligned north to south is 1480 mm long by an average of 220mm deep. The northern most section of the brickwork has been damaged by digger activity and looks as though it extended further east. This section measures 300mm.</p>  <p>Figure 10-85. The brick footing at F35, viewed facing west.</p>

Context	Site	Designation and Description
F36	E46/62	<p><b>Timber floor/wall:</b> This area was exposed by digger activity however was not removed. Equal to and located north of F31, this feature was composed of several wooden beams and appears to be the foundations of a small wooden structure. Several post-holes line the perimeter of this feature and there is evidence of nails within the wooden beam. The wood itself is extremely fragile and as such some sections were lost with the removal of F3. The central beam is the widest wooden beam and runs east – west for 2750mm. Three smaller wooden beams extended north of this beam for 1540mm. It appears that the feature may have extended further south, although this area had been greatly disturbed with digger damage. See also AA12 which is likely equal to this context.</p>  <p>Figure 10-86. The wooden beams of the feature at F36, viewed facing west</p>  <p>Figure 10-87. F36 viewed facing south.</p>
F37	E46/62	<p><b>Post hole:</b> This square wooden posthole is located on the western end of the central beam at F36. Measuring 200mm long and 200mm wide with a depth of 460mm.</p>  <p>Figure 10-88. Square post-hole at F37, viewed facing east.</p>

Context	Site	Designation and Description
F38	E46/62	<p><b>Black gritty layer:</b> This context lay under F4 and was exposed after considerable scraping of the surface by digger. This black gritty layer covered a large percentage of the southern area of E46/62 and contained a considerable amount of loose brick and rubble. Equal to F7.</p>  <p style="text-align: center;"><b>Figure 10-89. Black gritty context at F38</b></p>
F39	E46/62	<p><b>Post hole:</b> A square wooden post hole to the east of F4 which was uncovered after the removal of the brick flooring. The post hole measured 200mm wide by 200mm long and had a depth of 500mm. There was a considerable amount of the wooden beam still in situ within the hole, and this was very friable.</p>  <p style="text-align: center;"><b>Figure 10-90. The wooden post hole with the remain of the wooden beam still visible. Viewed facing north.</b></p>
F40	E46/62	<p><b>Natural topsoil:</b> Context is the natural silt loam topsoil. It was identified under F33 and was cut by all of the postholes previously mentioned at this site.</p>


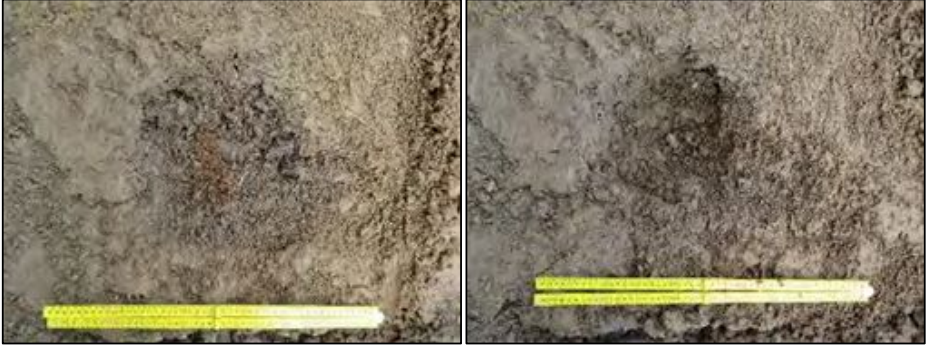

Context	Site	Designation and Description
F41	E46/62	<p><b>Black grit mixed with glass debris:</b> This trench is 4500mm long and 700mm wide and 150mm thick and cuts by F40. Running along the eastern perimeter of E46/62, the boundary of this context was marked by a distinct colour change in the soil as well as the type of artefacts that were present. The top surface of this feature had a greater concentration of artefacts, and the deeper areas of the trench was densely packed black grit (like F7 and F38) with fewer artefacts.</p>  <p>Figure 10-91. F41 - broken bottles and other artefacts are clearly visible.</p>  <p>Figure 10-92. The northern section of the trench at F41 - the compact black silt visible to the left of the image.</p>
F42	E46/62	<p><b>Black charcoal deposit:</b> Dark black loose charcoal deposit 100mm thick and approximately 400mm x 500mm irregular shape observed under the surface, appears to cut through F40 and over Yellow silt loam substrate. No artefacts observed except for large metal spike with ball top disturbed by digger within this area. Likely some sort of ash dump.</p>  <p>Figure 10-93. Plan view of F42 (left) and close up of metal spike (right).</p>





Context	Site	Designation and Description
F43	E46/62	<p><b>Wooden boards:</b> Two timber boards 1in thick and 3in and 8in wide respectively running approximately east to west. See AA12. May be part of timber flooring observed in this area (see AA12).</p>  <p>Figure 10-94. Plan view of F43 as marked. Note post (F44) to right.</p>
F44	E46/62	<p><b>Wooden post:</b> Observed on surface following site clean-up. Cuts through F40 to 600mm deep. Defined by wood and appears to be remains of a square post 150mm x 150mm but not well defined and tapers inwards at base. See also Figure 10-94.</p>  <p>Figure 10-95. Profile view of wooden post F5 half sectioned, looking east.</p>
<b>AREA O</b>		
O1	E46/62	<b>Natural silt loam topsoil:</b> Light mottled silty orange brown clay 200mm thick at 450-650mm deep. Probably equal to S2.
O2	E46/62	<b>redeposited topsoil:</b> Approximately 200-400mm thick under O1 and over O3. Its boundaries are unclear, and it grades into the adjacent deposits. This topsoil has been redeposited into the trench excavated for the construction of the foundations of the neighbouring building.
O3	E46/62	<b>Silt loam substrate:</b> under O2 and probably equal to the 'Yellow silt loam substrate'

Context	Site	Designation and Description
O4	E46/62	<p><b>Drain with ceramic pipe:</b> A 300mm wide trench with mid-brown friable clay soil and ceramic drain pipe ran north-south 750mm from the east wall of Area O, sloping down to the south. Extends through Areas O, P, and S (equal to S8). It is within O1 and 180mm thick here. The age of the drain is unknown.</p>  <p>Figure 10-96. Profile view facing south in Area O showing contexts O1-O4.</p>
<b>AREA P</b>		
P1	E46/62	<b>Concrete foundations:</b> from the building on the neighbouring section to the east were exposed in Area P and O.
P2	E46/62	<b>Deposit of medium brown clay:</b> Approximately 300mm thick here. Its boundaries are unclear, and it grades into the adjacent deposits. Equal to O2, I2
P3	E46/62	<b>Light brown clay:</b> orange brown mottled clay under P2 and probably equal to the 'Yellow silt loam substrate' and O3
P4	E46/62	<p><b>Drain with ceramic pipe:</b> Equal to O4 and S8</p>  <p>Figure 10-97. Profile view facing south in Area P showing contexts P2-P3.</p>
<b>AREA S</b>		
S001	E46/62	<b>Surface Layer:</b> The surface deposit is disturbed throughout the site due to the demolition of buildings and structures and site clearance as part of this process. The deposit is generally a greyish medium-brown clay soil that is comprised of a mixture of greywacke shingle and demolition rubble (fragments of brick, concrete, plastic etc.). This layer is over S002 (Deposit of clay with pebbles and artefacts) which is typical for parts of this site.






Context	Site	Designation and Description
S2	E46/62	<p><b>Deposit of Clay with Pebbles and Artefacts:</b> This deposit is medium brown to yellow clay with water rounded quartz pebbles, brick fragments and broken artefacts generally deposited flat. This deposit forms a layer approximately 200mm thick, but the thickness varies in places with pockets of yellow clay and pebbles and gets more compact as it grades into S5 (Yellow silt loam substrate). This layer is typical for parts of this site and extends into Area T. This deposit likely represents previous site clearance or preparation activities for site redevelopment or may be from the excavation of trenches for services. It typically caps this part of the site, although varies in places, and its full extent immeasurable due to excavation being confined to some trenches and holes for foundations. It's absence in some areas may be due to absence of formation or disturbance through demolition and site clearance processes.</p>
S5	E46/62	<p><b>Yellow silt loam substrate:</b> Natural yellow clay with mottling. Under S2 to the base of excavation and cut by other features recorded as contexts (e.g. S3 and S4).</p>
S3	E46/62	<p><b>Rubbish pit:</b> Shallow rubbish pit, 230mm thick x 400mm width x 200mm length with loose mid-brown/red clay soil. Contains complete stoneware bottles and is capped with a metal layer and situated under S2. Has an uneven base and was exposed in north wall of excavation leaving part remaining <i>in-situ</i>.</p> <div> </div> <p style="text-align: center;"><b>Figure 10-98. Plan view of S3 looking north. Metal layer (left), excavated with stoneware (right).</b></p>
S4	E46/62	<p><b>Pit:</b> Pit with medium brown friable clay soil with brick fragments, bottle glass and greywacke shingle. Under S2 and over S5. Friable clay appears to have vertical sides, 170mm wide, and has concave base with iron-oxide staining. Was exposed in north wall of excavation leaving part remaining in-situ. To the east abuts immediately next to concrete foundations for building on neighbouring section. Purpose unclear, initial interpretation was post hole with fill, but may be associated with these foundations or formation of S2.</p> <div> </div> <p style="text-align: center;"><b>Figure 10-99. Profile of S4 looking north.</b></p>


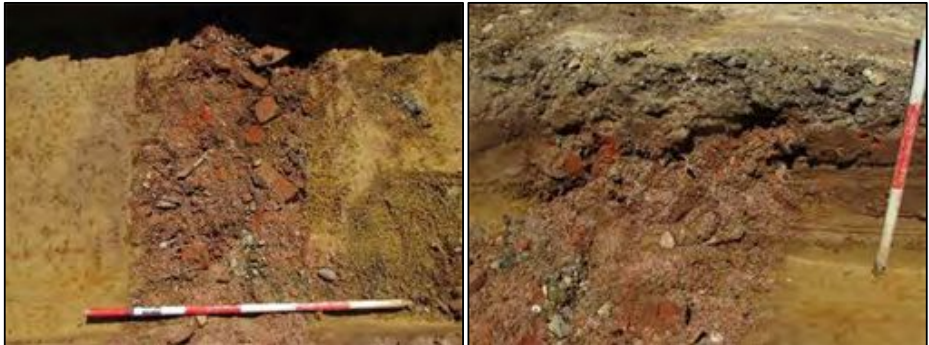
Context	Site	Designation and Description
S6	E46/62	<p><b>Small wooden post:</b> 120mm x 120mm square with wood. Only observed at base of excavation 700mm from surface. Although directly above this feature artefacts (bottles) were bagged in the base of S2 in the Yellow silt loam substrate (S5) which may have been in the fill of this post hole.</p>  <p style="text-align: center;"><b>Figure 10-100. Plan of S6 (left) and artefacts recorded above S6 (right).</b></p>
S7	E46/62	<p><b>Rubbish pit:</b> Small shallow circular rubbish pit with concave base 25cm in diameter, observed 300mm from surface during site scraping and 120mm thick recorded. Contains mid-red/brown friable clay soil with broken artefacts, metal and wood.</p>  <p style="text-align: center;"><b>Figure 10-101. Plan of S7 (left) and excavated (right).</b></p>
S8	E46/62	<p><b>Trench for drain:</b> A 300mm wide trench with mid-brown friable clay soil and ceramic drain pipe ran north-south, sloping down to the south, through the west side of Area S between Areas O and P and south of Area P. It appeared to cut through S2 and the base of trench for drain was not reached at the south end. The age of the drain is unknown. Equal to O4 and P4.</p>  <p style="text-align: center;"><b>Figure 10-102. Plan of S8 just below surface looking east (left) and at base of excavation looking south (right).</b></p>
<b>AREA T</b>		
T1	E46/62	<b>Surface Layer:</b> Equal to S1




Context	Site	Designation and Description
T2	E46/62	<p><b>Brown deposit with wood:</b> A deposit of dark brown friable soil concentrated with heavily decomposed moist wood. Deposit is 100mm thick and under S2 and over T4 and cut by T5 (Trench for modern drain). Few artefacts noted. Extent not well defined except where cut by T5 along west. Deposit thins towards east and was not visible in Area S or south past T3. At the base of this deposit the clay was compact. May be a possible floor deposit.</p> <div style="display: flex; justify-content: space-around;">   </div> <p style="text-align: center;">Figure 10-103. Plan of T2 on right edge of excavation with T5 in centre (left) and profile looking north (right).</p>
T3	E46/62	<p><b>Trench:</b> Cut rectangular feature which extends into the east baulk filled with yellow mottled clay and quartz pebbles. One bone observed in base of excavation. Feature is 300mm wide and 300mm length exposed. Fill is similar in composition to S2 but appears more friable and no artefacts noted. Cuts through S2 and T2 which ends here, observed under T1. Function unknown but dimensions suggest it may have been a service trench since there are many in this area of the site.</p> <div style="display: flex; justify-content: space-around;">   </div> <p style="text-align: center;">Figure 10-104. Profile of T3 looking east (left) and plan view looking south (right).</p>
T4	E46/62	<p><b>Yellow silt loam substrate:</b> as per S5</p>

Context	Site	Designation and Description
T5	E46/62	<p><b>Trench for modern drain:</b> Trench with yellow sandy soil and modern PVC drain runs north to south through Area T and north end of Area U. 600mm wide and 350mm depth. See Figure 10-103. Under S1. Equal to F5.</p> <div> </div> <p style="text-align: center;">Figure 10-105. T5 visible in centre bottom of photo. Trench line F extends to north in rear.</p>
T6	E46/62	<p><b>Wooden post:</b> Post hole 300mm diameter with brown-grey clay fill, vertical sides and concave base with wooden semi-circular shaped post 150mm in diameter. Post is 300mm in length from top to bottom and has flat cut bottom and top has been cut with nail in surface.</p> <div> </div> <p style="text-align: center;">Figure 10-106. T6 in profile looking north.</p>
T7	E46/62	<p><b>Trench for drain:</b> Equal to S8 with ceramic pipe. Extends through west side of Area T at shallow depth, top about 10cm below surface, and cut by T5. See Figure for T5.</p>
<b>AREA U</b>		
U1	E46/62	<p><b>Surface Layer:</b> Equal to S1.</p>
U2	E46/62	<p><b>Trench for modern drain:</b> Equal to T5. Only visible in small northern section of trench between pile F5 and Area T. See Figure below for U3 also.</p>






Context	Site	Designation and Description
U3	E46/62	<p><b>Brown deposit with wood:</b> Equal to T2. Observed in a small section of trench excavated between pile F5 and Area T, and cut by T5 (Trench for modern drain) on east side. Contains decomposed wood like T2 but in this area also brick fragments, metal, shoes and some artefacts. This brown deposit extends through parts of the trench (Area U) to the south towards Don Street, although contains no wood and few artefacts, see also U006 and AD8.</p>  <p>Figure 10-107. U3 on left and U002 on right.</p>
U4	E46/62	<p><b>Yellow silt loam substrate:</b> Equal to S5.</p>


Context	Site	Designation and Description
U5	E46/62	<p><b>Trench for drain:</b> a 2.5m long section of service trench 650mm wide with ceramic pipe which cut at an angle running SE to NW through the trench excavated for foundation line F (Area U). Observed beneath U1 (Surface Layer), cutting through U4 (Yellow silt loam substrate) and base extends below base of excavation. Fill of drain was mid-grey/brown friable moist clay soil with many inclusions including mottling, brick fragments, quartz pebbles, artefacts and many oyster shells. Whole ceramic vessels in base of excavation under ceramic pipe and artefacts sampled.</p>  <p><b>Figure 10-108. Plan view of trench for drain (U5) facing west at base of excavation.</b></p>  <p><b>Figure 10-109. Profile view, west baulk, trench for drain (U5), note U6 to left.</b></p>



Context	Site	Designation and Description
U6	E46/62	<p><b>Dark brown deposit:</b> A dark brown friable clay soil 200mm thick under U1 (Surface Layer) and over U4 (Yellow silt loam substrate). Abuts U5 (Trench for drain) where it is 450mm thick and extends for approximately 2000m to south. Boundary between U5 and U6 unclear but likely U5 cuts through U6. Similar to U3 but no inclusions here. Purpose unknown, possible surface for example for garden. See below for Area Z and Area AD.</p>  <p>Figure 10-110. Profile view of U6 (left) and plan view in whole excavated for pile at Area Z (right).</p>
<b>AREAS V, W, X, Y</b>		
S1	E46/62	<b>Surface Layer:</b> See S1
S5	E46/62	<b>Yellow silt loam substrate:</b> See S5
<b>AREA AE</b>		
AE1	E46/62	<b>Surface Layer:</b> See S1. Has now been removed in this area of the site during site clean-up.
AE2	E46/62	<b>Deposit of Clay with Pebbles:</b> Similar to S2 but no inclusions viewed here except for quartz pebbles. Approximately 100mm thick.
AE3	E46/62	<p><b>Rubble deposit:</b> 700mm wide rectangular area with brick, wood, building linings, plastic filled into hole left from foundation removal during current project. Exposed beneath surface and cut into Yellow silt loam substrate.</p>  <p>Figure 10-111. Plan view of AE3 (left) and south profile (right).</p>




Context	Site	Designation and Description
AE4	E46/62	<p><b>Possible trench for drain:</b> 400mm wide rectangular strip of grey/brown clay soil with shingle exposed. Likely for a drain but remainder beneath base of excavation.</p>  <p>Figure 10-112. Plan view of AE004 at base of excavation.</p>
AE5	E46/62	<p><b>Yellow silt loam substrate:</b> See S5</p>
AE6	E46/62	<p><b>New surface layer:</b> Extensive gravel greywacke shingle being added to site and compacted for base of new foundations from 3 November 2016. 600mm thick in places.</p>  <p>Figure 10-113. Profile view showing new shingle surface layer above Yellow silt loam substrate (left) and adding and compacting shingle (right).</p>
AE7	E46/62	<p><b>Post hole with wood:</b> Rectangular shaped post hole 300mm x 250mm at 300mm below surface and 200mm x 200mm at base of excavation at 600mm below surface. Filled with brick fragments, charcoal, yellow clay, quartz pebbles with timber fragments at the base. Likely post hole from modern building.</p>  <p>Figure 10-114. Plan view of post hole AE7.</p>







Context	Site	Designation and Description
AE8	E46/62	<p><b>Post hole:</b> Square post hole 200x200mm exposed beneath AE009. Probably from modern building pile. Concrete pile was in rubble (AE9) above this post hole.</p> <div style="display: flex; justify-content: space-around;">   </div> <p style="text-align: center;"><b>Figure 10-115. Plan view of post hole AE8 (left) and concrete pile above in AE9 (right).</b></p>
AE9	E46/62	<p><b>Rubble deposit:</b> Rectangular area with brick, wood, building linings, plastic around and filled into hole left from foundation removal during current project. Exposed beneath surface and cut into Yellow silt loam substrate. Foundation line at base is 20cm wide. From removal of modern building during current project.</p> <div style="display: flex; justify-content: space-around;">   </div> <p style="text-align: center;"><b>Figure 10-116. Plan views of AE9 as exposed under surface (left) and at near base (right).</b></p>
AE10	E46/62	<p><b>Post hole:</b> Rectangular post hole with building rubble fill. From removal of modern building during current project.</p> <div style="text-align: center;">  </div> <p style="text-align: center;"><b>Figure 10-117. Plan view of post hole AE10</b></p>
<b>AREA Z</b>		
S1	E46/62	<b>Surface Layer:</b> See S1


Context	Site	Designation and Description
U6	E46/62	<p><b>Dark brown deposit:</b> Equal to U6. Deposit extends 2000mm to east in trench before being cut by gravel fill as part of surface layer from recent demolition as part of this project which is very deep here probably from result of foundation removal.</p>  <p>Figure 10-118. Plan view of U6 on left, next to surface layer on right (left) and profile view south baulk (right).</p>
S5	E46/62	<b>Yellow silt loam substrate:</b> See S5
<b>AREA AA</b>		
AA1	E46/62	<b>Surface Layer:</b> Equals S1
AA2	E46/62	<b>Deposit of Clay with Pebbles:</b> Similar to S2 but no inclusions viewed here except for pebbles. Approximately 150mm thick, maximum 200mm, minimum 50mm.


