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UWS RIVER FARM RICHMOND LOWLANDS HERITAGE ASSESSMENT

GOVERNMENT ARCHITECT'S OFFICE, NSW PUBLIC WORKS
DEPARTMENT OF FINANCE & SERVICES
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Report No 12013

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A division of the Department of Finance & Services

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1. INTRODUCTION

The Government Architect's Office, Department of Finance and Services has been commissioned by the University of Western Sydney (UWS) to prepare a Heritage Assessment to inform the planning of future projects on a 45 hectare holding of agricultural land on the Hawkesbury River.

Located off Edwards Road in the Richmond Lowlands, UWS in collaboration with TAFE WSI, schools and community groups are looking at developing an education and research facility on the part of the land holding between the river and Edwards Road (refer to Figure 1) known henceforth as the River Farm site.

This heritage assessment provides a better understanding of the site by outlining its history and identifying its heritage significance. Opportunities available for interpretation and external funding as well as how the heritage aspects of the site might add value to the training and learning outcomes proposed at the site are also identified.

1.1 LOCATION OF STUDY AREA

River Farm, owned by the State of New South Wales and administered by the University of Western Sydney is located at Richmond Lowlands on the south bank of the Hawkesbury River and north of the town of Richmond, NSW. The site recorded as Lot 19 DP 752032 in the Parish of Ham Common, County of Cumberland, was formerly known as Portion 19. The property is approximately 45 ha in area and is located 6 kilometres north of the main University of Western Sydney Hawkesbury Campus.

The Study Area is shaded in Figure 1 and shown on an aerial in Figure 2.

1.2 STATUTORY LISTINGS

The buildings are listed as a group as a heritage item on the Hawkesbury City Council Local Environmental Plan (LEP), Schedule 1, as “Bronte”, Portion 46, Parish of Ham Common, DP 752032. (444). It is also listed on the UWS Section 170 Heritage and Conservation Register.

1.3 METHODOLOGY & LIMITATIONS

A site visit was undertaken by Amy Chew (Heritage Specialist, GAO) and Mikhail Kogan (Structural Engineer, GAO) in November 2011 and February 2012 respectively, at which time the contemporary photographs contained within this report were taken.

Caroline Plim, Historian was engaged by GAO to prepare a history and significance assessment of the site (refer to Appendix A). The results of the investigations have been used to prepare this report which focuses largely on the section of the River Farm site between Edwards Road and the Hawkesbury River. This report has also been prepared in close coordination with Philip Nobis, Architect for UWS to ensure that any opportunities to highlight the heritage significance of the site and for interpretation, are incorporated into the early stages of any design work proposed at the site.

The scope of this report did not allow for:

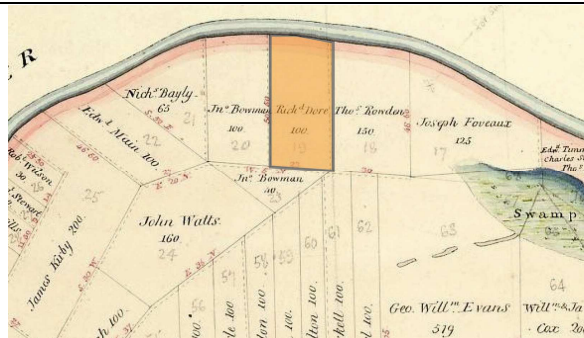
- Any invasive or detailed structural assessment of the pumping station or other built elements on the site (any assessment of condition has been based on a visual inspection only).
- Detailed assessment of any historical archaeology, Aboriginal or natural heritage issues within the site.

This HIS has been prepared by Amy Chew, Heritage Specialist and Randa Elwazzi, Architecture Graduate with final review by Bruce Pettman, Principal Heritage Architect, Government Architects Office, NSW Public Works.

2. UNDERSTANDING THE PLACE

2.1 BRIEF HISTORICAL SUMMARY

The following historical summary has been sourced from the History and Significance Assessment prepared by Caroline Plim in 2012 (Appendix A).

Date	Historical Outline	
Pre European		
Traditional Owners	The Darug are the traditional custodians of the land on the south bank of the Hawkesbury River at Richmond. The river, known as Deerubbin, and nearby lagoons were a focal point for bands, clans or family groups, providing food such as fish, eels, water birds and shellfish. Yams and other plant food growing on the usually fertile riverbanks were gathered depending on the season and as need dictated. Surrounding bushland was a source of animals that were trapped or hunted. ¹	
Establishment of Richmond		
1792–1794	Lieutenant Governor Major Francis Grose initiated a plan to settle the Hawkesbury district in 1792 and by 1794 twenty two settlers had been granted land on the banks of the river and established farms. ²	
1810–1811	Richmond was established by Governor Macquarie in 1810 and laid out in 1811. ³ The rich agricultural land was divided into farms and allotments of varying size. A network of small creeks and lagoons provided water to farms without river access.	
Farming		
1799–1801	In 1799 Governor John Hunter granted the portion of land now known as River Farm to Richard Dore. It is likely that he had little experience in farming and as the Settlers Musters Book of 1800 records, he acquired little livestock - two goats and two pigs in all. ⁴ Map of the Parish of Ham Common showing Richard Dore's 100 acres, later designated as Portion 19 and now known as River Farm (LPI PMapMN03 Id 14068201, nd)	
1801–1823	It is unclear how George Crossley acquired Dore's Farm. Making significant progress on developing the Dore's Farm, thirty acres (12.14 ha) were cleared and 20 acres (8.09 ha) planted with wheat or maize. Livestock included one horse and eight hogs. ⁵	

¹ Attenbrow, *Sydney's Aboriginal Past*, UNSW Press, Sydney, 2010: 17-36

² Bladen (Ed), *Historical Records of New South Wales*, Vol 2, Lansdown Slattery, Mona Vale, NSW, 1979: 210.


³ Wells, *A Geographical Dictionary or Gazetteer of the Australian Colonies 1848, 1970* (facsimile): 356; Jack, *Macquarie's Towns*, Heritage Council of NSW, Parramatta, NSW, 2010: 49.

⁴ K G Allars, 'Richard Dore (1749-1800),' *Australian Dictionary of Biography*, Vol 1, Melbourne University Press, Carlton, Vic, 1966: 313-314.

⁵ Baxter (Ed), *Musters and Lists New South Wales and Norfolk Island 1800-1802*, ABGR/SAG, Sydney, 1988: 4, 31, 34, 37, 89, 107 & 124.

Date	Historical Outline	
1820	In 1820 Peter Hough (c1776-1833), a former convict, leased part or all of Dore's Farm. ⁶ Hough and Mary Wood, are assumed to have farmed Dore's Farm as well as a grant received in 1820. ⁷	
1823–1851	John Connell took possession of Dore's Farm. ⁸ Connell died in Sydney on 18 August 1849, leaving his substantial estate to his grandsons, John Connell Laycock and Elias Pearson Laycock.	
1851–1878	Benjamin Richards, opened a butcher shop in Richmond in 1837 and one in Sydney in 1847. He then acquired large grazing runs gradually expanding the business to provide meat for the Sydney market. ⁹ In 1878 Richards founded the Riverstone Meat Works, an abattoir supplying meat directly to Sydney. ¹⁰	
1878–1905	1898 Richards died at Kamilaroi, the home he built for his family in Windsor St, Richmond, bequeathing the house and Richmond farm to his daughter, Elvina Durham. Mrs Durham lived at Kamilaroi in 1896 and in 1900 Mr E Hough was managing the Richmond Lowlands property. The season's crop looked promising and a good maize yield was predicted. Potatoes and melons were also being grown on the lowlands. ¹¹ Elvina Durham leased the farm to the Crown on 8 June 1905. ¹²	

Hawkesbury Agricultural College and River Farm

1905	<p>Between 1891 and 1908 Hawkesbury Agricultural College was administered by a section of the NSW Department of Mines and Agriculture. Work undertaken by the first students included clearing and fencing of the area into paddocks for grazing and cultivation, and the construction of dams.¹³</p> <p>The aim of Henry William Potts, the principal, in acquiring the riverside land was to grow crops supplementing the feed necessary for producing 'studs of high quality poultry, sheep, pigs, cattle and horses.'¹⁴</p> <p>Mrs Durham's farm became known as 'the river farm'. -</p> <p>Maize growing in one of River Farm's paddocks in the vicinity of the Study Area in the early 1900s (P171 UWS Archives)</p>	
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⁶ 'List of Persons in the Districts of the Hawkesbury... Oct 1820,' cited in the Bonwick Transcripts, Reel BT 24:p5166, Mitchell Library, SLNSW.

⁷ Colonial Secretary's Papers, Fiche 3021, Item 4/1824A, p383, SRNSW.

⁸ Baxter (Ed), *General Muster List of New South Wales 1823, 1824, 1825*, ABGR/SAG, Sydney, 1999: 27.

⁹ *Windsor & Richmond Gazette*, 12 Mar 1898: 4; 'Riverstone,' www.blacktown.nsw.gov.au/our-city/history/thecity/riverstone, accessed 22 Dec 2011.

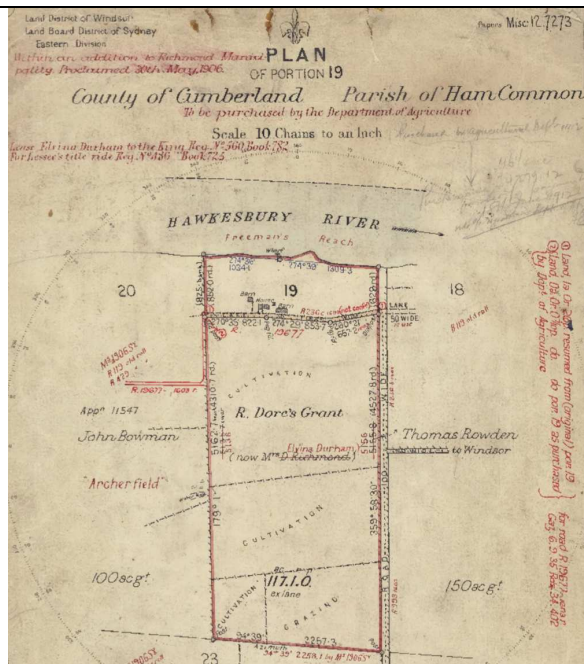
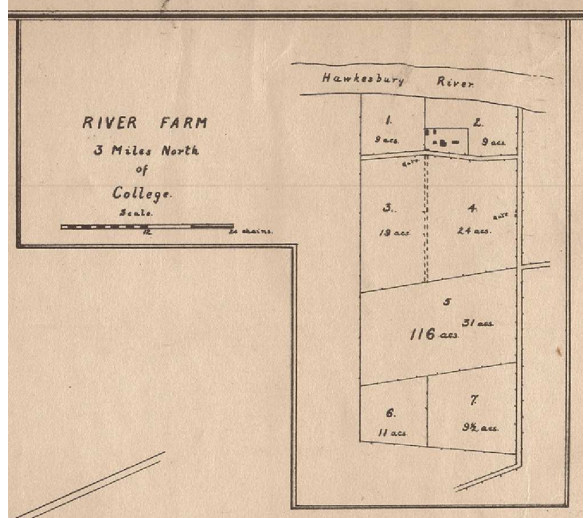
¹⁰ 'Riverstone,' www.blacktown.nsw.gov.au/our-city/history/thecity/riverstone, accessed 22 Dec 2011; HJ Gibbney & AG Smith (Eds), *A Biographical Register 1788-1939*, Vol II, Australian Dictionary of Biography, Canberra, 1987: 210.

¹¹ *Will of Benjamin Richards cited in Old Systems Title Book 725 No 486, LPI LPMA; Hawkesbury Advocate*, 26 Jan 1900: 5; *Hawkesbury Advocate* 5 Sep 1896: 4.


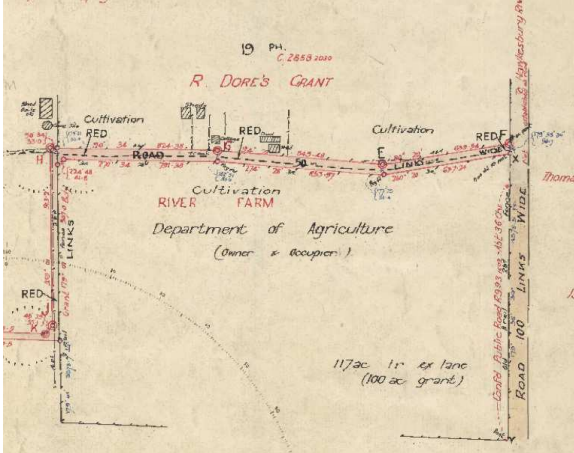

¹² *The date is that of students entering the college. Efforts to establish a Department of Agriculture and formal agriculture training had been made as early as 1874. Dart, History and Reminiscences, Macarthur Press, Parramatta, NSW, 1982: 1; State Records Archives Investigator - Agency Detail: Hawkesbury Agricultural College, No 2940, SRNSW.*

¹³ Dart, *History and Reminiscences*, Macarthur Press, Parramatta, NSW, 1982: 2, 9; Edds 'A Study of the Early Buildings and their Curtilage at Hawkesbury Agricultural College Leading to Conservation Guidelines,' *Graduate Project B Build (Hons) UNSW*, Nov 1988: 21.

¹⁴ Holland, 'Henry William Potts (1855-1931),' *Australian Dictionary of Biography*, Vol 11, Melbourne University Press, Carlton, Vic, 1988: 266.

Date	Historical Outline	
1906	On acquiring the farm, the paddocks were reconfigured to suit the needs of the college curriculum. In 1906 the college's Department of Chemistry and Physics ran complete chemical and mechanical examinations of the soils on River Farm. The rich alluvial soil was useful for trials of maize, potatoes, mangolds (beet) and other crops. ¹⁵	
1909	A reinforced concrete pumping station built in 1909 drew water for the college water supply and irrigation.	
1912	<p>A 1912 Crown Plan prepared when the land was conveyed to the Government documents the farm layout, diagrammatically showing the structures in the Study Area north of Edwards Road.</p> <p>A house, two barns and two unnamed outbuildings are indicated. The wharf identified on the plan is actually a platform over pipes connected to the pumping station.</p> <p>-</p> <p>Crown Plan of Portion 19 showing River Farm at the time of its conveyance to the Government for use by Hawkesbury Agricultural College. The 1912 plan includes later alterations and notes (CP 2858-2030 LPI LPMA)</p>	
1912	<p>An undated plan prepared by Hawkesbury Agricultural College shows a slightly different layout of paddocks and farm buildings.</p> <p>-</p> <p>The layout of River Farm, its buildings and paddocks on an undated plan of the Hawkesbury Agricultural College Farm (MP 353 UWS Archives)</p>	



¹⁵ Hawkesbury Agricultural College Annual Report, Government Printer, Sydney, 1906: 26, 28, 29.

Date	Historical Outline	
1909–1921	<p>River Farm ‘one of the most fertile farms on the Hawkesbury River’ with immediate access to water was an asset to the college and from 1921 large-scale ‘maize-breeding experiments’ were carried out there.¹⁶</p> <p>The horse drawn plough is evidence of the technology of the era and many of the college horses were bred on River Farm. Lucerne was grown in the riverbank paddock¹⁷</p> <p>River Farm continued to be managed by Hawkesbury Agricultural College in the second half of the 20th century.</p> <p>-</p> <p>Cutting lucerne at River Farm illustrating land use and farming practices in the early 1900s. Many horses used at the college were bred at River Farm. Buildings on the neighbouring farm are visible in the background (Dart 1941: 80-81)</p>	
1914–1935	<p>In 1914 River Farm was recorded as 116 acres and sometimes described as the college ‘Demonstration Farm.’ Its mixed use included cultivation (96 acres or 38.85 ha) and grazing of horses and mules (20 acres - 8.09 ha) for breeding. Buildings.</p> <p>A plan documenting the resumption of land for the realignment of Edwards Road in 1935 documents the farm buildings and designated uses of paddocks near the Study Area</p> <p>-</p> <p>Crown Plan related to road planning dated 1935 and showing River Farm cottage and sheds in the Study Area north of Edwards Road (CP 19677-1603 LPI LPMA)</p>	
1940s	<p>Despite some alterations the cottage retains many original features typical of a late 19th-early 20th century farm bungalow. The house is built on low brick piers. Rendering (ruled) above the bottom plate conceals brickwork and timber framing above. The interior face of the brickwork in the kitchen is lathe and plaster and, it can only be assumed, that this is the case in other areas.¹⁸</p> <p>-</p> <p>River Farm cottage, c1940s (P68 UWS Archives)</p>	

¹⁶ Dart, *History and Reminiscences*, Macarthur Press, Parramatta, NSW, 1982: 80-81.

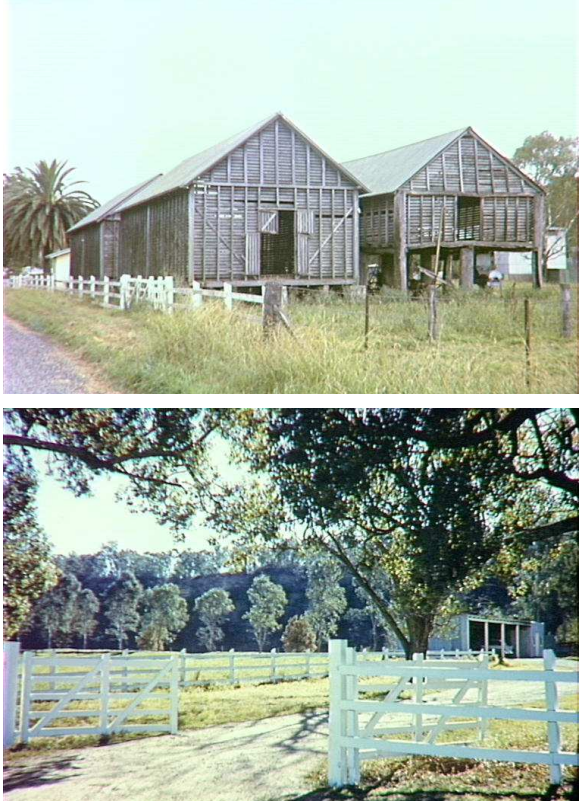
¹⁷ Orr (Ed), *Tradition with Vision: Centenary Hawkesbury Agricultural College 1891-1991*, University of Western Sydney, Hawkesbury, NSW, 1991: 74,

¹⁸ Site Visit, 16 Jan 2012; Pers Comm Steve Norris Smith, 19 Jan 2012. The cottage is thought to be brick nog construction, more commonly associated with earlier buildings. The method of construction warrants identification by a heritage specialist familiar with Hawkesbury buildings.

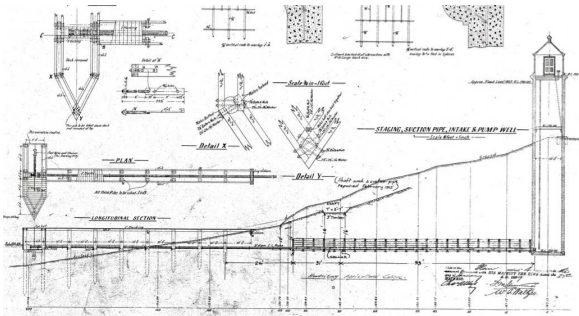
Date	Historical Outline	
1950s	<p>Spence Reid, the manager of River Farm is thought to have lived in the cottage in the early to mid 20th century. Students working at River Farm drove there in a wagon or sulky and recalled in later years that Reid would invariably greet them with a vigorous wave and shout. The daily routine involved several students accompanying him to the stable while another unharnessed the horse.</p> <p>-</p> <p>Spence Reid, manager of River Farm standing in a paddock at Hawkesbury Agricultural College (UWS Archives)</p>	
1964	<p>Alterations include enclosure of the east verandah after 1964 and possible earlier enclosure of a breezeway between the kitchen and main part of the house to form the current hallway.¹⁹</p> <p>-</p> <p>River Farm cottage in 1964 (Image 013709, photographed by Robert 'Bob' Power (1907- 1997). Courtesy Hawkesbury Library Service)</p>	

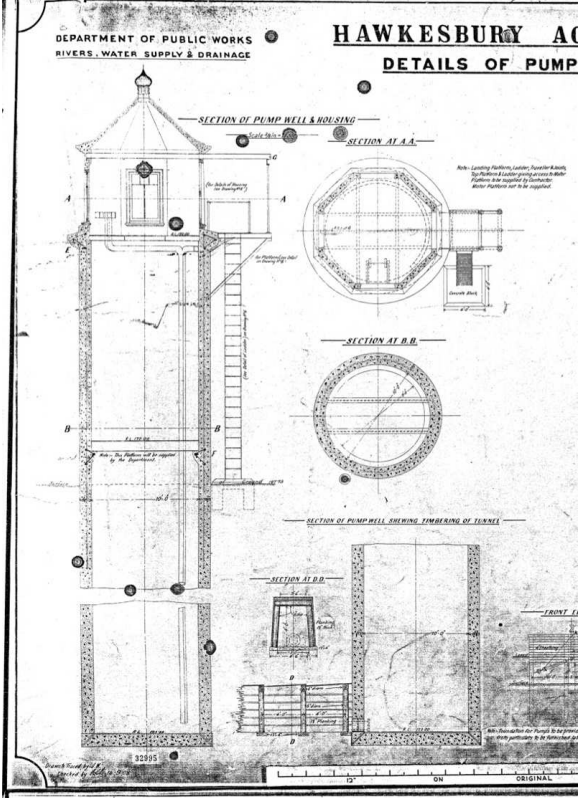

¹⁹ Older bricks, a few with a distinctive 'spearhead' or 'spade' motif frog mark, are laid with modern dry pressed bricks. Several other paths around the house are covered by soil and turf.

