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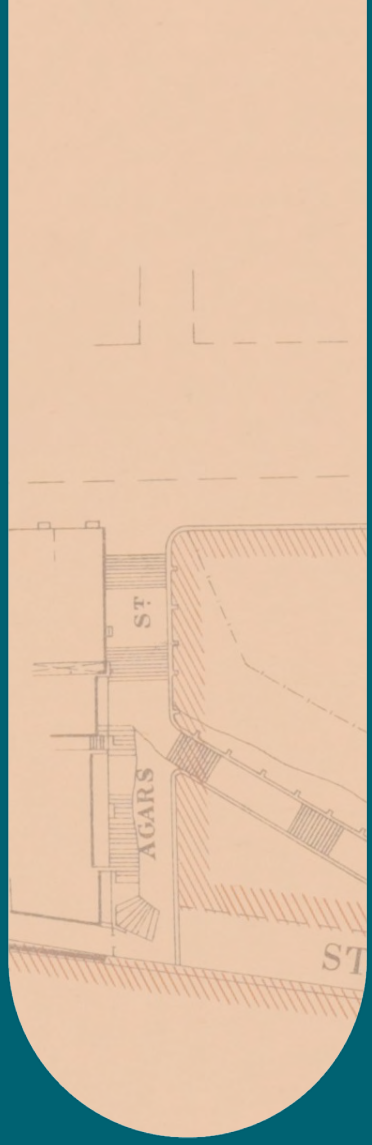
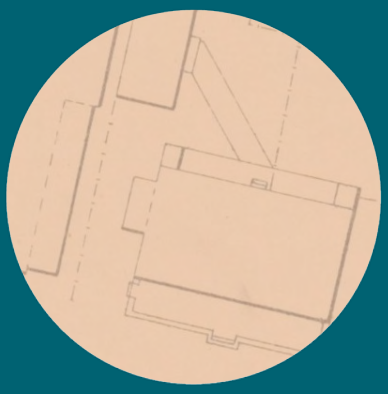
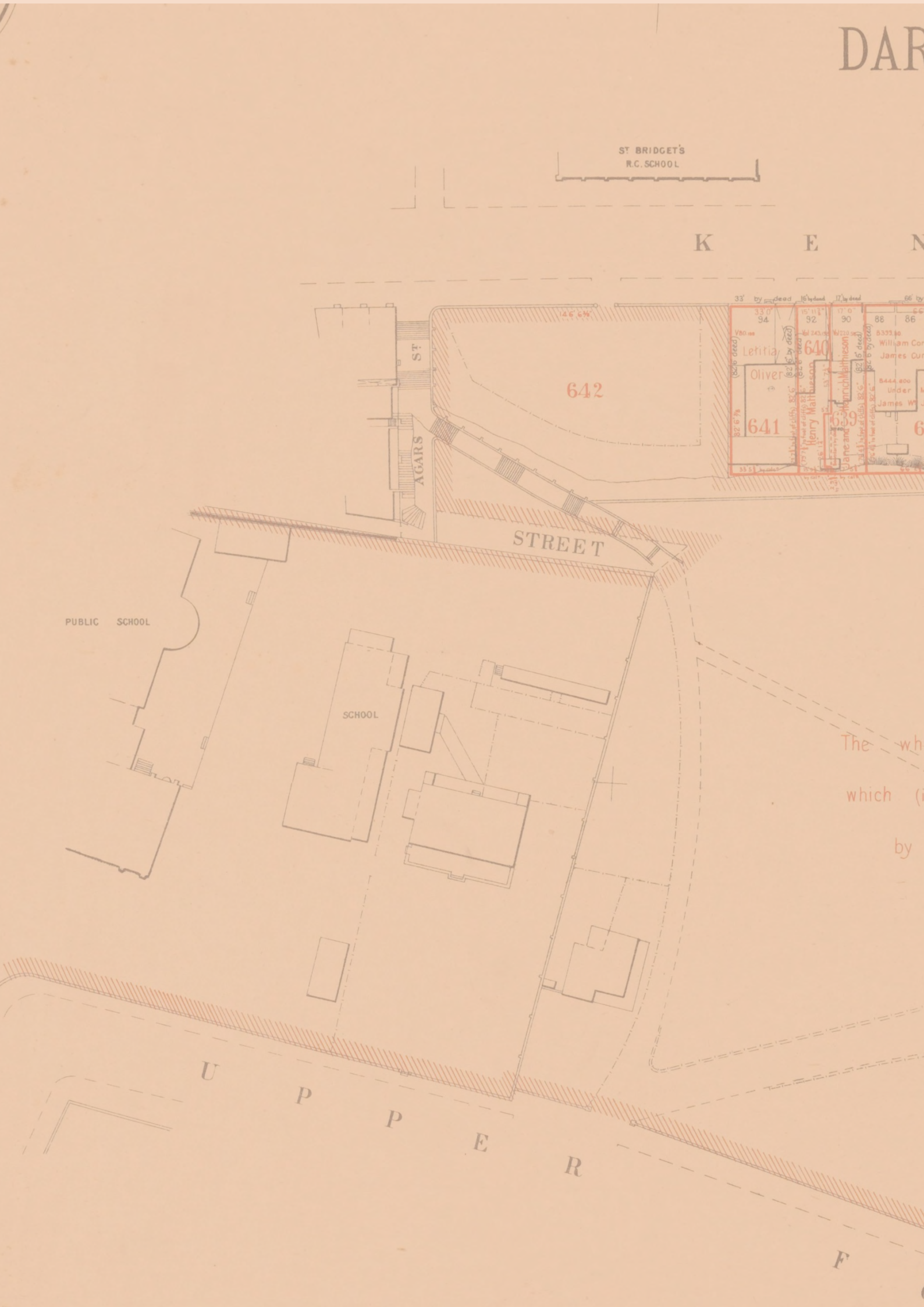




Fort Street High School

Final Archaeological Research Design

April 2021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ISSUE No.	ISSUE DATE	VERSION	NOTES/COMMENTS	AUTHOR	REVIEWED
1	11/20	Draft Report	For client review	Matthew Kelly	
2	12/20	Final Draft Report	For client review	Matthew Kelly	
3	12/20	Final Draft Report V2	For Heritage NSW review	Matthew Kelly	
4	23/12/20	Final Draft Report V3	For Heritage NSW review	Matthew Kelly	
5	3/02/21	Final Report	For issue	Matthew Kelly	
6	16/04/21	Final Report 2	For issue	Matthew Kelly	
7	26/04/21	Final Report 3	For Issue	Matthew Kelly	

This report has been prepared based on research by Curio Projects specialists. Historical sources and reference material used in the preparation of this report are acknowledged and referenced at the end of each section and/or in figure captions.

Curio Projects Pty Ltd

5 Blackfriars Street

Chippendale NSW 2008

Australia

Contents

Figures

1. Introduction

1.1. Introduction

Curio Projects have been engaged by NSW Schools Infrastructure (SINSW) to provide heritage services for the Fort Street Public School (FSPS) project throughout the three stages of development (Master Planning/Feasibility; Expansion Options; and Planning Applications and Approvals). This ARD constitutes part of the final Stage of the planning process, to allow and guide archaeological excavation and monitoring of the study area during the construction phase of work.

Previously (2019) archaeological test excavations have been completed on the site which determined that the remains of the 1815 Surgeon's Quarters for the early Military Hospital remained intact beneath the Environmental Educational Centre on the southern portion of the site. That testing report identified other areas of the site with archaeological potential (i.e. that areas of the site other than the Surgeons Quarters may have archaeological potential that requires further investigation).

1.2. Site Identification

The Fort Street Public School site (the study area) is located on Observatory Hill, at Upper Fort Street, Millers Point, and is generally defined by the circular cut of the Cahill Expressway on ramp (Figure 1-1). The study area is located to the south of the Sydney Observatory, between the Bradfield Highway in the east, and residential development along Kent Street to the west.

The Fort Street School (FSPS) site currently consists of four main buildings (Figure 1-2): The Fort Street School; The Messengers Cottage; The Bureau of Meteorology building (MET Building), and the Environmental Educational Centre (EEC) building. Of these four structures, only the EEC building is not heritage listed.

1.3. Previous Reports

Previous relevant reports on the site include:

- Thorp W. 1992, National Trust Centre Observatory Hill, Historical and Archaeological Assessment, report prepared for Department of Public Works.
- Otto Cserhalmi Partners 2000, The National Trust Centre, Observatory Hill Precinct—Conservation Management Plan, prepared for NSW Department of Public Works and Services;
- Wahhorn, D, 2001, Meteorological Building, Observatory Hill, Conservation Management Plan.
- Tanner Kibble Denton (TDK) Architects, 2016, Fort Street Public School and environs Upper Fort Street, Millers Point, Conservation Management Plan;
- AMBS Ecology and Heritage, 2016, Fort Street Public School Archaeological Assessment.

Curio has completed the following reports in relation to the current study area:

- Fort Street Public School, Historical Archaeological Research Design, Test Excavation, 2019;
- Fort Street Public School, Conservation Management Plan, 2019;
- Fort Street Public School, Heritage Impact Statement, 2020;
- Fort Street Public School, Aboriginal Cultural Heritage Assessment Report, 2020;
- Fort Street Public School, Historical Archaeological Test Excavation Report, 2020.

1.4. Limitations and Constraints

This report has been prepared using the extensive historical data and documentation available for the FSPS study area and surrounds, including relevant Conservation Management Plans (CMP), and archaeological reports and assessments.

This report does not include assessment of Aboriginal heritage values or archaeology, nor any non-heritage related planning controls or requirements.

1.5. Report Author

This report has been prepared by Dr. Matthew Kelly, Senior Archaeologist of Curio Projects.

1.6. Acknowledgements

Curio acknowledges the assistance of Christine Eberl, Lendlease for provision of construction documentation.

Figure 1-1 General FSPS Study area Location. (Source: Curio 2019)

Figure 1-2 Fort Street Public School site photo showing major built elements currently on site. (Source: TKD 2016, Fig. 36)

2. Historical Context

The following timeline was included in the 2019 Curio ARD for the study area. It has been included here as a general guide to the development of the study area and it's surrounds. More detailed historical information is available in the Otto Cserhalmi Partners 2000 and Tanner Kibble Denton (TDK) Architects 2016 CMPs.

The site occupation was divided into eight major historical phases which comprised:

Phase 1 (1788-1820)—Fort Phillip and Windmill Hill

Phase 2 (c.1820-1850)—Military Hospital and Quarrying

Phase 3 (c.1850-1890s)—Fort Street National School, Observatory and Messengers Cottage

Phase 4 (c.1890s-1900s)—Fort Street Girls High School, Additions

Phase 5 (1901-1918)—Ongoing School Use and Kent St Pavilion Construction

Phase 6 (c.1919-1950)—Bureau of Meteorology, New Fort St School and Cahill Expressway

Phase 7 (c.1950-1990s)—High School Relocation & National Trust

Phase 8 (1990s – Present)—Continued School Use and Occupation of surroundings buildings

2.1. Historic Timeline of Development of the FSPS Study Area

Phase 1	**1790s:**	Government windmills built on the high land; construction of Dawes Point fort and observatory.
	1804:	Construction of Fort Phillip on the heights of the peninsula ridge.[1]
	1806:	A third government windmill, a large wooden structure, was built c.1806 by Nathaniel Lucas near the site where Fort Street public school now stands.
	1815:	Construction of Military Hospital begins in the Old Colonial Georgian style by Lt. J. Watts (current National Trust Centre site). Included 'a brick-built barrack for the accommodation of the Military surgeon and one assistant surgeon'
Phase 2	**1820s-80s**	Spread of urban development across whole Millers Point and Dawes Point precinct.

[1] Fort Phillip was proposed as a strategic stronghold, however it was never finished, and was abandoned in 1807. In 1840, part of the Fort was demolished and a new signal station erected in its place, later incorporated into Sydney Observatory.

1818: Edward Charles Close's painting of the west side of Farm Cove with a distant view of the Military Hospital and Surgeons cottage, 'smock-mill' third Government windmill and Fort Philip

1820: Major James Tayler's panorama shows the buildings fences and daily activities that occurred in the subject site. The Military Hospital and palling fences, the Surgeon's house, kitchen and servant's apartment are shown made of brick. There are also men depicted quarrying stone to the north of the building.

1822: Plan for the study area shows four residential dwellings–one is the Surgeon's house (and fences)–in the current Fort Street Public School site and two residential buildings and the Military Hospital with two outbuildings in the National Trust Centre site.

1827: Colonial Engineers report describes the condition of the Military Hospital, 'kitchen, servant's apartments and dead house … in a detached building', suggested a cess pool be created in the corner of the grounds and that a pump be established at the present well. The land at the back of the kitchen and servant's apartment was noted for being higher than the front causing damp and the 'privies require reshingling'.

1829: Robert Burford's painting showing a panorama of Sydney with the Military Hospital, outbuildings and the windmill in the distance.

1830s-1880s: Active quarry along Kent Street (current Tennis Court and Pavilion site).

1833: Plan showing windmill and structures (including surgeon's cottage) in the Fort Street School Site and the Military Hospital (National Trust site).

1845 Plan of the subject site shows one residence in the Fort Street School site and one residence on Kent Street in the location of the Tennis Court and Pavilion site.

1848: Removal of the Military Hospital stables and coach house and replacement with stone, remove the water closets, relay floors, lathe and plaster rooms above the kitchen, two new glass windows, repair the cellars and kitchen, build a wall of stone (current National Trust Centre site).

1849: Peter McBeath, builder, tendered to "build a wall of stone 6 feet high corresponding with the one presently built with copping" and "excavate the ground in front of the National school to the level of the base course to the present line of the road in front and thee yards at the end through to the line of the road at back levelling the ground with the same…"

1849 Relocation of Military Hospital to Paddington, Commanding Engineer officially relinquishes possession of hospital site to National School (National Trust site)

	1849	Fort Street School was established, remodelling/adaptation of Military Hospital.
Phase 3	**1850s**	Military Hospital building modified for school use to carry the two-storey arcade by infilling the encircling verandah altering the building to Victorian Mannerist style, carried out by M. Lewis. The gallery was fixed for school seats. Thomas Brown installed a gas lamp at the front of the National School. Additions were also made to the stone walls. Flagging was laid from the front of the school to Princes Street
	1850s:	Adaptation of Fort Phillip site for Observatory and parklands. The current Observatory was constructed between 1857-1859.
	1854:	Plan of the subject site shows the 1849 school building in the Fort Street School site, which is to the north of the Military Hospital building in the National Trust site.
	1855:	Plan of the subject site shows the 1849 school building with outbuildings in the Fort Street School site. The Military Hospital building and the new 1855 school building, plus one brick and one wooden building (sheds) in the north-west and one brick building (privies) on the southern boundary of the National Trust site are shown.
	1862	Messenger's Cottage for Sydney Observatory was built in the study area.
	1862	Fort Street Infants school erected (west of Surgeons residence, likely associated with original structure of military kitchen outbuildings).
	1865:	Plan of the subject site shows the 1849 school building and the Messenger's Cottage with the locations of their associated outbuildings and fences. The Military Hospital, 1855 school building, brick shed on the southern boundary, as well as the 1862 Infants school brick buildings on the north-west boundary of the National Trust site are shown. One building is shown in the Tennis Court and Pavilion site.
	1870s:	Military Hospital building repairs and the introduction of gym equipment. Inadequate toilet, sewerage and drainage systems were highlighted in correspondence.
	1876:	Cellars under the Military Hospital Kitchen being used to store the school's winter coal supply. Reported that there were only four toilets for 600 students at the school.
	1880s:	Vacant land at the current Tennis Court and Pavilion site on Kent Street

	1880:	Dove Plan of the subject site shows the 1849 school building and the Messenger's Cottage with verandahs and outbuildings in the Fort Street school site. The Military Hospital has been extended to join the 1855 school building with an additional out building at the rear on the west boundary, the Infants school is on the northwest boundary and three out buildings (privies) are shown on the southern boundary of the National Trust site.
	1884:	It was reported that there were only three toilets for 400-500 boys at the school.
	1887-1889:	Classroom buildings added and repairs made to existing school buildings (current National Trust Centre site).
Phase 4	**1890-91:**	Timber carpentry shed built (current National Trust Centre site) (rear of the 1855 school building).
	1890:	Two storey brick building containing a classroom and needlework/sewing room was constructed in the place of the old sheds.
	1894:	Construction of link between former Military Hospital building and 1855 school building.
	1900s:	Post plague demolitions and rebuilding throughout the precinct, less so in Dawes Point.
Phase 5	**1901:**	Plan of the subject site shows the 1849 school and Messenger's Cottage with outbuildings and landscaped paths in the Fort Street School site. The Military Hospital and 1855 school building are shown as one building, there are an additional two outbuildings shown on the south-west boundary as well as the outbuildings along the southern and western boundaries of the National Trust Centre site. A path with stairs and landscaping is shown in the Tennis Court and Pavilion site.
	1909:	Military Hospital kitchen block and cellar demolished, playground repairs, construction of retaining wall and fence.
	1916:	Boys relocated to new Fort St High School at Taverners Hill, Fort St School, Millers Point became girls' school only.
	1910s-20s:	Construction of Walsh Bay wharves. Construction of the Pavilion on Kent Street (current Tennis Court and Pavilion site).
Phase 6	**1920-30s:**	Construction of Sydney Harbour Bridge and approaches on the heights of the peninsula ridge.
	1922:	Purpose built Bureau of Meteorology Building (MET) is constructed in the study area.
	1929:	Military Hospital building remodelled.

	1940s	School buildings south of MET Building demolished, including former surgeon's residence and infants' school.
	1930s-1950s:	New group of school buildings constructed including hall, gymnasium and several classrooms.
	1940-1950s:	Construction of the ring road to the Cahill Expressway for the Sydney Harbour Bridge.
	1940-41:	Construction of present Fort Street Primary School by Clive Evatt the Minister for Education at the time.
	1943:	Aerial photograph of the subject site shows buildings densely packed and the ring road leading to the Sydney Harbour Bridge has cut through the site).
	1949	Fanny Cohen Gymnasium constructed (now Environmental Educational Centre (EEC))
Phase 7	**1950s**	Fort Street School pupils (secondary) relocated to Taverner's Hill. The primary school pupils vacated the model school to occupy the newer buildings (current FSPS main building)
	1954	Classroom added to 1940 primary school building. Demountable building constructed to west of MET building
	1957	Second bridge over Cahill cutting, linking gymnasium to footway alongside Harbour Bridge approach
	1960:	Removal of several sheds and new roof added to the Military Hospital building (current National Trust Centre site).
	1961	Two larger demountable classrooms constructed for Fort Street Girls School to NW of Gymnasium (EEC)
	c.1960s:	Pavilion on Kent Street modified as a tennis court. High cyclone fencing added in the 1970s (Tennis Court and Pavilion).
	1962:	The Cahill Expressway road isolated Fort Street School from Observatory Hill.
	1963	Bureau of Meteorology vacated MET building, weather forecasting and measuring equipment remained at Messenger's Cottage.
	1970-80s:	Construction of Darling Harbour wharves, moving the western shoreline c200m westwards.
	1975:	Military Hospital/former school buildings adapted for National Trust occupation.

	1979-c2000:	Various uses of Messengers Cottage, including by National Trust 'Young Trust Group', and as Childcare Centre. Some repair, alterations and conservation work undertaken
Phase 8	**1991:**	Use of MET building by National Trust for storage
	2000:	MET Building fell into major disrepair and disuse
	c2000-Present:	Use of Messengers Cottage by Fort Street Public School

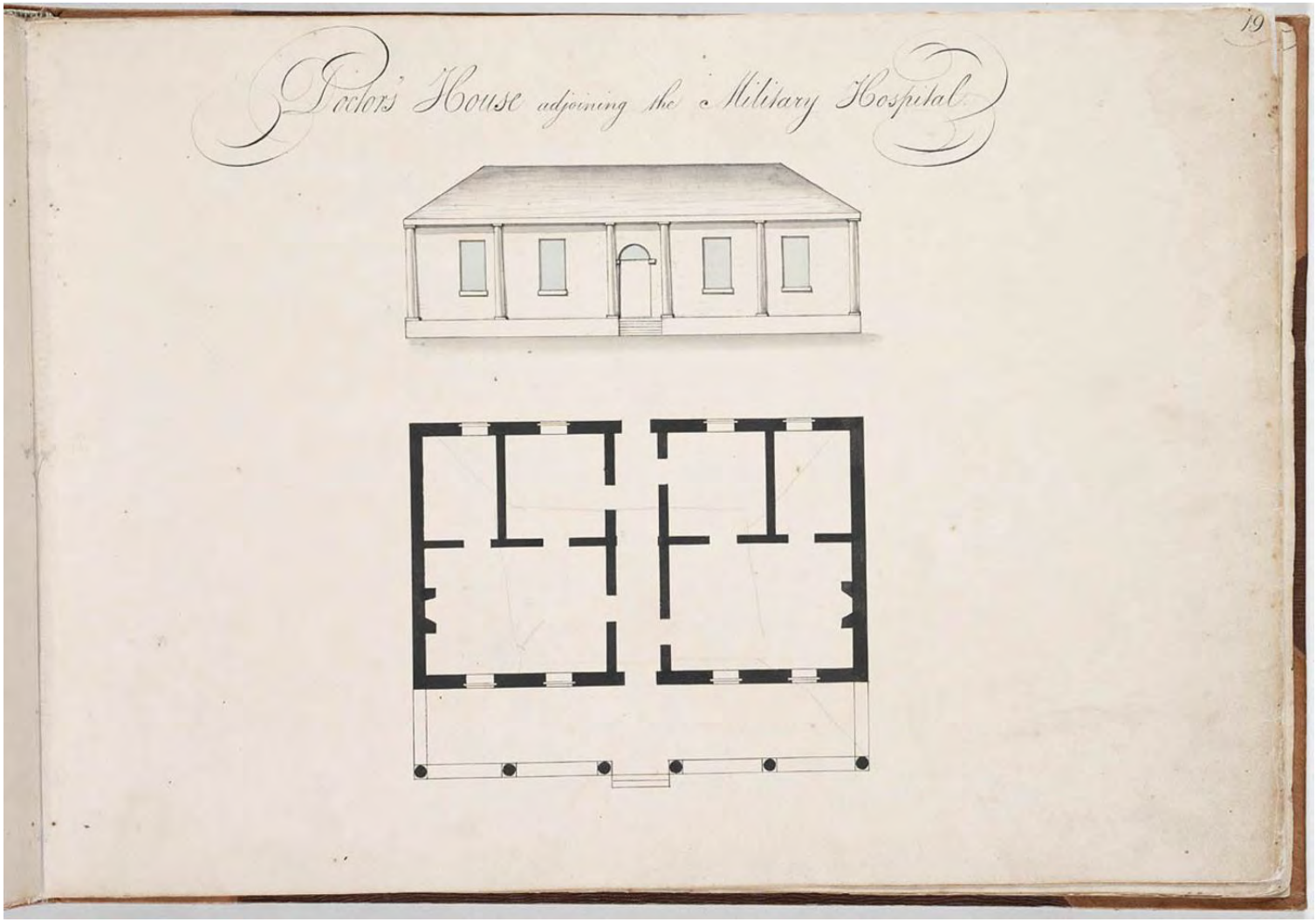


Figure 2-1 Plan of 'Doctor's House' (1824),From Standish Lawrence Harris – 'Report & Estimate Of The Value Of The Improvements Which Have Taken Place In The Public Buildings Of Sydney, Etc..' (Source: SLNSW C 225/ FI3255340).

