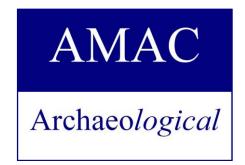
FINAL ARCHAEOLOGICAL REPORT

Newcastle Annexe SHR 0795 Former Newcastle East Public School 58 Bolton St, Newcastle, NSW

Volume 1: Report





Prue Newton, Ivana Vetta Martin Carney & Alex Thorn

Archaeo *logical* Management & Consulting Group

for

DJB Developments

October 2019

Disclaimer

The veracity of this report is not guaranteed unless it is a complete and original copy.

This report may be inaccurate, incomplete, not original, or modified, if it appears in monochrome form and the signature below is a copy.

Martin Carney Director (mobile 0411 727 395)



Archaeological Management & Consulting Group

AEGIS HERITAGE Pty Ltd ACN 121 655 020

Ph (02) 9568 6093 Fax (02) 9568 6093 Mob 0411 727 395

E-mail <u>amac@archaeological.com.au</u>

Cover Image

Clockwise from top left: Pier R, Final facing north (20/07/2017, Image 1123); Pier B, Final facing south (20/07/2017, Image 1152); Pier E, Final facing east (20/07/2017, Image 1187); Stairwell, Final facing north (21/07/2017, Image 1214).

Volume 1

Con	TENTS	PA	GE
TABLE	OF FIG	GURES	4
LIST O	F TABL	ES	7
		UMMARY	8
	_		
GLOS	SARY		10
1.0		DUCTION	15
1.1		GROUND	15
1.2		AREA	15
1.3	SCOPE		15
1.4 1.5		OR IDENTIFICATION ITORY CONTROLS	15 16
1.5	1.5.1	NSW Heritage Act 1977 (as amended)	16
	1.5.1	National Parks and Wildlife Act (1974)	16
	1.5.3	State Heritage Register and Inventory	16
	1.5.4	Newcastle Local Environment Plan 2012	17
	1.5.5	Newcastle Development Control Plan 2012	17
	1.5.6	Newcastle Archaeological Management Plan 1997	18
	1.5.7	Newcastle Archaeological Management Strategy 2015	18
1.6	PREVI	OUS HERITAGE STUDIES AND REPORTS	18
	1.6.1	Conservation Management Plan 2013 – Newcastle Court House	
		Annexe, Site & Buildings, Former Newcastle East Public School	18
	1.6.2	Statement of Heritage Impact – Proposed Unit Development at 58	
		Bolton Street, Newcastle	18
	1.6.3	Archaeological Assessment and Test Excavation Application under	
	161	s60 Heritage Act 1977 – 58 Bolton Street, Newcastle, July 2015	19
	1.6.4	Interim Archaeological Test Excavation Report – For Purposes of IDA	19
	1.6.5	Archaeological Test Excavation Report – Documentation supporti	
	1.0.5	s60 Permit Application	19
1.7	ACKNO	DWLEDGMENTS	19
2.0 2.1		IISTORY	20
2.1	HISTO	ASTLE EAST PUBLIC SCHOOL	20 21
2.3		NAL GRANT	24
2.0	2.3.1	Allotment 84	24
	2.3.2		24
		Allotment 80	24
	2.3.4	Allotment 85	24
2.4	SUBSE	EQUENT OWNERS AND OCCUPANTS	25
	2.4.1	Allotment 84	25
	2.4.2		25
		Allotment 80	26
	2.4.4		28
2.5		RIC DEVELOPMENT	28
	2.5.1	Pre-1830s Buildings	28
	2.5.2	Allotment 84	28
	2.5.3	Allotment 82	30
	2.5.4 2.5.5	Allotment 80 Part of Allotment 85	31 31
	۷.ن.ک	i ait oi Ailottiicht oo	JI

	2.5.6 Newcastle East Public School2.5.7 Topography of Study Site	32 32
3.0	RESULTS OF ARCHAEOLOGICAL SALVAGE EXCAVATION	62
3.1	BACKGROUND	62
	3.1.1 Excavation Team	62
3.2	SITE SPECFICIC EXCAVATION METHODOLOGY	63
	3.2.1 Liaison and Site Safety	64
	3.2.2 Public Information	64
3.3	SUMMARY OF TEST EXCAVATION RESULTS	66
3.4	STRATIGRAPHIC REPORT – ZONE 2	76 70
	3.4.1 Pier A 3.4.2 Pier B	79 81
	3.4.3 Pier C	87
	3.4.4 Pier D	91
	3.4.5 Pier E	95
	3.4.6 Strip F	100
	3.4.7 Strip G	102
	3.4.8 Strip H	108
	3.4.9 Stairwell	114
	3.4.10 Lift Well	121
3.5	STRATIGRAPHIC REPORT - ZONE 3	124
	3.5.1 Trench R	124
	3.5.2 Trench K, L, M and N	128
	3.5.3 Trenches J and P	130
2.6	3.5.4 Trench Q GEOLOGY AND SOILS	131 133
3.6	GEOLOGY AND SOILS	133
4.0	ARTEFACT ANALYSIS	135
4.1	INTRODUCTION	135
4.2	METHODOLOGY	135
	4.2.1 Cleaning and Drying	135
	4.2.2 Sorting and Cataloguing	135
	4.2.3 Type Series 4.2.4 Minimum Number of Vessels	135 135
4.3	OVERVIEW OF THE ASSEMBLAGE	135
7.5	4.3.1 Preamble	135
	4.3.2 Activity	136
	4.3.3 Condition	140
	4.3.4 Percentage	140
4.4	MAKERS AND DISTRIBUTORS	140
	4.4.1 Ceramic: Makers	140
	4.4.2 Building Materials: Makers	141
	4.4.3 Miscellaneous: Pencil Maker	141
	4.4.4 Miscellaneous: Clay Pipe Maker	141
4.5	PATTERNS	141
4.0	4.5.1 Conjoins	143
4.6	CONTEXT SUMMARY	143
	4.6.1 Context 237 – 1834-1875 (Estimate)	143
5.0	RESPONSE TO RESEARCH DESIGN	146
5.1	INTRODUCTION	146
5.2	RESPONSE TO RESEARCH DESIGN	147
	5.2.1 Topography	147
	5.2.2 Pre-European settlement 5.2.3 Early Newcastle (1801-1840)	151 152
	5.2.3 Early Newcastle (1801-1840)	102

	5.2.4 5.2.5	Early subdivision and first Christ Church School (1840-1850s) Second Christ Church School and residential development (189	155 50s-
	5.2.6 5.2.7	1891) Newcastle East Public School (1891-1908) New school building and 20 th century occupation (1908-present	163 174 t) 174
6.0 6.1 6.2 6.3	METHO IDENTI	ED ASSESSMENT OF SIGNIFICANCE DDOLOGY FICATION OF SIGNIFICANCE MENT OF CULTURAL SIGNIFICANCE	177 177 178 181
7.0	PERMI	T COMPLIANCE	183
8.0 8.1 8.2 8.3 8.4 9.0	RESUL 8.1.1 8.1.2 8.1.3 8.1.4 RECOM ARTEF PUBLIC	Documentary Research Summary of Salvage Excavation Results Revised Archaeological Potential	185 185 185 186 186 187 187 187
	ıme 2		
CONT	TENTS	•	PAGE
APPE	NDIX A -	- PERMIT S60/2017/80	193
APPE B.1 B.2	TEST E	- UNIT LIST EXCAVATION GE EXCAVATION	200 200 204
APPE	NDIX C -	- SALVAGE EXCAVATION - PHOTOGRAPHIC REGISTER	210
APPE D.1 D.2 D.3	CATAL ARTEF	· ARTEFACT CATALOGUE OGUE ACT TYPE SERIES FIELD DEFINITIONS	239 240 265 269

TABLE OF FIGURES

Figure 1.1	Site location outlined in red	11
Figure 1.2	Aerial photograph showing study site (outlined in red)	12
Figure 1.3	State Heritage Register Listing – SHR 00795	
Figure 1.4	Heritage Map 004K	
Figure 2.1	Armstrong's c. 1830 town plan of Newcastle, with inset showing the	
_	study site	
Figure 2.2	c.1834 Plan of Newcastle	
Figure 2.3	1836-1841 Plan of Newcastle	35
Figure 2.4	1843 drawing of Newcastle	
Figure 2.5	Detail of painting "Newcastle in 1849" by John Rae	37
Figure 2.6	1852 Crown plan showing the school site on Lot 84 and building on	
	part of Lot 85.	38
Figure 2.7	1857 'View of Newcastle, Hunter's River, N.S.W. From the Obelisk,	
	Looking North.'	
Figure 2.8	Plan of town of Newcastle dating 1855-1864.	
Figure 2.9	Floor plan of Christchurch School	
Figure 2.10	Christ Church School in the 1870s	
Figure 2.11	St John's School at Cooks Hill, constructed c.1857, still standing	
Figure 2.12	Newcastle, Engraving, A.C. Cooke; Gibbs Shallard & Co. artists and	
	engravers, 1874	
Figure 2.13	John Rae's 1878 – 1882 panoramic photograph of Newcastle	
Figure 2.14	c. 1883 Photograph taken from Newcomen Street, Newcastle	
Figure 2.15	1886-1896 photograph from Newcomen Street	
Figure 2.16	1886-1896 photograph from hospital grounds of buildings on Church	
	Street	
Figure 2.17	1882 sketch of school site by McCormack, Inspector for Department	
	Public Instruction.	
Figure 2.18	Newcastle, N.S.W, 1886.	
Figure 2.19	Engraving of Newcastle dated to 1889 by A. Scott Broad	
Figure 2.20	Engraving of Newcastle, 1889 by A.C. Cooke	
Figure 2.21	Plan showing resumed land, 1894.	
Figure 2.22	Plan showing resumption of cottages on Lot 80	
Figure 2.23	1892 plan showing resumption of part of Lot 85	
Figure 2.24	Map of Newcastle, vicinity of Newcomen & Tyrell Streets, Hunter Wa	
F: 0.05	Board, 1896	
Figure 2.25		
Figure 2.26	Plan of foundations of 1908 building with old well.	
Figure 2.27	Plan of showing land offered by Ash in 1910	
Figure 2.28	1915 plan showing filled in areas and fence repair	
Figure 2.29	Newcastle East Public School, working drawing of toilet block, 1966.	
Figure 3.1	Proposed archaeological works zonesPlan of Site	
Figure 3.2	Trench Location Plan.	
Figure 3.3 Figure 3.4	Trench 1 after final clean, showing orientation of sandstone	07
rigule 3.4	foundations [007], [010] and [011]. Facing southeast	60
Figuro 2.5	Sondage A, showing remnant mortar layer [014] on top of fill [013].	00
Figure 3.5	Facing northeast	60
Eiguro 2 6	Trench 1 Plan.	
Figure 3.6	Trench 2 after removal of modern fills, wall footing [040] in foregroun	
Figure 3.7	facing westfacing west	
Figure 3.8	Trench 2 section, cut [184] to Sondage E, facing south	70
Figure 3.9	Trench 2 section, cut [164] to Solidage E, facing south Trench 2 section, post hole [158] to wall footing [024], facing south	
i iguid J.a	Trenon 2 section, post note [100] to wan fouring [024], facing south	, ,

	Trench 2 scale plan	
Figure 3.11	Trench 3 after clean. Facing west	72
Figure 3.12	North section of Trench 3, following further machine excavation at t	he
	eastern end of the trench	72
Figure 3.13	Trench 3 Plan.	
Figure 3.14	Brick structure [060], within the centre of Trench 4. Facing southwes	st.
Figure 3.15	Trench 4, showing slight trench relocation and sondage extension (
	left). Facing southeast	
	Trench 4 Plan.	
Figure 3.17	Location of Pier Trenches with Pier E in foreground before excavati	
	facing west	76
Figure 3.18	Location of Strip Trench F before excavation, facing south	
Figure 3.19	Plan of Zone 2.	
Figure 3.20	Pier A – South Section	
Figure 3.21	Pier A – showing fill [211], facing north.	
Figure 3.22	Pier A - west section.	
Figure 3.23	Pier B – North and South Section.	
Figure 3.24	Pier B – showing sandstone footings [201], facing north	
Figure 3.25	Pier B – showing sandstone footings [201], facing north	
Figure 3.26	Pier B – north section, showing footings [201] and cuts [242], [248].	
Figure 3.27	Pier B – south section, showing footings [201] and foundation cut [2	
Figure 3.28	Pier C – South Section	
Figure 3.29	Pier C – showing sandstone footing [240], facing south	
Figure 3.30	Pier C – showing sandstone footing [240], facing west	
Figure 3.31	Pier C – south section showing footing [240] and fills	
Figure 3.32	Pier D – South Section	
Figure 3.33	Pier D – showing circular cut [274] and linear cut [281], facing north	
Figure 3.34	Pier D – showing circular cut [274] and fill [275], facing east	
Figure 3.35	Pier D – south section showing linear cut	
Figure 3.36	Pier E – South Section	97
Figure 3.37	Pier E – showing sandstock brick [313] on top of sandstone paving	
	[314] and sandstone footing [315], facing north	
Figure 3.38		98
Figure 3.39		99
Figure 3.40	Pier E – west section of sondage	
Figure 3.41	Strip F – showing footings [258] and [259], facing south	
Figure 3.42		
Figure 3.43	Strip G – showing footing [230], facing east	
Figure 3.44	Strip G – showing footing [208], facing east	
Figure 3.45	Strip G – showing footing [208], facing south	
Figure 3.46	Strip G – showing footings [217] and [201], facing east	
Figure 3.47	Strip G – showing footings [217] and [201], facing south	
Figure 3.48	Strip H – showing footings [289], [288] and [287], facing south	
Figure 3.49	Strip H – west section, showing footing [287]	
Figure 3.50	Strip H – showing footing [287].	111
Figure 3.51	Strip H – east section, showing footing [288]	112
Figure 3.52	Strip H – showing footing [288].	
Figure 3.53	Strip H – east section, showing footing [289]	
Figure 3.54	Strip H – showing footing [289], facing west	
Figure 3.55	Stairwell – facing south	
Figure 3.56	Plan of Stairwell and Lift well trenches showing recorded sections	
Figure 3.57	Stairwell – Section V (west).	
Figure 3.58	Stairwell – Section W (north)	118

Figure 3.59	Stairwell – Section X (east)	118
Figure 3.60	Stairwell – Section Y (east)	119
Figure 3.61	Stairwell – Section Z (north)	
Figure 3.62	Stairwell – Foundation [295], facing east	
Figure 3.63	Lift well – showing cut [303] and service pipe [302], facing west	
Figure 3.64	Zone 2 – Harris Matrix.	
Figure 3.65	Trench R - showing fills before dish drain [263] and service pipe [26]	
ga. e e.ee	were exposed, facing west	
Figure 3.66	Trench R – showing dish drain [263] and service pipe [266], facing	
ga. e e.ee	west	126
Figure 3.67	Trench R – south section, facing south	
Figure 3.68	Plan of Trench R showing levels and structures [263] and [266]	
Figure 3.69	Trenches J, K and L, facing north.	
Figure 3.70	Trench K, facing north	
Figure 3.71	Trench J, facing north-east.	
Figure 3.71	Trench P – showing sandstone block and fills, facing south	
Figure 3.72	Trench Q – showing cut [251] and fills, facing north	
•	Zone 3 – Harris Matrix.	
Figure 3.74	'HAMMON' marked brick (BCN17x0189, Context 263)	
Figure 4.1	· · · · · · · · · · · · · · · · · · ·	131
Figure 4.2	Mortar sample with layers of yellow and grey shell lime mortar	407
5 : 4.0	(BCN17x0228, Context 222)	
Figure 4.3	Slate board fragment (BCN17x0210, Context 231)	
Figure 4.4	Eagle 'Mammoth' pencil fragment (BCN17x0212, Context 232)	
Figure 4.5	'M/G' marked pipe (BCN17x0202, Context 200C)	
Figure 4.6	'T.W. & Co / EDINR' marked pipe (BCNx0207, Context 222)	
Figure 4.7	'Venustus' by Davenport (BCN17x0025, Context 222)	
Figure 4.8	'Park Scenery' by George Philips (BCN17x0060, Context 237	141
Figure 4.9	'Fountain' (BCNx0054, Context 237	142
Figure 4.10	Spode 'Jasmine' border (BCNx0080, Context 238)	
Figure 4.11	Willow' plate fragments BCN17x0042 (Context 237)	
Figure 4.12	'Willow' plate fragments BCN17x0042 (Context 237) with BCN17x00	032
	(Context 223)	
Figure 4.13	Fragments from Davenport 'Rose' Tea cup and saucer (BCNx0047	
	BCNx0048, Context 237)	
	Fragments from 'Venustus' tea cup (BCNx0050, Context 237)	
Figure 5.1	Overlay of Salvage Excavation and Test Excavation Trenches	
	(southern part of site) with 1830 plan	154
Figure 5.2	Overlay of Salvage Excavation and Test Excavation Trenches	
_	(northern part of site) with 1830 plan	
Figure 5.3	Overlay of the 1860 floorplan over the 1850 plan of the original scho	ool.
J	Alignment of the 1845 school has been adjusted to match the locati	
	of the later Teachers' residence (Structure N)	
Figure 5.4	Overlay of excavation results over 1852 crown plan. Overlay is base	
J	on the c.1845 school (Structure F) being the same structure as the	
	later Teachers' Residence (Structure N) (Figure 5.3)	161
Figure 5.5	Overlay of excavation results over 1852 crown plan. Overlay based	
ga. e e.e	street alignment.	
Figure 5.6	Overlay of the locations of test excavation (blue) and salvage	. 02
r igaro o.o	excavations (yellow) on the 1886 plan (Figure 2.18). The location of	the
	1860s terraces (structure J and I) are estimated	
Figure 5.7	Overlay of Test and Salvage Excavation results on 1886 plan (Figure	
i iguic o.i	2.18)	
Figure 5.8	Overlay of Test and Salvage Excavation results on 1896 plan (Figure	
i iguite J.U	2.24).	
	<u> </u>	1/2

Figure 5.9	Overlay of Test and Salvage Excavation	on 1860 floorplan interpretation
	(Figure 2.9)	173

LIST OF TABLES

Table 1.1	Authorship by section	15
Table 2.1	Occupants of Allotment 82 from Newcastle City Rates Books	26
Table 2.2	Occupants of Allotment 80 from Newcastle City Rates Books	
Table 2.3	Historic Development – Structure Identification	59
Table 4.1	Quantity of sherds from 58 Bolton Street, by artefact class	136
Table 4.2	Quantity of sherds from Bolton St, by activity	136
Table 4.3	Quantity and percentage of sherds from 58 Bolton St, Newcastle	
	assemblage, by percentage	140
Table 4.4	Known transfer-printed patterns from 58 Bolton St, by Context	142
Table 4.5	Known transfer-printed patterns from 58 Bolton St	143
Table 4.6	Quantity of sherds from 58 Bolton Street, by activity	

EXECUTIVE SUMMARY

Documentary Results

- The study site had been significantly developed by the 1830s with the construction of the Commissariat clerk's cottage and two slab huts.
- Newcastle's first school was established on the site in 1816.
- A new school building and teacher's residence was constructed in 1860. Four terrace houses were also constructed on the site at this time.
- The teachers 's residence and the terrace houses were demolished in the 1880s to expand the school in the form of new lavatories and sheds.
- In 1908 a new school building was required, and the 1860 school was demolished.
- Further additions were made to the school in 1912, and this building still stands today.
- Other buildings were constructed on the site during the 20th century including an air raid shelter in the 1940s.
- During the historic use of the study area, the site has been levelled with two distinct ground levels now evident, one from the 1860s and one in the 1880s and 1890s.

Summary of Salvage Excavation Results

- Archaeological salvage excavations took place in July 2017.
- The site was divided into three zones: Zone 1, southeast corner; Zone 2, southwest corner; Zone 3, western and northern parts of the site.
- No excavation occurred in Zone 1.
- Minor excavation occurred in Zone 2 for the proposed development including the stairwell and lift well foundations.
- the work in Zone 2 was only fragmentary, only small portions of relics were exposed.
- Excavations in Zone 3 confirmed the results of archaeological test excavation
- The area along the western boundary of the site was heavily truncated in the late 19th -early 20th century and thus no relics survive in this area.

Revised Archaeological Potential

- In the southeast of the site, the natural soil profile was found to be intact indicating a moderate -high potential for relics associated with the pre-1830s phase of the site.
- The robust foundations of the 1860 school were also found in this location and a high potential remains for more of these foundations.
- This area was not impacted by the current development and therefore all archaeological relics here have been retained.
- In the southwest corner of the site, the levelling and truncation of this area has significantly impacted the potential for relics.
- The evidence found in this area was fragmentary, and little survives for the c.1845 period of the site.
- The various levelling events that occurred on the site affected the survival of relics associated with the rest of this school building as well as the c.1840s-1850s dwelling and later mid-late 19th century shop also in this location.

Revised Significance

- The study site has the potential to retain relics of State significance as well as some relics of local significance.
- Archaeological material relating to the pre-1830 Commissariat Clerk's cottage and slab huts, is considered of State significance.
- Although relics associated with the original school had potential to retain State significance due to their associative significance, in terms of research potential they are only considered of local significance due to their fragmentary nature.
- Structural relics of the 1860 school were uncovered during archaeological investigations, the remains of this structure have potential local significance.
- The archaeological investigations have found that there is nil potential for evidence of the domestic buildings known to have occupied the site.

Recommendations

- It is recommended that this report be submitted as the Final Excavation Report to the Heritage Council of NSW in fulfillment of Condition 11 of Permit S60/2017/80.
- Any proposed future excavation in southeast corner of the site should be subject to an Archaeological Assessment.

Artefacts, Records Storage and Public Information

- A catalogue of artefacts has been provided in Volume 2 of this report. All
 artefacts have been labelled and boxed and will be stored onsite at 58 Bolton
 St, Newcastle.
- The records from the site have been digitised and are provided along with the digital copy of the report.
- All original records are stored at AMAC Group's offices at 122c Percival Rd, Stanmore.
- A copy of this report will be made available to the Newcastle City.

GLOSSARY

Term	Definition				
AMAC	Archaeological Management and Consulting Group				
Archaeological feature	Archaeological material which is not considered a relic in terms of the NSW Heritage Act 1977. For example- postholes, artefact scatters, cesspits or rubbish pits				
DCP	Development Control Plan				
DP	Deposited Plan				
Former relic	A deposit, artefact, object or material evidence whereby the integrity of the relic is viewed to have been destroyed or disturbed to the point where it is no longer considered to hold any significance as a relic in terms of the NSW Heritage Act 1977.				
Heritage Division	Formerly known as the Heritage Branch				
LEP	Local Environment Plan				
LGA	Local Government Area				
LTO	Land Titles Office				
NPW Act	PW Act National Parks and Wildlife Act 1974				
OEH	NSW Office of Environment and Heritage (formerly known as the DECCW)				
Relic	Defined by the NSW Heritage Act (see Section 1.5.3) as: "any deposit, artefact, object or material evidence that: (a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and (b) is of State or local heritage significance"				
S57	Refers to definition of Section 57 in the NSW Heritage Act 1977				
S60	Refers to definition of Section 60 in the NSW Heritage Act 1977				
S139	Refers to definition of Section 139 in the NSW Heritage Act 1977				
S140	Refers to definition of Section 140 in the NSW Heritage Act 1977				
SHI	State Heritage Inventory				
SHR	State Heritage Register				
Work	Archaeological material related to road and rail infrastructure which is not considered a relic in terms of the NSW Heritage Act 1977, however may retain an archaeological significance independent of the statutory definitions. The interpretation of a 'work' has been defined in consultation with the Heritage Division				



Figure 1.1 Site location outlined in red.

NSW Land and property Information, Six Maps Viewer, accessed 28th
February 2018.



Figure 1.2 Aerial photograph showing study site (outlined in red).

NSW Government Spatial Services, Six Maps Viewer, accessed 20th
August 2019.





Figure 1.3 State Heritage Register Listing – SHR 00795
Heritage Council of NSW, online resource, accessed 28th February 2018.

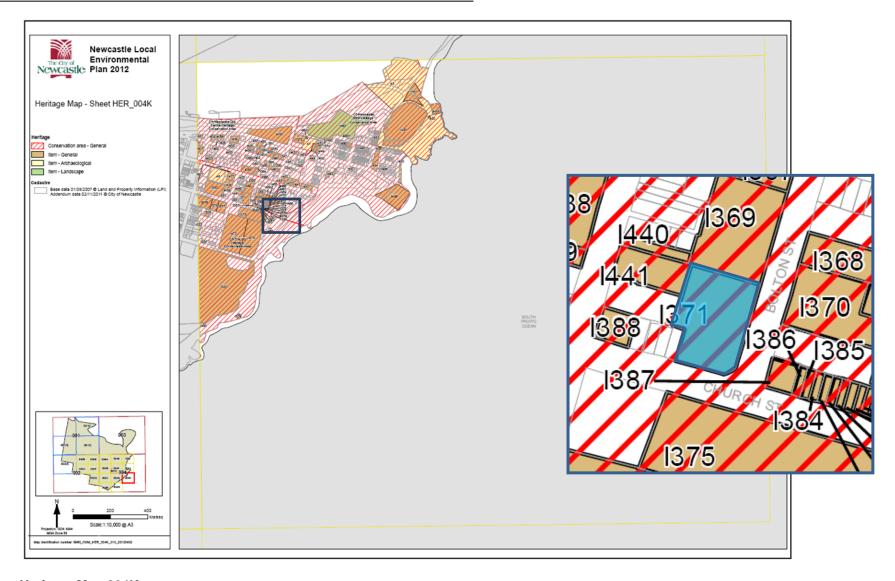


Figure 1.4 Heritage Map 004K.
Inset details study site (shaded blue). Newcastle Local Environment Plan, 2012.

1.0 Introduction

1.1 BACKGROUND

DJB Developments commissioned the Archaeological Management and Consulting Group to prepare a Final Archaeological Report for 58 Bolton Street, Newcastle. This report follows archaeological salvage excavations which occurred at the site in July 2017 and complies with Conditions 11e), f) and g) of Permit s60/2017/80.

1.2 STUDY AREA

The study site is that piece of land described as Lot 1 in Land Titles Office Deposited Plan 709455. The street address is 58 Bolton Street, Newcastle, Parish of Newcastle, County of Northumberland (Figure 1.1-Figure 1.2).

1.3 SCOPE

This report has been produced to respond to Conditions 11e), f) and g) of Permit s60/2017/80 and has been prepared based on the approved excavation methodology provided in Section 8.5.4 of the Archaeological Test Excavation Report (AMAC, March 2017).

This includes a detailed history of the site (Section 2.0), results of the archaeological salvage excavations including a stratigraphic report (Section 3.0) and a response to the research design (Section 4.0) posed in Section 4.0 of the Archaeological Test Excavation Report (AMAC, March 2017). A revised assessment of significance is also provided (Section 5.0) addressing the archaeological significance of the site post salvage excavations.

No objects of Aboriginal Heritage were uncovered during salvage excavations. Aboriginal sites and objects are protected by the National Parks and Wildlife Act (see Section 1.5.2).

1.4 AUTHOR IDENTIFICATION

This report was researched and written by Prue Newton and Ivana Vetta with artefact cataloguing and analysis carried out by Alex Thorn (Artefact Specialist). The report was reviewed by Martin Carney. The history (Section 2.0), updates that provided in the Archaeological Test Excavation Report (AMAC, March 2017).

Table 1.1 Authorship by section

Section	Author
1.0 Introduction	Vetta and Newton
2.0 History	Updated by Vetta
3.0 Results of Archaeological Salvage Excavations	Vetta and Newton
4.0 Artefact Analysis	Thorn
5.0 Response to Research Design	Vetta
6.0 Revised Assessment of Significance	Vetta
7.0 Permit Compliance	Vetta and Newton
8.0 Results and Recommendations	Vetta and Newton

Archaeological salvage excavation was undertaken by Martin Carney (Primary Excavation Director), Ivana Vetta (Secondary Excavation Director), Jaki Baloh (Supervisor), Kelly Strickland (Supervisor), Prue Newton (Archaeologist), Steve Vasilakis (Archaeologist) and Kevin Hickson (Planner).

The collections used were the NSW Land and Property Information records, NSW Births, Deaths and Marriages Index, NSW State Records and the Mitchell Library.

1.5 STATUTORY CONTROLS

1.5.1 NSW Heritage Act 1977 (as amended)

The NSW Heritage Act 1977 affords automatic statutory protection to relics that form archaeological deposits or part thereof. The Act defines relics as:

Relic means any deposit, artefact, object or material evidence that:

- (a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and
- (b) is of State or local heritage significance

Sections 139 to 145 of the Act prevent the excavation or disturbance of land for the purpose of discovering, exposing or moving a relic, except by a qualified archaeologist to whom an excavation permit has been issued by the Heritage Council of NSW.

1.5.2 National Parks and Wildlife Act (1974)

The *National Parks and Wildlife Act 1974* (as amended) affords protection to all Aboriginal objects and is governed by the NSW Office of Environment and Heritage. These objects are defined as:

any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains.¹

It is an offence to destroy Aboriginal objects or places without the consent of the Director-General.² Section 86 discusses 'Harming or desecration of Aboriginal objects and Aboriginal places'.

1.5.3 State Heritage Register and Inventory

The NSW State Heritage Register or Inventory is a list which contains places, items and areas of heritage value to New South Wales. These places are protected under the New South Wales Heritage Act 1977.

The study site is listed on the State Heritage Register as Item 0795 Newcastle Annexe (Figure 1.3). The site contains an early 20th century school designed by W.L Vernon is described as being:

...of considerable historical, social and townscape significance being reputably the oldest continuously existing school in Australia until its closure in 1980.³

² Part 6 Section 90 (1) National Parks and Wildlife Act 1974.

¹ Part 1 Section 5, National Parks and Wildlife Act 1974.

³ New research indicates that although there was a school in Newcastle from 1816, this was unlikely to be on the study site. The earliest attested school here was from 1845, see Section 2.0.

The study site is also listed on the Heritage Inventory as "Newcastle East Public School," for its listing in the LEP see Section 1.5.6. The school is described as

...an important reminder of the educational history of the site which housed the oldest continuously operating school in Australia until its move to the site at the corner of Brown and Tyrrell Street.

The site is also listed under "Newcastle Annexe" in the inventory.

1.5.4 Newcastle Local Environment Plan 2012

The Newcastle Local Environment Plan was prepared in 2012. Heritage Conservation is discussed in Part 5; Section 5.10. The following section highlights the archaeological considerations of a site in relation to developments:

7) Archaeological sites

The consent authority must, before granting consent under this clause to the carrying out of development on an archaeological site (other than land listed on the State Heritage Register or to which an interim heritage order under the *Heritage Act 1977* applies):

- (a) notify the Heritage Council of its intention to grant consent, and
- (b) take into consideration any response received from the Heritage Council within 28 days after the notice is sent.

Schedule 5 of this plan lists Items of Environmental Heritage with heritage items listed in Part 1, Heritage Conservation areas listed in Part 2 and Archaeological Sites listed in Part 3.

The site is listed as a heritage item I371, Former Newcastle East Public School, in Part 1 of Schedule 5 of the Newcastle Local Environmental Plan 2012. The item is described as being of local significance. The site is also included in C6 "The Hill Heritage Conservation Area", which is listed in Part 2 of Schedule 5 (Figure 1.4).

1.5.5 Newcastle Development Control Plan 2012

The management of archaeological sites is dealt with in Section 5.06 of the Newcastle Development Control Plan 2012. 5.06.01 B and C discusses the management and conservation of archaeological resources:

B. Managing archaeological resources

Objectives

- Ensure archaeological sites are managed in accordance with the requirements of the NSW Heritage Act 1977.
- 2. Manage archaeological sites in accordance with the assessed levels of heritage significance.

Controls

- 1. Adhere to the recommendations of any archaeological assessment or preliminary archaeological assessment.
- 2. Manage archaeological sites in accordance with the requirements of the NSW Heritage Act 1977.

C. Conserving archaeological resources

Objectives

 Conserve archaeological sites in accordance with the assessed levels of heritage significance.

Controls

_

⁴ Newcastle City Council 2012.

1. Adhere to the recommendations of any archaeological assessment or preliminary archaeological assessment.⁵

The site is located within "The Hill Heritage Conservation Area", outlined in the Newcastle Development Control Plan 2012. Guidelines for development within this Area are provided in Section 5.07 of the Plan.

1.5.6 Newcastle Archaeological Management Plan 1997

The Newcastle Archaeological Management Plan was prepared by Suters Architects in 1997 for the Newcastle City Council. The study site is listed as an archaeological site Item 0081, Former Newcastle East Public School.⁶

1.5.7 Newcastle Archaeological Management Strategy 2015

The Newcastle Archaeological Management Strategy was produced by the Newcastle City Council following the 'Newcastle Archaeological Management Plan Review', by Edward Higginbotham & Associates 2013. This document assesses the significance of the potential archaeological resource thematically for the city of Newcastle and outlines recommendations for management.

1.6 PREVIOUS HERITAGE STUDIES AND REPORTS

1.6.1 Conservation Management Plan 2013 – Newcastle Court House Annexe, Site & Buildings, Former Newcastle East Public School

A conservation management plan was prepared for the site by Suters Architects in June 2013. This report assesses the whole study site and provides a detailed history of occupation. The site is assessed as having

archaeological potential due to the many layers of development (it was first documented in Armstrong's plan of Newcastle in 1830) within this precinct of Newcastle, including the establishment of a school on the site in 1845.⁷

This report also broadly evaluates the archaeological potential of the site and states that

Any new work proposed should consider the archaeological potential of the site and the potential for interpretation of the different stages of development of the site. Note the archaeological potential of the site and the requirement under the Heritage Act to seek approval to excavate (s.60 approval required).⁸

1.6.2 Statement of Heritage Impact – Proposed Unit Development at 58 Bolton Street, Newcastle

John Carr Heritage Design prepared a Statement of Heritage Impact for the proposed development on the site in April 2015. This report assesses the built fabric of the site and discusses the heritage impact of the proposed development on above ground heritage items. The proposed development is described as having

...minimal affect (sic) on the heritage significance of the adjacent heritage conservation area and the nearby individual heritage items as well as retaining the dominance of the existing former school building in the streetscape due to the non imposing style of new residential buildings. The benefit of this development for the site

_

⁵ Newcastle City Council 2012b, Section 5.06 p.4.

⁶ Suters Architects Snell & Newcastle (N. S.W.). Council 1997.

⁷ Suters Architects 2013, p.43.

⁸ Suters Architects 2013, p.51.

is the restoration and adaptive reuse of the heritage item and the growth of the permanent residential population in an area dominated by a courthouse scheduled for closure and relocation⁹

This report also recommends the preparation of a "Baseline Archaeological Study" for the site as the site has

the potential of the remains of earlier structures and the discovery of archaeology during construction works will require the project to be stopped and the artefacts assessed for Heritage Division approval to preserve or record and remove. ¹⁰

1.6.3 Archaeological Assessment and Test Excavation Application under s60 Heritage Act 1977 – 58 Bolton Street, Newcastle, July 2015

AMAC Group prepared an archaeological assessment and s60 permit application in July 2015 for archaeological test excavation at the site. The report assesses the historical development of the site until the present day and found that the site had been developed and occupied as early as the 1830s. The report stated that various portions of the site had differing levels of archaeological potential and test excavation was proposed as a means to determine the location and extent of locally significant relics as well as State significant relics. This report forms the result of archaeological test excavation at the site, as guided by the Test Excavation Methodology within the permit application by AMAC Group.¹¹

1.6.4 Interim Archaeological Test Excavation Report – For Purposes of IDA

An Interim Archaeological Test Excavation Report was produced by AMAC Group in February 2016 for submission to council for an Integrated Development Application.

1.6.5 Archaeological Test Excavation Report – Documentation supporting s60 Permit Application

An Archaeological Test Excavation Report was prepared by AMAC Group in March 2017 for submission to the Heritage Council for an s60 permit. This report duplicated much of the information provided in the Interim Test Excavation Report for IDA purposes issued in February 2016, with an important difference being, it served to comply with Conditions 14, 16, 17 and 18 of Permit 2015/s60/126 completing all remaining conditions of that permit.

1.7 ACKNOWLEDGMENTS

Thanks to Mr Daniel Connolly, Ms Bernadette Connolly, and Ms Jade Pearsall, DJB Developments for their assistance during archaeological salvage excavations. Particular thanks go to Mr Connolly who also operated the mechanical excavator during the salvage excavations.

_

⁹ Carr 2015, p.21.

¹⁰ Carr 2015, p.21.

¹¹ For test excavation methodology see Section 6.0 in AMAC Group, July 2015.

2.0 SITE HISTORY

2.1 HISTORY

Indigenous habitation in Newcastle is known from archaeology to have begun thousands of years ago.¹² The group historically associated with land use and ownership is the Awabakal people. Archaeological sites at the heart of Newcastle CBD on the Hunter River provide evidence for Aboriginal habitation of the area during the Holocene.¹³ Shortland, the first white man to record the location in any detail, reported when he visited the area in 1797 that an indigenous population already occupied the place later to be known as King's Town and then Newcastle.

Newcastle was officially discovered by Lieutenant Shortland in September 1797.¹⁴ There was an attempt to create a settlement at Newcastle in 1801 and substantial investigation of the surrounding area was undertaken. However, the settlement lasted only a matter of months.¹⁵

In 1804, a group of convicts and soldiers were sent to settle the area and the town of Newcastle, originally named King's Town, was proclaimed. The settlement was intended for convicts sentenced for a further felony or misdemeanour committed while in the colony. However, it was also intended to exploit the resources of the region, principally coal, timber, salt and lime. The population consisted of about 100 people for the first few years and then, with rapid growth between 1815 and 1821, increased to a total of 1051 people. 18

The main street of the convict settlement was High or George Street (now Watt Street) which ran from the wharf to the commandant's house. The town was laid out in an irregular fashion around this. Most of the first structures were built of timber, though from 1816, there was some brick-making and stone-quarrying for the construction of government buildings. ¹⁹ Until 1820, most of the convicts lived in huts built of timber and plaster with bark or shingle roofs. ²⁰

In the early 1820s, the decision was made to open the Hunter Valley to free settlers. As a result, in 1822, most of Newcastle's convicts were moved to Port Macquarie.²¹ It was intended that Newcastle would become a port for the surrounding settlers.²² In this period, Henry Dangar, the government surveyor, assessed Newcastle and laid the town out in a grid.²³ Although Watt Street remained, there were substantial

¹³ Steele in Archaeological Management and Consulting Group 2002, p.94.

¹² AMAC Group 2003, p.12.

¹⁴ Bladen 1979, Vol. 3 pp.481–482. Lieutenant John Shortland of the H.M.S. Reliance officially discovered the River on the 10th September, 1797, while en route to Port Stephens.
¹⁵ Bladen 1979, Vol. 4 pp.404–409; 447-453, 627-635; State Records NSW, A.O. Reel 6039 sz756, pp.73-83; State Records NSW, A.O. Reel 6039 sz756, pp.73-83.

¹⁶ State Records NSW, A.O. Reel 6039 sz756, p.283. Newcastle is the name intended for the settlement at Coal Harbour and Hunters River in this document, dated September, 1804.

¹⁷ Wood 1972, p.1.

¹⁸ Turner 1997a, p.12.

¹⁹ Turner 1997a, p.16.

²⁰ Turner 1997, p.17.

²¹ Turner 1997, p.18.

²² Turner 1997b, p.12.

²³ Dangar 1928. J. Cross of London engraved Dangar's earlier work and published in August 1828. Australian Dictionary of Biography (1966) Volume 1: 279-80. His original work in the Hunter was conducted in c.1822-1824.

changes to the rest of the town and the new streets and allotments cut through many of the earlier buildings.²⁴

In the 1830s the Australian Agricultural Company had been granted 2000 acres to the west of Newcastle for coal mining.²⁵ This grant restricted the growth of the town, until the early 1850s, to land east of Brown Street, while the town was bounded on the south by Church Street. From the late 1840s other companies opened coal mines around Newcastle. These mines began to ship coal through the Port of Newcastle and the town became a centre for the smaller settlements around the mines.²⁶ The following decades saw the expansion of the town with the opening of the Great Northern Railway Line and Newcastle Railway Station²⁷. In the 1850s, the Australian Agricultural Company began to subdivide and sell its land, which meant that the town could expand to the west. Plans from the 1850s indicate the extension of the streets and the gradual expansion of the town (Figure 2.8).