Date	Historical Outline	
1900s– 1960s	<p>It is not known if earlier farm buildings were adapted to suit the college's needs or new ones built. Carpentry was taught at the college, and students worked on farm buildings.</p> <p>A few photographs taken of farm activities on River Farm show the buildings on the property in the early to mid 20th century</p> <ul style="list-style-type: none"> - Looking north-west towards the residence, barns and pump station, nd (P170 UWS Archives) - - River Farm showing beehives between the cottage (rhs) and barn (lhs) looking south, c1920s (P1508 UWS Archives) - - Horses pulling a loaded sled in front of timber-framed sheds on River Farm c1920s. The sheds are characterised by an internally fixed, timber slat lining. A shed of the same design is extant (P320 UWS Archives) 	  
1951	<p>A photograph taken of a farm inspection by the Government Printing Office in March 1951 records the cottage and two timber barns or sheds in the Study Area. The shed in the middle of the image is still extant while the sheds to the right have since been removed. Three small silos and the concrete pad footings for an unknown structure now sit in this location.</p> <ul style="list-style-type: none"> - Looking south at the Study Area showing River Farm cottage partially hidden by a bus and timber farm buildings to the right, 18 Mar 1951 (GPO 2 - 01023, ML SLNSW) 	

Date	Historical Outline	
1960s	<p>Photographs taken in the early 1960s in provide a valuable record of the sheds at this time. Only one survives.</p> <p>A timber framed skillion roofed shed on the western side of the property retains evidence of former students of the college in the 1950s that marked their names and dates on the timber posts and beams. Many names and dates are still legible.</p> <p>-</p> <p>River Farm sheds to the east of the cottage in 1964 (Image 013710, photographed by Robert 'Bob' Power (1907-1997). Courtesy Hawkesbury Library Service)</p> <p>-</p> <p>River Farm shed to the west of the cottage in 1964 (Image 013710, photographed by Robert 'Bob' Power (1907-1997). Courtesy Hawkesbury Library Service)</p>	

Water Supply and Flood Mitigation


1909	<p>In 1908 plans were made for the supply of water to the college from the Hawkesbury River using River Farm as a staging point.</p> <p>Work included construction of a reinforced concrete tower and well near the bank of the Hawkesbury River.</p> <p>The structure was 10 feet (3.05m) in diameter by 79 feet high (24.08 m), with 24 feet (7.32 m) projecting above the ground. Its design took into account occasional flooding and the need to keep the structure stable and machinery dry.</p> <p>-</p> <p>Portion of a drawing prepared for the water supply scheme showing a longitudinal section through the pump tower down to the Hawkesbury River (PWD 33001-1, 13 Apr 1909, Information Services, NSW Department of Finance and Services)</p>	
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Date	Historical Outline	
1909	<p>Suction pipes were laid underground extending under a platform projecting into the river with an 'offtake' or 'trunnion pipe.' The machinery and pumps were imported from England.</p> <p>River water flowed towards the pumps at the bottom of the well and, powered by electricity generated at the college, was driven through 291 chains (5854 m) of 6 inch (150mm) rising main into a reinforced concrete reservoir in the college grounds ²⁰</p> <p>Portion of a drawing for the water supply scheme showing a section through the pump tower (PWD 32995-1, 13 Apr 1909, Information Services, NSW Department of Finance and Services)</p>	
1911–1914	<p>Floodwater management was also important to lowlands farms and in 1911 the college designed a scheme for protecting the river flats from flooding, but also for rapid drainage if it was inundated. The scheme, requiring the cooperation of other Richmond Lowlands farmers, was completed by 1912, the year that River Farm's purchase was finalised.²¹</p> <p>Pumping station machinery comprised two sets of pumps, one for domestic supply and general college use, and the other for irrigation.²² A reliable water supply was essential to the effective management of the college campus and farms.²³</p> <p>The college power supply was upgraded in 1913 to ensure an adequate supply for pumping water as well as providing electricity to the college generally.²⁴</p> <p>The reinforced concrete tower of the 'pump well' or pumping station at River Farm in 1914 (Perrett, ON 216, ML SLNSW)</p>	

²⁰ Plans titled 'Hawkesbury Agricultural College Water Supply,' prepared by Department of Public Works, 1909, Record Nos 32995, 33001, 33002, 33003, 33004, 33005A, 33011, 33013, 33015, 29340, AC1/8/1, NSW Department of Finance and Services.

²¹ Hawkesbury Agricultural College Annual Report, 1911: 75; Hawkesbury Agricultural College Annual Report, 1912: 79, 84.

²² Public Works Annual Report, 1909-10: 51.

Date	Historical Outline	
1923–1928	<p>The supply of water and electricity in the Richmond are closely linked, as are supplies of both resources to the Hawkesbury Agricultural College, town of Richmond and Richmond Aerodrome.</p> <p>When the Commonwealth Government (RAAF) established the Richmond Aerodrome in 1923-24 town water was used however it was later connected to the Hawkesbury Agricultural College supply.²⁵</p> <p>In 1925-26 the Public Works Department again upgraded River Farm pumping station machinery. In 1927 an agreement was made for the college to supply power to the aerodrome and in 1928 also water. Four concrete tanks were built on the riverbank opposite River Farm to augment the pressure.²⁶ The supply pipe on the opposite bank is still visible.</p> <p>.</p> <p>An undated (c1920s) photograph showing the layout of the buildings on River Farm (lhs) including the pumping station and staging seen from the north bank of the Hawkesbury River (P554 UWS Archives)</p>	
1939	<p>The need for additional water supplies at the Richmond Aerodrome for the Air Force during World War II led to the amalgamation of the Richmond township and college water supplies.</p> <p>From 1 July 1939 all the water used by the college, Air Force Base and township was drawn from the MWS & DB's Richmond works. An additional pumping station was constructed in the township to boost the supply. It is not known if the River Farm Pumping Station was decommissioned at this time or retained for River Farm irrigation for a period of time.²⁷</p>	
1943	<p>In 1943 the college installed a new spray irrigation plant supplying a portion of River Farm. The scheme supported the college in fulfilling a contract with the Government to provide vegetables to supplement wartime supplies. It is not known if the older pumping station was used in conjunction with the new equipment or had already been decommissioned and different equipment installed.²⁸ Disused pumping equipment parts lie adjacent to the 1909 pumping station.</p>	

²³ Aird, *The Water Supply, Sewerage and Drainage System of Sydney 1788-1960*, MWS & DB, Sydney, 1961: 103.



²⁴ Public Works Annual Report 1913-14: 80; Hawkesbury Agricultural College Annual Report, 1914: 72, 80; Dart, *History and Reminiscences*, 1982: 95.

²⁵ Aird, *Water Supply, Sewerage and Drainage System of Sydney*, 1961: 103.

²⁶ *Public Works Annual Report 1925-26*: 36; Dart 1982: 96.

²⁷ Aird, *Water Supply, Sewerage and Drainage System of Sydney*, 1961: 103-4.


²⁸ Western Mail 18 February 1943: 23.

Date	Historical Outline	
1961	<p>The extent of flooding in the Hawkesbury was a serious risk to floodplain farmers, their building, homes, stock and crops as photographs taken in 1961 illustrate. The river height recorded at nearby Windsor in November 1961 was 49' 6" (15.10m). A depth of 12.2 metres is rated as a major inundation with a high potential of causing extensive damage.²⁹</p> <p>-</p> <p>River Farm pumping station surrounded by floodwaters in 1961 (Image 013716, photographed by Robert 'Bob' Power (1907-1997). Courtesy Hawkesbury Library Service)</p> <p>-</p> <p>River Farm sheds seen over the flooded Hawkesbury River in 1961 (Image 013719, photographed by Robert 'Bob' Power (1907-1997). Courtesy Hawkesbury Library Service)</p>	 
2011	<p>In 2011 River Farm is again irrigated by water pumped from the Hawkesbury River. Modern pumping equipment is attached on the north side of the tower with a pipe extending into the river. Sydney Water supplies water to River Farm for domestic use via the pipe that once pumped water to the Hawkesbury Agricultural College and other locations.³⁰</p>	
Hawkesbury Agricultural College of Advanced Education and University of Western Sydney		
1971–1986	<p>The Hawkesbury Agricultural College was restructured as a College of Advanced Education.³¹</p> <p>In 1986 River Farm with other areas of the Hawkesbury Agricultural College was recommended for inclusion in the Hawkesbury Shire LEP.</p>	

²⁹ 'Flood Levels of the Hawkesbury River,' www.hawkesburyhistory.org.au, accessed 22 Dec 2011.

³⁰ Pers Comm Steve Norris-Smith, Campus Manager - Hawkesbury, UWS, 16 Jan 2012.

³¹ 'Agency Detail: Hawkesbury Agriculture College,' Agency No 2940, SRNSW.

Date	Historical Outline	
1988	In 1988 River Farm was administered as part of the Hawkesbury Campus of the newly created University of Western Sydney. University staff managed the site as a 'Demonstration Farm' incorporating a component of the 'Vegetable Minifarm' operated by horticulture students. ³²	
1997	In 1997 a new land title was issued for River Farm recording it as Lot 19 DP752032 Richmond, Parish of Ham Common. Although still Crown Land, it was subject to the University of Western Sydney Act 1988.	
2011	<p>Current plans for the Riverfarm are the reinvigoration of the site as the UWS Hawkesbury Riverfarm Education Centre - a flag ship project of the newly established United Nations University Regional Centre of Expertise on Education for Sustainable Development - Greater Western Sydney.</p> <p>-</p> <p>Recent aerial view of the Study Area showing the buildings on the site (SiXviewer LPI LPMA)</p>	

³² Edds 'A Study of the Early Buildings and their Curtilage at Hawkesbury Agricultural College Leading to Conservation Guidelines,' Graduate Project B Build (Hons) UNSW, Nov 1988: 14, 15.

3. PHYSICAL DESCRIPTION

The farming complex located on the River Farm site include a single storey cottage, a garage, a number of timber framed farm buildings, silos and a reinforced concrete pumping station (incorporating a tower and well).

Figure 3

Aerial of showing complex of buildings within the Study Area:

Item (1) Cottage & Garage

Item (2) Corrugated Iron Shed

Item (3) Corrugated Iron and Timber Shed

Item (4) Pumping Station

Item (5) Two Sheds and Silos



Figure 4

View of farming complex looking south from the pumping station



Cottage and Garage (Item 1)

The simple rendered brick cottage is likely to have been constructed between 1900 and 1910 (refer to Figure 5). The cottage is built on low brick piers supported by timber bottom plates and retains many of the original features typical of a late 19th-early 20th century farm bungalow such as the front verandah and steep roof pitch.

Alterations include enclosure of the east verandah after 1964 and possible earlier enclosure of a breezeway between the kitchen and main part of the house to form the current hallway. To the north of the cottage is a later garage building with a hipped roof.

Corrugated Iron Shed (Item 2)

The corrugated iron shed to the northwest of the cottage is timber framed and used as a storage facility (refer to Figure 6). Early plans indicate a much smaller shed in the same location as early as 1935. Some of the materials that were used to construct the early shed are likely to have been reused to construct the current structure.

Corrugated Iron and Timber Shed (Item 3)

The corrugated iron and timber shed structure are also used as a storage facility (refer to Figures 7 and 8) and are currently being used to store farm equipment such as a pea sheller which is thought to date to the site's use by the Hawkesbury Agricultural College in the mid 20th century.

Early plans indicate a much smaller shed in the same location as early as 1912. It would appear that the front part of the shed supported by large timber posts form part of the original shed which has been extended to the north east.

Pumping Station (Item 4)

The reinforced concrete pumping station was built in 1909 to draw water for the college water supply and irrigation (refer to Figures 9 and 10). The pumping station is a significant landmark structure possessing details with classical references. The original plans for the pumping station and associated infrastructure are included at Appendix B. Detailed information in relation to the pumping station's role is provided in Section 3.11 of the Report attached at Appendix A.

Overall the structure appears to be in good condition although some cracking can be observed to the render. Past repairs involving concrete patching can be observed. Attached to the tower are remnants of a connection to powerlines as well as a metal ladder and some metal fixings. These attachments are early and should be maintained. There are some later conduits and electrical infrastructure installed to the perimeter of the wall and more recently some large pipes associated with water quality monitoring has been constructed to the north of the pumping station. This later infrastructure is considered to be intrusive and their relocation to a more sympathetic location should be considered (refer to Figures 11 and 12).

The platform over pipes connected to the pumping station (identified as a wharf on the 1912 Crown Plan) could not be located during the site investigations.

Two Sheds and Silos (Item 5)

To the east of the cottage are two sheds and silos. One of the sheds is a later corrugated iron structure with roller doors and the second is an early timber structure used as a drying barn. This later structure can be observed in photos as early as the 1920s (refer to Figures 11 and 12).



Figure 5 View of Cottage and adjacent garage (Item 1)



Figure 6 View of corrugated iron sheds (Item 2)



Figure 7 View looking south towards the corrugated iron and timber shed structures (Item 3)



Figure 8 View of pea sheller within the corrugated iron shed (Item 3)



Figure 9 View of pumping station with the Hawkesbury River to the left (Item 4)



Figure 10 Detailed view of pumping station showing services and fixings attached to the structure (Item 4)



Figure 11 View of the later infrastructure



Figure 12 view of later infrastructure looking towards the river from the pumping station



Figure 13 View of corrugated iron shed and timber drying barn (Item 5)



Figure 14 Detailed view of drying barn (Item 5)

3.1 STRUCTURAL ASSESMENT OF PUMPING STATION

A condition inspection of the structure was made on the 13th February 2012 by a structural engineer. The inspection indicated that overall the condition of the pumping station is fair, particularly given the age of the structure.

Vertical cracks to concrete wall

Some vertical cracks can be observed in the external surface of concrete wall around the perimeter of the pump shaft. These cracks are a result of corrosion of steel reinforcement due to inadequate concrete cover and moisture condition inside and outside of the pump station. This corrosion causes the steel to expand and crack the concrete (concrete cancer). The cracks in the wall shaft around perimeter of the pump station will require attention sooner rather than later because in the long term further corrosion of the steel can lead to widening of the cracks and spalling of concrete.

Recommendation:

Inject epoxy into cracks in the wall in order to prevent future corrosion of the reinforcement and consequent spalling of the concrete.

Clean and then apply an appropriate coating system on the exposed surfaces of the concrete wall. This measure will protect the concrete from further carbonation and as a result prevent corrosion of the steel reinforcement.

Concrete spalling to string course

Concrete spalling/cracking was observed to the string course around the perimeter of the shaft (refer to Figures 15 and 16). The degree of concrete spalling /cracking is significant and in some areas the concrete at the top of string course appear to be completely separated from main structure and shifted outwards in pieces. The reason for the increased level of deterioration could be a result of or a combination of either inadequate cover and/or leakage/moisture from the roof and adjacent floor. Left unaddressed, the cracking/spalling will deteriorate further and concrete pieces may fall to the ground. Doing nothing is not recommended as the problem will magnify over time causing further deterioration.

Recommendations:

Remove spalled/cracked or drummy concrete to sound material; expose all rusted steel by removing concrete along its length to a depth of 20mm all around; grit blast to clean the rusted steel prime/coat steel with an approved anti-corrosion primer; apply suitable cement-based repair mortar. Reinforcement that has no or inadequate cover may be bent back until it has a minimum of 20mm clear cover.

Clean and then apply an appropriate coating system on the exposed surfaces of the external concrete stringcourse. This measure will protect the concrete from further carbonation and as a result prevent corrosion of the steel reinforcement.

Corrosion of embedded steel members

The surface of steel members (beams, stairs, post etc) is rusted. Although some of the steel members are embedded in the concrete wall, no significant cracks were observed in the concrete due to corrosion of embedded steel members.

Recommendation

It is recommended that rust from the embedded steel beams be removed adjacent to the concrete wall (100mm-150mm length) and that the steel in this area be painted with a 2-pack epoxy to minimise the damage that may occur due to corrosion of the imbedded steel.



Figure 15 View of cracking (shown arrowed) to string course of pumping station



Figure 16 View of previous patch repairs to pumping station

3.2 ABORIGINAL HERITAGE AND HISTORICAL ARCHAEOLOGY

Aboriginal Heritage

The Darug are the traditional custodians of the land on the south bank of the Hawkesbury River at Richmond. Refer to Section 3.1 of the Report attached at Appendix A for more detailed information regarding the traditional owners of the land

A search of the Aboriginal Heritage Information Management System (AHIMS) Register³³ managed by Department of Environment and Climate Change (DECC) indicated that there were no archaeological sites within the River Farm site. A tree (thought to be a scar tree) directly east of the timber shed with the pea sheller was also considered for inclusion, but subsequently dismissed after further investigations.

³³ This is the main source of information regarding Aboriginal sites in NSW.

Aboriginal people would have used the river as a source of food, water and transport and there are known Aboriginal sites in riverine environments such as this in the Hawkesbury area. Although intensive farming activity and periods of flooding are likely to have disturbed occupation deposits, there may be some deeper, intact deposits within the River Farm site. Further assessment may be required, as well as approval under the *NSW National Parks and Wildlife Act, 1975* if substantial excavation is proposed.

European Heritage

The following comments are preliminary and are based only on the historical information contained in this report.

The UWS River Farm has been a site of pastoral activity since it was first granted in 1799. Early cropping for wheat and barley would have transformed the landscape into ploughed fields although years of flooding are likely to have impacted survival of substantial plough and harrow. The existing farm buildings are north of Edwards Road and it is likely that this has always been the location of such structures. Early records suggest that a range of farm animals have been kept at the site including horses, pigs, goats and sheep. These animals would have required a range of yards and shelters, which are likely to have been constructed from timber. Such evidence is often ephemeral and susceptible to impacts from later, intensive use. The potential for archaeological remains from this early period of farming activity is fairly low although there may be deeper features such as wells and privies that could contain artefact deposits. It is not known, although it is possible that there was a dwelling on the property prior to construction of the current farm house in the late nineteenth century. If it existed, there may be some evidence of an earlier dwelling in the archaeological record in the form of footings and/or postholes and artefact deposits, although they are likely to have been disturbed by later development of the farmstead.

Archaeological monitoring of all excavation works is not recommended, but caution should be exercised and a suitably qualified archaeologist consulted if artefact or structural material is found. Work should cease in the area until this advice and any necessary approvals under the *NSW Heritage Act, 1977* have been obtained. Care should be taken when excavating near underground components of the flood management system.

4. ASSESSMENT OF SIGNIFICANCE

4.1 INTRODUCTION

The following Statement of Significance has been developed from an understanding of the historical development of River Farm and its surrounds, an analysis of its extant fabric, and an assessment of the heritage significance against the criteria for listing on the State Heritage Register.

Decisions on the future management of River Farm should be based on an understanding of the place's heritage significance. It is important that future decisions do not jeopardise the heritage significance of the place.

4.2 ASSESSMENT OF SIGNIFICANCE

The following assessment of significance is an edited version from Caroline Plims Heritage Assessment report.

Criterion (a) An item is important in the course, pattern of NSW's cultural or natural history.

River Farm, formerly known as Dore's Farm or Hough's Farm, is significant in NSW's cultural history as evidence of agriculture and grazing on the fertile but flood prone Richmond Lowlands from the late 18th century until the present day.

River Farm is linked in the 20th century with Hawkesbury Agricultural College which used it to teach farming theory and practice. The site provides evidence of a reinforced concrete water pumping station constructed in 1909 and powered by the college power supply. It was used for irrigation and other college needs until c1939, at times supplying water to Richmond township and Richmond Air Base. In 1911 a flood mitigation and drainage scheme was constructed at River Farm. A cottage, several timber frame farm buildings and the reinforced concrete water pumping station are significant as evidence of the farm's adaptation to meet the needs of its occupants from the late 19th to mid 20th century.

Criterion (b) An item has strong or special association with life or works of a person or group of persons, of importance in NSW cultural or natural history.

Between the late 18th and late 19th centuries River Farm has an important association with several notable owners including George Crossley, convict and attorney, John Connell, a successful Sydney merchant and landowner, and Benjamin Richards, Riverstone Meatworks founder. Crossley and Richards are associated with other Richmond Lowlands farms. River Farm is significant for its association with the Hough family of Richmond who leased or managed it in the 19th and early 20th century.

River Farm is significant for its long and special association with the Hawkesbury Agricultural College. The farm's riverside location and rich environment suitable for cultivation and grazing expanded learning opportunities for students from 1905. The site is

able to demonstrate the utilization and management of water resources in the Hawkesbury for the benefit of the college and the wider community.

Criterion (c) An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW.

River Farm is important in demonstrating the rural and riverine character of the Richmond Lowlands. It retains some of the characteristics of the pre-colonial landscape overlaid by modifications imposed by settlement, farming, flooding and flood management practices. The reinforced concrete River Farm pumping station is evidence of early 20th century water supply technology, its design having technical and aesthetic merit. The cylindrical tower capped by an octagonal lantern and faceted roof is a landmark on the Hawkesbury River. Despite some modifications many original features remain intact. The picturesque farm complex includes several timber framed farm buildings, and a modestly scaled and detailed, rendered brick cottage set in a garden with a number of mature trees. Despite some alterations the cottage retains many original details. Farm buildings and machinery linked to use by the Hawkesbury Agricultural College are extant and the buildings retain many original architectural details.

Criteria (d) An item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons.

River Farm is valued by the community not only for its connection to the land's traditional owners but also as evidence of farming by British colonists, both communities utilising the land's resources in different ways. The farm has a strong and special association with the Hawkesbury Agricultural College staff and students who cultivated it in the 20th century. The inclusion of River Farm as an item of heritage significance on the Hawkesbury Council LEP is evidence of the high regard in which the community still holds the place.

Criterion (e) An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history.

River Farm has the potential to yield information that will contribute to an understanding of the cultural and natural history of Richmond Lowlands. Despite some disturbance due to cultivation, it is likely to contain archaeological evidence of the site's Aboriginal and early colonial history providing information not available from other sources.

Criterion (f) An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history.

River Farm pumping station its design, if not its building type, is a rare example of an early 20th century reinforced concrete pumping station incorporating a tower and well. The structure extends deep into the riverbank to protect it from floods and retains many original elements.

Criterion (g) An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places, or cultural or natural environments.

River Farm is able to demonstrate the principal characteristics of a modest farm complex in the Hawkesbury and is a good example of its type in the Richmond Lowlands.

4.3 STATEMENT OF CULTURAL SIGNIFICANCE

River Farm, formerly known as Dore's Farm or Hough's Farm, is significant in NSW's cultural history as evidence of the farming of the fertile Richmond Lowlands from c1799. River Farm has an important association with notable owners including Richard Dore, attorney and deputy judge advocate, George Crossley, convict and attorney, John Connell, a successful Sydney merchant and landowner, and Benjamin Richards, founder of Riverstone Meatworks.

River Farm is significant for its association with Hawkesbury Agricultural College and able to demonstrate its use as a teaching farm from 1905. The picturesque farm complex is a good example of its type and includes a number of timber framed farm buildings, farm machinery, and a modestly scaled and detailed, cottage in a garden setting. The reinforced concrete pumping station built in 1909 demonstrates the utilisation of water resources for the benefit of the Hawkesbury Agricultural College and the wider community. The landmark structure is evidence of early 20th century water supply technology and considered rare. It is largely intact, and of technical and aesthetic significance.

River Farm has the potential to yield information that will contribute to an understanding of the cultural and natural history of Richmond Lowlands and likely to retain evidence of the site's Aboriginal and colonial history. River Farm is valued by the community as evidence of the fertile Richmond Lowlands landscape once utilised by traditional owners, adapted by colonists for farming and later utilised for teaching by the Hawkesbury Agricultural College.