Figure 2-2 Detail of plan of the Fort Street study area in 1901. Note the additional structures, fences etc adjacent to the Surgeon's Quarters. (Source: NSW State Archives 1901 Resumption Plans)

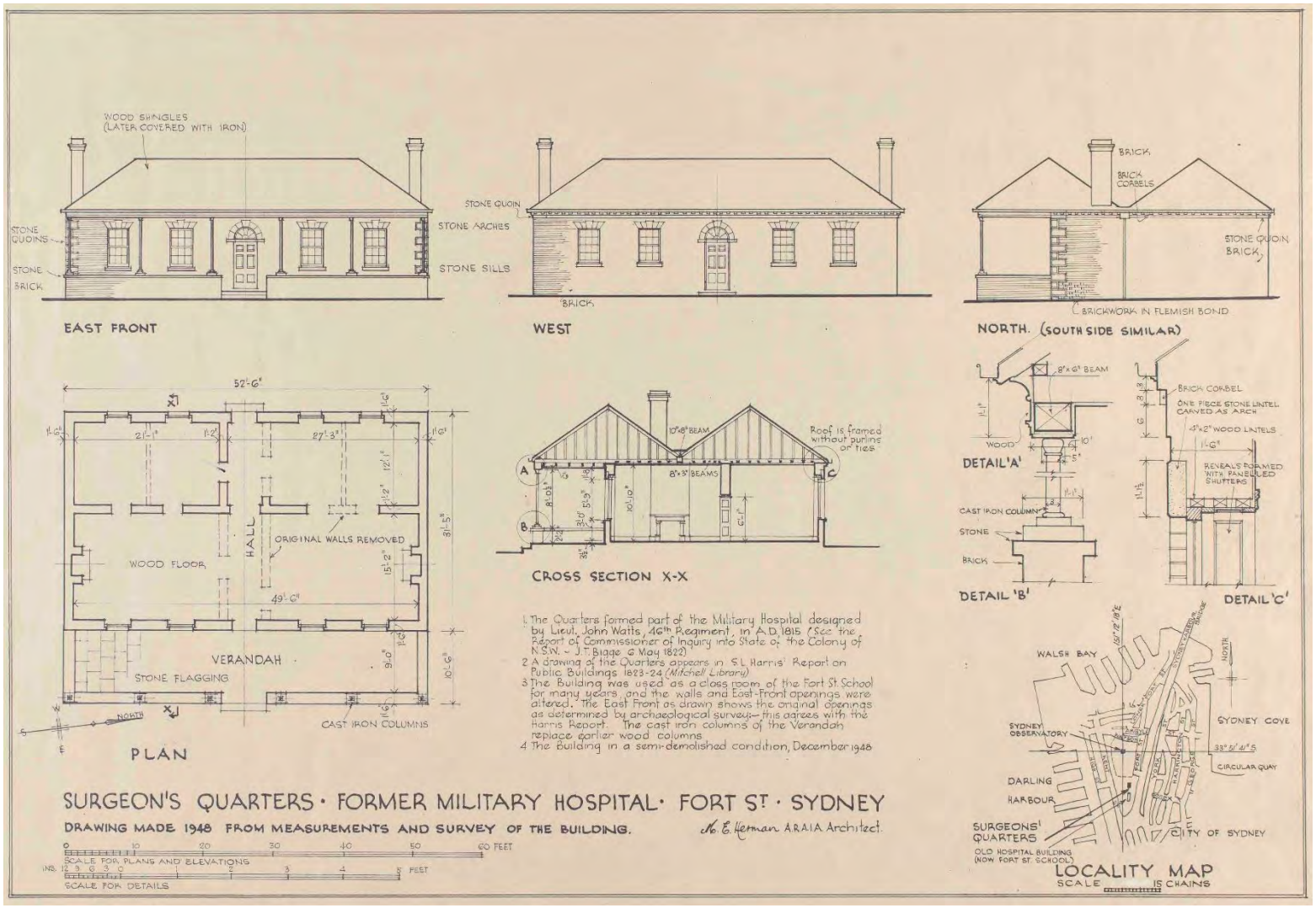


Figure 2-3 Morton Hermann's recording of the Surgeon's Quarters, 1948. (Source: ML,PXD 49, "Measured drawings, 1947-1948, 196-, Morton E. Herman")

3. Previous Archaeological Work

3.1. 2019 Test Excavation Results

In 2019 an application was made to the NSW Heritage Division, Office of Environment and Heritage (OEH), for an s60 excavation permit to undertake test excavations on the study area to determine the extent of survival of several historical features. The 2019 ARD proposed seven archaeological test trenches to investigate deposits and features in various locations (Figure 3-3). In addition, four test pits were required by the structural engineer. In the event only three were excavated. The excavation of these pits was to be monitored by the archaeologists. In all there were 10 test trenches/pits opened and recorded

Archaeological test trenches 1, 2 and 3 were placed to investigate the location and remains of the third Government windmill (Phase 1, i.e. 1788-1820).[2] Features and deposits associated with Phases 3 – 6 (i.e. 1820-1890) were also investigated and assessed. Archaeological test trenches 4, 5, 6 and 7 were placed to investigate the location and remains of structures and features associated with the Military Hospital Kitchen, servant's apartment, cellar, Surgeon's house and other potential ephemeral/undocumented features associated with Phases 1 and 2. Features and deposits associated with Phases 3 – 6 (e.g. school) were also investigated and assessed.

The s60 permit was issued in May 2019 (S60/2019/066 See Section 9.1). This test excavation was conducted in accordance with the archaeological methodology set out in the 2019 Historical Archaeological Research Design with Matthew Kelly being the excavation director.

In September 2019, a Final Report on the work outlined the results of the archaeological testing.[3] In summary they were:

- No remains of the Government Windmill (or other significant feature) were found in trenches 1, 2 and 3. This area of the site had seen substantial disturbance down to bedrock and deposits in these trenches consisted primarily of sandstone rock and demolition backfill;
- Intact remains of sandstock brick footings of the surgeon's quarters (c.1815) were found in trenches 4, 5 and 6 extension (Figure 3-1 Figure 3-2).
- Disturbed deposits associated with the excavation and backfill from the Cahill Expressway development on the eastern side of the study area were exposed in Environmental pits 7 and 10.
- A partly disturbed natural soil profile was exposed in environmental pit 8 and an intact soil profile was exposed in environmental pit 9.

A proposed option of testing within the EEC Building during school holidays to investigate the potential survival of features below the EEC did not eventuate.

[2] For information on the historical phases see Section 2

[3] Curio, 2019, Fort Street Public School, Historical Archaeological Test Excavation Report.

Figure 3-1 Test Trench 4 looking west with sandstock brick alignment-north wall of the Surgeon's Quarters. (Source: Curio, 2019).

Figure 3-2 Western end of Test Trench 6 showing sandstock brick alignment-south wall of the Surgeon's Quarters. (Source: Curio, 2019)

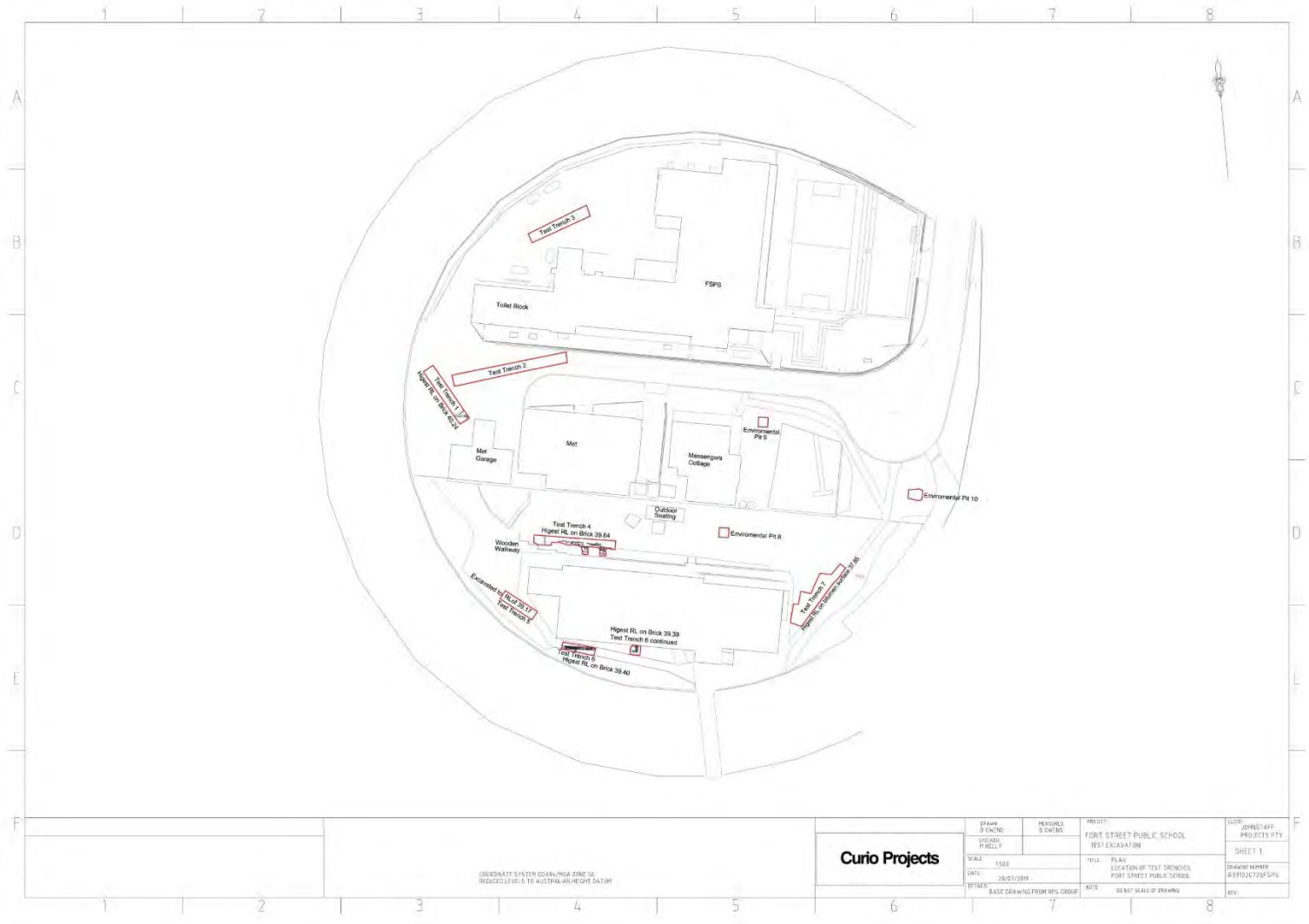


Figure 3-3 Location of test trenches at Fort Street Public School (Source: Curio, 2019)

4. Archaeological Potential

4.1. Previous Summary of Archaeological Potential

The previous Historical ARD summarised the archaeological potential as:

*It is considered that the study area generally has **low to moderate potential** to contain archaeological evidence related to the 1788-1820 use of the site, particularly relating to the 3rd Government Windmill (Smock Mill).*

It is considered that the study area generally has **moderate to high potential** to contain archaeological evidence related to the 1820-1850 military use of the site.

It is considered that the study area generally has **moderate to high potential** to contain archaeological evidence related to the 1850–1890s early school and observatory use of the site.

It is considered that the study area generally has **moderate to high potential** to contain archaeological evidence related to the 1890s-1918 ongoing school use of the site.

It is considered that the study area generally has **high potential** to contain archaeological evidence related to the 1919–1950 use of the site.

It is considered that the study area generally has **moderate to high potential** to contain archaeological evidence related to the later use of the site (1950s–Present).

4.2. Amended Archaeological Potential Based on Test Excavation Results

The 2019 test excavations confirmed the presence of substantial and intact brick footings form the Surgeon's Quarters. This work also identified areas of remnant soil profiles adjacent to the EEC and the Messenger's Cottage. The work investigated areas to the east of the EEC and Messenger's Cottage and found that these areas had suffered substantially from the constructions associated with the Cahill Expressway.

The Surgeon's Quarters did show some disturbance along the northern boundary wall but the remainder of the footings for the structure were largely intact at shallow depth. This suggests that there is a high potential for survival of occupation deposits within the building footprint. These deposits are likely to be able to provide information about the pre-European environment (sealed soil profiles), the construction, occupation and demolition of the building between 1815 and 1948.

One feature noted in the test excavations was a small brick extension to the southern footing of the building. This indicates the potential for other structures and outbuildings associated with the Surgeon's Quarters compound that may otherwise be unrecorded. Figure 4-1 and Figure 4-2 show later nineteenth and early twentieth century structures attached and surrounding the Surgeon's Quarters. Early plans are unlikely to have recorded all structures present, i.e. drains, cisterns, fences, wall lines, wells cesspits etc.

During the test excavations a small brick footing was present to the west of the Met Building below the concrete road surface. The presence of this feature and the survival of intact soil profiles adjacent to the Messenger's Cottage suggests the potential survival of similar subsurface features along this

strip of the site between the Met Building and the Messenger's Cottage. Features such as those noted above and otherwise unrecorded (, i.e. drains, cisterns, fences, wall lines, wells cesspits etc) may be present in this area.

Areas on the northern section of the study area showed evidence of substantial cutting and disturbance of the site down to bedrock. It is not anticipated that there is substantial archaeological potential in this area except for the survival of deeper subsurface features such as wells, cess pits and cisterns cut into the rock.

The amended archaeological potential is illustrated in Figure 4-3 which divides the site into areas of **High**, **Moderate** and **Low** archaeological potential. .

Figure 4-1 Overlay of 1880s plan of the study area. Note the small structures attached to the north and south walls of the Surgeon's Quarters. (Source: Curio 2019)

Figure 4-2 Overlay of 1901 plan of the study area (c.f. Figure 2-2). Note the small structures and wall lines surrounding the Surgeon's Quarters. (Source: Curio 2019)

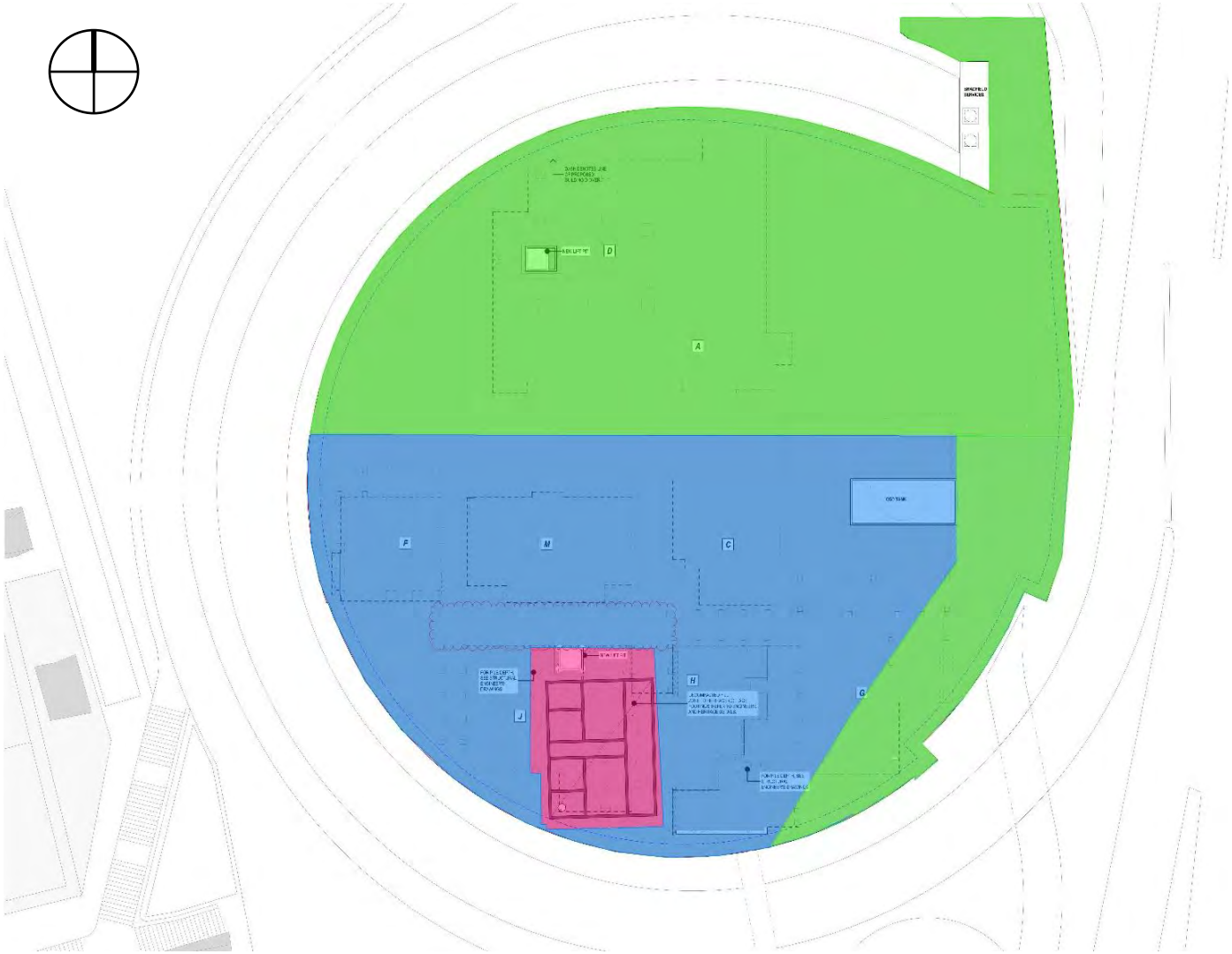


Figure 4-3 Amended Archaeological Potential. (Source: Curio 2020)

5. Identification of Potential Impacts

The development documentation provided outlines various impacts on the subsurface areas of the study area and therefore affecting potential archaeology. Included in Section 5 are low resolution images indicating the impacts. Higher resolution images are available for further reference in Appendix 4. The identified impacts include:

5.1. Demolition and Excavation (Figure 5-3, Figure 5-4 and Appendix 9.4)

- Removal of EEC building
- Removal of areas of Heritage wall adjacent to the Messenger's Cottage
- General cut and fill across the site..

5.2. Building J (Figure 5-5 to Figure 5-9 and Appendix 9.4)

- Lift and lift pit;(Figure 5-7 and Figure 5-8)
- Piles and columns; (Figure 5-7)
- Slab support footings; (Figure 5-9)

5.3. Services Figure 5-11, Figure 5-12, Figure 5-13 and Appendix 9.4)

- Hydraulic (Figure 5-12);
- Drainage (Figure 5-11);
- Electrical;
- Data
- Shared trenches for multiple services (Figure 5-13).

5.4. Landscaping (Figure 5-14, Figure 5-15 and Appendix 9.4)

- Grading;
- Topsoil renewal;
- Plantings (Figure 5-14 and Figure 5-15);
- Planting beds.