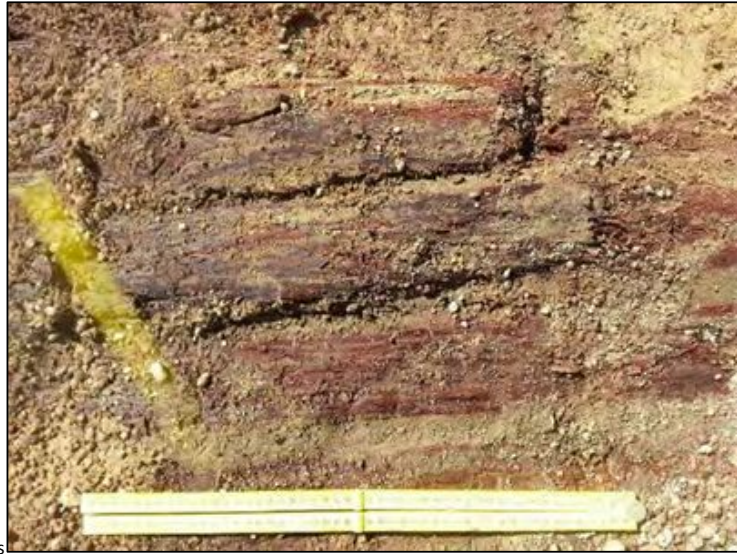
Context	Site	Designation and Description
AA3	E46/62	<p><b>Rubbish deposit:</b> A rubbish deposit forming a shallow area about 3000mm width, 500mm length and 100 to 150mm thick. Inclusions include charcoal, brick fragments, metal and artefacts including ceramics, glass, shoes and a horse shoe and possible brush. Although a lenticular cross section due to concentrated artefacts, especially metal and shoes (adhered together), in its centre it has irregular sides and uneven top and bottom which indicate that the rubbish has been disturbed in the past. Artefacts were found pressed into the Yellow silt loam substrate below.</p>  <p>Figure 10-119. Plan view of AA3, looking East, note metal and shoe indicated by arrow.</p>  <p>Figure 10-120. Profile of AA3, south baulk, note shoe protruding as indicated by arrow.</p>

Context	Site	Designation and Description
AA4	E46/62	<p><b>Post hole:</b> Post hole of dark grey/ brown friable clay fill 170x170mm square with burnt wood fragments observed 180mm below surface and 280mm deep from top surface. Cuts through AA003. Although this post is smaller it forms a line with similar and other equal post holes AA6, AA7, AA8, AA10, AA13 and AA14 spaced approximately 2000mm apart and likely represents an older boundary fence prior to AA15 (fence line with post holes) which was removed during the current project.</p>  <p style="text-align: center;">Figure 10-121. Profile of AA4, looking west (left).</p>
AA5	E46/62	<p><b>Post hole:</b> Post hole 250x250mm square with wood exposed on edge of trench observed 180mm below surface and approximately 600mm deep from top surface. Edge of rubbish deposit AA3 is scattered up to this point to the west.</p>  <p style="text-align: center;">Figure 10-122. Plan view of AA5.</p>
AA6	E46/62	<p><b>Post hole:</b> Post hole of dark grey/ brown friable clay fill with no wood observed within Yellow silt loam substrate 250x250mm square. Top not recorded due to when post hole observed and base of post hole at 600mm below surface. It forms a line with similar and other equal post holes AA4, AA7, AA8, AA10, AA013 and AA14 spaced approximately 2000mm apart and likely represents an older boundary fence prior to AA15 (fence line with post holes) which was removed during the current project.</p>  <p style="text-align: center;">Figure 10-123. Plan view of AA6.</p>



Context	Site	Designation and Description
AA7	E46/62	<p><b>Post hole:</b> Post hole of dark grey/ brown friable clay fill with no wood observed within Yellow silt loam substrate 200x200mm square. Top not recorded due to when post hole observed and base of post hole at 600mm below surface. It forms a line with similar and other equal post holes AA4, AA6, AA8, AA10, AA13 and AA14 spaced approximately 2000mm apart and likely represents an older boundary fence prior to AA15 (fence line with post holes) which was removed during the current project.</p>  <p>Figure 10-124. Context photo of post holes within trench looking north. Post hole AA7 in centre (indicated by arrow) with two shingle filled post holes at rear to left and right (circled) which are from the modern fence line removed as part of this project (AA15).</p>
AA8	E46/62	<p><b>Post hole:</b> Probableremains of post hole of dark grey/ brown friable clay fill with no wood observed within Yellow silt loam substrate. Not well defined as only base observed to depth of 500mm but it forms a line with similar and other equal post holes AA4, AA6, AA7, AA10, AA13 and AA14 spaced approximately 2000mm apart and likely represents an older boundary fence prior to AA15 (fence line with post holes) which was removed during the current project.</p>  <p>Figure 10-125. Plan view of AA8.</p>

Context	Site	Designation and Description
AA9	E46/62	<p><b>Metal and charcoal deposit:</b> Irregular shaped dark black/brown clay soil with concentrated inclusions of metal and charcoal with bone and brick fragments. About 100mm thick, 500mm width and 200mm long below AA2 and above Yellow silt loam substrate. Interpretation is another disturbed rubbish pit context similar to AA3.</p>  <p style="text-align: center;"><b>Figure 10-126. Oblique view of AA9 within trench.</b></p>
AA10	E46/62	<p><b>Post hole:</b> Post hole of dark grey/ brown friable clay fill with no wood observed within Yellow silt loam substrate 200x200mm square. Top not recorded due to when post hole observed and base of post hole at 600mm below surface. It forms a line with similar and other equal post holes AA4, AA6, AA7, AA8, AA13 and AA14 spaced approximately 2000mm apart and likely represents an older boundary fence prior to AA15 (fence line with post holes) which was removed during the current project.</p>  <p style="text-align: center;"><b>Figure 10-127. Plan view of AA10.</b></p>




Context	Site	Designation and Description
AA11	E46/62	<p><b>Rectangular pit for services:</b> A rectangular pit 900mm x 650mm exposed in south baulk with vertical sides. Top observed 260mm below surface, under a layer of redeposited yellow clay similar to AA2 but less pebbles, to base of excavation (base still in-situ). Likely trench for services as indicated by shape and metal pipe, likely water pipe. Fill is mid brown loose clay soil with artefacts, wood and metal which were sampled to assist with chronology.</p>  <p>Figure 10-128 Profile view AA11 south baulk (left) and plan view looking north (right)</p>




Context	Site	Designation and Description
AA12	E46/62	<p><b>Timber floor/wall:</b> A 1200mm long area of timber boards 4inch wide, 1inch thick running east to west of maximum length 1800mm. Exposed just below the surface layer and above yellow natural substrate. Nails present in timber and removed for identification. Beam running north to south viewed under timber in the centre and at east edge of timber boards. Probably remains of a timber floor but could have been part of a wall pushed flat. Fragmented at northern edge probably due to construction of fence line (AA15). Appears equal to F36 where only beams were observed.</p>  <p style="text-align: center;">Figure 10-129. Plan view of AA2 looking north.</p>  <p style="text-align: center;">Figure 10-130. Close up of AA2 looking north.</p>









Context	Site	Designation and Description
AA13	E46/62	<p><b>Post hole:</b> Post hole of dark grey/ brown friable clay fill within Yellow silt loam substrate with wood observed at 160mm from surface under timber floor (AA12), 200x200mm square. Base of post hole at 600mm below surface. It forms a line with similar and other equal post holes AA4, AA6, AA7, AA8, AA10 and AA14 spaced approximately 2000mm apart and likely represents an older boundary fence prior to AA15 (fence line with post holes) which was removed during the current project.</p>  <p style="text-align: center;">Figure 10-131. Plan view of AA13.</p>
AA14	E46/62	<p><b>Post hole:</b> Post hole of dark grey/ brown friable clay fill with no wood observed within Yellow silt loam substrate 200x200mm square. Top not recorded due to when post hole observed and base of post hole at 600mm below surface. It forms a line with similar and other equal post holes AA4, AA6, AA7, AA8, AA10 and AA13 spaced approximately 2000mm apart and likely represents an older boundary fence prior to AA15 (fence line with post holes) which was removed during the current project.</p>  <p style="text-align: center;">Figure 10-132. Plan view of AA14.</p>
AREA AC		
AC1	E46/62	<b>Surface Layer:</b> Equal to S1
AC2	E46/62	<b>Deposit of Clay with Quartz Pebbles:</b> Similar to AA2



Context	Site	Designation and Description
AC3	E46/62	<p><b>Brown deposit with artefacts:</b> Equal to U3 but firmer here. Mid brown clay soil with inclusions of brick fragments, charcoal, wood, artefacts and decomposed bone sampled. Extends width of trench, only 10-30mm thick here, to drain (AC4) which cuts the deposit at its western aspect.</p> <div style="display: flex; justify-content: space-around;">  </div> <p style="text-align: center;">Figure 10-133. Appearance of AC3 in plan view (left) and profile in south baulk (right).</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Figure 10-134. AC3 in context of trench and drain (AC4).</p>
AC4	E46/62	<p><b>Trench with drain:</b> 400mm wide trench with ceramic drain pipe running approximately NW to SE. Age unknown but cuts through AC2 and AC3 and depth 350mm below surface. See Figure 10-134.</p>




Context	Site	Designation and Description
AC5	E46/62	<p><b>Trench with drain:</b> 350mm wide trench with ceramic drain pipe running approximately NW to SE. Age unknown but cuts through AC2 and AC3 and depth 250mm below surface.</p>  <p>Figure 10-135. Context plan view of AC5 (shown by yellow arrow) within AC2 and AC4 (shown by red arrow).</p>
AC6	E46/62	<p><b>Yellow silt loam substrate:</b> Equal to S5</p>
AC7	E46/62	<p><b>Trench with drain:</b> 400mm wide trench with ceramic drain pipe running approximately NW to SE. Age unknown but cuts through AC2 and extends to the base of excavation at 600mm deep below surface.</p>  <p>Figure 10-136. Context plan view of AC7 (shown by yellow arrow) within AC2 and beside AC8 (shown by red arrow) (left) and AC7 at base of excavation (right).</p>
AC8	E46/62	<p><b>Trench with drain:</b> 400mm wide trench with ceramic drain pipe running approximately NW to SE. Age unknown but cuts through AC2 and extends to 370mm below surface. See also Figure 10-136 AC7.</p>  <p>Figure 10-137. Plan view of AC8 (shown by yellow arrow).</p>

Context	Site	Designation and Description
AC9	E46/62	<p><b>Compact surface with wood:</b> An approximate 1m section of firm mid brown clay surface with heavily decomposed wood boards running east to west. Approximately 20mm thick, under AC2 which separated easily off the top of AC9 and over Yellow silt loam substrate. Cut to the western side by trench for drain (AC7). This possibly represents the remains of a floor surface and is similar in colour to AC3 and this interpretation may explain the origins of AC3 and associated deposits throughout this part of the site.</p>  <p>Figure 10-138. Plan view showing AC9 (indicated by brace) below AC2 (indicated by arrow) beside drain AC7 (circled) (left) and close up of AC9 (right).</p>
AC10	E46/62	<p><b>Charcoal and metal deposit:</b> dark black charcoal friable deposit with metal inclusions including nails (sampled) observed within trench and cut by drains AC7 and AC8. Deposit was 20mm thick, under AC2 and over Yellow silt loam substrate.</p>  <p>Figure 10-139. North baulk profile of AC10 (left) and plan context view of AC10 as indicated by arrow between drains (right).</p>
AC11	E46/62	<p><b>Post hole:</b> Square post hole 250x250mm observed 100mm below surface below surface layer to 300mm below surface. Fill was small water rounded pebbles (gravel). Age unknown, possibly modern.</p>  <p>Figure 10-140. Profile view of post hole indicated by yellow arrow.</p>

Context	Site	Designation and Description
AC12	E46/62	<p><b>Post holes with wood:</b> Three square post holes 250x250mm with round wooden posts. Noted on surface and extends 450mm below surface. Two posts near each other in trench, centres about 30cm apart. An additional post hole not excavated viewed on surface outside of excavated area.</p> <div>  </div> <p>Figure 10-141. Plan view of post hole A (left) and Profile view (right).</p> <div>  </div> <p>Figure 10-142. Context profile view of post holes A and B (left) and context of two post holes in relation to post hole outside of excavation area as indicated by arrows (right).</p>
AC13	E46/62	<p><b>Post hole, small:</b> possible post hole, circular feature 50mm thick with burnt wood and 100mm in diameter observed in Yellow silt loam substrate. Possibly related to AC14.</p> <div>  </div> <p>Figure 10-143. Context plan view of AC13 marked by arrow in relation to AC12.</p>



Context	Site	Designation and Description
AC14	E46/62	<p><b>Post hole, small:</b> possible post hole, circular feature 50mm thick with burnt wood and 100mm in diameter observed in Yellow silt loam substrate. Possible related to AC13.</p>  <p style="text-align: center;">Figure 10-144. Plan view of AC14.</p>
AC15	E46/62	<p><b>Circular deposit:</b> Circular feature with metal, pebbles and brick fragments. Observed beneath surface layer in Yellow silt loam substrate. Only 10mm thick. Age and origin unknown, likely small depression in clay and deposition of S2.</p>  <p style="text-align: center;">Figure 10-145. Plan view of AC15</p>
AC16	E46/62	<p><b>Trench with drain:</b> 400mm wide trench in NW corner of trench excavated with ceramic drain pipe running approximately SW to NE. Age unknown but cuts through AC2 and extends to 370mm below surface.</p>  <p style="text-align: center;">Figure 10-146. Plan view of AC16.</p>
<b>AREA AD</b>		
AD1	E46/62	Surface Layer: See S1

Context	Site	Designation and Description
AD2	E46/62	<p><b>Trench with drain:</b> Shallow 300mm wide drain with terracotta pipe running approximately East to West perpendicular to area trenched. Age unknown and there were no artefact inclusions within the grey friable clay fill. Observed immediately under surface layer 550mm below surface and top was probably disturbed during current project previously and immediately above another trench with drain AD3.</p>  <p style="text-align: center;">Figure 10-147. Plan view of AD2 as indicated by yellow arrow.</p>
AD3	E46/62	<p><b>Trench with drain:</b> 5000mm long section of a 400mm wide drain running at an angle across excavated area at a bearing of 330°. Filled with grey friable clay with oyster shell and terracotta pipe with 150mm diameter. Drains to south with depth of trench 1400mm deep at south end and 400mm deep at north end exposed. Observed under another trench with drain (AD2) at 700mm below surface at south end and lies over Yellow silt loam substrate. Northern end lies directly under surface layer.</p>  <p style="text-align: center;">Figure 10-148. Profile west baulk, northern end, of AD3 (left) and profile south baulk, southern end of AD3 (right).</p>
AD4	E46/62	<p><b>Yellow silt loam substrate:</b> See S5</p>
AD5	E46/62	<p><b>Dark brown deposit:</b> Equal to U6. A 2750mm length, 200mm thick deposit of this dark brown soil was recorded as extending throughout this section of trench excavated also.</p>




Context	Site	Designation and Description
AD6	E46/62	<p><b>Trench for modern drain:</b> 400mm area of loose, wet, grey sand filled trench. Below surface and base not reached below excavated area but appears cut into Yellow silt loam substrate. No inclusions and no pipes observed but likely not at depth. Likely associated with adjacent sand filled trenches for modern drain (T5 and U2) and interpreted as such.</p>  <p style="text-align: center;">Figure 10-149. Plan view of AD6.</p>
AD7	E46/62	<p><b>Deposit of Clay with Pebbles:</b> Equal to AA2 which is similar to S2, but no inclusions viewed here except for pebbles. Approximately 100mm thick here, under surface layer and continues throughout the northern 11000mm section of the drainage trench excavated capping AA8.</p>  <p style="text-align: center;">Figure 10-150. Typical profile view showing AD007 (yellow arrow) and AD008 (red arrow).</p>
AD8	E46/62	<p><b>Brown deposit with wood:</b> Equal to U3 and T2 (see also U6). Brown soil deposit observed throughout the northern 11000mm section of the drainage trench excavated capped by AA7 and 100-150mm thick. Contains heavily decomposed fragmentary wood like T2 and broken artefacts and shoes at top of deposit (the latter especially concentrated in southern most area) which were sampled. Base grades into Yellow silt loam substrate. See also Figure 10-150.</p>  <p style="text-align: center;">Figure 10-151. Plan view showing AD8 being exposed.</p>






Context	Site	Designation and Description
AD9	E46/62	<p><b>Brown deposit:</b> Similar to AD8 but no inclusions and not capped by a deposit of clay with pebbles (AD7) just under surface layer and over Yellow silt loam substrate. Observed in a 6m section of trench south of AD7. About 15cm thick.</p>  <p>Figure 10-152. Typical profile view showing AD9 (yellow arrow).</p>
AD10	E46/62	<p><b>Square wooden lined pit:</b> narrow square pit 600x600mm and 750mm thick. All four sides were lined with wooden vertical/upright boxing, boards 3.5in width and 2in thick. Base was flat and unlined. Wood and nails sampled. Filled with loose, wet, grey clay. No inclusions observed. Under surface layer and trench with drain (AD11) which cut across the top. Function unknown but possibly a latrine or cesspit/soak pit.</p>  <p>Figure 10-153. Plan view of AD010 showing wooden lining looking west (left) and profile view of remaining timber in west baulk showing trench with drain AD11 (right).</p>
AD11	E46/62	<p><b>Trench with ceramic drain:</b> 400mm wide, 200mm thick drain with terracotta pipe running east to west through trench and cutting through top of AD10. Filled with clay soil with brick fragments and quartz pebbles. See Figure 10-153.</p>
AD12	E46/62	<p><b>Post hole with decomposed wood:</b> 25cm diameter round post hole hollow cavity exposed with fragmented powdery wood at base. Exposed under AD7 at 250mm below surface and over Yellow silt loam substrate at 600mm below surface.</p>  <p>Figure 10-154. Profile showing attempted half section through cavity (left). Note wood at base. Plan view of cavity as exposed (right).</p>

Context	Site	Designation and Description
AD13	E46/62	<p><b>Post hole with decomposed wood:</b> Base of post hole exposed below dark brown deposit with artefacts (AD14) from 500mm to 600mm below surface. 250mm diameter and appears similar to post hole AD12.</p>  <p>Figure 10-155. Profile showing half section of AD13 facing south (left). Plan view of post hole AD13 as exposed (right).</p>
AD14	E46/62	<p><b>Dark brown soil with artefacts:</b> A 200mm thick rectangular shaped deposit of dark brown soil with artefacts and brick inclusions exposed beneath the surface layer and over post hole AD13. Artefacts sampled. Likely disturbed fill from post hole.</p>  <p>Figure 10-156. Plan view of AD14 in trench excavated.</p>
<b>AREA AL</b>		
AL1	E46/62	<p><b>Surface Layer:</b> See S1 and F1. Now removed and cleaned up here to add more greywacke shingle for surface to facilitate equipment access.</p>

Context	Site	Designation and Description
AL2	E46/62	<p><b>Deposit of clay with pebbles:</b> See also AD7, AA2 and S2 with sparse inclusions of ceramics, glass and metal viewed here. Approximately 50mm thick here, under surface layer and here it overlays the Yellow silt loam substrate and continues from the east end of the trench excavated for 1450mm. This point may represent the boundary between the two Town Sections.</p> <div> </div> <p>Figure 10-157. Profile view showing deposit of clay with pebbles AL2 (left) and part remaining in plan view (right).</p>
AL3	E46/62	<p><b>Yellow silt loam substrate:</b> see S5</p>
AL4	E46/62	<p><b>Trench for drain with pipe:</b> Trench for drain with broken clay pipe and brown clay soil friable fill running NW to SE across trench excavated. 200mm wide and 50mm thick cut through deposit of clay with pebbles AL2. Top of drain has been disturbed previously, probably during site clearance works.</p> <div> </div> <p>Figure 10-158. Plan view of trench for drain with pipe AL4.</p>
AL5	E46/62	<p><b>Trench for drain with pipe and bottle:</b> Trench for drain with terracotta pipe and brown compact clay fill 200mm wide and 200mm thick running NW to SE across trench excavated. A bottle with wire on the neck was bagged from inside the drain pipe. This drain is under the deposit of clay with pebbles AL2.</p> <div> </div> <p>Figure 10-159. Pipe with bottle (left) and profile view north baulk of trench for drain AL5 (right).</p>




Context	Site	Designation and Description
AL6	E46/62	<p><b>Post hole with wood:</b> 250mm diameter circular post hole with grey/brown clay fill with 150mm diameter circular post observed between 300mm and 500mm below surface. Same as AL7.</p>  <p>Figure 10-160. Plan view of post hole with wood AL6.</p>
AL7	E46/62	<p><b>Post hole with wood:</b> 250mm diameter circular post hole with grey/brown clay fill with 150mm diameter circular post observed between 300mm and 500mm below surface. Same as AL6.</p>  <p>Figure 10-161. Plan view of post hole with wood AL7.</p>
AL8	E46/62	<p><b>Very dark black charcoal deposit:</b> See E17 recorded on Todds section. A course black charcoal layer with a considerable amount of brick and rubble inclusions and some artefacts (sampled). Very compact. Below surface layer and above Yellow silt loam substrate in western 3500mm of trench excavated. This boundary may represent the Town Section boundary and this deposit is likely on Todd's section. Artefacts to be compared with those sampled from the well (AM4).</p>  <p>Figure 10-162. Plan view of AL8 being exposed (left) and profile view (right).</p>