By the 1880s, according to Turner, the residents of inner Newcastle were mainly people engaged in the service industries, along with their families while the majority of miners lived in the surrounding mining townships.²⁸ In 1885 the principal streets, including Church Street, had a few private residences, but Hunter and King and their cross streets were largely given over to retailing and commercial offices.²⁹

In the first part of the twentieth century, the collieries of the inner-city were closed and moved outside further away; this caused the movement of the population away from Newcastle. The opening of the BHP steel works in about 1915 brought people back to the city however the character of the area had forever changed.³⁰

2.2 NEWCASTLE EAST PUBLIC SCHOOL

A school was established in Newcastle as early as 1816, it catered for 38 children who were taught by convict Henry Wrensford.³¹ The precise location for this school is unknown, however it likely operated out of one of the government slab huts which made up the majority of structures in Newcastle at this time. By 1821 the school was located in the vestry of the new Christ Church³² although it has been suggested that the school was relocated in 1827. A newspaper article from 1829 indicates that a room in the church was "devoted to the purpose of a school" with approximately 30 children in attendance.³³ Both in 1827 and 1829 the Church and Schools Corporation allocated funds however it is unclear how this was used. By the 1830s the school had moved out of the church however a purpose built structure had not yet eventuated, a newspaper article from 1837 describing the situation thus:

The parochial school is at present held in a house lent for that purpose, by A.W. Scott, Esq., J.P., and towards erecting a substantial school-house. His Lordship recommends that the committee should make a liberal grant.³⁴

²⁴ Turner 1997a, p.17.

²⁵ Turner 1997, p.18; Bairstow 2003, pp.62–63; 121.

²⁶ Turner 1997, p.19.

²⁷ "Newcastle City Centre – Second Fifty Years".

²⁸ Turner 1997a, p.23.

²⁹ Turner 1997, p.21.

³⁰ "Newcastle City Centre – Third Fifty Years".

³¹ Turner 1973, p.188; 257; Suters Architects 2013, p.2.

³² Turner 1973, p.292.

³³ The Sydney Gazette and New South Wales Advertiser 1829, p.2.

³⁴ The Sydney Herald 1837, p.2.

Braggett suggests that the school was possibly constructed on the study site as early as 1827 however the documentary evidence does not support this. The CMP for the study site suggests that the early school was located on the corner of Church and Bolton Streets on the opposite corner to the study site. The basis for this suggestion is a plan from 1834, which indicates a school in this location (Figure 2.2). The Presbyterian Church acquired this allotment for a school however it is unclear if at this date the school was Presbyterian or the Christ Church School. A slightly later plan details this school building with another building defined as the Presbyterian school facing Church Street (Figure 2.3) suggesting the building on the corner of Church and Bolton Street may have in fact been the Anglican School later acquired by the Presbyterians. This is further complicated by the 1837 article which suggests the building was on A.W. Scott's land which was further along Church Street near the intersection with Wolfe Street.

A drawing from the 1840s of Newcastle refers to "Donaldson's (School)", though its precise location is unclear and may be within the study site (Figure 2.4). By 1845 the study site was being utilised by the Christ Church School. A newspaper article from December of that year refers to a "new school house" with 62 students present. By the late 1850s a purpose built structure was required for the school. In October 1859 the Maitland Mercury advertised the laying of the foundation stone for the new building:

The Lord Bishop of Newcastle, accompanied by the Rev. Mr Yeatman, the Rev. Mr. Shaw, and a large party, proceeded to the ground of the Primary School, in order to assist at the laying of the first stone.... The stone being raised was lowered to its destined place, Mr. Hudson going through the customary ceremony of spreading the mortar and striking the pieces of masonry with the mallet.³⁷

The land containing the school was still owned by the government at this time and had to be granted to Christ Church for the denominational school.³⁸ By May 1860, the building had been completed.³⁹ A newspaper article from July 1868 indicates that 92 students were enrolled at the school, 54 boys and 38 girls, and the building was described as:

A commodious and substantial building, excellently furnished, and supplied with apparatus. The play-ground is very small and practically useless as such, but the out offices are good and suitable. 40

Two years later, the number of enrolled students had more than doubled with 186 students enrolled, 99 boys and 87 girls, increasing again to 242 shortly later. An inspection of the school reported

The material condition of this school is very satisfactory. The organization is correct, the discipline is effective, and the instruction gives results ranging from very fair to good....Latterly this school has increased greatly; instead of 186 on the roll, there are now 242.⁴¹

During 1882, denominational schools, such as the Christ Church School at Newcastle, ceased to be supported by the State and for this reason the school was transferred back to the government and became a public school. By this date, the

³⁵ Suters Architects 2013, p.2.

³⁶ The Maitland Mercury and Hunter River General Advertiser 1845, p.2.

³⁷ The Maitland Mercury and Hunter River General Advertiser 1859b, p.6.

³⁸ Suters Architects 2013, p.9.

³⁹ The Maitland Mercury and Hunter River General Advertiser 1860, p.2.

⁴⁰ The Newcastle Chronicle 1868b, p.3.

⁴¹ The Newcastle Chronicle 1870, p.2.

number of enrolments had increased significantly and the lack of a playground was an ongoing issue for the school. The building was also in desperate need of repair and the teachers' residence had become uninhabitable.⁴² The government resumed the neighbouring allotment, Lot 82, and demolished the buildings there to create a playground area, the teachers' residence was demolished in 1884 and the school was refurbished.

Contractor Fisher is making a highly satisfactory finish of his contract for the alterations and improvements to Christ Church Public School, at the intersection of Bolton and Church Streets. The former dingy, grave-like barn, has made way for a healthy, handsome-looking building. The premises have been altered almost completely. By the demolition of the late Mr. Cann's adjacent premises, a large block of valuable land has been acquired for the purposes of a playground. 43

During this period the school was also connected to the city water mains, however they continued to make use of an old well on the site as well as water tanks. In 1891 Lot 80, to the north of the school, was also acquired for use by the school⁴⁴ as well as part of Lot 85 to the west.

By 1904, the school buildings were deemed out of date and newspaper articles from 1905 pushed an agenda of renovation. Plans were designed by the government architect W.L. Vernon in 1908 for a new structure accommodating 12 classrooms and 700 students and E.H. Banks of Hamilton was the successful tender for the construction.⁴⁵ The building was demolished and a whole new building was constructed in two phases in 1909 and 1912.

Over the 20th century the building has been modified to reflect changes in the approach to education of primary age children. Further moves were made to expand the school with several pieces of land offered to the government, including an allotment facing Newcomen Street. However, by this stage in the development of the site, the land along Bolton Street had been significantly levelled and was some 7 feet below the properties facing Newcomen Street making them unsuitable for use as a playground. ⁴⁷

Following World War 2, enrolments at the school declined significantly and special education classes, such as classes for the hearing impaired, were introduced to better utilise the school. By 1982, the Newcastle East School was relocated to the Junior Boys High School in Tyrell Street and the school building was acquired by the Department of the Attorney General for the purposes of a Court House Annexe to work alongside the Court House buildings on the opposite side of Church Street. Following this use, the site became home to the Newcastle Community Justice Centre in 1993.⁴⁸

⁴² Suters Architects 2013, p.10.

⁴³ Newcastle Morning Herald and Miners' Advocate 1884a, p.5.

⁴⁴ Newcastle Morning Herald and Miners' Advocate 1891, p.7.

⁴⁵ Suters Architects 2013, p.11.

⁴⁶ Suters Architects 2013, p.3.

⁴⁷ Suters Architects 2013, p.6.

⁴⁸ Suters Architects 2013, p.3.

2.3 ORIGINAL GRANT

The study site contains Allotments 80, 82, 84 and part of Lot 85 of the subdivision of Newcastle. These lots have been discussed separately.

2.3.1 Allotment 84

Allotment 84, on the corner of Church and Bolton Streets, was retained as government land until 1859 when it was granted to the Church of England for the purposes of the Christ Church School.⁴⁹

2.3.2 Allotment 82

North of Allotment 84 facing Bolton Street, Lot 82 consisted of 36 perches leased for twenty years by Lieutenant Edward Charles Close, Engineer of Public Works, and eventually granted to him in 1842.⁵⁰ Close was born in 1790 in Bengal, educated in England he joined the military in 1808. He arrived in the colony in 1817 aboard the *Matilda* and was transferred to Newcastle by 1821. That year he married Sophia Susannah Palmer and they had six children. Close was an active member of the Anglican Church and a magistrate to the Legislative Council. The Close family do not appear to have occupied this land, rather settled on a large land grant at Morpeth.⁵¹ Allotment 82 was advertised for sale in 1853 and sold to James Cann.⁵² Edward C. Close died from illness in 1866.

2.3.3 Allotment 80

Allotment 80, bounded on the south by Allotment 82, consisted of 34 perches granted to Thomas Coulson, most likely in the 1830s. Coulson, the son of T. Coulson, the Quarter Master of Buffs Regiment, arrived in New South Wales aboard the *Brampton* in 1823 at the age of 27.⁵³ In 1832 he married Elizabeth Henrietta McDonald⁵⁴ with whom he had three children. The family resided at Phoenix Park estate on the Hunter River. Coulson and his brother John, died in 1840 under tragic circumstances:

Messrs. John and Thomas Coulson both died suddenly on the 7th instant, of delirium tremens, produced by intemperate habits⁵⁵

Following Coulson's death, Allotment 80 was acquired by his wife Elizabeth Coulson and was still owned by the family in 1855.⁵⁶

2.3.4 Allotment 85

The eastern part of Allotment 85 forms part of the study site. This allotment, consisting of 24 perches facing Church Street, was granted to Peter Jackson in August 1834.⁵⁷ It is possible that this was the same Peter Jackson that arrived in Sydney aboard the *Ocean* in 1816 as a convict. After being transported to Newcastle in 1821, he returned to Sydney in 1824 where he was still residing at the time of the grant.⁵⁸

⁴⁹ Suters Architects 2013, p.4.

⁵⁰ NSW Government Gazette 1842, p.1565.

⁵¹ Edward Charles Close, Australian Dictionary od Biography Online, Accessed 29/06/2015.

⁵² The Sydney Morning Herald 1853, p.7.

^{53 1828} Census, NSW State Records.

⁵⁴ NSW Births, Deaths and Marriages Index, 984/1832 V1832984 16.

⁵⁵ Australasian Chronicle 1840, p.2.

⁵⁶ The Sydney Morning Herald 1855, p.8.

⁵⁷ LPI Bk 27 p.12.

⁵⁸ Colonial Secretary's Papers, NSW State Records.

2.4 SUBSEQUENT OWNERS AND OCCUPANTS

The following account of the owners and occupants of Lots 80, 82, 84 and 85 highlights only the main owners and occupants known to have been present on the site, however this list is not comprehensive and a full title search has not been carried out.

2.4.1 Allotment 84

The Church of England retained Allotment 84 for use by the school until 1882 when the school was resumed by the Government for £2000 for use as a public school.

2.4.2 Allotment 82

Allotment 82 was advertised for sale in 1853 and is described as containing approximately 36 perches.⁵⁹ In December of that year, Close and his wife sold the allotment to James Cann for £320.⁶⁰ James Cann immigrated to New South Wales in 1849 at the age of 38 from Devon, England, per *Tory*, with his wife, Elizabeth and children Ann, John, Elizabeth and Eliza.⁶¹ Once in the colony he had two children, Mary in 1850 and, William, in 1855.⁶² Following the purchase of Allotment 82, it appears the family may have resided on the property as Cann is listed as the occupant in the Newcastle Rates book for the site in 1868 and his wife, Elizabeth, appears to have died at the property that same year.⁶³

In 1870, Cann married Sophia Clayton⁶⁴ however by this stage, he no longer resided on the site. Lot 82 was resumed by the Department of Education in 1883 for the expansion of the Newcastle East School however there was a dispute between Cann and the department over the value of the land.⁶⁵ Cann died at the age of 74 in 1884.⁶⁶ Shortly after his death, his estate settled with the government for a price of £2300.

During Cann's ownership of the allotment, several tenants occupied the buildings on the site, including a bakehouse and shop that stood on part of the property, as well as two residential dwellings (Table 2.1). The occupants include a butcher, baker and plumber as well as a Vice-Consul for France, Mr George Tully. The bakery was first noted in the Newcastle Council Rates books from 1876 when James Hill, who also ran the Q.C.E Restaurant on Hunter Street, occupied it.⁶⁷ The Hills appear to have occupied the bakehouse and shop through the latter half of the 1870s however by 1880, the bakery was vacant with Cann advertising for a tenant in 1881.⁶⁸

⁶¹ NSW State Records, Assisted Immigrant Passenger Lists, 1828-1896, April 1849, Troy.

⁶⁶ NSW Births, Deaths and Marriages Index, 11980/1884.

⁵⁹ The Sydney Morning Herald 1853, p.7.

⁶⁰ LPI Bk 29 Number 791

⁶² NSW Births, Deaths and Marriages Index, 454/1850 V1850454 155; 2762/1855 V18552762 56.

⁶³ The Newcastle Chronicle 1868a, p.2.

⁶⁴ NSW Births, Deaths and Marriages Index, 2935/1870.

⁶⁵ LPI Bk 307 No 455.

⁶⁷ Australian Town and Country Journal 1877, p.38.

⁶⁸ Newcastle Morning Herald and Miners' Advocate 1881, p.1.

Table 2.1 Occupants of Allotment 82 from Newcastle City Rates Books

Date	Occupier	Occupation	Owner	Description
1868	James Cann	Labourer	James Cann	2 storey wood
1868	Chadwick Langdon	Butcher ⁶⁹	James Cann	2 storey wood
1868-1869	Hugh R Coulter?	Draper ⁷⁰	James Cann	2 storey wood
1868-1869	Chadwick Langdon?	Butcher	James Cann	2 storey wood
1871	George Sidney	Caterer?	James Cann	Wood House
1871	Chadwick Langdon	Butcher	James Cann	Wood House
1872	Robert Woodcrest	?	James Cann	Wood House
1872	-		James Cann	Wood House
1874	George Smith	?	James Cann	Wood House
1874	George Tully	Vice-Consul for France ⁷¹	James Cann	Wood House
1876-1877	James Hill	Baker	James Cann	Bakehouse (stables) stone store
1876-1877	Hill	Baker	James Cann	WB House
1876-1877	R. Clarke	?	James Cann	WB House
1878	Frederick Ash		James Cann	Stables and Hall?/House?
1878	Arch? McMillon		James Cann	WB House
1878	James Hill	Baker	James Cann	WB House
1878	Andrew Hill	Baker	James Cann	Bake house stone and stables
1879-1880	McCarthy J.	?	James Cann	-
1879-1880	Charlton A	Plumber	James Cann	-
1880	-		James Cann	Bakehouse
1880	Patrick Head		James Cann	Wood Shop
1880	Charles Coghlan	Railway guard ⁷²	James Cann	WB House
1880	Adam Charlton	Plumber	James Cann	WB House

2.4.3 Allotment 80

It is unclear when the Coulson family sold Lot 80. It appears that at some point during the 1850s or 1860s the lot was subdivided with the northern part being acquired by John Paton, a wharfinger from Newcastle⁷³ and the southern part owned by James Russell, a local contractor. Newcastle Rates books from 1868 -1877 (Table 2.2) also indicate that Russell owned and occupied the land during this period, and a newspaper article indicates that he may have been on the site as early as 1866.74 In the northern part of the allotment, George McNaughton, a local shipwright, is listed as both the owner and occupant. It is possible that McNaughton owned this part of the site before John Paton.

⁶⁹ The Sydney Morning Herald 1854, p.1.

⁷⁰ The Newcastle Chronicle 1871, p.4.

⁷¹ The Newcastle Chronicle 1874, p.2.

⁷² The Maitland Mercury and Hunter River General Advertiser 1876, p.8.

⁷³ LPI Bk 495 No 165.

During the early 1890s both the lots were resumed by the Crown on behalf of the Minister of Public Instruction for the purposes of expanding the Newcastle East Public school.⁷⁵

Occupants of Allotment 80 from Newcastle City Rates Books Table 2.2

Date	Occupier	Occupation	Owner	Description
1868	James Russell	Contractor ⁷⁶	James Russell	2 storey wood
1868	George McNaughton	shipwright	George McNaughton	2 storey wood
1868-1869	James Russell	Contractor	James Russell	2 storey wood
1868-1869	George McNaughton	shipwright	George McNaughton	2 storey wood
1871	James Russell	Contractor	James Russell	Wood House
1871	George McNaughton	shipwright	George McNaughton	Wood House
1872	James Russell	Contractor	James Russell	Wood House
1872	George McNaughton	shipwright	George McNaughton	Wood House
1874	James Russell	Contractor	James Russell	Wood House
1874	-	-	-	Wood House
1876-1877	James Russell	Contractor	James Russell	Dwelling
1876-1877	George McNaughton	shipwright	George McNaughton	Dwelling
1879-1880	James Russell	Contractor	James Russell	Dwelling
1879-1880	George McNaughton	shipwright	George McNaughton	Dwelling
1880	James Russell	Contractor	James Russell	WB House
1880	George McNaughton	shipwright	George McNaughton	WB House

⁷⁵ LPI Bk 474 No 285; Bk 495 No 165.

⁷⁶ The Newcastle Chronicle and Hunter River District News 1866, p.3.

2.4.4 Allotment 85

Peter Jackson transferred Allotment 85 to Henry Usher and Rev. Charles Pleydell Neale Wilton in 1835 for £35.18s. Wilton, the last chaplain of Newcastle, had arrived in Sydney with his wife aboard the *Elizabeth* in 1827;⁷⁷ he was initially given a position in the Parish of the Field of Mars and Castle Hill but after accusations of fraud he applied for the position at Newcastle. In 1866, the allotment was purchased by Frederick Ash, a local merchant; at the time of this conveyance, W.L. Platt, M.E. Platt and A. Levick were noted as the owners of the land, who most likely inherited it.

In 1892, part of this allotment was resumed by the Crown for the purposes of providing land for the school.⁷⁸

2.5 HISTORIC DEVELOPMENT

2.5.1 Pre-1830s Buildings

The study site is within the earliest part of the Town of Newcastle being within close proximity to the military barracks as well as the first Christ Church building and parsonage. Armstrong's 1830 plan of Newcastle indicates that Bolton Street had been partly formed at this time though Dangar's grid had not been finalised at the time of this plan (Figure 2.1). Within the study area, in what later became Lot 84, was a government cottage which is described on the plan as being occupied by the Commissariat Clerk. This building was rectangular, oriented roughly north south. and within a fenced off allotment also contained a small outbuilding (possibly a privy). To the north of this building, within what was later Lot 82, was a smaller rectangular building (also oriented north-south) presumably facing Bolton Street with a well (or tank or privy) to the southwest of the building. Partly within the study site, at the rear of the later Lot 80 and on the boundary with Lot 81, was another small rectangular building, oriented north to south. It is unknown when these buildings were constructed however it is clear that they predate the 1830 plan. The use of these structures is also unclear, and Braggett suggests the school occupied the site from the early 1830s⁷⁹ - using Reverend Wilton's purchase of Lot 85 as proof of this. A newspaper article from 1837 indicates that the school was on A.W. Scott's land, so it is doubtful the study site housed the school during this period.⁸⁰

By the mid-1830s, this area had been subdivided into city lots with the study site containing Lots 84, 82, 80 and part of 85. No evidence has been found for the demolition of the pre-1830s buildings.

2.5.2 Allotment 84

Although Lot 84 remained as Crown land, the Church of England were able to establish a school on the site. By 1845 a new school building had been erected on the allotment⁸¹ measuring approximately 25 by 14 feet.⁸² John Rae's painting of Newcastle from 1849 shows the back of the school buildings facing Church Street (Figure 2.5). This painting details a large rectangular building with a chimney, oriented north-south, and a smaller rectangular building with three chimneys next to it (probably on Allotment 85). A smaller building behind these structures is also likely

⁷⁷ Wilton, Charles Pleydell Neale (1795-1859)', Australian Dictionary of Biography Online.

⁷⁸ LPI Bk 487 No 192.

⁷⁹ Braggett 1966, p.28.

⁸⁰ The Sydney Herald 1837, pp.2-3.

⁸¹ The Maitland Mercury and Hunter River General Advertiser 1845, p.2.

⁸² Suters Architects 2013, p.4.

to be within Allotment 84. Drawings from 1843 and 1857 (Figure 2.4; Figure 2.7) also depict these buildings though the perspective of the drawings makes any detail difficult to ascertain. The layout of these structures on Allotment 84 is confirmed by 1852 Crown Plan (Figure 2.6) and a town plan from 1855-1864 (Figure 2.8) which shows the school building, facing Church Street, with an outbuilding behind and a subsidiary building on Allotment 85. It is unclear what these buildings were constructed of or whether any other additional buildings were constructed on this allotment during this time.

By 1855, the school was beginning to outgrow the building and the outhouses were described as poorly furnished.⁸³ In February 1859, a tender was advertised for the construction of the new school⁸⁴ and by the end of that year, the foundations of the new school building had been laid.⁸⁵ The building is described by Braggett as

...a shingled-roof, brick school that occupied most of the available land....the school building was 40 feet wide at the front, and this allowed two playing areas, thirteen feet wide. Attached to the back of the school building was a teacher's residence of six rooms, and in a separate building in the middle of the playground was the kitchen. Two toilet blocks and three water tanks helped to crowd the area even more. ⁸⁶

The school was of the same design as schools built in Cooks Hill and East Maitland at this time (Figure 2.9-Figure 2.11).87 A photograph from the 1870s shows this building which partly sat below the height of Church Street (Figure 2.10). This building is depicted in drawings and a photograph from 1874 and the late 1870s respectively (Figure 2.12-Figure 2.13); they show the original layout of the building with the attached teachers residence. Despite repairs made to the building in 187888 more work was needed. In 1882, the teachers' residence was described as being a two-storey brick structure with a "defective" shingle roof (Figure 2.17).89 A plan from this date shows the teachers residence containing six rooms and a detached kitchen. Shortly after this, the teachers' residence was demolished and replaced with a weather shed used for girls and infants. 90 A plan from 1886 details the new footprint of the building which is two-storey and constructed of brick with a timber verandah (Figure 2.18). Next to this building, also within Lot 84, is the weatherboard girls' weather shed (later relocated following the resumption of Allotment 85), which was partly boarded up and enclosed in 1888 so it could be used as a classroom. The renovations were completed in 1884, the building was completely repainted, and roofing and floorings were replaced, the drainage was also upgraded:

Drainage has been made a specialty; the old pipes, etc., having been entirely renovated, and the well-known Greenway patent system of latrine adopted; and in addition new lavatories provided.⁹¹

Two engravings from 1889 show the building after the removal of the teacher's residence (Figure 2.19-Figure 2.20). The new layout of this building was also well demonstrated in plans from 1892 and 1896, which also show the division of the

⁸³ Suters Architects 2013, p.9.

⁸⁴ The Maitland Mercury and Hunter River General Advertiser 1859a, p.3.

⁸⁵ The Maitland Mercury and Hunter River General Advertiser 1859b, p.6.

⁸⁶ Braggett 1966, p.43.

⁸⁷ Carr 2015, p.19.

⁸⁸ Suters Architects 2013, p.10.

⁸⁹ Braggett 1966, p.57.

⁹⁰ Suters Architects 2013, p.16.

⁹¹ Note that the lavatories were on Lot 82 following the resumption of this land. (Newcastle Morning Herald and Miners' Advocate 1884b, p.3).

building for the purposes of separating the boys from the girls (Figure 2.23-Figure 2.24). This building was demolished in the early 20th century for the construction of the new school building (see Section 2.5.6 Newcastle East Public School).

2.5.3 Allotment 82

Aside from the early building, depicted within Allotment 82 in Armstrong's 1830 plan, no other development is known on this part of the site from the early 19th century (Figure 2.1). It is apparent that the old well was still in use on the site during the 19th century, as it was in use by the school when they resumed this land and was shown in plans locating it within the new school building in 1908 (Figure 2.25).

Sometime in the 1850s or 1860s two houses were constructed at the rear of this allotment, being two-storey weatherboard terraces. This is confirmed in a land titles document from 1866 which describes the purchase along with

those two messages, dwelling houses or tenements now erected and being on the said allotment⁹²

Cann, the owner of the site during this period, took out a mortgage on the site in 1860 then again in 1866⁹³, that at least one of these mortgages was for the purpose of constructing on the cottages.

By 1881 a bakery had also been constructed on the site with Cann, the owner, advertising for a tenant indicating the property had a bakehouse, oven, stable, shed and water.⁹⁴ When Lot 82 was resumed in 1883, the land was described,

At the time of the resumption, there were two weatherboard cottages on the land - one containing four rooms, and the other containing five rooms, a small shop in front with three rooms, a bakehouse and oven. 95

These buildings are visible in an engraving from 1874 (Figure 2.12) however their detail is not clear. The rear of these buildings can be seen from a photograph from c.1883 (Figure 2.14). Only the roofs of these buildings can be seen, which are very different from each other, the southern cottage having a hipped iron roof with a single brick chimney and the neighbouring house containing a shingled gable roof with a single chimney – this would suggest that the houses were constructed at different times.

These buildings were promptly demolished in 1883 to make way for a playground and new lavatories for the children. It is possible that the two engravings from 1889 illustrate the old cottages as the buildings represented have chimneys and appear to be timber although they had certainly been demolished by this time (Figure 2.19-Figure 2.20). A plan from 1886 (Figure 2.18) details the two brick lavatories with a weatherboard structure close to Bolton Street, this structure was the boys weather shed, later moved to Lot 80. A photograph from this period also shows one of the lavatories (Figure 2.15). The site was also levelled during these works to make the land suitable for a playground. By 1892 a primary class room, 30x16ft and timber framed, had also been constructed next to the boys' weather shed (Figure 2.23) however these structures were moved onto Lot 80 after the resumption of this lot

93 LPI Bk 96 No 940-1

⁹² LPI Bk 96 No 940.

⁹⁴ Newcastle Morning Herald and Miners' Advocate 1881, p.1.

⁹⁵ The Maitland Mercury and Hunter River General Advertiser 1884, p.4.

⁹⁶ Suters Architects 2013, p.4.

⁹⁷ Suters Architects 2013, p.18.

(Figure 2.24). The lavatories were retained for use by the new school in the early 20th century.

2.5.4 Allotment 80

Braggett suggests that Lot 80 had been granted to Alexander Dick in 1856 with buildings standing on the property, however no evidence has been found to substantiate this claim.98 Like the neighbouring allotment, Lot 80 does not appear to have undergone significant development until the mid-19th century. Buildings are clearly shown on the Allotment in an engraving from 1874 (Figure 2.12) and Council Rates records indicate occupation of the land by two tenants from at least 1868. The earliest plan of these buildings is from 1886, and demonstrates that there were two double storey weatherboard residences with a brick outbuilding behind the southernmost building (Figure 2.18); the rear of which can be seen in a photograph from c.1883 (Figure 2.14). These dwellings were also depicted in an 1889 engraving (Figure 2.20) indicating that they were constructed of timber. When the land was resumed in 1891, one of the owners claimed his house was more valuable as it was constructed on stone foundations.99 The buildings at this time were described as two weatherboard cottages with seven bedrooms. These were moved and sold along with the old walls and fences following the resumption (Figure 2.21-Figure 2.22).100

Following the removal of these buildings by the school, the boys weather shed was moved from Lot 82 onto the newly acquired Lot 80.¹⁰¹ A plan from 1896 shows the relocation of the sheds to the northern end of Lot 80 (Figure 2.24).

2.5.5 Part of Allotment 85

The earliest evidence of development on Allotment 85 is from John Rae's Painting of Newcastle in 1849 which indicates that there was a dwelling, facing Church Street, contained within the part of Lot 85 that is within the study site (Figure 2.5). This dwelling had a pitched roof and multiple chimneys. This building is represented in the 1852 Crown plan and late 1850s town plan which demonstrates that the building was right near the boundary between Lot 85 and the school on Lot 84 (Figure 2.6). Rae's panoramic photograph from 1878-1882 (Figure 2.13) and a later photograph (Figure 2.16) show a building on Lot 85 wedged between the school on Lot 84 and the terraces fronting Church Street on the rest of Lot 85. It is unlikely that this is the same building as in the 1850s rather appears to be the single storey iron structure depicted in the 1886 plan (Figure 2.18). A building is also shown in this location in the 1889 engraving of Newcastle (Figure 2.19) however it is unclear whether this is the same iron structure. Braggett states that a brick store had been erected on this land and at the time of resumption, the wall of this structure bulged into the school yard (Figure 2.23). 102 This building was demolished with the resumption of this part of the lot and the land was cut down to make it level with the school; 103 the girls' weather shed was relocated onto this piece of land by the late 19th century (Figure 2.24) and only recently removed.

99 Suters Architects 2013, p.5.

⁹⁸ Braggett 1966, p.69.

¹⁰⁰ Suters Architects 2013, p.6.

¹⁰¹ Suters Architects 2013, p.16.

¹⁰² Braggett 1966, p.69.

¹⁰³ Suters Architects 2013, p.6.

2.5.6 Newcastle East Public School

Following the acquisition of Lots 80 and 82 and part of 85, the need for more classrooms became apparent. Another timber building was moved from Wickham, onto what was Lot 82, built up on blocks (this burnt down in 1912 and was removed) however there was still an insufficient number of classrooms. ¹⁰⁴

In 1908 plans were drafted for the new school building designed by W.L Vernon (Figure 2.26). Works commenced towards the end of 1908 however due to the loose natural soil profile, and the presence of the well, the foundations required deeper excavation which slowed down the development. The old sewer pipes were located and embedded in concrete and water was connected also to the weather sheds. The building was officially opened on 9th June 1909.

The uneven surfaces where the former school used to be was still a problem in 1910 and the playground was considered too steep. Gravel was brought in to level these surfaces and the ground along Bolton St was partly asphalted. By 1912 the closure of Tyrell Street Public School had seen an increase in class sizes at the Newcastle East Public school and instigated the second stage of construction at the school making the building what it is today. In 1913 more levelling works were done around the school with a large quantity of sand given to the school, this was a temporary measure but was not changed for some time. The fence retaining soil along the playground was also beginning to bulge and needed urgent attention (Figure 2.28). Both the weather sheds were renovated in 1914 with new roofing and guttering, new floors and foundations.

There is anecdotal evidence for a building in front of the school along Church Street that was constructed of solid concrete c.1940 for use as an air raid shelter. This building was later used as a canteen and then a toilet block before it was demolished in the 1990s (Figure 2.29).¹⁰⁷ More improvements were made in 1966 with the old lavatories being removed and replaced while in 1972 a new demountable was constructed in the northwest corner of the site, still standing today.¹⁰⁸

During the 1989 earthquake the main school building was seriously damaged and required significant repairs. The 1990s also saw further modifications to the site with the reconstruction of the Bolton Street retaining wall in 1995, ¹⁰⁹ the installation of a disabled ramp and accessible toilet in 1997 and the replacement of the sewer in 1998. ¹¹⁰

2.5.7 Topography of Study Site

The natural topography of the site had also shaped the use of this land and has affected the survival of archaeological features on the site. The natural topography of the area is evident in the 1830 plan (Figure 2.1) as well as early drawings (Figure 2.4; Figure 2.7). It is clear from this plan that the study site was on an incline, sloping down from west to east, though today the site is far more level indicative of several cutting and filling events that took place in the 19th century on the site. These cutting and filling events are not explicit in the documentary record. From

¹⁰⁴ Suters Architects 2013, p.18.

¹⁰⁵ Braggett 1966, p.78.

¹⁰⁶ Suters Architects 2013, p.12.

¹⁰⁷ Suters Architects 2013, p.19.

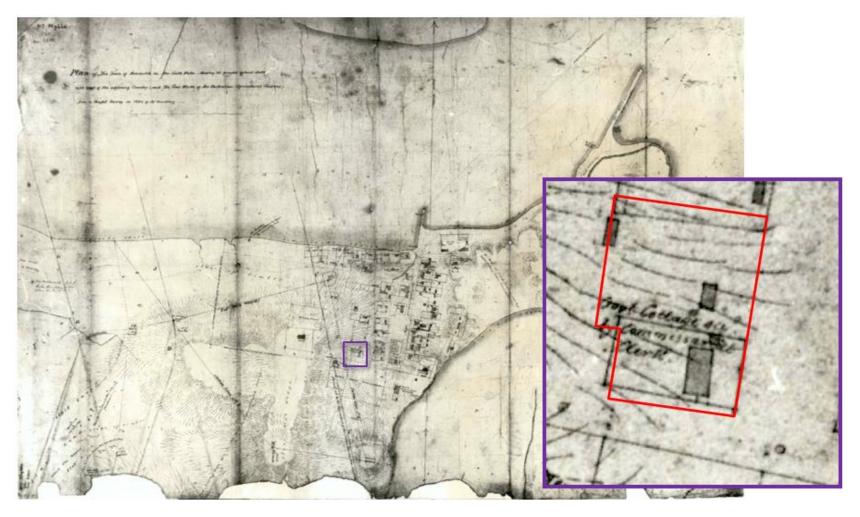
¹⁰⁸ Suters Architects 2013, p.19.

¹⁰⁹ Suters Architects 2013, pp.7–8.

¹¹⁰ Suters Architects 2013, p.19.

early plans the 1830s buildings appear to have been constructed on the lower side of this slope. It is possible that the land was to some degree levelled prior to subdivision with the drawing from 1849 suggesting that the slope was steepest at the intersection between Newcomen and Church Street (Figure 2.5). Certainly, by the time the second school was constructed, Church Street had been built up and was considerably higher than the level of the school (Figure 2.10).

The documentary record is also unclear about when Lots 80 and 82 were made level as both allotments are now considerably lower than their neighbours along Newcomen Street. The houses that were constructed here were placed at the rear of the property, this may have been to take advantage of the higher ground or possibly to allow for the construction of shops along the street front. It is also possible that the large difference in height between the Bolton Street buildings and Newcomen Street buildings is because that land along Newcomen Street was built up to make level ground. Either way, the ground levels on the site have been significantly altered historically in order to create the current landscape. Archaeological test excavation on the site has shed light on these events the result of which is discussed below in Section 3.0.



Armstrong's c. 1830 town plan of Newcastle, with inset showing the study site.

Approximate location of the study site outlined in red (based on overlays with current cadastral information). "From careful survey in 1830 by Jn. Armstrong". Alexander Turnbull Library, National Library of New Zealand.



Figure 2.2 c.1834 Plan of Newcastle.

Approximate location of study site outlined in red. Note the area marked "School" on the opposite corner.

State Archives A.O. Map No. 84.

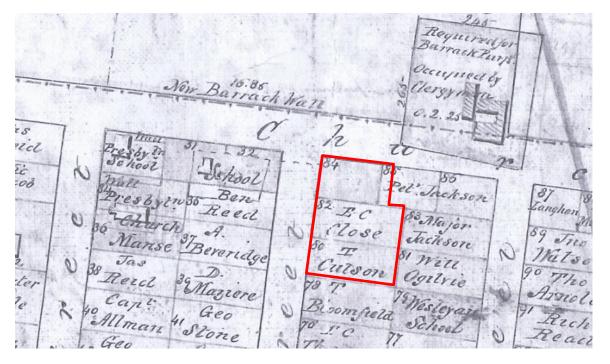


Figure 2.3 1836-1841 Plan of Newcastle.

Approximate location of study site outlined in red. Note the building described as "School" on the opposite corner as well as the Presbyterian School also fronting Church Street. Newcastle Region Library LHMB 333.3/16.

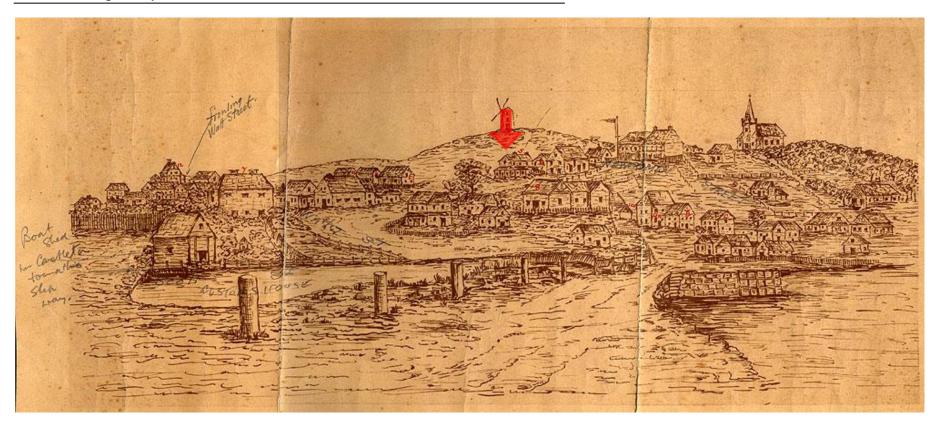
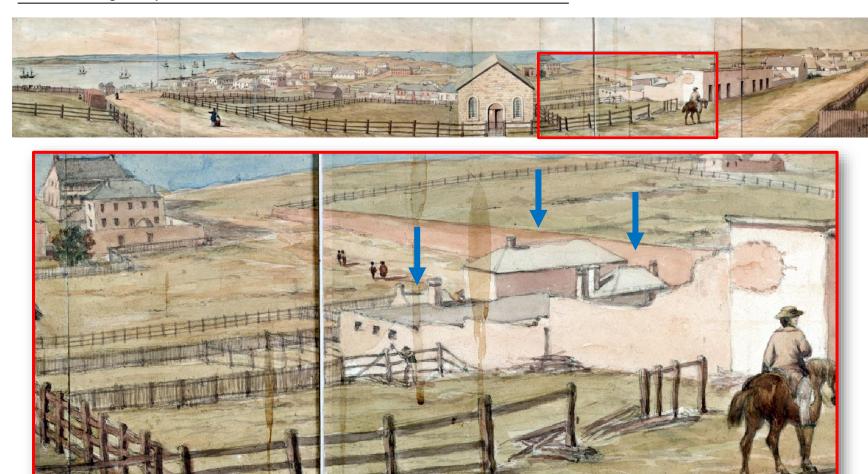


Figure 2.4 1843 drawing of Newcastle.

The origin of this drawing is unknown however it was reproduced in the Newcastle Herald in 1920 in an article about Newcastle in 1840 (The Newcastle Sun 1920, p.9). The annotations were added by Ben Champion (date unknown). Number 5 is described as Donaldson's (School) later L'Arbri, the numbers are not clearly marked however the arrow indicates the approximate location of the study site (and possibly also the location of No. 5). University of Newcastle Archives A5614(iv), Ben Champion Collection.



Detail of painting "Newcastle in 1849" by John Rae.

Newcomen Street in foreground. Blue arrows point to the 1840s school buildings on Lots 84 and 85 fronting Church Street. State Library of NSW, DGA 10, presented by Sir William Dixon, 1951.

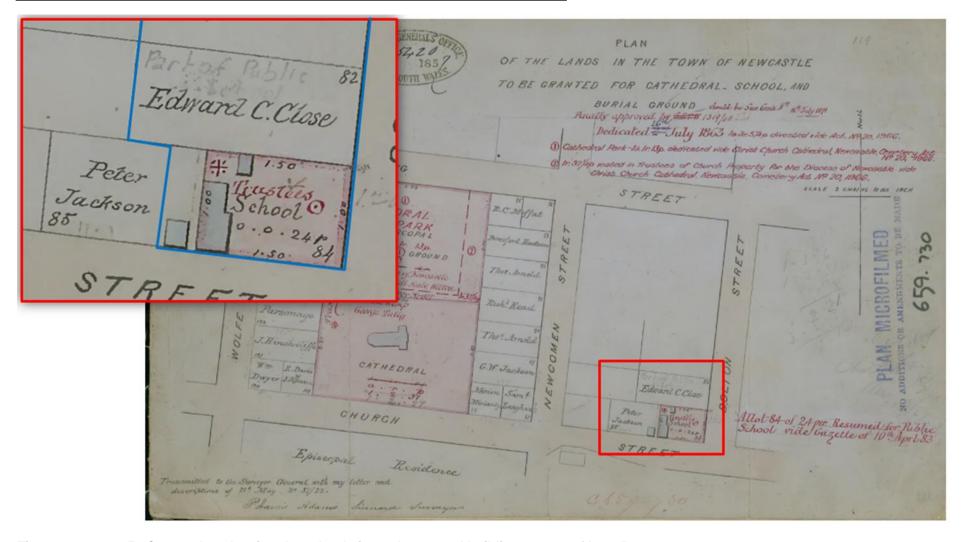
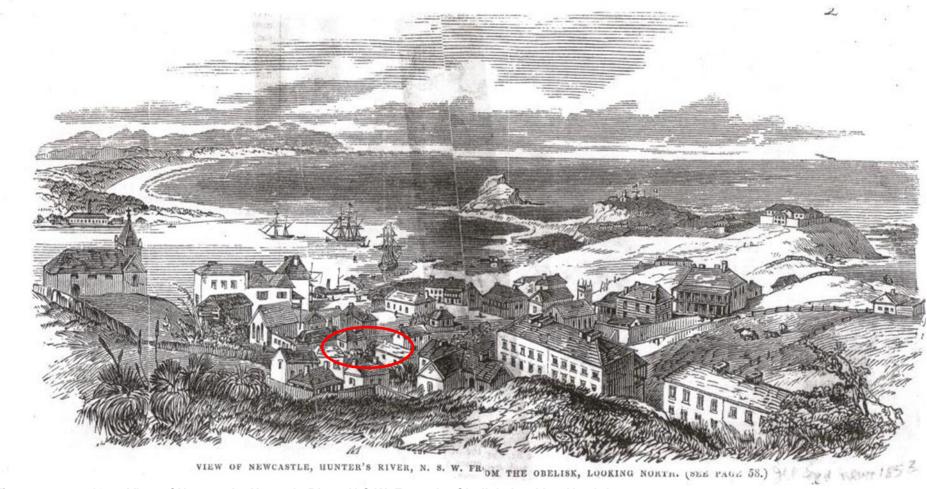


Figure 2.6 1852 Crown plan showing the school site on Lot 84 and building on part of Lot 85.