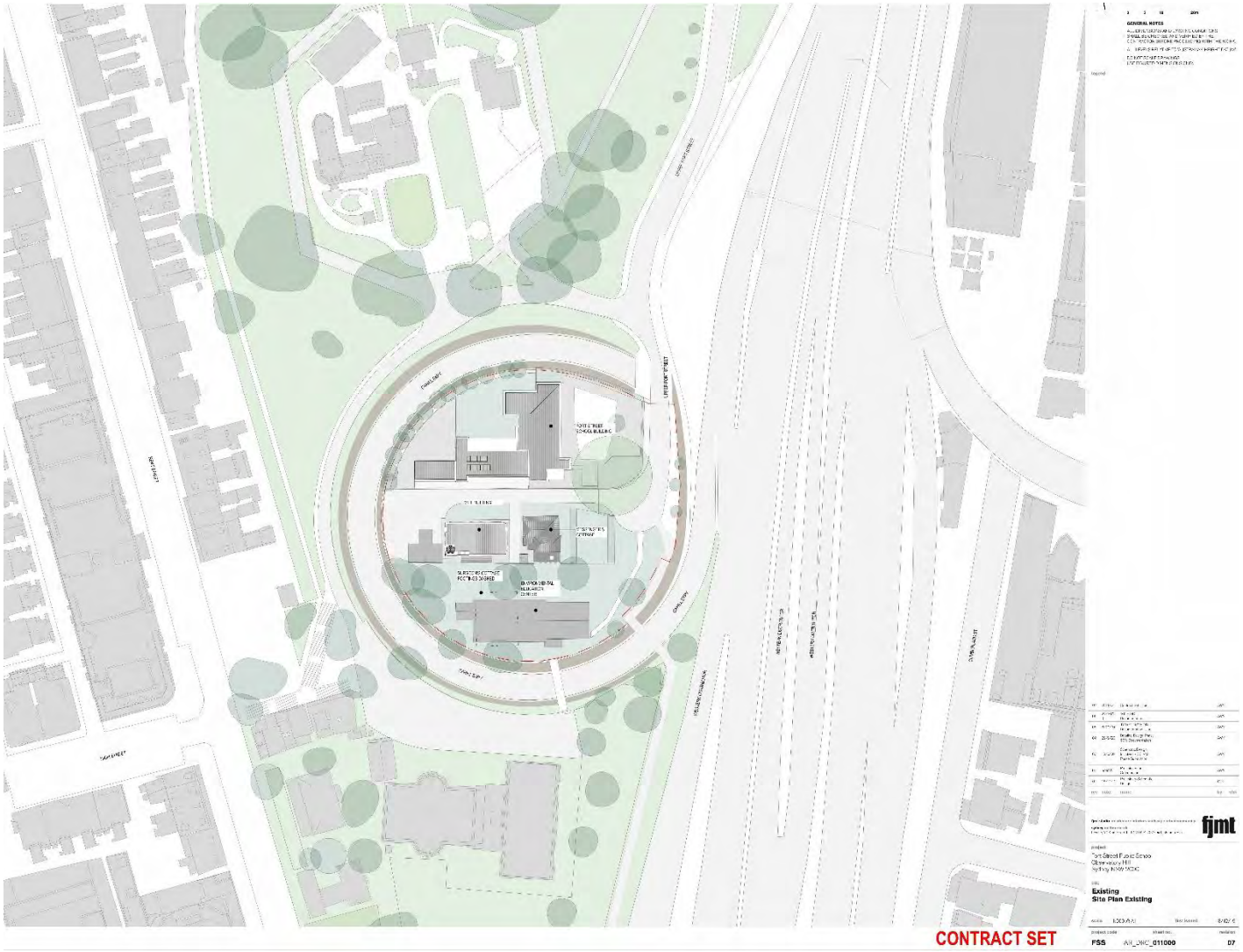


Figure 5-1 Existing site plan. (Source: Lendlease, 2021)

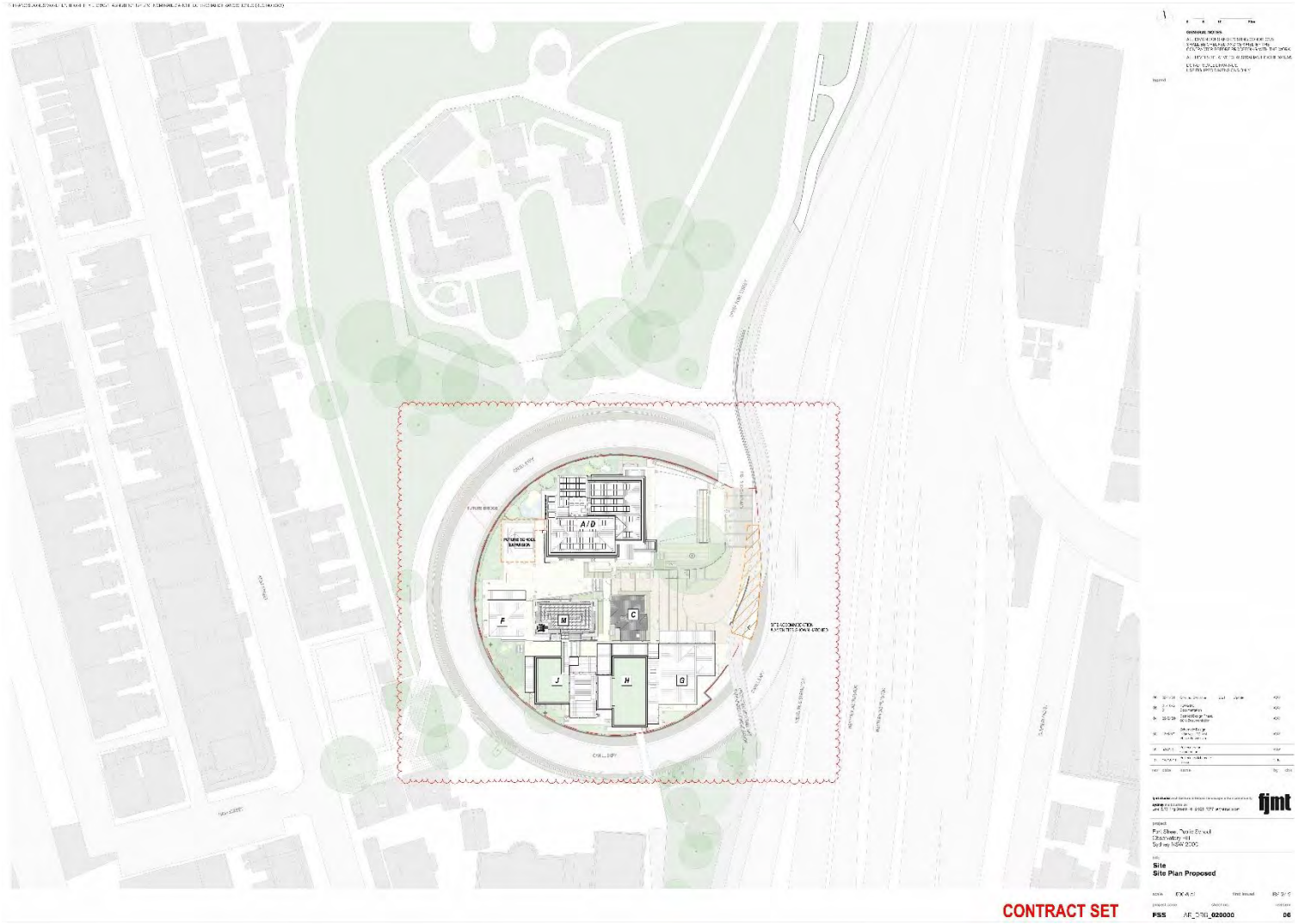


Figure 5-2 Site Plan proposed. (Source: Lendlease, 2021)

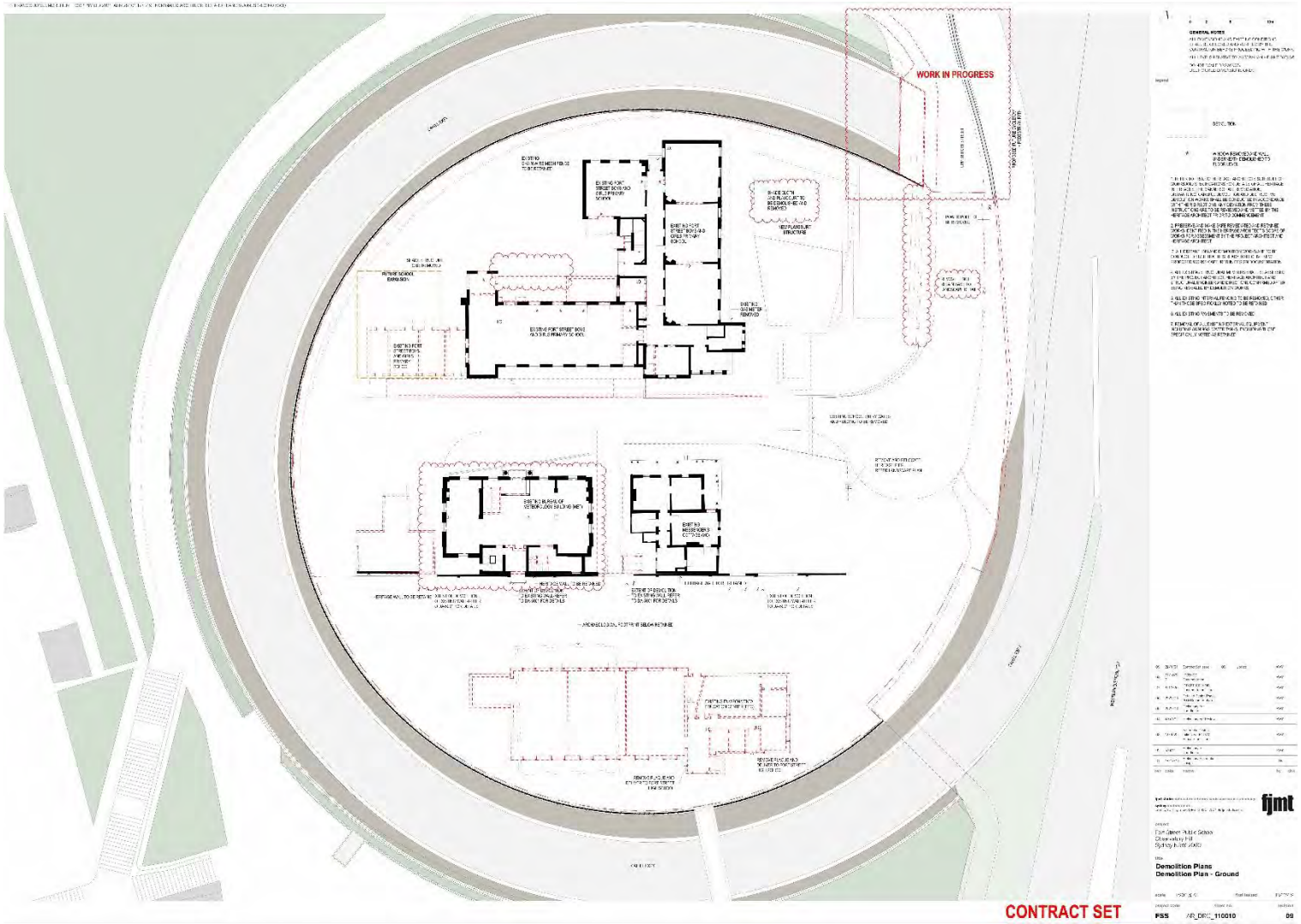


Figure 5-3 Demolition Plan – Ground. (Source: Lendlease, 2021)

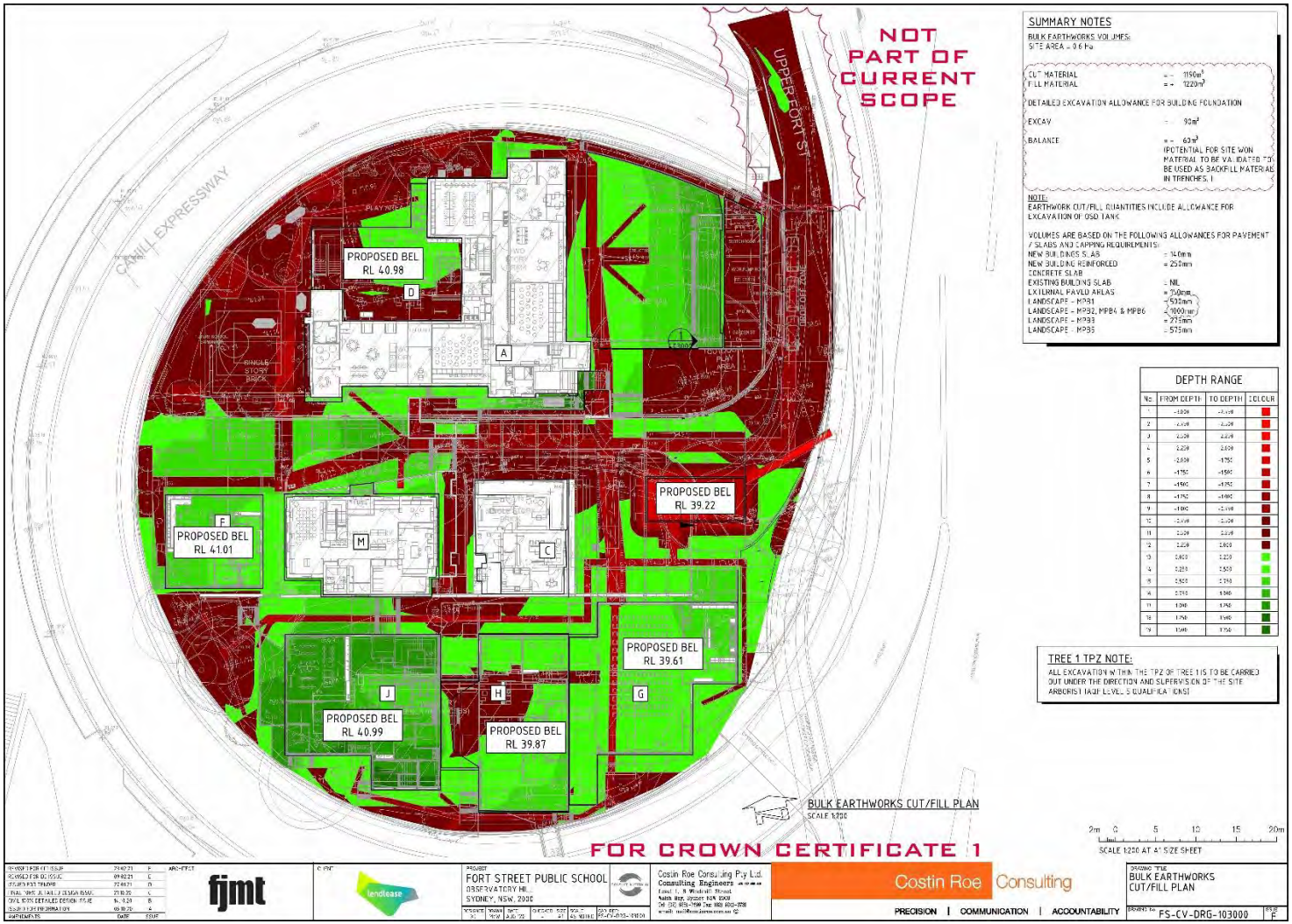


Figure 5-4 Bulk Earthworks cut and fill plan. (Source: Lendlease, 2021)

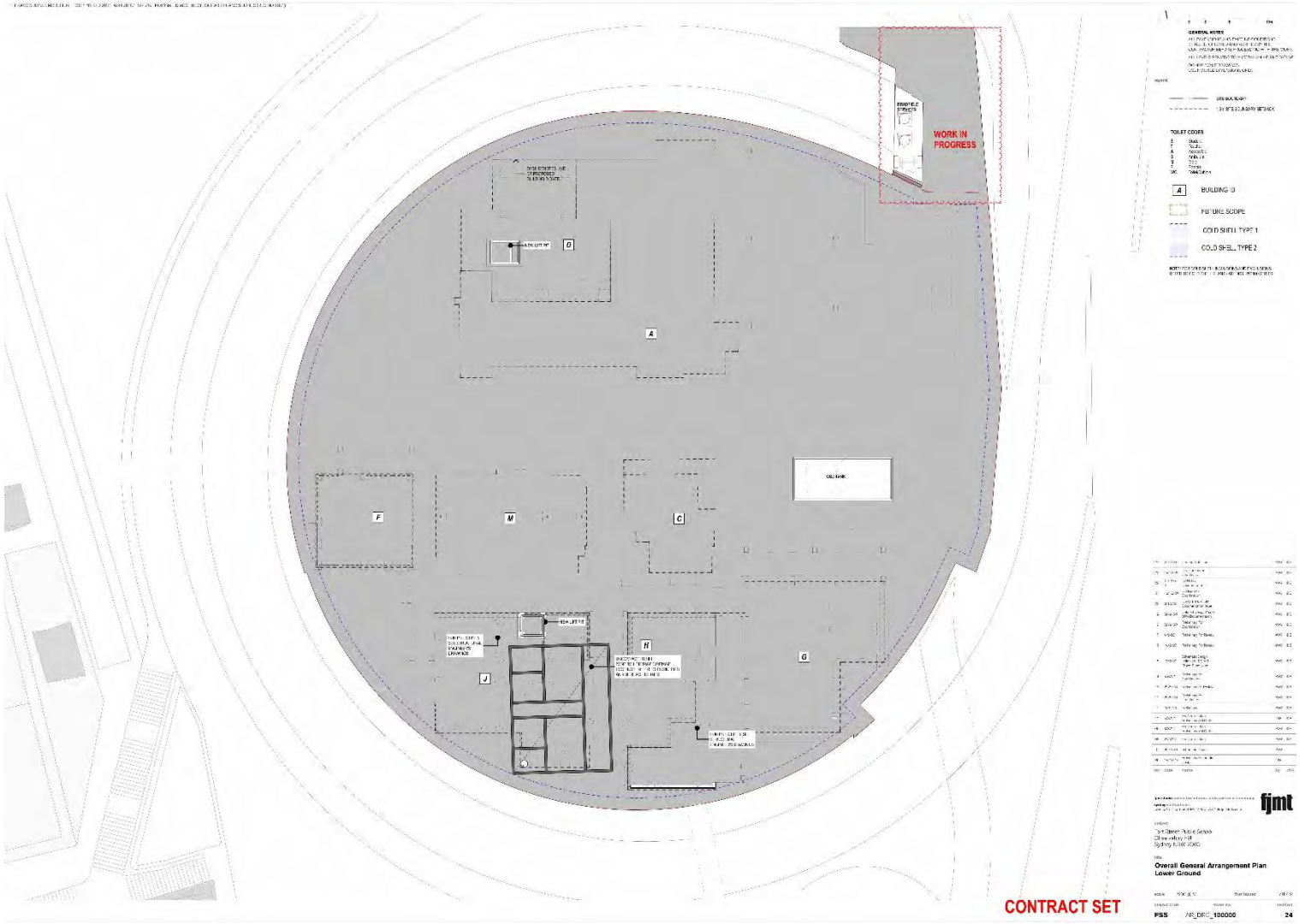


Figure 5-5 Overall general arrangement, ground level. (Source: Lendlease, 2021)

Figure 5-6 Overall general arrangement lower ground, south. (Source: Lendlease, 2021)

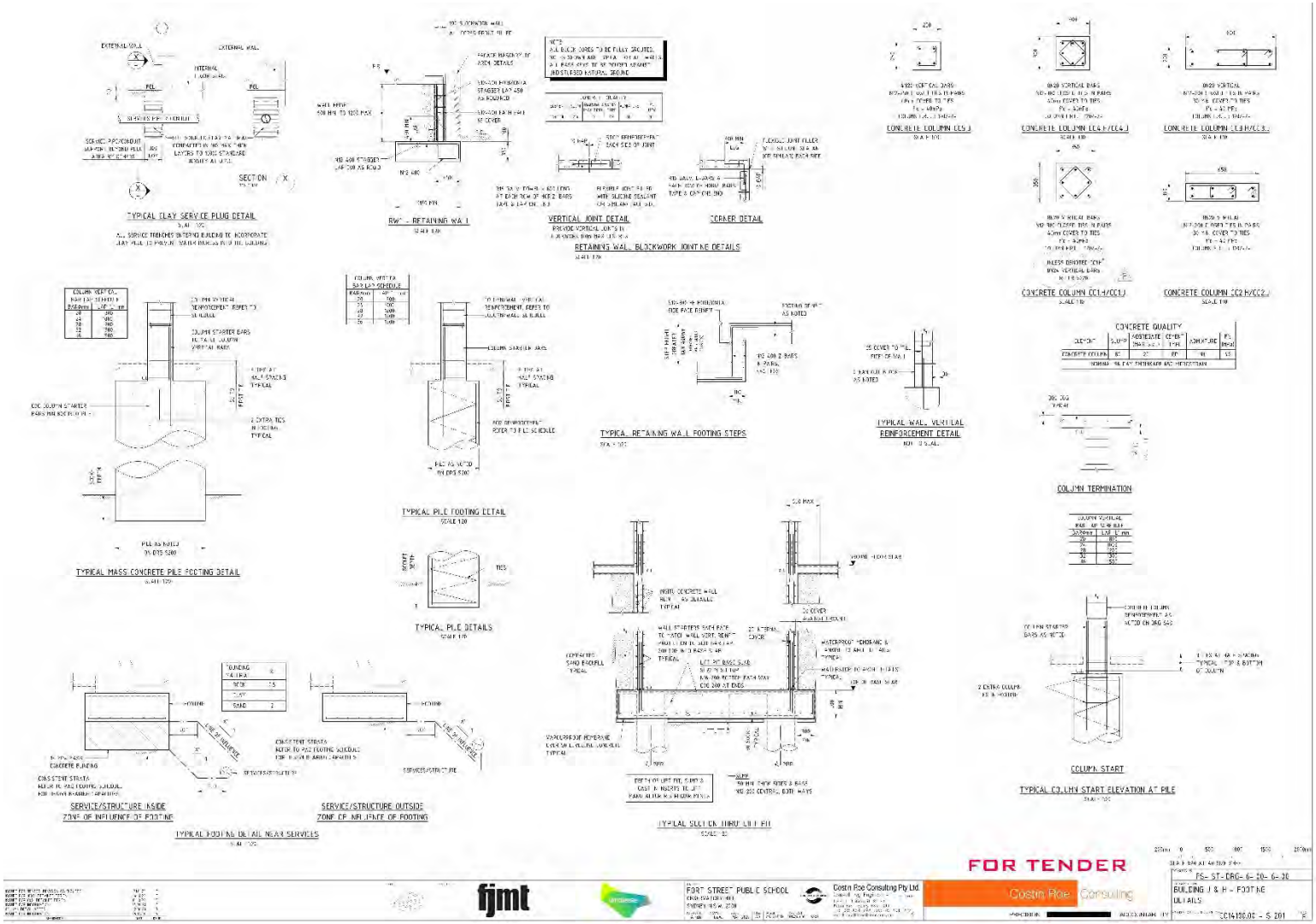


Figure 5-7 Details of piles and columns and section of lift pit in Building J. (Source: Lendlease, 2021)