Context	Site	Designation and Description
AL9	E46/62	<p><b>Trench for foundation with demolition rubble:</b> A trench 400mm wide running north to south and 200mm deep filled with demolition rubble. This cuts through AL8 and is probably from modern buildings removed during current project on Todd's site. Lies to west of boundary between AL8 very dark black charcoal deposit and AL2 deposit of clay with pebbles.</p>  <p style="text-align: center;">Figure 10-163. Plan view of AL9 trench for foundation with demolition rubble.</p>
<b>AREA AN</b>		
AN1	E46/62	<p><b>Surface Layer 2:</b> Addition of greywacke shingle for base course under foundations. See also S1 and F1 as surface has been cleaned.</p>
AN2	E46/62	<p><b>Deposit of clay with pebbles:</b> See also AD7, AA2, AL2 and S2 but no inclusions except pebbles viewed here. Approximately 10-100mm thick here, under surface layer and here it overlays the Yellow silt loam substrate and continues from the east end of the trench excavated for 1450mm. This point may represent the boundary between the two Town Sections.</p>  <p style="text-align: center;">Figure 10-164. Typical profile showing AN2 deposit of clay with pebbles, south baulk.</p>
AN3	E46/62	<p><b>Yellow silt loam substrate:</b> see S5</p>
AN4	E46/62	<p><b>Trench for drain with terracotta pipe:</b> Trench 300mm wide running north to south across trench excavated with concave base under drain pipe at 500mm below surface.</p>  <p style="text-align: center;">Figure 10-165. Profile view of trench with drain AN4, south baulk.</p>



Context	Site	Designation and Description
AN5	E46/62	<p><b>Rubbish pit:</b> A shallow rubbish pit with concave base exposed in south baulk. Likely a circular rubbish pit but part remains unexcavated and <i>in situ</i> in the south baulk. Rubbish pit composed of two main layers, a brown clay layer with brick fragments and pebbles 200mm thick above a concentrated brown clay soil filled with artefacts (retained for analysis) to the base of feature. Artefacts were highly broken and consisted mainly of ceramics and glass. The rubbish pit was unfortunately under the surface layer 2 and so due to site clean-up and disturbance during the current project its relationship with upper layers such as the deposit of clay with pebbles (AN3) is unknown.</p> <div>  </div> <p>Figure 10-166. Plan views of rubbish pit AN5 as exposed (left) after excavation (right).</p> <div>  </div> <p>Figure 10-167. Profile views of rubbish pit AN5 half sectioned facing west (left) and in south baulk (right).</p>
AN6	E46/62	<p><b>Very dark black charcoal deposit:</b> Equal to AL8 and see E17 recorded on Todds section. A course black charcoal layer with a considerable amount of brick and rubble inclusions and some artefacts (sampled elsewhere). Very compact. Below surface layer and above Yellow silt loam substrate in western 3500mm of trench excavated on west side of rubbish pit AN4. Here the layer was thin 50-100mm and patchy at the start. This boundary may represent the Town Section boundary and this deposit is likely on Todd's section</p>



Table F-3 Archaeological contexts by excavation area at site E46/59 William Todd & Co. Auctions at The Rialto



Context	Site	Designation and Description
<b>AREA B</b>		
B1	E46/59	<p><b>Concrete floor:</b> modern concrete slab floor of building across entire Area B</p>  <p>Figure 10-168. Removal of modern concrete slab foundations (B1) exposing sand deposit underneath (B2).</p>
B2	E46/59	<p><b>Sand deposit:</b> modern clean sand deposit forming base course under concrete floor (B1) across entire Area B. See Figure for B1.</p>
B3	E46/59	<p><b>Light yellow brown clay mixed with sand:</b> 300mm thick layer under the sand deposit (B2) and over brown soil with artefacts (B4). Probably modern. See Figure for B4.</p>
B4	E46/59	<p><b>Brown soil with artefacts:</b> 300mm thick deposit of brown friable clay soil with broken artefacts scattered throughout (sampled). Observed along western boundary of site during removal of modern foundation piles under B3 and over Yellow silt loam substrate (B5) (See Q002 and other associated contexts)</p>  <p>Figure 10-169. Profile along western boundary exposed during pile removal showing brown soil with artefacts (B4) (yellow arrow) below light yellow brown clay mixed with sand (B3) (red arrow).</p>
B5	E46/59	<p><b>Yellow silt loam substrate:</b> sterile natural clay across site</p>
B6	E46/59	<p><b>Asphalt footpath:</b> 35mm thick recent asphalt layer which was immediately in front (Don Street) of The Rialto building. Overlays other contexts visible following foundation removal at south (Don Street) end of building in southern baulk (see also context A1 for The Criterion site).</p>
B7	E46/59	<p><b>Aggregate base course for footpath:</b> 100mm thick layer under the asphalt foot path (B6). (See also context B7 for The Criterion Site).</p>




Context	Site	Designation and Description
B8	E46/59	<p><b>Brick rubble deposit:</b> 220mm thick deposit of clay with brick rubble observed under southern baulk along Don Street, extent unknown. One frog mark observed (see Figure 10-170). Possibly a modern demolition layer associated with the rebuilding phase of Todd's Auctions at The Rialto.</p>  <p>Figure 10-170. Image of frogged brick (left) and profile south baulk showing brick rubble deposit B8 (red arrow).</p>
B9	E46/59	<p><b>Modern concrete piles:</b> three rows running north to south of four large modern concrete piles which formed part of the steel framed building. 650mm below ground, 250mm above ground.</p>  <p>Figure 10-171. Concrete pile (B9) in-situ along western boundary of site (left) and concrete pile removed (right).</p>
B10	E46/59	<p><b>Concrete foundations of rear wall:</b> Pre-1900 foundations of The Rialto at the rear of the building. 400mm wide and 800mm deep. Composed of angular green argillite set in concrete.</p>  <p>Figure 10-172. Pre-1900 foundations of The Rialto to right of ranging pole.</p>
AREA E		





Context	Site	Designation and Description
E1	E46/59	<p><b>Stiff yellow cap:</b> This context covers the entirety of the sites therefore the perimeter is unmeasurable. There are some plastic features just beneath this suggesting this is a capping material placed here prior to construction.</p>  <p style="text-align: center;">Figure 10-173. The stiff yellow cap of E1 outlined in yellow.</p>
E2	E46/59	<p><b>Shingle aggregate:</b> Course shingle aggregate that appears to have been used to fill previous trenches.</p>  <p style="text-align: center;">Figure 10-174. The shingle aggregate to the northern area of E46/59.</p>


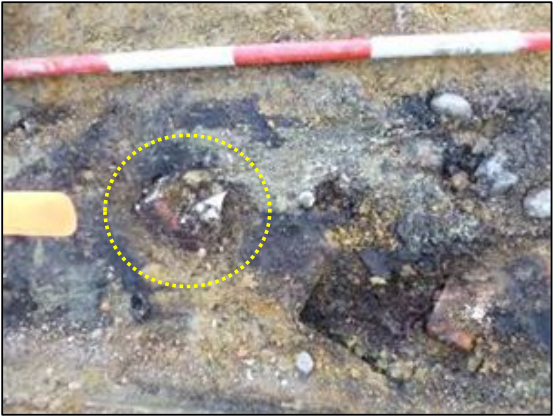
Context	Site	Designation and Description
E3	E46/59	<p><b>Mixed silty clay:</b> A continuous layer with charcoal, brick and other rubble inclusions. The boundary of this layer is not obvious, but appears at various intervals across E46/59. There is archaeological material present and these are aligned horizontally, suggesting that this context was, at one time, a surface. The artefacts present suggest that this context is pre-1900's.</p>  <p>Figure 10-175. Brown mixed silty clay with various inclusions and archaeology present.</p>
E4	E46/59	<p><b>Small post hole/pit:</b> Measuring 290mm wide by 220mm long, this circular feature contained a small concentration of archaeological material in a silty, friable sediment. Possibly the location of a small rubbish pit or pile.</p>  <p>Figure 10-176. The friable black sediment at E004 with the concentration of archaeological material left <i>in situ</i>.</p>
E5	E46/59	<p><b>Cut:</b> Likely for a service trench – a very stiff clay soil distinctive from other contexts. Inclusions of brick and charcoal are present and there is the presence of some archaeological material. These indicate that the context is pre-1900.</p>



Context	Site	Designation and Description
E6	E46/59	<p><b>Wooden feature:</b> Measuring 300mm wide by 400mm long this wooden feature is possibly the remains of a large wooden post or could be a tree root, there was some archaeological material near this feature, however the true age of it is indistinguishable.</p>  <p style="text-align: center;"><b>Figure 10-177. Wooden feature at C006, viewed facing south.</b></p>
E7	E46/59	<p><b>Concrete:</b> A 10200mm long and 300mm wide section of concrete later identified to be a ceramic drain set in concrete running north to south. This feature is equal to AT15.</p>
E8	E46/59	<p><b>In situ post and bottle:</b> Truncated rectangular wooden post hole with various archaeological material near – including an intact clear glass bottle. The post is 250mm long by 100mm wide and the depth of it is not definable. Possibly a fence post built pre-1900. The bottle was within context layer E3.</p>  <p style="text-align: center;"><b>Figure 10-178. The post hole at E8 with the glass bottle still <i>in situ</i>.</b></p>

Context	Site	Designation and Description
E9	E46/59	<p>Post: Wooden posthole near the west boundary of E46/59.</p>  <p>Figure 10-179. Post hole at E9 - the northern most posthole.</p>
E10	E46/59	<p>Post: Wooden posthole in close proximity to the west boundary of E46/59.</p>  <p>Figure 10-180. Post hole at E10 - one of the central post holes.</p>
E11	E46/59	<p>Post: Wooden posthole near the west boundary of E46/59.</p>  <p>Figure 10-181. Post hole at E011 - the southern central post hole</p>



Context	Site	Designation and Description
E12	E46/59	<p><b>Post:</b> Wooden posthole in close proximity to the west boundary of E46/59. E008, E009, E010, E011, and E011 are in straight alignment running north – south along the east boundary of the site. They are set apart approximately 130mm, a possibly represent a fence. There is a considerable amount of archaeological material against the fence suggesting that rubbish may have been disposed of in this location pre-1900.</p>  <p><b>Figure 10-182.</b> Post hole at E012 - the southernmost post hole</p>  <p><b>Figure 10-183.</b> The post holes arranged north to south along the eastern boundary of E46/59, viewed facing south</p>


Context	Site	Designation and Description
E013	E46/59	<p><b>Shingle filled post hole:</b> Circular shingle post hole located south and central to E46/59 – measuring 500mm in diameter, its age is not distinguishable.</p>  <p style="text-align: center;">Figure 10-184. Shingle post hole at E013 - viewed facing south.</p>
E014	E46/59	<p><b>Shingle filled post hole:</b> Shingle filled post hole in line and located north of E013, slightly larger in size with a diameter of 500mm. Some of the wooden beams is visible with the post hole (darker patch seen in Figure 10-185).</p>  <p style="text-align: center;">Figure 10-185. Post hole at E014, mostly filled with shingle but some wood remaining</p>


Context	Site	Designation and Description
E015	E46/59	<p><b>Wooden post (in situ):</b> Small circular wooden post hole in situ. Measuring 300mm in diameter this post hole is aligned with E013, and E014 and cuts the silty clay soils of context E003.</p>  <p style="text-align: center;"><b>Figure 10-186. Post hole with wooden beam in situ at E015</b></p>
E016	E46/59	<p><b>Small pit with artefacts:</b> Small, truncated, circular pit with ceramic material inclusions. The soil is an even distribution of silt and clay and is mid-brown in colour. Measuring 250mm long by 240mm wide, this small pit cuts the early asphalt of context E017 (see Figure 10-187).</p>  <p style="text-align: center;"><b>Figure 10-187. The small circular pit at E016 with ceramic material in situ (pit highlighted in yellow)</b></p>


Context	Site	Designation and Description
E017	E46/59	<p><b>Early asphalt:</b> A course very dark black gritty asphalt layer with a considerable amount of brick and rubble inclusions. Very compact, this layer encompasses a large percentage of the site at E45/59 and the adjacent sites. It is concealed by E003 and is cut by E016, and E018. Likely an early asphalt as a by-product from gasworks. See also AH002 and AI002.</p>  <p style="text-align: center;"><b>Figure 10-188. The course black layer at E017. Viewed facing south.</b></p>
E018	E46/59	<p><b>Yellow clay cut:</b> A very distinguishable yellow clay cut with clean boundaries. Aligned northwest – southeast, this cut is 400mm wide by 5500mm long, with some brick and fine rubble inclusions.</p>  <p style="text-align: center;"><b>Figure 10-189. The clean yellow clay cut running down the centre of the image. Viewed facing south.</b></p>







Context	Site	Designation and Description
E019	E46/59	<p><b>Concrete:</b> A 2600mm long and 300mm wide section of concrete running north to south. Based on its dimensions in comparison to other features such as E7 this is likely a ceramic drain laid in concrete.</p>  <p>Figure 10-190. The approximate location of the concrete foundations at F018</p>
<b>AREA AB</b>		Continuation of trench for trench line A (Area Q) as per construction plans and four adjacent holes for piles.
AB001	E46/59	<b>Surface Layer:</b> Equals Q001
AB002	E46/59	<p><b>Brown soil with artefacts:</b> Equals Q002. Varies in thickness, typically 100mm thick.</p>  <p>Figure 10-191 Typical profile at pile hole A7.5 looking north</p>
AB003	E46/59	<b>Yellow silt loam substrate:</b> Natural yellow clay with mottling.
<b>AREA Q</b>		Trench for line A – recorded 23/9/2016




Context	Site	Designation and Description
Q1	E46/59	<p><b>Surface Layer:</b> The surface deposit is disturbed throughout the site due to the demolition of buildings and structures and site clearance as part of this process. The deposit is generally a medium-brown sandy soil, likely originating as a base course under concrete slab foundations removed as part of this project, with some demolition rubble (fragments of brick, concrete, plastic etc.). This layer is 50mm thick at its maximum and over Q002 (Brown soil with artefacts) which is typical for this part of the site. Equal to Q001.</p>  <p>Figure 10-192 Typical profile in Area Q looking east showing deposit contexts.</p>
Q2	E46/59	<b>Brown soil with artefacts:</b> This deposit is a dark brown friable clay soil with broken artefacts. 60mm thick here.
Q3	E46/59	<b>Dark grey/black lens:</b> 30mm thick over Q2
<b>AREA Q</b>		Trench for line A (previously excavated and recorded) extended in four locations with four semi-circular holes dug on east side of trench for piles as per construction plans. These contexts would have already been recorded for Area Q and during removal of piles/foundations in this part of the site. Also includes an extension to the north for trench around small piles excavated on 14th and 15th November.
Q8	E46/59	<b>Yellow silt loam substrate:</b> Natural yellow clay with mottling.


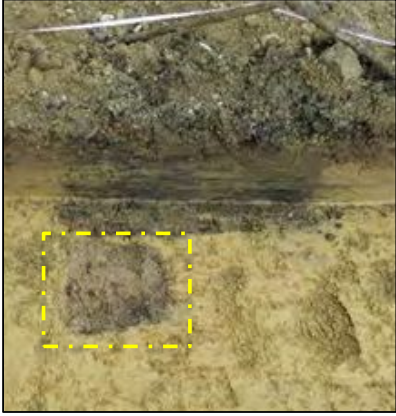

Context	Site	Designation and Description
Q004	E46/59	<p><b>Rubbish pit:</b> Rubbish pit 400x300mm long and wide exposed in east baulk. Composed of dark brown friable clay soil with artefacts. Base of feature at 550mm below surface remains in-situ and contains artefacts and bottles from below 400mm below surface which were sampled. Above this layer appeared to be a layer of brown clay with artefacts (similar or equal to Q002) and above this an ash dump layer at the top (Q005).</p>  <p>Figure 10-193 Plan of Q004 with artefacts in-situ (left) and at base of excavation (right)</p>  <p>Figure 10-194 Profile view east baulk, showing Q004 at base, with layers above (left) and Profile view north baulk in Area AM with feature Q004 on corner and ash dump layer (Q005) extending east (right)</p>
Q005	E46/59	<p><b>Ash dump:</b> A 50mm thick layer of charcoal and ash dump. Located under the surface layer above rubbish pit feature Q004 but with a clay layer (similar and equal to Q002) above and below. Extends for length about 2000mm as viewed in trench for Area AM (see Figure 10-221 for Area AM).</p>  <p>Figure 10-195 Plan view of Q005 (left) and half sectioned looking north (right)</p>

Context	Site	Designation and Description
Q006	E46/59	<p><b>Small rubbish pit:</b> Circular feature not well defined, 200mm diameter, of dark brown friable clay soil with charcoal, metal, wood and bone about 50mm thick observed between 400mm below surface. Artefacts sampled from feature during excavation. Scatter of artefacts from feature to north in layer Q002 may indicate disturbance in past from this feature.</p>  <p>Figure 10-196 Plan view of Q005 (left) and half sectioned looking north (right)</p>
Q007	E46/59	<p><b>Small shallow pit, modern:</b> Observed at 200mm below surface and 100mm thick, fill is dark brown clay with metal, oyster shell and tin foil (not sampled). Modern feature.</p>  <p>Figure 10-197 Plan view of small shallow pit (Q007)</p>
AREA AF		Hole for lift shaft. Not monitored
AF001	E46/59	<b>Surface Layer:</b> Equals Q001



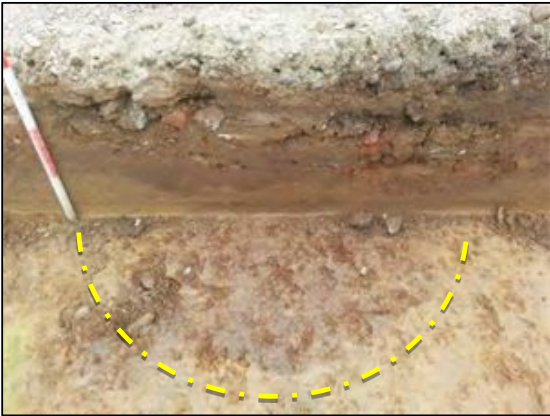
Context	Site	Designation and Description
AF002	E46/59	<p><b>Brown soil:</b> Equals Q002 but no artefacts observed here in profile. Varies in thickness, typically 100mm thick.</p>  <p>Figure 10-198 Typical profile west baulk of excavated area</p>
AF003	E46/59	<p><b>Yellow silt loam substrate:</b> Natural yellow clay with mottling. Equals Q003 and S005 observed in site E46/62.</p>
AREA AG		<p>Two holes for piles not monitored. AG-A in trench line B (Area AJ).</p>
AF001	E46/59	<p><b>Surface Layer:</b> Equals Q001</p>
AF002	E46/59	<p><b>Dark brown/black soil:</b> Likely equals Q002 but no artefacts observed here in profile. Varies in thickness, typically 100mm thick. In AG-B appears to be mixed and above pale yellow clay deposit with shingle. Compare with E0017</p>  <p>Figure 10-199 Typical profile west baulk of excavated area AG-A (left) and south baulk AG-B (right)</p>
AF003	E46/59	<p><b>Yellow silt loam substrate:</b> Natural yellow clay with mottling. Equals Q003 and S005 observed in site E46/62.</p>
AREA AH		<p>Trench line 5</p>



Context	Site	Designation and Description
AH001	E46/59	<p><b>Surface Layer 2:</b> Layer of gravel shingle being added to site intermittently during current project to provide a working surface and for base course for new foundation concrete slab. In this trench it was 100mm thick in the eastern end to trench line B (Area AJ) and then on the western side of trench line B (Area AJ) 500mm had been added for a base course under foundations.</p>  <p><b>Figure 10-200</b> View of Area AH trench marked with blue paint prior to excavation, looking west. Note surface layer in foreground is typical of shingle brought in during weekly site clean ups to create a working surface and shingle in background has been built up for new foundations</p>
AH002	E46/59	<p><b>Black grit:</b> 100mm thick layer of very dark black stained clay soil with greywacke gravel pebbles and very angular rock pebbles, likely an early asphalt. Under Surface Layer and equal to AI002. See also E017.</p>  <p><b>Figure 10-201</b> Typical profile showing AH002 beneath surface layer, north baulk (left) and AH002 as exposed during scraping (right)</p>
AH003	E46/59	<p><b>Brown soil with artefacts:</b> Equals AB002 and AI003. Not well defined in this part of the site, has probably been disturbed by the layer above (AH002). Layer is only 10-20mm thick and only observable by sparse broken artefacts and broken bricks lying flat and pressed into the clay just under AH002. Base of layer is not well defined as the clay in this layer grades into the Yellow silt loam substrate beneath. Some artefacts were sampled from this layer.</p>
AH004	E46/59	<p><b>Yellow silt loam substrate</b></p>




Context	Site	Designation and Description
AH005	E46/59	<p><b>Post hole with wood:</b> Square post hole 250x250mm with wooden square post remaining in centre. 250mm depth observed within Yellow silt loam substrate to a depth of 500mm below surface.</p>  <p>Figure 10-202 Plan view of post hole AH005 as exposed</p>
AH006	E46/59	<p><b>Trench for drain with pipe:</b> A length of drain in the southeast corner of the excavated area, under AH002 and equals AC016 (recorded in trench for line 5 on Criterion Hotel site).</p>  <p>Figure 10-203 Plan view of AH006 trench for drain with pipe.</p>
AH007	E46/59	<p><b>Post hole with wood:</b> Square post hole (200x200mm) with square post (100x100mm) on northern baulk 350mm depth observed to base of excavation at 600mm below surface.</p>  <p>Figure 10-204 Plan view of post hole with wood AH007</p>



Context	Site	Designation and Description
AH008	E46/59	<p><b>Service trench, modern:</b> Part of a trench or rectangular pit in south baulk with modern 30mm diameter metal pipe, likely for water below surface layer. Similar feature to AA011 on Criterion Hotel site.</p>  <p>Figure 10-205 Oblique view showing AH008 in plan and profile, facing south.</p>
AH009	E46/59	<p><b>Possible post hole:</b> Possible square post hole 400x400mm, grey clay fill, no post remains. May be associated with modern service trench AH008.</p>  <p>Figure 10-206 Oblique view showing AH009 possible post hole at base of excavation</p>
AH010	E46/59	<p><b>Trench for drain with concrete cap:</b> 1400mm long section of trench for drain 400mm wide crosses trench for excavated area. Equal to AI006. Trench for drain lies under AH002. Equal to AI006.</p>  <p>Figure 10-207 Plan view of AH010 showing just above the concrete cap</p>
AREA AI		Trench line 6
AI001	E46/59	Surface Layer 2: Equal to AH001.