Study site outlined in blue on inset. NSW Land and Property information, Crown Plan C659.730.



1857 'View of Newcastle, Hunter's River, N.S.W. From the Obelisk, Looking North.'

Approximate study site location outlined in red, actual building is unclear. The Australian picture pleasure book: illustrating the scenery, architecture, historical events, natural history, public characters of Australia, engraved, selected and arranged by Walter G. Mason, 1857, National Library of Australia nla-pic-an8008844.

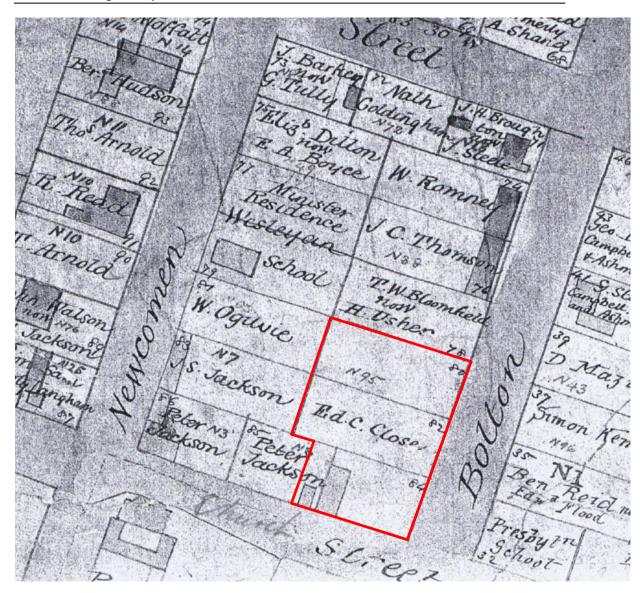


Figure 2.8 Plan of town of Newcastle dating 1855-1864.
Study site outlined in red.
Newcastle Region Library, Local History Map C 333.3/90.

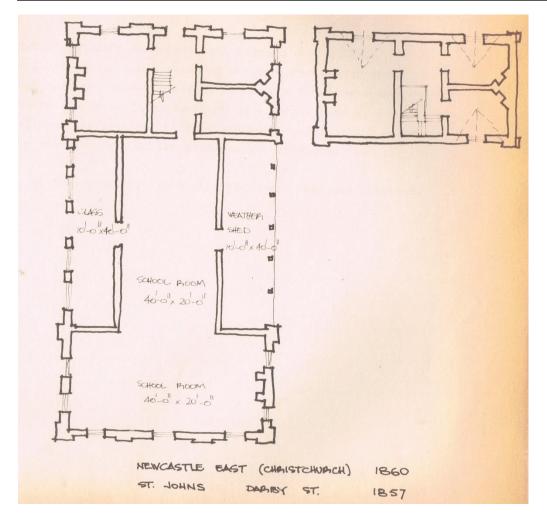


Figure 2.9 Floor plan of Christchurch School
This is based on the floor plan of the identical school, St John's on Darby
Street. Provided by John Carr, John Carr Heritage Design.

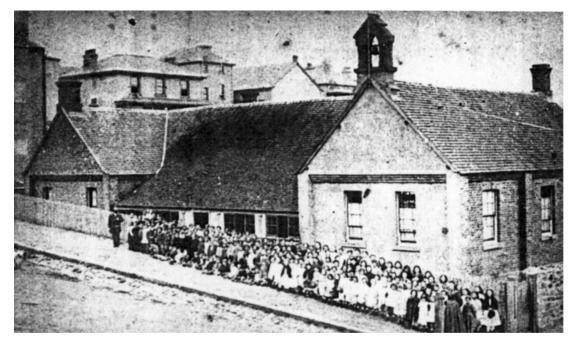
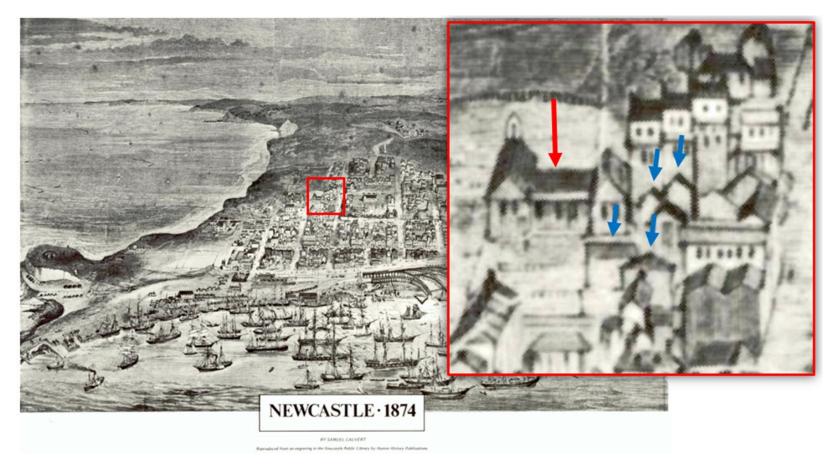


Figure 2.10 Christ Church School in the 1870s.
Reproduced in Suters Architects 2013, p.10.



Figure 2.11 St John's School at Cooks Hill, constructed c.1857, still standing. Image 1497, Carney, 17.02.2016



Newcastle, Engraving, A.C. Cooke; Gibbs Shallard & Co. artists and engravers, 1874.

Red arrow indicates location of 1860s school. Adjoining school are the terrace houses along Church Street, blue arrows indicate other buildings possibly within study site. Note that while the terraces on Church Street slope up towards Newcomen Street, the study site is relatively level. National Library of Australia, nla.pic-an8422110.

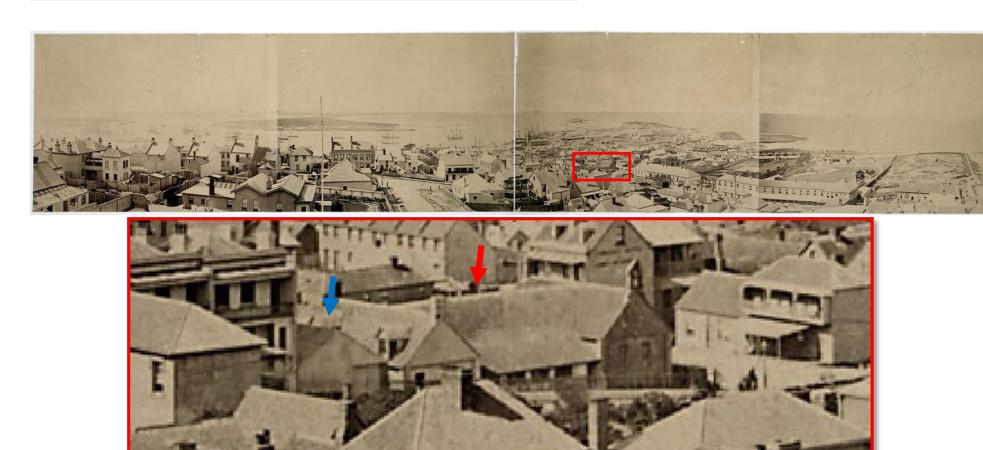
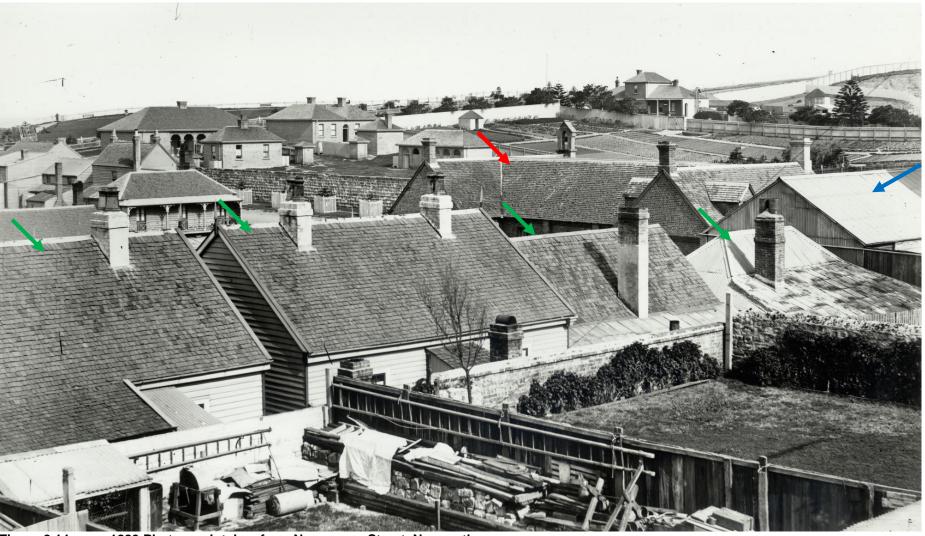


Figure 2.13 John Rae's 1878 – 1882 panoramic photograph of Newcastle.

1860s school building indicated with red arrow and blue arrow points to neighbouring building also on the study site. State Library of NSW.



c. 1883 Photograph taken from Newcomen Street, Newcastle
1860s school building indicated with red arrow, blue arrow points to neighbouring iron building and green arrows point to cottages facing Bolton Street also on the study site. State Library of NSW.



Figure 2.15 1886-1896 photograph from Newcomen Street.
Blue arrow points to new school lavatories. Private Collection.



Figure 2.16 1886-1896 photograph from hospital grounds of buildings on Church Street.

Blue arrow points to structure on Lot 85 next to the school. Private Collection.

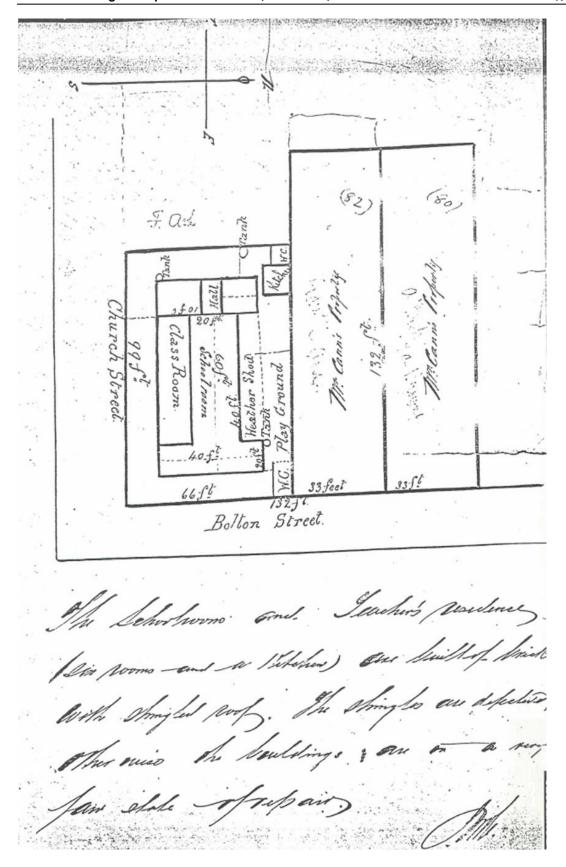


Figure 2.17 1882 sketch of school site by McCormack, Inspector for Department of Public Instruction.

NSW State Archives, reproduced in Suters Architects 2013, Plate 15.

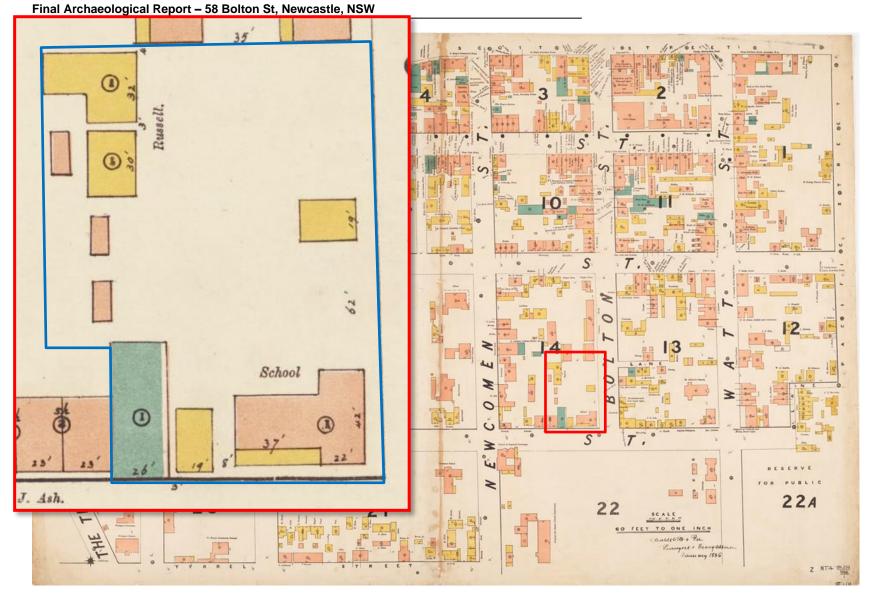


Figure 2.18

Newcastle, N.S.W, 1886.

Approximate area of study site is outlined in blue on inset.

Mahlstadt and Gee, Plan of Newcastle, Newcastle Regional Library, Local History Map C 333.3/17.

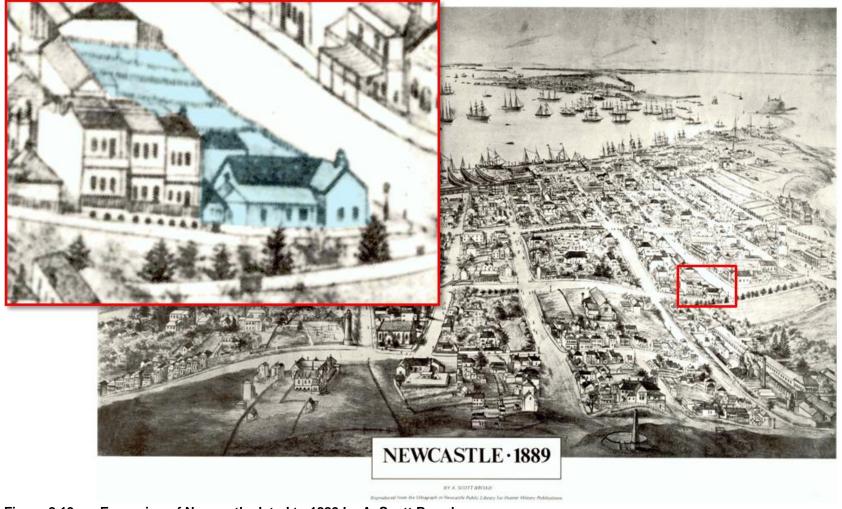


Figure 2.19 Engraving of Newcastle dated to 1889 by A. Scott Broad.

Approximate area of study site coloured blue on inset. Newcastle Region Library.



Figure 2.20 Engraving of Newcastle, 1889 by A.C. Cooke.

Approximate area of study site coloured blue on inset.

Gibbs Shallard & Co., National Library of Australia, nla.pic-an8422110.

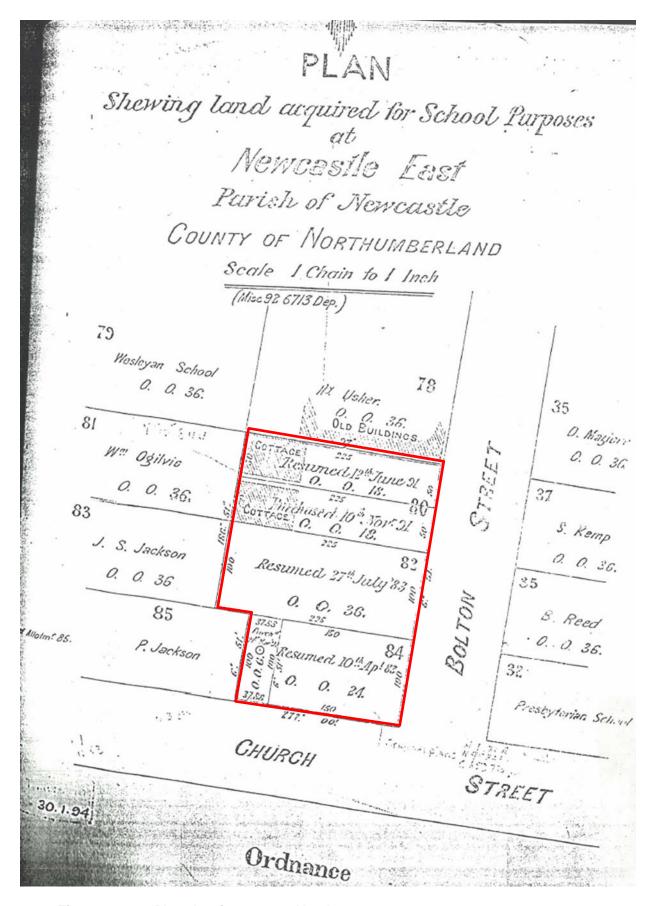


Figure 2.21 Plan showing resumed land, 1894.
Study site outlined in red. Reproduced in Braggett 1966, p. 70.

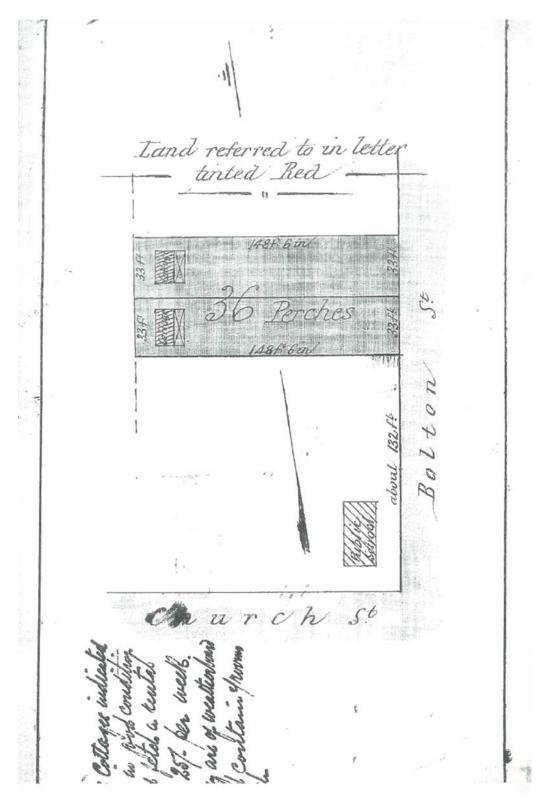


Figure 2.22 Plan showing resumption of cottages on Lot 80.

NSW State Archives, AONSW 5/17113.4 B.

Reproduced in Suters Architects 2013, Plan 5.

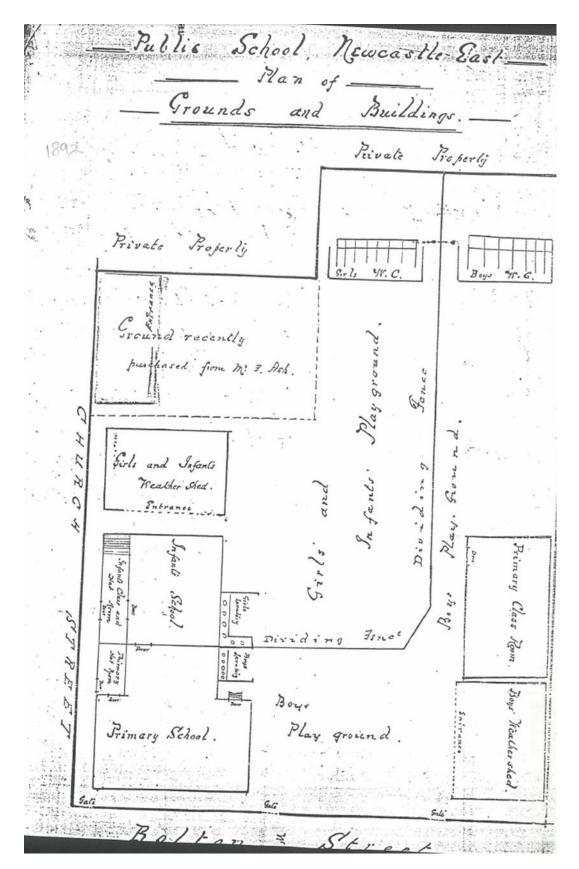


Figure 2.23 1892 plan showing resumption of part of Lot 85. NSW State Archives, AONSW 5/17113.4 B. Reproduced in Suters Architects 2013, Plan 6.



Figure 2.24 Map of Newcastle, vicinity of Newcomen & Tyrell Streets, Hunter Water Board, 1896 Study site outlined in red. Hunter District Water Board, C919.442/34/009, Hunter Photobank.

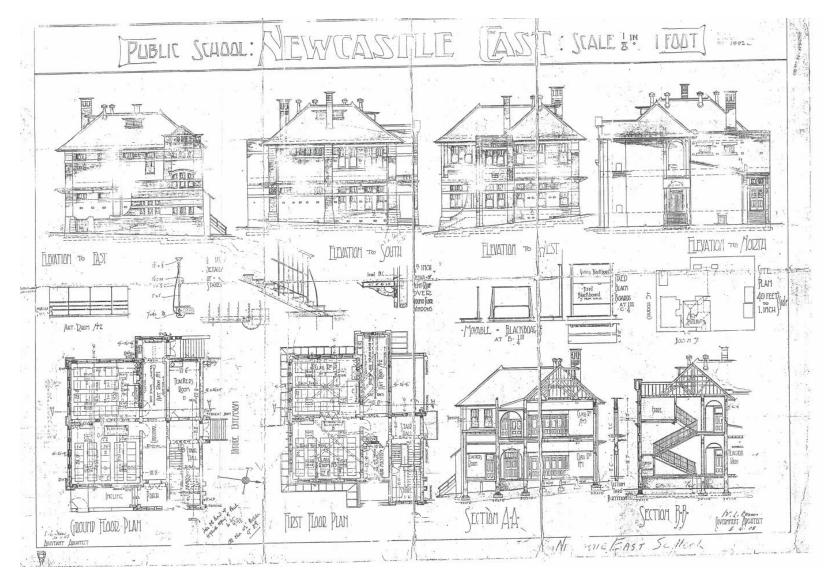


Figure 2.25 1908 Plan of new school building.

Department of Public Works, reproduced in Suters Architects 2013, Plan 16.

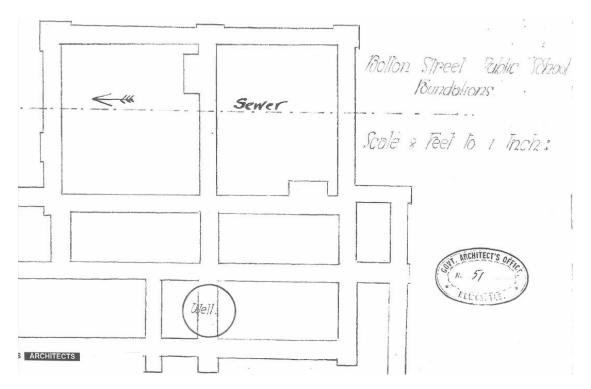


Figure 2.26 Plan of foundations of 1908 building with old well.

NSW State Archives AONSW 5/17113.4 B, reproduced in Suters Architects 2013, Plan 9.

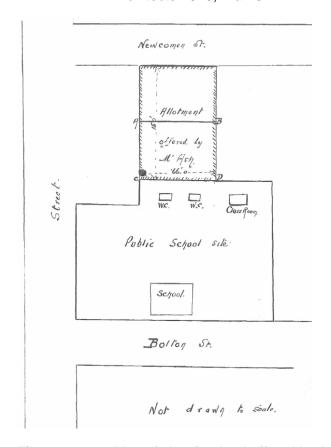


Figure 2.27 Plan of showing land offered by Ash in 1910

NSW State Archives AONSW 5/17113.4 B, reproduced in Suters Architects 2013, Plan 8.

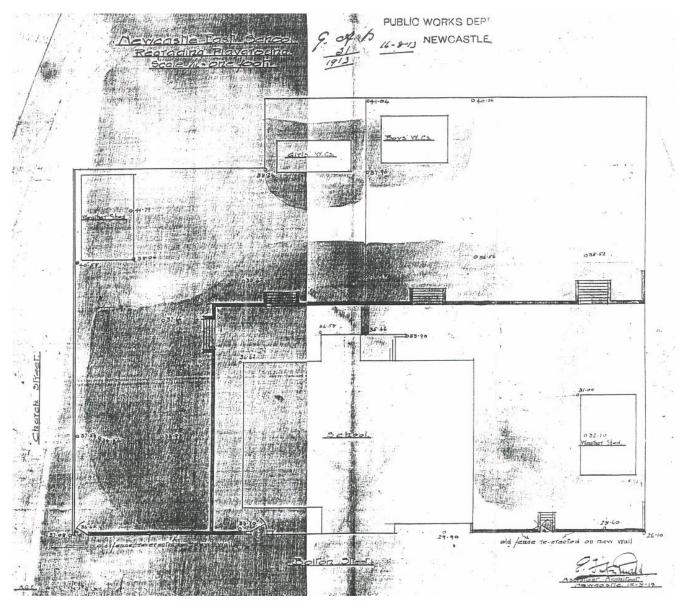


Figure 2.28 1915 plan showing filled in areas and fence repair.

NSW State Archives AONSW 5/17113.4 B, reproduced in Suters Architects 2013, Plan 10

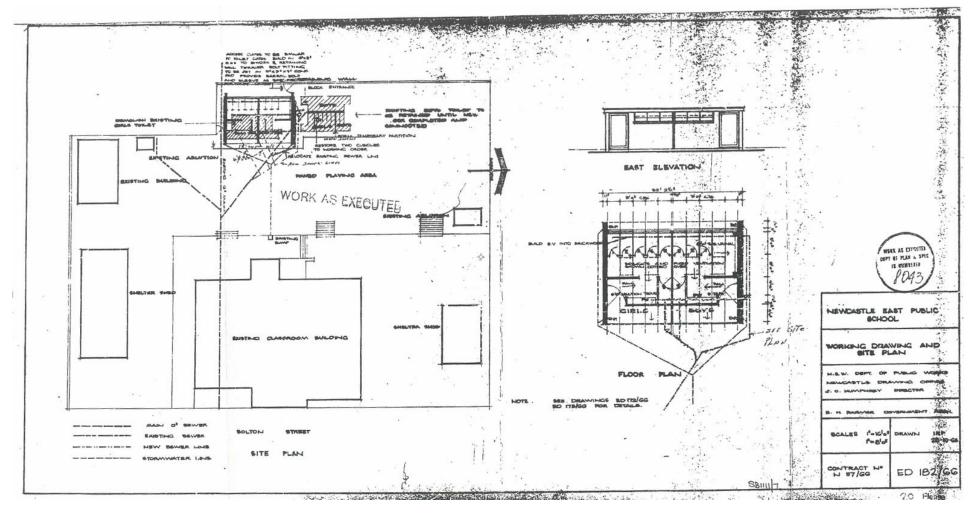


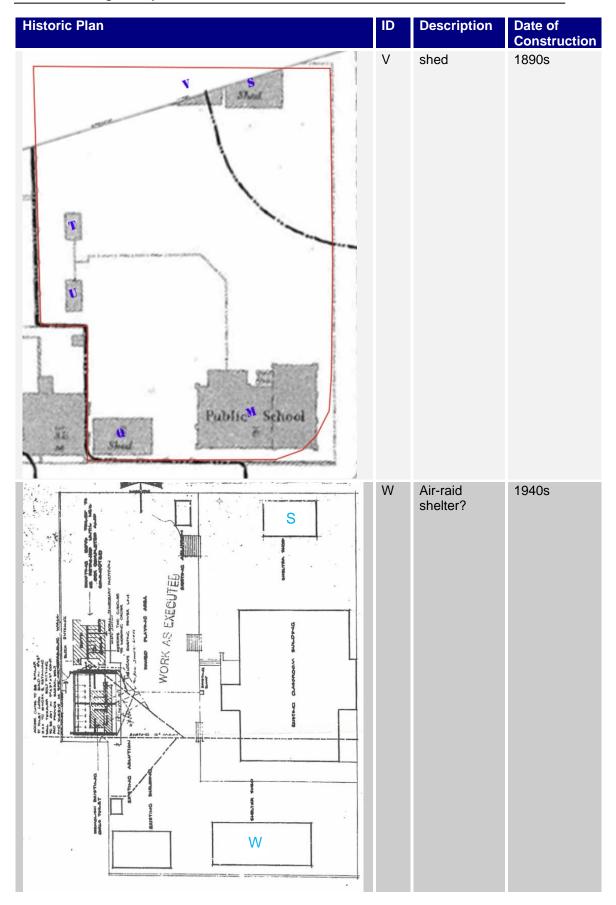
Figure 2.29 Newcastle East Public School, working drawing of toilet block, 1966
Department of Public Works, reproduced in Suters Architects 2013, Plan 24

Table 2.3 Historic Development – Structure Identification

Table 2.3	Historic Development – Structure Identific	cation		
Historic Plan		ID	Description	Date of Construction
		A	Government cottage	Pre-1830s
		В	Privy	Pre-1830s
OUP	Cottage see	С	Slab Hut	Pre-1830s
4	Cerk .	D	Well	Pre-1830s
		E	Slab Hut	Pre-1830s
		F	1840s school building	c.1845
	ward C.Close	G	Privy	c.1845
ter	School School	Н	Dwelling	Date unknown



Archaeological Management & Consulting Group October 2019



3.0 RESULTS OF ARCHAEOLOGICAL SALVAGE EXCAVATION

3.1 BACKGROUND

An historical monitoring and salvage excavation programme was undertaken at the study site in July 2017 under Permit s60/2017/80. The site was divided into three areas, Zones 1, 2 and 3, based on the level of impact proposed by the development (Figure 3.19). No excavation was proposed within Zone 1, in the southeast corner, and thus no relics were exposed within this area. In Zone 2, southwest corner, the original foundation plan proposed the excavation of 20 piers and a lift shaft however upon commencement of the development, the arrangement of the foundations was altered to respond to on site conditions. This change saw some of the proposed piers changed to strip footings along the periphery of the proposed new building. The results of this excavation are discussed below (Section 3.3). As deep excavation was planned within Zone 3, a series of eight test trenches were excavated to confirm with the original assessment that this area had a low potential for relics and on this basis, deep excavation could proceed (Section 3.4). See Figure 3.2.

Following the historical monitoring and salvage excavation programme, AMAC Group were on call throughout the deep excavations at the site in case of the discovery of unexpected relics; no additional relics were found during this phase. The results of the historical monitoring program are discussed in Section 3.4.2 below.

3.1.1 Excavation Team

The excavation team was made up of experienced and qualified archaeologists. The excavation team included:

Martin Carney (Primary Excavation Director)
Ivana Vetta (Secondary Excavation Director)
Jaki Baloh (Supervisor/Archaeologist)
Kelly Strickland (Supervisor/Archaeologist)
Prue Newton (Archaeologist)
Steven Vasilakis (Archaeologist)
Kevin Hickson (Planner)
Daniel Connolly (Machine Operator)



Figure 3.1 Proposed archaeological works zones.
I.Vetta, 2016 (AMAC Group, March 2017, Figure 8.1)

3.2 SITE SPECFICIC EXCAVATION METHODOLOGY

Standard archaeological excavation techniques were utilised by AMAC Group and in accordance with the methodology supplied and in Section 8.0 of s60 Permit Application (AMAC Group, March 2017) and endorsed by Permit s60/2017/80. Demolition of the buildings within the proposed impact areas of the site were carried out to the level of the footings before the archaeological work commenced. The proposed work zone was also mostly covered in bitumen which was also removed prior to the archaeological programme. Note that the 1908/1912 school building has been retained by the development.

Salvage excavation commenced on the 18th July 2017. Within Zone 2, three strip trenches, F, G and H, were excavated along the south (G), west (F) and east (H) boundaries of the Zone. Five trenches (A-E) were excavated in the proposed development area for piers that were located along Church Street. For a clear understanding of the relationship between the proposed development and the archaeological methodology, these trenches will be referred to as piers followed with

an allocated number (e.g. Pier A). These trenches were approximately 1mx1m in size however Piers B, D and E were expanded due to soil stability issues and to allow for the removal of relics prior to piling. North of the piers, four interconnected strip trenches were excavated in the location of the proposed stairwell and to the east a trench was dug in the location of the proposed lift well. The trenches are henceforth referred to as stairwell and lift well in this stratigraphic report.

Zone 3 was located in the north and west potion of the site where the installation of a proposed basement is planned. Seven test trenches (N, M, L, K, J, Q, P) were excavated along the west boundary. Trench R was situated in the north east corner of Zone 3 and was adjacent to the property's driveway fronting Bolton Street.

All excavation within the area of moderate to high archaeological potential was monitored by the excavation directors and was carried out according to the instructions of the director. The mechanical excavators used during this work had a flat or mud bucket, in order to maintain a clean excavated surface, worked backwards from a slab surface (when possible) to not damage any exposed archaeological relics. The soil was removed in layers with no more than one context being removed at a time. These stratigraphic layers were numbered and recorded during this monitoring.

Once relics were exposed, they were recorded and excavated by hand (or where possible machine). As the proposed development required the discrete removal of relics within the pier and strip trench locations (Zone 2), these were all recorded archaeologically. All archaeological relics that were found and excavated were recorded in three ways. A written description of each feature and context was made using printed context sheets as well as logged in a diary. A scaled plan was made of the site and of each feature found and relative levels were also taken as part of this process.

3.2.1 Liaison and Site Safety

The excavation team was made up of archaeologists and a mechanical excavator operator. A copy of the assessment, the research design and methodology, and any conditions set out by the s60 Permit were available on site for any of the workers to consult. The primary excavation director was present on the site for the majority of the programme and the secondary excavation director was present for the duration of the project.

3.2.2 Public Information

The speed of the archaeological programme and the conditions of the site being an active building site with restricted access meant that an open day was not possible. This report will be made available to the Newcastle Region Library as a means of making information about the archaeology of the site publicly available.

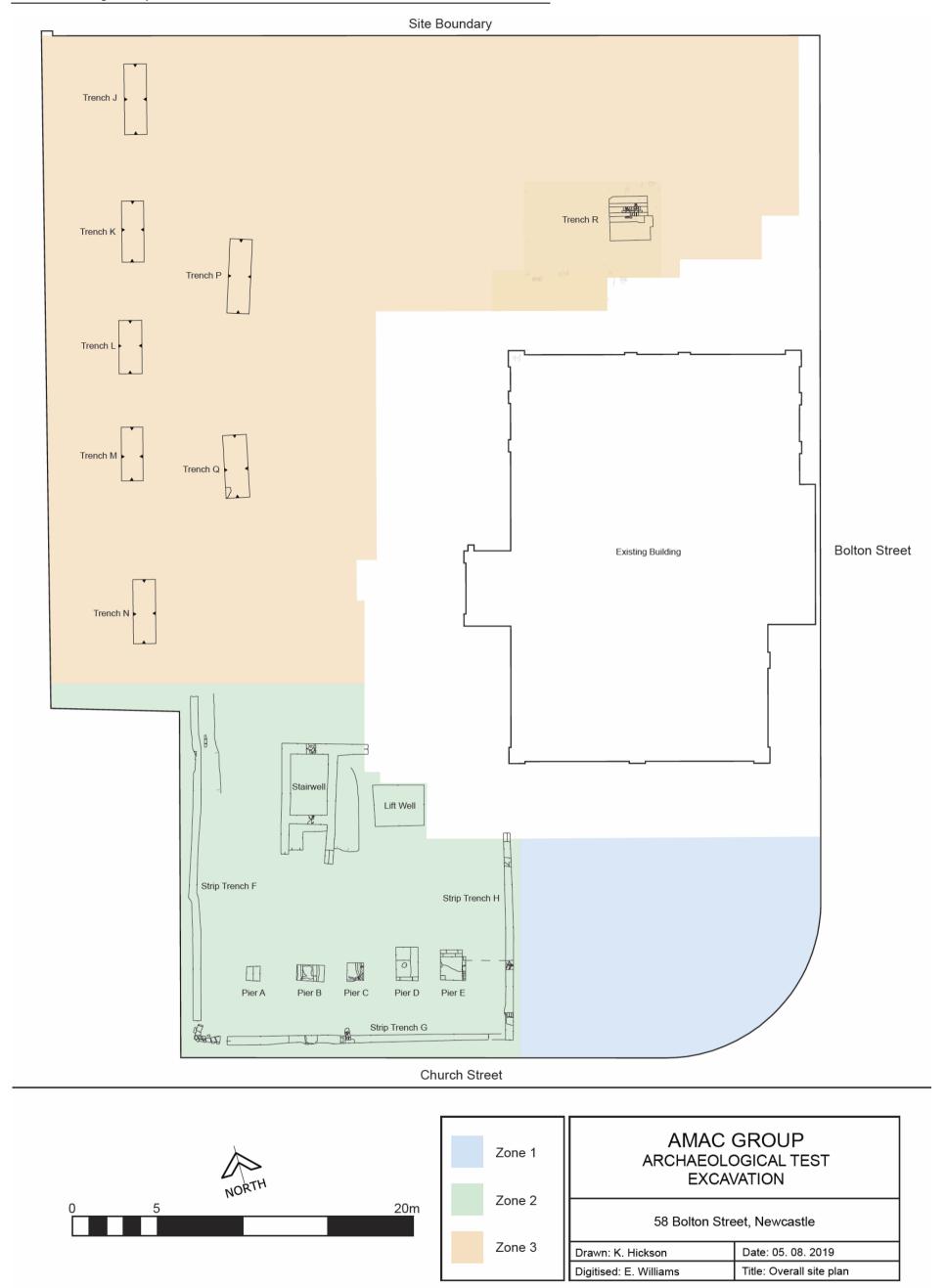


Figure 3.2 Plan of Site.
Digitalised E. Williams.

3.3 SUMMARY OF TEST EXCAVATION RESULTS

Test excavation was carried out over four trenches in December 2015. This excavation revealed the intact remains of the c.1860 school in Trenches 1 and 2 in the way of several sandstone foundations. The fragmentary remains of a sandstone foundation were found in Trench 2 related to the c.1845 school however no deposition was identified for this phase or the later 1860 phase.

Trenches 3 and 4 found that this part of the site, along the western boundary, was heavily truncated in the 1880s. The remains of the late 19th century school outbuildings were also found in Trench 4.

Natural A1 horizon soil was found in both Trenches 1 and 2 indicating the likely survival of early relics within the vicinity of Trench 1. These levels also indicated that the natural ground sloped up dramatically from east to west suggesting that much of the area to the west of Trench 2 was cut away, although this area was not specifically tested.

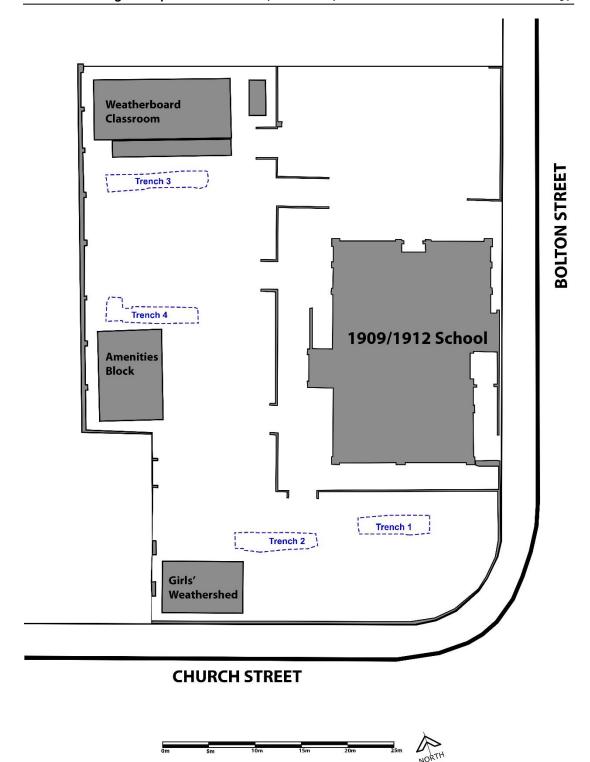


Figure 3.3 Trench Location Plan. Vetta, 2016.