4.4 GRADINGS OF SIGNIFICANCE

The remaining built elements at River Farm have been graded in terms of heritage significance to assist in managing the site and making decisions on its future conservation and development. The following grading (refer to Figure 15) should be used as a guide to determine how particular elements should be treated.

The various elements and fabric have been graded in accordance with the levels identified in James Kerr's The Conservation Plan (1996):

<i>Exceptional</i>	Items of exceptional significance are rare or outstanding items that feature a high degree of original fabric and intactness or are integral to understanding the place as a whole. Their loss would have a serious and negative impact on the heritage significance of the place as a whole. This loss would be irreversible and would represent a loss to the people of NSW as a whole. Their conservation maintains the key characteristics that make the place interesting and unique.
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High

Items in this category have a high degree of original fabric and demonstrate key elements of their significance, with a degree of alteration that does not unduly detract from that significance. They are important to understanding the place as a whole. Their loss would have a negative impact on the heritage significance of the place as a whole. Their conservation maintains important characteristics that are central to the significance of the place.

Moderate

The fabric, buildings or elements of moderate significance are altered or modified elements or elements of lesser historic value, but contribute to the overall character and significance of the place. Their loss would detract from the overall significance of the place and the context of the elements of exceptional and high significance.

Little

Fabric, buildings and elements are items of little heritage value, but still make a minor contribution to the character and overall significance of the site. Their loss would have a minor impact on the significance of the place as a whole. They should not however be removed unnecessarily as like items of moderate significance, they contribute to the context of the elements of exceptional and high significance.

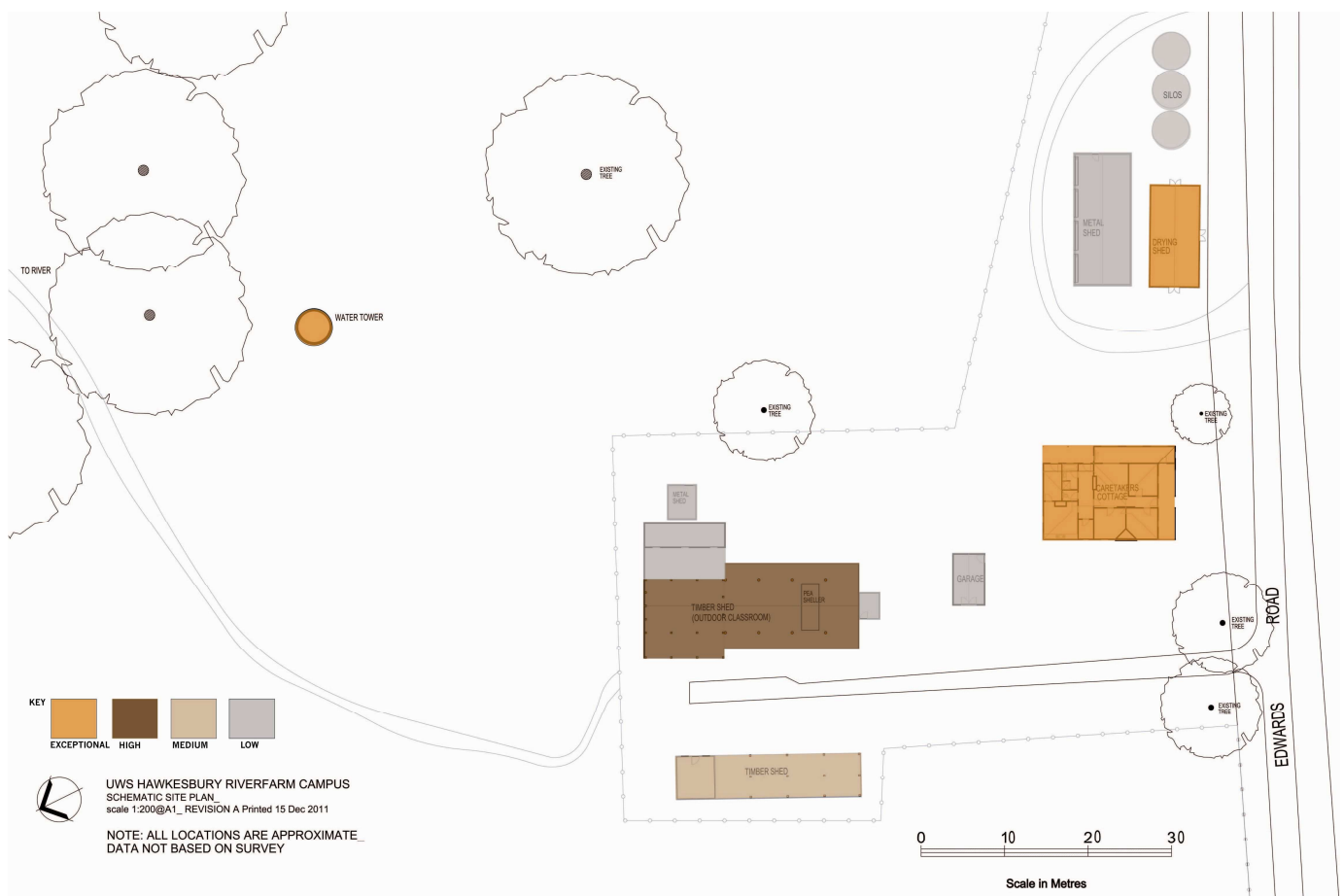


Figure 17 Grading of Significance of built elements at River Farm (Source: Base plan from UWS)

4.5 RELATIONSHIP TO HISTORICAL THEMES

The significant values of River Farm and its setting relate to a number of key historical themes, as identified below. The state themes have been taken from the Historical Thematic framework developed for the NSW State Heritage Inventory (and are numbered accordingly). The local themes have been developed for this report from these.

Table 4.1: Historic Themes relevant to River Farm

Australian Theme	NSW State Theme	
3. Developing local, regional and national economies	Environment – cultural landscape: Activities associated with the interactions between humans, human societies and the shaping of their physical surroundings	River Farm is a cultural landscape with rich layers, beginning with the use of the land for natural resources by Aboriginal people to the development of the landscape by European settlers. Land grants in the early nineteenth century began subdivisions of the land and subsequent farming. River Farm developed within a fertile area, relying on natural resources from the Hawkesbury River.
	Technology: Activities and processes associated with the knowledge or use of mechanical arts and applied sciences	Technologies for the supply of water through a reinforced concrete pumping station. The pumping station is reminiscent of the sophisticated development in technology at the time.
	Agriculture: Activities relating to the cultivation and rearing of plant and animal species, usually for commercial purposes, can include aquaculture	River Farm was utilised for agricultural purposes in the early nineteenth century and was used for growing maize, barley, peach trees, melons, potatoes and corn at various points. A number of animals were kept for commercial purposes such as Sheep, pigs, horses, bullocks and cattle
	Pastoralism: Activities associated with the breeding, raising, processing and distribution of livestock for human use	River Farm was also utilised for raising Sheep, pigs, horses, bullocks and cattle, for grazing and for consumption, providing meat for the larger Sydney market.
4. Building settlements towns and cities	Utilities: Activities associated with the provision of services, especially on a communal basis	Supply of water and energy to Richmond on a domestic and larger scale leading to improved farming opportunities. Followed by, provision of water supply to Richmond Aerodrome and the township.
6. Educating	Education: Activities associated with teaching and learning by children and adults, formally and informally	River Farm has long been associated with the provision of educational facilities at a tertiary and vocational level. The association began in the late nineteenth century and continued throughout the twentieth century to the present day. It is important in the understanding of the development of agricultural education in NSW.

5. OPPORTUNITIES

5.1 EXTERNAL FUNDING OPPORTUNITIES

NSW Heritage Branch

Of the grants offered by the NSW Heritage Branch, three are considered to be relevant to River Farm and are offered to sites regardless of whether they are listed on the State Heritage Register. Details of these grants are listed below:

Special Projects

Applications open all year

To provide funding for special, urgent or emergency projects for State Heritage Register and state significant heritage items.

Funding for items that are considered to be state significant and not necessarily listed on the State Heritage Register. Must meet three or more of the following criteria:

- Assist State Heritage Register items
- Have special needs eg hardship, emergency, special
- Are located in remote and rural locations
- Include urgent works to avert management risks (eg severe deterioration or demolition by neglect)

Works must be over the value of \$5000. Grants of between \$5000 and \$10,000 available.

On-ground interpretation projects

Applications open at the end of 2012 for the 2013–2015 period

To provide funding for exemplar "on-the-ground" interpretation for major NSW heritage sites.

This program has strong links with heritage tourism. Targets funding towards innovative best practice projects that communicate and present heritage values to the community

Funding for items that are considered to be state significant and not necessarily listed on the State Heritage Register.

Funding is for on-ground works to implement an interpretation plan which must already be completed.

Dollar for dollar grants of between \$5000 and \$20,000 available.

Conservation management documents

Applications open at the end of 2012 for the 2013–2015 period

To provide funding for the preparation of conservation documents and management reports for items listed on the State Heritage Register or of state heritage significance.

Projects include:

- Conservation management plan or strategy
- Economic feasibility study
- Cost benefit analysis
- Maintenance plan
- Condition survey
- Archaeological assessment
- Heritage impact statement

Funding for items that are considered to be state significant and not necessarily listed on the State Heritage Register.

Works must be over the value of \$2500.

Dollar for dollar grants of up to \$5000 available.

Other Community Grants

As part of the Hawkesbury City Council 3 year strategy plan, the Heritage Incentive Fund is being reviewed in 2013-2014. It may be worth contacting Hawkesbury City Council at this time to determine if there are any opportunities for funding to assist with the management of River Farm.

5.2 INTERPRETIVE OPPORTUNITIES

As discussed in Table 4.1, the main stories to be told about River Farm relate to three main historic themes:

- Developing local, regional and national economies
- Building settlements towns and cities
- Educating

Given the proposed continued use of the site for education purposes, it is considered that the third theme, “Educating” be the focus of any interpretive measures undertaken at River Farm. That is, the association that River Farm has had with the provision of educational facilities at a tertiary and vocational level since the late nineteenth century to the present day.

6. THE WAY FORWARD

6.1 INTERPRETATION INITIATIVES

Current plans for the River Farm are the reinvigoration of the site as the UWS Hawkesbury River Farm Education Centre - a flag ship project of the newly established United Nations University Regional Centre of Expertise on Education for Sustainable Development - Greater Western Sydney.

Given the proposed long-term use for the site, indirect interpretation techniques such as signs, design of interiors/exterior, displays and publications (all of which are indirect or non-personal forms of interpretation) techniques are recommended.

The existing buildings within the site, in particular the drying barn, the cottage, the pumping station as well as early farming equipment at River Farm are features that can be used in combination with early photos, historical research and early plans to assist in telling the stories relating to the development of agricultural education in NSW, agricultural technologies as well as the early farming complexes and how they functioned.

All interpretive material should be publically accessible and based on the most accurate and insightful information and historiography available. Information on the site, including current and historical photographs should be made readily available on the University's website.

In addition, as part of the development of the sustainability education and research facility at the site, the opportunity exists for:

- Re-using the existing buildings on the site.
- Re-introducing soft landscape forms and/or built landscape elements that interpret the early layout of the site, such as the location of early farm buildings, the platform/wharf by the river adjacent to the pumping station, fencing etc.
- Ensuring that any new buildings respect the form and scale of the vernacular architecture of the site and are flexible and functional in relation to the use of the site as a farming/education facility.

6.2 OTHER RECOMMENDATIONS

Direct interpretation techniques featuring guides should also be explored as these techniques are considered to be the most powerful and effective form of interpretation available. Planned tours or recordings featuring the stories of past residents, workers, teachers and students of River Farm would be an effective way of interpreting the past history and function of the farm.

It is recommended that:

- an oral historian be engaged to collect the stories from past residents, workers, teachers and students at the site;
- the structural repair works to the pumping station be undertaken;
- the pumping station and infrastructure linked to River Farm's early 20th century use undergo an individual assessment of its mechanical integrity and enable archival recording;
- a comparative survey of pumping stations of this design and type be undertaken;
- items of moveable heritage at the site be assessed and recorded and left in-situ where appropriate;
- consistent with its inclusion in the Hawkesbury Council's LEP, River Farm should be listed in the NSW Heritage Inventory; and
- a copy of this report and subsequent oral histories, surveys etc be placed in the Hawkesbury City Council Library Local Studies Collection for reference by the community.

APPENDICES

A History and Significance Assessment

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HISTORY AND SIGNIFICANCE ASSESSMENT



RIVER FARM

Edwards Road

Richmond Lowlands, NSW

Report to NSW Public Works Government Architects Office

By Caroline Plim

January 2012

1.0 Introduction

This report provides a history and significance assessment of River Farm, Edwards Road, Richmond Lowlands, NSW (Lot 19 DP 752032). River Farm, the Study Area is Crown Land administered by the University of Western Sydney, Hawkesbury Campus at Richmond. River Farm is included in the portfolio of the University of Western Sydney Heritage assets and listed on the Hawkesbury Council's LEP.¹ River Farm is included in the 'Heritage Study of the North Western Sector of Sydney,' prepared by Howard Tanner and Associates in 1983-1984, and in the 'Heritage Study of the Shire of the Hawkesbury,' prepared by Lester Tropman and Associates in 1987, as being of State significance. The site is not listed on the State Heritage Inventory.

1.1 Aims

This report provides a history of River Farm as the basis for an assessment of the cultural significance. The assessment has been commissioned to guide future uses of the site being considered by the University of Western Sydney. The main focus of the site's recent history is the portion of the site north of Edwards Road (the Study Area) however the early history can only be understood in the context of the whole site.

1.2 Sources

The history utilises available primary and secondary sources from NSW Land and Property Information, State Library of New South Wales, State Records of New South Wales, University of Western Sydney Archives and NSW Department of Finance and Services (NSW Public Works). All references to land ownership should be read in conjunction with the Land Titles Schedule in Appendix 1. Photographs and plans related to River Farm but not incorporated in the history are included in Appendices. A site inspection took place on 16 January 2012.

1.3 Authorship and Copyright

The history and significance assessment was researched and written by Caroline Plim (BA, Assoc Dip Local and Applied History). Copyright of this report remains with the author, Caroline Plim.

1.4 Limitations

A detailed physical assessment of the Study Area has not been carried out. Primary source research related to the Aboriginal history of the Study Area was not included in the commissioned research.

1.5 Recommendations

- a heritage specialist carry out a site inspection documenting the interior and exterior of structures on the site as well as making an assessment of the provenance, condition and significance of each item or area;

¹ Conybeare Morrison, 'University of Western Sydney Hawkesbury and Penrith Campuses Heritage Asset Management Strategy (HAMS),' Nov 2007 (Rev Dec 2008): 3; Item 24, Hawkesbury LEP 1989 (Rev Jul 2011), Hawkesbury City Council.

- the pumping station and infrastructure linked to River Farm's early 20th century use should undergo an individual assessment and archival recording.
- a comparative survey of pumping stations of this design and type should be undertaken;
- items of moveable heritage should be assessed and recorded;
- an archaeological assessment (Aboriginal and historical) be undertaken to better understand the site's cultural significance and inform its future management;
- consistent with its inclusion in the Hawkesbury Council's LEP, River Farm should be listed in the NSW Heritage Inventory.

Due to the site's listing on the Hawkesbury Council's LEP it is recommended that a copy of this report and others commissioned be placed in the Hawkesbury City Council Library Local Studies Collection for reference by the community.

2.0 Location and Description of the Study Area

River Farm, owned by the State of New South Wales and administered by the University of Western Sydney is located at Richmond Lowlands on the south bank of the Hawkesbury River and north of the town of Richmond, NSW. The site recorded as Lot 19 DP 752032 in the Parish of Ham Common, County of Cumberland, was formerly known as Portion 19. Edwards Road runs east-west through the northern end of the property joining Cornwells Lane in the east. The property is approximately 117 acres 1 rood in area (approximately 47.45 ha) and located 6 kilometres north of the main University of Western Sydney Hawkesbury Campus.

The Study Area is outlined in blue in Figure 1. Structures in the Study Area north of Edwards Road include a single storey cottage, a garage, a number of timber framed farm buildings, silos and a reinforced concrete pump station (incorporating a tower and well). Some of the farm equipment in the sheds is thought to date to the site's use by the Hawkesbury Agricultural College in the mid 20th century.

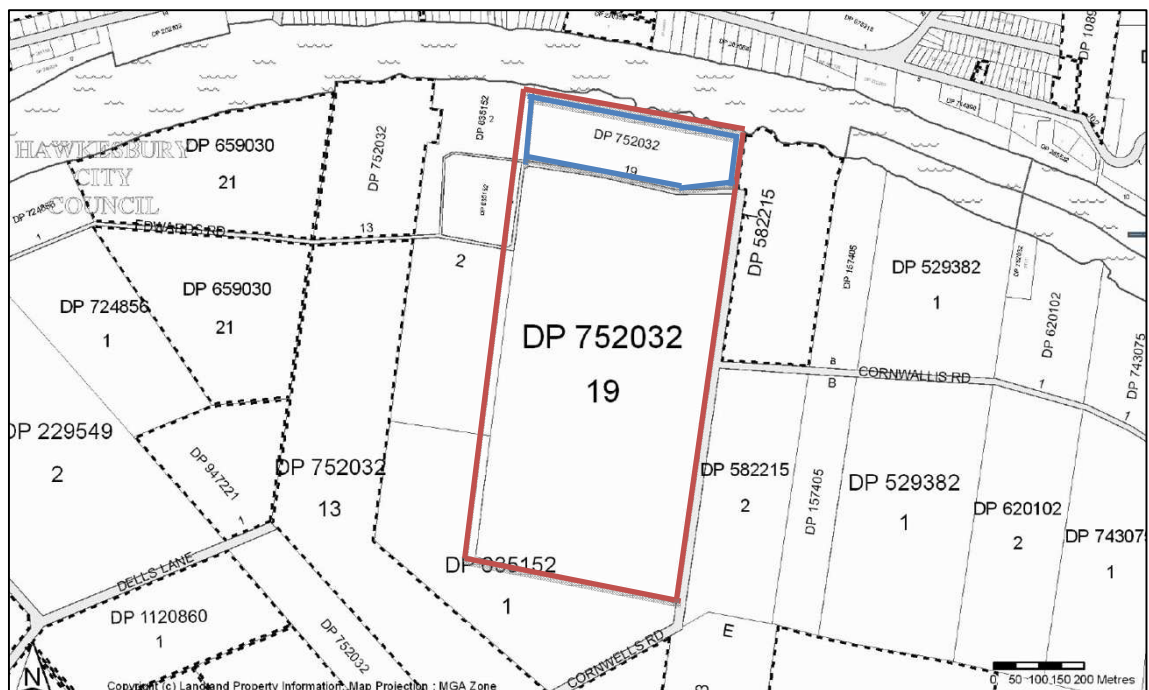


Figure 1: Site Plan showing River Farm (Lot 19 DP 752032) with the Study Area (outlined in blue) being the portion north of Edwards Road (LPI Cadastral Plan)

3.0 History

3.1 Brief History of Richmond

Traditional owners

The Darug are the traditional custodians of the land on the south bank of the Hawkesbury River at Richmond. Buruberongal bands are thought to have occupied the land around the lower Hawkesbury River.² Colonists named Aboriginal bands by the locations at which they were seen. Place names were sometimes those used by the indigenous people or that attributed by colonists. British colonists in the Hawkesbury in

² Attenbrow, *Sydney's Aboriginal Past*, UNSW Press, Sydney, 2010: 17-36.

the vicinity of the Study Area recorded the 'Richmond tribe' as living in the locality.³ Knowledge of the names and boundaries of language groups and bands in Sydney is incomplete due to the scarcity of reliable data however it is thought that the people south of the Hawkesbury River spoke the hinterland dialect of the Darug language. Membership of communities ranged from 35 to 60 people, however generally people camped, travelled, foraged, fished and hunted in smaller, extended family groups.⁴

The river, known as Deerubbin, and nearby lagoons were a focal point for bands, clans or family groups, providing food such as fish, eels, water birds and shellfish. Yams and other plant food growing on the usually fertile riverbanks were gathered depending on the season and as need dictated. Surrounding bushland was a source of animals that were trapped or hunted.⁵

After colonisation and growth of British settlements Aboriginal communities were dislocated. Forced movement of people occurred across NSW and caused the loss of many aspects of Aboriginal culture resulting in the emergence of new groups incorporating people from diverse areas. Reorganisation ensured the preservation of some of the core cultural practices and knowledge in Aboriginal communities.⁶ River Farm has the potential to provide evidence of the traditional owners who identified with the area. A tree with scars that could be of Aboriginal or non Aboriginal origin warrants examination by a specialist in this area of research.

European settlement in the Hawkesbury - Richmond

Lieutenant Governor Major Francis Grose initiated a plan to settle the Hawkesbury district in 1792 and by 1794 twenty-two settlers had been granted land on the banks of the river and established farms.⁷

Richmond was one of five towns established by Governor Lachlan Macquarie in 1810. It was laid out in 1811 on an elevated piece of land at the centre of the agricultural community lying on a section of the Hawkesbury River between Windsor and Castlereagh, two other 'Macquarie' towns. Windsor was the principal settlement however Richmond's development followed closely. An 1848 gazetteer of the Australian colonies describes the town of Richmond as 39 miles (62.76 km) from Sydney with a population of 746 and 147 houses.⁸

Early records describe the general area by various names including Mulgrave Place and Richmond Hill. The Study Area is located to the north of the township and, due to its lower elevation, was known as Richmond Lowlands or Richmond Bottoms and prone to seasonal floods. The rich agricultural land was divided into farms and allotments of varying size. A network of small creeks and lagoons provided water to farms without river access.

3.2 Dore's Grant (1799-1801)

In 1799 Governor John Hunter granted the portion of land now known as River Farm to Richard Dore, the deputy judge advocate and secretary to Governor John Hunter (See Section 4.0: Associated People). Described on the land grant as 100 acres (40.47 ha) in

³ Attenbrow, *Sydney's Aboriginal Past*, 2010: 30.

⁴ Attenbrow, *Sydney's Aboriginal Past*, 2010: 17-36.

⁵ Attenbrow, *Sydney's Aboriginal Past*, 2010: 17-36.

⁶ Hinkson, *Aboriginal Sydney: A guide to important places of the past and present*, Aboriginal Studies Press, Canberra, 2001: xxiv-xxv.

⁷ Bladen (Ed), *Historical Records of New South Wales*, Vol 2, Lansdown Slattery, Mona Vale, NSW, 1979: 210.