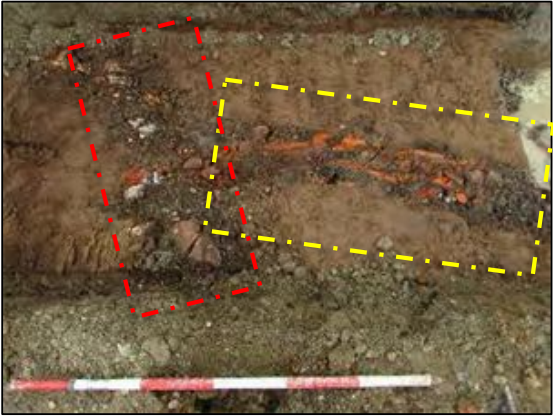



Context	Site	Designation and Description
AI002	E46/59	<p><b>Black grit:</b> 50-150mm thick layer of very dark black stained clay soil with greywacke gravel pebbles and very angular rock pebbles, likely an early asphalt. Thickens from east to west along trench excavated. Under Surface Layer and equal to AH002. See also E017.</p>  <p>Figure 10-208 Profile view showing black layer AI002</p>
AI003	E46/59	<p><b>Brown soil with artefacts:</b> Equals AB002 and AH003. Not well defined in this part of the site, has probably been disturbed by the layer above (AH002). Layer is approximately 300mm thick in this part of the site and observable here by sparse broken artefacts, bone, nails, broken bricks and wood lying flat and pressed into the clay just under AH002. Base of layer is not well defined as the clay in this layer grades into the Yellow silt loam substrate beneath. Some artefacts were sampled from this layer.</p>  <p>Figure 10-209 Close up profile view showing layer with artefact scatter AI003</p>
AI004	E46/59	<p><b>Yellow silt loam substrate</b></p>
AI005	E46/59	<p><b>Brown soil feature:</b> Compact brown clay soil with artefacts and broken brick extending below AI003. The boundary between these two layers is not well defined and AI005 may simply be a deeper depression of layer AI003. Forms a brown semi-circular shape in the south baulk at base of excavation.</p>  <p>Figure 10-210 Oblique view showing AI005 in plan and profile</p>

Context	Site	Designation and Description
AI006	E46/59	<p><b>Trench for drain with concrete cap:</b> 1400mm long section of trench for drain 400mm wide crosses trench for excavated area. Equal to AH010. Age unknown but trench for drain lies under AI002. Base of trench not reached at base of excavation where drain width was 300mm, although drain pipe removed. Fill around and above concrete cap is heavily charcoal stained black/brown mottled clay. Metal objects were found above concrete cap in fill and have been sampled. Concrete cap has a fine pebble and shell aggregate.</p>  <p style="text-align: center;"><b>Figure 10-211</b>Plan view of trench for drain</p>  <p style="text-align: center;"><b>Figure 10-212</b>South profile of drain. Note concrete capping over drain pipe marked by arrow.</p>
AREA AJ		Trench line B

Context	Site	Designation and Description
AJ001	E46/59	<p><b>Surface Layer 2:</b>Equal to AH001.</p>  <p>Figure 10-213 Typical profile on western baulk of Area AJ showing surface layer of shingle added to site for new site redevelopment.</p>
AJ002	E46/59	<p><b>Early asphalt:</b>Layer of veryblack charcoal stained clay soil with greywacke gravel pebbles and very angular rock pebbles, possibly an early asphalt. Only 10-20mm thick in Area AJ and pockets where not visible. However, there was a 200mm thick area on southeast end of trench adjacent to bricks which may indicate this was an external area. Under Surface Layer and equal to AH002 and AI002 and patches were over the bricks (AJ003).</p>  <p>Figure 10-214 Plan view showing black charcoal stained soil (AJ002) adjacent and to the east of brick feature (AJ003)</p>  <p>Figure 10-215 Profile view, north baulk, showing thickness of AJ002 east of the brick feature (left) and profile view showing AJ002 in east baulk.</p>

Context	Site	Designation and Description
AJ003	E46/59	<b>Brick feature:</b> Damaged remains of a single course of double bricks. May be remains of foundations, potentially modern. Was under AJ002. See Figures above for AJ002.
AJ004	E46/59	<b>Brown soil with artefacts:</b> Equals AB002, AH003 and AI003. Not well defined in this part of the site, has probably been disturbed by the layer above (AH002). Layer is approximately 10mm thick in this part of the site and observable here by sparse broken artefacts pressed into the clay just under AH002. Base of layer is not well defined as the clay in this layer grades into the Yellow silt loam substrate beneath.
AJ005	E46/59	<b>Yellow silt loam substrate</b>
<b>AREA AK</b>		
AK001	E46/59	<b>Surface Layer:</b> See S001 and F001. Now removed and cleaned up here to add more greywacke shingle for surface to facilitate equipment access.
AK002	E46/59	<p><b>Medium grey shingle:</b> A short 50mm thick layer of medium grey greywacke shingle with some charcoal and clay extending for one metre for the third metre of the trench excavated at the east end. Likely a modern layer from piling activities and spoil.</p>  <p style="text-align: center;">Figure 10-216 Profile view of medium grey shingle AK002, north baulk (right)</p>
AK003	E46/59	<p><b>Dark brown charcoal deposit:</b> Patchy, dark brown charcoal rich clay soil with broken brick and glass fragments. Varies in thickness 50-150mm thick. Located only at eastern two metres of trench excavated. Under surface layer and over Yellow silt loam substrate.</p>  <p style="text-align: center;">Figure 10-217 Plan view of dark brown charcoal deposit as exposed (left) and in profile, north baulk (right)</p>
AK004	E46/59	<b>Yellow silt loam substrate:</b> see S005




Context	Site	Designation and Description
AK005	E46/59	<p><b>Trench for drain:</b> 250mm wide trench for drain 150mm thick running NE to SW through trench excavated. No pipe visible only fragmented terracotta pipe within dark brown clay fill with shingle and charcoal inclusions. Intersects with trench for drain AK006. Top of drain has been disturbed previously, probably during site clearance works.</p>  <p style="text-align: center;">Figure 10-218 Profile view of trench for drain AK005 (left) and plan view as exposed (right)</p>
AK006	E46/59	<p><b>Trench for drain:</b> 300mm wide trench for drain 250mm thick running almost east to west through trench excavated. Fragmented and already broken terracotta pipe present within dark brown clay fill with shingle and charcoal inclusions. Intersects with trench for drains AK005 and AK007. Top of drain has been disturbed previously, probably during site clearance works.</p>  <p style="text-align: center;">Figure 10-219 Plan view of trenches for drains AK006 (yellow) and AK007 (red) as exposed</p>
AK007	E46/59	<p><b>Trench for drain:</b> 300mm wide trench for drain 250mm thick running almost north to south through trench excavated. Fragmented and already broken terracotta pipe present within dark brown clay fill with shingle and charcoal inclusions. Intersects with trench for drain AK006. Top of drain has been disturbed previously, probably during site clearance works. See Figure for AK006.</p>
AK008	E46/59	<p><b>Brown deposit:</b> Like AD008 and AD009, dark brown clay with artefacts pressed into Yellow silt loam substrate at base. Not well defined, maximum 100mm thick with pockets of yellow clay (possible remains of AD007 deposit of clay with pebbles). Just under surface layer and over Yellow silt loam substrate. Observed in several meters of the trench excavated 1500mm from the east end. Artefacts were sampled for comparison.</p>  <p style="text-align: center;">Figure 10-220 Plan view of artefacts pressed into clay at base of AK008 (left) and profile (right)</p>




Context	Site	Designation and Description
AREA AM		Trench for Line 4.
AM001	E46/59	<b>Surface Layer 2:</b> Equals AH001. 50-200mm thick in this area.
AM002	E46/59	<p><b>Black grit:</b> Observed above a well (AM004) and rubbish feature (AM003) for about 2000mm along trench excavated, possibly an early asphalt. Layer approximately 50mm thick, below surface and has an uneven base and thickness. Probably relates to contents of well (AM004) being redistributed or creation of black asphalt (AM005 and AM010). Equal to AH002, AJ002 and AI002.</p>  <p>Figure 10-221 Plan view of AM002 uneven black charcoal layer being exposed above well</p>
AM003	E46/59	<p><b>Rubbish feature:</b> Observed 25cm below ground surface below AM002. Related to the well (AM004) being disturbed, Artefacts sampled for analysis and comparison with the well contents.</p>  <p>Figure 10-222 Profile view of rubbish feature AM003 east baulk (left) and half sectioned in north baulk (right)</p>



<p><b>AM004</b></p>	<p>E46/59</p>	<p><b>Well:</b> Square shaped well 1000x1000mm with tapering sides, excavated to water table at 3200mm deep. Well was capped by an asphalt layer (AM005) which had redeposited yellow clay soil around it. Remains of timber lining with vertical and horizontal boards visible in top 1500mm. Artefacts were sampled by hand from the top 1500mm and after that, due to safety of entering well during half sectioning and excavation due to collapse, by sampling from digger buckets. No artefacts were present in the bottom 500mm of excavation. Artefacts include mostly ceramics and bottles with some leather (shoes) and metal.</p> <div> </div> <p>Figure 10-223 Plan view of well with asphalt cap (AM005) (left) and after cap removal (right) both facing north</p> <div> </div> <p>Figure 10-224 Profile view of well AM004 top sections. Note remains of vertical timber lining.</p>
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Context	Site	Designation and Description
		<div> </div> <p style="text-align: center;">Figure 10-225 Profile view of well AM004 as excavated, west baulk.</p>
AM005	E46/59	<p><b>Asphalt cap above well:</b> Rectangular cap with semi-circular profile capping well. Distinctly different composition to the ‘early asphalt recorded elsewhere on this site.</p>
AM006	E46/59	<p><b>Redeposited yellow clay soil:</b> above well and under and around asphalt cap AM002. Layers AM005 and AM006 show that the top portions of the well were disturbed and likely truncated in the past. It is possible that artefacts spread across this part of the site may have been distributed from the well.</p>
AM007	E46/59	<p><b>Ash dump:</b> Equal to Q005. Extends 1800mm into Area AM, along north baulk.</p>






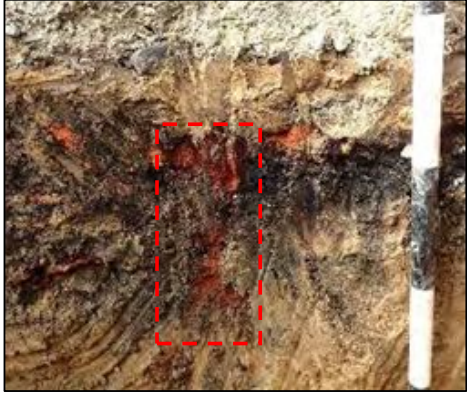


Context	Site	Designation and Description
AM008	E46/59	<p><b>Brown soil with artefacts:</b> Equals AB002, AH003, AJ004 and AI003. Layer thickness ranges from maximums of 100-200mm in west of area excavated to approximately 10mm at east end of trench excavated under a black asphalt layer (AM010) which has truncated the layer in the past. Artefacts were sampled for comparison.</p>  <p>Figure 10-226 Typical profile of west end of trench showing brown soil with artefacts and brick (AM008)</p>  <p>Figure 10-227 Typical profile near well showing thin layer of brown soil with artefacts below surface layer (AM008)</p>
AM009	E46/59	<p><b>Trench for drain with concrete cap:</b> Equal to AH010 and AI006.</p>  <p>Figure 10-228 Plan view of drain AM009 showing concrete cap (left) and profile view north baulk (right)</p>





Context	Site	Designation and Description
AM010	E46/59	<p><b>Black gritty layer:</b> A 250mm thick black asphalt layer extends across the east 4700mm end of the excavation area. It lies under the surface layer and over AM008. Modern.</p>  <p>Figure 10-229 Plan view of asphalt layer AM010 as exposed (left) and profile north baulk (right)</p>
AM011	E46/59	<p><b>Posthole:</b> a small circular depression observed extending into Yellow silt loam substrate beneath the asphalt layer with 250mm diameter. Likely modern and associated with formation of black asphalt layer AM010.</p>  <p>Figure 10-230 Plan view of possible post hole AM011</p>
AM012	E46/59	<p><b>Posthole:</b> a small depression observed extending into Yellow silt loam substrate beneath the asphalt layer with 250mm diameter. Likely modern and associated with formation of black asphalt layer AM010.</p>  <p>Figure 10-231 Plan view of possible post hole AM012</p>
AREA AO		Trench for foundations on west wall of building running north to south across site.
AO001	E46/59	<b>Surface Layer 2:</b> Addition of greywacke shingle for base course under foundations. See also S001 and F001 as surface has been cleaned.




Context	Site	Designation and Description
A0002	E46/59	<p><b>Deposit of yellow clay:</b> Top 50-100mm of a clay layer observed in two places along this trench line. Some demolition building rubble and asphalt present in part. Likely a twentieth century deposit with disturbance from current project. Equal to other contexts below the surface layers exposed in different parts of site.</p> <div style="display: flex; justify-content: space-around;">  </div> <p style="text-align: center;">Figure 10-232 Typical plan view of Area AO (left) and profile view (right)</p>
AREA AT		<p>Test Pits 1 and 2 excavated to assess site levels and ground for carpark, Test Pit 3 excavated by Arnott Drainage to find the end of the previously excavation service trench for power (AREA AN) to continue. Other contexts recorded in service trench for power. All at rear (north) end of new building developed.</p>
AT001	E46/59	<p><b>Surface Layer 2:</b> modern recently added surface layer of greywacke shingle for current project. Thickness varies across the site. Approximately 260-280mm thick on Test Pit 1, 50-70mm in Test Pit 2 and 300mm in service trench for power. Over AT002 in Test Pits 1 and 2, AT003-5 in Test Pit 3 and AT006 in trench for power.</p>
AT002	E46/59	<p><b>Yellow/brown clay deposit with inclusions:</b> mottled yellow clay soil deposit with brick and timber fragments, approximately 20mm thick and recorded beneath AT001 in Test Pits 1 and 2 to base of excavation. Possibly modern.</p> <div style="text-align: center;">  </div> <p style="text-align: center;">Figure 10-233 Photograph of Test Pit 2, Area AT, looking north showing AT001 and AT002 at base of excavation</p>

Context	Site	Designation and Description
AT003	E46/59	<p><b>Black gritty silt deposit:</b> See E017 and equal to AL008 (recorded on Criterion section). A course black gritty silt layer probably an early asphalt layer but no inclusions or artefacts observed here. Very compact. Observed below surface layer (AT001) and over AT002 in Test Pit 3 between AT004 to the east and AT005 to the west.</p>  <p>Figure 10-234 AT003, very dark black charcoal deposit being exposed in Test Pit 3, facing east</p>
AT004	E46/59	<p><b>Recent trench for new foundations:</b> the end of the shingle filled trench excavated for Line 3 (Area AL) for the current development project was encountered in the east portion of Test Pit 3 under the surface layer (AT001).</p>
AT005	E46/59	<p><b>Recent trench for services:</b> the end of the shingle filled trench for power (Area AN) for the current development was encountered in the west portion of Test Pit 3 under the surface layer (AT001).</p>
AT006	E46/59	<p><b>Brown clay deposit with inclusions:</b> Brown clay soil deposit with inclusions of brick, timber, ceramic and glass. Observed in trench for power services under surface layer (AT001) and over AT009, approximately 150mm thick. Artefact samples taken for analysis. Equals AR60 and probably AB002, AH003, AJ004, AI003, AM008.</p>  <p>Figure 10-235 Photograph of Context AT006 being exposed in Area AT, power trench, looking west (left) and in profile, looking east (right)</p>



Context	Site	Designation and Description
AT007	E46/59	<p><b>Posthole:</b> 400x400mm pile hole observed in trench excavated for power services, filled with brown friable fill with brick and timber inclusions. Cuts through both AT006 and 9, 60mm thick observed. Likely modern.</p>  <p style="text-align: center;">Figure 10-236 Plan view of pile hole (AT007), facing west</p>
AT008	E46/59	<p><b>Post hole with timber post:</b> small 150x150mm post hole, 300mm thick with timber post observed in trench excavated for power services. Cuts through both AT006 and 9. Equal to post hole AT011.</p>  <p style="text-align: center;">Figure 10-237 Plan view of post hole with timber (AT008) as exposed, looking west</p>
AT009	E46/59	<p><b>Yellow clay deposit with sparse inclusions:</b> mottled yellow clay deposit with sparse inclusions of brick. Observed under AT006 and over AT010 in trench for power, about 150mm thick. Boundaries not well defined and it appears one grades into the other. Equals AR65 but probably equals AT006/AR60 also.</p>
AT010	E46/59	<p><b>Yellow silt loam:</b> Layer of yellow silt loam identified below AT003. Possibly natural.</p>
AT011	E46/59	<p><b>Post hole with timber post:</b> small 150x150mm post hole, 300mm thick with timber post observed in trench excavated for power services. Cuts through both AT006 and 9.</p>  <p style="text-align: center;">Figure 10-238. AT011</p>

Context	Site	Designation and Description
AT012	E46/59	<p><b>Post:</b> A wooden post identified in the baulk of the pit excavated for the installation of a new sump in Area AT. The post is 150mm in length and 400mm thick. It was identified 300mm below the surface below AT2 and cutting AT3 and AT17.</p> 
AT013	E46/59	<p><b>Ceramic drainpipe:</b> A crushed ceramic drainpipe identified 600mm below the surface cutting through AT017. The pipe runs north-west to south-east.</p>  <p style="text-align: center;">Figure 10-239. AT013</p>
AT014	E46/59	<p><b>Ceramic drainpipe:</b> A ceramic drainpipe identified 550mm below the surface cutting through AT003 and AT017. The pipe runs north to south.</p>  <p style="text-align: center;">Figure 10-240. AT014</p>

Context	Site	Designation and Description
AT015	E46/59	<p><b>Ceramic drainpipe</b> A ceramic drainpipe set in concrete identified 300mm below the surface cutting through AT003 and AT017. Equal to AT14, AT015 was identified 5500mm north of AT14 in same alignment.</p>  <p style="text-align: center;">Figure 10-241. AT015</p>
AT016	E46/59	<p><b>Posthole:</b> A square wooden post identified 300mm below the surface under AT3 and cutting AT17. The post measures 250mm by 250mm.</p>  <p style="text-align: center;">Figure 10-242. AT016</p>
AT017	E46/59	<p><b>Yellow silt loam:</b> Layer of yellow silt loam identified 400mm below the surface under AT3. The layer continues to the base of the excavation area which is a max of 1100mm deep.</p>
AT018	E46/59	<p><b>Posthole:</b> A circular posthole 400mm in diameter identified in layer AT17 400mm below the surface.</p>  <p style="text-align: center;">Figure 10-243. AT018</p>
AT019	E46/59	<p><b>Posthole:</b> A circular posthole 400mm in diameter identified in layer AT17 400mm below the surface.</p>  <p style="text-align: center;">Figure 10-244. AT019</p>

Context	Site	Designation and Description
AT020	E46/59	<p><b>Posthole:</b> A circular posthole 400mm in diameter identified in layer AT17 400mm below the surface.</p>  <p style="text-align: center;">Figure 10-245. AT020</p>
AT021	E46/59	<p><b>Ceramic drainpipe:</b> A ceramic drainpipe laid in concrete running east to west. Connects to AT015.</p>  <p style="text-align: center;">Figure 10-246. AT021</p>
AT022	E46/59	<p><b>Brick rubble deposit:</b> Concentration of brick rubble 100mm thick identified 200mm below the surface under AT2 and over AT6. The deposit measures 4100 in length and 1900mm in width. The deposit appears to extend further west beyond the excavation area.</p>  <p style="text-align: center;">Figure 10-247. AT022 in western baulk of Area AT</p>
AREA AU		Trench at southern end of site for storm water drainage.