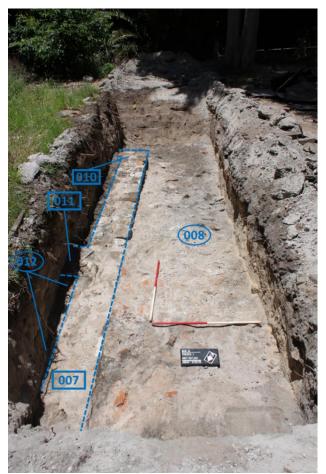


Figure 3.4 Trench 1 after final clean, showing orientation of sandstone foundations [007], [010] and [011]. Facing southeast.

AMAC Group (4th December 2015, digital 1805).



Figure 3.5 Sondage A, showing remnant mortar layer [014] on top of fill [013]. Facing northeast.

Note that remnant mortar layer [014] continued further west within the excavated sondage area. AMAC Group (8th December 2015, digital 1956).

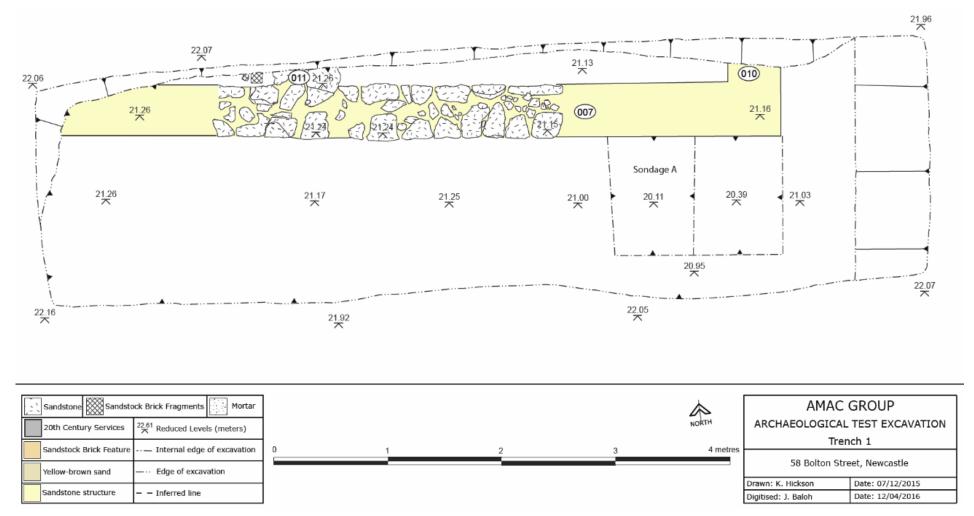


Figure 3.6 Trench 1 Plan.
Original plan by K. Hickson, 2015; Inked by J. Baloh 2016.



Figure 3.7 Trench 2 after removal of modern fills, wall footing [040] in foreground, facing west.

AMAC Group (4th December 2015, digital 1844).

023 166 188-81 192 188 (88-181 189 043 189 042

Figure 3.8 Trench 2 section, cut [184] to Sondage E, facing south. AMAC Group (8th December 2015, digital 2109).

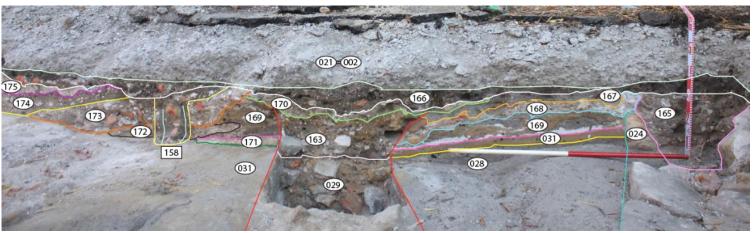


Figure 3.9 Trench 2 section, post hole [158] to wall footing [024], facing south. AMAC Group (8th December 2015, digital 2147).

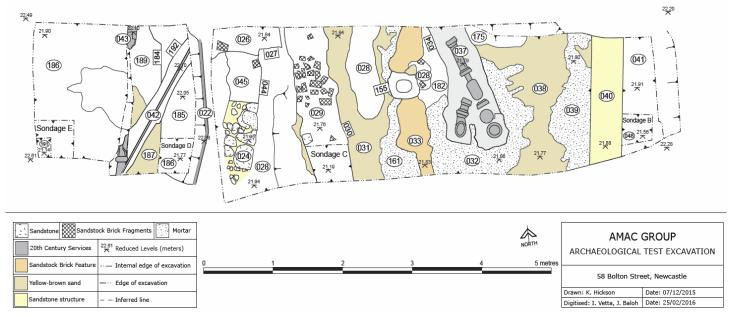


Figure 3.10 Trench 2 scale plan.
Original plan by K.Hickson, Digitised by I.Vetta and J.Baloh.

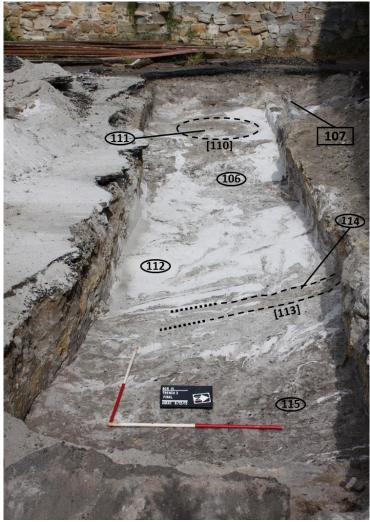


Figure 3.11 Trench 3 after clean. Facing west.

AMAC Group (8th December 2015, digital 1940).

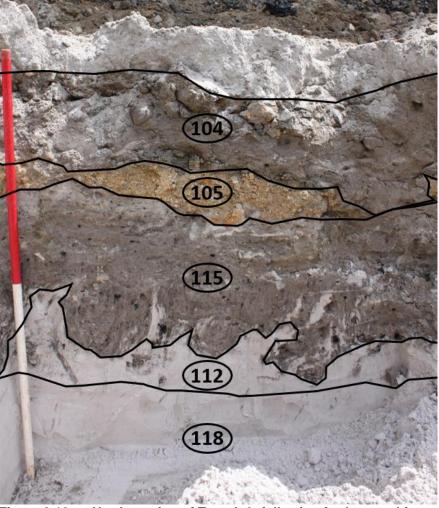


Figure 3.12 North section of Trench 3, following further machine excavation at the eastern end of the trench.

Note that the white sand sitting above grey sand fill [104] is not a stratigraphic layer, rather part of the spoil heap from the trench.

AMAC Group (9th December 2015, digital 2115).

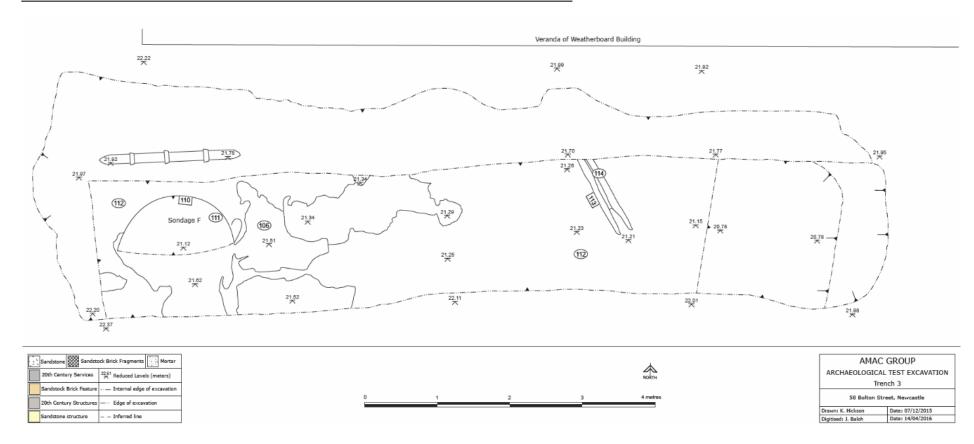


Figure 3.13 Trench 3 Plan. K. Hickson, 2015.

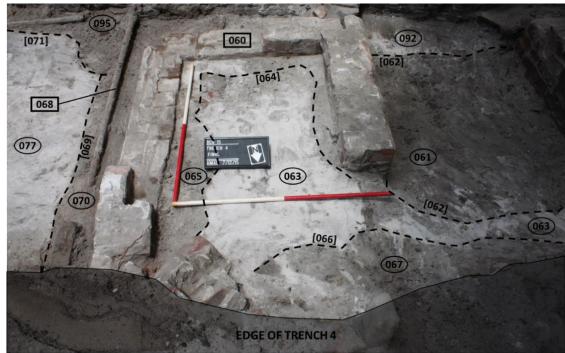


Figure 3.14 Brick structure [060], within the centre of Trench 4. Facing southwest. Note that the black shaded portion 'Edge of Trench 4' forms the northern boundary line and current ground surface of the site and is not part of the test trench. AMAC Group (7th December 2015, digital 1876).



Figure 3.15 Trench 4, showing slight trench relocation and sondage extension (at left). Facing southeast.

AMAC Group (7th December 2015, digital 1907).

Archaeo*logical* Management & Consulting Group October 2019

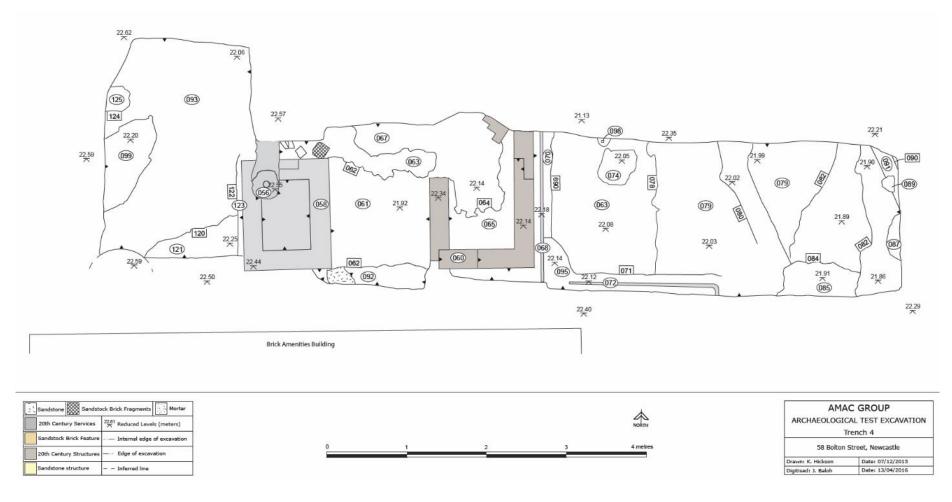


Figure 3.16 Trench 4 Plan. K. Hickson, 2015

3.4 STRATIGRAPHIC REPORT - ZONE 2

Zone 2 consisted of a series of five Pier Trenches, A, B, C, D and E, from west to east, three Strip Trenches, F, G and H, as well as a series of strip trenches that made up the Stairwell and a large rectangular trench for the Lift Well (Figure 3.18). These trenches were excavated using a combination of mechanical and manual excavation. These trenches were all surveyed by the builder as the precise location of the proposed impacts of the piers and strip trenches for construction (Figure 3.17-Figure 3.18). Along the southern and western periphery of this area, it was necessary to install steel reinforcement beams before works could commence in order to protect from collapse the sandstone retaining wall along Church Street and the foundations of the neighbouring heritage listed building to the west (Figure 3.17-Figure 3.18).



Figure 3.17 Location of Pier Trenches with Pier E in foreground before excavation, facing west.

AMAC Group (18/07/2017, IMG_0779)



Figure 3.18 Location of Strip Trench F before excavation, facing south. AMAC Group (18/07/2017, IMG_0783)

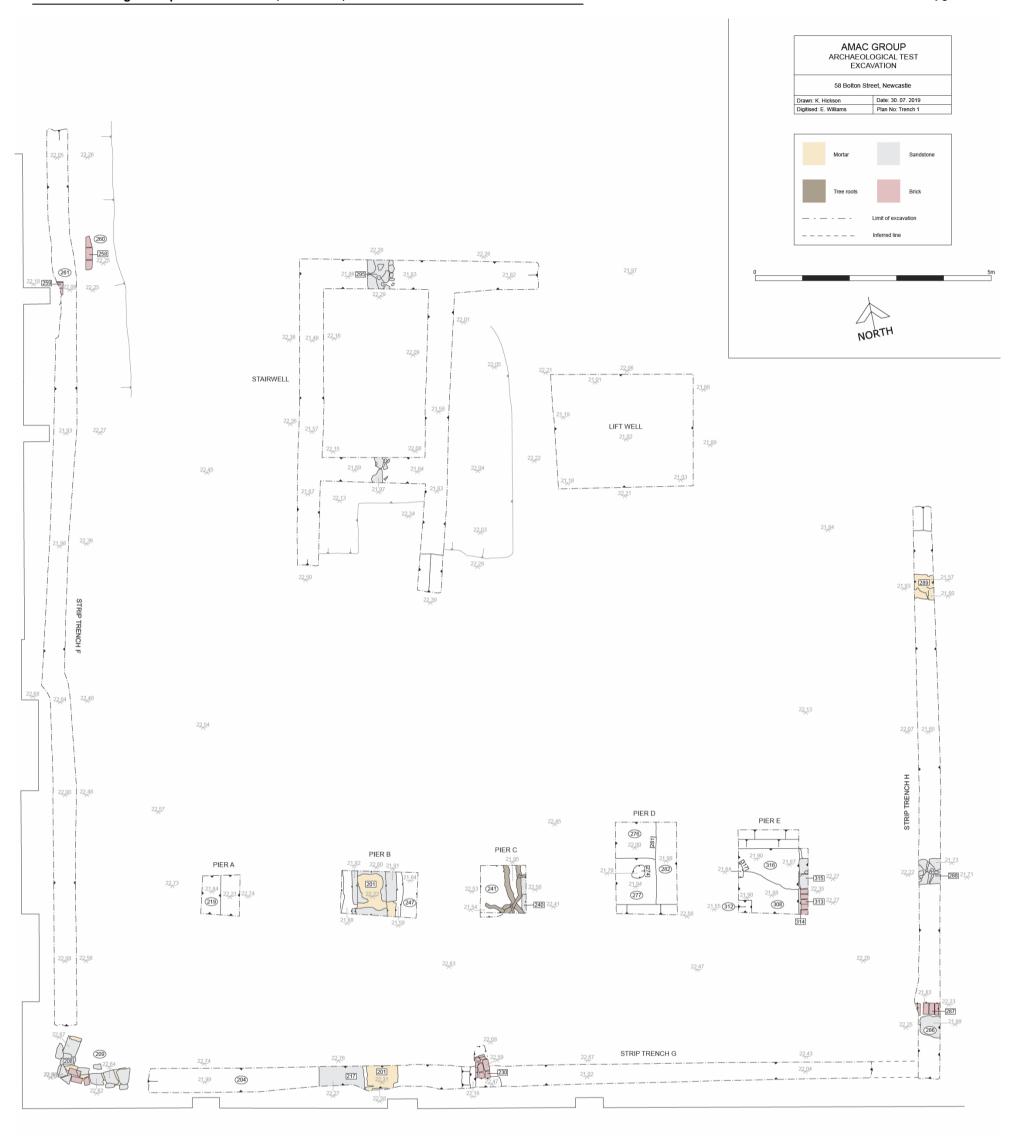


Figure 3.19 Plan of Zone 2.
Digitalised E. Williams.

3.4.1 Pier A

Pier A was the westernmost of the five pier trenches and was approximately 80x90cm in size.

The surface of Pier A was covered with a dark brown loamy sand [200] of variable thickness. This fill was most likely introduced as a levelling fill to build up the southwest corner of the site, beneath the weatherboard cottage that had been demolished prior to excavation works. The fill [200] was between 24-32cm deep and contained building material, pebbles and charcoal which were introduced during the demolition of the classroom which once stood here. Below fill [200], a mottled orange sandy clay [210]¹¹¹ was uncovered that was 30cm deep; this was a redeposited B horizon clay. This fill contained pockets of white sand and some loose sandstock brick fragments; this fill also appears to be associated with levelling in this location for the installation of the former weatherboard classroom.

Below demolition fill [210] was a well-defined white sand layer with brown flecks [211]¹¹² that was 8cm deep (Figure 3.21). This layer was initially thought to be natural and for this reason, a sondage into the deposit was excavated in the western half of the trench. This sondage found that fill [211] sat directly above a cleaner dark brown sandy loam fill [212], also 8cm in depth and containing some charcoal. Fill [212] overlaid a deep light brownish grey sand [218], which was 25cm in depth and similar to fill [211] but striated with darker brown lenses. A clean natural A2 horizon [219] was exposed below fill [218], that was a white to light greyish brown firm sand (Figure 3.20-Figure 3.22).

For Harris Matrix, see Figure 3.64.

3.4.1.1 Interpretation of Stratigraphy – Pier A

- The upper fills, [200] and [210], most likely used as levelling fills postdating
 the demolition of the Teacher's Residence (Structure N). It is possible that
 these fills were used to level up this area for the installation of Structure R or
 the weatherboard classroom (Structure Q).
- Fills [211], [212] and [218] were all redeposited topsoil fills which have
 possibly become upcast during the process of the construction. This
 construction could relate to the 1880s Structure R or potentially even the
 earlier school building (Structure F). Fill [211] appears to be a redeposited
 A2 horizon sand, most likely upcast from the excavations of the foundations
 of the building.

¹¹¹ This same fill was found in Pier B, numbered [216].

¹¹² Identified as fill [215] in Pier B.

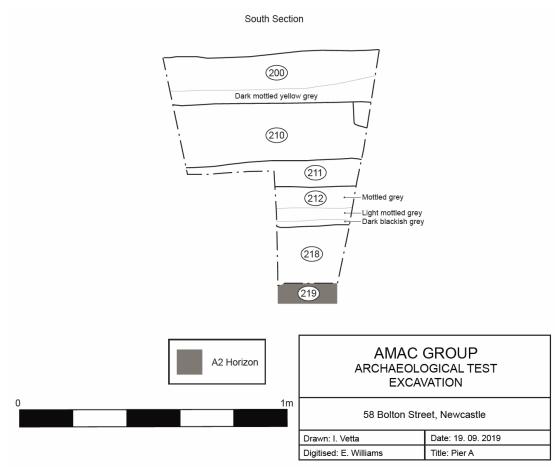


Figure 3.20 Pier A – South Section.
Vetta and Williams.



Figure 3.21 Pier A – showing fill [211], facing north. AMAC Group (18/07/2017, IMG_0802)



Figure 3.22 Pier A - west section.

AMAC Group (18/07/2017, IMG_0824)

3.4.2 Pier B

Pier B was located to the east of Pier A and was originally 100x100cm in size. During excavation, part of a sandstone foundation [201] was exposed that needed to be removed for the piling to go ahead. For this reason, the trench was expanded to 160cm in width (east-west) to expose the full width of the foundation and enable the removal of the sandstone prior to piling (Figure 3.19).

The dark brown loamy sand fill [200] covered the surface of Pier B and was 15-26cm in depth. Within this fill an 1898 coin was found (BCNx0203) along with modern debris such as a plastic bottle. Below fill [200], a cleaner dark brown loamy sand [213] was found, 15-20cm in depth and containing small fragments of building material and crushed sandstone; the artefact assemblage from this fill post-dated the 1860s. Fill [213] was thicker in the north of the trench thinning out towards the southern end. The removal of fill [213] exposed a lighter grey brown sandy loam fill [214] which was 5-20cm deep and relatively clean with minimal inclusions and artefacts. The removal of fill [214] exposed a sandstone foundation [201] which ran north-south through the trench. The discovery of this foundation led to the expansion of the trench to the east (Figure 3.24).

Sandstone footing [201] was bonded with a pale brown shell lime mortar and was oriented north to south; this foundation was also found in Strip G to the south. It is also possible that foundation [295] found in the Stairwell Trench was also part of the

northern part of this foundation. Two courses of sandstone were exposed in Pier B. The upper course was 63-65cm in width and 30cm in height, this sat above a much wider foundation course which was 95cm in width, constituting the foundation course (Figure 3.25-Figure 3.26). The narrower upper course sat slightly off-centre on the foundation course creating a wider ledge along the east of the foundation than the west. Footing [201] contained a substantial amount of mortar and which was blackened in places, possibly from another type of mortar or treatment as it is present on stones in both Pier B and Strip G.

Footing [201] was contained by construction trench [242] which was exposed on the east and west side of the footing. To the east of footing [201], this foundation trench [242] contained two fills; the upper fill [243] was a yellow brown loamy sand fill, 20-25cm deep, which sat above a grey brown sandy lower fill [244], 47-52cm in depth. The profile of fills to the west of footing [201] within the construction trench [242] were slightly different reflective of the different soil profiles that that were in situ when the trench was cut. In the north of the trench fill [243] was found overlying fill [215] a mottled white and grey sand with flecks of charcoal and crushed brick; this fill was redeposited from fill [348] (discussed below). In the south of the trench fill [215] was exposed directly below later fill [214]. In the north of the trench fill [215] sat above a yellowish orange sand and clay fill [347] (redeposited from fill [216]) which in turn sat above fill [244].

Construction trench [242] cut through many earlier fills. In the southwest corner of the trench an orange sandy clay [216] was uncovered, which was mostly present in section measuring 15-18cm in depth. This fill was very similar to fill [210] uncovered in Pier A. In the northwest corner and in the east of Pier B, construction cut [242] cut through a mottled yellow brown sandy loam [346] which was thicker in the north of the trench, approximately 10cm in depth, and ran below fill [216] in the southwest, thinning out completely to the south. In the west of Pier B, fills [346] and [216] sat above a mottled white grey white sand fill [348], 12cm deep and very similar to fill [211] in Pier A. This fill [348] was redeposited as fill [215] within construction trench [242]. Fill [348] in turn sat above the natural A horizon sand [247] which consisted of a grey firm sand with charcoal flecks. Fills [216], [346], [348] and natural [247] were all cut by construction trench [242] (Figure 3.27).

In the east of Pier B, fill [346] sat above a black charcoal fill [245]. The fill was 1-15cm deep and most likely formed an ash dump as it didn't contain any other inclusions or artefacts. It predates construction cut [242] and sat above a grey brown loamy sand fill [246]. The fill layer [246] was 10-21cm deep, cut by construction cut [242] and contained very small patches of orange clay. It was potentially used to level or build up this part of the site and is the first layer to sit above the natural A horizon [247]. The removal of fill [246] exposed an earlier cut [248] in the northeast corner of Pier B which cut natural [247]. It was 26-28cm deep and upon investigation its original shape was not discernible as a result of being truncated at the western end by the later construction cut [242]. The cut [248] contained an orange brown clayey sand fill [249] which contained small fragments of crushed sandstone and brick however no artefacts were found in the area excavated. The function of this cut is unknown and it continued into the east and north sections of Pier B (Figure 3.25-Figure 3.26).

For Harris Matrix, see Figure 3.64.

3.4.2.1 Interpretation of Stratigraphy – Pier B

- Fills [213] and [214] postdate the demolition and removal of footing [201].
- The precise date of footing [201] is unknown. It is possible that this footing relates to the original school building (Structure F). The robustness of the construction as well as the use of sandstone foundations and shell lime mortar would be consistent with an 1840s two-storey building. However, the possible continuation of the foundations as far north as footing [295] in the Stairwell, would be outside of the boundaries of this building and therefore more consistent with the later building in this area, the 1880s Structure R. Structure R was most likely made of iron (based on the 1886 plan) and only single storey and therefore the use of robust sandstone foundations would seem unlikely. Historic photographs of the building, however, do show it to be of a substantial size and Braggett states that it was a brick building so it may have been at least in part a brick structure. 113 It is possible that the foundations of Structure F were recycled for Structure R and that the mixture of fills exposed within the upper portion of construction cut [242] may actually represent a re-exposure of the foundations. Due to the narrow size of the Pier trench, the majority of the surface of the trench was taken up by the footing [201] and its associated construction cut and therefore further analysis was not possible. The continuation of the footing outside of the pier has been retained in situ.
- The fills found in section and within the construction cut [242] differed significantly from east to west, this possibly represents a difference between the outside and the inside of the building. As the trench [242] cut through and redeposited these fills, this distinction between the east and west of the trench predated the cut; it is for this reason that it is possible that trench [242] represents a recutting of the foundation trench rather than the original cut.
- In this respect, fills [216], [346], [348], [245] and [246] may represent earlier attempts to level this ground for construction. These fills overlaid a pit [248] which may be an earlier posthole but was too heavily disturbed by construction trench [242] and also located mostly outside of the pier trench, to properly determine a function.

¹¹³ Braggett 1966, p.69.

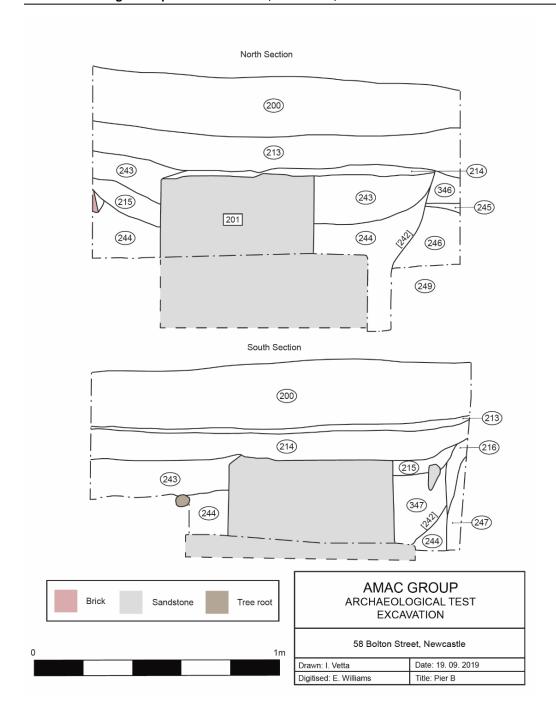


Figure 3.23 Pier B – North and South Section. Vetta and Williams.



Figure 3.24 Pier B – showing sandstone footings [201], facing north. AMAC Group (18/07/2017, IMG_0807)



Figure 3.25 Pier B – showing sandstone footings [201], facing north. AMAC Group (20/07/2017, IMG_1141)

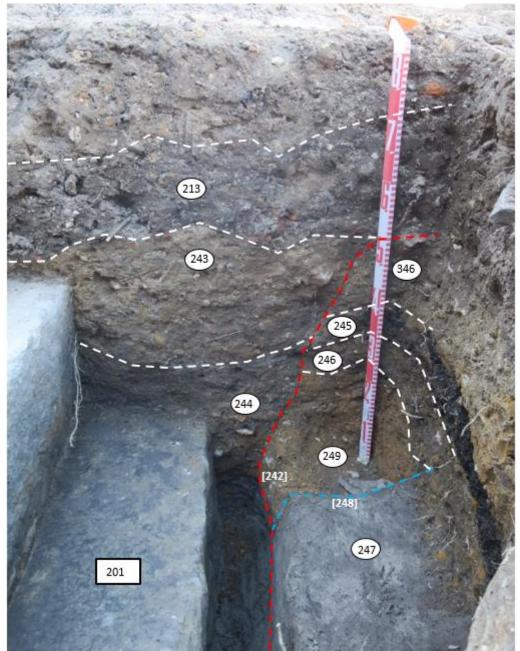


Figure 3.26 Pier B – north section, showing footings [201] and cuts [242], [248]. AMAC Group (20/07/2017, IMG_1162)

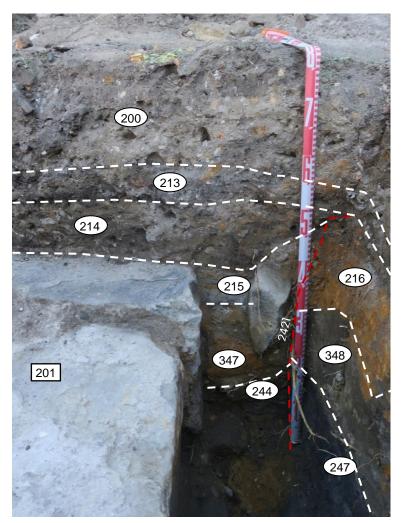


Figure 3.27 Pier B – south section, showing footings [201] and foundation cut [242].

AMAC Group (20/07/2017, IMG 1166)

3.4.3 Pier C

Pier C was situated east of Pier B and was 100x100cm in size. The surface of the trench was covered in the same dark brown loamy sand [200] that was found across the entire south-west portion of the site (Figure 3.19). Pier C was heavily disturbed by tree roots which complicated excavation and recording (Figure 3.30-Figure 3.31). This made manual excavation very difficult and some of the fills were only fully excavated in accessible areas and it should be noted that bioturbation has certainly affected the integrity of the stratigraphy.

The removal of fill [200] uncovered a dark blackish grey loamy sand [220] in much of the trench as well as a small section of a sandstone foundation [240] protruding through the eastern section. Topsoil [220] was 3-8cm deep, sloping down from east to west, and was deeper in the west section and butted sandstone foundation [240] in the east. It contained a substantial amount of tree and grass roots. It is possible that topsoil [220] represents a yard soil which has been introduced to the yard external to sandstone foundation [240]. Below introduced topsoil [220] was a grey brown loamy sand [221] that contained fragments of sandstock brick and mortar and was significantly disturbed by large tree roots. Fill [221] was 2-5cm deep and contained a mixture of domestic artefacts, including a number of ceramics which predate 1875. This fill butted sandstone foundation [240] and may be associated

with the demolition of the teacher's wing (Structure N) and levelling for the construction of the new school room (Structure Q) in its original position (Figure 3.29-Figure 3.31).

The removal of fill [221] exposed a yellow orange sand [222]. Fill [222] was a yellowish grey sand that contained sandstock brick fragments and shell lime mortar. It was 6-7cm deep and sloped down from east to west and contained a number of domestic artefacts including ceramic, glass and animal bone. The majority of these artefacts dated to the mid-19th century with the exception of a plastic spoon which may have been introduced via bioturbation. This fill was found surrounding sandstone foundation [240] as well as below it, suggesting that it was associated with the construction of that foundation.

Sandstone foundation [240] was exposed only in the east section of Pier C, oriented north-south below fill [200]. The footing consisted of two courses of sandstone, 24cm deep and bonded with beige-mustard yellow shell lime. The exposed sandstone was 9cm wide and 60cm long and continued beyond Pier C sections. No construction cut was found associated with the foundation; it is possible any such cut would have been obscured by the number of tree roots within the trench. This foundation has been retained in situ.

Fill [222] sat above a mottled loose beige, grey, white sand [223] which was 3-6cm in depth and contained building material (sandstock brick and degraded mortar), ceramic and glass artefacts which date to the mid-19th century. This fill formed an interface layer between construction fill [222] and yard surface [237] below. Deposit [237] consisted of a dark blackish grey loamy sand with a significant amount of charcoal throughout. A large amount of domestic pottery, glass, bone and shell dating from the early-mid 19th century was recovered from this deposit, which was 6-10cm deep; this deposit possibly represents an early yard deposit predating the construction of the c.1845 school. Similarly, deposit [238] below yard deposit [237] also contained a domestic artefact assemblage from the early-mid 19th century. This deposit consisted of a mottled grey yellowish sand that was 20cm in depth and contained a large number of sandstock bricks and shell lime mortar; this fill was possibly used to level the yard. Excavation of fill [238] was limited to a sondage in the west of the trench due to the limited space created by the large tree roots.¹¹⁴

Fill [238] sat above a 15cm deep grey brown and orange sandy clay [239] which was a similar to fill [238] though containing less artefacts. This fill appears to be churned up natural mixed with surrounding fills. Below fill [239] was fill [241], a mottled grey brown and yellow sand, 17cm in depth and did not contain as many artefacts as fill [239] above. Fill [241] sat above a mid-grey sand [250] which appears to have been the A horizon topsoil. This natural topsoil was very loose and considerably disturbed by the tree roots that ran through the pier trench. It is possible that fills [239] and [241] in fill the base of a tree bole which may explained the churned nature of the fills (Figure 3.29-Figure 3.31).

For Harris Matrix, see Figure 3.64.

3.4.3.1 Interpretation of Stratigraphy – Pier C

 Yard topsoil [220] was introduced after the repositioning of Structure Q in the late 19th century and therefore is associated with the late 19th – 20th century school yard.

¹¹⁴ These tree roots were left in situ as to not further disturb foundation [240].

- Fill [221] contained pre-1875 artefacts as well as fragments of building material. It is possible that this fill is associated with the demolition of the teachers' wing (Structure N) and construction of the weatherboard classroom (Structure Q) which would have occurred in the late 1870s-1880s.
- Sandstone foundation [240] most likely relates to the c.1845 school building (Structure F). This foundation was constructed on bedding fill [222] which overlay a series of deposits and fills, [223], [237], [238], [239] and [241] which all contained artefact assemblages predating the mid-19th century. This is consistent with the assessment that foundation [240] was part of the c1845 school.
- Deposit [223] was most likely the result of the build-up of sand which
 occurred between the pre-1840s use of the yard represented by deposit
 [237] and the construction of foundation [240] with the laying of fill [222].
- Deposit [237] is consistent with a yard deposit from the early-mid 19th century and therefore predating the c.1845 school.
- Fill [238] appears to have been introduced during the levelling of the yard. It
 is possible that the bricks and mortar recovered from the fill were from the
 demolition of the government cottage (Structure A) however the remains of
 this building were not uncovered during these works and therefore this
 hypothesis cannot be verified.
- Fills [239] and [241] contained a large amount of churned natural soils and may represent infilling within an earlier tree bole.

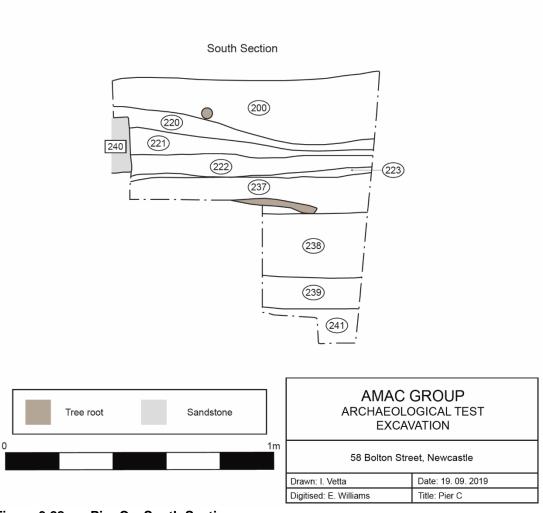


Figure 3.28 Pier C – South Section Vetta and Williams.



Figure 3.29 Pier C – showing sandstone footing [240], facing south. AMAC Group (19/07/2017, IMG_0972).



Figure 3.30 Pier C – showing sandstone footing [240], facing west. AMAC Group (19/07/2017, IMG_0987).



Figure 3.31 Pier C – south section showing footing [240] and fills. AMAC Group (19/07/2017, IMG_0990)

3.4.4 Pier D

Pier D was located to the east of Pier C and was 150x100cm in size. A mechanical excavator was used to remove the upper fill layers. The surface of the pier trench was covered by demolition fill [200] (Figure 3.19). This sat above a fill [283] consisting grey sand asphalt, charcoal, render rubble and building material inclusions measuring 24cm in depth (Figure 3.35).

Removal of fill [283] exposed fill [284] as well as a linear trench cut [281] for a trench oriented north-south in the east section of the pier trench. The cut was 41cm wide (W-E) and 24cm deep extending the full length of the trench cutting earlier fills [284], [285] and [276]. Trench cut [281] contained a mottled dark brown, grey and orange loamy sand fill [282]. Fill [282] contained a large amount of building material fragments, sandstone, charcoal specks and tree roots throughout and became a darker brown at depth. This feature was not fully explored but was interpreted as most likely being a service trench.

Fill [284] consisted of a loamy sand similar in colour to fill [282] though it contained more inclusions of building material, in particular sandstock brick. This fill was 9cm deep and was likely a demolition fill associated with removal of the teacher's residence; no artefacts were recovered from this fill. Directly below fill [284] were layers of clean sand [285] that varied from whitish vellow to a vellowish brown with charcoal inclusions. This fill was 11cm deep and sat directly above a thinner pale yellowish brown sand fill [276] which was 7cm in depth and sterile. A circular posthole [274] was found in the centre of Pier D, cutting the redeposited natural fill [276]. This posthole was 26-28cm in diameter and 15cm deep containing fill [275] which consisted of a mixture of redeposited fill [276] and natural A horizon sand [277] below. Small fragments of sandstock brick, iron nails and tree roots were found within fill [275]. Fill [276] appeared to be an upcast natural soil and sat above the natural A horizon grey sand [277]. This natural topsoil was speckled with white sand and contained many tree roots running along its surface. Two ceramic artefacts were recovered from the surface of this layers dated to the early to mid-19th century (Figure 3.33-Figure 3.35).

For Harris Matrix, see Figure 3.64.

3.4.4.1 Interpretation of Stratigraphy - Pier D

- Fill [283] is most likely a levelling fill related to the 20th century school yard containing fragments of asphalt.
- Linear trench [281] is most likely a service trench associated with the 20th century use of the school as it cut through earlier demolition fill [284].
- Demolition fill [284] most likely relates to the demolition of the teachers' residence, Structure N. It sits above layers of upcast natural sand, [285], which may have been levelling fill for the teacher's wing (Structure N) or the earlier school building (Structure F), potentially upcast during the excavation for foundations.
- Posthole [274] aligns with posthole [317] in Pier E. It is possible that these features both relate to an early fence line shown on the 1830 plan and therefore predate the c.1845 school.

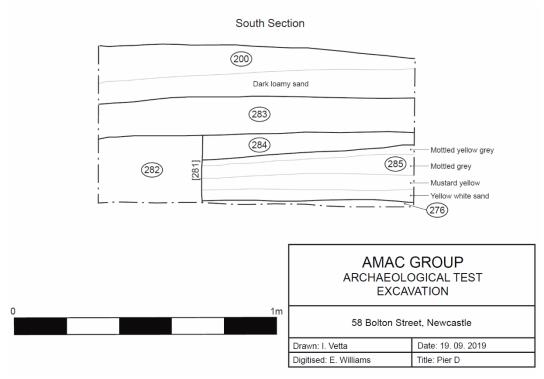


Figure 3.32 Pier D – South Section.
Vetta and Williams.



Figure 3.33 Pier D – showing circular cut [274] and linear cut [281], facing north. AMAC Group (19/07/2017, IMG_0943).



Figure 3.34 Pier D – showing circular cut [274] and fill [275], facing east. AMAC Group (20/07/2017, IMG_1169).

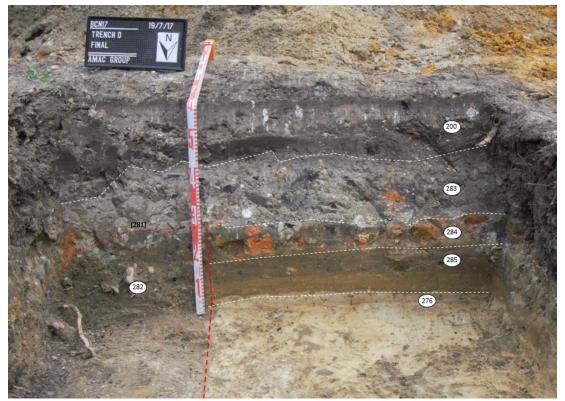


Figure 3.35 Pier D – south section showing linear cut AMAC Group (19/07/2017, IMG_0962).

3.4.5 Pier E

Pier E was located east of Pier D and measured 110x120cm in size. The surface of the pier was covered with fill [200] (Figure 3.19). The removal of fill [200] exposed part of a sandstone foundation [315] and a brick feature [313] in the eastern section of the trench, along with a beige sand fill [305] covering the majority of the trench and a dark brown loamy sand fill [319] in the northeast corner (Figure 3.37-Figure 3.40).

Fill [305] consisted of a white and beige sand containing a substantial amount of crushed sandstock brick and sandstone fragments. It was 12-24cm deep and was churned up in the east side of the trench likely due to bioturbation and potentially a tree bowl. Fill [305] infilled a linear construction trench [349] which cut into fill [306] below allowing for the installation of brick feature [313]. In this way, the removal of fill [305] exposed the full depth of brick feature [313] as well as a course of sandstone, [314] below brick [313].