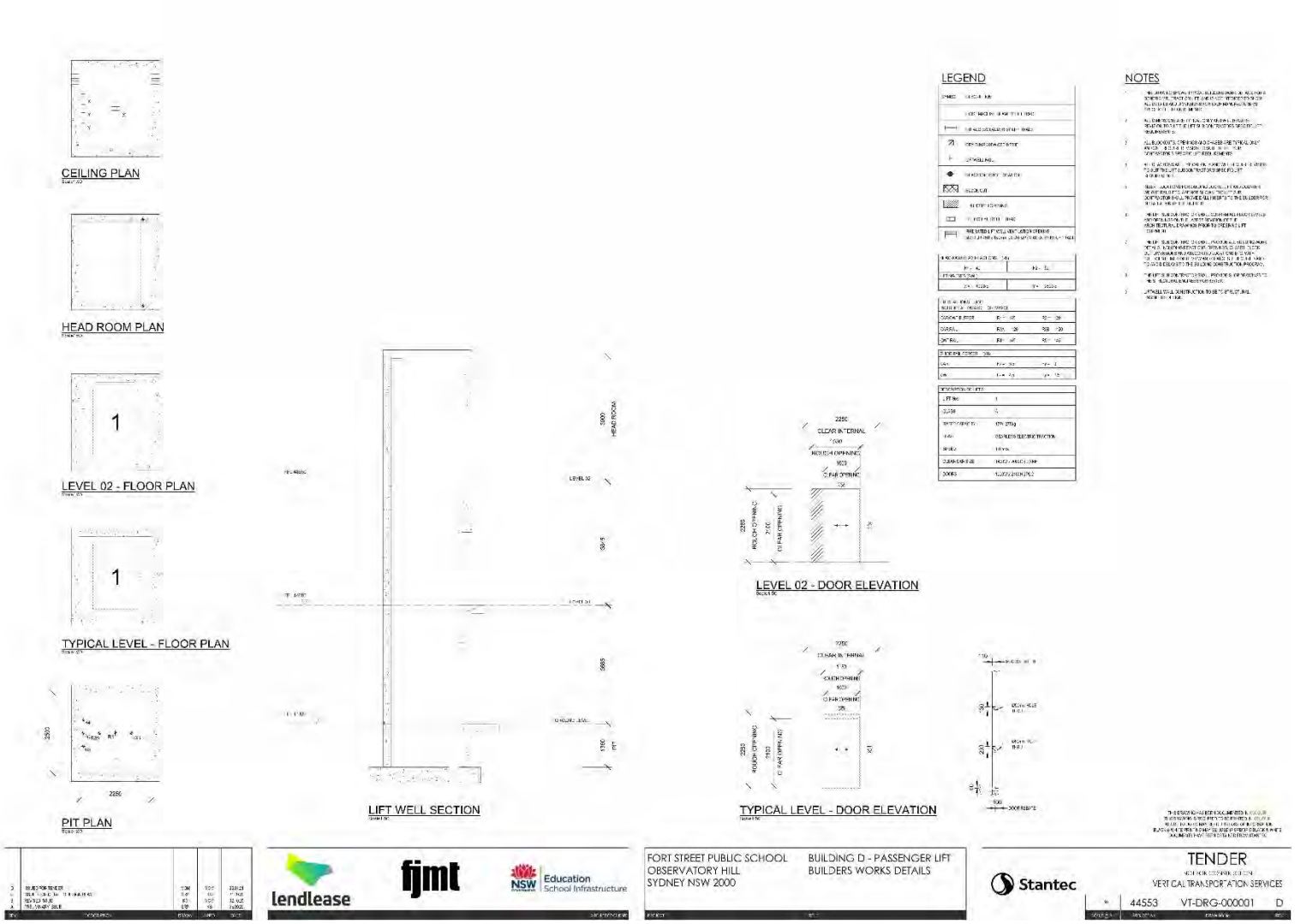


Figure 5-8 Passenger Lift, Building J. (Source: Lendlease, 2021)

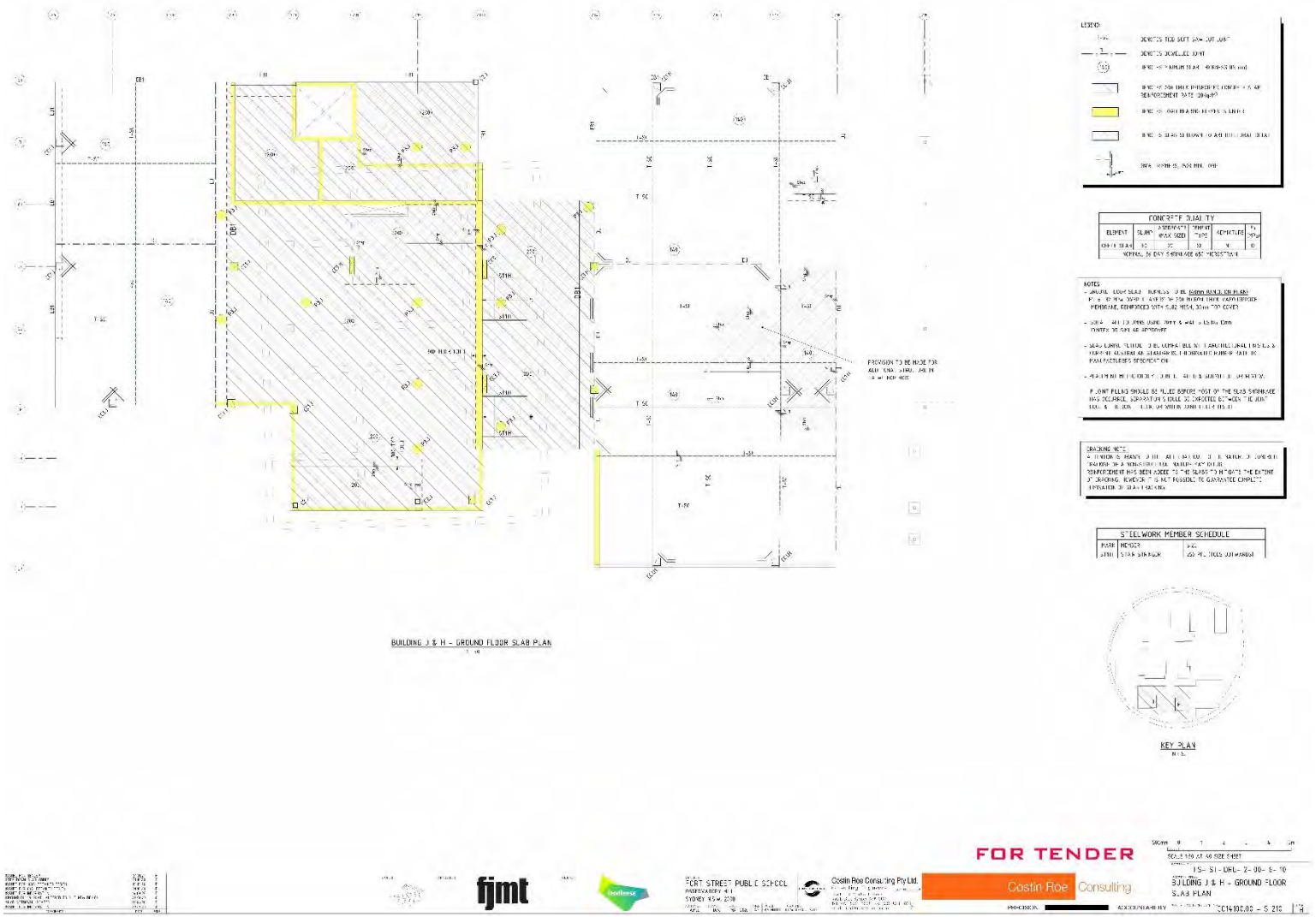


Figure 5-9 Building J and H ground floor slab plan. (Source: Lendlease, 2021)

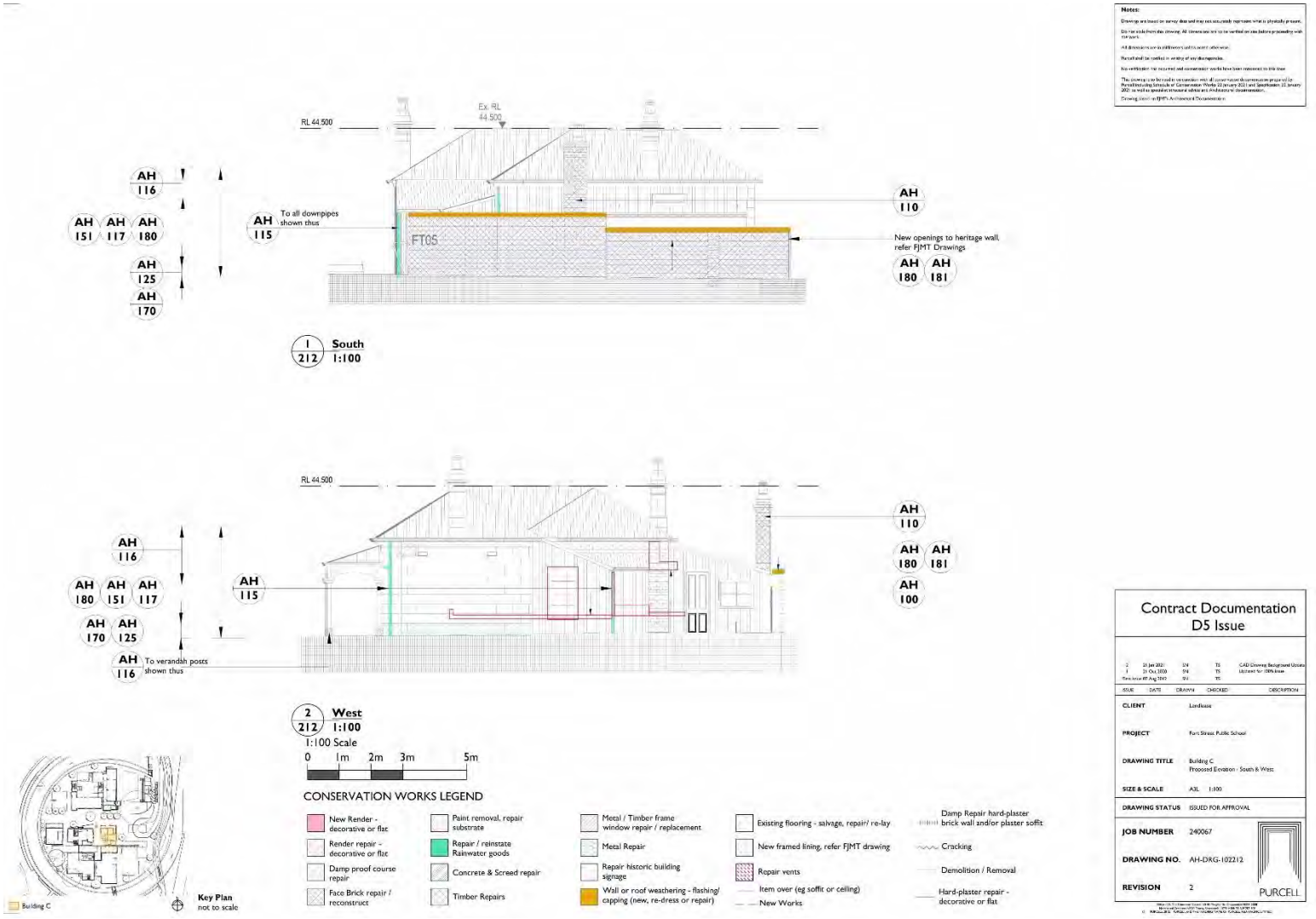


Figure 5-10 Heritage works Messenger's Cottage. (Source: Lendlease, 2021).

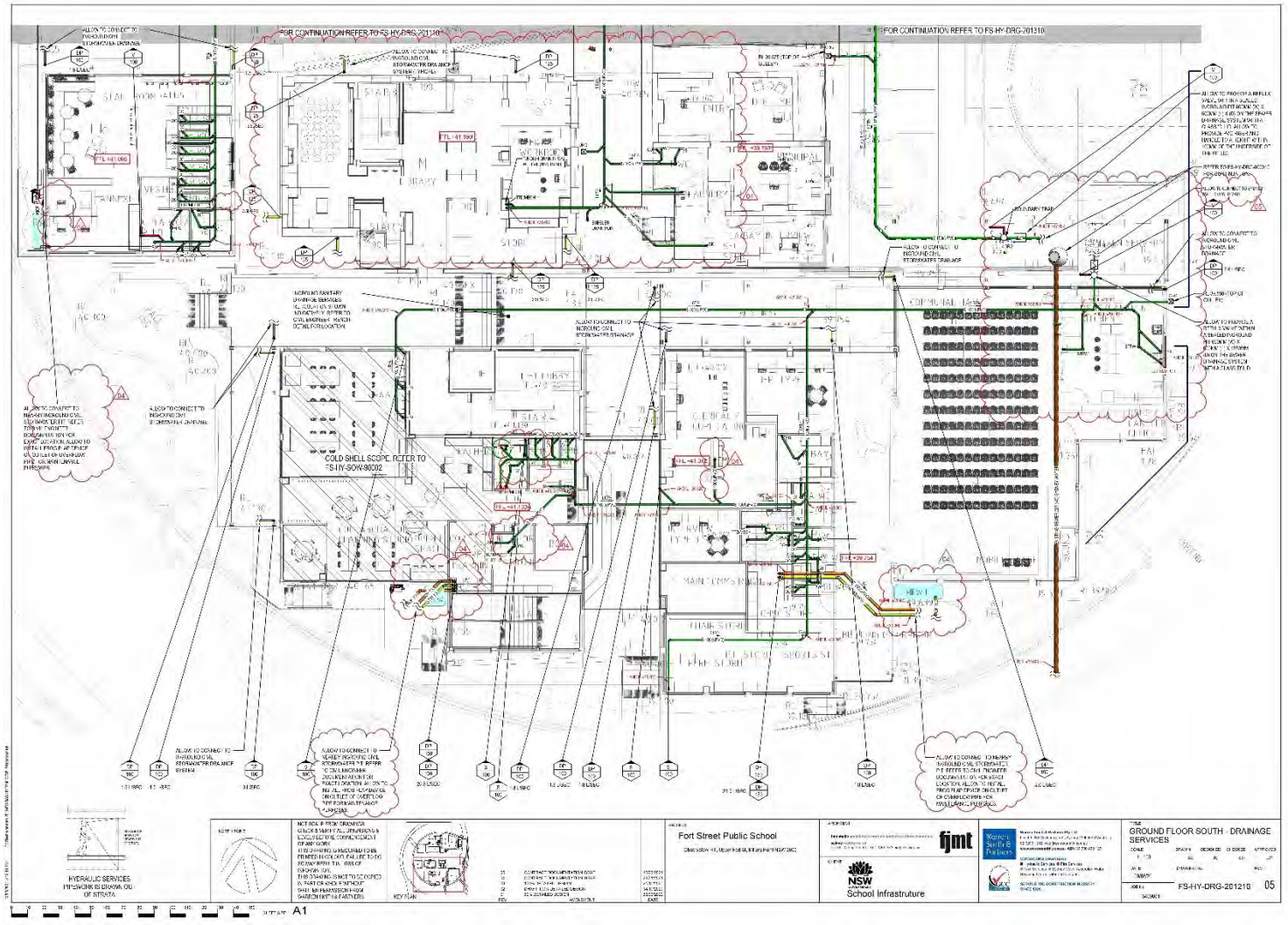


Figure 5-11 Ground floor - south, drainage services. (Source: Lendlease, 2021)

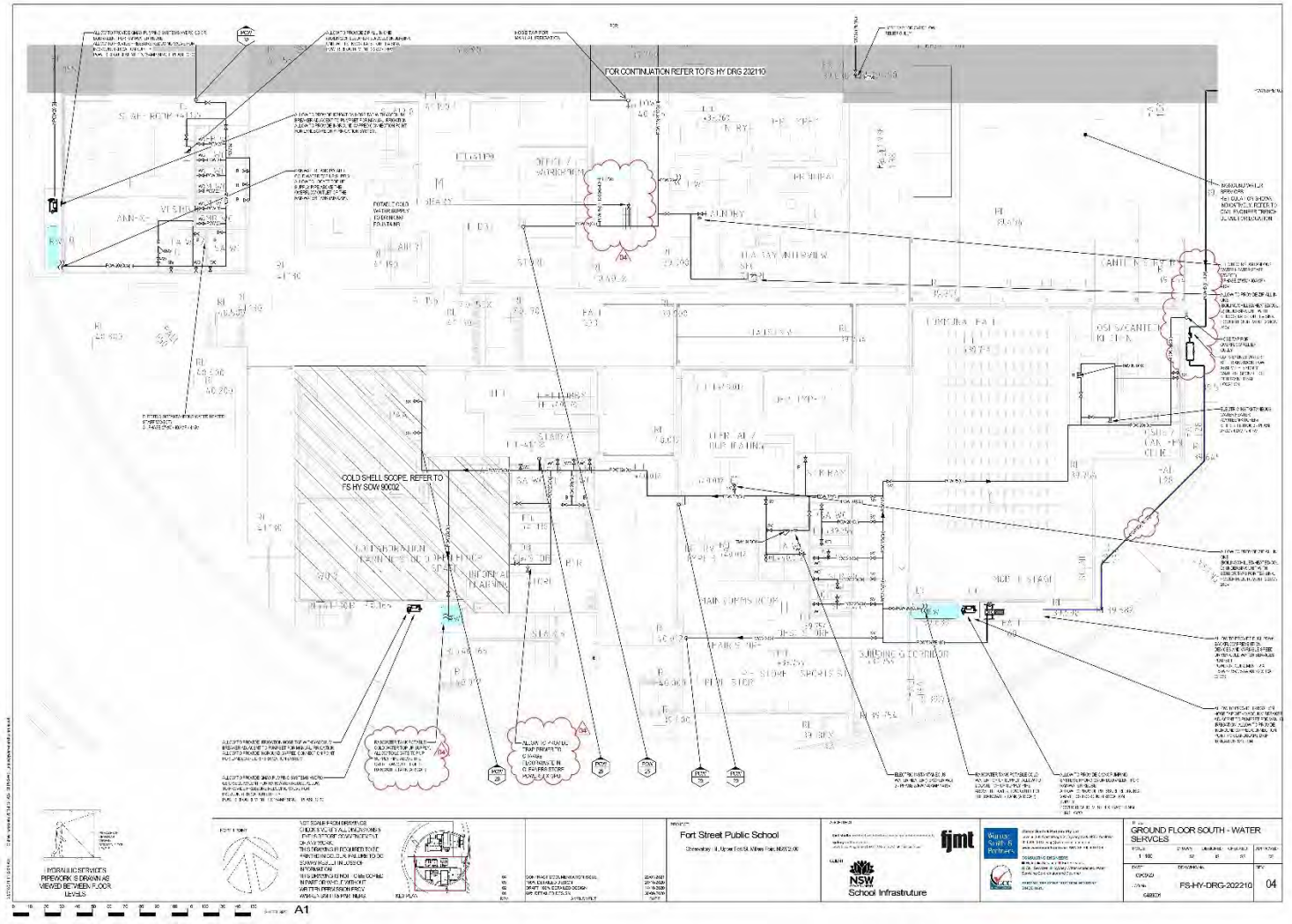


Figure 5-12 Ground floor - south, water services. (Source: Lendlease, 2021)

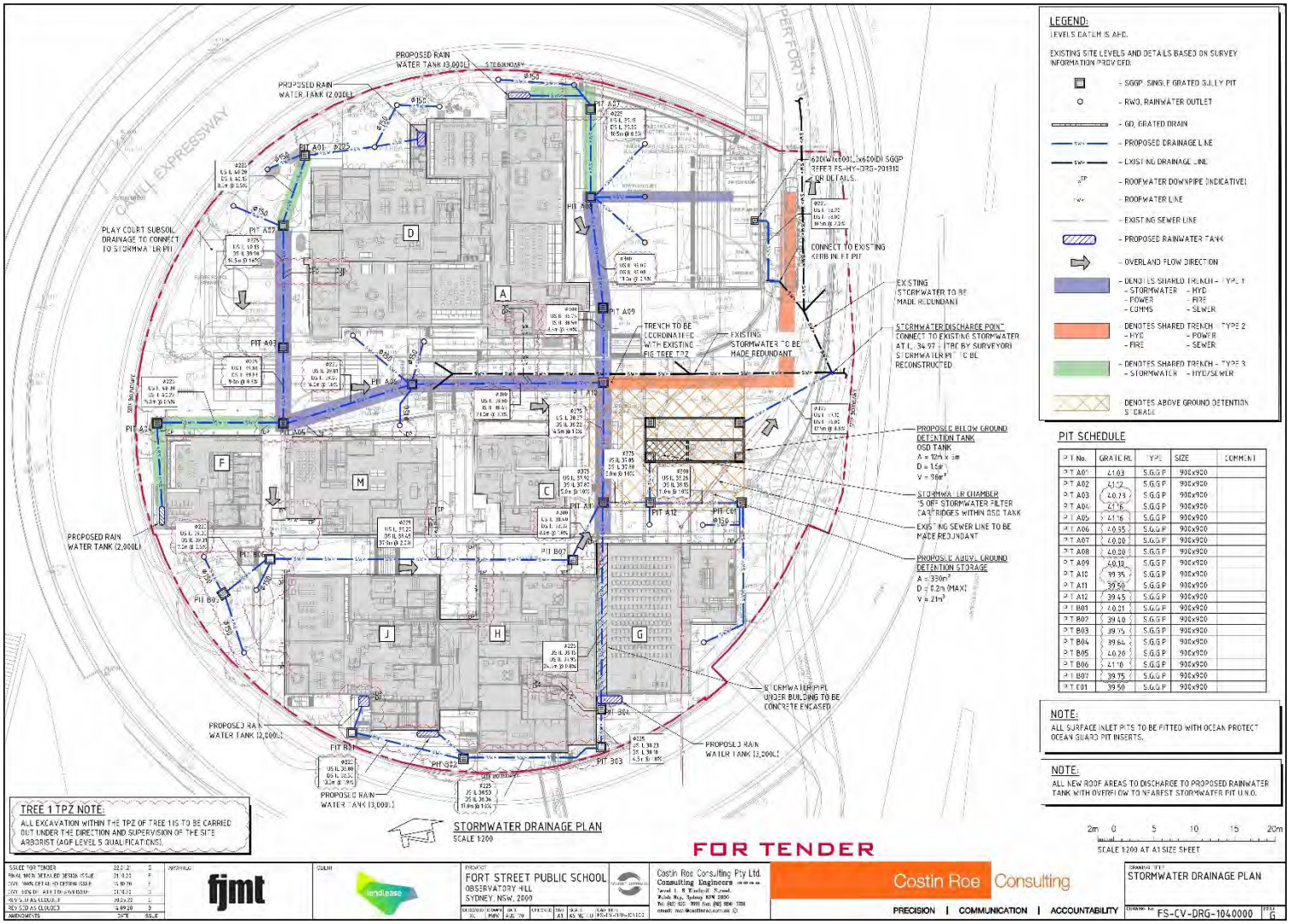


Figure 5-13 Shared trenching plan for services. (Source: Lendlease, 2021).