⁸ Wells, *A Geographical Dictionary or Gazetteer of the Australian Colonies 1848, 1970* (facsimile): 356; Jack, *Macquarie's Towns*, Heritage Council of NSW, Parramatta, NSW, 2010: 49.

the district of Mulgrave Place, the land was situated on the south bank of the Hawkesbury River between grants made to officers and settlers. Like other early grants it was conditional on residence there, and improvement and cultivation of the land. A quit rent of two shillings for the grant shown in the map below (Figure 2) was to commence after five years duration.

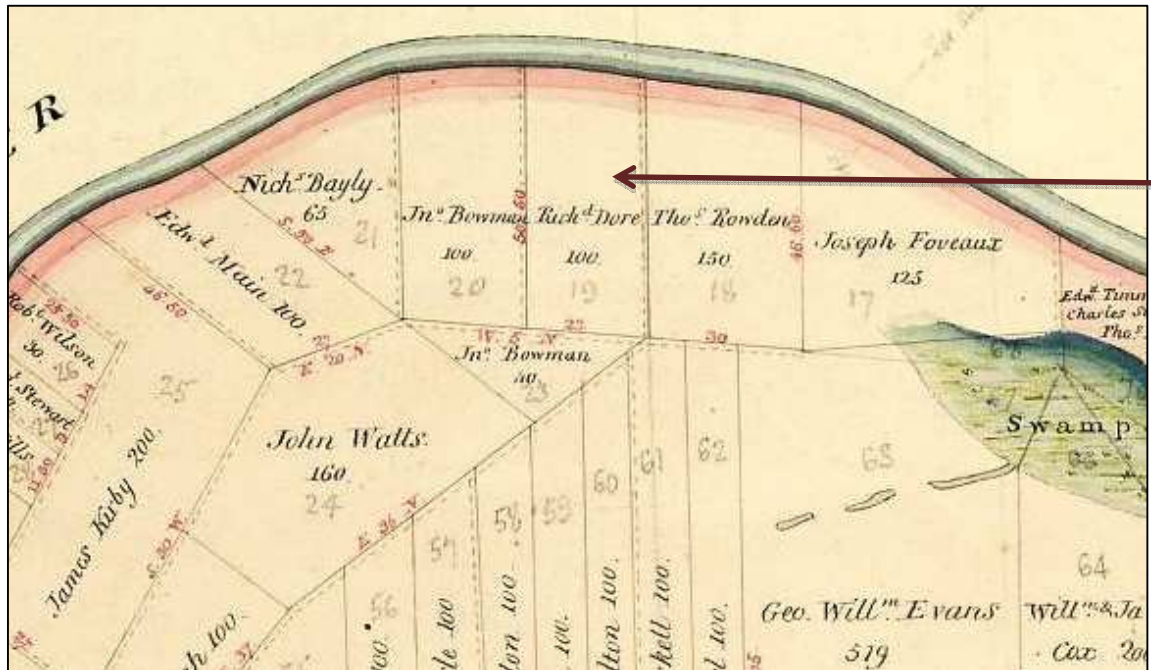


Figure 2: Map of the Parish of Ham Common showing Richard Dore's 100 acres, later designated as Portion 19 and now known as River Farm (LPI PMapMN03 Id 14068201, nd)

After Dore's arrival in the colony on the *Barwell* in May 1798 he spent most of his time in Sydney attending to official duties and private legal matters, with little time to attend to farming. He brought a young son to Sydney but his wife and other children remained in England. It is likely that he had little experience in farming and as the Settlers Musters Book of 1800 records, he acquired little livestock - two goats and two pigs in all. Dore employed five servants in Sydney but there is no evidence that he cultivated his 100 acres on the Hawkesbury River.⁹ Dore was in ill health when he arrived in Sydney and died there on 15 December 1800, leaving insufficient funds to pay his creditors.¹⁰

3.3 George Crossley and Dore's Farm (1801-1823)

The Governor made an order regarding the priority of Dore's creditors however it is unclear how George Crossley (c.1749-1823) acquired Dore's Farm. A registered conveyance or agreement has not been located. Secondary sources suggest that Richard Dore's son William Henry Dore (1784-1839), aged about 17 at the time, sold it to Crossley in September 1801.¹¹ A draft of conveyance held in Supreme Court records has not been located. George Crossley, an attorney and convict sentenced to seven

⁹ CJ Baxter (Ed), *Musters and Lists New South Wales and Norfolk Island 1800-1802*, ABGR/SAG, Sydney, 1988: 18, 88 & 95.

¹⁰ K G Allars, 'Richard Dore (1749-1800),' *Australian Dictionary of Biography*, Vol 1, Melbourne University Press, Carlton, Vic, 1966: 313-314.

¹¹ KG Allars, 'George Crossley - An Unusual Attorney,' *Journal of the Royal Australian Historical Society*, Vol 44 Part 5, 1958: 261-300.

years transportation, arrived in the colony on the *Hillsborough* in 26 July 1799 (See Section 4.0: Associated People).¹²

Crossley purchased goods at the Cape en route to Sydney where he and his wife planned to open a shop. In 1801 George Crossley was pardoned and had sixteen men employed on his Hawkesbury farm. Making significant progress on developing the Dore's Farm, thirty acres (12.14 ha) were cleared and 20 acres (8.09 ha) planted with wheat or maize. Livestock included one horse and eight hogs.¹³

Aside from Dore's Farm Crossley purchased Gypsies Retreat (also known as Endeavour Farm) and Fulham Park, nearby properties in the Hawkesbury.¹⁴ It is thought that Edwards Road follows the line of a track linking the lowlands farms. In 1802 Crossley assigned his Hawkesbury farms, including Dore's Farm to Robert Campbell. The transaction is thought to have been to protect Crossley's assets during a court case.¹⁵ Its reassignment to Crossley has not been located. By 1806 Crossley held 423 acres (171.18 ha) in the Hawkesbury, with 40 acres (16.19 ha) of wheat, 20 acres (8.09 ha) of maize, 16 acres of barley, two acres of orchard and garden, and 305 acres of pasture. Only 40 acres remained fallow. He held grain on hand and had a few horses, goats and hogs. Crossley, and his employees and convict servants were not reliant on Government Stores suggesting he was successful in his business pursuits.¹⁶

Crossley practiced as an attorney in the colony, mostly illegally, as he was still a convict. Permission to register was repeatedly denied or retracted. Despite his status, government officials and colonists sought his advice.¹⁷ His support for Governor Bligh and advice in negotiating with the rebels in the lead up to the Rum Rebellion led to Crossley's arrest and imprisonment by George Johnston and the Corps. He was released in 1810 and sued the rebels for damages, trespass and false imprisonment. Supreme Court evidence of the trial describes Crossley's farms in the Hawkesbury. Which farm is not stated but given their proximity they are likely to have been operated together. Thomas Browning, a cooper working at the farm in January 1808 described it as having a large barn, many peach trees and corn growing. Livestock included sheep, many pigs, some horses and 1-2 bullocks. Browning was employed to make the peaches into cider.¹⁸

In 1810 Crossley turned his interests to his brother-in-law, Nicholas Devine's farm. It was closer to Sydney and not flood-prone like the Hawkesbury.¹⁹ Numerous severe floods had been experienced in the Hawkesbury with high water levels recorded in 1799, 1800, and twice in 1806 and 1809 causing loss of life and damage to crops and livestock.²⁰ Gradually Crossley leased areas of his Richmond farms to tenant farmers. From January 1810 Charles Williams, also known as Charles Magee, leased 20 acres (8.09 ha) of Dore's Farm and Fulham Park, from 1 January 1810 for 5 years, paying £40 a year. In 1820 Peter Hough (c1776-1833), a former convict transported with Crossley on the *Hillsborough*, leased part or all of Dore's Farm.²¹ Hough and Mary Wood, his second wife, are assumed to have farmed Dore's Farm as well as a grant received in 1820 (See Section 4.0: Associated People).²²

¹² KG Allars, 'George Crossley (1749-1823),' *Australian Dictionary of Biography*, Vol 1, Melbourne University Press, Carlton, Vic, 1966: 262-263.

¹³ Baxter (Ed), *Musters and Lists New South Wales and Norfolk Island 1800-1802*, ABGR/SAG, Sydney, 1988: 4, 31, 34, 37, 89, 107 & 124.

¹⁴ J. Barkley-Jack, *Hawkesbury Settlement Revealed*, Rosenberg, Dural, NSW, 2009: 128-9.

¹⁵ Allars, 'George Crossley - An Unusual Attorney,' 1958: 279; Old Register Bk 1 p41 Entry 185, LPI.

¹⁶ Baxter, *Musters of New South Wales and Norfolk Island 1805-6*, ABGR/SAG, Sydney, 189: 140

¹⁷ Allars, 'George Crossley (1749-1823),' 1966: 262-3.

¹⁸ Crossley v. George Johnston and others, Supreme Court of NSW: Court of Civil Jurisdiction, NRS 2659, Item 5/1103, Case No 184, p75, SRNSW.

¹⁹ Colonial Secretary's Papers, Item 4/1725, Reel 6042, 334.

²⁰ www.hawkesburyhistory.org.au accessed 22 Dec 2011.

²¹ 'List of Persons in the Districts of the Hawkesbury...Oct 1820,' cited in the Bonwick Transcripts, Reel BT 24: p5166, Mitchell Library, SLNSW.

²² Colonial Secretary's Papers, Fiche 3021, Item 4/1824A, p383, SRNSW.

George Crossley died on 19 March 1823. His will dated 15 March 1823 instructed that the proceeds of sale of his Pitt Street houses should cover expenses and settle debts including a mortgage. The residue was bequeathed to his 'good friends' including John Connell, a Sydney merchant and free settler, nominated as sole executor (See Section 4.0: Associated People). Crossley's estates in the Districts of Cornwallis Place and Airds were to be distributed 'in like manner.' Dore's Farm was not named in the will. Cornwallis Place lay to the east of Dore's Farm however it is possible that Crossley was referring to the farm's general locality.²³

The Court ordered Connell to provide evidence to the Registrar of Crossley's 'Estate and Effects.' The Executor's Account dated 12 May 1824 showed £12 from Peter Hough, his tenant at Dore's Farm in payment for 80 bushels of maize; possibly by way of rent. A value was shown for the Airds farm but not for Dore's Farm described as land 'alleged to belong to the Estate of the late Mr George Crossley.' Connell's statement records a mortgage of £200 on Dore's Farm, and interest amounting to £900 owed to Mr Robert Campbell to whom it is known that he had earlier assigned the farm.²⁴

3.4 John Connell and Dore's Farm (1823-1851)

John Connell took possession of Dore's Farm however documents showing payment of the mortgage and title transfer have not been located. It is thought that as Crossley did not hold a registered deed it was not possible for Connell to formally transfer the title. Connell was resident in Sydney and is likely to have continued to lease the farm to tenants. Peter Hough a former lessee was working as a publican in Parramatta around the time of Crossley's death.²⁵ Hough's wife and children remained in Richmond and his relatives and descendants continued to farm in the Richmond area. It is likely that the family continued their association with Dore's Farm as later records refer to it as 'Hough's Farm.'

Connell died in Sydney on 18 August 1849 at 90 years of age, leaving his substantial estate to his grandsons, John Connell Laycock and Elias Pearson Laycock. The partition of Connell's extensive landholdings on 29 March 1851 included Dore's Farm at the Hawkesbury, now divided by deed into 59 acres (western portion - 23.88 ha) and 61 acres (eastern portion - 24.69 ha) in Parish of Ham Common. The increase in area (now 120 acres) suggests that a survey had found the original estimated area of grant to be incorrect. The land is clearly identified as Dore's grant with each grandson inheriting a portion of land with river access. The Deed of Partition does not document George Crossley's acquisition of Dore's 100 acres or refer to a registered transmission of a title to John Connell.

On 31 March 1851 John Laycock, assigned his 59 acres (23.88 ha) of Dore's Farm to his brother Elias Laycock. In May of the following year Benjamin Richards of Richmond, a carcase butcher purchased both portions of Dore's Farm for £1060 (See Section 4.0: Associated People). The conveyance states that John Connell was 'at the time of his death ... seized of or otherwise sufficiently entitled to (*inter alia*) the several lands' implying the vendors knowledge of the unclear chain of title.

3.5 Benjamin Richards and Dore's Farm (1851-1905)

Benjamin Richards, a butcher and pastoralist, was born in Richmond in 1818. He opened a butcher shop in Richmond in 1837 and one in Sydney in 1847. He then acquired large grazing runs gradually expanding the business to provide meat for the

²³ Probate Packet: George Crossley granted 24 Mar 1823, Series 13660, Item 1-168, SRNSW.

²⁴ Probate Packet: George Crossley granted 24 Mar 1823, Series 13660, Item 1-168, SRNSW.

²⁵ Baxter (Ed), *General Muster List of New South Wales 1823, 1824, 1825*, ABGR/SAG, Sydney, 1999: 27.

Sydney market.²⁶ Richards could have used Dore's Farm as part of his beef cattle or horse breeding operations, for cultivation of fodder for livestock held elsewhere, or for other agricultural or grazing uses. A roadway in the location of the present day Edwards Road is documented in Crown Plans dated 1861 as a Parish road and although a new road alignment through Dore's Farm was proposed at a location further south it never eventuated. Edwards Road separates the farm into two unequal portions with a structure indicated diagrammatically to the north of the road in an 1861 Crown Plan for the formalisation of the road.²⁷

In 1878 Richards founded the Riverstone Meat Works, an abattoir supplying meat directly to Sydney.²⁸ Reminiscences of Richmond published in the *Hawkesbury Herald* suggest that Mr J Huxley worked or managed 'Richards' farm' (previously known as Dore's or Hough's Farm) until September 1868.²⁹ In 1898 Richards died at Kamilaroi, the home he built for his family in Windsor St, Richmond, bequeathing the house and Richmond farm to his daughter, Elvina Durham née Richards (1854-1931). The conveyance described the farm as 'on the Hawkesbury River Richmond Bottoms containing 100 acres known as 'Hough's' and purchased from Laycock.'

Mrs Durham lived at Kamilaroi in 1896 and in 1900 Mr E Hough (thought to be Emble Hough) was managing Mrs Durham's Richmond Lowlands property. Hough was commended in the *Hawkesbury Advocate* 'for the manner in which he looks after the large farm.' The season's crop looked promising and a good maize yield was predicted. Potatoes and melons were also being grown on the lowlands.³⁰

An advertisement for the auction of Mrs Durham's farm in November 1903 describes it as excellent maize and lucerne lands, a large portion of which was under cultivation. Improvements comprised a 'comfortable cottage, first-class and commodious Farm Outbuildings, including modern cowbails, shed and milkroom.' The farm was promoted as one of the best farms in the rich agricultural district in close proximity to metropolitan markets. The property passed in at £29/10/- per acre.³¹ It is likely that the buildings described were constructed during Benjamin Richards or Elvina Durham's ownership although parts might predate their occupation. The cottage and outbuildings warrant examination by an architectural historian to determine the construction methods and dates and distinguishing features linking it to different periods of ownership or occupation.

Elvina Durham leased the farm to the Crown on 8 June 1905, with an option to purchase. The land now described as Portion 19 of 116 acres (46.94 ha) and 1 rood in the Parish of Ham Common was to be used by the Hawkesbury Agricultural College established at Richmond on 10 March 1891 and officially opened on 16 March.³² The lease referred to a farmhouse and parcels of land now in the occupation of the lessor. Mrs Durham was living in Richmond at this time but the farm manager might have occupied the cottage.

The seven year lease attracted £100 per year, plus rates and taxes. It was conditional on the farm being cultivated and managed in a 'husbandlike' manner and kept in 'good heart and condition.' The qualification on its management illustrates Durham's

²⁶ *Windsor & Richmond Gazette*, 12 Mar 1898: 4; 'Riverstone,' www.blacktown.nsw.gov.au/our-city/history/the-city/riverstone, accessed 22 Dec 2011.

²⁷ CP R236-1603 LPI LPMA. The plan is not included here as it is of insufficient quality for reproduction.

²⁸ 'Riverstone,' www.blacktown.nsw.gov.au/our-city/history/the-city/riverstone, accessed 22 Dec 2011; HJ Gibbney & AG Smith (Eds), *A Biographical Register 1788-1939*, Vol II, Australian Dictionary of Biography, Canberra, 1987: 210.

²⁹ *Hawkesbury Herald* 12 Feb 1904: 16.

³⁰ Will of Benjamin Richards cited in Old Systems Title Book 725 No 486, LPI LPMA; *Hawkesbury Advocate*, 26 Jan 1900: 5; *Hawkesbury Advocate* 5 Sep 1896: 4.

³¹ *SMH* 7 Nov 1903: 19; *Hawkesbury Herald* 4 Dec 1903: 14.

³² The date is that of students entering the college. Efforts to establish a Department of Agriculture and formal agriculture training had been made as early as 1874. Dart, *History and Reminiscences*, Macarthur Press, Parramatta, NSW, 1982: 1; State Records Archives Investigator - Agency Detail: Hawkesbury Agricultural College, No 2940, SRNSW.

sense of responsibility and affection for the riverside farm. An option to purchase was set at £36/10/- per acre and on 30 May 1912 the farm was 'surrendered' to the Crown for £4279/12/6.

3.6 Hawkesbury Agricultural College and the 'river farm' (from 1905)

Between 1891 and 1908 Hawkesbury Agricultural College was administered by a section of the NSW Department of Mines and Agriculture. The objective of the college was 'to provide young men with the fundamentals of science, farming skills and business principles to better equip them for a productive life on the land in Australian conditions.'³³ The site for the college was 3195 acres (1292.97 ha) of Ham Common near Richmond, dedicated for use on 25 November 1892. The curriculum provided for theory and practical work on land in varying environments. Work undertaken by the first students included clearing and fencing of the area into paddocks for grazing and cultivation, and the construction of dams.³⁴

The aim of Henry William Potts, the principal, in acquiring the riverside land was to grow crops supplementing the feed necessary for producing 'studs of high quality poultry, sheep, pigs, cattle and horses.'³⁵ Mrs Durham's farm became known as 'the river farm' distinguishing it from the farms around the main campus to the south. River Farm 'one of the most fertile farms on the Hawkesbury River' with immediate access to water was an asset to the college and from 1921 large-scale 'maize-breeding experiments' were carried out there.³⁶ A c1905 photograph of maize on River Farm near a dirt road and post and rail fence is reproduced in Figure 3. The horse drawn plough is evidence of the technology of the era and many of the college horses were bred on River Farm. Lucerne was grown in the riverbank paddock (Figure 4).³⁷

A reinforced concrete pumping station built in 1909 drew water for the college water supply and irrigation. The construction and use of the pumping station is discussed in Section 3.11: River Farm and its Role in Water Supply and Flood Mitigation. A few sources documenting the use or changes to River Farm buildings in the mid 20th century have been located. Brief written references are found in newspapers and annual reports. For example a heavy wind and hailstorm blew the roof off the hay shed in March 1908 and new rooms were added to the River Farm cottage in 1908.³⁸ River Farm continued to be managed by Hawkesbury Agricultural College in the second half of the 20th century.

³³ State Records Archives Investigator - Agency Detail: Hawkesbury Agricultural College, No 2940, SRNSW.

³⁴ Dart, *History and Reminiscences*, Macarthur Press, Parramatta, NSW, 1982: 2, 9; Edds 'A Study of the Early Buildings and their Curtilage at Hawkesbury Agricultural College Leading to Conservation Guidelines,' Graduate Project B Build (Hons) UNSW, Nov 1988: 21.

³⁵ Holland, 'Henry William Potts (1855-1931),' *Australian Dictionary of Biography*, Vol 11, Melbourne University Press, Carlton, Vic, 1988: 266.

³⁶ Dart, *History and Reminiscences*, Macarthur Press, Parramatta, NSW, 1982: 80-81.

³⁷ Orr (Ed), *Tradition with Vision: Centenary Hawkesbury Agricultural College 1891-1991*, University of Western Sydney, Hawkesbury, NSW, 1991: 74,

³⁸ *SMH* 3 Mar 1908: 7; *Hawkesbury Agricultural College Annual Report*, 1908: 52.



Figure 3: Maize growing in one of River Farm's paddocks in the vicinity of the Study Area in the early 1900s (P171 UWS Archives)



Figure 4: Cutting lucerne at River Farm illustrating land use and farming practices in the early 1900s. Many horses used at the college were bred at River Farm. Buildings on the neighbouring farm are visible in the background (Dart 1941: 80-81)

3.7 River Farm - Land and Buildings (1905-mid 20th century)

Some of the history of River Farm under the administration of Hawkesbury Agricultural College is documented in Public Works Department and Hawkesbury Agricultural College's Annual Reports as well as in college histories. Most references to the farm are to its agricultural use with scant references to the cottage, barns and sheds.

On acquiring the farm, the paddocks were reconfigured to suit the needs of the college curriculum. In 1906 the college's Department of Chemistry and Physics ran complete chemical and mechanical examinations of the soils on River Farm. Despite poor rainfall in this year, maize grown for grain produced a higher yield than the same acreage on the main college farm. The rich alluvial soil was useful for trials of maize, potatoes, mangolds (beet) and other crops.³⁹

A 1912 Crown Plan prepared when the land was conveyed to the Government documents the farm layout, diagrammatically showing the structures in the Study Area north of Edwards Road (Figure 5). A house, two barns and two unnamed outbuildings are indicated. The wharf identified on the plan is actually a platform over pipes connected to the pumping station. An undated plan prepared by Hawkesbury Agricultural College and reproduced in Figure 6 shows a slightly different layout of paddocks and farm buildings to that shown in Figure 5.