Sandstock brick feature [313] consisted of a single course of sandstock bricks which was only partly exposed within Pier D. It was 18cm wide (E-W) running into the east section, 55cm long (N-S) into the south section and 9cm high. Feature [313] was bonded with a yellow sandy shell lime mortar as well as a grey shell-lime mortar; this mortar covered the upper surface of the brick suggesting that there had once been additional courses. Sandstock brick feature [313] in turn sat above a single sandstone paver [314]. Sandstone paver [314] was 50cm wide (N-S) exposed in section and was 10cm high. There was no visible mortar however a yellowish grey bedding sand [328], 5cm deep, was laid below the paver. It is likely that sandstone [314] acted as a threshold stone for a doorway, later infilled by brick feature [313]. Both features [313] and [314] butted the sandstone foundation [315].

Sandstone foundation [315] was orientated east to west and found within the east section of Pier E. Excavation did not go further than the base of the third course of sandstone blocks which were bonded with a yellowish grey shell lime mortar which was up to 5cm thick between blocks. The width of the structure was 25cm (E-W), length 60cm (N-S) and 40cm high. There was no visible cut for [315] which makes it difficult to identify if the butting fills were cut by [315] or redeposited for levelling purposes. The full depth of the foundation was not ascertained, and it has been retained in situ by the development along with features [313] and [314].

A mottled brown-beige loamy sand [319] was found butting the north side of footing [315] and was 15-20cm in depth. This fill contained charcoal, sandstock bricks and some fragments of mortar and sat above clean yellowish orange sand [306]. Fill [305] also butted sandstone foundation [315] as well as sandstone [314] and sat above fill [306] which had few inclusions aside from some flecks of charcoal. This fill was 21cm deep in the west of the trench thinning out to only 1cm deep in the east of the trench and also sloping down to the north. Fill [306] sat above a grey sandy loam fill [307] which was also found below bedding sand [328] and contained a small amount of charcoal, crushed sandstone and sandstock brick. Fill [307] was 1-22cm deep being thicker below bedding fill [328] and thinning out towards the west. Fills [307] and [306] created a level surface above earlier fill [308].

The removal of fills [307] and [306] exposed a thin dark brown-grey loamy sand [316] in the north of the trench and a grey-brown sandy fill [308] in the south of the trench. Deposit [316] was a shallow lens, 1-5cm deep, and contained a small artefacts including fragments of sandstock brick and a single shell-edge ceramic, BCNx0111, which dates from 1810-1840. It should be noted that several tree roots

were found at this depth. This deposit may have been a reformed topsoil with construction materials pressed in, potentially from the construction of the c.1845 school. Cutting deposit [316] was posthole [317] which was found in the west of the trench partly continuing into the section. This posthole was sub-rectangular being 29cm long and extending 9cm from the western baulk of the trench (Figure 3.37). Packed within the posthole [317] was a mottled yellowish-brown loamy sand fill [318] which contained flecks of charcoal and was 35cm in depth. It is possible that this posthole relates to posthole [274] found in Pier D.

In the south of the trench, deposit [316] overlay a grey-brown sandy fill [308]. Fill [308] contained some charcoal as well as crushed fragments of sandstock brick and sandstone. Full excavation of Pier E ceased at the level of deposit [316] and fill [308]. A small sondage, 25x25cm, was excavated into fill [308] in the northwest corner of the pier trench (Figure 3.40). This sondage found that fill [308] was 16-19cm in depth and sat above a dark brown loamy sand fill [309]. Fill [309] contained patches of grey sand and was 10-14cm in depth. Below fill [309] was an orange brown sandy fill [310] that contained patches of orange sticky clay and was 7-9cm in depth, similar to fill [239] in Pier C. The removal of fill [309] exposed a grey brown sand fill [311] that was 6-9cm deep and contained a very small portion of charcoal and crushed brick fragments. Deposit [311] likely represents the natural A1 soil horizon and sat above a sterile white sand [312], representing the natural A2 soil horizon.

For Harris Matrix, see Figure 3.64.

3.4.5.1 Interpretation of Stratigraphy – Pier E

- Pier E is located within the space between the main school building (Structure M) and the teachers' residence (Structure N).
- When the teachers' residence (Structure N) was demolished in the 1880s, the interconnecting doorways between the residence and the main building would have need to have been infilled. Sandstone foundation [314] was likely to have been a threshold stone for one of these doorways which was later infilled by the construction of brick feature [313]. If it can be understood that the teachers' residence (Structure N) in fact recycled the earlier c.1845 school (Structure F) it is also possible that new doorways were created to integrate the structure with the new school building. If this is the case, sandstone threshold [314] can be understood as a doorway created in c1860 during the construction of the second school.
- The complex mixture of fills in this pier is likely the result of the ongoing changes that were made to the school and surrounding grounds.
- Fill [305] appears to have been a demolition fill. This fill may have been associated with the demolition of the teachers' residence (Structure N) and for this reason, infills the construction cut [349] for the brick packing in the former doorway [313].
- Fill [306] appears to be an introduced levelling fill, most likely installed at the same time as fill [307] and used to build up the ground, potentially as a bedding for a surface which has since been removed. The top of fill [306] was roughly level with sandstone threshold [314].
- Foundation [315] was most likely part of the wall between the teachers' residence (Structure N) and the school (Structure M). It is unclear whether this foundation was recycled from the previous school building (Structure F) or a new construction as part of the school. Plans of the school do show that this wall was buttressed (see Figure 2.24) after the demolition of the

- teachers' residence which may explain why foundation [315] was packed with fill on all three side available within the trench.
- Deposit [316] may represent the build-up of topsoil prior to the construction of the c.1845 school. If this is the case, posthole [317] may be part of the early 19th century use of the site, possibly related to the same fence line as posthole [274] in Pier D.

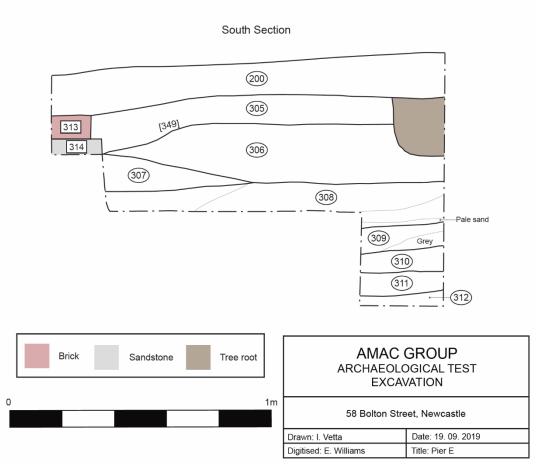


Figure 3.36 Pier E – South Section Vetta and Williams.



Figure 3.37 Pier E – showing sandstock brick [313] on top of sandstone paving [314] and sandstone footing [315], facing north.

AMAC Group (20/07/2017, IMG_1190).

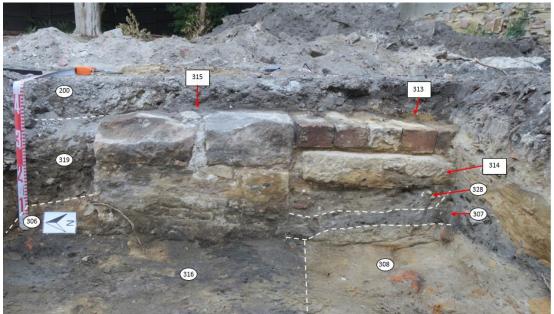


Figure 3.38 Pier E – east section.

AMAC Group (20/07/2017, IMG_1205).



Figure 3.39 Pier E – south section.

AMAC Group (20/07/2017, IMG_1206).



Figure 3.40 Pier E – west section of sondage. AMAC Group (20/07/2017, IMG_1197).

3.4.6 Strip F

Strip F was located on the west edge of Zone 2 parallel to the eastern wall of the neighbouring property 36 Church Street, Newcastle. The trench measured 0.35-0.4m in width and 15m in length. The surface of the trench was covered with a dark sandy loam with small river pebbles [260]; this fill was 10-15cm in depth and similar to fill [200] which covered the pier trenches.

The removal of fill [260] exposed a sandstock brick footing [258] at the northern end of Strip F running in a north-south direction. It had one course that was 7cm high, 12cm wide and 69cm long. At the same level, another sandstock brick footing [259] was found in close proximity to the footing [258]. Sandstock footing [259] was only partly exposed being heavily disturbed by 20th century brick buttresses which had been installed along the boundary wall for 36 Church Street on the neighbouring property. Footing [259] consisted of a single course that was 8cm high and 43cm long (N-S), only 12cm of brick was exposed before extending underneath the neighbouring wall. Only minimal mortar was found on either of the footings which appeared to be cement and suggests that the footings were contemporary. No cuts were found, and bricks of the same type were displaced around both fragments of footing. A mottled grey white loose sand [261] was found below footing [259]. It is similar to fills [215] in Pier B and [326] in the stairwell trench (Section 3.4.9) and appears to be a redeposited A2 soil which was upcast potentially during the excavation of the deep features in the area (Figure 3.41-Figure 3.42). Excavation within the pier ceased at the level of fill [261].

For Harris Matrix, see Figure 3.64.

3.4.6.1 Interpretation of Stratigraphy - Strip F

As the features within Strip F are only fragmentary, interpretation is limited. It
is possible that the two footings [258] and [259] relate to Structure R
however elsewhere this building has proven to have sandstone foundations.
It is also possible that these footings are remnant of other undocumented
structures within the school yard and therefore potentially date to the end of
the 19th century.



Figure 3.41 Strip F – showing footings [258] and [259], facing south. AMAC Group (20/07/2017, IMG_1090).



Figure 3.42 Strip F – showing footings [258] and [259], facing north. AMAC Group (20/07/2017, IMG_1084).

3.4.7 Strip G

Strip G was located on the south edge of Zone 2 parallel to the Church Street retaining wall (Figure 3.19). The trench measured 0.30-0.4m in width and 13.5m in length. The surface of the trench was covered with a grey sand fill [226]=[209] which contained a large amount of building material, mostly sandstock brick rubble, along with other refuse which had accumulated in this part of this site. This fill was the same as fill [200] found in the pier trenches and was 40cm in depth (Figure 3.43-Figure 3.47). In the west of the trench, the removal of fill [226]=[209] exposed a heavily disturbed ceramic service pipe [202] which was contained in construction trench [203] approximately 40cm wide and 50cm long. Construction trench [203] cut fill [225]=[231] (described below) and was packed with a yellow brown mottled loamy sand [204]. The service pipe [202] most likely relates to the 20th century use of the school yard and may have once connected to the weatherboard school room, Structure Q, which was once located here.

In the eastern part of the trench, the removal of fill [226] exposed a small section of a bitumen surface [280] which was 3cm deep and identified in the south section as well as a sandstock brick footing [230]. Bitumen surface [280] sat above a grey brown sand bedding fill [339] that was 2-6cm deep. To the west of the bitumen [280] a section of a shell-lime mortar bonded sandstock brick footing [230] was exposed. The footing was in poor condition with the shell lime mortar degrading and the bricks loose. The footing was oriented north to south and continued to run into the north section. The exposed area of the footing measured 24cm in width, 70cm in length and 35cm high consisting of five courses. The footing sat within construction trench [272] which was 55cm wide, cutting fill [262] (discussed below) and contained fill [273]; a mid-brown sandy loam with inclusions of redeposited fill [262]. This footing is located where the southeast corner of the recently removed weatherboard school building, Structure Q, once stood.

Butting surface [280] in the east of the trench was a reformed topsoil [232]=[227] consisting of a mid-brown sandy loam. Topsoil [232]=[227] was 20cm deep and contained pebbles, rubble and building materials including sandstock brick and mortar fragments. A graphite pencil, paintbrush and ceramics were also found within the topsoil [232]=[227], most likely dating to the 20th century. Below fills [232]=[227] and [339] was a yellow brown clayey sand [231]=[225] with sandstone, bitumen and mortar rubble which was 25cm in depth. Artefacts that were present in the fill [231]=[225] include slate, ceramic and a metal nail.

In the east of the trench, fill [231]=[225] sat above a small patch of reformed topsoil [279] and fill [262] (Figure 3.43). Topsoil [279] consisted of a mottled grey white sand similar to the A horizon [278] found at the base of Strip G and covered an area approximately 2.5m in in length to the east of footing [230]. This deposit was similar to deposit [316] found in Pier E. Below fill [279] was an introduced orange sandy clay fill [262] which was sterile containing few inclusions. This fill was similar to fill [310] in Pier E and fill [239] in Pier C. Fill [262] was approximately 5-8cm deep and sat above the mottled grey white natural sand [278], interpreted as the A1 soil Horizon (Figure 3.43).

At the western end of the trench, the removal of fill [226]=[209] revealed a mixed sandstone and sandstock brick footing [208]. Footing [208] was L-shaped (1x1.5m in size) respecting the southwest corner of Zone 2 and connecting Strip G and Strip F. The footing was 30cm wide and consisted of what appears to have been recycled materials with a sandstock brick upper course sitting above a rough sandstone base with a mixture of shell lime and mineral mortar. The location of this footing is consistent with the recently removed weatherboard class room, Structure Q, and therefore is related to footing [208]. A sondage (20 x 30cm) was excavated north of footings [208] and found that below footing [208] was a grey sand with rubble and pebbles [229]=[228] (Figure 3.44-Figure 3.45).

Between footings [230] and [208], the removal of fill [225]=[231] exposed the continuation of sandstone foundation [201], also found in Pier B, along with a sandstone paver [217]. Paver [217] was a singular sandstone block orientated east to west and had evidence of a mortar similar to that used for foundation [201]. It was not fully exposed but the blocks dimensions within Strip G were 33cm wide and 95cm long (E-W) (Figure 3.46-Figure 3.47). The function of this sandstone was not clear from excavation. Directly east of footing [217], two courses of sandstone foundation [201] were exposed, 68cm in width with the upper course narrower and sitting above a wider base.

Between paver [217] and foundation [208] to the west was a small patch of a mottled white, grey and dark brown sand [205]=[206]. This fill was over 40cm deep and significantly disturbed by service cut [203]. This fill is likely to represent the internal space within Structure R however no artefacts were found to distinguish a possible use for the space.

Excavation ceased at the depth of foundation [201] as this was what was required for the new strip footing.

For Harris Matrix, see Figure 3.64.

3.4.7.1 Interpretation of Stratigraphy – Strip G

- Bitumen surface [280] respects the location of relocated weatherboard school building (Structure Q) so is likely to date to the 20th century use of the school yard.
- Service pipe [202] is likely to have also been part of the 20th century use of Structure Q.
- Footings [230] and [208] are positioned in the location of the recently demolished weatherboard building (Structure Q) and therefore can be dated to the 1890s. This would explain the recycling of materials and mixture of mortar types found within foundation [208]. It is also likely that this footing reused the foundations of Structure R.
- As was found in Pier B, foundation [201] possibly relates to the c. 1886
 Structure R though it is possible that it was recycled from the earlier School Building, Structure F. The sandstone paver [217] may be a threshold stone as it is clear that the doorway to Structure R was offset to the east which would be consistent with the location of paver [217].



Figure 3.43 Strip G – showing footing [230], facing east. AMAC Group (20/07/2017, IMG_1101).



Figure 3.44 Strip G – showing footing [208], facing east. AMAC Group (18/07/2017, IMG_0868).



Figure 3.45 Strip G – showing footing [208], facing south. AMAC Group (18/07/2017, IMG_0872).



Figure 3.46 Strip G – showing footings [217] and [201], facing east. AMAC Group (18/07/2017, IMG_0840).



Figure 3.47 Strip G – showing footings [217] and [201], facing south. AMAC Group (18/07/2017, IMG_0835).

3.4.8 Strip H

Strip H was located on the eastern boundary of Zone 2 measuring 10m long and 0.3m wide. The trench contained remains of three footings [287], [288] and [289] in the south and north ends and in the centre (Figure 3.19). These footings ran parallel to each other and continued into both the west and east sections of the strip trench and all appear to relate to the c.1860 school (Structure M).

Fill [226] covered much of the southern end of the trench while in the north of the trench, a similar grey sand fill [224] was found which contained sandstock brick rubble and a substantial amount of mortar and render fragments as well as a number of artefacts including fragments of pharmaceutical bottles and domestic ceramics. This fill was 10-15cm deep and used as a modern levelling fill (Figure 3.48-Figure 3.54). In the centre of the trench, fill [224] sat above a relatively clean grey sand [321] with charcoal and sandstone rubble and varied from 10 to 30cm in depth.

Below fill [226] in the southern end of Strip H, was a white grey sand fill [290] which was 15-30cm in depth and contained a large amount of building material; fill [290] was likely used as a levelling fill and was found in most of the trench also underlying fill [321]. In the south of the trench the removal of fill [290] exposed a linear cut [291], approximately 24cm in width running east-west across the trench. This cut contained a mid-grey sand fill [292] with fragments of building material and was 15cm in depth. Below cut [291] was the remnants of a sandstock brick footing [287] and it became clear that cut [291] was a robber trench which removed the upper bricks from this footing. Footing [287] was constructed of three courses of sandstock brick bonded with a yellowish grey shell lime mortar. The footing ran east to west through Strip H, continuing beyond the trench boundary in both directions, and was 23.5cm in width and 21cm high. This footing correlates in overlays to the front verandah of the 1860s school. Butting the southern side of footing [287] was a yellowish white sand [286] which contained a large roughly cut sandstone block within Strip H which was interpreted as being part of the fill as it was not dressed stone. Fill [286] also contained some orange sandy clay inclusions and was in excess of 30cm in depth. Excavation of fill [286] ceased at the depth required for the proposed development.

The removal of fill [290] to the north of footing [287] exposed a sandstone foundation [287] as well as fill [320] which was packed in between verandah footing [287] and sandstone foundation [288]. Only a single course of the foundation was exposed which was oriented east to west continuing below the sections and measuring 51cm in width. There was no visible construction cut for the foundation and only the surface of the foundation was exposed at the depth required for development. Foundation [288] aligned with foundation [315] in Pier E and are most likely from the same wall and therefore part of the 1860 school building (Structure M).

Between footing [287] and foundation [288] was a grey brown sand [320] which contained traces of charcoal and was 15cm deep. Fill [320] sat above a firm mustard and grey sand [293] containing a small amount of charcoal flecks, crushed brick and sandstone fragments at the base of the trench (Figure 3.49-Figure 3.50). These fills seem to be associated with the construction of Structure M and may be packing fills within the verandah.

To the north of foundation [288] fill [290] sat above a demolition fill [322] which consisted of a mid-brown sand and contained fragments of shell lime mortar as well

as sandstone and sandstock brick fragments. This fill was in excess of 10cm in depth sitting above another sandstone foundation [289]. Sandstone foundation [289] was parallel to foundation [288], also oriented east to west, with a 4.4m gap between the two foundations. Only the surface of foundation [289] was exposed within the trench which was clearly bonded with a beige shell lime mortar and was likely to be part of the same sandstone foundation that was found in Trench 1 during test excavation (foundation [007]). Foundation [289] was 53cm in width and continued beyond the boundaries of Strip H (Figure 3.53-Figure 3.54). Demolition fill [322] was found to continue down on either side of foundation [289]. Excavation of the trench ceased at the level of foundation [289] at this end of the trench.

For Harris Matrix, see Figure 3.64.

3.4.8.1 Interpretation of Stratigraphy – Strip H

- Fills [224], [290] and [321] were introduced throughout the 20th century in order to level up the site to create playground spaces for the later school.
- The purpose of cut [291] was most likely to rob away the upper courses of footing [287] and therefore is associated with the early 20th century demolition of the c.1860 school (Structure M).
- Fill [322] was a demolition fill and was part of the early 20th century demolition of the 1860 school building, Structure M (similar to fill [008] found in Trench 1 during test excavation).
- Footing [287] was part of the verandah of the 1860 school (Structure M) and therefore fill [286] was likely a packing fill for the sandstone retaining wall which runs along Church Street.
- Foundation [288]=[315] are possibly part of the front wall, or an internal wall of the 1860 school (Structure M).
- Fills [320] and [293] are likely packing fills associated with the construction of the 1860 school (Structure M).
- Foundation [289] was part of the rear of the 1860 school building (Structure M) and was the continuation of foundation [007] exposed during test excavation.



Figure 3.48 Strip H – showing footings [289], [288] and [287], facing south. AMAC Group (20/07/2017, IMG_1047).



Figure 3.49 Strip H – west section, showing footing [287]. AMAC Group (20/07/2017, IMG_1057).



Figure 3.50 Strip H – showing footing [287]. AMAC Group (20/07/2017, IMG_1027).



Figure 3.51 Strip H – east section, showing footing [288]. AMAC Group (20/07/2017, IMG_1038).



Figure 3.52 Strip H – showing footing [288]. AMAC Group (20/07/2017, IMG_1037).



Figure 3.53 Strip H – east section, showing footing [289]. AMAC Group (20/07/2017, IMG_1049).



Figure 3.54 Strip H – showing footing [289], facing west. AMAC Group (20/07/2017, IMG_1042).

3.4.9 Stairwell

Four interconnected strip trenches were excavated in the area of the proposed stairwell to the north of Pier Trenches A-E in Zone 2 (Figure 3.19). These strip trenches replaced six piers that were originally proposed for this area.

The northern trench was oriented east-west measured 5m by 0.6m in size; this was recorded as Section Z. The western trench, oriented north to south, measured 6.5m by 0.5m; this was recorded as Section X. The eastern trench ran parallel to the west trench and was over similar dimensions; this was recorded as Section Y. These trenches were connected by an east-west trench 3.2m in length and 0.5m in width, recorded as Section W (see Figure 3.56).

Covering the entire stairwell area was a dark brown sandy loam [323] containing charcoal, bitumen and sandstone and brick rubble; this varied from 9-24cm in depth (Figure 3.55-Figure 3.61).



Figure 3.55 Stairwell – facing south. AMAC Group (21/07/2017, IMG_1213).

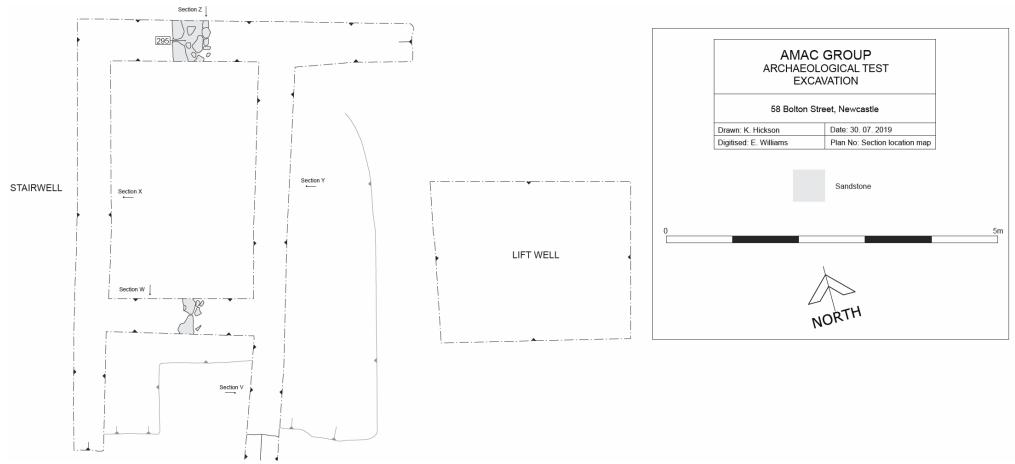


Figure 3.56 Plan of Stairwell and Lift well trenches showing recorded sections. Hickson and Williams, 2019.

In the eastern part of the stairwell trench, fill [323] was up to 24cm deep and sat above a layer of asphalt [331]. Asphalt surface [331] was 9cm deep was only found eastern trench and can be seen in Section V, Y and Z (Figure 3.57; Figure 3.60-Figure 3.61); this may have been the same as fill [283] identified in Pier D. In the eastern trench, asphalt layer [311] sat above a grey white sand and gravel fill [332] which was 3-5cm in depth and provided bedding for the asphalt [331]. The removal of fill [323] in the eastern trench exposed a mottled brown and white sand [337] which contained some charcoal and was 13cm deep. Fill [337] appeared to be an upcast A2 horizon sand and was cut by service trench [334] which was approximately 61cm wide and contained a dark brown mottled sandy loam fill [335] (Figure 3.60). Only the top 24cm of trench cut [334] was exposed by the work. Fill [337] sat above a mustard yellow sand [336]=[325] which was only partly excavated to a depth of 11cm.

In the southern part of the eastern trench, fill [332] sat above a yellow brown sandy loam fill [333] which contained building material, fragments of sandstock brick and sandstone, potentially used as levelling fill for asphalt layer [331]. Fill [333] was 15cm deep and sat above a dark brown sandy clay fill [324] which contained charcoal (Figure 3.57). Excavation ceased in the east trench with the removal of approximately 23cm of fill [324]. In the northern trench, asphalt [331] sat directly above fill [324] which was 18cm in depth in this location (Figure 3.61). The removal of fill [324] exposed part of a sandstone foundation [295] which was oriented northsouth through the centre of the trench. This footing was in poor condition, measuring 57cm in width and bonded with a mineral lime mortar. It is possible that this foundation continued through the southern portion of the stairwell excavation as a number of sandstone blocks were found, however these were heavily disturbed. No construction cut was visible for the foundation. Footing [295] aligns with footing [201] found in Pier B and Strip G suggesting they are part of the same foundation. Butting the eastern side of foundation [295] was a remnant asphalt surface [338] which was 4cm deep and fragmentary. This asphalt sat above a layer of redeposited grey-white sand [326] the surface of which was exposed in the base of the northern trench (Figure 3.61).

The fills in the western part of the stairwell varied slightly from those in the east. Here dark brown sandy loam fill [323] sat above the brown sandy clay fill [324] which was 24cm in depth. A pit cut [329] was found in section cutting fill [324] (Section W Figure 3.58) which was 37cm in width and in excess of 51cm in depth containing a dark brown sandy loam fill [330] with brick and render rubble inclusion. Fill [324] here sat above a mustard yellow sand fill [336]=[325] which in turn sat above mottled grey white sand [326], 13cm in depth. In the very west of the stairwell trench, the removal of fill [326] exposed the surface of a black brown mottled sand [327] which was sterile and most likely represented the A1 soil horizon in this area. Excavation ceased at the surface of deposit [327] (Figure 3.59).

For Harris Matrix, see Figure 3.64.

3.4.9.1 Interpretation of Stratigraphy – Stairwell

 Asphalt [331] and fill [332] are most likely part of a resurfacing of the school yard and therefore are likely to date to the 20th century. Fills [333] and [324] are likely levelling fills associated with this surface.

- Service trench [334] predates the asphalt surface however is likely part of the same occupation phase. Fill [337] was likely upcast during the excavation of this trench.
- Foundation [295] aligns with foundation [201] found in Pier B and Strip G –
 the only known building within the stairwell area is the 1880s Structure R
 which was a large building that would have run the length of Zone 2. Asphalt
 [338] butted the eastern side of foundation [295] which would make it part of
 an exterior surface associated with Structure R.
- The function of cut [329] could not be determined from the small area of the cut exposed.
- Deposit [327] appeared to be the natural A1 soil horizon.



Figure 3.57 Stairwell – Section V (west).

AMAC Group (21/07/2017, IMG_1228).

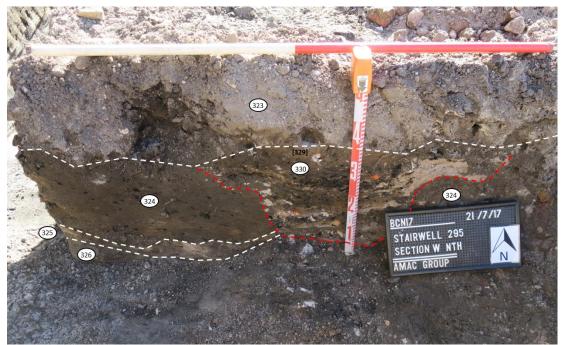


Figure 3.58 Stairwell – Section W (north). AMAC Group (21/07/2017, IMG_1231).



Figure 3.59 Stairwell – Section X (east).
AMAC Group (21/07/2017, IMG_1234).

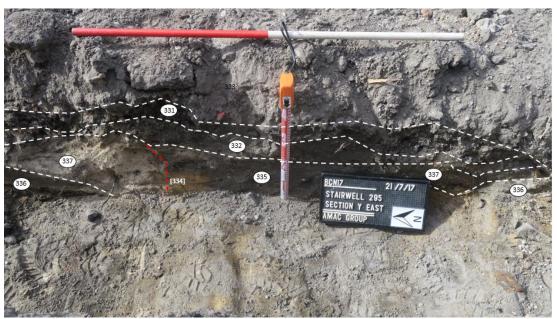


Figure 3.60 Stairwell – Section Y (east).

AMAC Group (21/07/2017, IMG_1238).



Figure 3.61 Stairwell – Section Z (north).

AMAC Group (21/07/2017, IMG_1246).



Figure 3.62 Stairwell – Foundation [295], facing east. AMAC Group (20/07/2017, IMG_1138).

3.4.10 Lift Well

Excavation occurred in the area of the proposed lift shaft within Zone 2, to the east of the stairwell, in an area 2.4x2.9m in size (Figure 3.63).

A dark grey brown loamy sand [296] was found on the surface that sloped down dramatically to the east. It was 23-57cm deep and was a modern fill that was most likely used as levelling for a small brick 20th century retaining wall which once bordered the c.1919 school. Fill [296] sat above fill [297] which consisted of striated layers of grey white sand and mid grey brown loamy sand. It was 16-30cm deep and contained redeposited natural sand, shell lime mortar, sandstone, clay and gravel and a number of artefacts dating to the mid-late 19th century. A whitish grey and brown sand lens [298] with building material was found below fill [297] and sloped from west down to east. It was 8-16cm deep and contained charcoal, gravel, sandstock brick fragments and sandstone. Fill [298] was cut by service trench [303], 50cm wide and 56cm deep, containing a broken salt-glazed ceramic service pipe [302] 70cm long and with a diameter of 15cm. Service trench [303] was packed with mottled yellowish-brown loamy sand [304] which contained sandstock and sandstone fragments, charcoal, mortar, gravel and tree roots.

Below fill [298] was a mottled mid-dark grey sand [299] that was redeposited natural sand and also sloped down to the east however not as dramatically as the upper fills. Fill [299] was 6-9cm deep and sat above a mixed demolition fill [300] which consisted of a mid-grey brown loamy sand, 14cm deep, and containing sandstock brick and sandstone fragments. It was more compact than fills above and sat directly above the natural A2 horizon [301] consisting of a natural grey white sand (Figure 3.63).

For Harris Matrix, see Figure 3.64.

3.4.10.1 Interpretation of Stratigraphy – Stairwell

- Fill [297] is an introduced levelling fill likely to be associated with the construction of the 20th century retaining wall (recently demolished) which surrounded the c.1919 school. Service [302] is most likely a similar phase.
- Fill [298] may have been an earlier school yard surface also related to this period.
- Fills [299] and [300] may be associated with the demolition of the c1860 school (Structure M). If this is the case, the soil profile in this area had already been truncated down to the A2 horizon (deposit [301]) prior to the demolition of the school building.
- No evidence was found of the original school outbuilding (Structure G) or the c.1860 teachers' residence (Structure N) which were anticipated in this location. This would suggest the area was heavily truncated following their demolition.

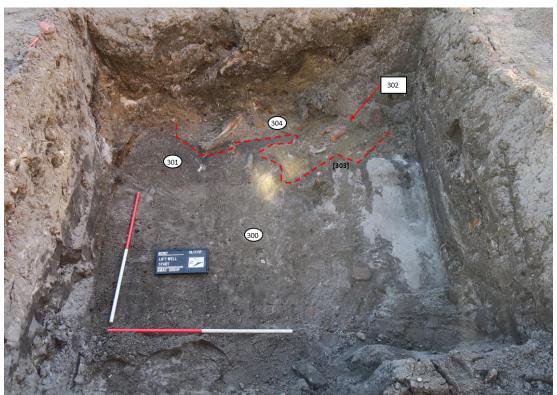


Figure 3.63 Lift well – showing cut [303] and service pipe [302], facing west. AMAC Group (18/07/2017, IMG_0863).

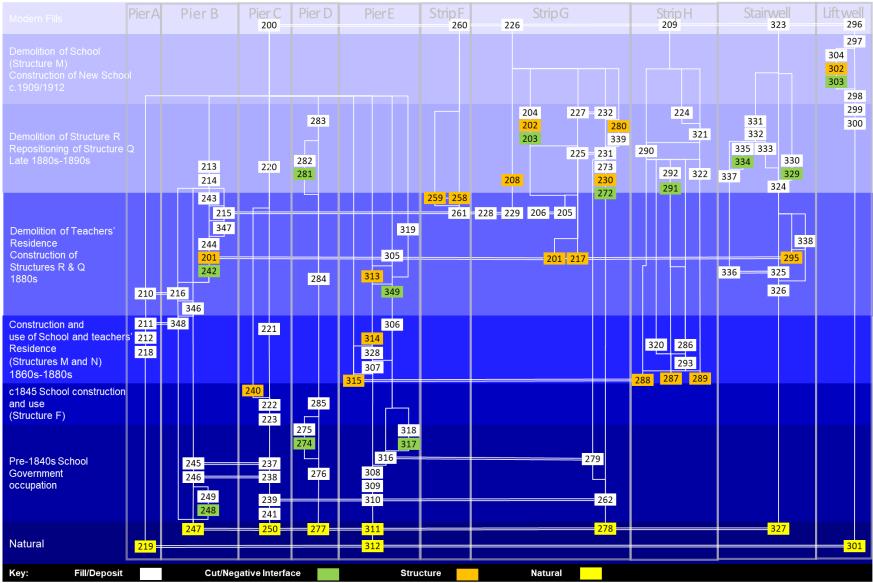


Figure 3.64 Zone 2 – Harris Matrix. I.Vetta and P.Newton, 2019.

3.5 STRATIGRAPHIC REPORT - ZONE 3

Zone 3 was located in the north portion of the site in the area of the potential 1850s-1860s terrace structures and wider use relating to the 1840s and 1860s school. While test excavation did not uncover any relics in this area, a series of trenches were excavated in order to better understand the soil profile in this area and identify why relics do not survive in the northwest corner of the site. In total eight trenches were excavated with a mechanical excavator and consisted of Trench R adjacent to the driveway off Bolton Street and five Trenches (N, M, L, K. J) along the western boundary of the site and Trenches Q and P to the east and parallel to the other trenches. The result of this excavation confirmed the results achieved through test excavation allowing bulk excavation in the area to proceed. No unexpected relics were found in this zone.

3.5.1 Trench R

Trench R was located in the north portion of the site, adjacent to the Bolton Street driveway, and measured 2.4x2.6m in size (Figure 3.65-Figure 3.66).

An imported loose road base fill [268] covered the surface of Trench R and was 10cm deep, used as the bedding for the recently removed bitumen surface. The removal of road base fill [268] exposed a deep dark brown sandy loam fill [264] which contained fragments of brick and charcoal, approximately 12cm in depth. In the southern part of the trench, below fill [264], was a thinner layer of mottled yellow brown sandy loam [265], 4cm in depth. Fill [265] contained a small number of brick fragments and charcoal; this fill sat above a layer of crushed yellow sandstone [269], which was 5-10cm deep, and deeper in the north of the trench. The removal of fill [269] exposed a sandstock brick dish drain oriented west to east in the northern part of the trench and a dark brown sandy loam deposit [270] in the south of the trench. Deposit [270] was 17cm deep and appears to have been a yard surface containing a significant amount of charcoal though no artefacts were recovered from this deposit. The dish drain [263] consisted of single course, four sandstock bricks across (N-S) and was bonded with mineral lime mortar: the bricks were marked with "HAMMON" (BCNx0189). The length of the dish drain was 2.38m (E-W), 81cm wide and 7cm high. The drain had outer angled brick wings that were rendered with cement, and the drain sloped down towards Bolton Street in the east. A ceramic downpipe [266] had been constructed in the centre of drain [263], presumably to drain away excess water and prevent the dish drain from overflowing. This pipe was constructed in trench [242] which cut deposit [270], to the south of dish drain [266] and was packed with a dark brown loamy sand packing fill [343]. Pipe [266] was heavily disturbed; from what was exposed, it was 15cm in diameter with only 46cm of the pipe found within the trench. Although the pipe was broken, it appeared to be oriented east.

Deposit [270] sat above fill [271] which consisted of a light grey sand with crushed sandstone which was 3cm in depth. The removal of fill [271] exposed a black brown sandy loam [267] which contained sandstone and brick fragments as well as charcoal and was excavated to a depth of 3cm. Deposit [267] may have been a yard deposit; excavation ceased at this depth (Figure 3.65-Figure 3.68).

3.5.1.1 Interpretation of Stratigraphy - Trench R

• Fill [268] forms the base of the recently removed bitumen and therefore for is part of the modern driveway.

- Fills [264], [265], [269] are likely to be levelling fills associated with this
 accessway and could not be dated. Considering the amount of activity, a
 driveway would encounter, it would be reasonable to suggest that the
 greatest impacts would occur in this area and reoccurring improvements
 have been needed over time.
- Brick dish drain [263] and service pipe [266] were likely associated with the 1860s dwellings that were located along the west of the block facing Bolton Street. The "Hammon" sandstock bricks used in the construction of the dish drain most likely date to the late 19th century. William Hammon operated his brickworks in Adamstown from 1870-1914. A Newcastle Herald newspaper article from 1893 advertised for sale 50000 of his sandstock bricks¹¹⁵ indicating that he was still manufacturing sandstock bricks in the 1890s.
- Deposit [270] is most likely the yard deposit which was in situ when the dish drain [263] was constructed.
- Deposit [267] may be an earlier yard deposit possibly related to the mid-late 19th century use of this area.



Figure 3.65 Trench R – showing fills before dish drain [263] and service pipe [266] were exposed, facing west.

AMAC Group (19/07/2017, IMG_0920).

¹¹⁵ Newcastle Morning Herald and Miners' Advocate, 15 July 1893, p.7



Figure 3.66 Trench R – showing dish drain [263] and service pipe [266], facing west.

AMAC Group (20/07/2017, IMG_1126).

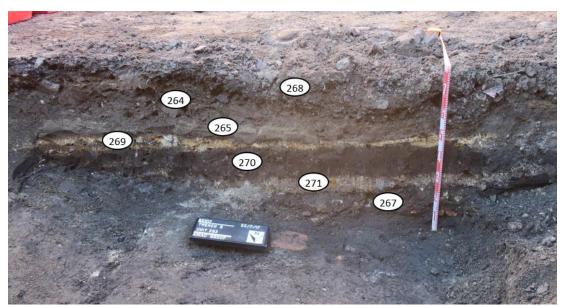


Figure 3.67 Trench R – south section, facing south. AMAC Group (20/07/2017, IMG_1118).

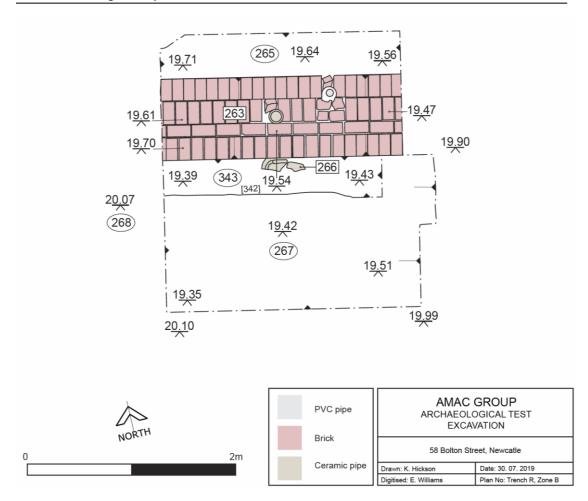


Figure 3.68 Plan of Trench R showing levels and structures [263] and [266]. Digitalised E. Williams.

3.5.2 Trench K, L, M and N

These four trenches were in succession of each other in a northern direction. They all had the same soil profiles thus will be discussed together.

The topsoil consisted of a mid-dark brown sandy loam fill [233] with gravel/ballast, bitumen and red brick rubble. It varied from 20-50cm in depth and was much cleaner in Trench N with less loam and other inclusions. Fill [233] sat above a dark grey sand [235] with traces of sandstock and charcoal, 20-30cm in depth. The removal of deposit [235] exposed a white and grey mottled sand [236] that was strong grey mottled colour on the west sections of the trenches. It was similar to a white sand natural A2 horizon [312]=[219]=[301] that was found in Zone 2. Natural sand [236] was at the base of the four trenches and only excavated up to a depth of 30cm. No artefacts, features or cuts were found relating to the earlier use of this area (Figure 3.69-Figure 3.70).