Context	Site	Designation and Description
AU001	E46/59	<p><b>Sand fill:</b> Modern sand imported to site to fill new drainage trench. Cuts AU002 and AU004 to base of excavation area.</p>  <p style="text-align: center;"><b>Figure 10-248. AU001</b></p>
AU002	E46/59	<p><b>Modern Gravel:</b> Surface layer of gravel imported to site during works, c.100 to 150mm thick.</p>
AU003	E46/59	<p><b>Pea gravel fill:</b> Modern pea gravel imported to site to fill new power mains trench. Cuts AU002 and AU004 to base of excavation area.</p>  <p style="text-align: center;"><b>Figure 10-249. AU003 outlined in red.</b></p>
AU004	E46/59	<p><b>Demolition rubble:</b> Layer of demolition rubble mixed with yellow silt and sand identified below AU002. 200mm thick over AU005 and AU008.</p>







Context	Site	Designation and Description
AU005	E46/59	<p><b>Gritty black layer:</b> Layer of dark black gritty silt identified below AU004 300mm below the surface. 50 to 200mm thick.</p>  <p style="text-align: center;">Figure 10-250. AU005</p>
AU006	E46/59	<p><b>Ceramic drain pipes:</b> Two 100mm diameter ceramic drainpipes running adjacent to each other north-east to south-west through AU008. Identified 400mm below the surface.</p>  <p style="text-align: center;">Figure 10-251. AU006 in AU008 below AU004.</p>
AU007	E46/59	<p><b>Gravel fill:</b> Modern gravel imported to site to fill trench for new building foundations. C.500mm thick and cuts AU002 and AU004.</p>
AU008	E46/59	<p><b>Yellow silt loam:</b> Layer of yellow silt loam identified 300mm below the surface under AU004 and AU005. The layer continues to the base of the excavation which is 1500mm below the surface at its deepest.</p>



Table F-4 Archaeological contexts by excavation area at site E46/61 Section 4

Context	Site	Designation and Description
Area AQ		Foundation removal of modern Citizens Advice Bureau Building (CAB, Building 6). Stratigraphy recorded in three locations.

Context	Site	Designation and Description
AQ001	E46/61	<p><b>Surface Layer: modern concrete slab:</b> Parts of modern concrete slab from modern CAB building still observed onsite. Approximately 100-120mm thick and over AQ002.</p>  <p>Figure 10-252 Perimeter foundations (AQ003) removed to left and modern concrete slab (AQ001) to right over shingle (AQ002), facing north</p>
AQ002	E46/61	<p><b>Modern shingle deposit:</b> modern basecourse layer under AQ001 and abutting AQ003, approximately 100-150mm thick.</p>
AQ003	E46/61	<p><b>Modern perimeter foundations of CAB building:</b> concrete perimeter foundation removed. Approximately 450mm depth, 16m long east and west sides of building and 6.2-5.3m long north and south sides of building. When foundations were removed this resulted in approximately 700mm wide area cleared around building perimeter.</p>  <p>Figure 10-253 Removal of foundations (AQ003) left, facing north and close up of foundations once removed (right)</p>

Context	Site	Designation and Description
AQ004	E46/61	<p><b>Brown sandy deposit with pebbles:</b> surface layer recorded in 'Section A' west baulk on west perimeter of CAB building at south end, along with contexts AQ005-AQ008 (Figure 10-254). Friable deposit, approximately 70mm thick, over AQ005. Probably modern.</p> <div> </div> <p style="text-align: center;">Figure 10-254 Photograph of Section A, Area AQ, looking west</p>
AQ005	E46/61	<p><b>Grey clay and shingle deposit with pebbles:</b> Recorded in 'Section A' (Figure 10-254). Friable deposit under AQ004 and over AQ006, more compact than AQ004 and approximately 75mm thick. Probably modern.</p>
AQ006	E46/61	<p><b>Orange clay deposit with pebbles:</b> Recorded in 'Section A' (Figure 10-254). Thin compact deposit under AQ005 and over AQ007, and approximately 40mm thick. Possibly modern.</p>
AQ007	E46/61	<p><b>Black asphalt deposit:</b> Recorded in 'Section A' (Figure 10-254). An early asphalt layer with water rolled pebble inclusions, at maximum 170mm thick, under AQ006 and over AQ008. Age unknown.</p>
AQ008	E46/61	<p><b>Yellow silt loam deposit with inclusions:</b> Recorded in 'Section A' (Figure 10-254). Mottled clay with inclusions of broken and fragmented brick and or tiles in top aspect, observed under AQ007 to base of excavation. Similar to AQ012. Age unknown.</p>
AQ009	E46/61	<p><b>Earlier floor surface:</b> remains of a previous buildings floor were observed in immediately under and attached to the modern foundations (AQ003) in the north end of the CAB building perimeter foundations on the west side, 1.3m from the Spey Street footpath. The floor comprised blue tiles lain over concrete with rebar and was 600mm thick (tiles 100mm and concrete 500mm) under AQ003 and over AQ008. It was not observed insitu as was removed with modern foundations (AQ003) which appeared to be poured directly on top of this earlier floor with parts of tile, brick and concrete adhered to AQ003. Floor measured 1000mm x 300mm. Tile was sampled for identification.</p> <div> </div> <p style="text-align: center;">Figure 10-255 View of floor surface once removed and attached to modern foundations AQ003, profile view left and plan view right</p>

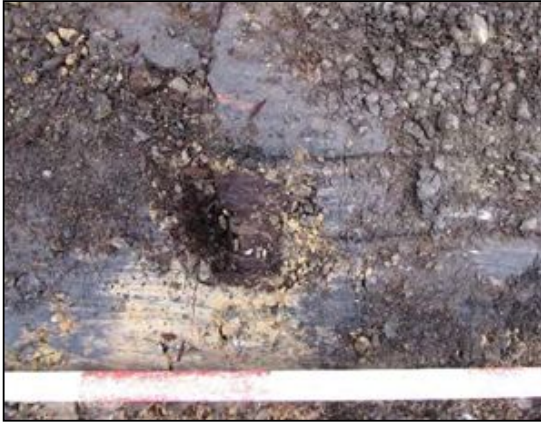
Context	Site	Designation and Description
AQ010	E46/61	<p><b>Blue/grey sandy deposit with shingle:</b> deposit recorded in 'Section B' east baulk on west perimeter of CAB building, in middle, along with contexts AQ011-AQ015 (Figure 10-256). Friable deposit, approximately 100mm thick, under AQ002 and over AQ011. Probably modern.</p>  <p>Figure 10-256 Photograph of Section B, Area AQ, looking east, with AQ015 shown by red dashed outline</p>
AQ011	E46/61	<p><b>Sand deposit:</b> Recorded in 'Section B' (Figure 10-256). Light sandy loose deposit with no inclusions, approximately 30mm thick, observed under AQ010 and over AQ012 and AQ013. Probably modern.</p>
AQ012	E46/61	<p><b>Brown clay deposit with inclusions:</b> Recorded in 'Section B' (Figure 10-256). Inclusions of loose pebbles and fragmented brick, similar to AQ008. Approximately 80mm thick under AQ011 and over AQ014. Age unknown.</p>
AQ013	E46/61	<p><b>Black charcoal deposit:</b> Recorded in 'Section B' (Figure 10-256). A thin, 10-15mm thick, deposit of black charcoal only 100mm long observed between deposits AQ011 and AQ012 to the south of AQ015. Age unknown.</p>
AQ014	E46/61	<p><b>Dark brown clay deposit with inclusions:</b> Recorded in 'Section B' (Figure 10-256). A compact brown clay soil, approximately 20mm observed to base of excavation under AQ012. Likely represents an earlier surface deposit. Glass was sampled.</p>
AQ015	E46/61	<p><b>Brick and sand filled feature:</b> Recorded in 'Section B' (Figure 10-256). A feature observed under AQ001 and cutting through AR002, 10-12 and 14 to base of excavation, filled with loose fragmented brick and sand. 400mm wide. Age unknown, may possibly be the result of previous building foundations or service trenching. Artefacts sampled from fill.</p>
AQ016	E46/61	<p><b>Modern asphalt:</b> deposit recorded in 'Section C' north baulk on north perimeter of CAB building adjacent to Spey Street footpath, along with contexts AQ017-AQ021 (Figure 10-257). This deposit is the modern footpath on Spey Street, 30mm thick.</p>  <p>Figure 10-257 Photograph of Section C, Area AQ, looking north</p>
AQ017	E46/61	<p><b>Modern aggregate:</b> Recorded in 'Section C' (Figure 10-257). Basecourse layer of shingle under AQ016 and over AQ018, approximately 70mm thick.</p>
AQ018	E46/61	<p><b>Decayed timber:</b> Recorded in 'Section C' (Figure 10-257). From boxing of modern foundations AQ003, under AQ017 and over AQ019, abuts AQ003, 70mm thick.</p>

Context	Site	Designation and Description
AQ019	E46/61	<b>Yellow/grey clay deposit:</b> Recorded in 'Section C' (Figure 10-257). Compact deposit with no inclusions noted, under AQ018 and over AQ020, 40mm thick.
AQ020	E46/61	<b>Dark brown clay deposit:</b> Recorded in 'Section C' (Figure 10-257). Deposit with no inclusions noted, under AQ019 and over AQ021, 90mm thick.
AQ021	E46/61	<b>Dark brown clay deposit with inclusions:</b> Recorded in 'Section C' (Figure 10-257). Deposit with inclusions of fragmented brick noted, under AQ020 to base of excavation, 120mm thick.
<b>Area AR</b>		Site scrape for carpark/landscaping. Trench for services. Earthworks for drainage and kerbing/channelling.
AR001	E46/61	<p><b>Modern concrete foundation:</b> 500mm wide, 500mm deep, modern concrete foundation extending from east boundary of site. This remaining portion removed during site scrape for carpark/landscaping works.</p>  <p>Figure 10-258 Foundation (AR001) in situ, facing east (left) and being removed, facing south (right)</p>
AR002	E46/61	<p><b>Surface layer, modern asphalt:</b> a modern deposit of asphalt to the south of modern foundations AR001 and along the eastern boundary of site, broken by recent site activities. 10mm thick and over AR25 and AR23.</p>  <p>Figure 10-259 View of modern asphalt (AR002) along eastern site boundary. Note foundation AR001 in rear, looking north.</p>

Context	Site	Designation and Description
AR003	E46/61	<p><b>Surface layer, modern shingle:</b> 200mm thick surface layer of modern shingle, concentrated, north of AR4</p>  <p>Figure 10-260 View of Area AR, looking north, prior to earthworks for site stripping for carpark/landscaping, showing surface layer of modern gravel (AR003)</p>
AR004	E46/61	<p><b>Excavated area, for project toilet block:</b> A recent, previously excavated area for a modern transportable and temporary toilet block, established as part of the current project. Along eastern boundary between the previous Citizens Advice Bureau building (Building 6) and modern foundation (AR001).</p>  <p>Figure 10-261 View of previously excavated area (AR004) under toilet block, looking east</p>
AR005	E46/61	<p><b>Orange mottled clay deposit with inclusions:</b> a loose orange clay soil with fragmented brick, glass and metal artefacts (sampled), approximately 50mm thick, under surface layer, gravel (AR003) and over deposit AR006. Top boundary with AR003 not well defined as looks disturbed by site clearance processes. Bottom boundary with AR006 well defined as this deposit peeled cleanly away from AR006. In northeast corner of site, under former Citizens Advice Bureau building (Building 6).</p>  <p>Figure 10-262 Plan view of deposit AR005 being exposed during site stripping, looking east</p>

Context	Site	Designation and Description
AR006	E46/61	<p><b>Dark brown clay deposit with inclusions:</b> A dark brown mottled clay soil deposit with charcoal, oyster shell and artefacts (sampled) to base of excavation. Extent and boundaries not well defined, but recorded in north east corner of site during site stripping under surface layer (AR003) and AR005 and over AR31. Possibly equal in stratigraphy to AR10 and AR12.</p>  <p>Figure 10-263 Deposit AR006 being exposed in northeast corner of site during site stripping, facing east</p>
AR007	E46/61	<p><b>Concentration of thick white ceramic:</b> An artefact concentration (sampled) within deposit AR5. Equal to AR5 and under AR3.</p>  <p>Figure 10-264 Close up of plan view of artefact concentration within deposit AR005, top is south</p>
AR008	E46/61	<p><b>Service trench, modern:</b> A modern service trench for water, with 22mm metal pipe in brown clay shingle fill, running north-south, 200mm wide, under surface layer, shingle AR003. Cuts through AR005 and AR006.</p>  <p>Figure 10-265 service trench (AR008) as exposed in north east corner of site, looking east</p>



Context	Site	Designation and Description
AR009	E46/61	<p><b>Post hole, with wood:</b> Square post hole with wood, 150mm x 150mm, not excavated, observed at excavation base during site scrape. Under surface layer, shingle AR003 and within AR005 and AR006.</p>  <p>Figure 10-266 Close up plan view of post hole AR009, top is east.</p>
AR010	E46/61	<b>Earlier asphalt deposit:</b> a black gritty compact layer with angular rock inclusions and brick at base. Under AR005 and AR0012, 100-200mm thick thinning to the south to a dark smear.
AR011	E46/61	<b>Modern foundation trench:</b> a trench from modern foundations of the Citizens Advice Bureau building (Building 6). West and south walls observed. Bounded on the east by timber boxing.
AR012	E46/61	<b>Yellow clay deposit with gravel:</b> a compact yellow clay deposit with gravel and no artefacts. Equal to AR55, under surface layer AR003 and over AR005.
AR013	E46/61	<b>Brick concentration:</b> a concentrated area of bricks, not well aligned, 1000x900mm under AR012
AR014	E46/61	<b>Tiled feature:</b> a section of tiles over concrete base 1600x950mm on eastern boundary with AR004 to west, 50mm thick. Under AR017 and over AR021. Possible previous floor surface.
AR015	E46/61	<b>Sump, modern:</b> on surface, 700x600mm, 1000mm deep
AR016	E46/61	<b>Service trench, modern:</b> modern service trench filled with pea gravel, 250mm wide, 150-200mm deep, under surface layer, shingle AR003
AR017	E46/61	<b>Brown topsoil:</b> brown friable topsoil with plants and artefacts (sampled), presumably modern. Over AR014, abuts AR012, bounded in east by site boundary and in west by AR004. Equal to AR003.
AR018	E46/61	<b>Timber feature:</b> running east-west, 60mm width, under AR012
AR019	E46/61	<b>Stone/concrete feature:</b> an area of scattered stone and concrete 1500x1600mm, under AR012 and over AR010. Possible remnants of a floor or foundation.
AR020	E46/61	<b>Service trench, modern:</b> modern trench with power cable running north to south, 250mm wide, under surface layer AR003.
AR021	E46/61	<b>Yellow sand deposit:</b> a yellow sand deposit, observed directly under and following extent of AR014. Over deposit AR22. Interpreted as a basecourse.
AR022	E46/61	<b>Dark brown clay soil with inclusions:</b> Dark brown friable clay soil with brick fragments and artefacts (sampled), under 21 to base of excavation.
AR023	E46/61	<b>Timber feature:</b> timber boards running north to south, observed directly under and adhered to the remains of asphalt AR002
AR024	E46/61	<b>Sand with brick rubble deposit:</b> yellow sand with fragmented brick rubble. Observed directly under AR023 and over AR025. Approximately 250mm thick.
AR025	E46/61	<b>Orange clay deposit with inclusions:</b> orange mottled clay soil with artefacts (sampled), 100-200mm thick, under AR023 and AR010, boundary at base not well defined and grades into natural yellow sterile clay (AR027)
AR026	E46/61	<b>Post hole, void:</b> cavity, presumably from post hole, exposed within AR027, under AR025. Not excavated below excavation base.
AR027	E46/61	<b>Yellow silt loam substrate:</b> natural layer.
AR028	E46/61	<b>Brick feature:</b> running northwest-southeast, 250mm wide, under AR010
AR029	E46/61	<b>Brick feature:</b> a scatter of bricks 150x150mm under AR010
AR030	E46/61	<b>Service trench:</b> drainage service trench running north to south with dark brown mottled clay fill, 500mm wide, under AR010, cuts AR031
AR031	E46/61	<b>Yellow mottled clay deposit with inclusions:</b> yellow mottled clay soil deposit with timber fragments and brick and mortar. Observed under AR030, abutting AR011 and 500mm width observed to east of AR030 and 300mm width to west of AR030.
AR032	E46/61	<b>Service trench with ceramic pipe:</b> 300mm wide running northeast to southwest, under AR012 and cutting AR030

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Context	Site	Designation and Description
AR033	E46/61	<b>Brick feature:</b> a line of <i>in situ</i> bricks, under AR012, cutting AR031 and abutting AR034. 600mm long x 250mm width.
AR034	E46/61	<b>Timber feature:</b> timber boards running horizontally north to south, around brick (AR033) to north and east of AR035 and AR036
AR035	E46/61	<b>Yellow sand deposit:</b> deposit of yellow sand under AR012, cuts AR031 and surrounding AR036.
AR036	E46/61	<b>Stone/rock feature:</b> a concentration of stone and rock with some brick within AR035 to west of AR034. Possible remnants of foundations. Under AR012, cutting AR031.
AR037	E46/61	<b>Early asphalt:</b> hard black concrete like asphalt. Equal to AR010, but harder and observed to the west of that context. Under AR039, cuts AR031.
AR038	E46/61	<b>Timber feature:</b> timber boards running east to west adjacent and to the east of similar timber feature (AR034). 500x300mm, under AR031, abutting AR034.
AR039	E46/61	<b>Black/brown gravel deposit:</b> hard/compact gravel layer, 200mm thick, equal to AR012, under AR010 and over AR037.
AR040	E46/61	<b>Dark brown clay soil with gravel:</b> friable dark brown clay soil with artefacts, wood, 100mm thick under AR037.
AR041	E46/61	<b>Post hole, with wood:</b> rectangular post hole 200x100mm with wood. Under AR012
AR042	E46/61	<b>Trench:</b> gravel filled trench, possibly for services or former foundation line, running north to south, 300mm wide, under AR012
AR043	E46/61	<b>Surface layer, shingle:</b> Angular shingle added to site during this phase of works for carpark surface. Now over all remaining contexts, deposits, features and cuts left <i>in situ</i> or not excavated.
AR044	E46/61	<b>Wooden post:</b> wooden post with brick, 200x400mm, under AR010 and AR037
AR045	E46/61	<b>Brick feature:</b> concentration of brick rubble with lime, not well placed, over AR046
AR046	E46/61	<b>Brick feature, footings:</b> H-shaped brick footings, under AR045. Bricks 230x110x75 with no frog marks. Bricks covered by a layer of compacted lime.
AR047	E46/61	<b>Pile hole:</b> pile hole with brick and mortar, 400x400mm, 200mm deep, under AR010 and over AR004
AR048	E46/61	<b>Brick concentration:</b> brick concentration at western boundary of section with wood and artefacts (sampled), single layer. Under surface layer AR003, over AR010/AR037.
AR049	E46/61	<b>Posthole with concrete:</b> 250mm x 250mm, under AR048. Equal to sequence of postholes AR049 to AR054
AR050	E46/61	<b>Posthole with concrete:</b> 250mm x 250mm, under AR048. Equal to sequence of postholes AR049 to AR054
AR051	E46/61	<b>Posthole with concrete:</b> 250mm x 250mm, under AR048. Equal to sequence of postholes AR049 to AR054
AR052	E46/61	<b>Posthole with concrete:</b> 250mm x 250mm, under AR048. Equal to sequence of postholes AR049 to AR054
AR053	E46/61	<b>Posthole with concrete:</b> 250mm x 250mm, under AR048. Equal to sequence of postholes AR049 to AR054
AR054	E46/61	<b>Posthole with concrete:</b> 250mm x 250mm, under AR048. Equal to sequence of postholes AR049 to AR054
AR055	E46/61	<b>Yellow clay deposit with inclusions:</b> yellow clay deposit with brick fragments and quartz pebbles. Equals AR012 and under AR039
AR056	E46/61	<b>Post hole:</b> 250x250mm pile hole observed at base of excavation under AR055.
AR057	E46/61	<b>Yellow/brown clay deposit with inclusions:</b> friable yellow/brown clay soil deposit with quartz pebbles and angular rock fragments. Under AR010/AR037
AR058	E46/61	<b>Service trench, modern:</b> Modern service trench for power with power marker tape present, 400mm wide, under AR012 and cuts AR048
AR059	E46/61	<b>Service trench:</b> filled with friable yellow mottled clay fill with brick fragments, running north to south, 500mm width, under surface layer AR002.
AR060	E46/61	<b>Dark brown silt loam deposit with artefact scatter:</b> dark brown silt loam soil deposit with timber, brick (brick concentration at south end) and artefacts (sampled). Under AR064
AR061	E46/61	<b>Post hole, with wood:</b> 250x250mm, cuts 300mm below AR060
AR062	E46/61	<b>Brick sump:</b> Brick sump 900x650mm recorded against eastern boundary with two sections of parallel brick. Service trench, drain (AR079) connects. Cuts AR060. Artefacts sampled from directly around sump.
AR063	E46/61	<b>Rubbish pit:</b> shallow glass (sampled) filled rubbish pit 50x150mm and 50mm thick, under AR065
AR064	E46/61	<b>Yellow clay deposit with brick inclusions:</b> yellow clay soil deposit with fragmented brick inclusions. Possibly equals AR005, under AR002 and AR003, over AR060.
AR065	E46/61	<b>Brown/yellow clay soil deposit with artefacts:</b> a brown/yellow clay soil deposit with scattered sparse artefacts (sampled from north end of site), boundaries not well defined and grades from AR060 (probably equal to this context) into AR027 (natural)
AR066	E46/61	<b>Post hole, with wood:</b> post hole with wood 250x250mm under AR064 and over AR065