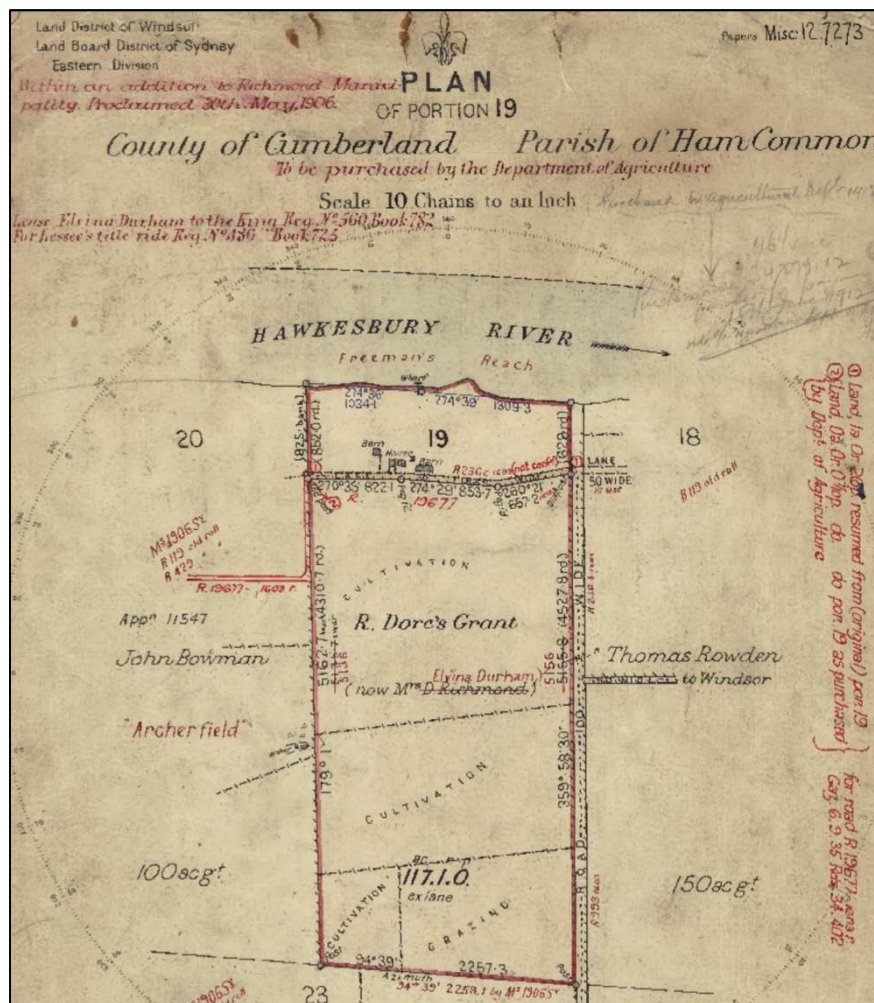


Figure 5: Crown Plan of Portion 19 showing River Farm at the time of its conveyance to the Government for use by Hawkesbury Agricultural College. The 1912 plan includes later alterations and notes (CP 2858-2030 LPI LPMA)

³⁹ Hawkesbury Agricultural College Annual Report, Government Printer, Sydney, 1906: 26, 28, 29.

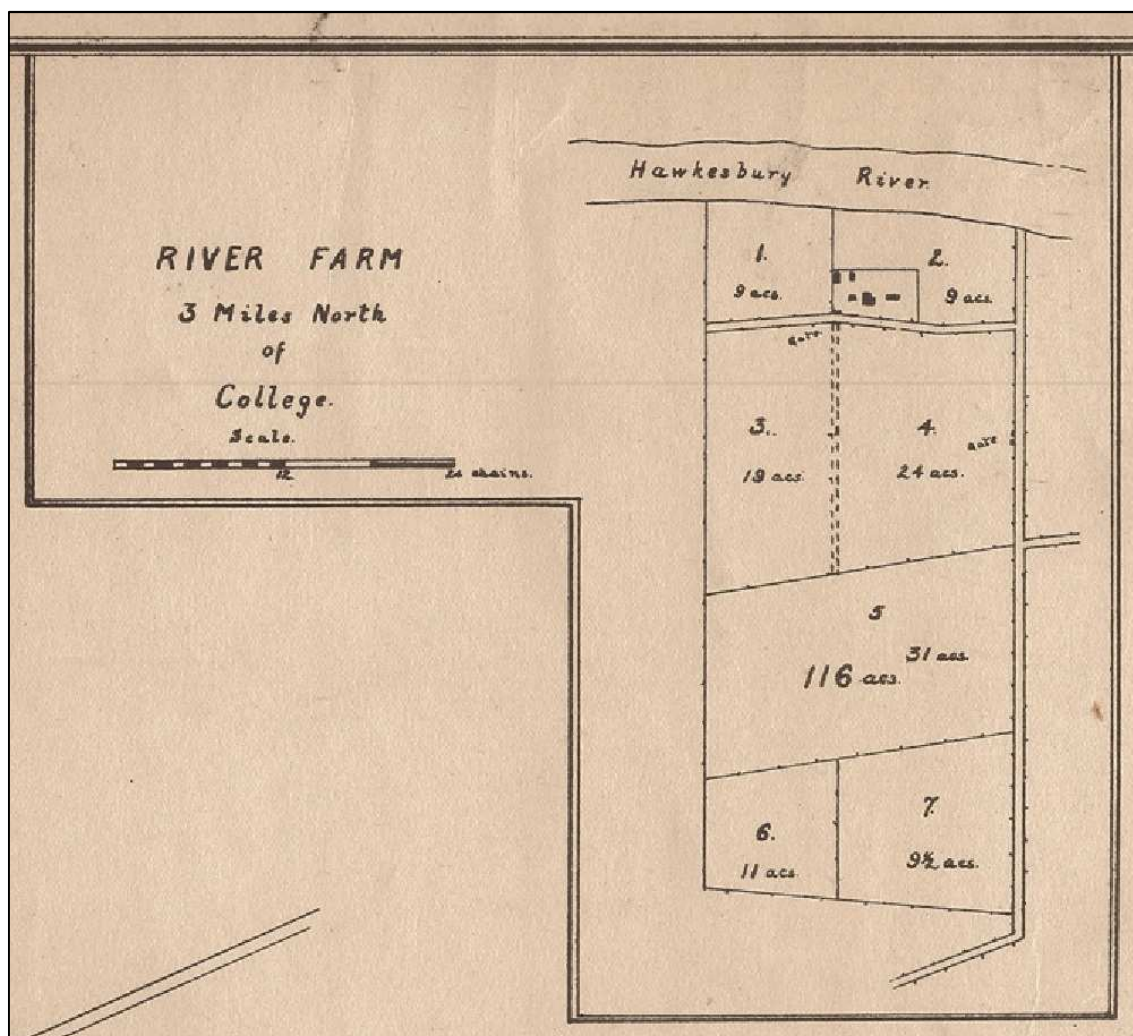


Figure 6: The layout of River Farm, its buildings and paddocks on an undated plan of the Hawkesbury Agricultural College Farm (MP 353 UWS Archives)

3.8 The Land

In 1914 River Farm was recorded as 116 acres and sometimes described as the college 'Demonstration Farm.' Its mixed use included cultivation (96 acres or 38.85 ha) and grazing of horses and mules (20 acres - 8.09 ha) for breeding. Buildings and subdivision of the paddocks on River Farm at this time reflected both these uses. A plan documenting the resumption of land for the realignment of Edwards Road in 1935 documents the farm buildings and designated uses of paddocks near the Study Area (Figure 7).

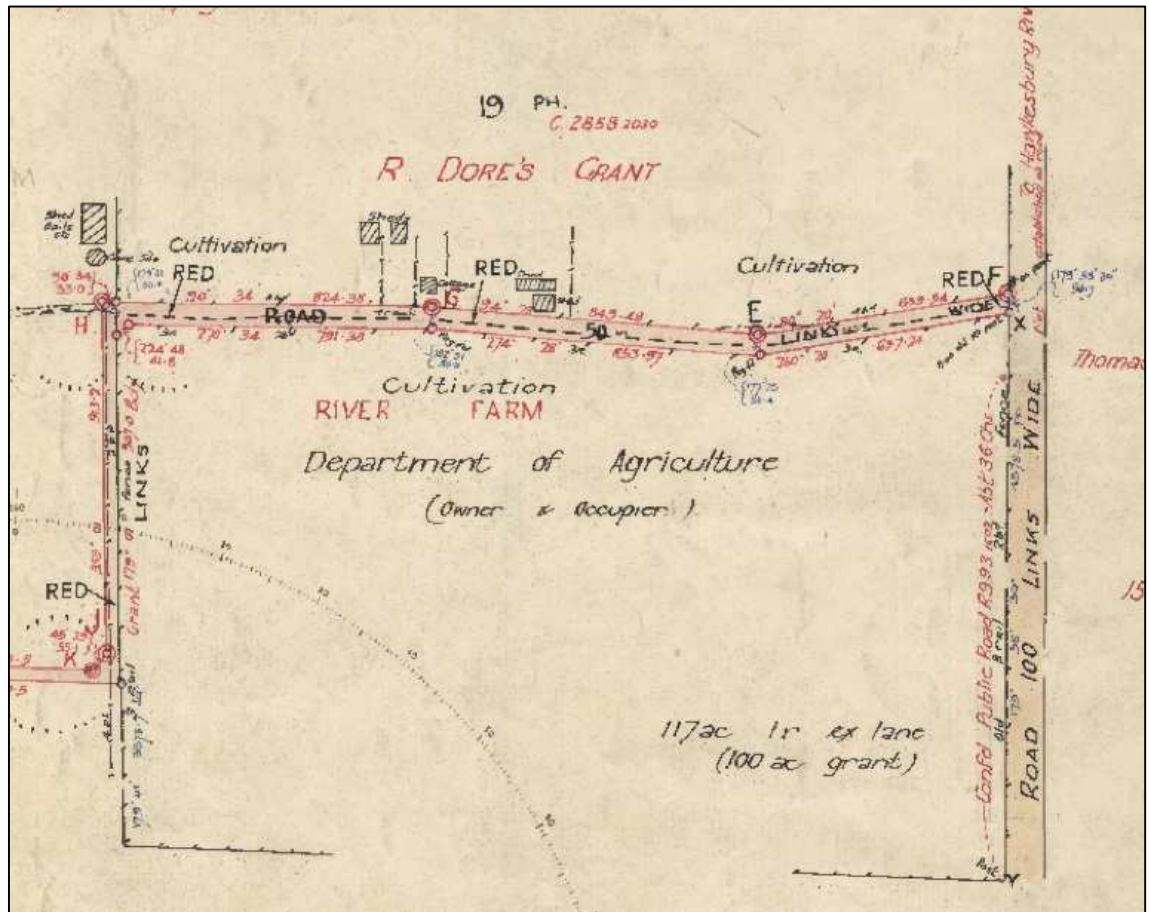


Figure 7: Crown Plan related to road planning dated 1935 and showing River Farm cottage and sheds in the Study Area north of Edwards Road (CP 19677-1603 LPI LPMA)

3.9 The Cottage

In 2012 despite some alterations the cottage retains many original features typical of a late 19th-early 20th century farm bungalow. The house is built on low brick piers. A timber bottom plate sits on the piers. Rendering (ruled) above the bottom plate conceals brickwork and timber framing above. The interior face of the brickwork in the kitchen is lathe and plaster and, it can only be assumed, that this is the case in other areas.⁴⁰ Alterations include enclosure of the east verandah after 1964 and possible earlier enclosure of a breezeway between the kitchen and main part of the house to form the current hallway. Early 19th century bricks used in a path at the front of the house, as well as stone garden edging warrant examination to determine whether they are linked to an earlier structure on the site.⁴¹ A c1940s photograph of the cottage is reproduced in Figure 8 and can be compared to a photograph taken in 1964 in Figure 9.

Spence Reid, the manager of River Farm is thought to have lived in the cottage in the early to mid 20th century (Figure 10). Students working at River Farm drove there in a wagon or sulky and recalled in later years that Reid would invariably greet them with a

⁴⁰ Site Visit, 16 Jan 2012; Pers Comm Steve Norris Smith, 19 Jan 2012. The cottage is thought to be brick nog construction, more commonly associated with earlier buildings. The method of construction warrants identification by a heritage specialist familiar with Hawkesbury buildings.

⁴¹ Older bricks, a few with a distinctive 'spearhead' or 'spade' motif frog mark, are laid with modern dry pressed bricks. Several other paths around the house are covered by soil and turf.

vigorous wave and shout. The daily routine involved several students accompanying him to the stable while another unharnessed the horse.⁴²



Figure 8: River Farm cottage, c1940s (P68 UWS Archives)



Figure 9: River Farm cottage in 1964 (Image 013709, photographed by Robert 'Bob' Power (1907-1997). Courtesy Hawkesbury Library Service)

⁴² Boland, *Hawkesbury Harvest 1941-1966*, Halsted Press, Richmond NSW, 1970: 98.



Figure 10: Spence Reid, manager of River Farm standing in a paddock at Hawkesbury Agricultural College (UWS Archives)

3.10 Sheds and Farm Buildings

It is not known if earlier farm buildings were adapted to suit the college's needs or new ones built. Carpentry was taught at the college, and students worked on farm buildings. Formal architectural drawings have not been located among NSW Department of Public Works records and it is possible that timber structures were built or altered by students and college staff as part of the carpentry curriculum.⁴³ A few photographs taken of farm activities on River Farm reproduced below show the buildings on the property in the early to mid 20th century (Figures 11-13).

⁴³ Dart, *History and Reminiscences*, 1982: 90-91.



Figure 11: Looking north-west towards the residence, barns and pump station, nd (P170 UWS Archives)



Figure 12: River Farm showing beehives between the cottage (rhs) and barn (lhs) looking south, c1920s (P1508 UWS Archives)



Figure 13: Horses pulling a loaded sled in front of timber-framed sheds on River Farm c1920s. The sheds are characterised by an internally fixed, timber slat lining. A shed of the same design is extant (P320 UWS Archives)

The sheds in Figure 13 have been described as tobacco sheds due to the well-ventilated design however it is thought that they were used for maize or corn. The college grew tobacco from 1906, but not necessarily on River Farm.⁴⁴ Hawkesbury Agricultural College Annual Report 1927-8 describes a Red Hogan maize harvest at River Farm yielding 3200 bushels left on the cob and stored in the 'barns provided.'⁴⁵

A photograph taken of a farm inspection by the Government Printing Office in March 1951 records the cottage and two timber barns or sheds in the Study Area (Figure 14). The shed in the middle of the image is still extant while the sheds to the right have since been removed. Three small silos and the concrete pad footings for an unknown structure now sit in this location.



Figure 14: Looking south at the Study Area showing River Farm cottage partially hidden by a bus and timber farm buildings to the right, 18 Mar 1951 (GPO 2 - 01023, ML SLNSW)

⁴⁴ *Hawkesbury Agricultural College Annual Report*, 1906: 39 (and later issues).

⁴⁵ *Hawkesbury Agricultural College Annual Report*, 1927-28: 11.

Photographs taken in the early 1960s in Figures 15 and 16 provide a valuable record of the sheds at this time. Only one survives.



Figure 15: River Farm sheds to the east of the cottage in 1964 (Image 013710, photographed by Robert 'Bob' Power (1907-1997). Courtesy Hawkesbury Library Service)



Figure 16: River Farm shed to the west of the cottage in 1964 (Image 013710, photographed by Robert 'Bob' Power (1907-1997). Courtesy Hawkesbury Library Service)

A timber framed skillion roofed shed on the western side of the property (Figure 16) retains evidence of former students of the college in the 1950s that marked their names and dates on the timber posts and beams. Many names and dates are still legible.

Research into the 19th and 20th century managers and students and their experiences at River Farm is likely to reveal more details of the Study Area's history. It will also assist in understanding the workings of the farm and use of the sheds and machinery.

3.11 River Farm - Water Supply and Flood Mitigation

In 1908 plans were made for the supply of water to the college from the Hawkesbury River using River Farm as a staging point. At this time the college only held a lease for the farm but by 1909 contracts for a water supply were accepted and the project underway. Work included construction of a reinforced concrete tower and well near the bank of the Hawkesbury River. The structure was 10 feet (3.05m) in diameter by 79 feet high (24.08 m), with 24 feet (7.32 m) projecting above the ground. Its design took into account occasional flooding and the need to keep the structure stable and machinery dry. Suction pipes were laid underground extending under a platform projecting into the river with an 'offtake' or 'trunnion pipe.' The machinery and pumps were imported from England. River water flowed towards the pumps at the bottom of the well and, powered by electricity generated at the college, was driven through 291 chains (5854 m) of 6 inch (150mm) rising main into a reinforced concrete reservoir in the college grounds. Two 10-feet (3.05m) diameter by 10-feet (3.05 m) high reinforced concrete irrigation tanks with 2450-gallon (11,138 litre approx) capacity were constructed at convenient positions on the farm. Public Works Annual Reports do not specify whether any of the tanks were built on River Farm or whether they were all on the main campus farms. The water supply and power generation projects cost £6250.⁴⁶ Plans are held by the NSW Department of Public Works Information Services and are listed in the Bibliography. Excerpts from one of the drawings are reproduced in Figures 17 and 18.⁴⁷ One of the earliest known photographs of the structure is reproduced in Figure 19. The position of the pumping station in relation to other farm buildings is illustrated in Figure 20.

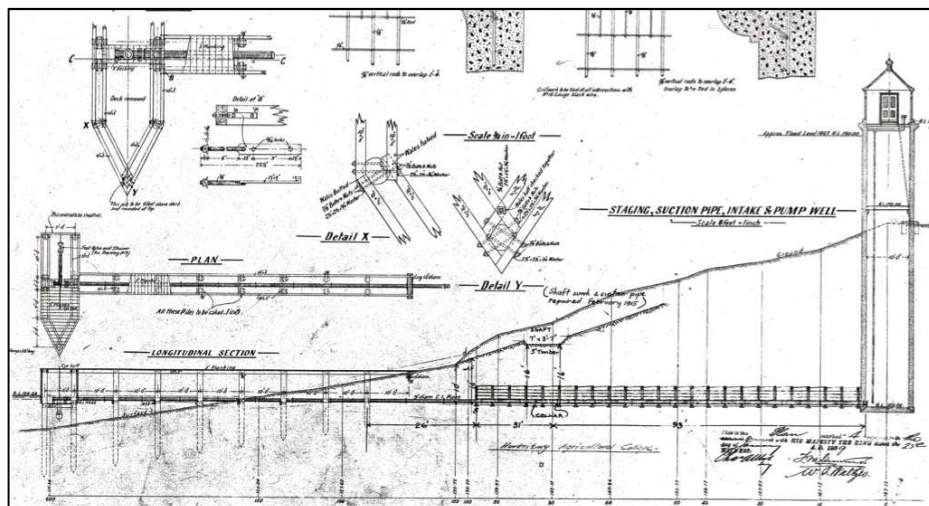


Figure 17: Portion of a drawing prepared for the water supply scheme showing a longitudinal section through the pump tower down to the Hawkesbury River (PWD 33001-1, 13 Apr 1909, Information Services, NSW Department of Finance and Services)

⁴⁶ *Public Works Annual Report*, Government Printer, Sydney, 1908-09: 48.

⁴⁷ Plans titled 'Hawkesbury Agricultural College Water Supply,' prepared by Department of Public Works, 1909, Record Nos 32995, 33001, 33002, 33003, 33004, 33005A, 33011, 33013, 33015, 29340, AC1/8/1, NSW Department of Finance and Services.

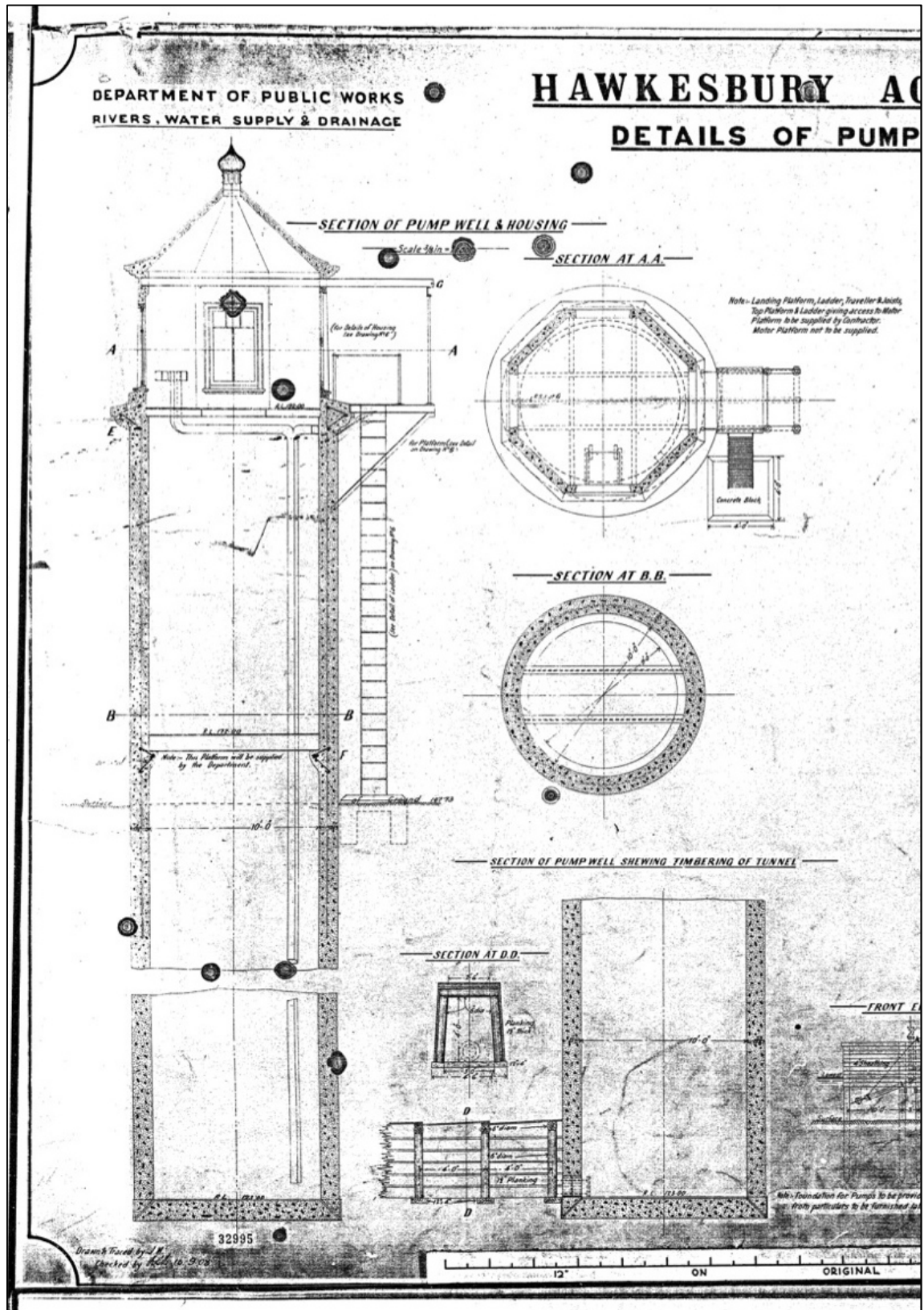


Figure 18: Portion of a drawing for the water supply scheme showing a section through the pump tower (PWD 32995-1, 13 Apr 1909, Information Services, NSW Department of Finance and Services)



Figure 19: The reinforced concrete tower of the 'pump well' or pumping station at River Farm in 1914 (Perrett, ON 216, ML SLNSW)



Figure 20: An undated (c1920s) photograph showing the layout of the buildings on River Farm (lhs) including the pumping station and staging seen from the north bank of the Hawkesbury River (P554 UWS Archives)

Pumping station machinery comprised two sets of pumps, one for domestic supply and general college use, and the other for irrigation.⁴⁸ A reliable water supply was essential to the effective management of the college campus and farms, and when the River Farm pumping station was out of order the Metropolitan Water Sewerage and Drainage Board (MWS & DB) supplied water to the college. The pumping plant provided 14,000,000 gallons (63,645,260 litres) for the college, 2,500,000 gallons (11,365,225 litres) for irrigation, and 500,000 gallons (2,273,045 litres) for the Municipality of Richmond.⁴⁹

Floodwater management was also important to lowlands farms and in 1911 the college designed a scheme for protecting the river flats from flooding, but also for rapid drainage if it was inundated. The scheme, requiring the cooperation of other Richmond Lowlands farmers, was completed by 1912, the year that River Farm's purchase was finalised.⁵⁰ The extent of flooding in the Hawkesbury was a serious risk to floodplain farmers, their building, homes, stock and crops as photographs taken in 1961 illustrate (Figures 21-3). The river height recorded at nearby Windsor in November 1961 was 49' 6" (15.10m). A depth of 12.2 metres is rated as a major inundation with a high potential of causing extensive damage.⁵¹



Figure 21: River Farm pumping station surrounded by floodwaters in 1961 (Image 013716, photographed by Robert 'Bob' Power (1907-1997). Courtesy Hawkesbury Library Service)

⁴⁸ *Public Works Annual Report*, 1909-10: 51.