3.5.2.1 Interpretation of Stratigraphy – Trenches K, L, M, N

- Fills [233] is likely to relate to the school's occupation of this area in the 20th century.
- Deposit [235] potentially relates to the late 19th century use of this area, possibly even a heavily disturbed A1 soil horizon as a result of the demolition of the 1860s cottages which stood here until the end of the century.
- Deposit [236] represents the natural A2 soil horizon
- No evidence was found of the 1860s cottages (Structures I, J and K) in any of these trenches



Figure 3.69 Trenches J, K and L, facing north. AMAC Group (19/07/2017, IMG 0906).



Figure 3.70 Trench K, facing north. AMAC Group (19/07/2017, IMG_0901).

3.5.3 Trenches J and P

Trench J was the most northern trench in line with Trenches (K, L, M, N). The topsoil was the same mid-dark brown fill [233] though below was a mustard coarse sand or fine gravel [234]. It was 10-15cm deep and thicker in the west section than the east. It sat above dark grey sand [235] which was 20-25cm deep and below was deposit [236] in the west section which was tested to be in excess of 1m deep. No artefacts, features or cuts were found relating to the earlier use of this area (Figure 3.71).

Trench P was situated to the north of Trench Q and to east of Trenches L and K. The stratigraphy was similar to Trench J being that [233] sat above fills [234] and [235] however a large sandstone rubble block was found at the base of fill [235] which was only 10cm deep (Figure 3.72).

3.5.3.1 Interpretation of Stratigraphy – Trench J and P

- Fill [233] is likely to relate to the school's occupation of this area in the 20th century.
- The function of fill [234] is unclear, it may have been used as a levelling fill associated with the 20th century school.
- No evidence was found of the 1860s cottages (Structures L and K). The sandstone found at the base of Trench P was not structural however may have been remnant of a foundation.



Figure 3.71 Trench J, facing north-east.

AMAC Group (19/07/2017, IMG_0896).



Figure 3.72 Trench P – showing sandstone block and fills, facing south. AMAC Group (19/07/2017, IMG_0915).

3.5.4 Trench Q

Trench Q was situated to the east of Trenches N and M. It had the same stratigraphy as the four Trenches N, M, L K (see Section 3.5.12) however a cut [251] was found cutting [236] in the south west corner of the trench. The cut was 70cm long (N-S) and 50cm wide (E-W) and contained fill [252] that consisted of a dark grey sand with gravel at the surface, sandstone, bone and charcoal suggesting it was likely a rubbish pit or deposit relating to the 19th century use of the site (Figure 3.73).

3.5.4.1 Interpretation of Stratigraphy – Trench Q

- Fill [233] is likely to relate to the school's occupation of this area in the 20th century.
- The function of fill [234] is unclear, it may have been used as a levelling fill associated with the 20th century school.
- The rubbish pit [251] cut the natural A2 horizon suggesting that the area was already cut down to this depth at the time that the 1860s cottages were standing.
- No evidence was found of the 1860 cottage (Structure J).



Figure 3.73 Trench Q – showing cut [251] and fills, facing north. AMAC Group (19/07/2017, IMG_0917).

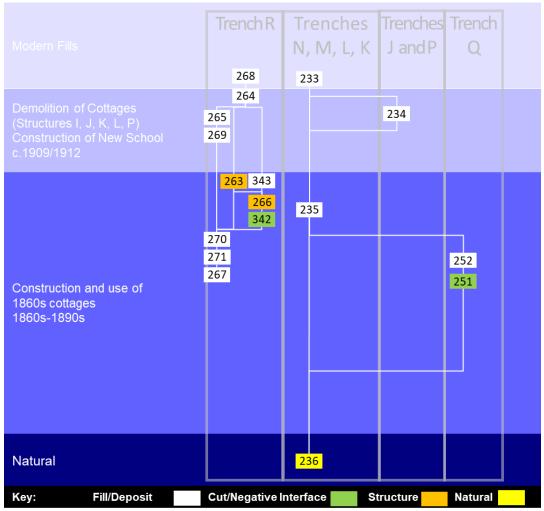


Figure 3.74 Zone 3 – Harris Matrix. P.Newton and I.Vetta, 2019.

3.6 GEOLOGY AND SOILS

Newcastle proper is constructed on soil profiles determined as Killingworth and Hamilton. Based on the generalised survey conducted for *Soil Landscapes of the Newcastle 1: 1000 000 Sheet*, the study site is located within the Killingworth soil profile.¹¹⁶

The properties of the Killingworth profile are the following:

- A1 Brownish black pedal loam (silty, sandy, or clayey depending on parent material).
- A2 Bleached, greyish yellow brown loam, (silt to clay loam).
- B Yellowish brown clay (silty to sandy, sometimes heavy). Siltstone or ironstone fragments may be inclusive.

Test excavation revealed evidence for intact portions of the natural soil profile across different areas of the site. These soil profiles did not closely resemble those of the Killingworth profile or the Hamilton Profile, rather they appear to be an Aeolian landscape. ¹¹⁷ The soil on the site is more closely represented by the Boyces Track

¹¹⁶ Matthei (1995) 38, 132.

¹¹⁷ Matthei (1995) 133.

Profile¹¹⁸ which is found to the north near Stockton Beach, this profile consists of the following:

- A1 Speckled loose loamy sand, commonly brownish grey, up to 40cm in depth.
- A2 Bleached loose sand, greyish yellow brown to light grey. Dry colours usually bleached light grey. Up to 100cm in depth.
- B Faintly mottled sand, mixture of dark brown or brown mottles in a background colour of dull yellow orange, up to 50cm in depth.¹¹⁹

This description more closely represents the natural A1 soil found in Pier B [247], Pier C [250], Pier D [277], Pier E [311], Strip G [278] and Stairwell [327] and the natural A2 soil found in Pier A [219], Pier E [312], Lift well [301], and Trenches J, K, L, M, N, P and Q [236]. Alternatively, the Shoal Bay and Hawks Nest profiles may also be possibilities for the site.

¹¹⁸ eSpade (bt Boyce Track), p. 212-214.

¹¹⁹ Matthei (1995) 202.

4.0 ARTEFACT ANALYSIS

4.1 INTRODUCTION

A small assemblage of 521 artefacts was uncovered during the 2017 salvage excavations. This number includes samples taken of the building materials. The artefacts recovered were washed, dried and sorted off site by AMAC staff soon after the excavation.

Post-excavation analysis of these artefacts was carried out by Alex Thorn (Artefact Specialist) in March and April 2019. This section of the report aims to provide a brief overview of the assemblage and an outline of the methodology.

4.2 METHODOLOGY

4.2.1 Cleaning and Drying

Following the excavation, the artefacts were cleaned (when appropriate) and dried. They were sorted into artefact classes (Ceramic, Glass, Metal, Miscellaneous, Building Materials, Bone and Shell), re-bagged and boxed in accordance with their artefact class. Samples taken from site were boxed separately.

4.2.2 Sorting and Cataloguing

The artefacts were catalogued by artefact class, in order of their stratigraphic context. The EAMC Archaeology of the Modern City Archaeology Database (see Crook et al, 2006) was used to catalogue the artefacts. The field definitions for the database are provided as Appendix D.3.

Research was conducted into identifiable makers and distributors, as well as into production techniques and dates.

All artefacts were catalogued. This catalogue is reproduced as Appendix D.1.

4.2.3 Type Series

A type series of 101 types was prepared for the assemblage. This has been attached as Appendix B.

4.2.4 Minimum Number of Vessels

As a large proportion of artefacts are fragmentary, it is common practice to determine the minimum number of vessels (MNV) in each context. This can be determined by several means, for example by using a diagnostic feature of a whole item, such as the rim or base or a wine bottle. The minimum number of vessels was not calculated for the brick and mortar samples taken from site. For this site, the minimum number of vessels (MNV) is 142.

4.3 OVERVIEW OF THE ASSEMBLAGE

4.3.1 Preamble

The assemblage from 58 Bolton Street is a small assemblage that totals 521 artefacts (see Table 4.1). The largest class of artefacts was ceramics with 213 items recovered, almost 41% of the total assemblage. Bone and shell account for 26% of the assemblage whilst glass artefacts account for almost 13%.

Table 4.1 Quantity of sherds from 58 Bolton Street, by artefact class

Artefact Class	Sherds	% Total
Bone	79	15.16%
Building Materials	55	10.56%
Ceramic	213	40.88%
Composite	1	0.19%
Glass	66	12.67%
Metal	22	4.22%
Miscellaneous	24	4.61%
Other	2	0.38%
Shell	59	11.32%
Total	521	100.00%

4.3.2 Activity

Artefacts were catalogued by activity, function and sub function. The activity categories used are presented below in Table 4.2.

Table 4.2 Quantity of sherds from Bolton St, by activity

Activity	Total	% Total
Architectural/Non-Structural	19	3.65%
Architectural/Structural	51	9.79%
Beverage storage	51	9.79%
Clerical	2	0.38%
Decorative	1	0.19%
Diet	90	17.27%
Domestic	7	1.34%
Economy	1	0.19%
Food Service	194	37.24%
Food Storage	5	0.96%
Garden	1	0.19%
Pharmaceutical	6	1.15%
Recreation	11	2.11%
Sample	2	0.38%
Unidentified	80	15.36%
Total	521	100.00%

4.3.2.1 Architectural (Structural and Non-Structural)

Architectural/Structural describes artefacts used in the construction of a building. Such artefacts include the bricks, and the materials used to bond the bricks. As well as wooden beams, roof tiles, fasteners such as nails, screws and bolts, window glass and frames, and both doors and door hardware.

Architectural/ Non-Structural artefacts are associated with the finishes of the building. Such artefacts include floor and wall coverings, drainage, sewerage and electricity.

The majority of architectural material recovered were samples of brick and mortar from the site. The bricks were predominantly sandstock bricks, one of which was marked 'HAMMON' as will be discussed below. The majority of the nails recovered were either wrought rosehead nails, or unidentifiable due to heavy encrustation. Only 12 fragments from 9 nails were recovered.

The mortar was predominantly shell lime mortar. There are examples of both yellow and grey sandy shell-lime mortar with burnt shell inclusions. There were also two examples of grey sandy lime mortar with no evidence of shell inclusion which is more common in buildings constructed after 1850.



Figure 4.1 'HAMMON' marked brick (BCN17x0189, Context 263)



Figure 4.2 Mortar sample with layers of yellow and grey shell lime mortar (BCN17x0228, Context 222)

Only one example of window glass (BCNx0130, Context 200 B) was recovered which was 3mm thick and produced between 1834 and 1910. 120

4.3.2.2 Clerical

Clerical artefacts are those associated with writing, including school and office environments, slate boards and pens, ink bottles, nibs, pencils. There were only two artefacts recovered that can be associated with clerical activity, a small fragment of slate board (BCNx0210. Context 231) and a red "Mammoth" pencil (BCNx0212, Context 232) produced by Eagle Pencil Company. This company was established in New York City in 1856 and operated until 1969 when they became *Berol*.

¹²⁰ Boow 1991, p.102, 111



Figure 4.3 Slate board fragment (BCN17x0210, Context 231)



Figure 4.4 Eagle 'Mammoth' pencil fragment (BCN17x0212, Context 232)

4.3.2.3 Diet

Diet covers artefacts that were eaten, and predominantly consists of animal bones and oyster shells. 17% of the assemblage was associated with diet.

4.3.2.4 Domestic

Artefacts used in domestic upkeep and maintenance including cleaning products, buckets and matches. It also includes fuel sources such as coal and coke which were used for heat. The only domestic artefacts were fragments of coal and coke recovered from Contexts 221, 231, 237 and 238.

4.3.2.5 Economy

Artefacts concerned with the economy include coins and tokens. One coin was recovered during the excavation, an 1898 Queen Victoria Penny (BCNX0203) from Context 203.

4.3.2.6 Food and Beverage (Storage, Preparation, Service)

Artefacts associated with the service of food, including tea wares, dominate the assemblage (37%). The majority of these are from smaller ceramic wares such as plates and tea cups and saucers rather than platters or serving dishes which could suggest individual possessions. Many of these are discussed below. The only glass tableware recovered was from a pontil-blown clear glass tumbler (BSNx0152, Context 237), a lid that appears to be from a decanter (BSNx0153, Context 237) and a small fragment that appears to be from a glass (BSNx0158, Context 239).

The only food storage vessels are from a panelled (BCNx0139, context 222) and a round (BCNx0150, context 237) bottle, likely used for condiments.

There were fragments from at least eight beer/wine bottles. Five with push up bases (c.1830-1870), a partial champagne-style base, and a partial and complete moulded bottle (post 1850). There was at least one gin /schnapps bottle recovered.

Only a couple of fragments from stoneware ginger beer bottles were recovered (BSNx0038, Context 224; BSNx0103, Context 244), and a shoulder from a larger salt-glazed stoneware jar (BSNx0018, Context 221).

4.3.2.7 Garden

Garden artefacts are those associated with the maintenance of a garden and include garden pots, tools, and garden tiles. Only a small fragment of unglazed terracotta from a flower pot (BCNx0105, context 244) was recovered.

4.3.2.8 Pharmaceutical

Pharmaceutical items include medicine bottles, potion jars, vials and thermometers. Only 1% of the assemblage was pharmaceutical. 6 sherds from 5 bottles including a perfume bottle (BCNx0157, Context 238) and a castor oil bottle (BCNx0133, Context 200 C).

4.3.2.9 Recreation

Recreational activity includes toys, hobbies, and leisure activities, and include both adults and children. Such artefacts found on site include smoking pipes, marbles and dominoes. In light of the history of the site it is of interest that no children's toys were recovered during the excavation.

The only recreational artefacts recovered were fragments from clay smoking pipes. Whilst these may have been associated with the deposit within which they were found, they may also have belonged to workers demolishing areas of the site and broken whilst the works were being carried out (see Wilson & Kelly 1987: 3). Only a small number were found, 11 fragments with a MNV of 4. These were recovered from Contexts 200, 213 (Pier B), 214 (Pier B), 221 (Pier c) and 222 (Pier C). Of these two were marked. One (BCNx0202, Context 200 C) features the spur mark 'M/G' and the other (BCNx0207, Context 222) was marked 'T.W. & Co // EDINR' in relief. The 'M/G/spur mark has an estimated date range of 1832-1877 (Wilson FGH: 9). T. W & Co is a mark of Thomas White & Co, Edinburgh. He operated between 1823 and 1882 however embossed marks on pipes were not common after 1840.



Figure 4.5 'M/G' marked pipe (BCN17x0202, Context 200C)



Figure 4.6 'T.W. & Co / EDINR' marked pipe (BCNx0207, Context 222)

4.3.2.10 Unidentified

The activity class for the artefact is not clearly identified.

4.3.3 Condition

The shell, bone, and metal items in the assemblage may require a conservator to assess their condition.

4.3.4 Percentage

The majority of the Bolton Street assemblage is fragmentary with 20% being less than 5% of their original size and almost 60% being less than 50%. When numerous sherds of a particular "type" were catalogued in the same entry, such as body fragments from glass bottles or small stem fragments from clay smoking pipes, the percentage was not recorded, and is referred to as "unidentified" in the table.

Table 4.3 Quantity and percentage of sherds from 58 Bolton St, Newcastle assemblage, by percentage.

% Vessel	Sherds	% Sherds
5% and under	106	20.35%
10-25%	96	18.43%
30-50%	105	20.15%
60-70%	21	4.03%
80-90%	10	1.92%
95-100%	9	1.73%
Unidentified	174	33.40%
Total	521	100.00%

4.4 MAKERS AND DISTRIBUTORS

A small number of marked artefacts were recovered from site. Three ceramic tableware makers from Staffordshire, England, a clay pipe maker from Edinburgh, Scotland; a New York pencil company and a local brickmaker. William Hammon operated in Adamstown, Newcastle between 1870 and 1914, although the brickyard was still operating in 1923 (Gemmell 1986: 76-77).

4.4.1 Ceramic: Makers

Maker	Provenance	From	То	Artefacts
William Davenport & Co	England: Staffordshire	1820	1860	BCNx0025 (Context 222), BCNx0047-48 (Context 237)
George Philips	England: Staffordshire	1834	1848	BCNx0033 (Context 223), BCNx0059-66 (Context 237), BCNx0080 (Context 238)
Josiah Spode	England: Staffordshire	1825	0	BCNx0080 (Context 238)



Figure 4.7 'Venustus' by Davenport (BCN17x0025, Context 222)



Figure 4.8 'Park Scenery' by George Philips (BCN17x0060, Context 237

4.4.2 Building Materials: Makers

Maker	Provenance	From	То	Artefacts
William Hammon	Australia: Newcastle	1870	1914	BCNx0189 (Context 263)

4.4.3 Miscellaneous: Pencil Maker

Maker	Provenance	From	То	Artefacts
Eagle Pencil Company	USA: New York City	1856	1969	BCNx0212 (Context 232)

4.4.4 Miscellaneous: Clay Pipe Maker

Maker	Provenance	From	То	Artefacts
Thomas White & Co	Scotland: Edinburgh	1823	1882	BCNx0207 (Context 222)

4.5 PATTERNS

Not surprisingly, the concentration of transferware patterns was found in Context 237. The majority of transfer-printed sherds are in the 'Park Scenery' pattern, one (BSNx0060, Context 237) features a partial base mark. This pattern was produced by George Philips of Longport, Staffordshire who was in production between 1834 and 1848 (Godden 1991: 492). The fragments are from at least two teacups and a small plate. Most of the sherds were found in context 237 (BCNx0059-66) with additional sherds recovered from context 223 (BCNx0033) and context 238 (BCNx0081). These are potentially from the same vessels in context 237 although no conjoins were found.

Not surprisingly 'Willow' is one of the most common patterns with 22 fragments from at least 7 vessels, predominantly plates, found in six contexts. 'Willow' is typical of historic sites as are other popular patterns 'Asiatic Pheasants' and 'Cable'.

A base mark on BCNx0025, context 222 identified Davenport as the maker of the 'Venustus' pattern. This pattern name was matched to the unknown pattern 12545

on the TCC Database which allowed identification of additional sherds (BCNx0050-51, Context 237) from the site.

BCNx0080 (Context 238) features Spode's 'Jasmine' border. This border was introduced by Josiah Spode in 1825 (Whiter 1978: 162). This saucer features sunflowers in the centre, although this border was also used with other floral centre patterns (Whiter 1978: 162-163). Only the edge of the base remains with no base mark.

A large number of sherds were recovered in the 'Fountain' pattern (BCNx0054-55, Context 237), although these were from one small plate. The pattern name is marked on the bottom of the plate, with no maker marked. The theme of the pattern, a woman by a fountain, was very common and the maker was not able to be identified.

Table 4.4 Known transfer-printed patterns from 58 Bolton St, by Context

Context	'Asiatic Pheasants'	'Cable'	'Corsina'	'Fibre'	'Fountain'	'Jasmine'	'Park Scenery'	'Rose'	Seaweed	'Venustus'	'Willow'	Total Sherds
200 B				1								1
200 C	1										1	2
221											1	1
222										1	1	2
223							2				1	3
224		1										1
237					22		25	8		6	17	78
238						1	1		2			4
243											1	1
297			1									1
Total Sherds	1	1	1	1	22	1	28	8	2	7	22	94



Figure 4.9 Context 237

'Fountain' (BCNx0054,



Figure 4.10 Spode 'Jasmine' border (BCNx0080, Context 238)

Pattern Name	Manufacturers	From	То	Sherds
'Asiatic Pheasants'	Various	1840		1
'Cable'				1
'Corsina'	Various			1
'Fibre'		1800		1
'Fountain'				22
'Jasmine'	Spode	1825		1
'Park Scenery'	George Phillips	1834	1848	28
'Rose'	William Davenport & Co	1820	1860	8
Seaweed				2
'Venustus'	William Davenport & Co	1820	1860	7
'Willow'	Various	1790		22

Table 4.5 Known transfer-printed patterns from 58 Bolton St

4.5.1 Conjoins

Conjoins were found between contexts 223 and 237. A transferware plate in the 'Willow' pattern (BSNx0032, Context 223; BSNx0042, Context 237) and a handpainted earthenware plate (BSNx0034, Context 223; BSNx0076, Context 237).



Figure 4.11 Willow' plate fragments BCN17x0042 (Context 237)



Figure 4.12 'Willow' plate fragments BCN17x0042 (Context 237) with BCN17x0032 (Context 223)

4.6 CONTEXT SUMMARY

4.6.1 Context 237 - 1834-1875 (Estimate)

Context 237 is the largest assemblage recovered. It contains 219 artefacts, 42% of the total assemblage, with a MNV of 36.

Ceramic

The Ceramic artefacts are typical of early to mid-19th century deposits with transfer printed earthenware, industrial slip ware, edge ware and hand painted earthenware. Context 237 contains the largest number of known transfer-printed patterns in the assemblage with 78 sherds from 5 known patterns. These are the common 'Willow' pattern as well as a small plate in the 'Fountain' pattern. Fragments from a tea cup and saucer in Davenport's 'Rose' pattern (BCNx0047, BCNx0048) as well as

fragments from a tea cup and saucer in Davenport's 'Venustus' pattern. The style of the Davenport base marks dates these items from 1820-1860 (Godden 1991: 190).



Figure 4.13 Fragments from Davenport 'Rose' Tea cup and saucer (BCNx0047 and BCNx0048, Context 237)



Figure 4.14 Fragments from 'Venustus' tea cup (BCNx0050, Context 237)

The context is dated to post 1834 due to the inclusion of transfer-printed tea wares in the 'Park Scenery' pattern (BCNx0059-66). This pattern was produced by George Philips in Longport, Staffordshire. Previously of Edward & George Philips, he operated under his name alone between 1834 and 1848 (Godden 1991: 492). There are examples of feather edge ware (BCNx0067-70) from at least two plates, the style of the fragments in the assemblage was more common in the early 19th century. There are fragments from at least two hand painted earthenware tea cups (BCNx0072-74) featuring simple floral designs on the exterior in mulberry, blue and green with a fine black line around the inner rim. Three fragments of industrial slip ware are in the context. One (BCNx0077) appears to be from the same vessel as BCNx0017 in context 221 although they do not conjoin. BCNx0078 and 79 both feature encrusted panels of tiny balls of coloured clay.

Glass

There are at least 2 beer/wine bottles (BCNx0144-147), one or more gin/schnapps bottles (BCNx0148-149). There is also a fragment from a light green condiment bottle (BCNx0150) and a pharmaceutical bottle (BCNx0151). Table glassware is limited to the base of a tumbler (BCNx0152) and the lid form a decanter (BCNx0153).

Miscellaneous

A small fragment of charcoal was recovered (BCNx0215).

Metal

Two nail fragments and a small piece from a metal strap were recovered.

Bone/Shell

There are also a number of animal bones, likely sheep, some of which showed evidence of being butchered (BCNx0302, BCNx0308, BCNx0313, BCNx0314). There are fragments from at least five rock oysters and three gastropods in the context.

Table	4.6	Q	uan	tity o	f she	erds	from	58 E	Bolton	Stre	eet, k	у ас	tivity				
Context	Architectural/Non- Structural	Architectural/ Structural	Beverage storage	Clerical	Decorative	Diet	Domestic	Economy	Food Service	Food Storage	Garden	Pharmaceutical	Recreation	Sample	Unidentified	Total	MVC
200	2												2			4	1
200 B	1							1	1							3	3
200 C			2						5			1	1		1	10	9
201		6												1		7	0
208		2														2	0
211						1										1	1
213	1	6	1			4			2				3		5	22	5
214						1							1		1	3	1
215						2										2	1
217		1														1	0
221	1					1	1		6				1		3	13	5
222	3	1	4			5			19	1			3		11	47	14
223									4						1	5	1
224			1						4			3			2	10	5
230	4	2					4		4							2	1
231	1	2		1			1		1						4	6	2
232		1	40	1		00	4		2	4		4			1	5	3
237	5	40	18		4	28	4		116	4		1			43	219	36
238	4	12	9		1	40	1		24			1			4	92	28
239	1	1				ı			1						1	4	2
240 241	2	1	1			2										1	0
243		1	1			1			3							5 5	3
244	1	1	3			4			2		1			1	1	14	4
258	1	2	J			4					'			•		2	1
259		2														2	0
263		2													1	3	2
275															2	2	0
277									2						_	2	2
287		2							_							2	1
288		2														2	1
295		2														2	0
296		_	11													11	1
297	1		1						1						3	6	6
313		2														2	1
315		1														1	0
316									1							1	1

5.0 RESPONSE TO RESEARCH DESIGN

5.1 INTRODUCTION

The following is a response to the research design provided in the Archaeological Test Excavation Report by AMAC Group (Section 4.0 - March 2017), and represents a combination of the results of test excavation and salvage excavation. This research design was developed based on the Heritage Council of NSW's Historical Themes and the research design has been set out in accordance to these themes (Table 4.1). The following general questions are considered within the responses and were designed to consider the overall archaeological footprint of the study site:

- At what level are archaeologically sensitive materials found?
- What archaeological evidence is there of the features which are known to have existed on the site?
- · What evidence is there of previously unknown features?
- How has the process of development affected earlier remains on the site?
- What information can the relics on the site provide? How does this compare to information available from documentary sources?

Table 4.1 Historical Themes concerning the study site

Australian Theme	NSW Theme	Study Site				
1 Tracing the natural, evolution of Australia,	Environment – naturally evolved	Potential for intact soil profiles – evidence of early flora and fauna.				
2 Peopling Australia	Aboriginal cultures and interactions with other cultures	Not known on the site. Aboriginal objects are protected by the NPW Act.				
	Convict	Potentially occupied the site, slab huts known to have been on part of the site predating 1830.				
3 Developing local, regional and national economies	Commerce	A bakery is known to have operated on Lot 82, during the 1880s.				
	Environment – cultural landscape	The topography of the site has been significantly altered throughout the historic use of the site.				
	Events	Both 1845 and 1860 were known to house local events on behalf of the Church of England.				
	Industry	A bakehouse is known to have operated on Lot 82, during the 1880s.				
4 Building settlements, towns and cities	Towns, suburbs and villages	The site was part of the early settlement of Newcastle, predating the original street alignment. There is potential for fences relating to this early layout of Newcastle.				
	Land tenure	The site retains the potential for fence lines associated with the original subdivision of Newcastle.				
	Utilities	Cesspits and a well are known to have been present on the site from as early as 1830. The school, present on the site from 1845, was connected to the main water supply for the town in the late 19 th century.				
	Accommodation	A pre-1830s government cottage, an 1840s dwelling as well as four mid-19 th century dwellings are known to have been constructed on the site. A teacher's residence as well as accommodation for students is				

Australian Theme	NSW Theme	Study Site			
		likely to have occurred on the site from 1845 until the early 1880s.			
5 Working	Labour	The school, at least in 1860, contained a teacher's residence allowing the teacher's to both work and live on the site. Also the baker on Lot 82 also provided accommodation for staff on the premises.			
6 Educating	Education	The site was occupied by a primary school for 150 years. This school was the first school in Newcastle and potentially occupied the site prior to the construction of the first school building.			
7 Governing	Defence	During the 1940s and air-raid shelter was constructed on the site.			
	Government and administration	The site contained a government building in the 1830s known as the Commissariat Clerk's residence.			
8 Developing Australia's cultural life	Domestic life	The site was home to several residential dwellings including the Commissariat Clerk's residence, a 1840s dwelling and four mid-19 th century terraces.			
	Religion	The Christ Church School was operated by the Church of England and was often used for Church functions.			
	Social institutions	The school buildings were host to many community meetings and had significant community affiliations.			
	Sport	Children's playgrounds were located in various places across the site as the school evolved and changed.			

5.2 RESPONSE TO RESEARCH DESIGN

The following responses incorporate both the results of Test Excavation (2015) and Salvage Excavation (2017) on the site. As salvage excavations required only limited excavation within the areas of highest archaeological potential, in particular Zone 2, the additional data provided from salvage excavations is fragmentary and is not always able to answer the questions posed during test excavation.

5.2.1 Topography

Early maps clearly show that the site was located on the side of a steep hill which sloped down from west to east and from south to north. At some point during the occupation of the site, the site was levelled to create the current topography where two distinct ground levels are present.

3. Developing local, regional and national economies

Environment - cultural landscape

The natural topography has clearly been altered on the site, what evidence is there for levelling across the site? Is this the result of cutting or introducing levelling fill? Was this done in small isolated areas or wholesale across the site? Is there any indication of when these events occurred?

It is clear from both physical and documentary evidence that the site originally sloped down dramatically from west to east with the steepest gradient along the west boundary of the site (Figure 2.1). There is clear evidence across the site for the manipulation of the topography in order to create the levels present on the site today. This alteration has been carried out in the form of filling in the southern part of the site (as evidenced in Zone 2 and Test Trenches 1 and 2) and cutting in the western part of the site (Zone 3 and Test Trenches 3 and 4).

In the southern part of the site the intact natural A1 soil horizon was found at significant depths below the current ground level and was indicative of the natural slope in this area. In Test Trench 1, this soil horizon, [016], was found at RL20.11m which is 1.94m below the current bitumen surface in this area. The 1860 school building (Structure M) was built directly on top of the natural A1 soil horizon in this location with the sandstone foundations used to raise the ground level, it is likely that this part of the building contained a basement or lower floor. No excavation occurred within this area (Zone 1) during salvage excavations to further understand the natural soil profile.

The ground levels in Zone 2 were also built up using layers of clean redeposited natural sand and introduced fills. The pier trenches as well as Trench 2 had between 50-100cm of introduced fill above the A1 soil horizon. This topsoil was exposed at RL21.5m to RL21.8m from east to west within Trench 2 and from RL21.67m to RL21.84m between Pier E and Pier B providing further evidence of the natural slope of the land from northwest to southeast. The A1 horizon topsoil was entirely missing in Pier A with the natural A2 soil horizon found at RL21.84m indicative of the vertical truncation of the soil profile to the west of foundation [201] found in Pier B and Strip Trench G.

Although a remnant A1 natural soil was found in Test Trench 4 ([077]) at a height of 22.08m and none at all was found in Test Trench 3 and or Trenches K-Q during salvage excavations in Zone 3. This zone had been completely historically truncated into the bleached natural A2 Horizon ([236],[063], [118]), significantly cutting into the slope here to make the ground level.

Through both an assessment of the archaeological data and the documentary record, the dating of these cutting and filling events can be ascertained; it appears that the levelling that occurred in the southern part of the site (Zones 1 and 2) happened separately to the levelling that occurred in the northern part of the site (Zone 3).

In the southern part of the site early plans and drawings (Figure 2.1; Figure 2.4-Figure 2.5) indicate that the natural ground levels were most likely still in use up from the 1830s-1850s. The results of archaeological test excavation supported this as the natural ground level was evident in both Trenches 1 and 2 and the filling events evident in Trench 2 appear to postdate the construction of the c1845 school building (Structure F) and most likely predate the construction of the 1860 school and teachers' residence (Structures M and N). The results of salvage excavation were less consistent. If foundation [240] in Pier C can be interpreted as part of Structure F, this foundation was sitting above a number of fills, [222], [223], [237], [238], [239] and [241], which would suggest that some amount of levelling had occurred to raise the ground level before the installation of this foundation. Similar fills were found in Piers D, E and Strip G indicating that the natural topography dropped away more dramatically toward Church Street requiring levelling prior to the construction of the c1845 school.

Photographs and drawings of the school (Figure 2.10-Figure 2.14) indicate that the 1860 school building and residence was significantly below the level of Church Street and it is possible that the need to raise the ground level of the school was necessary because by this date the road was in the process of being raised (or had already been raised).

The cutting down of the western side of the site (Zone 3) may have commenced prior to the 1860s and may have involved multiple events of levelling. This area once housed four cottages that were set at the back of the

site facing Bolton Street and were constructed most likely during the 1860s. A photograph taken during the 1880s from Newcomen Street shows the rear of these cottages (Figure 2.14). The two buildings on Lot 82 appear to be earlier than those on Lot 80, and were only a single storey in height. The photograph indicates that the base of the roofs were level with the fences with the neighbouring Newcomen Street properties with the cottages backing up onto this fence line. It must be assumed that a retaining wall was in place along this property boundary in order to allow for this significant change in ground levels. If this is the case, the hill was cut into to create a platform for the terraces to be constructed on. The buildings on Allotment 80 were two stories high and with part of the upper floor visible in the 1880s photograph (Figure 2.14); again this would imply some amount of cutting had occurred to allow for this construction.

Again, the archaeological data supports the documentary evidence in respect to the dating of this event. It is known that the acquisition of Lot 82 in 1883, the buildings on the site were demolished and the retaining wall along this part of the western boundary was constructed. A newspaper article from this period describes "the old existing cottages [were] razed to the ground, and everything levelled down¹²¹. Archaeological test excavation and salvage excavation found no evidence of the c1860s dwellings, Structures I, J, K, P and L, suggesting that the ground levels were truncated following the demolition of these buildings and prior to the construction of the new lavatories in this area. Zone 3 was found to be almost entirely cut down to the A2 horizon consistent with the levelling that must have occurred following acquisition of the land by the school.

Is there any indication of the original ground levels across the site? Is there any indication that the height of Church and Bolton Streets is the result of cutting or filling?

As discussed above, the natural ground level was identified in both test excavation (Test Trenches 1 and 2) and salvage excavations (Piers B, C, D, E, Strip G and the stairwell) through the presence of intact natural A1 horizon soil. The level of this natural sand increased from east to west being found at RL20.11m in the east (Test Trench 1) and RL21.84 in the west (Pier B) rising 1.73m over a distance of 21m (an incline of approximately 5 degrees).

This is somewhat lower than the current level of Church Street which is 22.94m near the intersection with Bolton Street, and increases to 25.72m at the western edge of the site making the street level some 3 – 4m above the height of the known natural ground indicating that Church street has been significantly built up.

Archaeological investigation was not carried out close enough to Bolton Street in order to make the same comparison. Levels near Test Trench 1 place Bolton Street at 21.38 – 20.90m which is 0.8-1.2m above the natural in this trench suggesting that at least this part of Bolton Street has also been built up. Excavations in Trench R did not uncover natural.

How has the alteration of the topography affected earlier archaeological features?

In the location of Zones 1 and 2, the alterations to the topography have mostly worked to preserve the archaeological features in this area. Certainly, there has been some truncation of earlier features. The location of Pier A, for

-

¹²¹ Newcastle Morning Herald, 24 October 1884

example, had been previously cut down to the natural A2 horizon and no evidence was found within this Pier for the 1840s building Structure H which was anticipated in this location. In the remaining Pier Trenches, and as evidenced in Test Trench 2, some truncation of the historical deposits has occurred in the 20th century which has impacted the earlier features however the original changes to the topography would have preserved the earlier archaeology.

The significant rise of the natural slope towards the west of the area indicates that at some point the natural ground level along the Church Street boundary would have needed to be cut down to make it level. The CMP suggests that following the Crown's acquisition of Lot 85 (Pier A and Strip F) the land had to be brought "down to the level of the school yard". This cutting has had a significant impact on the potential remains of the c1840s-1852 building, Structure H and removed all but the base foundations of the mid-late 19th century buildings, Structure R (foundation [201] found in Pier B and Strip G).

In Zone 3 and the location of Test Trenches 3 and 4 along the west of the site, truncation of this area in the 1880s and 1890s has had a significant impact on the archaeological record removing most of the archaeological data preceding this period. No evidence was found of the four cottages that once stood along the western boundary of this area with all foundations completely removed. The only features found in this area largely relate to the later school occupation of the site.

Was further levelling carried out in the late 19th century when the site was completely occupied by the school?

Certainly, it would appear that in Zone 3 the levelling works were carried out in the late 19th century, which has been discussed above.

Archaeological evidence from Zone 2 suggests that even following the demolition of the Teachers' residence (Structure N) and possibly again following the demolition of the 1860 school (Structure M) the playground areas were truncated and levelled. Although substantial demolition fills were identified in Test Trench 1, very little demolition material was found within Zone 2 and the location of the former Teachers' Residence (Structure N), suggesting that this material had either been removed from the site at the time of demolition or later during the grading of the site for use as school playgrounds.

Although both Trenches 1 and 2 indicate the land here had been filled, is there any evidence for the cutting of the natural slope along Church Street? Documentary research suggests that Lot 85 was cut down following acquisition by the school, is this evident in the archaeological record?

As discussed above, only the Pier trenches were excavated down to the natural soil profile during the salvage excavations. Natural A1 horizon topsoil was identified in all of the Piers (B, C, D and E) aside from Pier A where the natural soil profile had been truncated down to the A2 soil horizon. The location of Pier A was within the historic Lot 85 and it is possible that this cutting away of the slope may have even occurred with the construction of Structure R however this could not be confirmed by the current archaeological programme.

_

¹²² Suters Architects (June 2013), 6

Can a distinction be made between the truncation of Lot 82 and Lot 80? Did this happen at different times or at the same time? Is there any evidence that the retaining wall at the west of the site was constructed in two phases?

Excavations within Zone 3 (Trenches J, K, L, M, N, P and Q) found a relatively consistent stratigraphic sequence, no distinction could be made between the soil profile found in the historic Lot 80 and Lot 82.

Is there further evidence to suggest that the grey sand levelling fills in Trench 2 were introduced for the construction of the 1860 school (Structure M)?

Foundations associated with the 1860 school (Structure M) were found in Pier E and Strip H along with a series of levelling fills. In Pier E, fills [316], [308], [309], [310] were all found around foundation [315] and may be associated with the levelling of this area prior to the construction of Structure M. It is possible that this levelling occurred prior to the construction of the first school (Structure F) in c.1845 if this building was in fact the same as the later Teachers' Residence (Structure N).

5.2.2 Pre-European settlement

Although the potential for Aboriginal archaeological material is not assessed in this report, questions regarding the pre-European occupation of the site are considered only in order to understand the condition of the site prior to historical development. Objects of Aboriginal heritage are subject to the National Parks and Wildlife Act 1974.

1. Tracing the natural, evolution of Australia

Environment – naturally evolved

What was the floral make-up of this area of Newcastle?

No evidence was found of the natural flora in this location.

Is there any indication of the natural topography?

Archaeological excavation has confirmed that the natural ground was much lower near the intersection of Church and Bolton Streets rising gradually to the west and more steeply to the northwest. This is discussed more thoroughly in Section 5.2.1 Topography.

2. Peopling Australia

Aboriginal cultures and interactions with other cultures

Is there any evidence of Aboriginal activities on the site? If so, this evidence is protected by the National Parks and Wildlife Act.

No evidence was found of aboriginal activities on the site. Only small areas of the natural A1 horizon topsoil were uncovered during test excavation and salvage excavations, principally in the southern part of the site. This natural topsoil has been largely retained in situ and therefore the potential for evidence of the aboriginal occupation of the site may still be present within this horizon. Any future excavation within the study site should consider the potential for evidence of Aboriginal occupation (NPW Act).

Is evidence available of modification or occupation prior to 1788? (If so, this data is subject to the NPW Act 1974). What, if any, evidence survives of the natural and artificially modified soil profiles up to the time of European occupation?

No evidence was found of the modification of this landscape prior to European occupation. The northern part of the site has been largely truncated down to the A2 soil horizon and therefore any evidence of this nature is likely to have been historically removed. Only a small portion of the southern part of the site was subject to impact by the proposed development and therefore archaeological excavation. Natural A1 topsoil was discovered during test excavation (Test Trenches 1 and 2 - [016], [153]=[190]) and salvage excavation (Pier B, C, D, E, Strip G and Stairwell – [247], [250], [277], [311], [278], [327]). None of these soils indicated that they were artificially modified prior to European occupation.

5.2.3 Early Newcastle (1801-1840)

The site is known to have been developed by 1830 when the Commissariat Clerk's cottage (Structure A) and outbuilding (Structure B) along with two slab huts (Structure C and E) and a well (Structure D). The construction date for these structures is unknown.

2. Peopling Australia

Convict

Is there any indication of the convict occupation of the site? What evidence is there of convict workers being employed by the commissariat clerk?

No evidence was found of the convict occupation of the site.

What, if any, evidence survives of the action of clearing the land by the first European prisoners?

No evidence was found of this nature. Such evidence may exist within the natural soil profile however only a limited amount of natural soil was exposed during the two phases of archaeological investigation.

4. Building Settlements, towns and cities

Town, suburbs and villages

Is there any evidence for the original street alignment and layout of the town prior to subdivision? Do fence lines survive from this period showing the original separation of housing allotments?