Context	Site	Designation and Description
AR067	E46/61	<b>Rubbish scatter:</b> concentration/scatter of glass (sampled) within AR065, 150x50mm and 100mm thick.
AR068	E46/61	<b>Brick feature, floor:</b> a portion of <i>in situ</i> brick floor, with a messed up section through the middle (possibly disturbed from building), decomposed timber lines edges to west and north. 2200 x2000mm, under AR071. Marble (stone) observed 300x200x50mm (sampled).
AR069	E46/61	<b>Post hole, with wood:</b> 250x250mm post hole with timber, 600mm deep under AR071, Equal to AR070
AR070	E46/61	<b>Post hole, with wood:</b> 250x250mm post hole with timber, 600mm deep under AR071. Equal to AR069
AR071	E46/61	<b>Yellow gravel deposit:</b> yellow compact gravel deposit with quartz pebbles. 200mm thick, similar to AR012, under AR003, over AR0068.
AR072	E46/61	<b>Yellow/brown gravel deposit with inclusions:</b> pale yellow/brown gravel layer with quartz and angular stone and brick fragments. Under AR064.
AR073	E46/61	<b>Sump, modern:</b> modern sump at surface 500x500mm with drain (AR076) to Spey Street, 600mm deep removed. Cuts AR060, AR065 and AR027. Abuts AR076.
AR074	E46/61	<b>Post hole, with wood:</b> post hole with timber and dark brown friable fill, 250x250mm, 300mm deep, under AR075
AR075	E46/61	<b>Asphalt, modern:</b> Equals AR002, under AR071 and over AR065
AR076	E46/61	<b>Service trench, drain, modern:</b> modern drain, 700mm wide, to modern sump (AR073). Viewed clearly at base of excavation. Under AR002
AR077	E46/61	<b>Brick feature, floor:</b> About three rows of brick either side of AR076 and a rubble area associated, under AR078, cut by AR076. Artefacts associated sampled.
AR078	E46/61	<b>Silty lime clay deposit:</b> mixed clay silty with lime observed above brick feature (AR077), under AR002.
AR079	E46/61	<b>Service trench:</b> running southwest to northeast, 300mm wide at top with brown/yellow clay fill with timber and brick rubble. Decayed wood at bottom of trench where artefacts sampled. Equals AR062, under AR002 and AR071, over AR027.
AR080	E46/61	<b>Post hole with wood:</b> post hole with fragmented timber, 300x300mm, observed at base 600mm deep, under AR068
AR081	E46/61	<b>Post hole with wood:</b> small post hole with fragmented timber, 100x50mm, observed at base 600mm deep, under AR068
AR082	E46/61	<b>Service trench, drain:</b> running north to south, draining to south, north of Ar079, 300mm wide, observed at base of excavation. Abuts AR079.
AR083	E46/61	<b>Glass filled feature:</b> one of three circular glass (sampled) filled features in an alignment running south west to northeast, 200mm diameter and 200mm deep under AR060, within AR065. Equal to AR084 and AR085. This feature also contained a metal matchbox (sampled).
AR084	E46/61	<b>Glass filled feature:</b> one of three circular glass (sampled) filled features in an alignment running south west to northeast, 200mm diameter and 200mm deep under AR060, within AR065. Equal to AR083 and AR085.
AR085	E46/61	<b>Glass filled feature:</b> one of three circular glass (sampled) filled features in an alignment running south west to northeast, 200mm diameter and 200mm deep under AR060, within AR065. Equal to AR084 and AR083. This feature was first recorded in section and later as site stripping progressed was found to equal AR091.
AR086	E46/61	<b>Concrete pile:</b> large concrete pile 600x500mm, 500mm deep
AR087	E46/61	<b>Foundations:</b> area of redeposited concrete fragments, probably a foundation line with sparse brick, 7-8m long and 2m wide. Under AR068 and AR060
AR088	E46/61	<b>Post hole, with wood:</b> Timber post hole, 200x200mm, cuts AR065
AR089	E46/61	<b>Post hole:</b> circular feature with asphalt and decayed wood fill, 400mm diameter. Under AR090 and AR094, cuts AR065
AR090	E46/61	<b>Brick concentration:</b> messy scatter of bricks intruded by modern hole with plastic, boundaries not well defined. Under Ar003 and AR95, cuts AR065.
AR091	E46/61	<b>Glass filled feature:</b> elongated shallow rubbish pit filled with glass (sampled), 400mm long, 1000mm width, 100mm thick. Equal to AR085, under AR090 and cuts AR065
AR092	E46/61	<b>Service trench, modern:</b> service trench filled with pea gravel, running southwest to northeast, 150mm width
AR093	E46/61	<b>Pile hole:</b> possible pile hole with very fragmented wood and brick, 400mm x 400mm, under AR060 and AR065
AR094	E46/61	<b>Earlier asphalt:</b> black gritty asphalt, with charcoal, 100mm thick, under AR090 and
AR095	E46/61	<b>Yellow clay deposit:</b> yellow clay deposit capping brick in places, under surface layer AR003 and over AR090
AR096	E46/61	<b>Concrete pile:</b> large and shallow concrete pile, 500x500mm, possibly equal to AR086 and under surface layer AR003. Equal to AR097.
AR097	E46/61	<b>Concrete pile:</b> large and shallow concrete pile, 500x500mm, possibly equal to AR086 and under surface layer AR003. Equal to AR096
AR098	E46/61	<b>Post hole, with wood:</b> timber post, 150x150mm, 150mm thick, under AR068. AR098, 99 and 100 equal.
AR099	E46/61	<b>Post hole, with wood:</b> timber post, 150x150mm, 150mm thick, under AR068. AR098, 99 and 100 equal.

Context	Site	Designation and Description
AR100	E46/61	<b>Post hole, with wood:</b> timber post, 150x150mm, 150mm thick, under AR068. AR098, 99 and 100 equal.
AR101	E46/61	<b>Service trench, power:</b> modern service trench for power, 500mm wide, under surface layer AR003. Cuts AR103 and abuts AR102
AR102	E46/61	<b>Service trench, power:</b> modern service trench with pea gravel fill, white plastic conduit and power tape, 500mm wide. Equals AR058, under surface layer AR003, abuts AR101.
AR103	E46/61	<b>Brick concentration:</b> concentration of bricks on north west side of AR101 with sand and mortar associated, under AR095
AR104	E46/61	<b>Unknown feature:</b> circular feature with dense asphalt, 600mm diameter, under AR095, cuts AR103
AR105	E46/61	<b>Yellow/brown clay with inclusions:</b> yellow/brown clay with angular rocks, brick, modern ceramic, plastic, PVC. Highly disturbed layer with bits of asphalt and timber. Under AR003 and over AR065
AR106	E46/61	<b>Post hole:</b> fill friable brown clay with decomposed wood, metal, glass (not sampled), 300mm diameter, flat base, straight sides, 100mm deep. Under AR065 and over AR027
AR107	E46/61	<b>Timber feature, floor:</b> decayed timber running east to west for width of power trench excavated, 800mm thick with fixings observed. Under AR065 and over AR027. Artefacts (horse shoe) sampled.
AR108	E46/61	<b>Post hole:</b> with decayed wood, straight sides, flat base. Recorded in west baulk of power trench, associated with edge of timber floor (AR0107). Under AR065, over AR027. 150mm wide. Elevation 100-350mm. AR108, 112, 113, 114, 116 and 118 are equal and in alignment.
AR109	E46/61	<b>Brick and stone scatter:</b> broken brick and stone scatter with flat orientation, extent width of power trench and equal to AR107
AR110	E46/61	<b>Yellow clay deposit with quartz pebbles:</b> Friable yellow clay deposit with condensed quartz pebbles. Observed in the width of the power trench to the north of AR109, under AR065
AR111	E46/61	<b>Brown/yellow mottled clay deposit with inclusions:</b> mottled brown/yellow clay deposit with quartz pebbles, brick. Under timber floor (AR107) and grades to a sandy deposit (AR115).
AR112	E46/61	<b>Post hole:</b> with decayed wood, straight sides, flat base. Recorded in west baulk of power trench, associated with edge of timber floor (AR0107). Under AR065, over AR027. 50mm thick. AR108, 112, 113, 114, 116 and 118 are equal and in alignment.
AR113	E46/61	<b>Post hole:</b> with decayed wood, straight sides, flat base. Recorded in west baulk of power trench, associated with edge of timber floor (AR0107). Under AR065, over AR027. 240mm wide, 100mm thick. AR108, 112, 113, 114, 116 and 118 are equal and in alignment.
AR114	E46/61	<b>Post hole:</b> with decayed wood, straight sides, flat base. Recorded in west baulk of power trench, associated with edge of timber floor (AR0107). Under AR065, over AR027. 270mm wide, 50mm thick. AR108, 112, 113, 114, 116 and 118 are equal and in alignment.
AR115	E46/61	<b>Sandy deposit:</b> a yellow sandy gritty layer under AR111
AR116	E46/61	<b>Post hole:</b> with decayed wood, straight sides, flat base. Recorded in west baulk of power trench, associated with edge of timber floor (AR0107). Under AR065, over AR027. 250mm wide, 240mm thick. AR108, 112, 113, 114, 116 and 118 are equal and in alignment.
AR117	E46/61	<b>Pit:</b> a pit filled with dark black gritty coal (or asphalt?). Round concave base with stepped sides, 350mm deep, 230mm wide. Under AR043 and cuts AR107
AR118	E46/61	<b>Post hole:</b> with decayed wood, straight sides, flat base. Recorded in west baulk of power trench, associated with edge of timber floor (AR0107). Under AR065, over AR027. 210mm wide, 200mm thick. AR108, 112, 113, 114, 116 and 118 are equal and in alignment.
AR119	E46/61	<b>Service trench, drain?</b> Narrow cut 160mm wide, 530mm thick, with mid-brown friable clay soil fill, wet with water running out. Straight sides and base. Under AR107, abuts AR118.
AR120	E46/61	<b>Service trench, drain:</b> with ceramic pipe diameter 200mm in brown friable fill, 400mm wide, depth 400mm. Under AR122, over AR027. Cuts AR123 and AR027.
AR121	E46/61	<b>Post, modern:</b> 150x100mm wide, 200mm thick. Under AR122
AR122	E46/61	<b>Yellow clay with quartz pebbles:</b> yellow clay deposit with quartz pebble gravel. Under AR043 and AR124.
AR123	E46/61	<b>Medium brown clay soil deposit:</b> a medium brown clay soil deposit, starts south of AR120 and is associated and around a series of drainage trenches. May possibly represent an old topsoil. Under AR122 and over AR027
AR124	E46/61	<b>Medium brown clay soil deposit with inclusions:</b> a compact medium brown clay soil deposit with rusty metal and brick fragments, 300mm thick and thins to south and extends to foundations (AR011) in north. Under AR043 and over AR122
AR125	E46/61	<b>Medium brown clay soil deposit with artefacts:</b> a friable brown clay with artefact concentrations and scatters (sampled, e.g. shoes), 200mm thick, equal to AR139 and over AR123
AR126	E46/61	<b>Yellow clay deposit with quartz pebbles:</b> a thin, 10mm, yellow clay deposit with quartz pebbles, under AR125 and over AR123
AR127	E46/61	<b>Service trench with ceramic drain pipe:</b> 500mm deep, only viewed in west baulk of power trench, boundaries not clear, slopes to northeast. Under AR122, over AR027, cuts AR122 and 123
AR128	E46/61	<b>Service trench with ceramic drain pipe:</b> 500mm wide and 500mm deep, pipe 150mm diameter, viewed in west and east baulk of power trench, drains to northeast. Under AR124, cuts AR122 and 123




Context	Site	Designation and Description
AR129	E46/61	<b>Service trench, with drain, modern:</b> PVC drain pipe replaced over ceramic pipe, now removed, extends to sump (AR015)
AR130	E46/61	<b>PVC drain, modern:</b> runs east to west, over AR122
AR131	E46/61	<b>Post hole, with wood:</b> Wooden post, 500mm deep in west baulk of power trench. Wooden post approximately 150x150mm. Forms an alignment and likely equal to post holes AR133, 135, and 138 and associated with AR137. Under AR134 and cuts deposit AR123.
AR132	E46/61	<b>Brick feature:</b> a concentration of bricks 1-2m long in power trench between AR130 and AR133. Under AR010 and over AR122.
AR133	E46/61	<b>Post hole, with wood:</b> Wooden post, 500mm deep in west baulk of power trench. Wooden post approximately 150x150mm. Forms an alignment and likely equal to post holes AR131, 135, and 138 and associated with AR137. Under AR134.
AR134	E46/61	<b>Yellow mottled clay deposit:</b> a deposit of yellow mottled clay, under AR136, and starts north of AR131, 100-150mm thick.
AR135	E46/61	<b>Post hole, with wood:</b> Wooden post, 500mm deep in west baulk of power trench. Wooden post approximately 150x150mm. Forms an alignment and likely equal to post holes AR133, 131, and 138 and associated with AR137. Under AR134.
AR136	E46/61	<b>Brown mottled clay deposit:</b> a brown mottled clay deposit, under AR010 and over AR134
AR137	E46/61	<b>Timber feature, floor:</b> A timber floor observed between post holes AR133 and AR135, about 1.3m length visible in power trench, 100mm thick. Very fragmented and decayed. Appears associated with post holes AR133, 135, and 138, under AR134 and above AR139.
AR138	E46/61	<b>Post hole, with wood:</b> Wooden post, 600mm deep in west baulk of power trench. Wooden post approximately 150x150mm. Forms an alignment and likely equal to post holes AR133, 135, and 131 and associated with AR137. Under AR134.
AR139	E46/61	<b>Brown clay deposit with artefacts:</b> a friable brown clay deposit with quartz and greywacke pebbles and artefacts (sampled) including glass, ceramics, oyster shell concentration near top and metal. Equals AR125, under AR137 and 134 and over AR123
AR140	E46/61	<b>Brick feature, chimney base, with whale bone cap:</b> a double brick lined structure with three built sides (to east, west and south sides), likely the base of a chimney. Artefacts recorded from within in a medium brown friable silt loam deposit, and appeared to be capped by sheet metal and two large whale bones (sampled). Under AR124 and base not excavated. East and West brick sides also remain <i>in situ</i> within walls of power trench excavated. Related to AR143.
AR141	E46/61	<b>Post hole, with wood:</b> Wooden post, 150x150mm, 800mm deep, within AR149, under AR146, cutting AR147. In alignment with post holes AR149 and AR150. Good condition likely modern.
AR142	E46/61	<b>Service trench with ceramic pipe:</b> service trench with ceramic pipe running southwest to northeast, observed just to south of AR138 in west baulk at depth of excavation, 200mm wide. Under AR134 and cuts AR139, 123
AR143	E46/61	<b>Brown clay deposit with brick scatter:</b> Medium brown clay soil deposit with brick scatter and artefacts (sampled). Brick scatter seems related to brick feature AR140 and may represent collapsed chimney to south of AR140 for approximately 2m within power trench. Under AR128 and over AR144.
AR144	E46/61	<b>Yellow mottled clay deposit:</b> a yellow mottled clay deposit for 2m length in power trench to AR140 in north. Under AR143 and over AR123. Similar to other deposits observed but not joined/continuous with them (e.g. AR146)
AR145	E46/61	<b>Dark brown soil deposit with artefacts:</b> a dark brown friable clay soil deposit with artefacts (sampled) to the north of AR140, under AR148 and over AR146.
AR146	E46/61	<b>Yellow mottled clay deposit:</b> a yellow mottled clay deposit in power trench north of AR140. Under AR145 and over AR147. Similar to other deposits observed but not joined/continuous with them (e.g. AR144)
AR147	E46/61	<b>Wet brown clay soil deposit with artefacts:</b> medium brown clay soil deposit with lenses of artefacts (sampled), decayed wood, metal, ceramics (e.g. a lamp). This deposit is very wet and forms base of excavation for power trench. Under AR146
AR148	E46/61	<b>Brown clay deposit:</b> a brown clay soil deposit north of foundations AR001. Under AR003, over AR143 and 145, 122.
AR149	E46/61	<b>Post hole, with wood:</b> Wooden post, 150x150mm, 800mm deep, within AR149, under AR146, cutting AR147. In alignment with post holes AR141 and AR150. Good condition likely modern.
AR150	E46/61	<b>Post hole, with wood:</b> Wooden post, 150x150mm, 800mm deep, within AR149, under AR146, cutting AR147. In alignment with post holes AR149 and AR141. Good condition likely modern.



Context	Site	Designation and Description
AR151	E46/61	<div> </div> <p><b>Sump, recent:</b> Sump ('Sump 2') installed on site 8 July 2017. Concrete 600mm x 600mm, 1200mm deep approximately.</p> <p><b>Figure 10-267</b> View of area to be excavated for channelling to 'Sump 2' on 20/07/2017, looking south. Sump 2 (AR151) visible in middle of photograph.</p>
AR152	E46/61	<p><b>Trench with gravel, recent:</b> Gravel filled trench surrounding 200mm around AR151 which was excavated for placement of this recent sump. Observed from surface to base of excavation for channelling at 450mm deep. Extends to west of Sump 2.</p>
AR153	E46/61	<p><b>Trench:</b> Trench 500mm wide running north to south through east side of trench dug for channelling. Filled with mottled brown clay, with quartz pebbles and patches of lighter pale clay. Bottle base sampled. Under recent surface gravels (AR043) to base of excavation, abutting AR154 (Trench), but appears more recent than AR154, may equal AR030 (needs checking with GPS data).</p> <div> </div> <p><b>Figure 10-268</b> Plan view, south is up, of trench (AR153) at base of excavation showing bottle base sampled insitu.</p>


Context	Site	Designation and Description
AR154	E46/61	<p>Trench: Trench 800mm wide running north to south through trench dug for channelling. Only just exposed in base of excavated trench at 450mm, so maximum 20mm thickness viewed. Boundaries not well defined, probably abuts AR153 which is younger and is cut by trench (AR155) and not well defined at north end as it was only just exposed. Artefacts, ceramics, sampled and a concentration of oyster shells was observed within a brown friable clay soil fill. Under AR158 and AR159. See image for AR155 for oyster shell concentration.</p>  <p>Figure 10-269 Trench (AR154) in base of channelling trench, note blue ceramic (sampled) just visible, west is at top.</p>
AR155	E46/61	<p>Trench: Trench with timber boxing 400mm wide at base of excavation for channelling. Observed under AR158 and cuts AR155 at an angle. Probably box drain. Boundaries not well defined, only exposed towards base of excavation and ends of trench not exposed in baulks.</p>  <p>Figure 10-270 View of AR158 (left), AR155 (trench, middle), AR154 with oyster shell concentration (trench, right), north is up.</p>

Context	Site	Designation and Description
AR156	E46/61	<p><b>Brick alignment:</b> Possible single height row of bricks in alignment, possibly in alignment with edge of trench AR155. At base of excavation within AR158.</p>  <p>Figure 10-271 Plan view of AR156, small brick alignment at base of excavation within deposit AR158, west is up</p>
AR157	E46/61	<p><b>Yellow mottled clay with inclusions:</b> Yellow mottled clay with inclusions of brick fragments observed below surface gravel layer (AR043) and over AR158, but not visible in eastern aspect of trench excavated for channelling. Approximately 120mm thick.</p>  <p>Figure 10-272 Exposing deposit AR157 beneath surface gravel (AR043), left, looking west and AR157 in profile S, right, looking east</p>
AR158	E46/61	<p><b>Dark brown clay deposit with inclusions:</b> Dark brown clay soil deposit with decayed timber fragments, with patches of blackened soil near top. Approximately 120mm thick and extends through out trench for channelling under typically under AR157, but also AR160, AR43 and AR162 in places.</p>  <p>Figure 10-273 Deposit AR158 visible beneath surface gravel (AR043) in Profile W, looking west</p>



Context	Site	Designation and Description
AR159	E46/61	<p><b>Grey/brown clay soil deposit:</b> a grey/brown clay soil deposit with no inclusions 110mm thick below AR158. Visible in north end of trench for channelling and Profiles S and T probably due to depth of excavation, so full extent not able to be recorded. Above trench AR154.</p>  <p>Figure 10-274 Profile T, looking north showing deposit AR159 at base of excavation</p>
AR160	E46/61	<p><b>Yellow sandy deposit with inclusions:</b> a yellow sandy and gritty clay deposit with very fragmented brick or tile inclusions. Visible in west baulk of channelling trench for 4m south of Sump 2 (AR151), under deposit AR163 and over deposit AR158. Possibly disturbed during site clearance processes and maybe equal to deposit AR157 mixed with surface gravels.</p>  <p>Figure 10-275 Deposit AR160 (red arrow) and AR163 (green arrow) visible in Profile V, facing west (left) and as exposed in west portion of trench for channelling, facing south (right)</p>
AR161	E46/61	<p><b>Compact yellow clay deposit with stones:</b> a compact yellow clay stony deposit, gravels are quartz stones, only 20mm thick under surface layer (AR043) and over deposit AR162, visible in Profile X on east baulk of channelling trench. Likely a modern disturbed layer as a result of site clearance.</p>  <p>Figure 10-276 View of Profile X, looking east, showing deposit AR161 (red arrow) and AR162 (green arrow)</p>
AR162	E46/61	<p><b>Compact yellow/grey clay deposit with stones:</b> similar to AR161, but with smaller stones and greyer in colour. Approximately 100mm thick under deposit AR161 and over deposit AR158, visible in Profile X on east baulk of channelling trench. Likely a modern disturbed layer as a result of site clearance (see Figure 10-276).</p>
AR163	E46/61	<p><b>Yellow/grey sandy deposit:</b> A thin compact gravel layer, 20mm thick, under surface gravel (AR043) and over deposit AR160. Deposit AR163 probably represents a mixing of surface layer (AR043) and deposit (AR160). Extent the same as deposit AR160 (see Figure 10-275).</p>