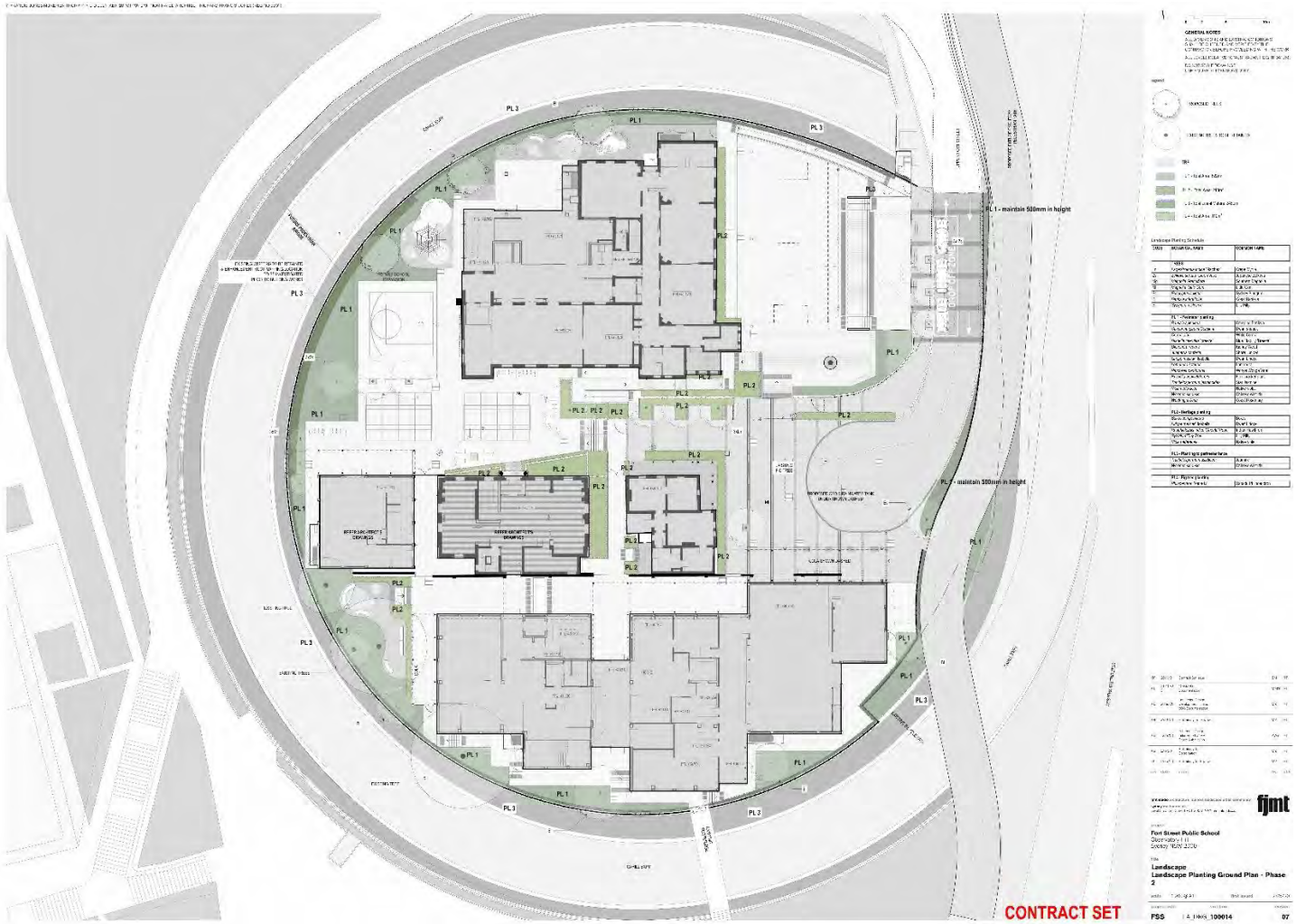


Figure 5-14 Landscape Planting Ground Plan. (Source: Lendlease, 2021)

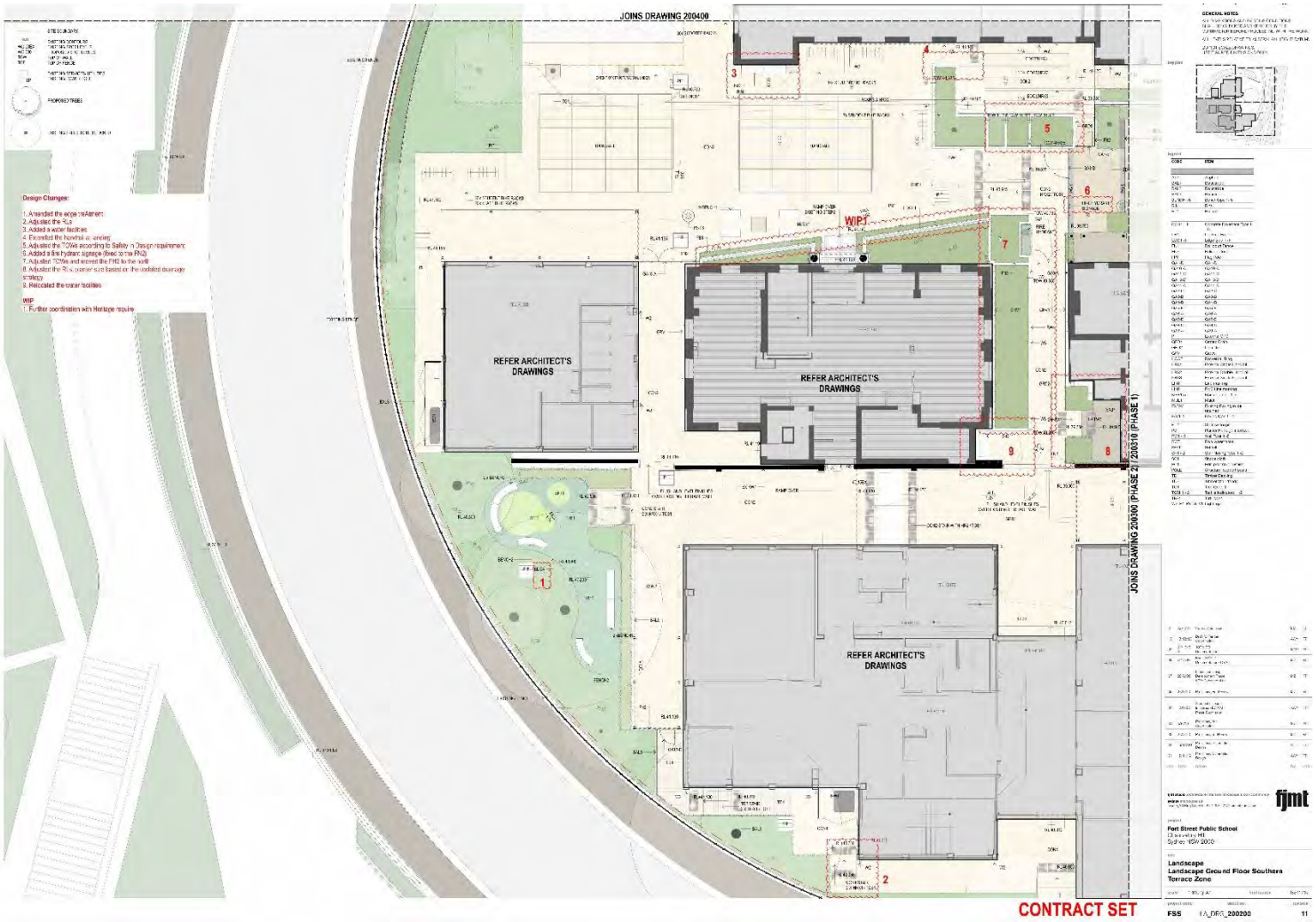


Figure 5-15 Landscape Ground Floor, southern terrace zone. (Source: Lendlease, 2021).

6. Assessment of Significance

The following assessment of Significance focuses on a single criterion of the assessment process for archaeological sites and relics - Archaeological Research Potential (current NSW Heritage Criterion E). The assessment focuses on the single structure of the Surgeon's Quarters exposed during the 2019 test excavations. A more extensive assessment utilizing the other criteria will be completed should further excavation take place. Any further assessment would be undertaken under NSW Heritage's standard criteria for assessment. They are

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)*

B. *An item has strong or special associations with the life or works of a person, or group of persons, of importance in NSW' cultural or natural history (or the cultural or natural history of the local area)*

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)*

D. *An item has strong or special associations with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons*

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)*

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)*

G. *An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places; or cultural and natural environments.*

The Heritage Branch's (now Heritage, NSW) guidelines for assessment of archaeological sites provides the following preamble to this criterion.

Archaeological research potential is the ability of archaeological evidence, through analysis and interpretation, to provide information about a site that could not be derived from any other source and which contributes to the archaeological significance of that site and its 'relics'.

The integrity of the site, the state of preservation of archaeological material and deposits will also be relevant.[4]

Archaeological Research Potential (current NSW Heritage Criterion E).

The former surgeon's house site has the potential to provide important information from the archaeological evidence for the occupation of an element of a significant Government establishment from the early Colony. The archaeological evidence is likely to relate to several periods of different use of the structure, and surrounds, most significantly the occupation of the building by the military

[4] Heritage Branch, Department of Planning, 2009, Assessing Significance for Historical Archaeological Sites and 'Relics'

hospital's surgeon and/or assistant surgeon from 1815 onwards. Later use for the Fort Street School, while not as significant is nevertheless likely to be substantial and provide insights into the operation of this important educational establishment that are not available from historical sources.

This site is rare as it reflects a specialist use for the first 20 or so years of its occupation. The quarters of such establishment figures as the hospital surgeon (or assistant) are uncommon. This fact and the combination of occupations, i.e. medical then educational, simply add to this site's rarity. The potential archaeological evidence may be further assessed as highly significant as the site, the individual occupants and the nature of their occupation are largely historically undocumented. This site may bear historical comparison with other early colonial hospital sites such as the earlier George Street hospital and the former southern wing of the 'Rum' Hospital on Macquarie Street. However, for reasons of the individual site development neither of these sites has produced substantial information related to their use and occupation by medical personnel.

The archaeological excavation of the study area has the potential to augment our information about the early colony, the colonial elites, the medical profession, the transformation of the site for educational purposes and its use for this purpose through the latter nineteenth and twentieth centuries.

Based on the assessment above the site of the surgeon's house is assessed as potentially of **State Significance**.

7. Research Design and Excavation Methodology

7.1. Introduction

In order to mitigate impacts to the potential historical archaeological resources within study area, historical archaeological salvage excavation, monitoring and an unexpected finds protocol will be established. This section presents the proposed research design and archaeological methodology for these mitigative measures.

In addition, an archaeological work should be guided by research questions which place the work within an established research framework. The research questions which will guide any archaeological work are also included here.

7.2. Demolition Plan (see Section 9.2)

Primary Excavation Director (ED), Matthew Kelly, will prepare a Demolition Plan to assist in guiding the removal of the EEC Building, which partly cover the Surgeon's Quarters, and other areas of the site with moderate archaeological potential subject to demolition. This plan will set out information to reduce the chance that the demolition operations will remove or damage the fragile features and deposits associated with that structure.

7.3. Heritage Induction (see Section 9.3)

The ED with assistance from Curio Projects personnel and the Managing Contractor, will prepare a document that addresses the scope of the project, identifies the areas of archaeological potential at the site and points out the relevant heritage requirements of the project. This document would be presented to all relevant on-site personnel. A heritage induction will be approved by the ED and presented by the Primary ED. The induction would include an easy to understand document to clarify the heritage significance of the site's potential archaeological resource including:

- The nature of the archaeological resource;
- An outline of the archaeological process on site and introduction of the relevant personnel;
- Repercussions of any breaches to the approved archaeological strategy;
- Explanation of the unexpected finds procedures;
- Plan showing the location of potential archaeological features;
- Images to assist understanding for on-site personnel of the types of archaeological features that may be present.

7.4. Salvage Excavation

Salvage excavation focuses on structural remains of buildings, houses, outbuildings etc, deeper sub-surface features (cesspits, wells, cisterns etc), underfloor and exterior deposits, yard features etc. Open Area Excavation is the standard approach taken for archaeological salvage to record both detailed and limited deposits.

Salvage excavation would be proposed for the area coloured **red** in Figure 7-1 after the demolition of the EEC but prior to the commencement of the piling program and would be focussed on investigating the area around Building J. Overburden would be initially removed by the contractor's machine under supervision of the Excavation Director. At this stage once the Excavation director was

satisfied with that clearance the archaeological team would take over responsibility for the work within the red zone.

Small test trenches would be initially excavated to investigate for, and confirm the presence of, intact and significant occupation deposits within the building. Only if they were present, and possibly removed by the piling, would full salvage excavation proceed. Salvage excavation is proposed due to the extent of potential impacts from the piling and columns set within the structure on the potential occupation deposits. The salvage excavation would also identify potential features adjacent to the Surgeon's Quarters that may need to be investigated further.

7.5. Archaeological Monitoring

Archaeological monitoring is the archaeological supervision of the works program that allows incidental recording of relics should they be exposed. Any historical archaeological monitoring will be conducted according to accepted Australian historical archaeological best practice guidelines (as endorsed by the NSW Heritage Division).

The archaeological monitoring program will be undertaken by Matthew Kelly, the nominated Excavation Director. The archaeological monitoring program would be undertaken in the area marked **blue** in Figure 7-1. Should an archaeological deposit or feature requiring further investigation and recording be encountered during the works the work shall be paused and the archaeologist would undertake the detailed recording analysis of the material before removal, along with assistance from historical archaeological field assistants, as needed. The need to undertake additional archaeological recording and storage would be done in consultation with the client.

7.6. Unexpected Finds Protocol

The archaeological methodology outlined in this report anticipates recording and sampling of all significant archaeology at the site where possible, focussing on the area of Building J and its surrounds. However, there is potential that unexpected physical evidence associated with the phases of occupation at the site may be present in all areas of the site. Such unexpected remains may include, but not be limited to:

- Deep cut wells, reservoirs and pits associated with Phases 1 & 2 occupation at the site;
- Structural remains and artefacts ;
- Rubbish pits containing waste and discarded artefacts disposed of away from housing;
- Other unexpected, buried remains.

Unexpected finds do not include isolated artefacts and building remains that may form part of fill deposits. If unexpected finds are exposed or disturbed work should cease in that area and a Curio archaeologist notified of the find as soon as practicable. Do not move the item or attempt to further disturb it. Take a photo and forward to the archaeologist and they will discuss and advise the next step which may include, but not be limited to:

- A site visit by the archaeologist;
- An instruction to move the item;
- No further action required.

The Excavation Director will assess the archaeological research significance of all Unexpected Finds and this assessment will determine the action to be followed. These may include:

- No further action (i.e. the find is not significant);
- Retention of isolated artefacts, that otherwise are assessed as of low archaeological research potential, as items for possible use in interpreting the site, display, etc;
- Recording of the location of the find and
    - Retaining artefact(s) of research potential for the archaeological collection and further analysis;
    - further recording and excavation to expose larger features/structural remains;
- Notification of the find(s) to Heritage NSW and further liaison with them;
- Additional research to identify larger features if not previously identified in the historical record;
- Reassessment of the significance of the unexpected find in light of this research.

Some of the attributes of any unexpected finds that may determine if further advice is sought from NSW Heritage regarding the find are:

- Larger previously unrecorded features especially structural remains;
- Suspected human remains[5];
- Evidence for earlier occupation of the site (i.e. pre 1815);
- Rare or unusual find.

If State or locally significant relics are found during works, the Heritage Council of NSW is to be notified in accordance with s.146 of the Heritage Act 1977. This notification takes place in the form of an email to the relevant archaeologist at Heritage NSW. It is noted that Section 4.41 of the Environmental Planning and Assessment Act 1979 does not exempt notification of the discovery of relics under s146, of the Heritage Act 1977, nor the notification of the discovery of Aboriginal objects under s89 of the NPW Act for State Significant Development or State Significant Infrastructure.

Depending on the assessed significance of the find it may be necessary to undertaken additional assessment and management recommendations related to the new information. Work may only recommence with the written approval of Heritage NSW.

7.7. Recording and Reporting

If and when relics are exposed in any excavation test trenches in the red area, they will be assessed on the spot and recorded. It is anticipated that test trenches will only be undertaken within the red area after demolition and the removal of unstratified fill. Artefacts and structural remains considered to meet the threshold of 'relics' will be left insitu and recorded and their significance assessed. The recording process will include the following:

The main salvage excavation recording and reporting methods to be used at the site and undertaken by the archaeological team would include:

- Establish site grid by survey.

[5] Should potential human remains be uncovered the processes and procedures contained within the *Skeletal Remains; Guidelines for Management of Human Skeletal Remains* published in 1998 by Heritage NSW would be followed.

- Locate extent of excavation area in relation to new structure and archaeological remains;
- Use of a small excavator (1-3t) to open up areas and remove overburden/fill if required. The extent and depth of this machine work will be at the direction of the archaeological team;
- Manual (hand) excavation of exposed relics using hand tools (shovels and trowels);
- Where deposits are found undertake detailed stratigraphic excavation and recording;
- Use of context recording forms and context numbers to record all archaeological information;
- Use of Harris matrix as part of the recording program;
- Underfloor deposits to be recorded within a 500mm grid, 50mm spits and 100 per cent sieved;
- Wells and cesspits excavated in 200mm spits or tip lines (where identifiable and the deposits sieved;
- All structural remains, post holes, and features will be planned at a scale of 1:20 or 1:50;
- A site grid would be established based on the construction grid. Detailed digital survey and mapping of the area based on that grid would be undertaken which will record all features etc to AHD;
- Detailed photographic recording;
- All artefacts will be collected except from unstratified fills;
- Samples of bricks and mortar will be collected from structures;
- Collection, labelling, safe storage, washing, sorting and boxing of artefacts by artefact specialists along with palynological analysis and materials conservators as appropriate;
- A Final report detailing the excavations, its results and addressing the Research Design questions would be completed within 12 months of the work being completed on the site, The report would include;
    - • An introduction and executive summary.
    - • Planning framework.
    - • Site history supplemented by additional research.
    - • Archaeological background.
    - • Archaeological investigation methodology, results and site recordings.
    - • Analysis and catalogue detailing all historical cultural material recovered.
    - • Maps and site plans etc.
    - • Photo catalogue.
    - • Artefact catalogue.
    - • Re-assessments of significance.
    - • Interpretation of results and addressing of Research Design questions.
    - • Conclusions and recommendations.
    - • Identification of repository for artefacts and site records.
- The artefacts, site records and final report would be presented to the client/site owner for curation.