Only limited excavation occurred at depths in which archaeological evidence of this period may exist. No specific evidence of the original street alignment was found however two postholes were discovered, cut [274] (Pier D) and cut [317] (Pier E) which were aligned east to west, 2.2m apart which possibly relate to the fence line seen on the 1830 plan (Figure 5.1). If this is the case, deposits [316], [308], [309], [310] and [276] would predate this fence line. No other features were found in the neighbouring trenches to corroborate this interpretation.

Utilities

What evidence is there for cesspits and wells from this period? Do any of these relate to structures shown on the 1830 plan?

No evidence of wells or cesspits from this period were found during test excavation or salvage excavations.

<u>Accommodation</u>

What archaeological evidence remains for the Commissariat Clerk's Residence (Structure A)? How was this building constructed? Is there any indication of the date of this structure? Do occupation deposits survive relating to this structure?

No evidence was found of the Commissariat Clerk's house during test excavation or salvage excavations. This area was only investigated during test excavation with no impacts proposed within Zone 1 by the new development. Sondage A in Trench 1 revealed that the natural ground levels are intact within close proximity to the potential location of the Commissariat Clerk's residence. Natural A1 soil ([016]) was found at 20.11m AHD, approximately 1.1m below the ground level around the 1909 school building and approximately 2m below the current bitumen surface. Although evidence of the Structure A was not found within the test trench, the limited exploration of the natural soil level suggests that it is possible that archaeological evidence of this building remains.

What evidence is there for the hut located on the western boundary of the site (Structure E)? How was this building constructed? Has the changes to the topography here impacted on the survival of relics in this location? Is there any evidence for how this building was occupied and by who? Is it possible to date this structure?

No evidence was found of Structure E along the western boundary. Test Trench 3, placed in order to locate Structure E, found that this area had been cut down to the level of the natural bleached A2 soil horizon, most likely during the late 19th century, leaving no evidence of any early occupation in this area. During salvage excavations, sampling of Zone 3 was not able to be carried out close enough to the retaining wall to sample the precise area where Structure E was located. Trenches J, K and L were all located within close proximity and were found to be sterile, truncated to the natural A2 horizon (Figure 5.2). Part of the site naturally sloped up towards the west, it must be assumed that Structure E was constructed on the upper part of the slope and has either been completely cut away within the study site or potentially located further west within the allotments fronting Newcomen Street. It is possible that Structure E was the same building as that shown on the 1886 plan (Structure P - Figure 2.18). If this is the case, the top of a chimney shown in the 1883 photograph from Newcomen Street (Figure 2.14) may also be related to this building. Unfortunately the archaeological record did not contain any evidence to prove this hypothesis.

6. Educating

Education

Is there any indication that the original Christ Church School (c1816) occupied the site prior to the construction of the 1845 school? What can be learnt about education in this period from the archaeological record?

The archaeological evidence found during test excavation and salvage was not able to answer this research question. No evidence was found of features or artefacts pre-dating 1845 that could be connected with an educational institution.

Government and administration

The Commissariat clerk's residence (Structure A) was a government building, what can be learnt about government structures from the archaeological

record? Is there any indication that this building was used for other government purposes?

Relics associated with this building were no uncovered during salvage or test excavation.

8. Developing Australia's cultural life

Domestic life

What evidence is there for the domestic lives of the people that occupied the hut on the western side of the site (Structure E)?

As discussed above, no relics or occupation material were uncovered during test or salvage excavations relating to Structure E. Archaeological investigations in this area suggests that the ground levels were cut down in the late 19th century and it is likely that no archaeological evidence of this structure survives.

What evidence is there for the domestic lives of the people that occupied Commissariat Clerk's cottage (Structure A)?

No occupation material was found during test or salvage excavation from this period. The stratigraphy of Trench 1 indicates that it is possible that such material survives on the site however this was not impacted by the new development.

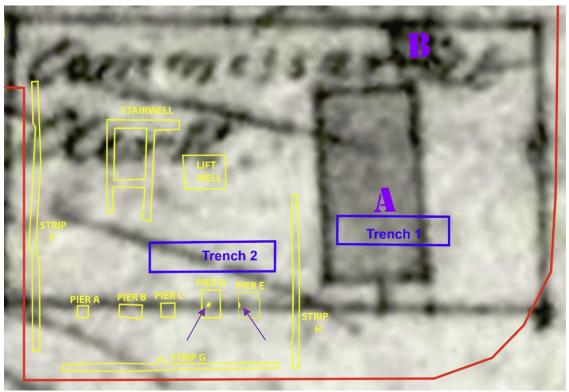


Figure 5.1 Overlay of Salvage Excavation and Test Excavation Trenches (southern part of site) with 1830 plan.

Purple arrows point to posthole cuts [274] in Pier D and [317] in Pier E. Study site outlined in red. Overlay by Vetta over Armstrong's 1830 plan (Figure 2.1).

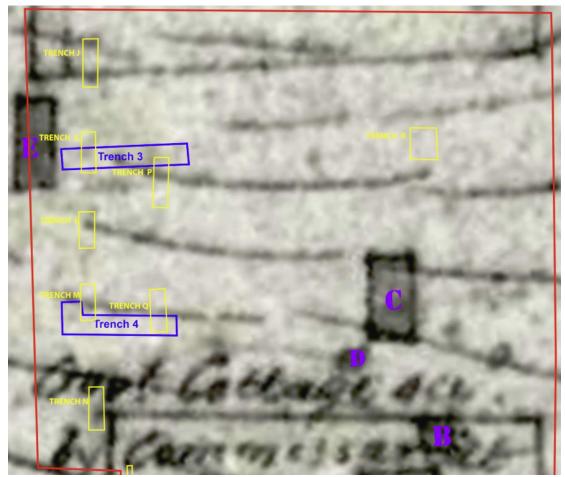


Figure 5.2 Overlay of Salvage Excavation and Test Excavation Trenches (northern part of site) with 1830 plan.

Study site outlined in red. Overlay by Vetta over Armstrong's 1830 plan (Figure 2.1).

5.2.4 Early subdivision and first Christ Church School (1840-1850s)

Following the subdivision of the site, the first purpose-built Christ Church school (Structure F) was constructed in 1845 on Lot 84 as well as a dwelling on Lot 85 (Structure H).

3. Developing local, regional and national economies

Is there any indication that the 1845 school (Structure F) was used for events associated with the Church?

No cultural material or artefacts were found during test excavation to link the site and Structure F to the Church.

Likewise, there is no indication from the artefact collection from salvage excavations to suggest that the 1845 school was used for church-related events. The artefact collection contained no religious artefacts and no items that could be linked to a church event.

4. Building Settlements, towns and cities

Land tenure

What evidence is there from the subdivision of the land during this time? Are fence lines evident separating the allotments?

No evidence was found during test or salvage excavation of fence lines or markers to separate the allotments from this period.

<u>Utilities</u>

Do wells or cesspits exist on the site related to the 1840s dwelling (Structure H)?

No wells or cesspits were uncovered on the site related to Structure H. Only Pier A and Strip F were located within the boundaries of Lot 85 and no evidence was found of Structure H or any related outbuildings.

Do wells or cesspits exist on the site related to the 1845 school (Structure F)? How were these facilities adapted over time?

No wells or cesspits were uncovered during test or salvage excavation related to the 1845 school. It is possible that Structure G functioned as a privy however this area is outside of the development footprint being within the curtilage of the retained 1909/1912 school and therefore not subject to archaeological investigation.

Accommodation

What remains of the structure of the 1840s dwelling (Structure H)? How was this building constructed? Is it possible to date the construction of this building? Was the building modified over time?

Structure H was located on the historic allotment 85 which was only investigated in Pier A and Strip F. Pier A found that this area had been truncated to the A2 horizon and therefore there is a limited potential that relics associated with this building would survive.

Is there any evidence to suggest that the school (Structure F) was also used for accommodation?

Very little evidence was found pertaining to Structure F, with only limited structural remains found (see below). No deposition was found associated with this relic and therefore it could not be determined whether Structure F was used for accommodation.

The artefact assemblage does not contain personal items such as toothbrushes, hairbrushes, combs or sewing related items which would suggest accommodation on the site. There are fragments from a number of teacups, saucers and small plates in the collection, yet these could have simply been used by day staff at the school and are not necessarily indicative of domestic occupation.

6. Educating

Education

What remains of the 1845 school (Structure F)? How was this building constructed? Is there any evidence to suggest that the 1845 and 1860 school (Structure M) co-existed? What can be learnt about education in this period from the archaeological record?

Is there further evidence to suggest that the foundation found in Trench 2, foundation [024], was in fact part of the c1845 school building (Structure F)? To what depth do these remains survive?

Test excavation and salvage excavations only uncovered a very small portion of the area of the c.1845 school (Structure F) and therefore the evidence pertaining to this structure is fragmentary. A sandstone foundation [024] was found in Test Trench 2 which was identified as potentially part of Structure F. While sandstone foundations were also exposed in Pier C [240] and Pier B, Strip G and the Stairwell [201]/[295] which may also relate to this structure. Reconsidering the documentary evidence, two alternate interpretations of the fragmentary physical evidence can be hypothesised. This is dependent on whether these foundations are considered part of the c.1845 building or the later 1860 school which were roughly in the same location and as there is only a 15 year difference between the structures, the technology used in these foundations cannot be used in their dating.

The possibility that the later 1860 school reused the c1845 school should be considered. Firstly, it is noted that the dimensions of the c1845 school are roughly the same as the Teachers' residence of the 1860 school. The teachers' residence (Structure N) does not appear on any of the historic plans and therefore the floor plan of the identical school at Cooks Hill, still standing, is integral to this analysis (Figure 2.9; Figure 2.11). This floorplan indicates that the two wings of the school building were identical in size being roughly 40x20 feet; the 1886 plan describes this wing as 42x22 feet (Figure 2.18). The 1852 crown plan of the c.1845 school (Figure 2.6) indicates that the original school was roughly 45x22 feet. These plans have been overlaid to document this comparison (Figure 5.3). It is clear that the roof of the c.1845 school was hipped with the chimney at the rear as shown in the 1849 painting (Figure 2.5) whereas the later teachers' residence had a gable roof with dormer windows and front and rear chimneys (Figure 2.10; Figure 2.13-Figure 2.14). If these were the same building, it is clear that the roof would have been replaced. A photograph from 1870 of the 1860 school indicates that the front windows of the teachers' wing (on the left) were smaller and further apart than those of the school room wing also suggesting that the 1845 building was adapted into the new school.

The reuse of the earlier school in 1860 as the teachers' residence makes sense as the building was only 15 years old at the time. Further corroborating evidence is that this part of the building fell into disrepair by the mid-1880s and was demolished with the remaining school building retained into the early 20th century. If this is correct, then foundation [040] (Test Trench 2) and [315] in Pier E may be part of either the original or rebuilt eastern foundation of the c.1845 school (Structure F) and later used as the eastern foundation of the Teachers' Residence (Structure N). Foundation [240] in Pier C may have been part of the western foundation (only a small portion of this foundation was exposed) and foundation [024] (Test Trench 2) was part of an internal wall within the school. It should be noted that this sandstone foundation (Test Trench 2) was on a slightly different alignment to the other sandstone foundation in the trench [040]. Foundation [024] was constructed with a shell lime mortar, rich in oyster shells, suggesting that it is an earlier mortar compared to that of foundation [040], which had a finer shell lime mortar. For this reason, it is proposed that the eastern wall of the school had to be partly rebuilt in 1860 to connect the teachers' residence to the school rooms. See Figure 5.4.

It is also possible that the c.1845 school was completely demolished in order to construct the new school in 1860. Overlaying the c.1852 plan based on the street and later allotments provides a different interpretation of the foundations found during archaeological investigation (Figure 5.5). If this overlay is correct, foundation [024] (Test Trench 2) maybe part of the eastern wall of the c.1845 school while foundation [201]=[295] (Pier B, Strip G and Stairwell) may have formed the eastern wall and potentially property wall separating the school from Allotment 85 next door. If this is correct, foundation [240] (Pier C) would form part of an internal foundation.

Unfortunately, foundation [024] was fragmentary in nature and significantly disturbed by later service trenches and construction while only small sections of the other foundations were exposed during salvage excavations. The preservation of the archaeological record for this period was poor and no deposition was identified with any of the foundations and no artefacts were found associated with education. In this way, no further information could be gained regarding education in this period from the archaeological record.

Is there any evidence to suggest that the dwelling on Lot 85 (Structure H) was used by the school?

As discussed above, no evidence was found of Structure H and this area was found to be heavily truncated.

Test excavation failed to identify a demolition layer associated with the destruction of this building, is there any evidence to suggest why this is the case? Is there any evidence to indicate what this building was constructed of?

No definitive demolition layer was found within Zone 2. Some fills were identified as containing building material and therefore as potentially demolition fills but none that can be associated with the demolition of the c.1845 school. If the school was recycled into the 1860 teachers' residence, then only minimal demolition debris would have been generated. Several later fills have been potentially identified as associated with the demolition of the teachers' residence, such as fill [221] in Pier C, fill [284] in Pier D and fill [305] in Pier E. These all contained sandstock brick fragments suggesting this was the primary building material.

8. Developing Australia's cultural life

Domestic life

Do occupation deposits survive relating to the dwelling on Lot 85 (Structure H)? What evidence is there of the lives of the people that occupied the dwelling? As discussed above, no evidence was found of Structure H and this area was found to be heavily truncated.

Is there any occupation deposits related to the school from this period?

Due to the poor preservation of the archaeological record for this period, no deposition, including occupation deposits, were found associated with the school during archaeological investigation.

Religion

Is the connection between the School and the Church of England represented in the archaeological record?

No evidence was found during archaeological excavations to indicate religious activities on the site. This connection is not represented in the archaeological record.

Social Institutions

Is there any evidence to suggest that the school was used for other social events outside of its function as a school?

No evidence was found of the social events that were carried out on the site during this period.

Sport

What evidence is there for the location of the early playgrounds provided to the students?

No evidence was found of the early playgrounds. Only limited archaeological investigation occurred in the location of the early playgrounds.

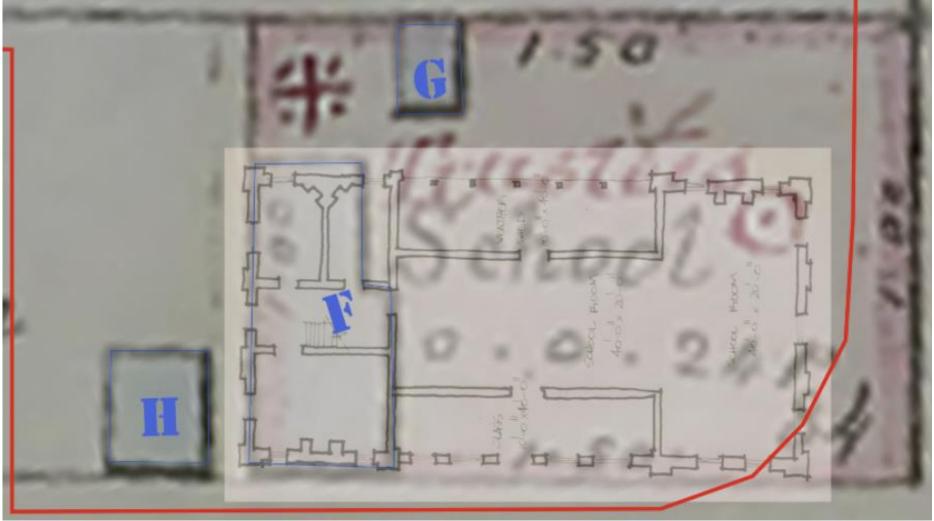
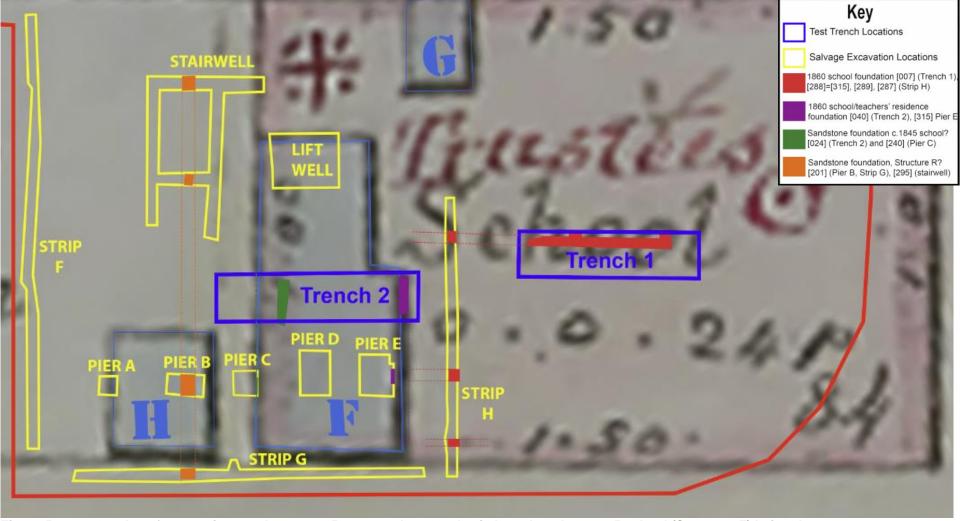


Figure 5.3 Overlay of the 1860 floorplan over the 1850 plan of the original school. Alignment of the 1845 school has been adjusted to match the location of the later Teachers' residence (Structure N).

Overlay by Vetta using 1860 floorplan (Figure 2.9) and 1852 Crown Plan (Figure 2.6).



Overlay of excavation results over 1852 crown plan. Overlay is based on the c.1845 school (Structure F) being the same structure as the later Teachers' Residence (Structure N) (Figure 5.3).

Overlay by Vetta using 1852 Crown Plan (Figure 2.6).

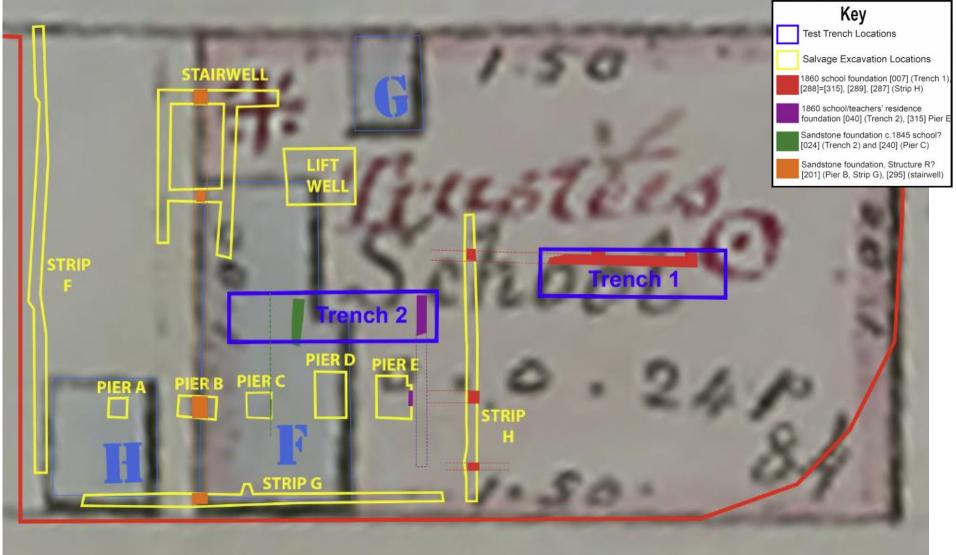


Figure 5.5 Overlay of excavation results over 1852 crown plan. Overlay based on street alignment.

Overlay by Vetta using 1852 Crown Plan (Figure 2.6).

5.2.5 Second Christ Church School and residential development (1850s-1891)

A new school building was in construction on Lot 84 by 1859 and would operate for the next 50 years as the second school building (Structure M). During this time four terrace houses (Structures I, J, K and L) were constructed over Lots 80 and 82 with evidence of a bakery and shop constructed on Lot 82 although the location of these buildings is unknown. During this period, a shop was also constructed on Lot 85. Later in the 1880s, with the resumption of Lot 82, the terraces were demolished, and new school lavatories were constructed (Structures T and U).

3. Developing local, regional and national economies *Commerce*

What evidence is there for the shop that existed on Lot 82? Is there any indication that it was used for other purposes aside from a bakery? Can a construction date for the building be ascertained from the archaeological record?

No evidence was found for the shop located on Lot 82. Test excavation in this area, Trench 4, and salvage excavation Trenches L, M, N, Q, revealed that this area had been truncated to the natural A2 soil horizon most likely following the school's acquisition of Lot 82. This area was also heavily disturbed by the introduction of services for the multiple phases of water-closet and toilet blocks in this location.

Is there any evidence for the shop/building (Structure R) on Lot 85? When was this building constructed? What types of businesses operated from this shop?

Foundations potentially associated with Structure R were found in Pier B and Strip G [201] and in the Stairwell [295]. These were constructed of sandstone with a large sandstone threshold stone, [217] found in Strip G. Reconsidering the historical documentary record, this building was most likely constructed during the 1870s as it does not appear to have been constructed at the time the school was photographed in 1870 (Figure 2.10). Photographs from the late 1870s-early 1880s (Figure 2.13-Figure 2.14) confirm the identification of the building as being constructed of iron in the 1886 plan (Figure 2.18). The historic photographs also show that the wide front door of the building was set to the west of the structure and would be in line with the threshold stone [217] identified in Strip G.

The sandstone foundations [201], [295], appear to be far more robust than what would needed for an iron building and it must be considered whether this building recycled the foundations of a previous structure or boundary wall, such as the c.1845 school (Structure F). Unfortunately, not enough of these foundations were exposed during archaeological investigations at the site to clarify the dating of these features.

The artefact assemblage also did not contain evidence of what type of business may have operated from this building. This area had been considerably truncated and such evidence may have been removed.

Events

It is known that the 1860 school building was used for events associated with the church, is this represented in the archaeological record?

No indication was found in the archaeological record of the events carried out in the 1860 school by the church.

Industry

Historical research has not been able to precisely locate the bakehouse that was once present on Lot 82, is there any evidence to suggest where this building was constructed and at what date? What evidence is there of how this bakehouse operated?

No evidence of this nature was found within Test Trench 4 or Trenches M, N and Q which were located in Lot 82. This part of the site was significantly truncated following the school's possession of the site, presumably to make level ground for the children's playground; this activity likely removed evidence such as the bakery. Archaeological investigation revealed that the land here had been cut down to the level of the natural A2 soil horizon which was dissected by various later services and structural remains associated with the toilet facilities located in this general area from the late 19th century to the present day. These later services have also largely impacted the archaeological record and may have removed evidence of a bakehouse or similar structure.

4. Building Settlements, towns and cities

Land tenure

What evidence is there for the subdivision of land during this period? How was the school separated from the neighbouring properties?

No specific evidence was found during archaeological investigations to suggest how this land was subdivided.

Utilities

Do any cesspits or wells survive from the terraces located on Lots 80 and 82 (Structures I-L)? What other utilities relate to these structures?

No wells or cesspits were found during test excavation or salvage excavations relating to Structures I-L. Part of a dish drain [263] dating to the mid-late 19th century was found in Trench R that most likely managed run off from the terraces at the rear of Lot 80.

Are any utilities evident for the shop on Lot 85 (Structure R)?

No utilities were found on Lot 85 associated with Structure R however this area was only partly investigated during salvage excavations.

What utilities were afforded to the school and teachers' residence (Structures M and N) during this period?

Although several service pipes were found during test excavation in the location of the teachers' residence (Structure N), stratigraphically these seem to be part of later upgrades to the utilities on the site and not associated with the second Christ Church School. No services were found during salvage excavations that can be associated with this phase of occupation.

What evidence remains of the new lavatories (Structures T and U) constructed on Lot 82 for the school? How did the construction of these buildings affect earlier features?

The Structures T and U were only investigated during test excavation. Evidence of earlier lavatories were only found within Trench 4 in the way of two rectangular structures [058] and [060] with the former being interpreted as a cesspit. Both structures were constructed out of multiple types of bricks and structure [060] showed evidence of multiple types of mortar suggesting repair and modification to the lavatories. These have been interpreted as being from later changes to the school lavatories.

Accommodation

What evidence is there of the four terrace houses (Structures I-L) that were located on the site? Is it possible to date these structures? How were these buildings constructed? What evidence is there of renovation and change in these buildings?

No evidence was found of Structures I, J, K or L during test excavation or salvage excavations. The trenches placed to investigate these buildings found that this area had been truncated to the level of the natural A2 soil horizon indicating that the upper topsoil and features had been removed. It is likely that these works were carried out when the school acquired these allotments in in 1883 and demolished the houses. During this time, modifications were made to this part of the site for the installation of lavatories as well as levelling for the students' playground. It is believed that archaeological evidence of these houses was most likely destroyed as part of these works.

Is there any indication that the shop on Lot 85 (Structure R), was also used for accommodation?

Excavations within Lot 85 did not find any evidence to suggest that Structure R was also used for accommodation.

Does anything remain of the teachers' residence (Structure N) in the archaeological record? What can be learnt about how this building was constructed?

Test Trench 2 and Piers D and E were located within the area of the teachers' residence (Structure N). Within Trench 2, the western wall of the school building (Structure M) was uncovered, sandstone foundation [040], with a small section of the wall also exposed in Pier E, [315]; this foundation also formed the eastern wall of the teachers' residence. Overlays of historic plans from 1886 and 1896 with the excavation plan reveal that the location of foundations [040] and [315] sit accurately within the location of that wall as posed by these plans with [315] aligning to one of the buttresses shown in the 1896 plan (Figure 5.7-Figure 5.8). The location of the western wall of the teacher's residence was more difficult to discern in the archaeological record.

Another sandstone foundation, [024], was recorded to the west of foundation [040] in Trench 2 however the alignment of this foundation as well as the mortar was different to foundation [040] and therefore has been interpreted as belonging to the c1845 school building (Structure F). Likewise, the small fragment of foundation [240] found in Pier C also potentially relates to this structure.

As discussed above, it is possible that the c1860 teachers' residence recycled walls or foundations from the earlier building. The teachers' residence is not depicted to scale on any of the historic plans hence sketches and photographs have been used to determine the width and shape of the building which is believed to be the same size as the eastern wing of the main school building (Structure M), making the building appear symmetrical. This is further supported by the layout of the sister school on Darby Street (St John's) which was built in 1857 and also contains a teacher's residence measuring 24ft in width while the eastern wing measures 22ft ½inch in width.¹²³

The Crown plan of the c.1845 school (Structure F; Figure 2.6) depicts the school building as approximately 22ft wide and 45ft long while the 1886 plan indicates that the east wing of the 1860 school was 22x42ft (Structure M, Figure 2.18). If it

_

¹²³ John Carr, pers comm 9/12/2015; measurements taken by Carney 17/02/2016

is assumed that the teachers' residence (Structure N) was the same size as the east wing, then the teacher's residence was of very similar dimensions to the c.1845 school building and it is possible that the building was recycled. This theory is complicated by the location of the c.1845 school building which is depicted as being positioned along the western boundary of the allotment (Figure 2.6; Figure 2.8) compared to the teachers' residence was inset from the boundary (Figure 2.17). In this way the documentary evidence does not support the proposition that the c.1845 school and the 1860 teacher's residence were the same building however does not exclude the possibility that the building was recycled or moved to create the 1860 teacher's residence.

Assuming that the teachers' wing of the school was a similar size to the eastern wing of the building, that is 20ft wide (22ft on the 1886 plan), this distance from the 1860 foundation [040] (Trench 2) would place the eastern wall of the teacher's residence (Structure N) to the west of foundation [024] within the location of trench cut [184] (Trench 2) and foundation [240] in Pier C. In this way, it is possible that trench cut [184] is the location of the robbed-out foundation of the teachers' residence; this cut was also approximately 45cm in width, the same size as foundation [040]. This could also explain why only a small section of this foundation was found in Pier C, as this may represent the only part of the foundation which survives in situ. If this is the case, the space in between wall foundation [040] and trench cut [184] within Trench 2, and between foundation [240] (Pier C) and [315] (Pier E), would represent the interior of the residence (Figure 5.9). The fills within this space in Test Trench 2 were consistent with demolition fills and later services while in Pier D, demolition fill [284] sat above a redeposited natural sand; no evidence was found of occupation deposit in this space during either test or salvage excavations.

It is also likely that the northern part of this building does not survive in the archaeological record. The Lift Well, located to the north of Test Trench 2, which was also within the footprint of the Teachers' residence failed to find any evidence of the structure.

Trench 2 uncovered a mortar surface ([032], [039], [162] and [161]) and a subsurface of mustard yellow sand ([038], [039], [187]), can the function of these deposits be identified?

A mortar/render surface [039]=[032] was found butting wall foundation [040] in Test Trench 2. It is unclear what this surface was used for or whether in fact it was used as a surface. This layer of mortar was only found in the eastern part of the trench near wall [040] and was not evident around wall [024] or cut [184]. A yellow orange sand [305] was found in Pier E near foundation [315] however this was loose and not useful as a surface. It is possible that surface [039]=[032] was the result of lime leaching from the demolition fill [175] that sat above this surface however it was noted that surface [039]=[032] was relatively flat and level with flecks of charcoal, making this seem less likely.

This surface may have also been created during the construction or renovation of the residence and may be the result of mixing the mortar or render, there again the smoothness of the surface does not lend itself towards this hypothesis. Alternatively, this surface may have been used in association with the floor in the building or as a capping material for the sand below. It is unlikely that this mortar acted as a ground surface within Structure N. The only known floor level for the 1860 building was shown on the 1896 detail survey plan (Figure 2.24) which indicates that it was 78.1 feet, or 23.80m, this is some two meters above the level of the mortar surface which ranged from 21.77-

21.86m.¹²⁴ Although the floor level of the teachers' residence may have been different to the main school, it is unlikely that it would explain such difference in the levels. Unfortunately, salvage excavation was not able to clarify the nature of these fills further as comparative deposits were not found in the Pier Trenches located to the south of Trench 2, Piers D and E.

The sandstock rubble feature [033] found in Test Trench 2 was possibly also associated with Structure N, however this feature was not found during salvage excavations. This feature was relatively linear and was overlaid with mortar surface [039]=[032] and underlain by mortar surface [161]. It is unclear what the purpose of the feature was, however it was clearly associated with the mortar surface. This may have been a repair or even some form of levelling used for this subfloor surface. This mortar surface also sat above a well-defined layer of mustard yellow sand, fill [031]=[038], similar to fill [187] in the western part of the trench. These fills were similar to fill [285] found in Pier D and fill [306] found in Pier E however these could not be definitively linked to the fills found in Trench 2; no further interpretation of these fills were possible.

Is there any evidence for the accommodation of students in the school building (Structure M)? How did this change over time?

The foundations of Structure M were found in Test Trenches 1 and 2 as well as in Pier E and Strip H. Foundation [007] (Trench 1) was the same as foundation [289] (Strip H) and identified as being part of the north wall of the school building with foundations [010] and [011] (Trench 1) being return walls also part of this structure. Foundation [040] (Trench 2) being the shared wall between the 1860 school. Structure M. and teachers' residence. Structure N. Foundations [288]=[315] (Strip H and Pier E) were part of the front wall of the school and foundation [287] (Strip H) part of the verandah.

Neither test excavation nor salvage excavation found any deposition related to the use of the school. In this way, it could not be determined from the archaeological record whether the school provided accommodation for the students.

5. Building Settlements, towns and cities

Is there any evidence for the lives of the teachers that lived and worked on the site?

As discussed above, the interior of the teacher's residence was only investigated in Test Trench 2 and within Piers D and E. No deposition was found in any of these trenches as it appears that this area was significantly disturbed during the demolition of the structure in the early 1880s and later by the installation of services in this area.

What evidence is there for the accommodation of workers within the bakery on site? What can be learnt about the way these workers lived and worked on the site?

¹²⁴ This difference in levels may be partly explained by errors in the 1896 plan. The Girls' Weathershed (Structure Q) is depicted on this plan as having a floor level of 77.8 feet (23.71m) however today this level is known to be 22.99m, giving a discrepancy of 0.72m between the 1896 plan and the current survey. Even with this error, there would be more than a meter difference between the mortar surface found in Trench 2 and the known height of the school floor.

As no evidence was found of the bakery during archaeological investigation, no further data could be obtained regarding the lives of the bakery workers.

6. Educating

Education

What remains of the second school building (Structure M)? What can be learnt about education in this period from the archaeological record?

As stated above, some of the foundations of the second school building were found during test excavation, foundations [007], [010], [011] and [040], (Trenches 1 and 2) as well as during salvage excavation, foundations [315] (Pier E), and foundations [287], [288], [289] (Strip H). In Trench 1 these were substantially deep surviving about 1m in height and constructed of sandstone. It is evident that the school contained deeper foundations here in Trench 1 in order to accommodate the slope of the land. The start of two return walls, [010] and [011], were also identified in Trench 1 along the northern side of foundation [007]. Foundation [010] appears to mark the start of the eastern wing of the building (Structure M) while foundation [011] is located in line with the later boys' lavatory shown on a sketch of the school in 1892 and again on a plan from 1896 (Figure 2.23-Figure 2.24). Overlays of the archaeological data with the historical plans also indicates that this is the case (Figure 5.8-Figure 5.9).

Unfortunately, the artefact assemblage does not reveal a great amount of detail about the educational facilities on the site. There are very few personal affects and no toys that can be associated with children. There are only two small items which could be associated with a school. There was a small fragment of a slate board (BCNx0210, Context 231) as well as a fragment from an Eagle "Mammoth" red pencil (BCNx0212, Context 232).

What evidence remains of the segregation of male and female students from this period?

As no deposition was found relating to this structure, no determination could be made about the segregation of male and female students from the archaeological record.

No evidence was found within Trench 2 of the original location of the girls' weathershed (Structure Q), is there evidence elsewhere of its original location?

No evidence was found during test excavation or salvage excavation for the original location of the girls' weathershed (Structure Q). Foundations [230] and [208] found in Strip G most likely relate to the later location of the weathershed in the southwest corner of the site, from where the weathershed was recently removed.

8. Developing Australia's cultural life

Domestic life

Do occupation deposits survive relating to the dwellings on Lots 80 and 82 (Structure I-L)? What evidence is there of the lives of the people that occupied the dwelling?

No evidence was found of the dwellings (Structures I-L) or associated occupation deposits within the trenches placed to test this part of the research design. Most likely such evidence was removed when the site was truncated and levelled for use by the school in the early 20th century.

Is there any evidence for the brick building (Structure P) located behind Structure K? Was this building used as a kitchen? Does any archaeological

material remain in this structure that can be linked to the occupants of the terraces?

Test Trench 3 and salvage trenches L, K and P were located in order to investigate Structures P and K. These trenches confirmed that this part of the site was heavily truncated following the demolition of these buildings, no archaeological evidence remained of Structure P or Structure K.

Do occupation deposits survive relating to the teachers' residence (Structure N)? What evidence is there of the lives of the people that occupied the dwelling?

No occupation deposits were uncovered during archaeological investigations at the site relating to the Teachers' Residence, Structure N. Either these deposits were not created or otherwise they were removed during later works on the site. This question cannot be answered by the data provided from the limited archaeological work conducted to date.

Is there any occupation deposits related to the school from this period?

No occupation deposits were found in during test or salvage excavations relating to the school, Structure M. Either these deposits were not created or otherwise they were removed during later works on the site. This question cannot be answered by the limited data provided from the archaeological works to date.

Religion

Is the connection between the School and the Church of England represented in the archaeological record?

No evidence to connect the school to the Church of England was found in any of the trenches during test excavation or salvage excavations.

Social Institutions

Is there any evidence to suggest that the school was used for other social events outside of its function as a school?

Archaeological investigations found no evidence of the social events that were carried out at the school. Such data was not retained in the archaeological record.

What evidence is there for the location of the early playgrounds provided to the students?

An earlier asphalt surface was found in Test Trench 2, [179], predating the current asphalt surface as well as layers of gravel that may also have been used as a surface [177] and [021]=[002]. These fills were not replicated in the salvage excavation programme.

It is known from documentary research that several events occurred in relation to the resurfacing of the playground areas, some of which may correspond to the strata identified during test excavation. During the 1880s several complaints were made regarding the state of the playgrounds and in 1884, when refurbishments were made to the main school, there was a call to also asphalt the playgrounds. 125 This work had still not been carried out in 1886¹²⁶ and it is unclear if this asphalting ever took place as the state of the playgrounds was still

¹²⁵ Newcastle Morning Herald, 24 October 1884, p.

a problem in the early 20th century (Figure 2.28) and appears to also have undergone repairs during this period.

No indication of earlier surfaces was found in Zone 3.

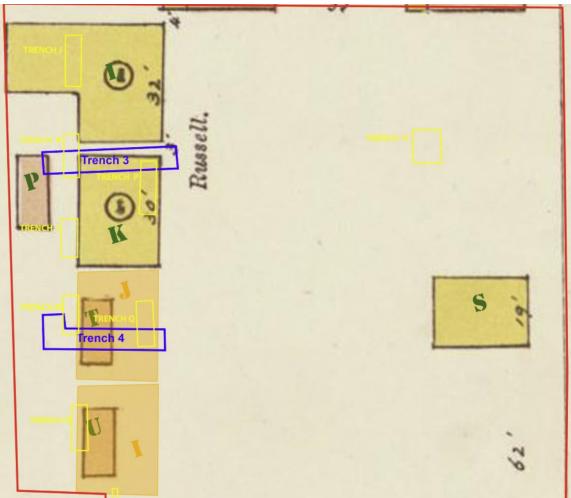


Figure 5.6 Overlay of the locations of test excavation (blue) and salvage excavations (yellow) on the 1886 plan (Figure 2.18). The location of the 1860s terraces (structure J and I) are estimated.

Study site outlined in red. Overlay by Vetta.

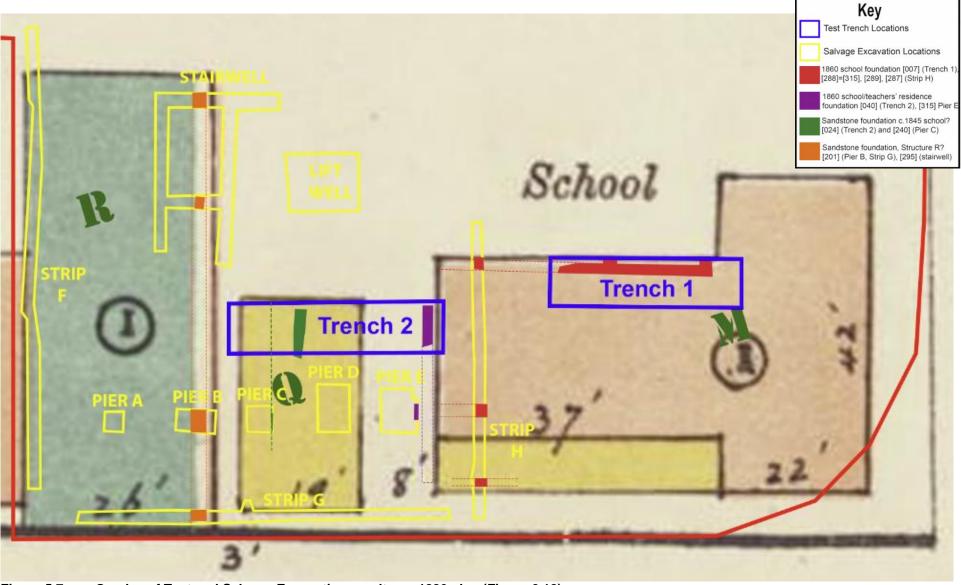


Figure 5.7 Overlay of Test and Salvage Excavation results on 1886 plan (Figure 2.18).

Overlay by Vetta.

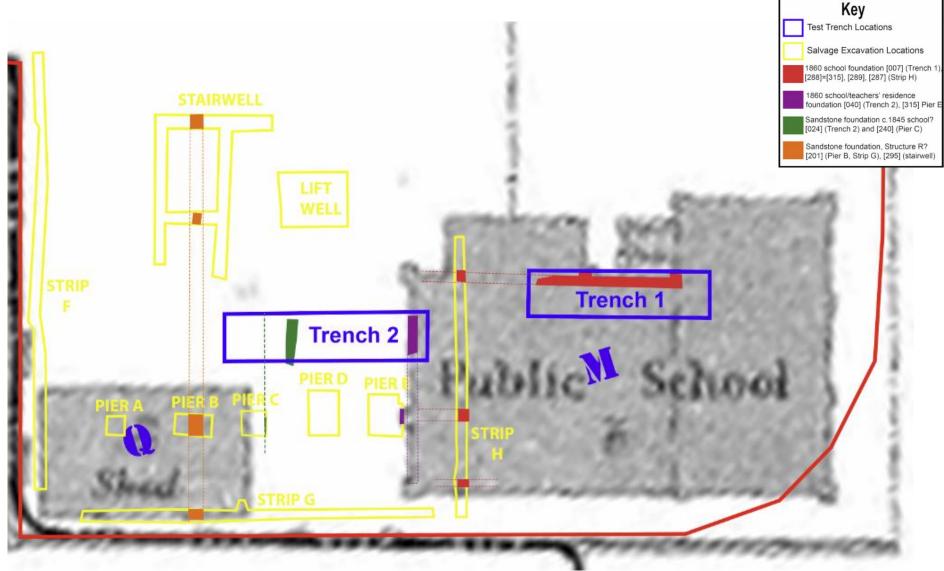


Figure 5.8 Overlay of Test and Salvage Excavation results on 1896 plan (Figure 2.24).