Context	Site	Designation and Description
AR164	E46/61	<b>Asphalt footpath:</b> The footpath adjacent to the section running along Spey Street. 60 to 90mm thick over 165.
AR165	E46/61	<b>Aggregate:</b> The aggregate prep layer below AR164. 50mm thick.
AR166	E46/61	<b>Asphalt Footpath:</b> An earlier asphalt footpath layer identified below AR165 to the north of the section running along Spey Street. 50 to 100mm thick.
AR167	E46/61	<b>Concrete:</b> 80mm thick layer of concrete identified below AR166 and cuts AR168. Measures 500mm wide and 1000mm in length. The layer continues north and east into the baulks of the excavation area.
AR168	E46/61	<b>Yellow Silt Loam:</b> Layer of yellow silt loam identified under AR166 and AR167. The layer is c.160mm below the surface of AR164 and is north of the section.
AR169	E46/61	<p><b>Yellow Clay:</b> A 50mm thick lens of yellow clay identified 420mm below the surface over AR170.</p>  <p style="text-align: center;">Figure 10-277.</p>
AR170	E46/61	<b>Brown silt loam:</b> Layer of dark brown silt loam identified 470mm below the surface under AR169 and over AR171. The layer is 200 to 250mm thick and equal to AS61.
AR171	E46/61	<b>Artefact deposit:</b> A deposit of mostly broken bottles equal to AS62.
AR172	E46/61	<p><b>Wooden post:</b> large 250mm diameter circular wooden post cutting AR174 identified 800mm below the surface</p>  <p style="text-align: center;">Figure 10-278. AR172 partially pulled from the ground during excavations.</p>

Context	Site	Designation and Description
AR173	E46/61	<p><b>Wooden post:</b> large 250mm diameter circular wooden post cutting AR174 identified 800mm below the surface</p>  <p>Figure 10-279. AR173 post in AR174</p>
AR174	E46/61	<p><b>Brown silt loam:</b> Layer of dark brown silt loam</p>

## Appendix G Artefact Catalogue

## Appendix H Site Record Forms

**TO: FINANCE AND POLICY COMMITTEE**  
**FROM: DIRECTOR OF FINANCE AND CORPORATE SERVICE**  
**MEETING DATE: TUESDAY, 5 DECEMBER 2017**

<b>APPOINTMENT OF DIRECTORS POLICY</b>
--

**Report Prepared by:** Melissa Short – Manager, Strategy and Policy

**SUMMARY**

The final report from Structured Conversations Limited regarding the Appointment and Remuneration of Directors Policy has been received.
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**RECOMMENDATIONS**

**That the report from Structured Conversations Limited is received and that the recommendations outlined on page 5 of their report are actioned.**

**IMPLICATIONS**

1.	<i>Has this been provided for in the Long Term Plan/Annual Plan?</i> No
2.	<i>Is a budget amendment required?</i> No
3.	<i>Is this matter significant in terms of Council's Policy on Significance?</i> No
4.	<i>Implications in terms of other Council Strategic Documents or Council Policy?</i> The report recommends amendments to the current Appointment and Remuneration of Directors Policy.
5.	<i>Have the views of affected or interested persons been obtained and is any further public consultation required?</i> Yes, the consultant spoke with affected persons during the review. No further consultation is required.
6.	<i>Has the Child, Youth and Family Friendly Policy been considered?</i> Not applicable

**FINANCIAL IMPLICATIONS**

No financial implications arise from this report.

**APPOINTMENT AND REMUNERATION OF DIRECTORS POLICY REVIEW**

Alicia McKay, Director of Structured Conversations Limited, was engaged by Council to undertake a review of the effectiveness, compliance and alignment with recommended practice of the Appointment and Remuneration of Directors Policy.

The full report is attached (*Appendix 1*).

The report recommended a number of matters that would improve alignment with recommended practice, reduce risk and potentially improve the effectiveness of our Council Organisations' performance. Staff recommend that these recommendations are actioned.

In addition to the recommendations, the report raises several matters that are out of scope for the review, but that Structured Conversations Limited recommend would benefit from attention (page 16 of the Report). These matters are Company Structure, Conflicts of Interest and Monitoring and Accountability. Council should consider if these are matters that require further attention, and if so, how the review of these areas will be carried out. Should Council determine that these are areas of continued interest; staff recommend that a further recommendation be added to that outlined above.

\*\*\*\*\*

The logo for Structured Conversations, featuring the word "structured" in a bold, lowercase sans-serif font above the word "CONVERSATIONS" in a smaller, all-caps sans-serif font. The text is white and is contained within a white speech bubble shape with a tail pointing downwards and to the left. The background of the slide is a solid teal color.

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# INVERCARGILL CITY COUNCIL APPOINTMENT AND REMUNERATION OF DIRECTORS POLICY REVIEW

Alicia McKay

STRUCTURED CONVERSATIONS LIMITED



## Document Control

### Document Information

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Status	FINAL

#### 1.1.1. Distribution Control

Issued to	Role	Date of Issue	Version
Melissa Short	Strategy and Policy Manager	17 November 2017	1.1 (Draft)
Melissa Short	Strategy and Policy Manager	21 November 2017	2.0 (Final)

**Report Author:** Alicia McKay, Director Structured Conversations

**Disclaimer:** While every effort has been made to ensure accuracy and reliability of the information contained in this report, Structured Conversations or any colleague, staff member or subcontractor will not be held liable for the information, opinions and forecasts expressed in this report.

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## Executive Summary

### Purpose of Review

Structured Conversations Limited was engaged to review the effectiveness, compliance and alignment with recommended practice of the Invercargill City Council (ICC) Appointment and Remuneration of Directors Policy (ARDP).

### Background

ICC is required under the Local Government Act 2002 (LGA) and Energy Companies Act 1992 (ECA) to adopt a policy regarding the appointment and remuneration of directors to Council Organisations (COs). Council's most current policy was adopted in January 2014.

ICC has several Council Controlled Organisations (CCOs), Council Controlled Trading Organisations (CCTOs) and other bodies that are covered within the scope of the Appointment and Remunerations of Directors Policy. Unless directly specified, these will be referred to in this report as Council Organisations (COs.)

This includes a holding company, Invercargill City Holdings Limited (ICHL), which is the parent body for 16 subsidiary entities and joint ventures (see graphic on page 6.) The holding company provides monitoring and oversight for these entities.

### Key Issues

Several key issues presented during this review, relating primarily to the appointment of directors to Council Organisations. Remuneration practices appear robust and in reasonable alignment with best practice, and thus are not referenced in any detail in this report.

- **Councillor Directors** – The issue of whether elected members should be appointed to COs has received OAG attention, who recommend that Councils avoid this practice where possible. ICC's current policy is that the majority of its holding company board should be comprised of elected members, and makes provision for elected member representation on other CCTOs. This position increased the risk of conflicts of interest and potentially hamstrings effective governance for both ICC and its COs.
- **Director Appointments** – The current policy is vague around the process followed to identify and appoint directors to ICHL and delegates critical aspects of director appointment to the ICHL Board. This weakens the transparency and robustness of the policy and represents a missed opportunity to exert Council influence over CO governance.
- **Board and Director Skills** - The current policy does not detail how skills are identified and assessed and does not currently make adequate provision for ensuring an appropriate and diverse range of skills and experience is represented on the ICHL Board.
- **Tenure and Reappointment** – There is limited information in the current policy on how potential reappointments to ICHL are evaluated, reducing the transparency of this process.
- **Conflicts of Interest** – Current policy and process for identifying conflicts of interest require strengthening for improved transparency and effectiveness.

### Recommendations Summary

This report contains 13 recommendations to enhance ICC's current ARDP which will improve alignment with recommended practice, reduce risk and potentially improve the effectiveness of CO performance.

Key changes recommended include

- Reducing the number of elected members holding CO governance positions and instead strengthening alternative channels of ICC influence. These measures include taking ownership of the process for appointing independent directors to ICHL, as well as the Chair position.
- Adopting a more transparent and systematic process for the identification and appointment of directors to COs

A summary of these recommendations is included below. A more detailed summary is available on pages 14 and 15.

	Recommendation
<b>1. Councillor Directors</b>	
R1.1	Reduce the number of Councillor directors to ICHL to enable a majority of independent directors.
R1.2	Strengthen alternative channels of ICC influence over Council Organisations
R1.3	Develop, in collaboration with ICHL, an induction process for independent directors unfamiliar with local government.
R1.4	Formalise the appointment of a Council director to EIL in the ARDP
R1.5	Manage elected member directorships for EIL through the ICC Appointments Committee
R1.6	Elected members seeking directorships to organisations other than ICHL or EIL must receive formal Council approval before accepting a position.
<b>2. Director Appointments</b>	
R2.1	Confirm and detail a step-by-step appointments process in the ARDP
R2.2	Include guidelines that detail how potential candidates will be sought
R2.3	Appointment of independent directors to ICHL should be made in the same way as Councillor directors. An ICHL representative should form part of the Appointments Committee.
R2.4	Appointment of the ICHL Board Chair should be made by Council's Appointments Committee.
R2.5	Outline the process for appointment of a Council appointee to Council Organisations in which Council has a non-controlling interest.
<b>3. Board and Director Skills</b>	
R3.1	Include more detail about how required skills are identified in the ICHL appointments process. This should include the use of a skills gap analysis and/or competency matrix to ensure diversity.
R3.2	Include a list of core director competencies for ICHL appointments in the ARDP
<b>4. Tenure and Reappointment</b>	
R4.1	Specify the tenure of Council directors to ICHL and EIL in the ARDP.
R4.2	Include details of how reappointments to the ICHL Board are managed and considered
<b>5. Conflicts of Interest</b>	
R5.1	Develop and implement a process for declaring conflicts of interest as part of the director appointment process and include details in the ARDP.

### Out of Scope

Several issues presented during this review that are outside the scope of the ARDP. These include considering performance evaluation and review, monitoring and accountability procedures and the effectiveness of current checks and balances. A summary of these recommendations is available on page 16.

## Background

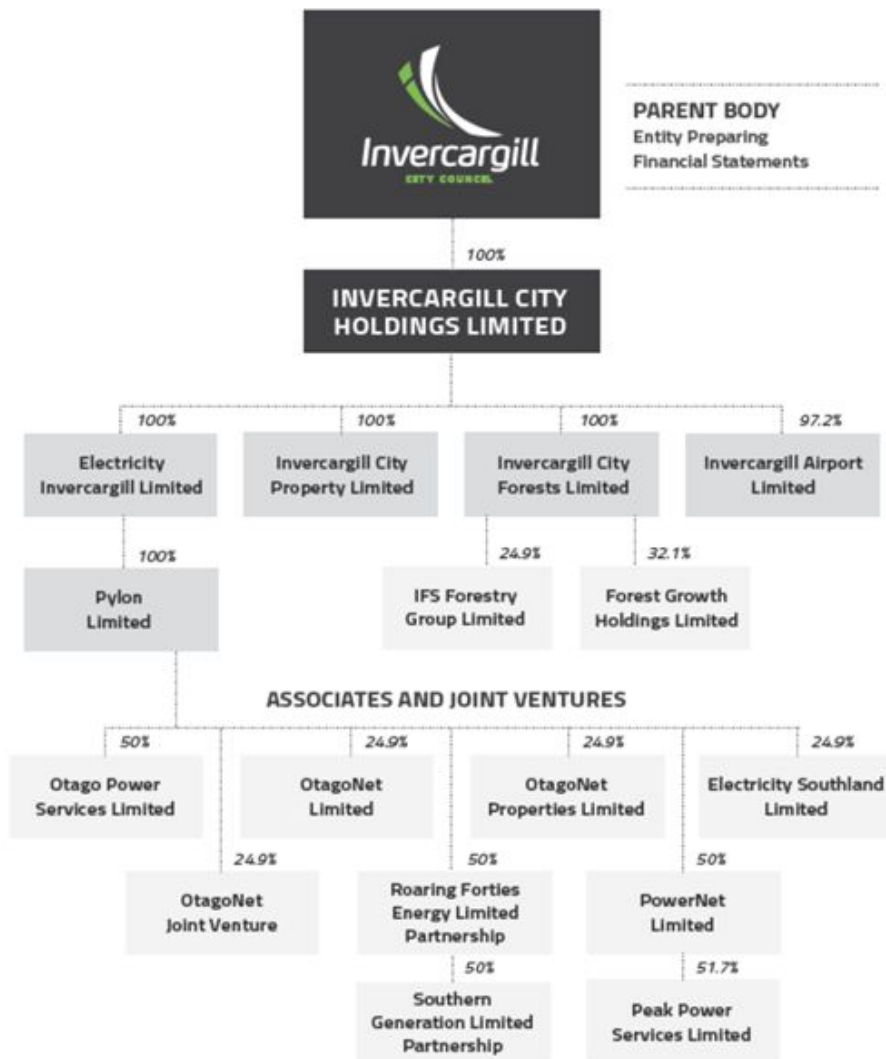
Invercargill City Council (ICC) established a holding company – Invercargill City Holdings Limited (ICHL, also known as Holdco) in 1995 to provide arms-length monitoring and oversight of Council Organisations – in particular, Invercargill Airport Limited and Electricity Invercargill Limited.

The central purpose of ICHL, both historic and current, is driven by administrative and tax advantages. Another common rationale for Councils to establish an arms-length entity is to benefit from the input of commercial expertise. This is, overall, a secondary consideration for ICC.

ICC commissioned this report, following several recent issues around appointment and remuneration processes. The instructions for this review included a specific direction to consider the practice of appointing Councillor directors to COs.

## CO Structure

The below diagram illustrates the CCTOs of which ICHL is the parent company. Council also appoints directors to COs in which it has a non-controlling interest, which are not included in this diagram.



## Key Issues

### 1. Councillor Directors

#### ICHL Councillor Directors

ICC currently appoints Councillor directors to ICHL. The 2014 Appointment and Remuneration of Directors Policy (ARDP) states that *“It is intended that a majority of ICHL directors be Councillor directors, subject to sufficient suitable candidates being identified.”*

Several reasons are cited by elected members and officers for this provision, including:

- History/legacy
- To ensure that commercial organisations retain a ‘social conscience’
- For Council to have an active role in overseeing investment decisions
- To ensure that COs do not act in a way that is contrary to Council values and priorities
- The current arrangement is considered successful – compared to examples of other Councils that did not retain a strong Council voice and are considered by ICC to have suffered negative consequences as a result.

The risks and disadvantages of appointing elected members as directors of COs include:

- The potential for conflict between the director’s obligations to Council and to the subsidiary. This can compromise integrity and performance in one (or both) of these roles
- Elected members with the most knowledge about COs may be unable to participate in Council decisions on matters regarding the subsidiary
- Elected members may lack the appropriate skills, knowledge and experience to contribute effectively to the governance of Council organisations.

It is uncommon for the majority of a CO board to be comprised of Councillor directors.

The current Office of the Auditor General (OAG) advice is to avoid elected members as directors. The advice states that

*“We consider appointing elected members to CCO boards should be the exception<sup>1</sup>.”*

The OAG also notes that

*“If local authorities wish to appoint elected members to their subsidiary boards, then the appointment should be open and transparent, and subject to the same selection criteria as for independent directors.<sup>2</sup>”*

The OAG acknowledges there may be some value in bringing a Council voice to CCO governance, however this should be a secondary priority to ensuring that directors have the skills and experience necessary to contribute fully to the governance of the CCO.

It is outside of the scope of this review to comment on whether current Council directors have the appropriate skills, knowledge and experience to contribute effectively.

Elected members strongly support the retention of Councillor directors to ICHL and other COs. However, Councillor directors are not the only, or even most effective, method by which ICC can exert influence over the direction and decision-making of COs. By mandating a majority contingent of Councillor directors, ICC risks reducing the valuable contribution of independent directors with corporate governance experience.

In the view of the OAG, independent directors can provide commercial and governance expertise, diversity and separation between political and operational arms of Council. Any concerns about the performance of CO directors that lack local government knowledge and experience can be mitigated by an effective director induction process.

<sup>1</sup> Office of the Auditor-General (2015) *Governance and accountability of council-controlled organisations* p.33

<sup>2</sup> Office of the Auditor-General (2015) *Governance and accountability of council-controlled organisations* p.33

INVERCARGILL CITY COUNCIL | Appointment and Remuneration of Directors Policy Review

In balancing the wishes of Council with currently recommended best-practice, it is recommended that Council reduce the number of Councillor directors to ICHL to the minority and strengthen other channels that will enable Council's continued influence over the governance of Council organisations.

**Recommendation 1.1: Reduce the number of Councillor directors to ICHL to enable a majority of independent directors**

**Recommendation 1.2: Strengthen alternative channels of ICC influence over Council Organisations**

**Recommendation 1.3: Develop, in collaboration with ICHL, a formal induction process – particularly for independent directors who are unfamiliar with local government**

### Other Council Directorships

Elected members also hold directorships on the boards of CCTOs, which are ICHL subsidiaries, including Electricity Invercargill Limited (EIL) and Invercargill Airport Limited (IAL).

The matter of these appointments is considered in the current ARDP, which states *“As a general approach, Councillors or council staff would not normally be appointed as Directors of CCTOs other than ICHL or EIL. However, when it is proposed that such a person has skills or experience that would, having considered this policy, be beneficial to the operation of any other CCTO or subsidiary, or other good grounds exist for the appointment, then such appointment may be made by ICHL.”*

#### *Electricity Invercargill Limited*

Decisions on Council appointments to the EIL Board, as with independent appointments, are made by ICHL. Prior to 2014, these appointment decisions were made by Council's Appointments Committee. While there is not a formal allocation of a Council directorship to this CO, as with ICHL, there is a well-established convention to suggest that the EIL board is to include a Council director. Should Council wish to continue with this arrangement, it is important for the purposes of transparency that this be outlined clearly in the ARDP. Further, if this is a Council directorship, appointments should be made by the ICC Appointments Committee, with inclusion of the EIL Chair. The process for this decision-making should align with that for ICHL and be specified in the policy.

**Recommendation 1.4: Formalise the appointment of a Council director to EIL in the ARDP**

**Recommendation 1.5: Manage elected member directorships to EIL through the ICC Appointments Committee**

#### *Other CCTOs*

The policy in its current form enables ICHL to appoint elected members as directors to other CCTOs, without obtaining Council approval. It is assumed that this practice views elected members as 'independent directors' rather than ICC representatives. However, this practice heightens the risk of real or perceived conflicts of interest. It may also invite questions about the transparency of the appointments process, particularly when directorships which are remunerated.

For this reason, it is recommended that Council adjust the policy to require elected members seeking or considering directorship to a CCTO other than ICHL or EIL to have the matter considered and formally resolved by Council before accepting a position.

**Recommendation 1.6: Elected members seeking directorships to CCTOs other than ICHL or EIL must receive formal Council approval before accepting a position.**

## 2. Director Appointments

Currently, Council appoints directors to the board of ICHL. ICHL is then responsible for the appointment of directors to its subsidiary CCTOs, as is appropriate for the current structure. ICHL's Chair is appointed by the ICHL Board.

### ICHL Appointments Process

The process for identifying and appointing directors to Council's holding company are distinguished by whether the director is a Councillor or an independent director.

#### *Council Directorships*

For Councillor directors, an Appointments Committee determines the required skills, knowledge and experience and assesses self-nominated Council candidates against these criteria.

The process is enhanced by the presence of an independent employment specialist and other external professional on the Committee.

While stakeholders informed the reviewer that this process involves an interview process, this is not currently stipulated in the ARDP. Eligibility criteria for nomination seems to be based on a personal interest.

S57 of the Local Government Act 2002 (LGA) states that

*“(1) A local authority must adopt a policy that sets out an objective and transparent process for-*

- (a) The identification and consideration of the skills, knowledge and experience required of directors of a council organisation; and*
- (b) The appointment of directors to a council organisation; and*
- (c) The remuneration of directors of a council organisation.”*

The current policy may not contain enough detail to satisfy this requirement. The OAG considers that the ARDP should cover such as matters as:

- Eligibility for appointment
- The process for identifying candidate skill requirements
- How candidates are identified
- Appointments Committee composition
- Involvement of the board chair
- Director remuneration.

To comply with the LGA and OAG advice, the ARDP should be more specific about the process and parameters for identifying candidate skill requirements and how candidates are identified. A step-by-step process would improve the transparency and robustness of the current policy and procedure. An example of how this process may be detailed in the policy has been included as **Appendix 1**. The methods for identifying potential candidates, as well as advertising or communicating vacancies, should also be included. Ideally, this would include guidance for when each method may be used. An example of how this might be presented in the policy is included as **Appendix 2**.