⁴⁹ Aird, *The Water Supply, Sewerage and Drainage System of Sydney 1788-1960*, MWS & DB, Sydney, 1961: 103.

⁵⁰ *Hawkesbury Agricultural College Annual Report*, 1911: 75; *Hawkesbury Agricultural College Annual Report*, 1912: 79, 84.

⁵¹ 'Flood Levels of the Hawkesbury River,' www.hawkesburyhistory.org.au, accessed 22 Dec 2011.



Figure 22: River Farm sheds seen over the flooded Hawkesbury River in 1961 (Image 013719, photographed by Robert 'Bob' Power (1907-1997). Courtesy Hawkesbury Library Service)



Figure 23: Sheds at River Farm in close proximity to floodwaters in 1961 (Image 013718, photographed by Robert 'Bob' Power (1907-1997). Courtesy Hawkesbury Library Service)

The college power supply was upgraded in 1913 to ensure an adequate supply for pumping water as well as providing electricity to the college generally. The college considered using the greater capacity of the new electrical plant to supply the MWS & DB's pumping station as well as the town of Windsor. By 1913 the River Farm pump and irrigation system had broken down so it was also upgraded. A mechanical stoker was installed and the plant re-modelled and duplicated. It was changed to alternating current in 1915.⁵²

The supply of water and electricity in the Richmond are closely linked, as are supplies of both resources to the Hawkesbury Agricultural College, town of Richmond and Richmond Aerodrome. When the Commonwealth Government (RAAF) established the Richmond Aerodrome in 1923-24 town water was used however it was later connected to the Hawkesbury Agricultural College supply.⁵³ In 1925-26 the Public Works Department again upgraded River Farm pumping station machinery. In 1927 an agreement was made for the college to supply power to the aerodrome and in 1928 also water. Four concrete tanks were built on the riverbank opposite River Farm to augment the pressure.⁵⁴ The supply pipe on the opposite bank is still visible.

The need for additional water supplies at the Richmond Aerodrome for the Air Force during World War II led to the amalgamation of the Richmond township and college water supplies. From 1 July 1939 all the water used by the college, Air Force Base and township was drawn from the MWS & DB's Richmond works. An additional pumping station was constructed in the township to boost the supply. It is not known if the River Farm Pumping Station was decommissioned at this time or retained for River Farm irrigation for a period of time.⁵⁵

In 1943 the college installed a new spray irrigation plant supplying a portion of River Farm. The scheme supported the college in fulfilling a contract with the Government to provide vegetables to supplement wartime supplies. It is not known if the older pumping station was used in conjunction with the new equipment or had already been decommissioned and different equipment installed.⁵⁶ Disused pumping equipment parts lie adjacent to the 1909 pumping station. In 2011 River Farm is again irrigated by water pumped from the Hawkesbury River. Modern pumping equipment is attached on the north side of the tower with a pipe extending into the river. Sydney Water supplies water to River Farm for domestic use via the pipe that once pumped water to the Hawkesbury Agricultural College and other locations.⁵⁷

It is not known if machinery remains inside the pumping station tower and well. The pumping station and infrastructure linked to its early 20th century use should undergo an individual assessment, recording and conservation management plan. A comparative survey of pumping stations of this style and type should be carried out.

3.12 River Farm - Hawkesbury Agricultural College of Advanced Education and University of Western Sydney (1976-2011)

The Department of Agriculture managed Hawkesbury Agricultural College until 1971 when the Hawkesbury Agricultural College was restructured as a College of Advanced Education.⁵⁸ In 1986 River Farm with other areas of the Hawkesbury Agricultural College was recommended for inclusion in the Hawkesbury Shire LEP. The farm complex on the

⁵² *Public Works Annual Report* 1913-14: 80; *Hawkesbury Agricultural College Annual Report*, 1914: 72, 80; Dart, *History and Reminiscences*, 1982: 95.

⁵³ Aird, *Water Supply, Sewerage and Drainage System of Sydney*, 1961: 103.

⁵⁴ *Public Works Annual Report* 1925-26: 36; Dart 1982: 96.

⁵⁵ Aird, *Water Supply, Sewerage and Drainage System of Sydney*, 1961: 103-4.

⁵⁶ *Western Mail* 18 February 1943: 23.

⁵⁷ Pers Comm Steve Norris-Smith, Campus Manager - Hawkesbury, UWS, 16 Jan 2012.

⁵⁸ 'Agency Detail: Hawkesbury Agriculture College,' Agency No 2940, SRNSW.

floodplain is described in the *Heritage Study of the North Western Sector of Sydney* prepared in 1983-1984 as,

...comprising a rendered brick cottage with corrugated iron roof - has garden planting. Corrugated iron and timber farm buildings with steeply pitched roof. Timber shed with corrugated iron roof - ventilated building.... All in a setting of mature trees.

The 'circular water tower' was considered to be a special feature of the site assessed as of State significance. The palms and cottage garden were noted in the assessment.⁵⁹

In 1988 River Farm was administered as part of the Hawkesbury Campus of the newly created University of Western Sydney. University staff managed the site as a 'Demonstration Farm' incorporating a component of the 'Vegetable Minifarm' operated by horticulture students.⁶⁰ In 1997 a new land title was issued for River Farm recording it as Lot 19 DP752032 Richmond, Parish of Ham Common. Although still Crown Land, it was subject to the University of Western Sydney Act 1988.

In 2007-8 a Heritage Asset Management Strategy for the Richmond Campus included River Farm (Item 1.6.6) as an 'Item Listed on Registers other than an Environmental Planning Instrument.' The 'water tower' was considered to be 'Potentially State Significant.' It was recommended that a Conservation Management Plan to guide River Farm's conservation works and role in water supply and management be prepared. The condition of farm buildings including the cottage, hay shed, cattle shed, barn and water tower were listed and some immediate repairs recommended.⁶¹

Current plans for River Farm are the reinvigoration of the site as the UWS Hawkesbury Riverfarm Education Centre - a flagship project of the newly established United Nations University Regional Centre of Expertise on Education for Sustainable Development - Greater Western Sydney.⁶² A modern aerial photograph of the site showing the location of buildings in the Study Area is reproduced in Figure 24.

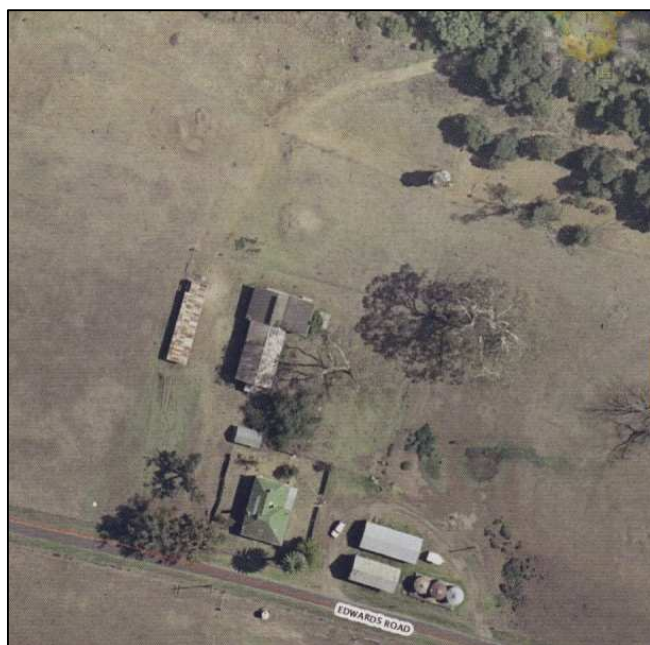


Figure 24: Recent aerial view of the Study Area showing the buildings on the site (SIXviewer LPI LPMA)

⁵⁹ Howard Tanner & Assoc, M Kelly & E Vines, 'Heritage Study of the North Western Sector of Sydney,' 1983-84: Item No H/RL - 1, Card 1 & 2.

⁶⁰ Edds 'A Study of the Early Buildings and their Curtilage at Hawkesbury Agricultural College Leading to Conservation Guidelines,' Graduate Project B Build (Hons) UNSW, Nov 1988: 14, 15.

⁶¹ Conybeare Morrison 'University of Western Sydney: HAMS,' Nov 2007 (Rev Dec 2008): 11, 22, 24.

⁶² Office of Sustainability, University of Western Sydney.

4.0 Associated People

4.1 Richard Dore (c1749-1800)

Richard Dore, deputy judge advocate, was born c1749, son of William Dore of Chipping Ongar, Essex, England. He trained under his father, an attorney, and in 1772 was admitted to the Court of Common Pleas. Dore and Maria Nassau de Zuijlenstein married on 12 April 1782. On 9 September 1797 he was commissioned as deputy judge advocate for New South Wales, replacing Captain David Collins. Sailing on the *Barwell*, Dore arrived in the colony in May 1798 in poor health and with a young son. He anticipated that the rest of the family would follow.⁶³

Richard Dore faced difficulties in the colony including inadequate legal supplies and resources and continuing poor health. Dore's additional duties as the governor's secretary was short lived with Governor Hunter dismissing him in January 1799 due to dissatisfaction with management of the role. Among other criticisms Hunter disapproved of Dore charging fees for some legal matters. Dore was not without criticism of Hunter who attempted to influence him in the trial of Isaac Nichols.⁶⁴

Dore's health deteriorated again and he died on 13 December 1800. He left insufficient funds to pay his creditors and the Governor made an order regarding claims on the deceased estate. One of Dore's few assets in the colony was his 100 acre Mulgrave Place or Richmond Lowlands property. The funeral was the first in the colony of which official notice was taken. Dore has been criticised as being cantankerous and self-important however he set a precedent for future legal officers in not allowing the colonial administration to influence the workings of the law.⁶⁵

4.2 George Crossley (1749-1823)

George Crossley, attorney and convict, was born in London where he was admitted as a solicitor in 1771. Already with a conviction for a civil debt, in 1796 Crossley faced a charge of malpractice. He was found guilty of perjury and sentenced to imprisonment for six months. He was placed in the pillory and then transported for seven years. Crossley arrived in the colony on the *Hillsborough* in 26 July 1799 accompanied by his wife Anna Maria (Mary) Crossley, a free woman and sister of Nicholas Devine superintendent of convicts in Sydney.⁶⁶

Crossley wasted little time in trying to improve his situation in the colony having bought goods enroute with which to establish a shop in Sydney.⁶⁷ In 1800 he leased a property in Sydney living there with his wife, with two convict servants at his disposal. They were sufficiently well off not to have to rely on Government Stores. George Crossley acquired a farm at the Hawkesbury and by 1801 had sixteen men employed there. Within a short time creditors commenced legal proceedings against him for dishonoured bills of exchange. Governor King granted Crossley a conditional pardon in 1801, allowing the commencement of litigation against Crossley who was no longer protected by his convict status. A judgement found for one of the claimants. Crossley was allowed to continue trading while others brought cases against him but on breaching the conditions his goods were seized and sold. Crossley counter sued but the court found in favour of the claimants. His questionable reputation was well-known in the colony and he was embroiled in numerous legal actions throughout his lifetime.⁶⁸

⁶³ Allars, 'Richard Dore (1749-1800),' *Australian Dictionary of Biography*, 1966: 313-314.

⁶⁴ Allars, *Australian Dictionary of Biography*, 1966: 313-314.

⁶⁵ Allars, *Australian Dictionary of Biography*, 1966: 313-314.

⁶⁶ Allars, 'George Crossley (1749-1823),' *Australian Dictionary of Biography*, 1966: 262-263.

⁶⁷ Allars, *Australian Dictionary of Biography*, 1966: 263.

⁶⁸ Allars, *Australian Dictionary of Biography*, 1966: 262-263; Baxter (Ed), *Musters and Lists New South Wales and Norfolk Island 1800-1802*, ABGR/SAG, Sydney, 1988: 4, 31, 34, 37, 89, 107 & 124.

Crossley continued to farm successfully at the Hawkesbury and, despite his conviction in England, started practice as an attorney. Due to the shortage of trained attorneys in the colony his advice was sought after. Those to whom he gave advice included Provost-Marshall Gore, Deputy Judge Advocate Atkins and Governor William Bligh. After Bligh was deposed Crossley was arrested and tried by the rebels for illegally practicing as an attorney. He was found guilty and transported to Coal River for seven years.⁶⁹

On Governor Lachlan Macquarie's arrival Crossley was released and successfully sued five of the seven rebels for damages, ultimately receiving £500, considerably less than his original claim. Crossley continued business as a trader, farmer, moneylender and attorney however his right to practice was challenged again in 1815. Ultimately he was permitted to act as an 'Agent' but not as an attorney of the court. Crossley continued to practice in the Judge Advocate's Court until 1816 when Macquarie was informed in a despatch that emancipated men were barred from practicing. Crossley again tried to practice by forming a partnership with a qualified solicitor, the arrangement ending when his partner was removed from the roll of attorneys. In a rare pictorial record, Edward Close depicts Crossley in a watercolour of a case in Sydney in 1817 (Figure 25).⁷⁰



Figure 25: The 'Philo Free' civil libel trial, 1 December 1817, painted by Edward Charles Close and naming two participants George Allen and George Crossley. Crossley is thought to be the figure standing in the foreground lower right hand side (ML PXA 1187 SLNSW)

Crossley's legal career continued to be troubled and he was under pressure from creditors. He died in his Pitt St, Sydney house on 19 March 1823 and he was buried in the old burial ground in Sydney. His headstone was later moved to Bunnerong cemetery. George Crossley earned a reputation in London and the colony of New South Wales as a colourful character 'not possessing all the virtues ordinarily required of attorneys, but sometimes unnecessarily maligned.'⁷¹

⁶⁹ Allars, *Australian Dictionary of Biography*, 1966: 262-263.

⁷⁰ Allars, *Australian Dictionary of Biography*, 1966: 262-263.

⁷¹ Allars, *Australian Dictionary of Biography*, 1966: 262-263.

4.3 Peter Hough (c1776-1833)⁷²

Peter Hough, a convict arrived in the colony with fellow convict George Crossley on the *Hillsborough* in 1799. He was despatched to Parramatta, later moving to Richmond and eventually gaining freedom by serving out his seven year sentence. Hough was operating as a publican in Parramatta in c1823-25 while his second wife, Mary Hough and six children lived in Richmond. Peter Hough and George Crossley established a business relationship through Hough's lease and management of Crossley's 100 acres at Richmond.⁷³

The Hough family have a long history as Hawkesbury farmers working land in the vicinity of the Study Area. Emble Hough (1870-1945) managed the farm for Mrs Durham in 1900, maintaining a family connection to the Study Area in the 20th century; and a descendant of Peter Hough, also named Peter Hough (1842-1923), was at one time employed by the Hawkesbury Agricultural College.⁷⁴

4.4 John Connell (c.1759-1849)

John Connell, a free settler and successful merchant, sailed with his two children on the *Earl Cornwallis* to the colony in 1801. He established an ironmongery in Sydney and later acquired large areas of land through purchase and grant. Connell's daughter Margaret who had married Captain Thomas Laycock, had two sons Elias Pearson Laycock and John Connell Laycock. After Margaret and Thomas Laycock's early death John Connell became guardian to his grandsons bequeathing to them his estate including extensive landholdings. John Connell Laycock was a grazier and member of parliament (1859-66).⁷⁵

4.5 Benjamin Richards (1818-1898)

Benjamin Richards, stockman, butcher and pastoralist, was born in Richmond the son of James Richards and Mary Eaton.⁷⁶ He married Elizabeth Esther Williams in 1840 and in the same year acquired a property on the Liverpool Plains with his brother-in-law. He opened a butcher shop in Richmond in 1837 and one in Sydney in 1847. Richards purchased large grazing runs gradually expanding his pastoral business providing meat for Sydney market.⁷⁷ Dore's Farm, also known as Hough's Farm, at Richmond Lowlands was purchased in 1851 and used in conjunction with his other pastoral activities. Other land owned at Richmond Lowlands included 'Parnell's Farm' and 'Thorley's Farm.' Richards acquired grazing runs on the Namoi, and later on the Hunter River, Liverpool Plains, Barwon, Balonne River and the Warrego. Diversifying his cattle and sheep fattening business, in 1878 Richards founded the Riverstone Meatworks.⁷⁸

Benjamin Richards was a successful horse breeder with most of his horses bred at Bulgoa (or Bulga) on the Hunter River. He took a great interest in horse racing, owning several successful racehorses. In his latter years Richards moved from Windsor back to

⁷² Various spellings shown in sources eg Huff.

⁷³ Bonwick Transcripts, Reel BT 24: p5166, ML, SLNSW; Baxter (Ed), *General Muster List of NSW 1823, 1824, 1825, 1999*: 271.

⁷⁴ *Hawkesbury Herald* 22 Nov 1923: 4; *Hawkesbury Advocate* 26 Jan 1900:5.

⁷⁵ Baxter (Ed), *General Muster List of NSW 1823, 1824, 1825, ABGR, 1999*: 111; 'Kurnell: Earliest Settlers,' Sutherland Shire Environment Centre, www.ssec.org.au, accessed 13 Dec 2011; 'John Connell Laycock 1818-1897,' www.parliament.nsw.gov.au, accessed 13 Dec 2011.

⁷⁶ NSW BDM Marriage Reg No V18169 156/1816; Gibbney & Smith, *A Biographical Register 1788-1939*, Vol II, 1987: 210.

⁷⁷ *Windsor & Richmond Gazette*, 12 Mar 1898: 4; 'Riverstone,' www.blacktown.nsw.gov.au/our-city/history/the-city/riverstone, accessed 22 Dec 2011.

⁷⁸ 'Riverstone,' www.blacktown.nsw.gov.au/our-city/history/the-city/riverstone, accessed 22 Dec 2011; HJ Gibbney & AG Smith (Eds), *A Biographical Register 1788-1939*, Vol II, Australian Dictionary of Biography, Canberra, 1987: 210; *Windsor & Richmond Gazette* 12 Mar 1898:4; Barkley & Nicholls, *Hawkesbury 1794-1994*, Hawkesbury City Council, Windsor, NSW, 1994: 122.

Richmond where in the early 1890s he built a house, Kamilaroi in Windsor St, Richmond. Richards died in 1898 bequeathing Kamilaroi and the 100 acre farm at Richmond Lowlands to his widowed daughter, Elvina Durham née Richards (1854-1931). After Benjamin Richards' death the Riverstone Meatworks continued to be managed by his eldest son Robert Richards until its sale in 1919.⁷⁹

⁷⁹ *Windsor & Richmond Gazette*, 12 Mar 1898: 4, 9; 'Riverstone,' www.blacktown.nsw.gov.au/our-city/history/the-city/riverstone, accessed 22 Dec 2011.

5.0 Significance Assessment

Significance Assessment is the process whereby buildings, items or landscapes are assessed to determine their value or importance to the community.

The following criteria have been developed by the NSW Heritage Office and embody the values contained in the Burra Charter. The Burra Charter provides principles and guidelines for the conservation and management of cultural heritage places within Australia.

Historical

Criterion (a) – an item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area)

River Farm, formerly known as Dore's Farm or Hough's Farm, is significant in NSW's cultural history as evidence of agriculture and grazing on the fertile but flood prone Richmond Lowlands from the late 18th century until the present day. First granted in 1799 to Richard Dore, deputy judge advocate of NSW, its owners in the 19th century, included George Crossley, John Connell, and Benjamin Richards, who leased the farm to tenant farmers or employed farm managers.

River Farm is linked in the 20th century with Hawkesbury Agricultural College who used it to teach farming theory and practice. The site provides evidence of a reinforced concrete water pumping station constructed in 1909 and powered by the college power supply. It was used for irrigation and other college needs until c1939, at times supplying water to Richmond township and Richmond Air Base. In 1911 a flood mitigation and drainage scheme was constructed at River Farm. A cottage, several timber frame farm buildings and the reinforced concrete water pumping station are significant as evidence of the farm's adaptation to meet the needs of its occupants from the late 19th to mid 20th century.

Association

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 cultural or natural history (or the cultural or natural history of the local area)

Between the late 18th and late 19th centuries River Farm has an important association with several notable owners including George Crossley, convict and attorney, John Connell, a successful Sydney merchant and landowner, and Benjamin Richards, Riverstone Meatworks founder. Crossley and Richards are associated with other Richmond Lowlands farms. Papers relating to Crossley's legal and business entanglements include an early record of the farm.

River Farm is significant for its association with the Hough family of Richmond who leased or managed it in the 19th and early 20th century. River Farm is significant for its long and special association with the Hawkesbury Agricultural College who administered the site. The farm's riverside location and rich environment suitable for cultivation and grazing expanded learning opportunities for students from 1905. The site is able to demonstrate the utilization and management of water resources in the Hawkesbury for the benefit of the college and the wider community.

Aesthetic/Technical

Criterion (c) – an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area)

River Farm is important in demonstrating the rural and riverine character of the

Richmond Lowlands. It retains some of the characteristics of the pre-colonial landscape overlaid by modifications imposed by settlement, farming, flooding and flood management practices. The reinforced concrete River Farm pumping station is evidence of early 20th century water supply technology, its design having technical and aesthetic merit. The cylindrical tower capped by an octagonal lantern and faceted roof is a landmark on the Hawkesbury River. Despite some modifications many original features remain intact. The picturesque farm complex includes several timber framed farm buildings, and a modestly scaled and detailed, rendered brick cottage set in a garden with a number of mature trees. Despite some alterations the cottage retains many original details. Farm buildings and machinery linked to use by the Hawkesbury Agricultural College are extant and the buildings retain many original architectural details.