Overlay by Vetta.

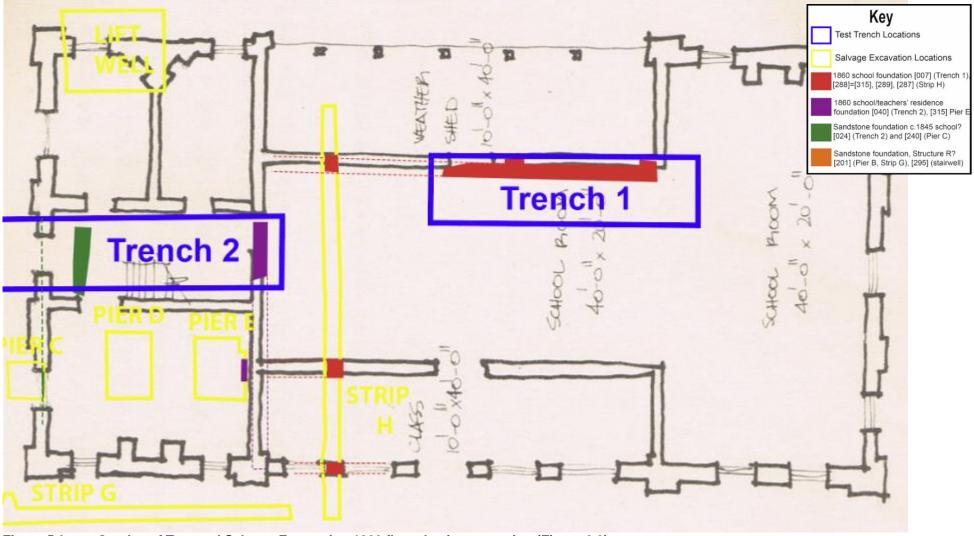


Figure 5.9 Overlay of Test and Salvage Excavation 1860 floorplan interpretation (Figure 2.9).

Overlay by Vetta.

5.2.6 Newcastle East Public School (1891-1908)

During the late 19th century, the allotments surrounding the school were resumed for use by the school. New playgrounds were established, the weather sheds were relocated and a new shed was constructed (Structure V).

4. Building Settlements, towns and cities

Utilities

Is there any indication of the change in utilities during this period? Is there evidence to suggest when the school was connected to the town water?

Many services were found in Trenches 2, 3 and 4 during test excavation the dating for which was not always apparent. In Trench 2 these services most likely postdate 1908 and are related to the construction of the new school as these services all cut through strata related to the demolition of the 1860 school, Structure M. Likewise, the services found in Trench 3 and 4 also appear to be from the latter period as they were mostly found immediately below the current bitumen surface.

No archaeological data was uncovered during salvage excavations that can further answer this question.

6. Educating

Education

Can any changes to the approach to education during this period be identified from the archaeological record? What can be learnt about education in this period? Is the change from denominational to secular education evident?

Only fragmentary structural remains of the school buildings were found during test excavation and salvage excavations. The archaeological data recovered was not enough to respond to this question.

What was the function of Structure V? When and how was this building constructed?

No archaeological evidence was found of Structure V.

Is there any indication that the old school building and the 1908 school building were used in tandem?

Certainly, the two buildings were able to co-exist. The location of the 1860 school building (Structure M) was able to be confirmed through test and salvage excavations. From this location, it is clear that both buildings could be standing at the same time however there was no direct evidence to suggest that they operated together and it is more likely that once the new building was completed in 1909, the earlier building was demolished.

5.2.7 New school building and 20th century occupation (1908-present)

In 1908, the new school building was constructed. Several other buildings were also constructed in the 20th century however most significant was a potential air-raid shelter built in the 1940s (Structure W).

4. Building Settlements, towns and cities Utilities

Can any of the service pipes found in Trench 2 be dated? What structure can be associated with pipe [037]?

No further archaeological works occurred within the immediate vicinity of Test Trench 2 that could provide such information.

6. Educating

Education

What impact did the construction of the new school building have on previous surrounding features?

The construction of the new school building in 1908/1909 appears to have had only a minor impact on archaeological features at the southern end of the site. The school foundations are 1-1.2m above the level of the natural A1 soil horizon in this location (as found in Test Trench 1) and approximately 0.2m above the level of the remaining foundations of the 1860 school (Structure M). It is apparent that following the demolition of the 1860s school, the ground level in this part of the site was built up by fills such as [004] and [006] in Test Trench 1 preserving the remaining features in this location.

It should be noted that no evidence of the teachers' residence (Structure N) was found in the lift well trench during salvage excavations and this area appeared to be significantly truncated. This truncation was most likely to have occurred with the construction of the new school which was set below the playground level at this time.

7. Governing

Defence

Does any evidence remain of the building described as an air-raid shelter (Structure W)? Was it constructed of concrete? When was this building constructed? What can be learnt about how this structure was used? Was the structure below or above ground? How has this structure affected earlier archaeological features?

The location of Structure W was investigated in Strip H and Pier E during salvage excavations. No evidence of this building was uncovered. The archaeological record could not answer this question.

8. Developing Australia's cultural life

Sport

What changes have been made to the playground areas during this time?

Evidence from the archaeological investigations at the site indicated some amount of re-surfacing and repaving of the playgrounds during this period.

During test excavation, dark-grey sand [166] (Trench 2), was found above all demolition layers and therefore post-dated the last major demolition phase of Structure M in 1909. This fill may be remnant of the sand delivered free of charge to the school from the excavations at Royal Newcastle Hospital c.1913.¹²⁷ Also in Trench 2 there was evidence of an earlier asphalt surface [179] from a similar period which was later overlaid by a layer of road base [177] and later a grey gravel [021] before again being covered in bitumen [020]. This grev gravel and bitumen was also evident in Trench 1. [002] and [001] while a similar road base layer topped with bitumen was identified in Trenches 3 and 4 ([052]=[101]).

¹²⁷ Suters Architects, (June 2013), 7

Similar data was also obtained during salvage excavations. A bitumen surface [280] was uncovered in Strip G which was from the later use of this area, following the relocation of Structure Q in the 1890s. The Stairwell trench also found two separate asphalting events [331] and [338] reflecting the repaving of the school yard.

6.0 REVISED ASSESSMENT OF SIGNIFICANCE

6.1 METHODOLOGY

The current standard for assessment of significance of heritage items in NSW is the publication 'Assessing Significance for Historical Archaeological Sites and 'Relics' produced by the Heritage Branch of the NSW Department of Planning (December 2009). This production is an update to the NSW Heritage Manual (1996), and the criteria detailed therein are a revised version of those of the Australia ICOMOS Burra Charter, formulated in 1979, which was based largely on the Venice Charter (for International Heritage) of 1966.

Archaeological heritage significance can also be viewed in light of the framework set out by Bickford and Sullivan in 1984. Bickford and Sullivan, taking into consideration the "archaeological, scientific or research significance" of a site posed three questions in order to identify significance:

- 1. Can the site contribute knowledge which no other resource can?
- 2. Can the site contribute knowledge which no other site can?
- Is this knowledge relevant to general questions about human history or other substantive problems relating to Australian history, or does it contribute to other major research questions?¹²⁹

These questions have been broadly used to shape the response to the heritage significance criteria as described in Section 6.2 and 6.3.

The criteria and the definitions provided by 'Assessing Significance for Historical Archaeological Sites and 'Relics' have been adhered to in the revised assessment of the cultural significance of the archaeological site at 58 Bolton Street Newcastle. An assessment of significance, under each of the criteria, is made possible by an analysis of the broad body of archaeological sites previously excavated both locally and elsewhere, in conjunction with the historical overview of the study site in particular.

The Criteria used to assess Heritage Significance in NSW are the following:

Table 6.1 Criteria for Assessing Heritage in NSW

Criterion	Description	Significance
Criterion A	An item is important in the course, or pattern, of NSW's or the local area's cultural or natural history	State significant or locally significant
Criterion B	An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's or a local area's cultural or natural history	State significant or locally significant
Criterion C	An item is important in demonstrating aesthetic characteristics and/or a high	State significant or locally significant

¹²⁸ Bickford and Sullivan (1984)

-

¹²⁹ Bickford and Sullivan (1984), p.23-4

	degree of creative or technical achievement in NSW or the local area	
Criterion D	An item has strong or special association with a particular community or cultural group in NSW or a local area for social, cultural or spiritual reasons	State significant or locally significant
Criterion E	An item has potential to yield information that will contribute to an understanding of NSW's or a local area's cultural or natural history	State significant or locally significant
Criterion F	An item possesses uncommon, rare or endangered aspects of NSW's or a local area's cultural or natural history	State significant or locally significant
Criterion G	An item is important in demonstrating the principal characteristics of a class of NSW's or a local area's - cultural or natural places; or - cultural or natural environments	State significant or locally significant

The following assessment deals only with sub-surface archaeological features and deposits. The built environment is not considered in this study.

6.2 IDENTIFICATION OF SIGNIFICANCE

Archaeological Research Potential (NSW Heritage Criterion E)

Several phases of the occupation of the site were present in the archaeological record. The earliest phase of the site relates to the construction and use of a government building (Structure A and B) and slab huts pre-dating Armstrong's 1830 plan of Newcastle (Structures C, D, E). Test excavation and salvage excavations found that the ground levels in the southern part of the site (in the location of Structures A and B) have been built up by several filling events and that the natural A1 soil horizon, onto which this structure was most likely constructed, survives intact. Therefore, there is a high potential for relics related to these structures. Should the remains of these structures and related deposition exist within the archaeological record, this would be considered a rare and unique data set related to the early use of Newcastle by Government officials, convicts and later free-settlers. Relics with this research potential, would be considered of State significance according to this criterion. This area (Zone 1 in this report) was not impacted on by the current development and therefore this potential archaeological site has been retained in situ.

Another early residence present on the site was an 1840s-1850s dwelling (Structure H) which once stood on part of Lot 85. Little is known about this dwelling and therefore any archaeological material related to this structure would have significantly contribute to the history of this building which was constructed as part of the early subdivision and settlement of Newcastle. Based on the reassessment of the archaeological potential following the results of test and salvage excavations, it is unlikely that relics associated with this building survive on the site. If any part of the building were to remain, the archaeological data would be fragmentary and of limited research potential, and therefore may not meet the threshold for state significance.

From at least the 1840s, the study site was used by the first school in Newcastle. Though there is some speculation that the school utilised the site before the

construction of the first purpose-built school in 1845, no evidence of this nature was found during archaeological investigations at the site. Upon construction of the 1845 school building, the school continuously occupied the site for almost 150 years, occupying three different buildings and numerous outbuildings during this time. This continuous occupation of the site is considered rare and would have created a unique archaeological record in term of research potential. Archaeological excavations found only fragmentary structural remains of the c.1845 school (Structure F) and no associated deposition that could be attributed to the use of this building. The western and northern part of the structure was likely significantly impacted by later levelling works in the area. As the archaeological record indicates that the evidence relating to this building is fragmentary and mostly limited to structural relics, these are considered to have limited research potential and are unlikely to provide rare or scientific data related to the use and occupation of the building. Only small portions of this part of the site were impacted by the current development, as such it is expected that further remains are present within this area (Zone 2); such material would be considered locally significant according to this criterion.

The site also retains a moderate to high potential for relics related to the 1860 school, this was verified by both test and salvage excavations which found intact structural remains related to the school. This structure was standing for almost 50 years and is likely to have been heavily modified over this time. Archaeological features associated with this structure also retain research potential related to a mid-19th century education facility, modified to meet new education needs throughout its history. These are representations of an uncommon sample of school building template used in the region during the mid-19th century, however a complete example survives as part of the St Johns' complex in Cooks Hill (c.1857) which exhibits the same floorplan as that which was constructed on site. Archaeological works to date found that only structural features are represented archaeologically, and these have low research potential; these have been retained in situ. Archaeological material related to this structure and associated buildings is considered of local significance according to this criterion.

The northern part of the site was also occupied from the mid-19th century by a series of terraces and related commercial buildings. These structures have been completely removed by the later truncation and levelling of this area. This part of the site (Zone 3) retains no potential for significant material according to this criterion.

Associations with individuals, events or groups of historical importance (NSW Heritage Criteria A, B and D)

The potential for archaeological material related to pre-1830s structures on the site is considered unique and potentially representative of the evolution of Newcastle from a convict settlement to a flourishing town. Such material is early in the history of the New South Wales and considered of State significance according to Criterion A. Test excavation found that the original ground levels in this part of the site (Zone 1) are intact and there is a high potential that State significant relics related to these structures are present on the site. This area has not been impacted by the current development.

The study site was used for over 150 years as a primary school, this historical use had the potential to create an archaeological record containing over a century of data relating to education in NSW; such evidence was not found during test or salvage excavations. The prolonged use of the site as a school is representative of the changing nature of education in both Newcastle and the State and therefore the site is considered of State significance according to Criterion A. The long duration of

the school on site has also meant that the site retains strong associations between the local community and the school as some local residents may have attended it in their childhood, taught or worked there. This association is considered of local significance according to Criterion D however this is connection was not represented in the archaeological record. Likewise, the site's significance to some of the people who acted as teachers and headmasters at the school means the site, by this association, is also locally significant according to Criterion B.

Aesthetic or technical significance (NSW Heritage Criterion C)

The 1860 school, constructed on the site, is of a plan used elsewhere in the State, including Cook's Hill and East Maitland. This footprint, at least in part, was found to survive in the archaeological record and is representative of a distinctive architectural style used at the time. The study site is therefore considered of local significance according to this criterion.

Throughout the occupation of the site, the topography of the site has been significantly altered in order to overcome the significant slope of the land in this area. A series of levelling events have occurred on the site, mostly in the 1880s and 1890s, which has also seen the construction of several retaining walls. Archaeological investigations have found that the construction of the 1860 school building (Structures M and N) were the first attempts at making this ground level through the construction of deeper foundations in the east of the building and use of levelling fills in the west. This technological achievement is considered of local significance according to this criterion.

The current Vernon building (1908/1912) is not assessed here as it is an item of standing heritage and has been retained as part of the current development.

Ability to demonstrate the past through archaeological remains (NSW Heritage Criteria A, C, F & G)

Any archaeological material related to the pre-1830s structures that once stood on the site, including the Commissariat Clerk's residence and other slab huts, would be considered rare due to their early date and limited representation archaeologically, and also demonstrative of the changing nature of Newcastle from a penal colony to a free settlement. Relics such as these would be considered of State significance (Criterion A and F). Remains of the Commissariat Clerk's residence also have the potential to be representative of early 19th century government cottages and therefore would be considered State significant according to Criterion G. Although evidence of these structures were not uncovered during the recent archaeological work, the presence of the intact natural soil profile in the east of the site suggest that archaeological features related to these structures are likely to survive on the site.

The use of the site as an early school and the continuing occupation of the site by an educational institution for 150 years is considered unique however only structural remains have been identified in that archaeological record so far. Although remains from the 1840s have the potential to demonstrate the early development of education in NSW, archaeological investigations have found no evidence of deposition from this period and this relationship is not represented in the archaeological record.

The later 1860 school, is also demonstrative of school buildings from this date and it is known that similar types were built elsewhere in the region. Material relating to this building was found during archaeological investigations and are considered to be of local significance according to Criterion G. Although archaeologically this

phase of the school is limited to structural remains, the continuous occupation of this site as a school throughout the second half of the 19th century and into the 20th century demonstrates continuity in the archaeological record which is considered rare and of local significance according to Criterion F. This school building and associated outbuildings was operational for 50 years and demonstrates the changing approaches to education throughout this time; as such, archaeological material associated with these structures is of local significance (Criterion A).

Archaeological works at the site have found that archaeological material relating to the mid-19th century dwellings was completely removed following the redevelopment of this part of the site in the late 19th century and therefore this area does not retain archaeological significance.

6.3 STATEMENT OF CULTURAL SIGNIFICANCE

The study site is a multiphase site with the original use being for government buildings in the early 19th century followed by 150 years of educational use. Archaeological material relating to the early 19th century occupation of the site, the Commissariat Clerk's cottage and slab huts, is considered of State significance as it is rare and has the potential to be demonstrative of the pivotal change in the history of Newcastle, and the State, from penal colony to a free settlement. The Commissariat Clerk's cottage is further significant as representative of an early 19th century government building and potential remains for archaeological material associated with the structure to exist on the site. This area was not impacted by the current development.

The association between the Christ Church School and the study site has its origins in the early 19th century however the school is only known to officially occupy the site from 1845 when a purpose built structure was constructed on the site. The school was present on the site for at least 150 years and occupied three separate main buildings, the latest of which is still standing. Archaeological investigations have found that the continual use of the site as an educational facility for this period of time has created a limited archaeological resource; of the c1845 school, only fragmentary structural remains were uncovered during test and salvage excavations. Although they retain associative significance as part of the long history of education on this site, they exhibit only limited archaeological research potential due to their condition and lack of associated archaeological data. The material relating to this building, as found during test and salvage excavations is considered of local significance.

Structural remains of the second school constructed in 1860, were also found during test and salvage excavations. The building is demonstrative of a type of structure used during the mid-19th century for educational buildings and this coupled with the continuity of use of the site render the remains associated with this structure of local significance. The longevity of the school's presence on the site, indicates that there is a community association with the site which is of local significance.

The results of archaeological investigations provide little potential for the 1840s-1850s dwelling that once stood in the southwest corner of the site. Should archaeological material remain from this building, these are likely to be fragmentary and of limited research potential. Such archaeological material is considered of local significance.

Documentary research has found little information regarding the mid-19th century terraces that were once present on the site. Some commercial enterprises, such as a bakery, are known to have accompanied the terraces however their precise

location and date of construction are undocumented. Archaeological investigations found no evidence of these structures as this part of the site was heavily impacted by the 20th century use of this area. The current development has constructed a basement in this location and no relics were found during this process. For this reason, no relics of significance survive in this area.

Management of the steep topography of the study site through a series of levelling events and the construction of retaining walls was evident and is also seen as having local significance in representing a technological achievement.

In this way, the study site retains relics of State significance relating to the early government building and cottages. The poor integrity of relics from the first purposed built school has limited the research potential and therefore the significance of these relics. Local significance is vested in the later use of the site, with the continuity of use as an educational facility.

Table 6.2 Summary of archaeological cultural significance

Building ID	Description	Date of Construction	Revised potential	Potential Significance
Α	Government cottage	Pre-1830s	Moderate	State
В	Privy	Pre-1830s	Low	State
С	Slab Hut	Pre-1830s	Low-nil	State
D	Well	Pre-1830s	Moderate	State
Е	Slab Hut	Pre-1830s	Nil	State
F	1840s school building	c.1845	Moderate - Low	Local
G	Privy	c.1845	Low - nil	Local
Н	Dwelling	Date unknown	Low - nil	Local
1	Terrace	1850s-1860s	Nil	Local
J	Terrace	1850s-1860s	Nil	Local
K	Terrace	1850s-1860s	Nil	Local
L	Terrace	1850s-1860s	Nil	Local
M	1860 School building	1860	Moderate – High	Local
N	1860 teachers residence	1860	Moderate - High	Local
Р	Kitchen /outbuilding	1850s-1860s	Nil	Local
Q	Girls weather shed	1880s	Low	-
R	Metal Building/shop	Date unknown	Moderate	Local
S	Boys weather shed	1880s	Nil	-
T	Lavatory	1880s	Nil	Local
U	Lavatory	1880s	Nil	Local
V	shed	1890s	Nil	Local
W	Air-raid shelter?	1940s	Nil	Local

7.0 PERMIT COMPLIANCE

Archaeological salvage excavation was completed in July 2017 under approved s60 permit S60/2017/80, as endorsed by the Heritage Division. The following section lists the permit conditions issued by the Heritage Division specific to the archaeological programme and responds to those.

Condition 1. The work must be undertaken in accordance with:

g. Document entitled Archaeological Test Excavation Report, Documentation Supporting s60 Permit Application, Newcastle Annex former Newcastle East Public School 58 Bolton Street Newcastle prepared by AMAC Group, dated March 2017.

Except as amended by the condition of this approval

All test excavation works were completed in accordance with the approved research design and methodology (See Section 3.0).

Condition 11. Historical Archaeology

All works shall be in accordance with the approved research design and methodology outlined in 'Archaeological test excavation report, documentation supporting s60 permit application, Newcastle Annex former Newcastle East Public School 58 Bolton Street Newcastle' prepared by AMAC Group, dated March 2017 except as amended by the following conditions:

All test excavation works were completed in accordance with the approved research design and methodology (See Section 3.0).

a. This archaeological approval covers the removal of locally significant archaeology in Zones 2, 3 and 4 and the removal of potentially State significant archaeology only in Zone 2 in the location of the piers and lift pit. No removal of archaeology can occur in Zone 1 as this is a conservation zone.

Archaeological works were only carried out in Zones 2 and 3. No excavation occurred within Zone 1 and this was retained as a conservation zone. In Zone 2, only minor impact was carried out to locally significant relics.

b. The Heritage Council of NSW or its Delegate must be informed in writing of the start of the archaeological investigation at least five (5) days prior to the commencement of, and within five (5) days of the completion of on-site archaeological work.

Heritage Officer Shikha Jhaldiyal of the Heritage Division was contacted via email 3rd July 2017 regarding the commencement of work and on 15th January 2018 regarding completion of all excavation on the site.

c. The Applicant must ensure that if substantial intact archaeological deposits and/or State significant relics not identified in 'Archaeological test excavation report, documentation supporting s60 permit application, Newcastle Annex former Newcastle East Public School 58 Bolton Street Newcastle' prepared by AMAC Group, dated March 2017, are discovered, work must cease in the affected area(s) and the Heritage Council of NSW must be notified. Additional assessment and approval may be required prior to works continuing in the affected area(s) based on the nature of the discovery.

No relics of State significance were exposed during any excavation work at the site.

d. The Applicant must ensure that the nominated Primary Excavation Director, Mr Martin Carney and Secondary Excavation Director Ms Ivana Vetta are present at the site supervising all excavation activity likely to expose archaeology.

The excavation directors were both present supervising all archaeological excavation.

e. The Applicant must ensure that the nominated Excavation Director, Mr Martin Carney, and Secondary Excavation Director Ms Ivana Vetta take adequate steps to record in detail relics, structures and features discovered on the site during the archaeological works in accordance with current best practice. This work must be undertaken in accordance with the NSW Heritage Helping the community conserve our heritage. Office guidelines, 'How to Prepare Archival Records of Heritage Items' (1998) and 'Guidelines for Photographic Recording of Heritage Items' (2006).

All archaeological relics were excavated and recorded according to the methodology provided in the March 2017 s60 Permit Application by AMAC Group. A Photographic Volume accompanies this report and is compliant with these guidelines.

f. The Applicant is responsible for the safe-keeping of any archaeology of local significance recovered from the site. The Applicant must ensure that the nominated Excavation Director, Mr Martin Carney and Secondary Excavation Director Ms Ivana Vetta cleans, stabilises, labels, analyses, catalogues and stores any artefacts recovered from the site in a way that allows them to be retrieved according to both type and provenance.

All artefacts recovered from the site have been cleaned and stabilised. They have been recorded in an artefact catalogue using the EAMC database. A copy of this database is provided in Appendix D in Volume 2 of this report.

g. The Applicant must ensure that a final excavation report is prepared by the nominated Excavation Director, Mr Martin Carney, and Secondary Excavation Director Ms Ivana Vetta to publication standard, within one (1) year of the completion of the field based archaeological activity unless an extension of time or other variation is approved by the Heritage Council of NSW. This excavation report must include detailed comparative analysis of early schooling. Further copies of the report should be lodged with the local library and/or another appropriate local repository in the area in which the site is located.

This document represents the Final Excavation Report and has been prepared by Martin Carney, Prue Newton, Alex Thorn and Ivana Vetta. A copy of this report will be provided to the Newcastle City Library.

Condition 12. Aboriginal Archaeology

Should any Aboriginal 'objects' be uncovered by the work, excavation or disturbance of the area is to stop immediately and the Office of Environment & Heritage is to be informed in accordance with Section 89A of the National Parks and Wildlife Act, 1974 (as amended). Works affecting Aboriginal 'objects' on the site must not continue until the Office of Environment and Heritage has been informed. Aboriginal 'objects' must be managed in accordance with the National Parks and Wildlife Act, 1974. Reason: This is a standard condition to protect the archaeological resource at this state significant site.

No aboriginal objects were found during archaeological excavations at the site.

8.0 RESULTS AND RECOMMENDATIONS

8.1 RESULTS

8.1.1 Documentary Research

By 1830, the study site had already been significantly developed with the Commissariat clerk's cottage and two slab huts known to have been constructed on the site. The study site was subdivided in the 1830s and 1840s and contains the original Lot 84, 82, 80 and part of Lot 85 of the subdivision of Newcastle. It is unclear whether any of these buildings were used as part of the original Christ Church School, established in 1816 and hence Newcastle's first school. By 1845 a purpose built school had been constructed on the southern portion of the site, Lot 84, and the school may have also used a residence on the neighbouring allotment, Lot 85.

The school grew in numbers over the next 15 years necessitating the construction of a new school building and teacher's residence, also on Lot 84, in 1860. During this time, development also occurred on Lots 80 and 82 with four terrace houses being constructed, two on each allotment. A shop and bakehouse were also associated with one of these dwellings on Lot 82 while a shop had also been constructed facing Church Street on the part of Lot 85 contained within the study area, this shop replaced the earlier 1840s dwelling.

The new school building took up much of the allotment reserved for the school providing little outdoor space for the students to exercise. As student numbers continued to climb, the need for space saw the demolition of the teacher's residence and then the resumption of Lot 82 during the 1880s. The houses on this lot were demolished to make way for new lavatories and weather sheds were also constructed. By 1891, more space was needed and Lot 80 and part of Lot 85 were resumed and the buildings on them demolished. During this time the school was also converted from a denominational school to the Newcastle East Public School.

In 1908 a new school building was required and the 1860 school was demolished. Further additions were made to the school in 1912, and this building still stands today. Other buildings were constructed on the site during the 20th century including an air raid shelter in the 1940s. The school was in use throughout the 20th century and repurposed for use by the courts in the 1980s.

During the historic use of the study area, the site has been levelled with two distinct ground levels now evident. These levelling events initially occurring in the 1860s, when sand was introduced to raise the ground level for the construction of the new school, then again in the 1880s and 1890s when the west of the site was significantly truncated to make it level with the 1860 school building.

8.1.2 Summary of Salvage Excavation Results

Archaeological salvage excavations took place in July 2017. This work followed an archaeological test excavation programme undertaken in 2015. For the purposes of salvage excavation, the site was divided into three zones: Zone 1, southeast corner; Zone 2, southwest corner; Zone 3, western and northern parts of the site.

Zone 1: No excavation occurred in this zone. This is the location of the 1860 school and potential State significant relics associated with the Commissariat Clerk's house.

Zone 2: Only minor excavation occurred within this zone, isolated to the location of the pier and strip footings for the proposed development including the stairwell and lift well foundations. As the work here was only fragmentary, only small portions of relics were exposed. Fragments of the sandstone foundations of the 1860 teachers' residence were found and determined to be potentially also be evidence of the c1845 school recycled into the later building. Some foundations associated with the main 1860 school building were also uncovered also with a large sandstone foundation potentially associated with a mid-late 19th century store. No deposition was found associated with any of these structures and later levelling for school playgrounds have had some effect on the survival of relics in the archaeological record.

Zone 3: Excavations here confirmed the results of archaeological test excavation. The area along the western boundary of the site (in the location of the former 1860s terraces) was heavily truncated in the late 19th -early 20th century when this area was purchased by the school. No relics survive in this area. Part of a brick dish drain was uncovered in the north of the site. This was likely a late 19th century feature associated with former 1860s terraces.

8.1.3 Revised Archaeological Potential

Although multiple phases of construction have been identified on the site, the archaeological potential for these phases differs significantly across the site. In the southeast of the site, the natural soil profile was found to be intact indicating a moderate -high potential for relics associated with the pre-1830s phase of the site. The robust foundations of the 1860 school were also found in this location and a high potential remains for more of these foundations however the impact of later services and structures is not fully understood. This area was not impacted by the current development and therefore all archaeological relics here have been retained.

In the southwest corner of the site, the levelling and truncation of this area has significantly impacted the potential for relics. Although a foundation associated with the c.1845 school were uncovered during archaeological investigations in this area, the evidence was fragmentary, and little survives for this period of the site. Evidence of the natural ground levels in this area suggests that it originally sloped up to a level above the current ground level suggesting that historically this area was cut down. This has greatly affected the survival of relics associated with the rest of this school building as well as the c.1840s-1850s dwelling and later mid-late 19th century shop also in this location.

Along the western boundary of the site, no relics have been recovered and this area now contains a basement.

8.1.4 Revised Significance

The study site has the potential to retain relics of State significance as well as some relics of local significance. Archaeological material relating to the pre-1830 Commissariat Clerk's cottage and slab huts, is considered of State significance as they are both rare, and representative of a significant stage in Newcastle's history when it transitioned from penal colony to a free settlement.

The Christ Church School is known to have occupied the site from 1845 however potentially this association dates back to 1816. For at least 150 years the school occupied the site with three separate building phases, the latest of which is still standing. The continuity of this educational facility is unique and has potentially created a rare data set spanning the 19th and 20th centuries. Archaeological excavation found the survival of relics related to the earliest school here was poor

and retained limited research potential. Although such relics have the potential to retain State significance due to their associative significance, in terms of research potential they are only considered of local significance. These relics were mostly retained in situ by the current development with excavations in this zone limited.

Structural relics of the 1860 school were uncovered during archaeological investigations. The building was demonstrative of the mid-19th century for educational buildings and with continuity of use the remains of this structure have potential local significance.

Domestic occupation is known on other parts of the site from the 1840s and mid-19th century. Commercial enterprises, such as a bakery, are also known on the site however their location is not documented. The archaeological investigations have found that there is nil potential for evidence of these buildings.

8.2 RECOMMENDATIONS

It is recommended that this report be submitted as the Final Excavation Report to the Heritage Council of NSW in fulfillment of Condition 11 of Permit S60/2017/80.

The study site retains moderate to high potential for relics in the southern portion of the site, in particular the southeast corner. Any proposed future excavation in this area should be subject to an Archaeological Assessment. Further archaeological excavation may be considered in the management of these relics.

8.3 ARTEFACTS AND RECORDS STORAGE

A catalogue of artefacts has been provided in Volume 2 of this report. All artefacts have been labelled and boxed and will be stored onsite at 58 Bolton St, Newcastle. The records from the site have been digitised and are provided along with the digital copy of the report. All original records are stored at AMAC Group's offices at 122c Percival Rd, Stanmore.

8.4 PUBLIC INFORMATION

A copy of this report will be made available to the Newcastle City Library in order to inform the public on the archaeological excavations and research conducted at the site.

9.0 BIBLIOGRAPHY

- Archaeological Management and Consulting Group (2002), CEO Site Archaeological Programme, 2000-2001: draft of work in progress.
- Archaeological Management and Consulting Group 2003, Archaeological
 Assessment, Research Design and Excavation Methodology, Legacy
 House formerly Dangar Chambers, 45 Bolton Street, Newcastle, NSW for
 Stephen Edwards Constructions Pty Ltd, Sydney.
- Archaeological Management and Consulting Group (September 2006) Site Manual Plazawest Comprehensive Archaeological Programme 384-394 Church Street and 18-22 Victoria Road Parramatta.
- Archaeological Management and Consulting Group (July 2015) *Archaeological Assessment. 58 Bolton Street, Newcastle NSW,* for DJB Developments.
- Archaeological Management and Consulting Group (March 2017) Archaeological Test Excavation Report (Documentation Supporting s60 Permit Application). Newcastle Annexe, 58 Bolton Street, Newcastle NSW, for DJB Developments.
- Australasian Chronicle 1840, 'News and rumours of the day.' *Australasian Chronicle*, p. 2.
- Australian Town and Country Journal 1877, 'Newcastle. November 21.', *Australian Town and Country Journal*, p. 38.
- Bairstow, D 2003, A Million Pounds, a Million Acres: the pioneer settlement of the Australian Agricultural Company, Sydney.
- Bickford, A & Sullivan, S 1984, 'Assessing the research significance of historic sites. in site survey and significance assessment in Australian Archaeology', in, Site Surveys and Significance Assessment in Australian Archaeology (Proceedings of the 1981 Springwood Conference on Australian Prehistory, Department of Prehistory, Research School of Pacific Studies, The Australian National University, Canberra, pp.23–24.
- Bladen, FM 1979, Historical Records of New South Wales, Landsdown Slattery.
- Boow, James 1991, Early Australian Commercial Glass: Manufacturing Processes, Heritage Council of NSW, Sydney
- Bradley, Charles S. 2000, 'Smoking Pipes for the Archaeologist' in K K Studies in Material Culture Research: 104-133.
- Braggett, EJ 1966, From Convict Era to Modern Times: Newcastle East School 1816-1966, Newcastle East Public School. Parents' and Citizens' Association
- Brooks, Alasdair 2005, *An Archaeological Guide to British Ceramics in Australia* 1788-1901, Australasian Society for Historical Archaeology, Sydney and La Trobe University Archaeology Program, Melbourne.

- Carr, J 2015, Statement of Heritage Impact, proposed unit development at 58 Bolton Street, Newcastle, John Carr Heritage Design.
- Crook, Penny and Tim Murray 2006, *Guide to the EAMC Archaeology Database*, Archaeology of the Modern City Series, Historic Houses Trust of New South Wales, Sydney.
- Crook, Penny, Laila Ellmoos and Tim Murray 2006a, *Exploring the Archaeology of the Modern City Project Databases*, Archaeology of the Modern City Series, Historic Houses Trust of NSW, Sydney
- Dangar, H 1928, *Index and directory to the map of the country bordering upon the River Hunter*, London.
- Gemmell, Warwick 1986, And so we Graft from Six to Six: The Brickmakers of New South Wales, Angus & Robertson, Sydney.
- Godden, Geoffrey A. 1991, *Encyclopaedia of British Pottery and Porcelain Marks*, Barrie and Jenkins, London.
- Gray, N. n.d., 'Close, Edward Charles (1790–1866)', in, *Australian Dictionary of Biography*, National Centre of Biography, Australian National University, Canberra, viewed 29 June 2015, http://adb.anu.edu.au/biography/close-edward-charles-1905.
- Newcastle City Council 2012a, Newcastle Local Environmental Plan.
- Newcastle City Council 2012b, Newcastle Development Control Plan.
- Newcastle Morning Herald and Miners' Advocate 1881, 'Advertising', *Newcastle Morning Herald and Miners' Advocate*, p. 1.
- Newcastle Morning Herald and Miners' Advocate 1884a, 'Facts and fancies centralised.', *Newcastle Morning Herald and Miners' Advocate*, p. 5.
- Newcastle Morning Herald and Miners' Advocate 1884b, 'Christ church public school.', *Newcastle Morning Herald and Miners' Advocate*, p. 3.
- Newcastle Morning Herald and Miners' Advocate 1891, 'Newcastle east', *Newcastle Morning Herald and Miners' Advocate*, p. 7.
- NSW Births, Deaths and Marriages Index n.d., viewed 23 July 2015, http://www.bdm.nsw.gov.au/Pages/family-history/family-history.aspx.
- NSW Department of Planning and Heritage Council of NSW 2006, *Historical archaeology code of practice*, Heritage Office of the Department of Planning.
- NSW Government Gazette 1842, 'Newcastle'.
- NSW Heritage Office 2001, *Photographic recording of heritage items using film or digital capture*, Heritage Office of the Department of Planning.
- NSW Heritage Office Department of Urban Affairs and Planning 1996, Archaeological Assessment: archaeological assessment guidelines.

- Snyder, Jeffrey, B. 1997, *Romantic Staffordshire Ceramics*, Schiffer Publishing Ltd, Atglen.
- Suters Architects 2013, Conservation Management Plan 2013, Government Property NSW, Newcastle Court House Annexe, site & buildings, former Newcastle East Public School, 58 Bolton Street Newcastle NSW.
- Suters Architects Snell & Newcastle (N. S.W.). Council 1997, *Newcastle Archaeological Management Plan,* in association with Siobhan Lavelle, M & MJ Doring Pty Ltd & John Turner, Newcastle City Council, [Newcastle, N.S.W.].
- The Maitland Mercury and Hunter River General Advertiser 1845, 'Hunter river district news. [From our correspondents.] Hinton.' *The Maitland Mercury and Hunter River General Advertiser*, p. 2.
- The Maitland Mercury and Hunter River General Advertiser 1859a, 'Contracts for the colonial service. Country districts. The treasury, new south wales, 7th January, 1859.' *The Maitland Mercury and Hunter River General Advertiser*, p. 3.
- The Maitland Mercury and Hunter River General Advertiser 1859b, 'District news. Newcastle. (From the empire's correspondent.) Laying the foundation stone of the grammar and primary schools.' *The Maitland Mercury and Hunter River General Advertiser*, p. 6 S.
- The Maitland Mercury and Hunter River General Advertiser 1860, 'Newcastle church society', *The Maitland Mercury and Hunter River General Advertiser*, p. 2.
- The Maitland Mercury and Hunter River General Advertiser 1876, '(from the Singleton Argus.) police court, Tuesday, 18th July, 1876. (before Messrs. J. N. Brooki[?], P.M., A. Bowman and R. Millar, J.P's.)', *The Maitland Mercury and Hunter River General Advertiser*, p. 6.
- The Maitland Mercury and Hunter River General Advertiser 1884, 'Maitland circuit court. Monday, October 27, 1884. (Before his Honor Mr. Justice Windeyer.)', *The Maitland Mercury and Hunter River General Advertiser*, p. 4
- The Newcastle Chronicle 1868a, 'Family notices', *The Newcastle Chronicle*, p. 2.

 The Newcastle Chronicle 1868b, 'Public and denominational schools in the Newcastle district.' *The Newcastle Chronicle*, p. 3.
- The Newcastle Chronicle 1870, 'Denominational schools.' *The Newcastle Chronicle*, p. 2.
- The Newcastle Chronicle 1871, 'Sydney. Received 9 p.m.', *The Newcastle Chronicle*, p. 4.
- The Newcastle Chronicle 1874, 'Family notices', *The Newcastle Chronicle*, p. 2. The Newcastle Chronicle and Hunter River District News 1866, 'Local news.' *The Newcastle Chronicle and Hunter River District News*, p. 3.
- The Newcastle Sun 1920, 'Yesterday—to-day—to-morrow more people: more homes some striking comparisons in the wake of the steel works', *The Newcastle Sun*, p. 9.

- The Sydney Gazette and New South Wales Advertiser 1829, 'Newcastle, to the editor of the Sydney Gazette.', *The Sydney Gazette and New South Wales Advertiser*, p. 2.
- The Sydney Herald 1837, 'Domestic intelligence. The Church of England.', *The Sydney Herald*, p. 2.
- The Sydney Morning Herald 1853, 'Advertising', The Sydney Morning Herald, p. 7.
- The Sydney Morning Herald 1854, 'Advertising', The Sydney Morning Herald, p. 1.
- The Sydney Morning Herald 1855, 'Notice of claims.' *The Sydney Morning Herald*, p. 8.
- Turner, JW 1973, Newcastle as a Convict Settlement: the evidence before JT Bigge in 1819-1821, Council of the City of Newcastle, Newcastle Public Library, viewed 10 June 2015,
- Turner, JW 1997a, 'Newcastle 1804-1993, an overview', in Suters Architects Snell (ed.), *Newcastle Archaeological Management Plan*, pp.10–25.
- Turner, JW 1997b, A Pictorial History of Newcastle, Kingsclear Books, Crows Nest, N.S.W.
- Whiter, Leonard 1978, *Spode: A history of the family, factory, and wares from 1733 to 1833*, Barrie and Jenkins, London.
- Wilson, Graham & Alexandra Kelly 1987, *Preliminary Analysis of Clay Tobacco Pipes from the First Government House Site, Sydney,* Department of Planning, Sydney.
- Wood, WA 1972, Dawn in the Valley: the story of settlement in the Hunter River valley to 1833, Wentworth Books, Sydney.