7.8. Artefact Management and Analysis

Artefacts will be managed on site by Alexandra Thorn (Curio Projects artefact manager). Recovered artefacts will be sorted, cleaned, separated and bagged for cataloguing and analysis off site. The artefacts will be catalogued using a variant of the "Exploring the Archaeology of the Modern Cities" database. The artefact collection will have a Type Series established and the collection will be divided into material types and standard Activity/Function/Sub-function groupings. Analysis will

include comparison with similar collections noted below (Section 7.9.2) Artefacts will be bagged and labelled with unique database ID numbers linked through the catalogue to context, Type Series, Images, and historical information. Anne Cummins (Sydney Artefacts Conservation) will provide advice on any conservation requirements.

7.9. Research Questions

The following questions provide a contemporary research framework for the proposed archaeological test excavation:

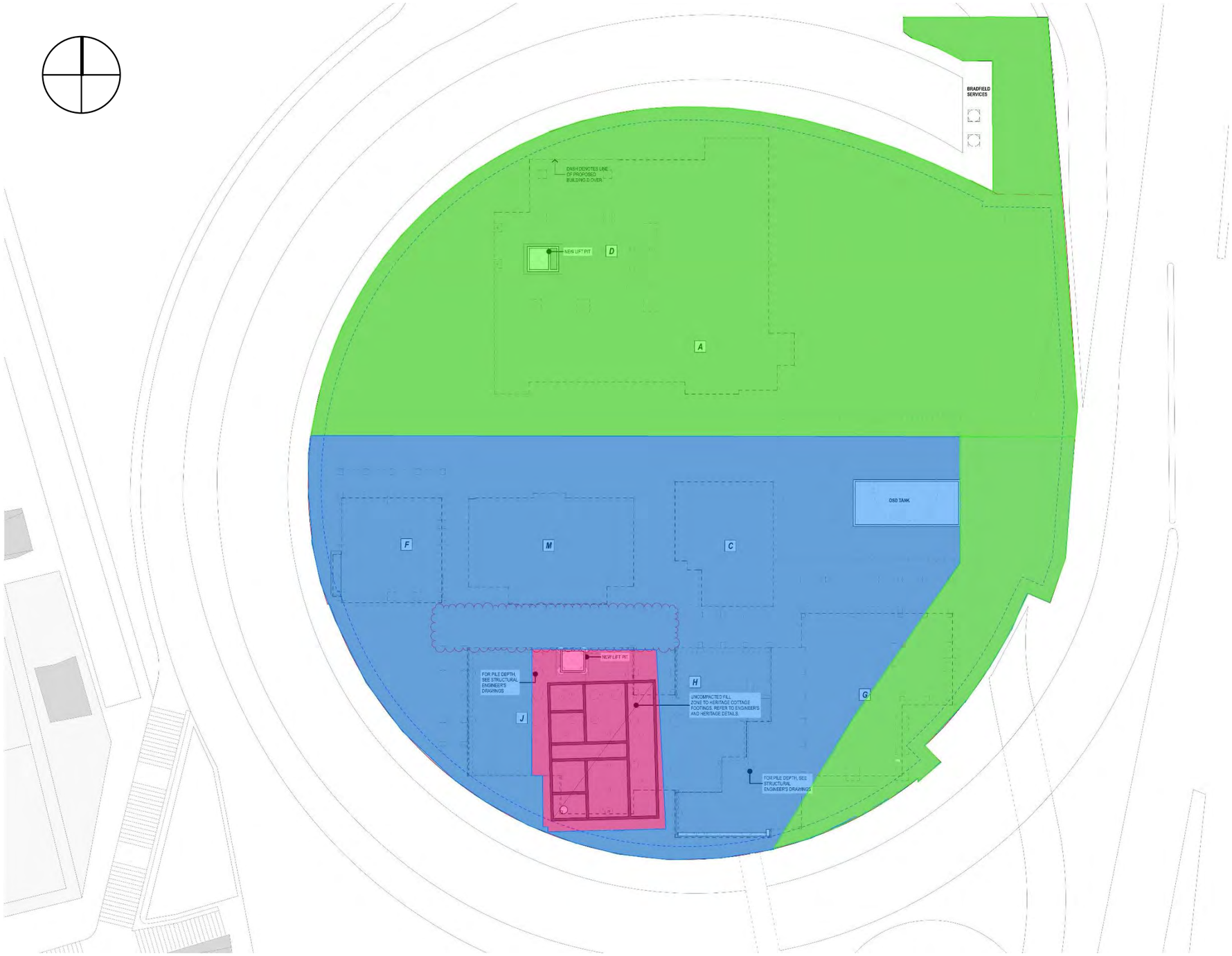
7.9.1. General

- What is the nature, extent, intactness and significance of the historical archaeological resource (features, deposits or other items), if any, exposed within the test excavation trenches?
- Does the archaeological resource verify the assessed potential and significance of the site?
- Do the deposits and features contribute new information about the occupation and development of the site?

7.9.2. Specific—Fort Street Public School Site

- What evidence is there of the pre-European environment;
- Is there any archaeological evidence of the construction of the Surgeon's Quarters and what might it tell us about building technology at that time;
- What evidence is there for land clearance and uses of this space prior to the use of the area for the hospital;
- Is there evidence of the occupation of the quarters and how does this evidence provide us with information about the nature of the use of the building and its occupants;
- Does this occupation evidence tell us anything about medical practices at this time;
- Is there any archaeological evidence of the Fort Street School, including any structural remains, or evidence of deeper subsurface features such as wells, cisterns, rubbish dumps etc;
- If so, what is the nature of the evidence and how can it add to our understanding of this area of colonial Sydney and early occupation?
- Beyond the building itself, is there any archaeological evidence from the Surgeon's Quarters occupation deposits that relates to Fort Street School, including building material, rubbish dumps or associated fabric?
- If so, what is the nature of the evidence and how can it add to our understanding of the construction of the school?
- Is there any archaeological evidence of deeper subsurface features such as wells, cisterns, rubbish dumps etc?
- If so, what is the nature of the evidence and how can it add to our understanding the way the site was used and the development through time?
- What does the material cultural assemblage (if present) from any of the historical phases of site use reveal about the daily lives and activities of the site occupants? In particular, how does this contribute to our understanding of the lives of children who attended the school from 1850 onwards and information about education practices;

- How does the material cultural assemblage compare to other archaeological sites in central Sydney domestic and specialised (e.g. Fort Philip site, Cumberland and Gloucester Streets, 'Lilyvale', Millers Point, etc.)?
- How does the material cultural assemblage compare to other similar medical/hospital sites such as the 1829 Civil Hospital on Norfolk Island; the Mint Sydney-1811-1842-Assistant Surgeon's and Dispensary phase of occupation; the Parramatta Hospital- c. 1818 Surgeon's Residence?
- What information related to the socio-economic status of the students (and staff) is available through the material culture assemblage?
- Is this material culture, related to the school body, comparable to collections in surrounding areas, such as the Rocks, Millers Point and Sydney's CBD (Paddy's market)?



Test Trenches and Salvage Excavation
Unexpected Finds Protocol

Archaeological Monitoring
Unexpected Finds Protocol

Unexpected Finds Protocol

Figure 7-1 Plan of archaeological actions associated with each zone of potential-c.f. Figure 4-3 and refer to Section 9.2. (Source: Curio 2020)

8. References

- AMBS Ecology and Heritage, 2016, Fort Street Public School Archaeological Assessment.
- Fort Street Public School, Aboriginal Cultural Heritage Assessment Report, 2020;
- Fort Street Public School, Conservation Management Plan, 2019;
- Fort Street Public School, Heritage Impact Statement, 2020;
- Fort Street Public School, Historical Archaeological Research Design, Test Excavation, 2019;
- Fort Street Public School, Historical Archaeological Test Excavation Report, 2020.
- Higginbotham, T., Kass, T., Walker, M. 1991, The Rocks and Millers Point Archaeological Management Plan.
- Otto Cserhalmi Partners 2000, The National Trust Centre, Observatory Hill Precinct—Conservation Management Plan, prepared for NSW Department of Public Works and Services;
- Tanner Kibble Denton (TDK) Architects, 2016, Fort Street Public School and environs Upper Fort Street, Millers Point, Conservation Management Plan;
- Thorp W. 1992, National Trust Centre Observatory Hill, Historical and Archaeological Assessment, report prepared for Department of Public Works.
- Wahhorn, D, 2001, Meteorological Building, Observatory Hill, Conservation Management Plan.

9. Appendices

9.1. Appendix 1 S60 Excavation Permit

NSW GOVERNMENT
Heritage Council of New South Wales

Level 6, 10 Valentine Avenue
Parramatta NSW 2150
Locked Bag 5020
Parramatta NSW 2124
DX 8225 PARRAMATTA

Telephone: 61 2 9873 8500
Facsimile: 61 2 9873 8599
heritagemailbox@environment.nsw.gov.au
www.heritage.nsw.gov.au

Our ref: DOC19/337014

Mr Aaron Smith
Department of Education
Level 8 259 George Street
SYDNEY NSW 2000

Via email: aaron.smith193@det.nsw.gov.au

Dear Mr Smith

APPLICATION UNDER S60 OF THE *HERITAGE ACT 1977*
Millers Point and Dawes Point Village Precinct, STATE HERITAGE REGISTER
№ 01682

Site: Fort Street Public School
Proposal: Archaeological test excavation to guide masterplan development of Fort Street Public School.
Section 60 application no: S60/2019/066, received 23 April 2019
Information received with the application: As per Condition No. 1
Additional information requested: No

As delegate of the Heritage Council of NSW (the Heritage Council), I have considered the above section 60 application. Pursuant to section 63 of the *Heritage Act 1977,* approval is granted subject to the following conditions:

APPROVED DEVELOPMENT

1. Development must be in accordance with:
   a) Historical Archaeological Research Design, Test Excavation FORT STREET PUBLIC SCHOOL, prepared by Curio Projects, dated April 2019.

EXCEPT AS AMENDED by the conditions of this approval:

HISTORICAL ARCHAEOLOGY

2. All works must be in accordance with Historical Archaeological Research Design, Test Excavation FORT STREET PUBLIC SCHOOL, prepared by Curio Projects, dated April 2019except as amended by the following conditions:
   a. This archaeological approval does not cover the removal of any State significant relics. This approval covers the archaeological mitigation of works which may disturb or expose relics assessed as retaining local heritage significance only.
   b. The Heritage Council of NSW or its Delegate must be informed in writing of the start of the archaeological investigation at least five (5) days prior to the commencement of, and within five (5) days of the completion of on-site archaeological work.
   c. The Applicant must ensure that if substantially intact archaeological deposits and/or State significant relics not identified in Historical Archaeological Research Design, Test Excavation FORT STREET PUBLIC SCHOOL, prepared by Curio Projects, dated April 2019 are discovered, work must cease in the affected area(s) and the Heritage Council of NSW must be notified. Additional assessment and approval

may be required prior to works continuing in the affected area(s) based on the nature of the discovery.

d. The Applicant must ensure that the approved Excavation Director, Mr Matthew Kelly is present at the site supervising all excavation activity likely to expose relics.
e. The Applicant must ensure that the approved Excavation Director Mr Matthew Kelly takes adequate steps to record in detail relics, structures and features discovered on the site during the archaeological works in accordance with current best practice. This work must be undertaken in accordance with the NSW Heritage Office guidelines, 'How to Prepare Archival Records of Heritage Items' (1998) and 'Guidelines for Photographic Recording of Heritage Items' (2006).
f. The Applicant is responsible for the safe-keeping of any relics recovered from the site. The Applicant must ensure that the approved Excavation Director, cleans, stabilises, labels, analyses, catalogues and stores any artefacts recovered from the site in a way that allows them to be retrieved according to both type and provenance.
g. The Applicant must ensure that a final excavation report is prepared by the nominated Excavation Director, to publication standard, within one (1) year of the completion of the field based archaeological activity unless an extension of time or other variation is approved by the Heritage Council of NSW. Further copies of the report should be lodged with the local library and/or another appropriate local repository in the area in which the site is located.

Reason: To ensure archaeological information is appropriately managed during works.

SPECIALIST TRADESPERSONS

3. All work to, or affecting, significant fabric shall be carried out by suitably qualified tradespersons with practical experience in conservation and restoration of similar heritage structures, materials and construction methods.

Reason: So that the construction, conservation and repair of significant fabric follows best heritage practice.

SITE PROTECTION

4. Significant built and landscape elements are to be protected during site preparation and the works from potential damage. Protection systems must ensure significant fabric, including landscape elements, is not damaged or removed.

Reason: To ensure significant fabric including vegetation is protected during construction.

UNEXPECTED HISTORICAL ARCHAEOLOGICAL RELICS

5. The applicant must ensure that if unexpected archaeological deposits or relics not identified and considered in the supporting documents for this approval are discovered, work must cease in the affected area(s) and the Heritage Council of NSW must be notified. Additional assessment and approval may be required prior to works continuing in the affected area(s) based on the nature of the discovery.

Reason: This is a standard condition to identify to the applicant how to proceed if historical archaeological deposits or relics are unexpectedly identified during works.

ABORIGINAL OBJECTS

6. Should any Aboriginal objects be uncovered by the work which is not covered by a valid Aboriginal Heritage Impact Permit, excavation or disturbance of the area is to stop immediately and the Office of Environment & Heritage is to be informed in accordance

with the *National Parks and Wildlife Act 1974* (as amended). Works affecting Aboriginal objects on the site must not continue until the Office of Environment and Heritage has been informed and the appropriate approvals are in place. Aboriginal objects must be managed in accordance with the *National Parks and Wildlife Act 1974*.

Reason: This is a standard condition to identify to the applicant how to proceed if Aboriginal objects are unexpectedly identified during works.

COMPLIANCE

7. If requested, the applicant and any nominated heritage consultant may be required to participate in audits of Heritage Council of NSW approvals to confirm compliance with conditions of consent.

Reason: To ensure that the proposed works are completed as approved.

DURATION OF APPROVAL

8. This approval will lapse five years from the date of the consent unless the building works associated with the approval have physically commenced.

Reason: To ensure the timely completion of works.

ADVICE

Section 148 of the *Heritage Act 1977* (the Act), allows people authorised by the Minister to enter and inspect, for the purposes of the Act, with respect to buildings, works, relics, moveable objects, places or items that is or contains an item of environmental heritage. Reasonable notice must be given for the inspection.

RIGHT OF APPEAL

If you are dissatisfied with this determination appeal may be made to the Minister for Heritage under section 70 of the Heritage Act 1977.

It should be noted that an approval under the Heritage Act is additional to that which may be required from other Local Government and State Government Authorities in order to undertake works.

If you have any questions regarding the above approval S60/2019/66 at Fort Street Public School within Millers Point and Dawes Point Village Precinct please contact Rebecca Newell, Senior Historical Archaeology Officer at the Heritage Division, Office of Environment and Heritage, on telephone 9873 8632 or by e-mail: Rebecca.Newell@environment.nsw.gov.au

Yours sincerely

7 May 2019

Dr Siobhan Lavelle OAM
Senior Team Leader – Specialist Services
Heritage Division, Office of Environment and Heritage
As Delegate of the Heritage Council of NSW

Cc: CEO, City of Sydney Local Council council@cityofsydney.nsw.gov.au
Excavation Director Mr Matthew Kelly matthew.kelly@curioprojects.com.au

9.2. Appendix 2 Demolition Plan

9.2.1. Objectives

The objectives of this plan are to set out (i) general guidelines and (ii) specific requirements that must be addressed by Demolition Contractors employed to demolish and remove the extant structures on the site in the red and blue areas of the attached plan (Figure 7-1).

The following development stages are planned for the site:

- demolition and removal of the existing buildings, including slabs;
- Archaeological test trenching in the red area (Figure 7-1);
- Possible archaeological open area excavation in the red area;
- Archaeological monitoring in the blue area;
- Unexpected finds protocols in the entire site.

9.2.2. Archaeological Remains at the Site: Type Location & Extent

Historical research identified parts of the FSPS area as occupied from as early as the late eighteenth/early nineteenth century. Subsequent test excavations, in 2019, identified the 1815 Surgeon's Quarters, from the Military Hospital on the site. The test trenching also showed that other areas of the site have been heavily disturbed and are unlikely to contain archaeological remains. The available evidence suggests that any significant archaeological relics that do remain on the site may be from all or some of the following historical phases.

- ***c.1820-1850***—Military Hospital and Quarrying
- ***c.1850-1890s***—Fort Street National School, Observatory and Messengers Cottage

The integrity (i.e. the degree to which they are intact) of any such remains is currently unknown, hence the necessity to protect soils, below slabs and surfaces, during demolition so that any such remains are not disturbed in the process.

9.2.3. Demolition Plan (Red and Blue Areas)

Proposed Sequence of Demolition & Recommendations

The nominated Demolition Contractor will work with the development Project Manager and the Archaeological Consultant to implement the following method:

1. OH & S issues may determine where and when it is appropriate for the principal's designated archaeologist to intervene within the demolition zone;
2. The remaining buildings to be demolished to ground level;
3. Limit removal of the superstructure, footings and underground services to the level of the existing grade and ground surfaces. Do not undertake excavation below existing ground. In-ground footings are to remain in situ.
4. Removal of concrete slabs should be done in consultation with the archaeologist and must minimize the amount of disturbance to soils beneath the slab (i.e., no hammering in-situ but cut slabs and slide smaller pieces away from sensitive area);
5. An archaeologist should be present during the removal of concrete slabs and any hard surfaces;

6. During the course of the demolition limit the movement of excavators and trucks to existing hard surfaces (i.e. once a slab or bitumen is lifted in the red or blue area no machinery should be moved across that area. That will require co-ordination of demolition movement away from sensitive areas towards exit points for the demolition debris;
7. Restrict use of general purpose (toothed) buckets to stockpiles and structural elements above ground. Batter buckets (or mud buckets) are to be fitted for work required to remove the bases of stockpiled rubble and walls protruding above ground.;
8. This demolition plan is part of the demolition specification and must be read in conjunction with all the Contract documents.

9.2.4. Implementing the Plan

This plan should be implemented by establishing a Consultation Roster between Project Management, Archaeologist and Demolition Contractor. This roster should include:

1) A start-up meeting to discuss the proposed method statement and make necessary changes that would improve its efficiency and/ or product;
2) Involvement of the Archaeologist at the start of on-site demolition work; and
3) The demolition contractor should make reference to Figure 7-1 of the Archaeological Research Design
4) During demolition the contractor may be asked by the archaeologist to cease work briefly while newly exposed fabric is observed - this may require some recording - stoppage would be minimal.
5) Archaeological monitoring is proposed for the area of the site shown as blue in Figure 7-1 - in some sections of the site this will be the only form of archaeological intervention. The commencement point for this work should be determined beforehand;
6) In the area of the site shown as red in Figure 7-1 there is the potential for formal hand excavation, by the archaeologist, to be undertaken. This will follow removal by machine of any overburden that may cover the existing archaeological remains. The depth of this machine clearance will be at the direct ion of the archaeological team. As a consequence machine activity may be excluded from the immediate surrounds for a period while manual excavation is undertaken. Wherever possible, machine work could continue under monitoring in other areas of the site while manual excavation is undertaken;
7) During the archaeological monitoring the machine operator may be required to cease work for short periods while the significance of deposits exposed during the work is determined. This may result in some small areas being reserved for later formal investigation by hand;
8) Manual excavation may also be delayed by wet weather - in certain circumstances machine excavation may continue. The call to cease machine work would lie with the machine operator in the first instance, or if sensitive deposits are being compromised the monitoring archaeologist may indicate a temporary cessation of works;

9) Once archaeological excavation or monitoring has been completed in an area the Excavation Director will provide a sign-off letter to the Project Manager.

9.3. Appendix 3 Site Induction[6]

9.3.1. Archaeological Heritage Induction

Fort Street Public School, Sydney

The presence of a qualified archaeologist to monitor subsurface works is the result of a process initiated by the Secretary's Environmental Assessment Requirements (SEARs) set out in early 2019, as part of the SSD process.

As a result archaeologists will be on-site conducting work during the demolition and civil works phases of the development. Some of that work will involve archaeological excavation and some will involve archaeological monitoring and recording. The following information is to provide some background to why they will be here, what they will be doing and how that work may affect you. The archaeologists are from Curio Projects Pty Ltd. Dr. Matthew Kelly has been appointed to supervise all the archaeological work and is responsible for ensuring it meets all State Government requirements.

A few brief points about the site:

- The site has been .investigated by using historical sources and found to have been occupied by Europeans from the early 19th Century when a third government windmill, a large wooden structure, was built c.1806 near the site where the public school now stands;
- It was later developed as the major military hospital and early buildings on the site date from 1815 (the date of the battle of Waterloo);
- Archaeological testing in 2019 under the existing EEC Building revealed that the footings from the Surgeon's Quarters (1815) from the hospital remain in the ground below the existing slab;
- There is potential for archaeological features and deposits to still exist on the site and be exposed during the site works. This archaeology is protected under State law-the NSW Heritage Act, 1977.
- Figure 7-1 shows the areas of the site which will be looked at by archaeologists in different ways,
    - Red – archaeologists will **dig this area by hand** after machine clearance supervised by the archaeological Excavation Director. This area will also be subject to **Unexpected Finds protocols**;
    - Blue – an archaeologist will **monitor** the demolition and excavation in this area, may ask work to stop temporarily and may record features that turn up during the work. This area will also be subject to **Unexpected Finds protocols**;
    - Green – this area is designated as solely an **Unexpected Finds** area and will only be subject to archaeological works or monitoring if archaeological remains are exposed by the contractor.