Social

Criterion (d) – an item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons

River Farm is valued by the community not only for its connection to the land's traditional owners but also as evidence of farming by British colonists, both communities utilising the land's resources in different ways. The farm has a strong and special association with the Hawkesbury Agricultural College staff and students who cultivated it in the 20th century. The inclusion of River Farm as an item of heritage significance on the Hawkesbury Council LEP is evidence of the high regard in which the community still holds the place.

Research

Criterion (e) – an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area)

River Farm has the potential to yield information that will contribute to an understanding of the cultural and natural history of Richmond Lowlands. Despite some disturbance due to cultivation, it is likely to retain archaeological evidence of the site's Aboriginal and early colonial history providing information not available from other sources. The survival of other pumping stations of this type or style warrants investigation, as does the construction of the cottage.

Rarity

Criterion (f) – an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area)

River Farm pumping station its design, if not its building type, is a rare example of an early 20th century reinforced concrete pumping station incorporating a tower and well. The structure extends deep into the riverbank to protect it from floods and retains many original elements.

Representative

Criterion (g) – an item is important in demonstrating the principal characteristics of a class of NSW's

- cultural or natural places; or
- cultural or natural environments.

or a class of the local area's

- cultural or natural places; or
- cultural or natural environments

An item is not to be excluded from the Register on the grounds that items with similar characteristics have already been listed on the Register.

River Farm is able to demonstrate the principal characteristics of a modest farm complex in the Hawkesbury and is a good example of its type in the Richmond Lowlands.

5.1 Statement of Significance

River Farm, formerly known as Dore's Farm or Hough's Farm, is significant in NSW's cultural history as evidence of the farming of the fertile Richmond Lowlands from c1799. River Farm has an important association with notable owners including Richard Dore, attorney and deputy judge advocate, George Crossley, convict and attorney, John Connell, a successful Sydney merchant and landowner, and Benjamin Richards, founder of Riverstone Meatworks.

River Farm is significant for its association with Hawkesbury Agricultural College and able to demonstrate its use as a teaching farm from 1905. The picturesque farm complex is a good example of its type and includes a number of timber framed farm buildings, farm machinery, and a modestly scaled and detailed, cottage in a garden setting. The reinforced concrete pumping station built in 1909 demonstrates the utilisation of water resources for the benefit of the Hawkesbury Agricultural College and the wider community. The landmark structure is evidence of early 20th century water supply technology and considered rare. It is largely intact, and of technical and aesthetic significance.

River Farm has the potential to yield information that will contribute to an understanding of the cultural and natural history of Richmond Lowlands and likely to retain evidence of the site's Aboriginal and colonial history. River Farm is valued by the community as evidence of the fertile Richmond Lowlands landscape once utilised by traditional owners, adapted by colonists for farming and later utilised for teaching by the Hawkesbury Agricultural College.

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Additional photographs associated with River Farm, Hawkesbury Agricultural College, (included in Appendix 2), Record Nos P172, P175, P336, P493, P174 & P173, University of Western Sydney Archives, Richmond, NSW.

'Hawkesbury Agricultural College [River Farm],' 18 Mar 1951, Government Printing Office 2 - 01023, ML, SLNSW.

The 'Philo Free' civil libel trial, 1 Dec 1817, Edward Charles Close - New South Wales Sketchbook, c1817-1840, PXA 1187, ML, SLNSW.

Photographs of River Farm, c2011, NSW Public Works, Government Architects Office.

Newspapers, as cited in footnotes.

7.0 Abbreviations

Col Sec	Colonial Secretary's Papers
LPI LPMA	Land and Property Information Land & Property Management Authority
ML	Mitchell Library
nd	not dated
np	not paginated
PWD	Public Works Department
SLNSW	State Library of NSW
SRNSW	State Records of New South Wales
UWS	University of Western Sydney

8.0 Appendices

8.1 APPENDIX 1 - LAND TITLES SCHEDULE - RIVER FARM - PORTION 19 PARISH OF HAM COMMON (LOT 19 DP 752032)

DATE	LOT & DP	CT/V & F	INSTRUMENT OF TRANSFER	FROM	TO	DETAILS/NOTES
8 Apr 1799	11 acres District of Mulgrave Place	Bk 2 p 265	Grant	Governor John Hunter	Richard Dore Esq	Conditional upon residence, improvement and cultivation. Annual Quit rent 2 shillings to commence after 5 years.
Sep 1801	'Farm at Richmond Hill late the property of and owned by demise from the Crown to the said RD his heirs and assigns'	Registered conveyance not located	Draft of conveyance, Supreme Court of NSW, SRNSW	William Henry Dore, son of and heir of Richard Dore	George Crossley	Richard Dore died in 1800. Ref to conveyance in K G Allars, 'George Crossley- An Unusual Attorney,' <i>Journal of the Royal Australian Historical Society</i> , Vol 44, 1958: 267. Crossley (1749-1823) owned Dore Farm and Fulham Park to its east [Old Reg 6 p214 Entry 7].
16 Sep 1802	Hawkesbury. Assignment of Farm and 100 acres [100 acres thought to be Dore's Grant]	Old Register Bk 1 p41 Entry 185	Assignment	George Crossley	Robert Campbell	Transaction related to an action taken by Crossley to protect his assets during a legal action. '...£300 1 [consideration] to be paid 11 th day of December 1802.' A transaction reversing the assignment has not been located. Crossley's Probate records refer to the transaction as a mortgage [SRNSW]. Ref to transaction in KG Allars, 'George Crossley- An Unusual Attorney,' <i>Journal of the Royal Australian Historical Society</i> , Vol 44, 1958: 279.
1 Mar 1810	Richmond 20 acres situated on Fulham Park and Dore Farm	Old Register Bk 4 p34 Entry 378	Agreement to rent	George Crossley	Charles Williams otherwise Magee	Rent £40 a year from 1 Jan 1810 for 5 years.

River Farm Richmond

DATE	LOT & DP	CT/V & F	INSTRUMENT OF TRANSFER	FROM	TO	DETAILS/NOTES
[Mar 1823?]	'Dore's Farm' alleged to belong to Mr George Crossley with mortgage and interest owing to Mr Robert Campbell	Registered conveyance not located	[Transmission]	Estate of George Crossley, deceased	John Connell executor of George Crossley's estate and beneficiary in his will dated 15 Mar 1823	Reference to Crossley's alleged ownership of Dore's Farm in Probate Packet - George Crossley [SRNSW]. Record of Connell repaying Campbell mortgage or conveyance of Dore's Farm to Connell not located. John Connell, landowner and merchant of Pitt Street, Sydney died 18 Aug 1849.
29 Mar 1851	Estate of John Connell deceased including 59 Acres Parish of Ham Common western portion of grant to Richard Doer [sic] and 61 acres Parish of Ham Common the eastern portion of grant to Richard Dore	Bk 20 No 520	Indenture of partition	John Connell Laycock of Sydney, gentleman [1], Elias Pearson Laycock of Heathfield near Liverpool, gentleman [2] and George Want of Sydney, gentleman and trustee [3],	John Connell Laycock [4], Elias Pearson Laycock [5]	Will of John Connell late of Pitt St, Sydney, Esq. dated 27 Oct 1848. John and Elias Laycock, John Connell's grandsons, are beneficiaries of Portion 19 Parish of Ham Common.
31 Mar 1851	59 acres Parish of Ham Common being western portion of Dore's grant	Bk 20 No 565	Appointment and release	John Connell Laycock of City of Sydney, gentleman	Elias Pearson Laycock of Heathfield near Liverpool, gentleman	
21 May 1852	59 acres (western portion) and 61 acres (eastern portion) of Dore's grant Parish of Ham Common	Bk 23 No 274		Elias Pearson Laycock of Rose Ville near Parramatta	Benjamin Richards of Richmond, carcass butcher	£1060 consideration

River Farm Richmond

DATE	LOT & DP	CT/V & F	INSTRUMENT OF TRANSFER	FROM	TO	DETAILS/NOTES
26 Nov 1902	'...my [Benjamin Richards] farm on Hawkesbury River Richmond Bottoms containing 100 acres known as Houghs and purchased from Laycock'	Bk 725 No 486	Acknowledgement under Wills, Probate Administration Act [Transmission]	Prosper Henry Ridge of Richmond Esq and Frederick Durham Badgery of Lake Bathurst Esq, executors of the Will of Benjamin Richards	Elvina Durham, of Richmond, widow and devisee of said Will	Benjamin Richards died 5 Mar 1898. Will dated 26 Feb 1896.
8 Jun 1905	'...messuage or farm-house and parcels of land ...known as Hough's Farm...in the occupation of the said Lessor' also described as 116 acres and 1 rood Psh Ham Common Portion 19	Bk 782 No 560	Lease with option to purchase	Elvina Durham of Richmond, widow (Lessor)	His Majesty King Edward the Seventh [The Crown]	Term of lease from 1 June for 7 years for £100 per year plus rates and taxes etc. Will cultivate and manage in 'husbandlike' manner and keep in 'good heart and condition.' Option to purchase at £36/10/- per acre.
30 May 1912	'100 acres Psh Ham Common originally granted to Richard Dore' then described as 59 acres and 61 acres Psh Ham Common now 117 acres 1 rood known as Portion 19	Bk 968 No 318	Surrender	Elvina Durham of Richmond, widow	King George V [The Crown]	£4279/12/6 consideration.
11 Sep 1997	Lot 19 DP752032 Richmond Psh Ham Common (formerly Portion 19)	Folio 19/752032	CT		State of New South Wales	Dedication to the College of Advanced Education (1983). Subject to University of Western Sydney Act 1988. Land a reserve (1989) dedicated for a public purpose.

8.2 APPENDIX 2 - PHOTOGRAPHS OF THE RIVER FARM NOT INCORPORATED IN THE HISTORY BUT PROVIDING A RECORD OF THE STUDY AREA



Figure A: Hawkesbury River at River Farm, nd (P175 UWS Archives)



Figure B: Irrigation on River Farm, nd (P173 UWS Archives)

B Early Plans of the Pumping Station

HAWKESBURY AGRICULTURAL COLLEGE WATER SUPPLY

DETAILS OF PUMP WELL, STAGING AND SECTION OF SUCTION PIPE

CONTRACT No 788
DRAWING No. 2

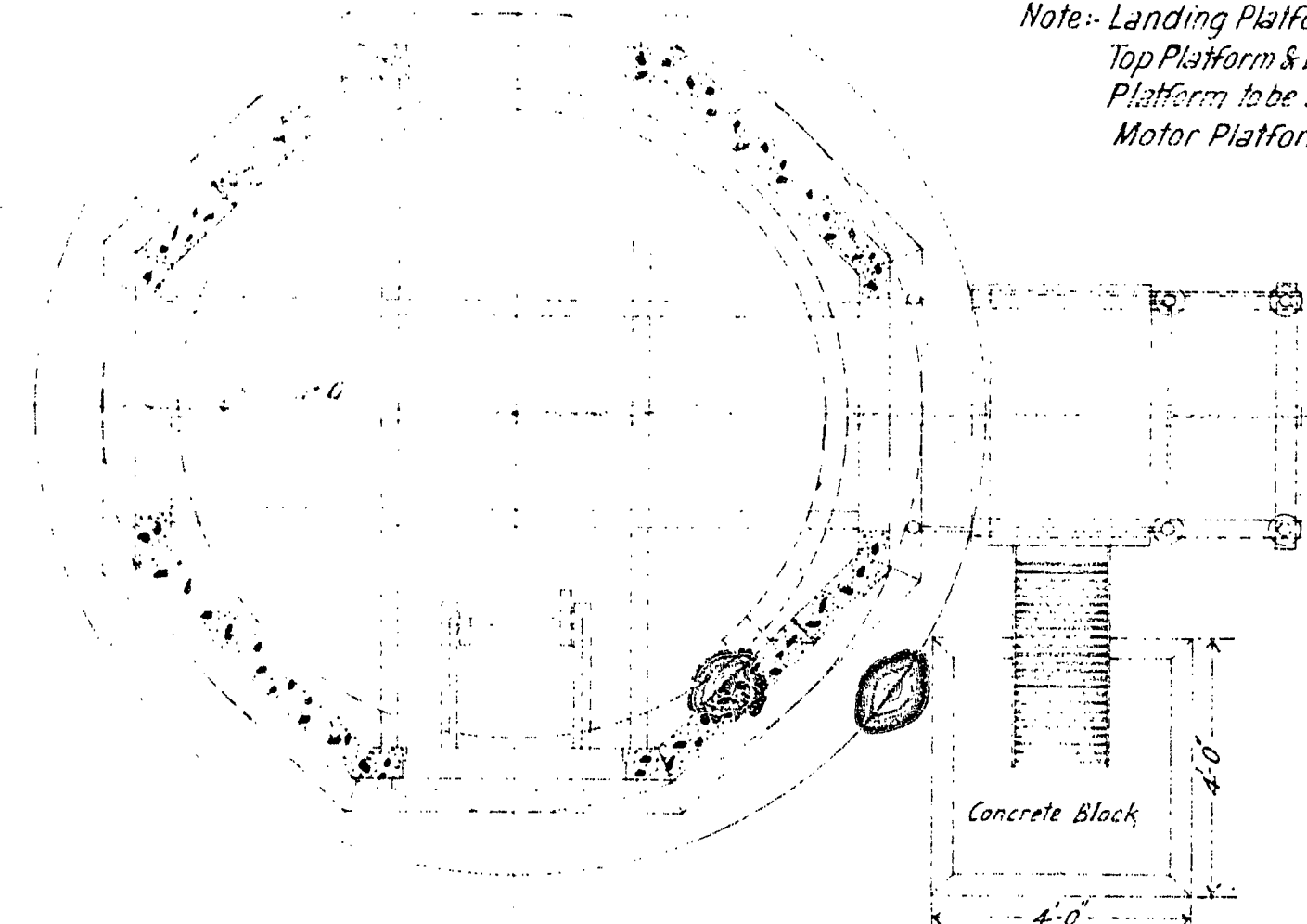
EXHIBITED COPY

SECTION OF PUMP WELL & HOUSING

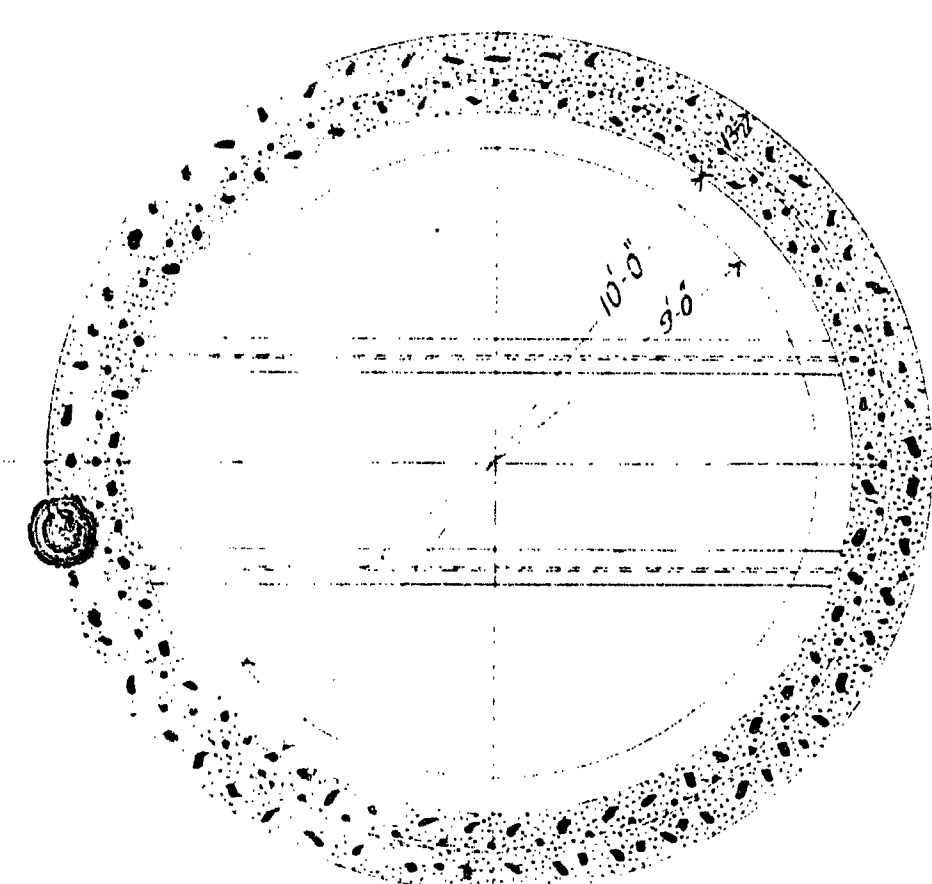
Scale 3/4 in = 1 foot

SECTION AT A.A.

Note: Landing Platform, Ladder, Traveller & Joists,
Top Platform & Ladder giving access to Motor
Platform to be supplied by Contractor.
Motor Platform not to be supplied.

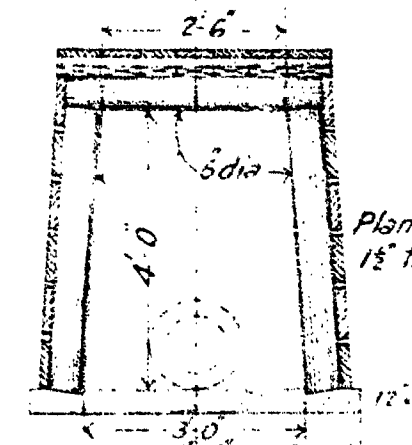


SECTION AT B.B.

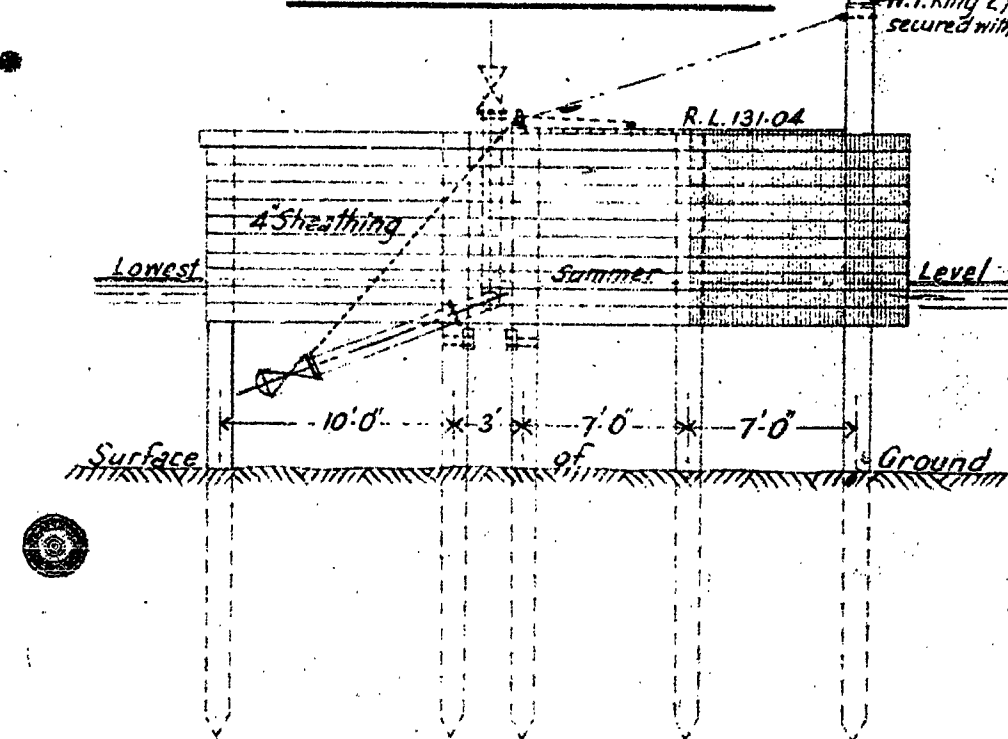


SECTION OF PUMP WELL SHOWING TIMBERING OF TUNNEL

SECTION AT D.D.

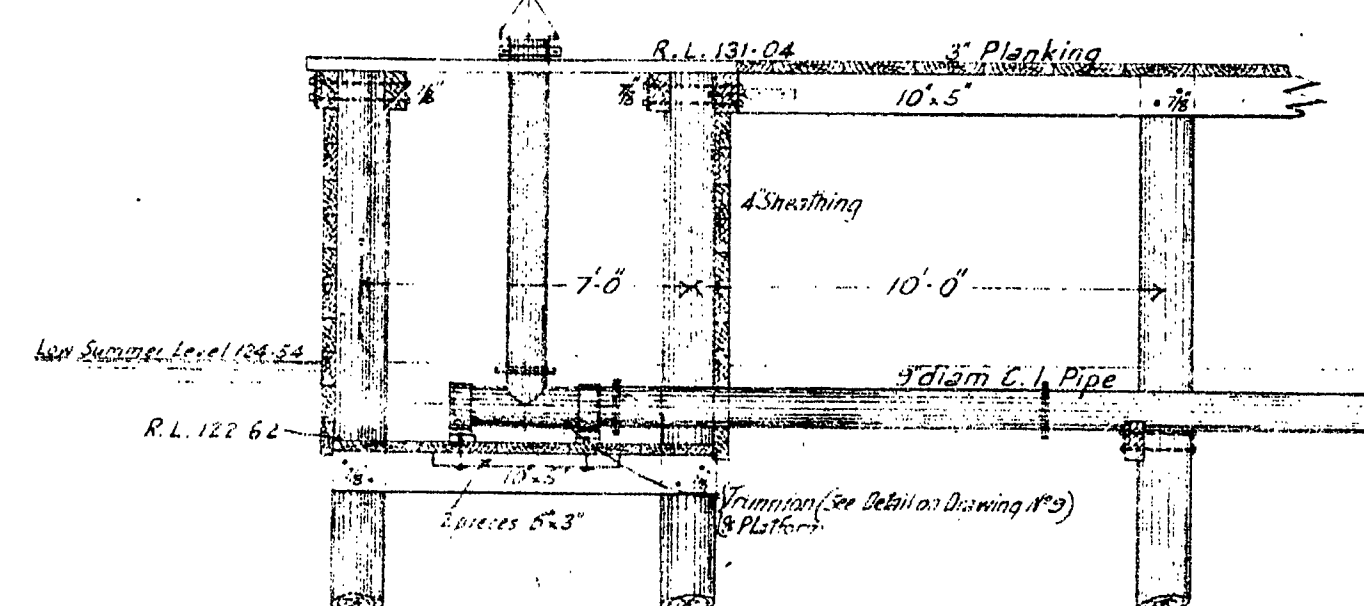


FRONT ELEVATION



Note: Foundation for Pumps to be provided
from particulars to be furnished later.