**Recommendation 2.1: Confirm and detail a step-by-step appointments process in the ARDP, to satisfy the requirements of s57(1) of the LGA**

**Recommendation 2.2: Include guidelines that detail how potential candidates will be sought**

#### *Independent Directors*

For independent (non-Council) directors, the ICHL Board recommends preferred candidates. This recommendation is then considered by Council.

Section 57(2) of the LGA outlines that appointing directors to Council organisations is the responsibility of the local authority.



The OAG states that *“Appointing directors is an important role, because it is one of the local authority’s principal means for influencing the performance of a CCO. In large part, good governance depends on the performance of the directors.”*<sup>3</sup>

It is entirely appropriate, and advisable, for the ICHL Board to have some means of input into the appointment of directors. However, the process as currently outlined significantly reduces the opportunity for Council to exert influence in this process. It would be more appropriate for the appointment process to be managed in the same manner as Councillor directors, by the established Appointments Committee. An ICHL Board Member or Chair could form part of this committee. This would also fulfil Recommendation 1.2 by strengthening alternative channels of influence for Council organisations.

**Recommendation 2.3: Appointment of independent directors to ICHL should be made in the same way as Councillor directors. An ICHL representative should form part of the Appointments Committee.**

#### *ICHL Chair*

The ICHL Chair is a critical role which greatly influences the success of the Board, ICHL and by extension, its subsidiaries. The current ARDP assigns the nomination of Chair to the ICHL Board. However, like appointment of independent directors, delegating this role to the ICHL Board significantly reduces the opportunity for Council’s influence over the governance of the Board.

This appointment should be made by a Council committee, in the same fashion as other director appointments.

**Recommendation 2.4: Appointment of the ICHL Board Chair should be made by Council’s Appointments Committee.**

### Council Controlled Organisations (CCOs) and Council Controlled Trading Organisations (CCTOs)

Appointments to CCOs and CCTOs are managed by ICHL, as Council’s holding company. This appointments process is outlined at length in the ARDP and should also be clearly outlined in the ICHL Constitution. As per the current ARDP *“The ICHL Board may but is not obliged to consult with Council in respect of Director appointments.”* The processes outlined in the policy appears comprehensive and in alignment with recommended corporate governance practice.

### Council Organisations

Council also has non-controlling interests in several non-profit COs, over which ICHL has no governance or monitoring role. Appointment to directors of these organisations is the remit of the individual organization, however Council can elect to provide a Council appointee to each of these organisations for the purposes of monitoring, to satisfy a request from the CO or to meet statutory requirements.

The current policy does not outline a comprehensive process for determining how Council appointees will be selected. While acknowledging that there are likely to be a more diverse range of potential attributes required of an appointee in this context, outlining the procedural elements of this process will improve Council’s transparency and consistency of operations. This is likely to be a similar or slightly modified process to that outlined for ICHL.

**Recommendation 2.5: Outline the process for appointment of a Council appointee to Council Organisations in which Council has a non-controlling interest.**

<sup>3</sup> Office of the Auditor-General (2015) *Governance and accountability of council-controlled organisations* p.31

### 3. Board and Director Skills

#### ICHL Appointments Criteria

The skills and competencies required for a specific vacancy are likely to depend on the current composition of the ICHL Board at any one time. For this reason, it is unlikely that Council can stipulate what the required competencies of a specific director should be ahead of time.

However, the current ARDP can be improved by outlining the steps that are involved in identifying the required skills and attributes. These might include the use of a skills gap analysis and/or competency matrix (see **Appendix 3 and Appendix 4** for examples.) Considering the desired overall composition of the Board, as well as the skills required by individual directors, is an effective way for Council to ensure that there are a diverse range of skills and perspectives represented on the board.

The OAG notes that *“If a local authority complies with Section 57 of the Act, the board of a CCO should be made up of a diverse range of people who are able to bring relevant expertise to the organization. For the board to be fully effective, it should comprise directors with a range of complementary skills and experience to ensure that ideas are challenged and tested, and that decision-making is robust.”*

Without taking steps to ensure this diversity, Council risks limiting the effectiveness of the Board by limiting the potential for debate, challenge and innovation.

There are also likely to be a set of core competencies that are required of any director. Listing these competencies in the policy provides a more transparent understanding of the director selection process. A general list of this type is currently provided to guide the appointment of directors for CCTOs, but not for ICHL.

Suggested core competencies must include:

- Sound judgement and decision-making
- Commercial acumen
- Public service ethos
- High personal integrity
- Clear communication
- Effective teamwork and collaboration
- Strategic thinking
- Risk management understanding
- Corporate citizenship
- Understanding of the wider interests of the publicly accountable shareholder.

**Recommendation 3.1:** Include more detail about how required skills are identified in the ICHL appointments process. This should include the use of a skills gap analysis and/or competency matrix to ensure diversity.

**Recommendation 3.2:** Include a list of core director competencies for ICHL appointments in the ARDP

## 4. Tenure and Reappointment

The current policy provides sufficient detail and rationale for the tenure of Directors to COs and considers the matter of reappointment to CCTOs that fall under the remit of ICHL.

Independent directors to ICHL are appointed in 'staggered' terms of 1,2,3 or 4 years to prevent all positions coming vacant at the same time. The ARDP is silent on the term of Council directors, however stakeholders believed that Council directors were appointed for three years, following each local body election. This should be made explicit in the policy for full disclosure. This provision will also apply to Council directorships for EIL.

However, it is currently silent on how potential reappointments, of independent or Councillor directors, will be managed for ICHL.

To fulfil s57(1) of the LGA, the ARDP should include details about the process for reappointment of an ICHL Board member. The reappointment process should consider the performance of the individual director, and the needs of the Board as a whole.

Factors that might be considered as part of this process include:

- The views of the ICHL Chair, through an informal discussion with the ICC Appointments Committee
- The current composition of skills on the ICHL Board, including any identified gaps
- Whether any aspects of Board performance need to be assessed
- Whether the process offers an opportunity to increase the diversity of the Board
- Whether the retiring director is a potential candidate for future Chair.

Board members should not be given any expectation that they will be automatically offered a subsequent term of office automatically.

**Recommendation 4.1: Specify the tenure of Council directors to ICHL and EIL in the ARDP**

**Recommendation 4.2: Include details of how reappointments to the ICHL Board are managed and considered.**

## 5. Conflicts of Interest

The current policy does not include any guidance on identifying, declaring and managing potential conflicts of interest in appointing directors to boards of Council organisations. The addition of this guidance would improve checks and balances in the appointments process, contributing to more effective and transparent governance.

All applicants for a director position should formally declare any potential conflicts of interest, and the Appointments Committee, Council and ICHL, should have regard to existing directorships and any other sources of potential conflicts. In considering appointment where a potential conflict of interest has been identified, the Appointments Committee should be confident that:

- The candidate will be able to make an effective contribution, even if their interest means that they cannot participate in discussions or votes relating to one or more activities of the organisation, and/or
- Measures can be put in place to effectively manage the conflict.

Further guidance on managing conflicts should be available in the relevant constitution and can also be found in the Companies Act 1993.

Elected members required to manage conflicts of interest resulting from directorships to Council organisations, as well as any other source, should be guided by an organisation-wide Conflict of Interest Policy. ICC does not currently have such a policy.

**Recommendation 5.1: Develop and implement a process for declaring conflicts of interest as part of the director appointment process and include details in the ARDP.**

## Review Approach

This review was carried out by an independent local government policy specialist, using the following steps

- Initial desktop review of the existing policy, recommended practice and other guidance
- In-person interviews with key stakeholders from across ICC and its COs.
- A facilitated workshop with ICC elected members to identify key concerns and issues
- Follow-up research, analysis and preparation of findings
- Discussion of a report draft with Council officers
- Finalisation of the report.

Further information about the documents reviewed, stakeholders interviewed, and workshop participants is included in **Appendix 5 and Appendix 6**.

This report takes a 'reporting by exception' approach, only commenting on issues that are considered to require attention or changes. It is for this reason that the recommendations relate primarily to appointment, rather than remuneration, of directors. Remuneration is managed in a detailed and transparent fashion which appears to align to recommended best practice.

## Recommended Policy Actions

	Recommendation	Details
<b>1. Council Directorships</b>		
<b>R1.1</b>	Reduce the number of Councillor directors to ICHL to enable a majority of independent directors.	Reducing the number and balance of elected members on the ICHL Board will increase the value that can be added by independent directors with corporate governance experience. It will also reduce the risks associated with elected members acting as CO directors.
<b>R1.2</b>	Strengthen alternative channels of ICC influence over Council Organisations	Alternative channels should include monitoring and accountability procedures (more detail in the Matters outside of Review Scope) as well as increased Council ownership of appointments as per R2.3 and R2.4.
<b>R1.3</b>	Develop, in collaboration with ICHL, an induction process for independent directors unfamiliar with local government.	An induction process will mitigate the perceived risk of independent directors participating in CO governance without local government experience.
<b>R1.4</b>	Formalise the appointment of a Council director to EIL in the ARDP	Council directorships should be clearly specified in the ARDP to promote transparency and accountability.
<b>R1.5</b>	Manage elected member directorships for EIL through the ICC Appointments Committee	Addition of this process will better satisfy the requirement of s57 of the LGA and strengthen the robustness, transparency and consistency of the director appointments process.
<b>R1.6</b>	Elected members seeking directorships to organisations other than ICHL or EIL must receive formal Council approval before accepting a position.	This additional approval step will reduce the potential for real or perceived conflicts of interest and improve the transparency of the appointments process.
<b>2. Director Appointments</b>		
<b>R2.1</b>	Confirm and detail a step-by-step appointments process in the ARDP	Addition of this process will better satisfy the requirement of s57 of the LGA and strengthen the robustness, transparency and consistency of the director appointments process.
<b>R2.2</b>	Include guidelines that detail how potential candidates will be sought	Addition of these guidelines will better satisfy the requirement of s57 of the LGA and strengthen the robustness, transparency and consistency of the director appointments process.
<b>R2.3</b>	Appointment of independent directors to ICHL should be made in the same way as Councillor directors. An ICHL representative should form part of the Appointments Committee.	Council ownership of this process will better satisfy the requirement of s57 of the LGA and strengthen non-director channels of influence over CO governance, as per R1.2.

	Recommendation	Details
R2.4	Appointment of the ICHL Board Chair should be made by Council's Appointments Committee.	Council ownership of this process will better satisfy the requirement of s57 of the LGA and strengthen non-director channels of influence over CO governance, as per R1.2.
R2.5	Outline the process for appointment of a Council appointee to Council Organisations in which Council has a non-controlling interest.	Addition of this process will better satisfy the requirement of s57 of the LGA and strengthen the robustness, transparency and consistency of the director appointments process.
<b>3. Board and Director Skills</b>		
R3.1	Include more detail about how required skills are identified in the ICHL appointments process. This should include the use of a skills gap analysis and/or competency matrix to ensure diversity.	Confirming and outlining this additional detail will enable improved competency and diversity of CO governance, while also making the skills identification process more transparent and robust.
R3.2	Include a list of core director competencies for ICHL appointments in the ARDP	Including this list will solidify Council's thinking as well as making priorities for director skills more explicit, improving the transparency of the appointment process.
<b>4. Tenure and Reappointment</b>		
R4.1	Specify the tenure of Council directors to ICHL and EIL in the ARDP.	Addition of this information will better satisfy the requirement of s57 of the LGA and strengthen the robustness, transparency and consistency of the director appointments process.
R4.2	Include details of how reappointments to the ICHL Board are managed and considered	Addition of this information will better satisfy the requirement of s57 of the LGA and strengthen the robustness, transparency and consistency of the director appointments process.
<b>5. Conflicts of Interest</b>		
R5.1	Develop and implement a process for declaring conflicts of interest as part of the director appointment process and include details in the ARDP.	An effective and recorded process will mitigate the risk of real and perceived potential conflicts impacting Council and CO decision-making, and improve the transparency and robustness of CO governance.

## Matters outside of Review Scope

In addition, this process raised several matters which are outside of the scope of this review, but would benefit from attention.

**Company Structure** – Expectations of Council control over ICHL subsidiaries indicated some discontent with the current structure of Council’s CCOs and CCTOs. Should this continue after policy changes have been implemented, a review of the effectiveness of the current companies’ structure, with the view to recommending potential changes, may be in order.

**Conflicts of Interest** – This review recommends the addition of a conflicts of interest process for director appointments. There is currently no ICC policy on how to manage conflicts of interest in Council discussions and decision-making. It is recommended that ICC develop a Conflict of Interest Policy to manage conflicts or potential conflicts arising from Councillor directorships as well as other sources to ensure transparency, consistency and good governance.

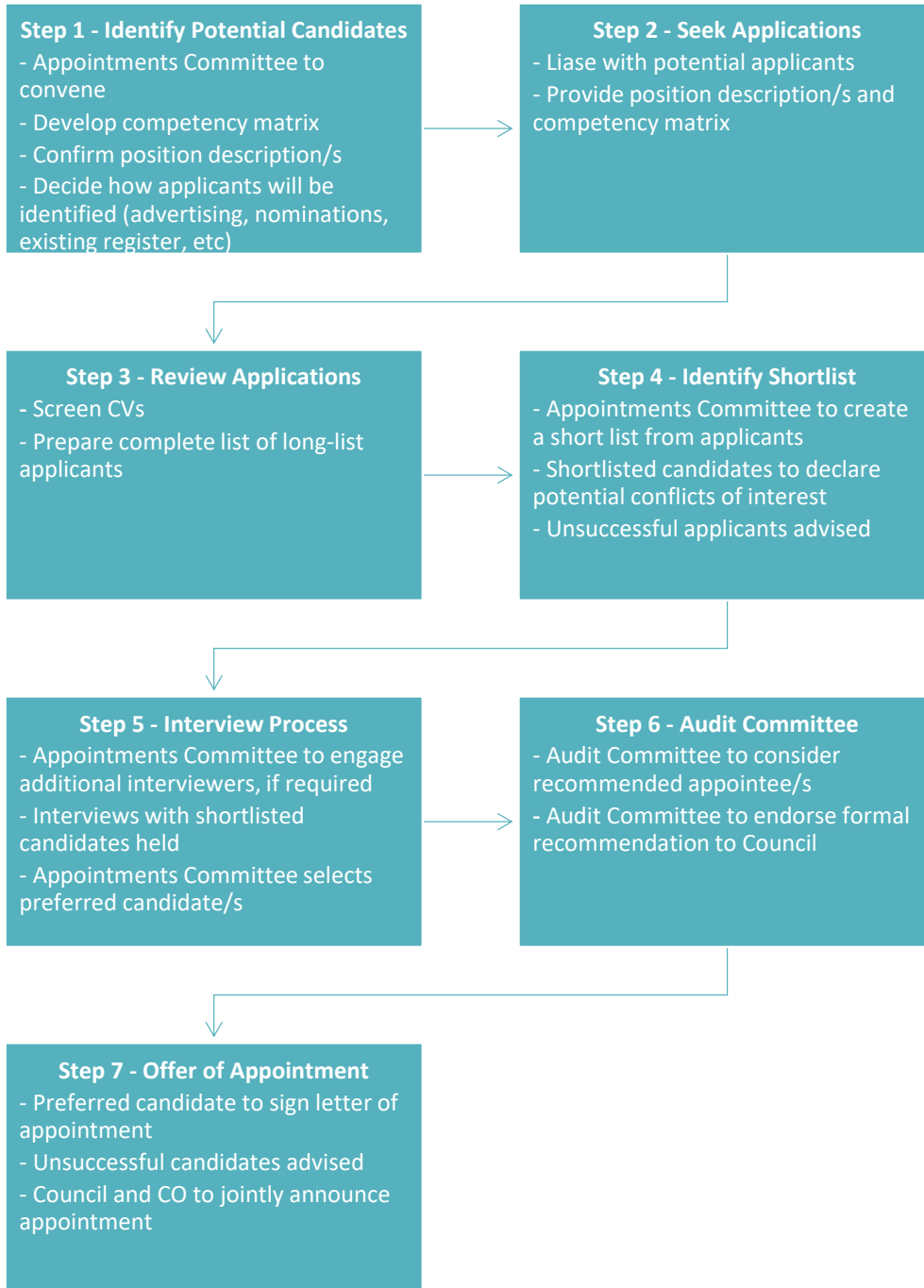
**Monitoring and Accountability** - In considering the matter of Councillor directorships, it is appropriate to reference the OAG position that a Councillor’s board presence *“should not be a substitute for a formal system for monitoring and accountability.”*

While monitoring and accountability of Board performance is outside of the remit of this policy review, it is recommended that Council seek to refresh and strengthen existing processes. The reduction of Council representation on ICHL, as recommended by this review, may lead to a perception of a ‘loss of control’ of CO boards. This impact will be mitigated by other changes recommended in this report, including ICC appointment of the ICHL Chair and independent directors. Potential mitigation methods that may result from a review of current monitoring and accountability practices could include:

- The implementation of formal Board evaluation processes
- Increased engagement in the Statement of Intent process, including closer scrutiny of performance KPIs
- Changes to agreed frequencies and channels of communication throughout the year
- Delegating the monitoring of CO performance to a Council officer or department
- Reviewing current ‘checks and balances’ in the relationship between COs and ICC, including whether ICC officers should hold employment in COs.

# Appendices

## Appendix 1: Director Appointment Process Example





## Appendix 2: Candidate Identification Methods Example

Method	Notes
Advertising	<p>Advertising is most appropriate for independent directors. It will usually be used in situations where</p> <ul style="list-style-type: none"> <li>▪ The Committee is seeking fresh input or increased diversity to the Board</li> <li>▪ The Committee has identified a skills gap on the Board which is unlikely to be available from candidates sourced via other methods</li> <li>▪ It is considered there are unlikely to be a sufficient number of applicants sourced via other methods</li> <li>▪ There is high public interest in a director appointment.</li> </ul>
Council Nominations	The Mayor or other elected members may nominate potential candidates for Councillor or independent director vacancies.
External Nominations	Crown agencies or community stakeholders may wish to nominate potential candidates for independent director vacancies.
Executive Recruitment Search	<p>Professional recruitment professionals may be utilised for independent directors. This is likely to be appropriate in situations where:</p> <ul style="list-style-type: none"> <li>▪ The appointment is for Board Chair</li> <li>▪ The Committee has identified a skills gap on the Board which is unlikely to be available from candidates sourced via other methods</li> <li>▪ There are unlikely to be a sufficient number of applicants sourced via other methods.</li> </ul>
Council or Board Register of Directors	Utilising a register of potential directors will maintain a current list of potential candidates for independent or Councillor vacancies.

### Appendix 3: Board Skills Analysis Example

Desired Skills	Director 1	Director 2	Director 3	Director 4	Director 5
Accounting	•			•	
Finance			•		
Law					
Marketing and Communications			•		•
Information Technology	•	•			
Senior management experience		•			
Industry knowledge		•			•
Sector knowledge				•	

### Appendix 4: Director Competency Matrix Example

	Not Competent/ NA	Partially Competent	Mostly Competent	Fully Competent
Industry experience				
Knowledge of sector				
Knowledge of public policy environment				
Corporate governance experience				
Financial literacy				
Strategic thinking				
Executive performance management				
Governance related risk management				
Compliance focus				
Profile/ reputation				
Team player				
Ability to question and challenge				
Sound judgement				
Mentoring abilities				
Personal integrity and ethics				
Communication skills				
Willingness and ability to invest time in role				



## Appendix 5: Key Documents Reviewed

This review canvassed a wide range of documents, including the policies of several other local authorities. **Key** reference documents consulted as part of this review included:

- Invercargill City Council Appointment and Remuneration of Directors Policy – 2010, 2014
- 2017 Invercargill City Holdings Limited Statement of Intent
- 2018 Invercargill City Forestry Limited Statement of Intent
- 2018 Invercargill City Property Limited Statement of Intent
- 2018 Electricity Invercargill Limited Statement of Intent
- Invercargill City Council Finance and Policy Minutes 2013, 2014, 2016, 2017
- Office of the Auditor General (OAG) – Governance and Accountability of Council-Controlled Organisations, 2015
- Larsen Consulting, Governance Review of All Companies in Which Dunedin City Council and/or Dunedin City Holdings has an Equity Interest of 50% or more (Public Release Version), 2011
- Local Government Act 2002
- Companies Act 1993

## Appendix 6: Stakeholders Consulted

Stakeholders interviewed as part of this review included:

- Dean Johnson, ICC Director Corporate Services, ICHL Chief Executive
- Tom Campbell, EIL Chair
- Cameron McCulloch, ICHL Chair
- Paul Horner, Southland Museum and Art Gallery Manager

Participants at the facilitated workshop included:

- Cr Lindsay Abbott
- Cr Rebecca Amundsen
- Cr Allan Arnold
- Cr Karen Arnold
- Cr Toni Biddle
- Cr Alex Crackett
- Cr Lloyd Esler
- Cr Graham Lewis
- Cr Darren Ludlow
- Cr Ian Pottinger
- Cr Lesley Soper
- Cr Lindsay Thomas
- HWTM Tim Shadbolt
- Richard King, ICC Chief Executive
- Dean Johnson, ICC Director Corporate Services, ICHL Chief Executive
- Cameron McIntosh, ICC Director Works and Services