Types of Archaeological Remains

Any surviving historical archaeological remains are likely to take the following physical forms (photos to be provided):

[6] This can be presented as a PowerPoint Presentation and will be accompanied by suitable photos and graphics.

- Structural and occupation remains of early to late-19th century structures including buildings visible as brick or stone footings, post holes, flooring, underfloor artefact accumulations, yard and garden deposits, drains and fence line remains, artefact scatters and rubbish pits, privies and wells;
- High concentration of artefacts in fill deposits (glass, ceramic, animal bone). One or two isolated artefacts are generally not of concern. Glazed earthenware service pipes are not considered to be of archaeological significance;
- Surfaces (loose gravel or compacted crushed sandstone, asphalt, tarmac); and
- Cuts (small or large) in sandstone bedrock, including pits and wells.
- Remains of pre-European natural landscape (pollen & soil evidence).

9.3.2. Archaeological Activity

Red Area

This area is highly sensitive, and the 2019 archaeological testing showed that the remains of the 1815 Surgeon's Quarters are here. This area will be:

- Cordoned off by the managing contractor (subcontractor);
- Machine cleared by the managing contractor (subcontractor)under supervision by the Excavation Director;
- Have more small test trenches dug by the Curio archaeologists;
- Will be dug by hand by archaeologists if those test trenches show more archaeological remains.

Blue Area

This area is less sensitive that the red area but still may contain archaeological remains. Archaeological monitoring will take place here with an archaeologist observing machine excavations. Therefore:

- No breaking of existing ground should commence without the presence of an archaeologist from Curio Projects or a sign-off of the area;
- An archaeologist from Curio Projects needs to be present once slab or hard surfaces have been lifted. Any exposed or excavated area will be assessed by the archaeologist to determine if they contain archaeological remains that require further recording;
- If there are some archaeological remains it may be necessary for the archaeologist to stop the work and record what has been exposed. This time may vary from only some minutes to a day;

Green Area (Unexpected Finds Area)

This area has been tested and was found to be heavily disturbed by previous development, sometimes associated with the building of the current school and construction associated with the Cahill Expressway. Nevertheless, it may still hold some archaeological remains which will be subject to an Unexpected Finds protocol, set out below.

9.3.3. Unexpected Finds

It is possible that types of archaeological features other than those discussed above are exposed during the project works. If any unexplained structures, wells, bottle dumps etc are found the best

approach is to stop work and notify the site supervisor who will contact Curio Projects. An archaeologist will be 'on-call' to advise and if required come down and take a look.

PLEASE DO NOT REMOVE ANY SUSPECTED ARCHAEOLOGY OR HERITAGE ITEMS FROM THE LOCATION WHERE EXPOSED BEFORE AN ARCHAEOLOGIST HAS INSPECTED THEM. Please take pictures of the items (even phone pictures are ok) or features in the location they were found. They can be forwarded to the archaeologist, through Lendlease project manager, so they can determine if the items or features need to be inspected and recorded. There may be a brief, localised halt to the works so the archaeologist can attend site, inspect the items in the ground, photograph and record them, and advise on the best way to proceed with works.

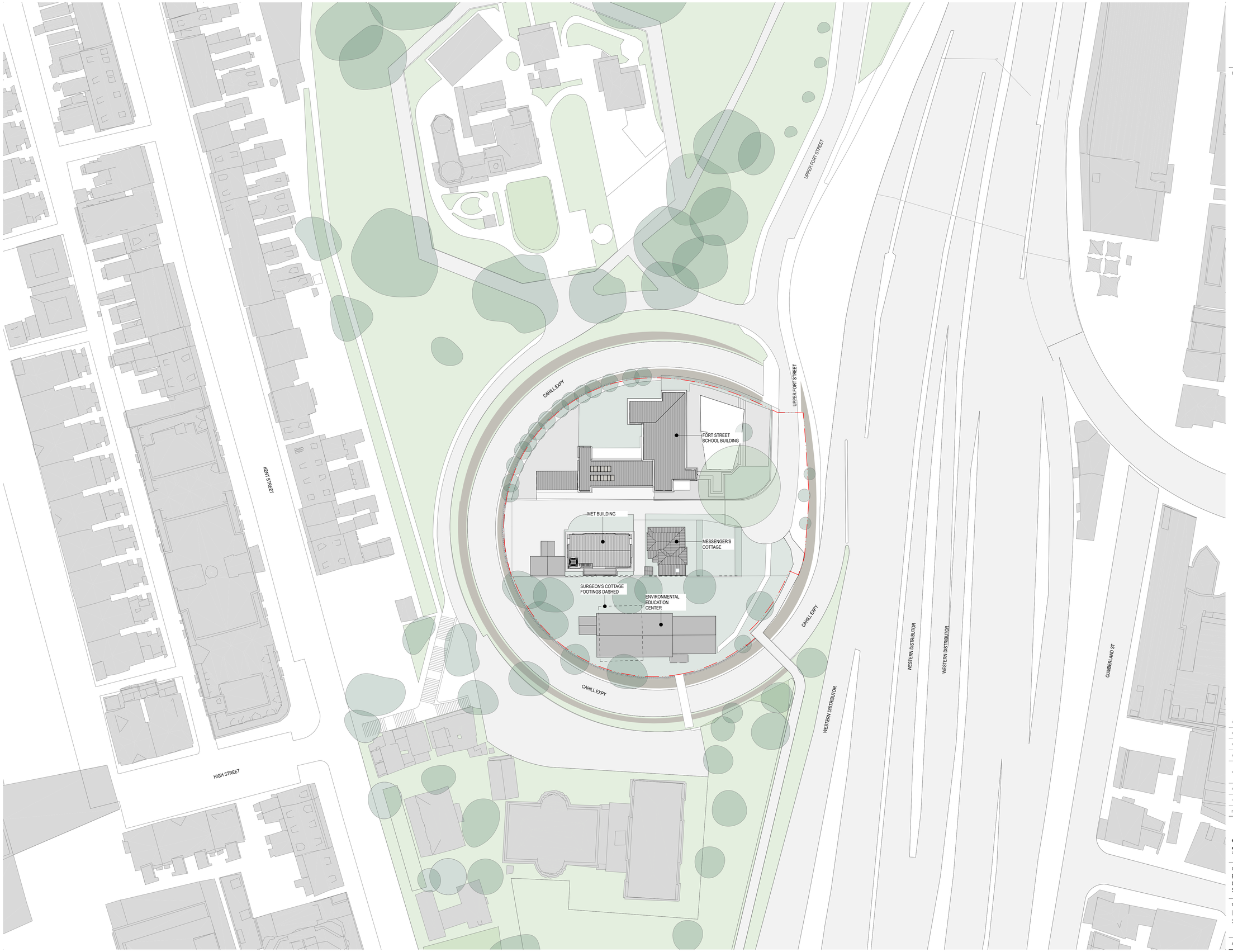
- Keep a sharp eye out for changes in the colour or compaction of the soil, or a large or unusual number of artefacts and notify Lendlease and/or the archaeologists.
- If you come across any fragile artefacts such as shell, bone or leather, stop work and get the archaeologist to inspect the area, as sometimes these items must be handled in a special way.

9.3.4. Construction That May Affect Archaeology

Proposed construction works which may affect archaeology within the site include:

- Demolition of existing buildings (a specific demolition plan has been developed for the site due to its archaeological sensitivity see Section 9.2);
- Cuts for grading;
- Service trenches;
- Piling;
- Bulk excavation;
- Most work that requires excavation below existing ground levels.

9.4. Appendix 4 High Resolution Images of Section 5 Impacts



0 5 10 20m

GENERAL NOTES

- ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR BEFORE PROCEEDING WITH THE WORK.
- ALL LEVELS RELATIVE TO 'AUSTRALIAN HEIGHT DATUM'.
- DO NOT SCALE DRAWINGS. USE FIGURED DIMENSIONS ONLY.

legend

c.f Figure 5.1

rev	date	name	by	chk
07	22/1/21	Contract Set Issue	AWY	
06	21/10/20	100% DD Documentation	AWY	
05	8/10/20	DRAFT 100% DD Documentation Issue	AWY	
04	29/9/20	Detailed Design Phase, 60% Documentation	AWY	
03	12/6/20	Schematic Design Initatives - EO I/M Phase Submission	AWY	
02	5/6/20	Preliminary for Coordination	AWY	
01	18/12/19	Preliminary Schematic Design	CTK	

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project

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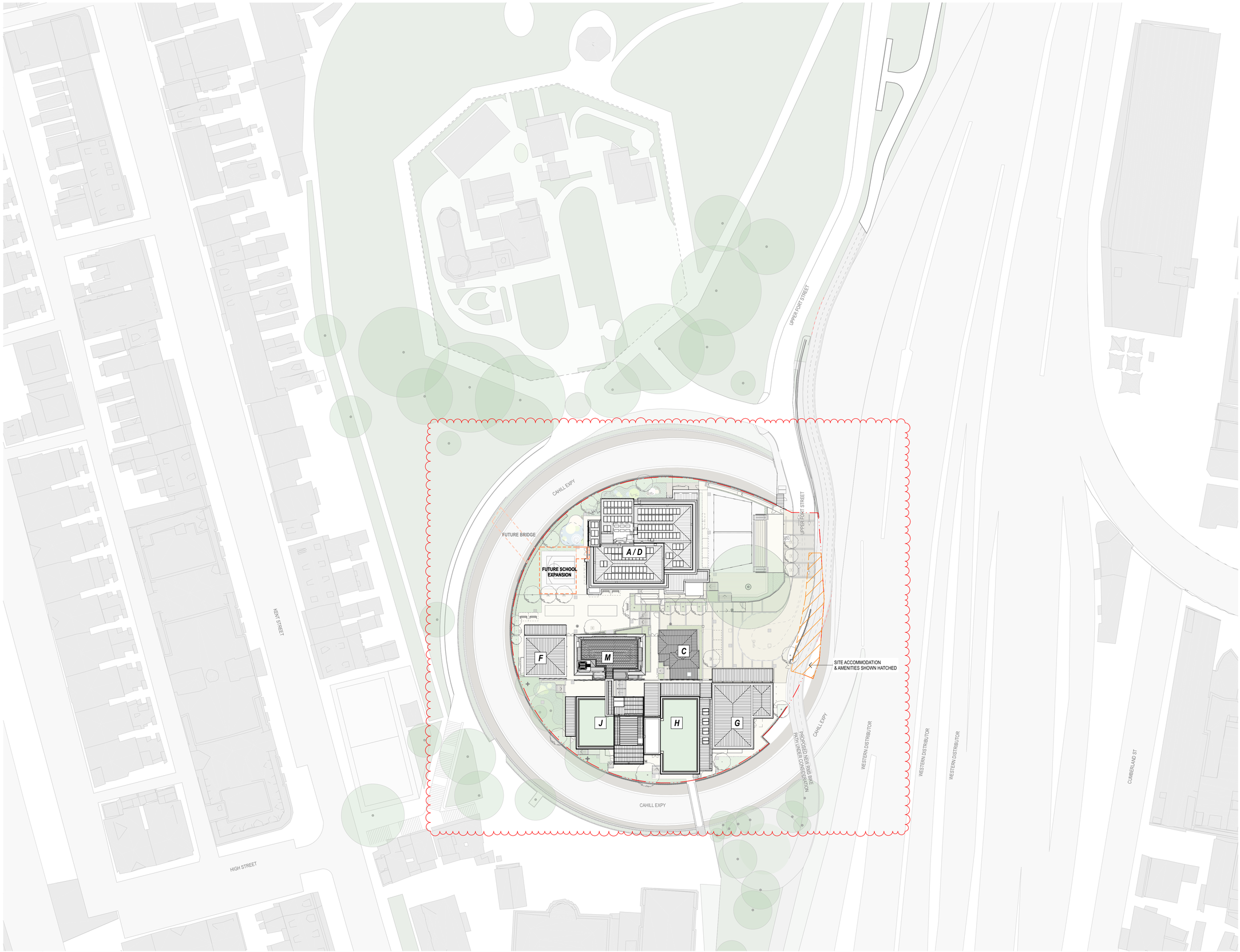
Observatory Hill
Sydney NSW 2000

title

Existing
Site Plan Existing

scale	1:500 @ A1	first issued	18/12/19
project code		sheet no.	revision
FSS	AR_DRG_**011000**		**07**

CONTRACT SET



0 5 10 20m

GENERAL NOTES

- ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR BEFORE PROCEEDING WITH THE WORK.
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- DO NOT SCALE DRAWINGS. USE FIGURED DIMENSIONS ONLY.

legend

c.f Figure 5.2

rev	date	name	by	chk
06	22/1/21	Contract Set Issue 06.1 Update	AWY	
05	21/10/20	100% DD Documentation	AWY	
04	29/9/20	Detailed Design Phase, 60% Documentation	AWY	
03	12/6/20	Schematic Design Initiatives - EO1.VM Phase Submission	AWY	
02	5/6/20	Preliminary for Coordination	AWY	
01	18/12/19	Preliminary Schematic Design	CTK	

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project
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Observatory Hill
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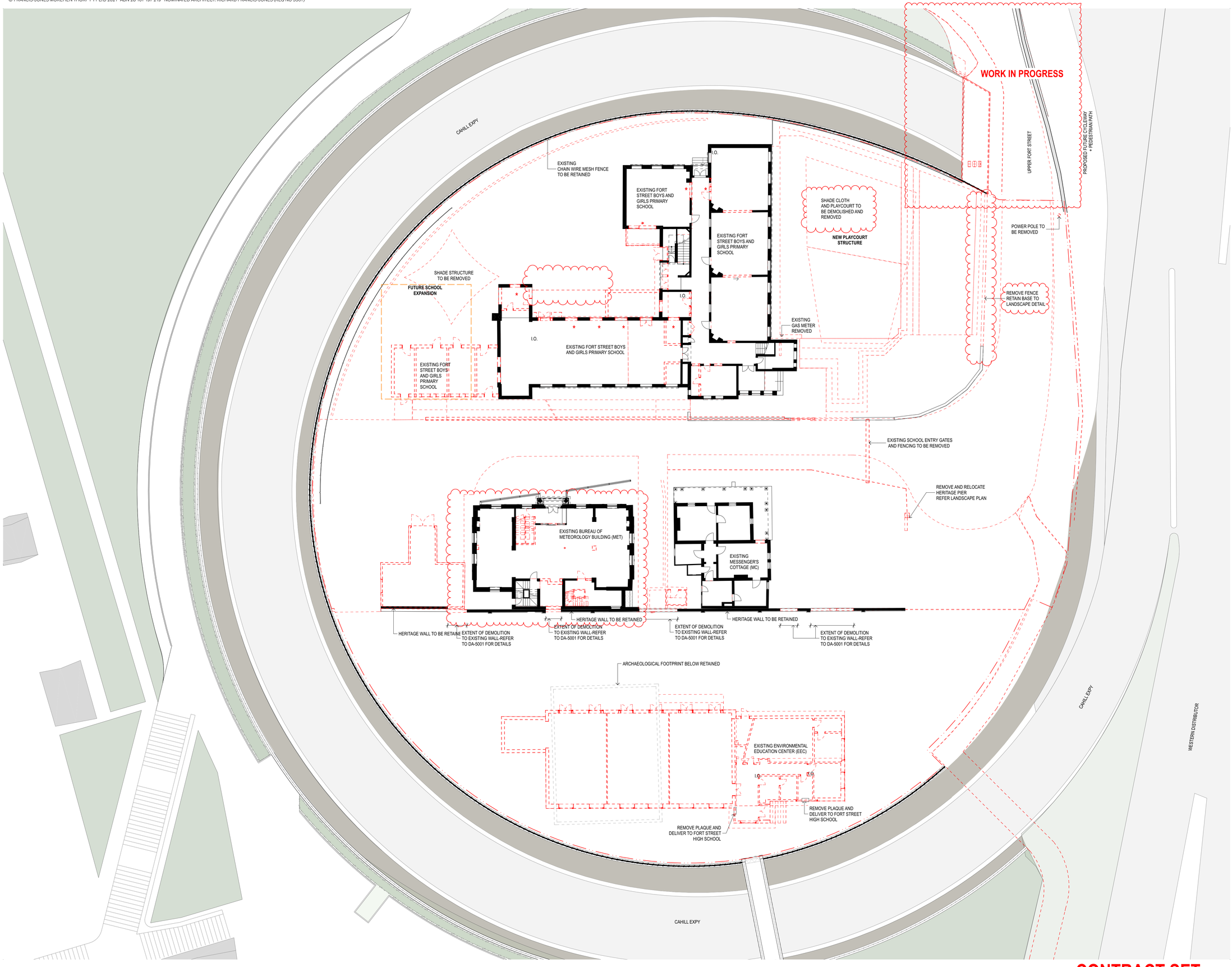
title
Site
Site Plan Proposed

scale 1:500 @ A1 first issued 18/12/19

project code **FSS** sheet no. AR_DRG_**020000** revision **06**

CONTRACT SET



0 2 5 10m

GENERAL NOTES

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legend

DEMOLITION

* WINDOW REMOVED AND WALL UNDERNEATH DEMOLISHED TO FLOOR LEVEL

1. REFER TO PROJECT HERITAGE ARCHITECTS SCHEDULE OF WORKS AND SPECIFICATIONS FOR DETAILS OF ALL HERITAGE INTERFACES. THE MANNER OF ALL REMEDIATION, DISMANTLING, CAREFUL DEMOLITION AND DESTRUCTIVE DEMOLITION WORKS SHALL BE CONDUCTED IN ACCORDANCE WITH THEIR DIRECTIONS. ANY DEVIATION FROM THESE INSTRUCTIONS ARE TO BE REVIEWED AND VETTED BY THE HERITAGE ARCHITECT PRIOR TO COMMENCEMENT.

2. PRESERVE AND MAKE SAFE REMEDIATED AND RETAINED WORKS IDENTIFIED IN THE HERITAGE ARCHITECT'S SCOPE OF WORKS FOR ASSESSMENT BY THE PROJECT ARCHITECT AND HERITAGE ARCHITECT.

3. ALL DISMANTLING AND DEMOLITION WORKS ARE TO BE CONDUCTED SUCH THAT IT IS READY TO RECEIVE NEW PROPOSED WORKS CAPTURED IN DESIGN DOCUMENTATION.

4. ALL EXISTING STRUCTURAL MEMBERS SHALL BE ASSESSED BY THE PROJECT ARCHITECT, HERITAGE ARCHITECT AND STRUCTURAL ENGINEER AND DIRECTIONS CONFIRMED AFTER BEING REVEALED BY DEMOLITION WORKS.