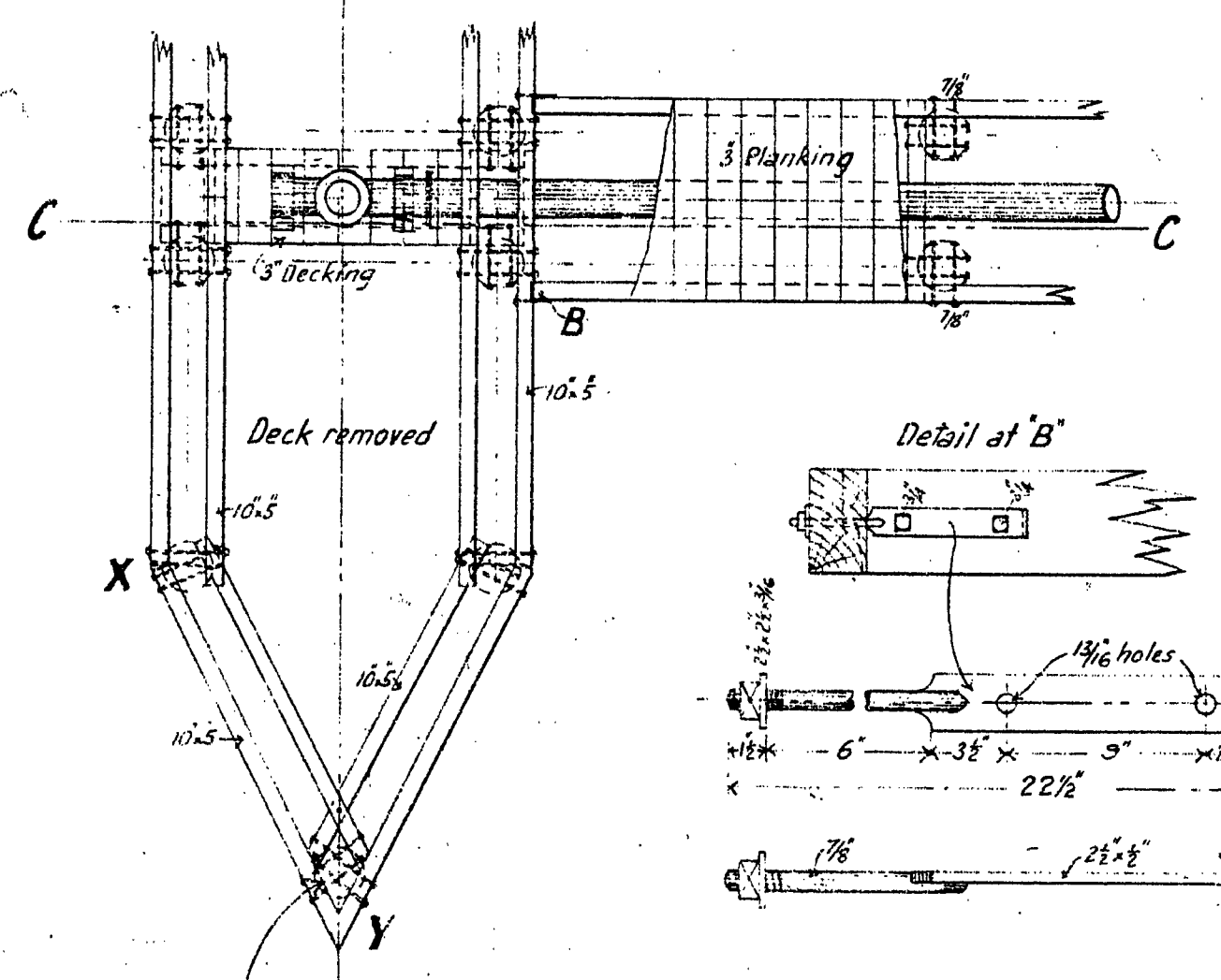
CROSS SECTION AT C.C.



DETAILS OF STAGING

Scale 3/4 in = 1 foot

PLAN

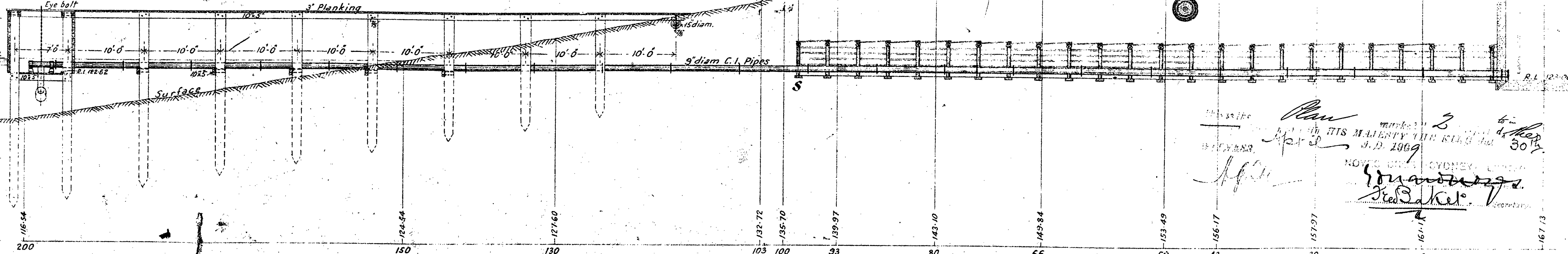


This pile to be fixed above deck
and extended all up

PLAN

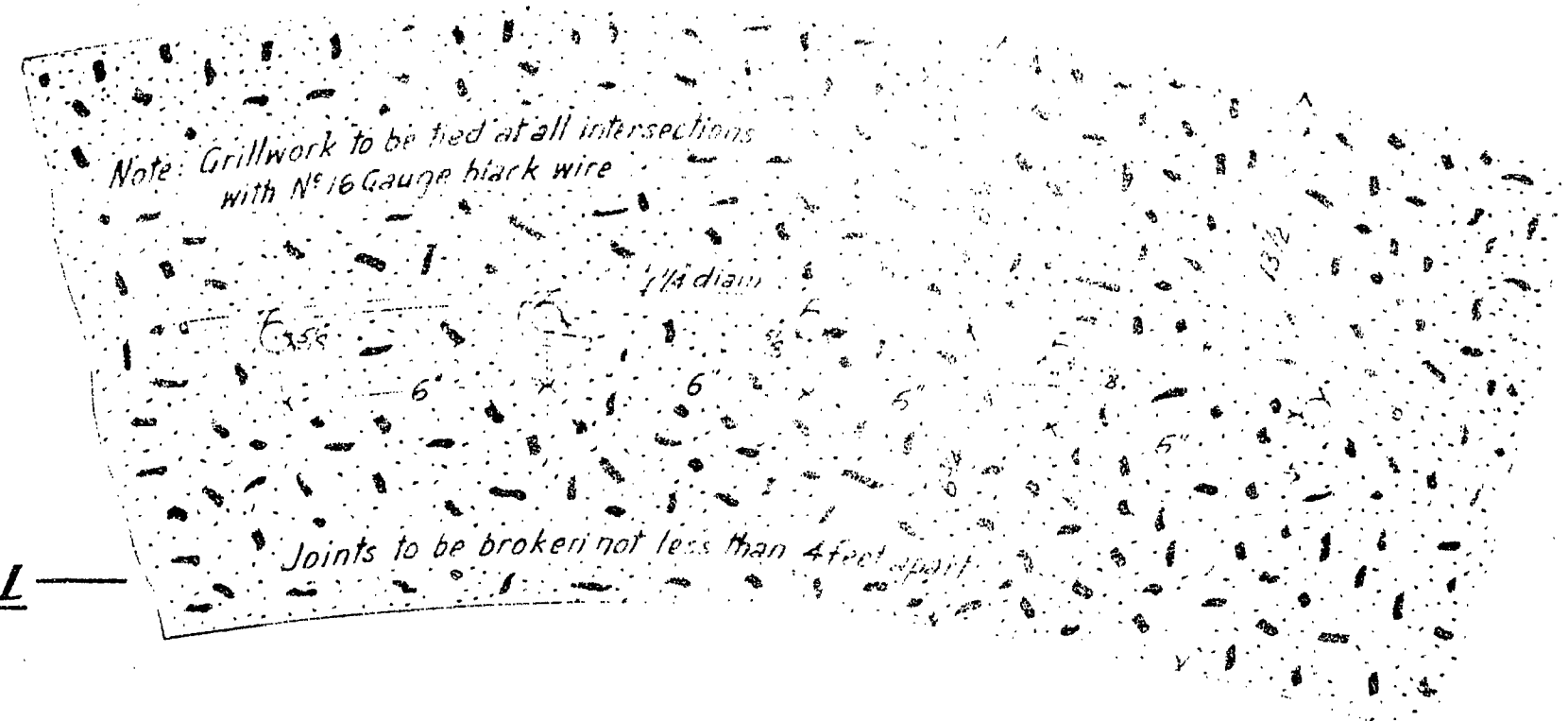
All these Piles to be raked 1 in 8.

LONGITUDINAL SECTION



DETAIL OF JOINT FOR HORIZONTAL ROBS

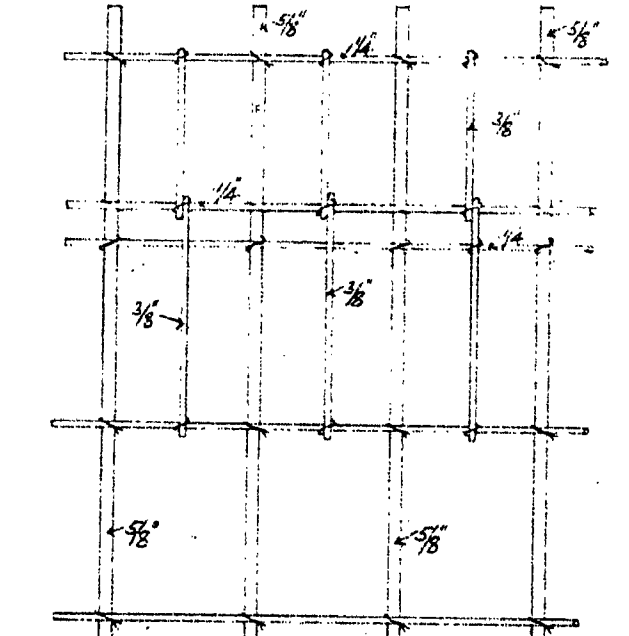
Scale 3/4 in = 1 foot



Note: Grillwork to be fixed at all intersections
with No. 16 Gauge black wire

DETAIL AT F

Scale 1 1/2 in = 1 ft

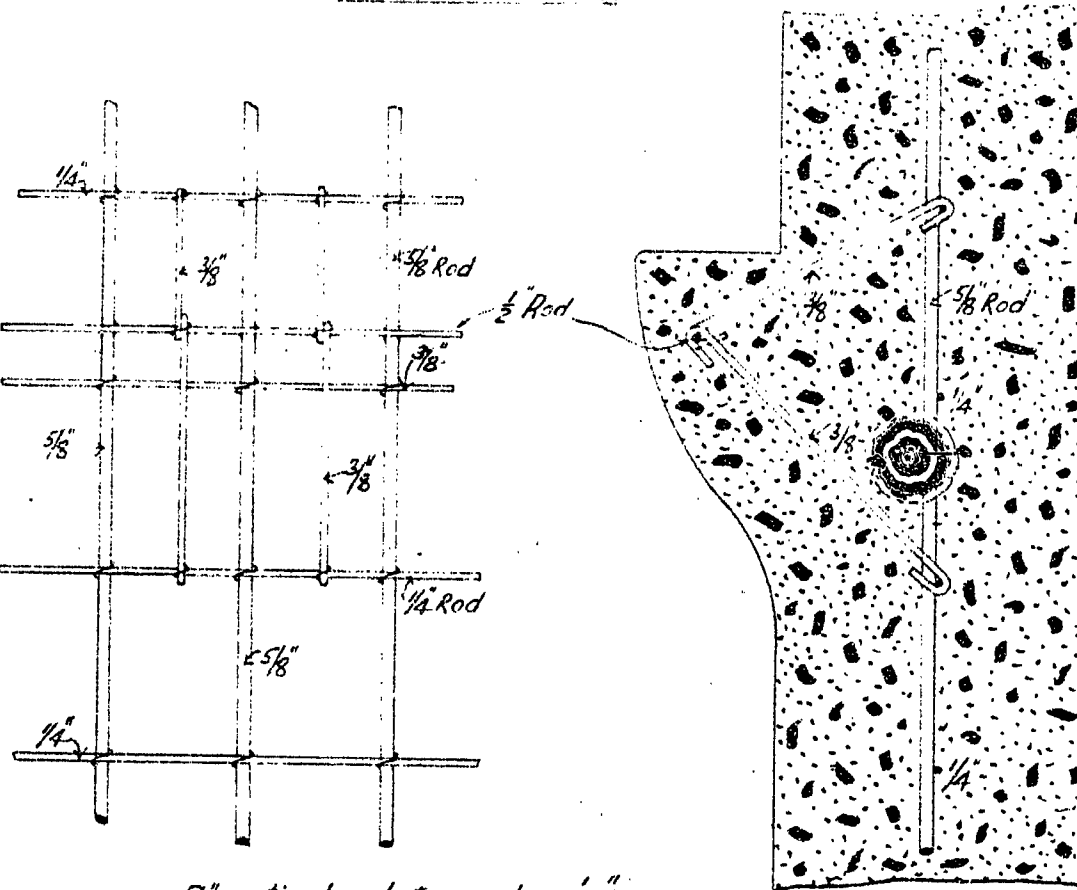


Vertical rods to overlap 2' 4"
overlap to be fixed in 3 places

DETAILS OF GRILLING FOR PUMP WELL

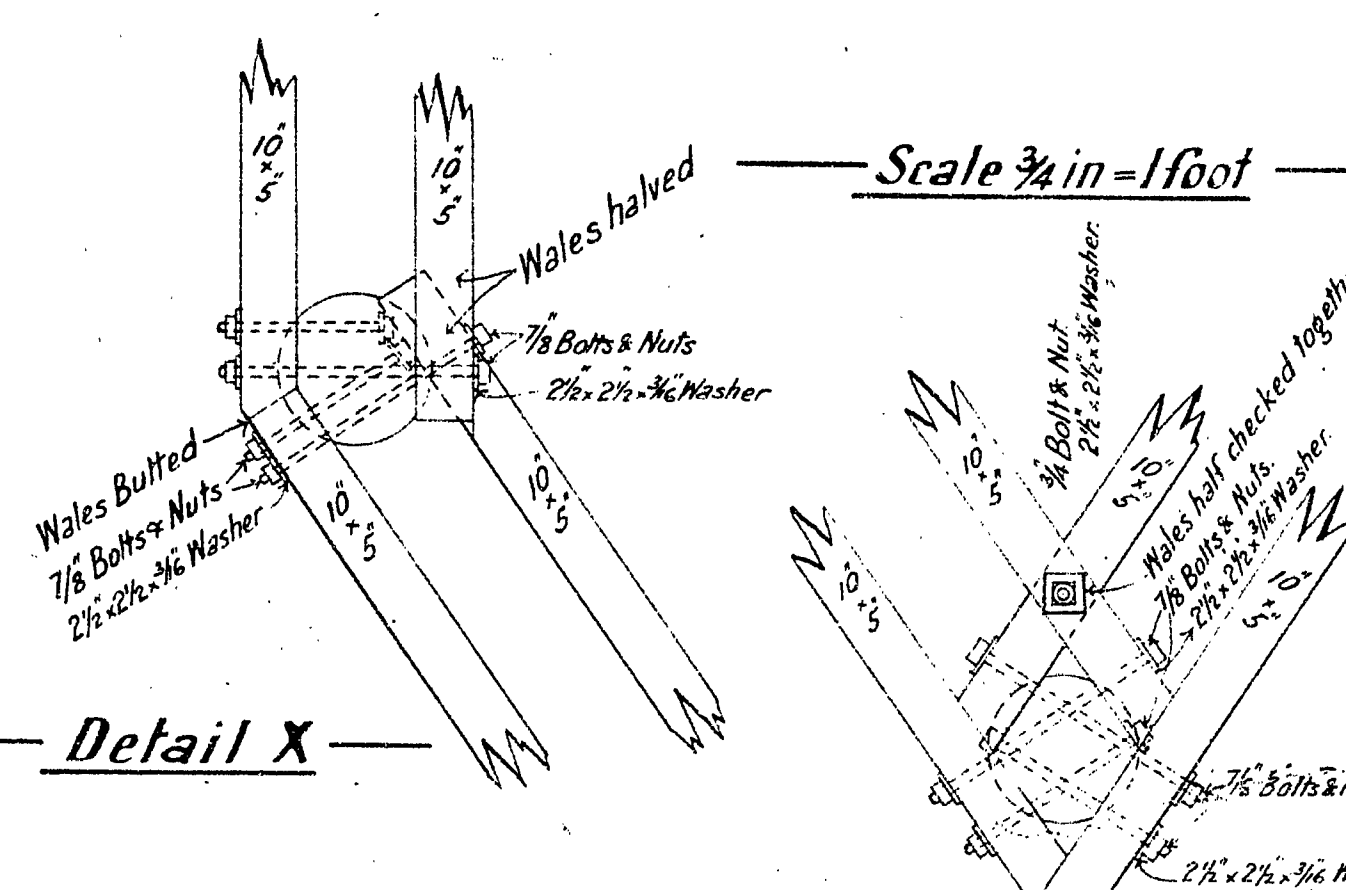
DETAIL AT E

Scale 1 1/2 in = 1 ft



Vertical rods to overlap 2' 4"

Scale 3/4 in = 1 foot

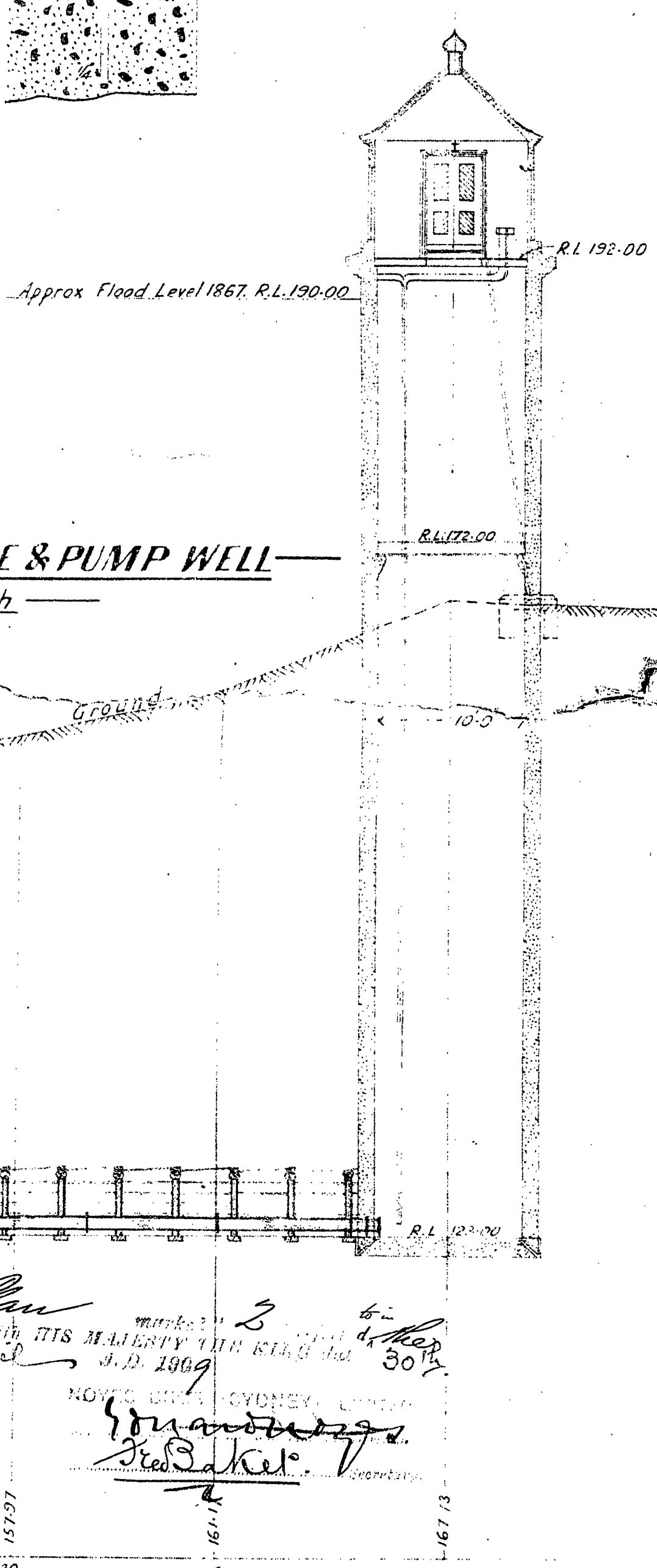


Detail X

Detail Y

STAGING, SUCTION PIPE, INTAKE & PUMP WELL

Scale 8 feet = 1 inch



Approx Flood Level 1867 R.L. 190.00

32995

Prim. Assistant Engineer

FI

HAWKESBURY AGRICULTURAL COLLEGE WATER SUPPLY

DETAILS OF PUMP WELL, STAGING AND SECTION OF SUCTION PIPE

EXHIBITED COPY

Chief Engineer
for Rivers, Water Supply & Drainage

DETAIL OF JOINT FOR

SECTION OF PUMP WELL & HOUSING

SECTION AT A.A.

Note: Landing Platform, Ladder, Traveller & Hoists,
Top Platform & Ladder giving access to Motor
Platform to be supplied by Contractor.
Motor Platform not to be supplied.

SECTION AT B.B.

SECTION OF PUMP WELL SHOWING TIMBERING OF TUNNEL

SECTION AT D.D.

FRONT ELEVATION

LONGITUDINAL SECTION

CROSS SECTION AT C.C.

DETAILS OF STAGING

PLAN

DETAILS OF GRILLING FOR PUMP WELL

DETAIL AT F

DETAIL AT F

STAGING, SUCTION PIPE, INTAKE

32995

Drawn & Tested by J.H.
Checked by 10.9.08

Prin. Assistant Engineer

F2