5. ALL EXISTING INTERNAL FENCING TO BE REMOVED, OTHER THAN THOSE SPECIFICALLY NOTED TO BE RETAINED

6. ALL EXISTING PAVEMENTS TO BE REMOVED

7. REMOVAL OF ALL EXISTING EXTERNAL EQUIPMENT INCLUDING AWNINGS, WATER TANKS, EXCLUDING THOSE SPECIFICALLY NOTED AS RETAINED

c.f Figure 5.3

rev	date	name	by	chk
09	22/1/21	Contract Set Issue 09.1 Update	AWY	
08	21/10/20	100% DD Documentation	AWY	
07	8/10/20	DRAFT 100% DD Documentation Issue	AWY	
06	29/9/20	Detailed Design Phase, 60% Documentation	AWY	
05	22/9/20	Preliminary For Coordination	AWY	
04	4/9/20	Preliminary For Review	AWY	
03	12/6/20	Schematic Design Initiatives - ECI VM Phase Submission	AWY	
02	5/6/20	Preliminary for Coordination	AWY	
01	18/12/19	Preliminary Schematic Design	CTK	

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Sydney NSW 2000

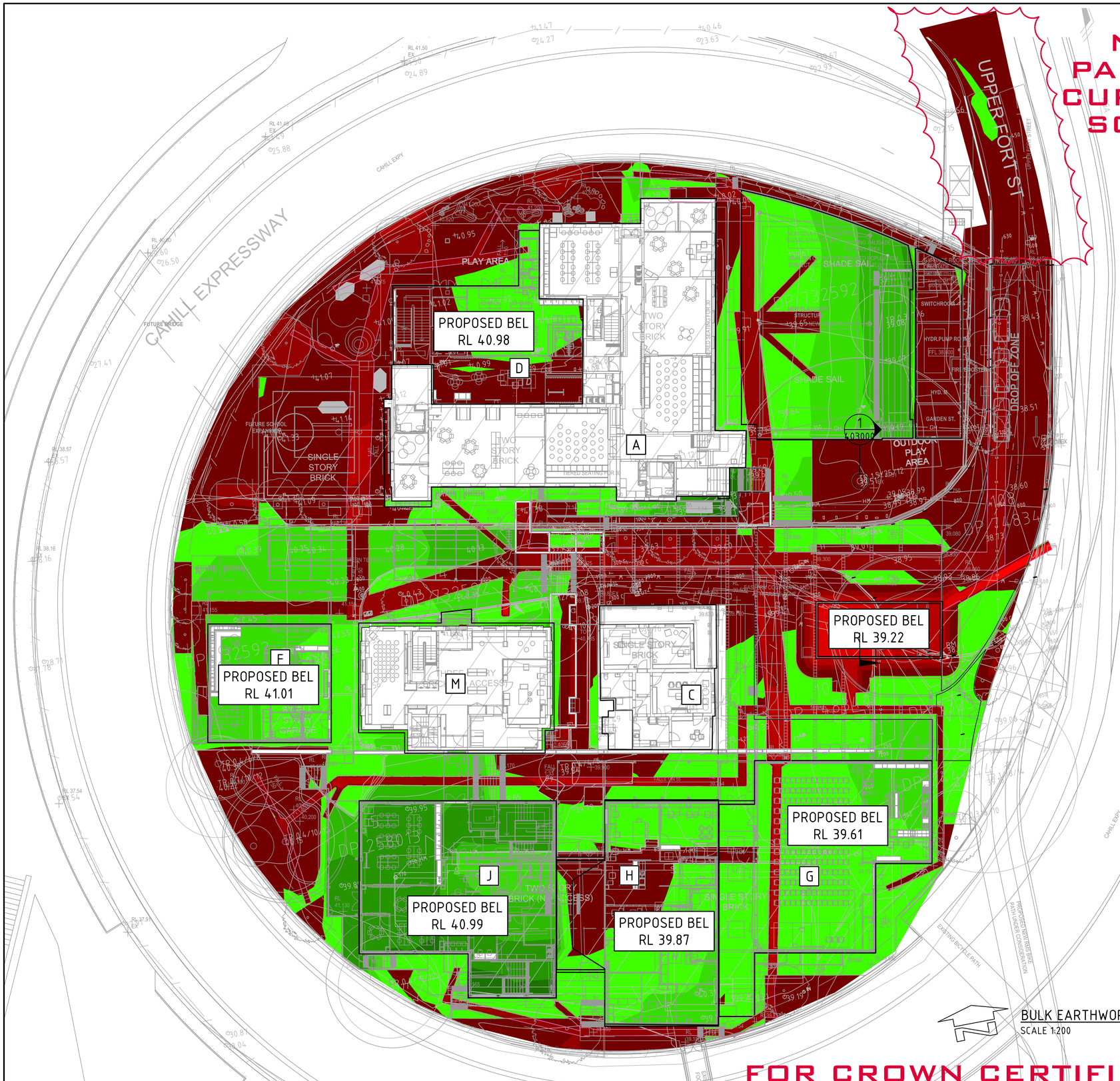
title

Demolition Plans
Demolition Plan - Ground

scale	1:200 @ A1	first issued	18/12/19

project code	sheet no.	revision
FSS	AR_DRG_**110010**	**09**

CONTRACT SET



SUMMARY NOTES

BULK EARTHWORKS VOLUMES:
SITE AREA = 0.6 Ha

CUT MATERIAL	= -	1190m^3
FILL MATERIAL	= +	1220m^3

DETAILED EXCAVATION ALLOWANCE FOR BUILDING FOUNDATION

EXCAV.	= -	90m^3
BALANCE	= -	60m^3 (POTENTIAL FOR SITE WON MATERIAL TO BE VALIDATED TO BE USED AS BACKFILL MATERIAL IN TRENCHES.)

NOTE:
EARTHWORK CUT/FILL QUANTITIES INCLUDE ALLOWANCE FOR EXCAVATION OF OSD TANK.

VOLUMES ARE BASED ON THE FOLLOWING ALLOWANCES FOR PAVEMENT / SLABS AND CAPPING REQUIREMENTS:

NEW BUILDINGS SLAB	= 140mm
NEW BUILDING REINFORCED CONCRETE SLAB	= 250mm
EXISTING BUILDING SLAB	= NIL
EXTERNAL PAVED AREAS	= 150mm
LANDSCAPE - MPB1	= 500mm
LANDSCAPE - MPB2, MPB4 & MPB6	= 1000mm
LANDSCAPE - MPB3	= 275mm
LANDSCAPE - MPB5	= 575mm

c.f Figure 5.4

DEPTH RANGE

No.	FROM DEPTH	TO DEPTH	COLOUR
1	-3.000	-2.750	
2	-2.750	-2.500	
3	-2.500	-2.250	
4	-2.250	-2.000	
5	-2.000	-1.750	
6	-1.750	-1.500	
7	-1.500	-1.250	
8	-1.250	-1.000	
9	-1.000	-0.750	
10	-0.750	-0.500	
11	-0.500	-0.250	
12	-0.250	0.000	
13	0.000	0.250	
14	0.250	0.500	
15	0.500	0.750	
16	0.750	1.000	
17	1.000	1.250	
18	1.250	1.500	
19	1.500	1.750	

TREE 1 TPZ NOTE:

ALL EXCAVATION WITHIN THE TPZ OF TREE 1 IS TO BE CARRIED OUT UNDER THE DIRECTION AND SUPERVISION OF THE SITE ARBORIST (AQF LEVEL 5 QUALIFICATIONS).

BULK EARTHWORKS CUT/FILL PLAN

SCALE 1:200

2m 0 5 10 15 20m

SCALE 1:200 AT A1 SIZE SHEET

FOR CROWN CERTIFICATE 1

AMENDMENTS	DATE	ISSUE
REVISED FOR CC1 ISSUE	23.02.21	F
REVISED FOR DS ISSUE	09.02.21	E
ISSUED FOR TENDER	27.01.21	D
FINAL 100% DETAILED DESIGN ISSUE	21.10.20	C
CIVIL 100% DETAILED DESIGN ISSUE	14.10.20	B
ISSUED FOR INFORMATION	06.10.20	A

ARCHITECT: fjmt

CLIENT: lendlease

PROJECT
FORT STREET PUBLIC SCHOOL
OBSERVATORY HILL
SYDNEY, NSW, 2000

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
XC	MdW	AUG '20	-	A1	AS NOTED	FS-CV-DRG-103000

Costin Roe Consulting Pty Ltd.
Consulting Engineers ACN 003 696 448
Level 1, 8 Windmill Street
Walsh Bay, Sydney NSW 2000
Tel: (02) 9251-7699 Fax: (02) 9241-3731
email: mail@costinroe.com.au ©

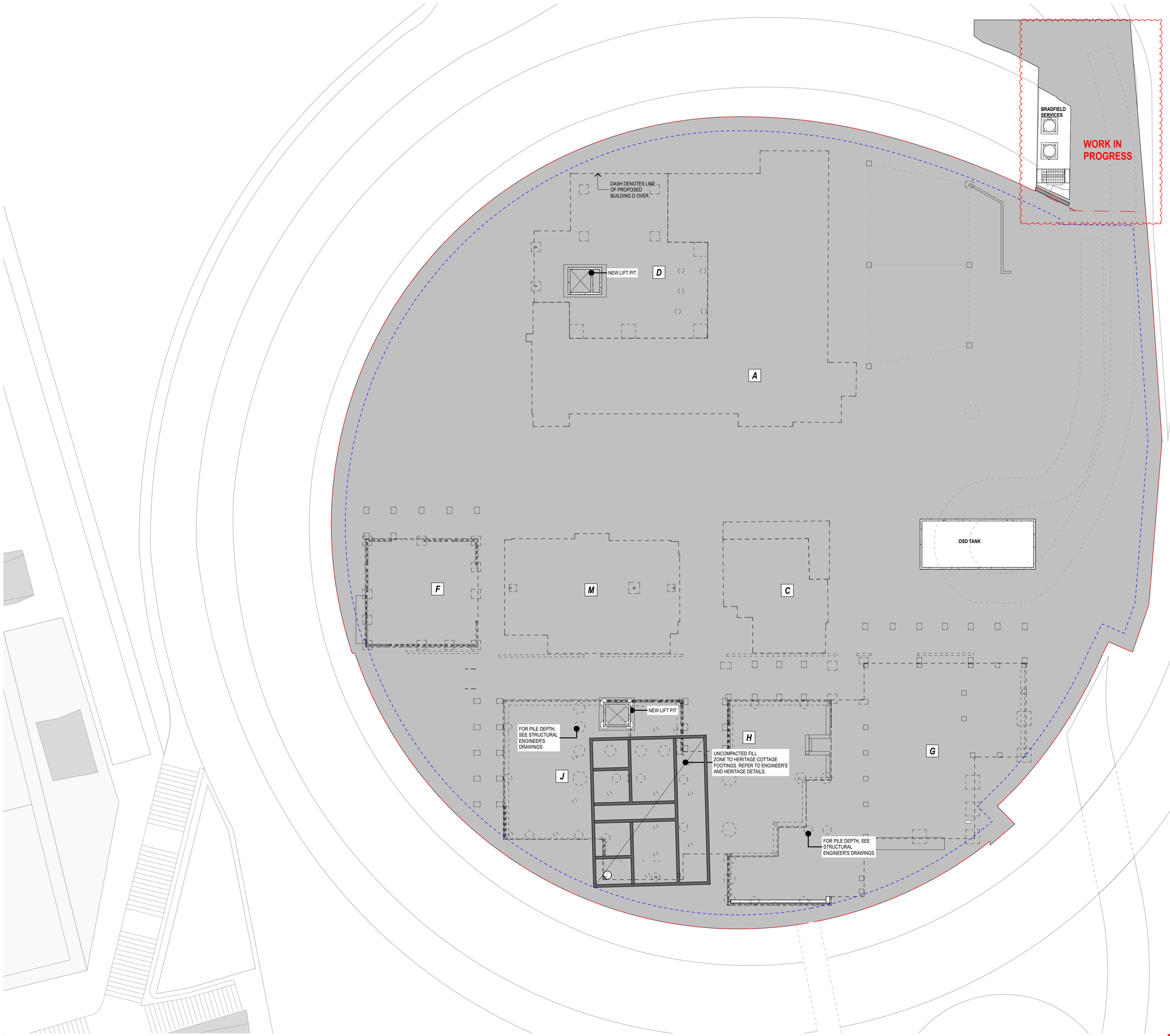
Costin Roe Consulting

PRECISION | COMMUNICATION | ACCOUNTABILITY

DRAWING TITLE
BULK EARTHWORKS CUT/FILL PLAN

DRAWING No FS-CV-DRG-103000

ISSUE F



0 2 5 10m

GENERAL NOTES

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legend

SITE BOUNDARY

1.5m SITE BOUNDARY SETBACK

TOILET CODES

S	Student
T	Teacher
A	Accessible
B	Ambulant
M	Male
F	Female
WC	Toilet/Cubicle

A BUILDING ID

FUTURE SCOPE

COLD SHELL TYPE 1

COLD SHELL TYPE 2

NOTE: FOR COLD SHELL INCLUSIONS AND EXCLUSIONS REFER TO COLD SHELL PLANS - AR_DRG_250000 SERIES

c.f Figure 5.5

rev	date	name	by	chk
24	22/1/21	Contract Set Issue	AWY	DB
23	18/12/20	Draft for Tender Coordination	AWY	DB
22	21/10/20	100% DD Documentation	AWY	DB
21	16/10/20	DD Issue for Coordination	AWY	DB
20	8/10/20	DRAFT 100% DD Documentation Issue	AWY	DB
19	29/9/20	Detailed Design Phase, 60% Documentation	AWY	DB
18	22/9/20	Preliminary For Coordination	AWY	DB
17	4/9/20	Preliminary For Review	AWY	DB
16	14/8/20	Preliminary For Review	AWY	DB
15	12/6/20	Schematic Design Initiatives - ECI VM Phase Submission	AWY	DB
14	5/6/20	Preliminary for Coordination	AWY	DB
13	29/5/20	Preliminary for Review	AWY	DB
12	22/5/20	Preliminary for Coordination	AWY	DB
11	11/5/20	Preliminary	AWY	DB
10	5/3/20	For Coordination - Preliminary VM Option	CTK	DB
09	3/3/20	For Coordination - Preliminary VM Option	AWY	DB
08	27/2/20	For Coordination	AWY	DB
07	20/1/20	Schematic Design	AWY	
06	18/12/19	Preliminary Schematic Design	CTK	

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title

Overall General Arrangement Plan Lower Ground

scale	1:200 @ A1	first issued	1/11/19
project code		sheet no.	revision
FSS	AR_DRG_**100000**		**24**

CONTRACT SET

0 1 2 5m

GENERAL NOTES

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- ALL LEVELS RELATIVE TO 'AUSTRALIAN HEIGHT DATUM'.
- DO NOT SCALE DRAWINGS. USE FIGURED DIMENSIONS ONLY.

legend

A BUILDING ID

TOILET CODES

S	Student	**A**	Accessible	**M**	Male
T	Teacher	**B**	Ambulant	**F**	Female
				WC	Toilet/Cubicle

c.f Figure 5.6

rev	date	name	by	chk
24	22/1/21	Contract Set Issue	AWY	DB
23	18/12/20	Draft for Tender Coordination	CTK	DB
22	21/10/20	100% DD Documentation	AWY	DB
21	16/10/20	DD Issue for Coordination	AWY	DB
20	8/10/20	DRAFT 100% DD Documentation Issue	AWY	DB
19	29/9/20	Detailed Design Phase, 60% Documentation	AWY	DB
18	22/9/20	Preliminary For Coordination	AWY	DB
17	4/9/20	Preliminary For Review	AWY	DB
16	14/8/20	Preliminary For Review	AWY	DB
15	12/6/20	Schematic Design Initiatives - ECI VM Phase Submission	AWY	DB
14	5/6/20	Preliminary for Coordination	AWY	DB
13	29/5/20	Preliminary for Review	AWY	DB
12	22/5/20	Preliminary for Coordination	AWY	DB
11	11/5/20	Preliminary	AWY	DB
10	5/3/20	For Coordination - Prelimnary VM Option	CTK	DB
09	3/3/20	For Coordination - Prelimnary VM Option	AWY	DB
08	27/2/20	For Coordination	AWY	DB
07	20/1/20	Schematic Design	AWY	DB
06	17/1/20	Preliminary Schematic Design	AWY	DB

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Fort Street Public School
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title
General Arrangement Plan
Lower Ground South

scale	1:100 @ A1	first issued	1/11/19
project code		sheet no.	revision
FSS	AR_DRG_**200200**		**24**

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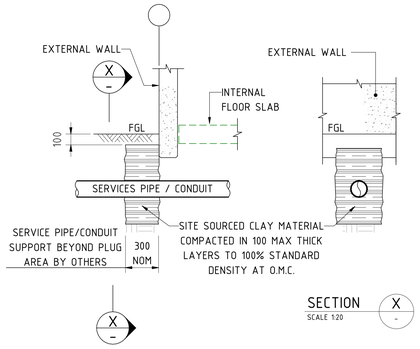
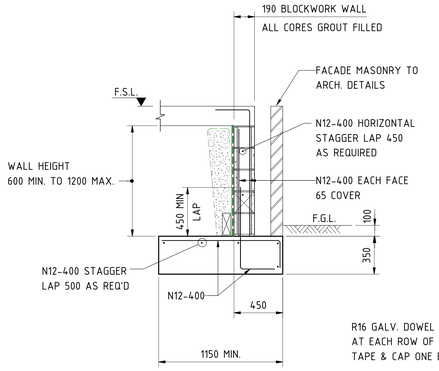


TYPICAL CLAY SERVICE PLUG DETAIL

SCALE 1:20

ALL SERVICE TRENCHES ENTERING BUILDING TO INCORPORATE CLAY PLUG TO PREVENT WATER INGRESS INTO THE BUILDING

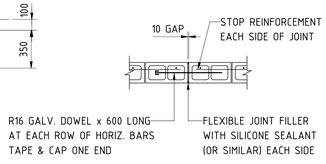


RW1 - RETAINING WALL

SCALE 1:20

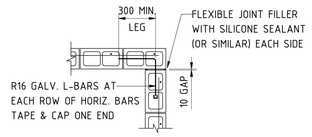
NOTE:
ALL BLOCK CORES TO BE FULLY GROUTED.
NOTES SHOWN ARE TYPICAL FOR ALL WALLS.
ALL BASE KEYS TO BE POURED AGAINST UNDISTURBED NATURAL GROUND

CONCRETE QUALITY					
ELEMENT	SLUMP	AGGREGATE (MAX SIZE)	CEMENT TYPE	ADMIXTURE	F'c (MPa)
CORE FILL	230	10	GP	NIL	20



VERTICAL JOINT DETAIL

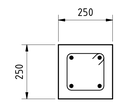
PROVIDE VERTICAL JOINTS IN BLOCKWORK 8.0m MAX CENTRES



CORNER DETAIL

RETAINING WALL BLOCKWORK JOINTING DETAILS

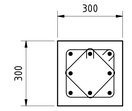
SCALE 1:20



4N20 VERTICAL BARS
N12-250 CLOSED TIES IN PAIRS
40mm COVER TO TIES
f'c = 40mPa
COLUMN F.R.L. : 120/-/-

CONCRETE COLUMN CC5.J

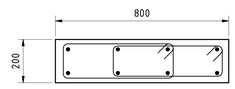
SCALE 1:10



8N20 VERTICAL BARS
N12-300 CLOSED TIES IN PAIRS
40mm COVER TO TIES
f'c = 40mPa
COLUMN F.R.L. : 120/-/-

CONCRETE COLUMN CC4.H/CC4.J

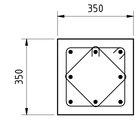
SCALE 1:10



8N20 VERTICAL
N12-200 CLOSED TIES IN PAIRS
30 MIN. COVER TO TIES
f'c = 40 MPa
COLUMN F.R.L. : 120/-/-

CONCRETE COLUMN CC3.H/CC3.J

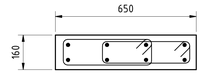
SCALE 1:10



8N20 VERTICAL BARS
N12-300 CLOSED TIES IN PAIRS
40mm COVER TO TIES
f'c = 40mPa
COLUMN F.R.L. : 120/-/-
UNLESS DENOTED CC1.H*
8N24 VERTICAL BARS
REFER S220

CONCRETE COLUMN CC1.H/CC1.J

SCALE 1:10



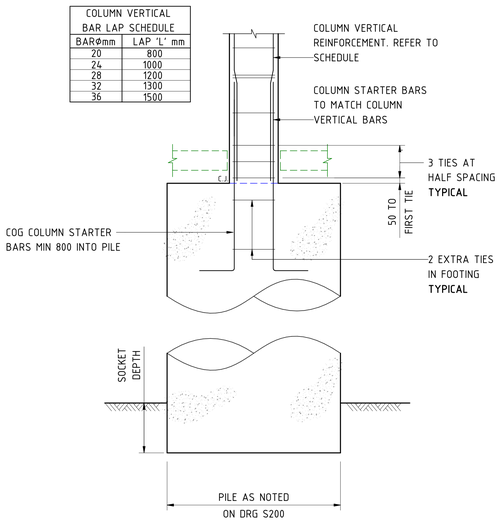
8N20 VERTICAL
N12-200 CLOSED TIES IN PAIRS
30 MIN. COVER TO TIES
f'c = 40 MPa
COLUMN F.R.L. : 120/-/-

CONCRETE COLUMN CC2.H/CC2.J

SCALE 1:10

CONCRETE QUALITY					
ELEMENT	SLUMP	AGGREGATE (MAX SIZE)	CEMENT TYPE	ADMIXTURE	F'c (MPa)
CONCRETE COLUMN	80	20	GP	NIL	40
NOMINAL 56 DAY SHRINKAGE 650 MICROSTRAIN					

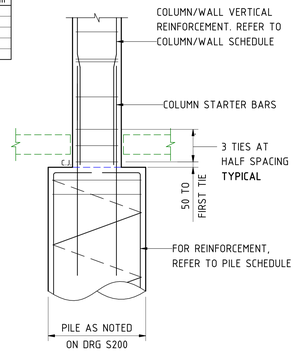
COLUMN VERTICAL BAR LAP SCHEDULE	
BAR⌀mm	LAP 'L' mm
20	800
24	1000
28	1200
32	1300
36	1500



TYPICAL MASS CONCRETE PILE FOOTING DETAIL

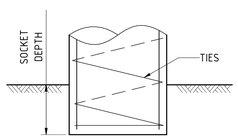
SCALE 1:20

COLUMN VERTICAL BAR LAP SCHEDULE	
BAR⌀mm	LAP 'L' mm
20	800
24	1000
28	1200
32	1300
36	1500



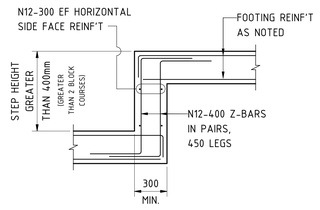
TYPICAL PILE FOOTING DETAIL

SCALE 1:20



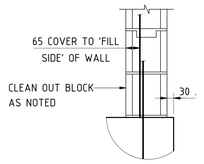
TYPICAL PILE DETAILS

SCALE 1:20



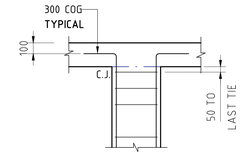
TYPICAL RETAINING WALL FOOTING STEPS

SCALE 1:20



TYPICAL WALL VERTICAL REINFORCEMENT DETAIL

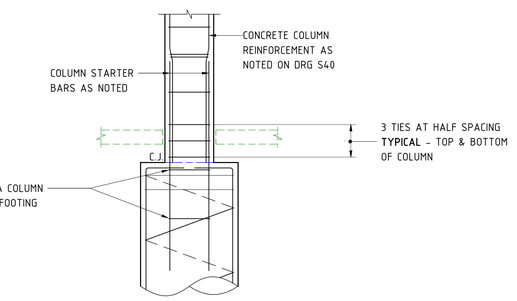
NOT TO SCALE



COLUMN TERMINATION

c.f Figure 5.7

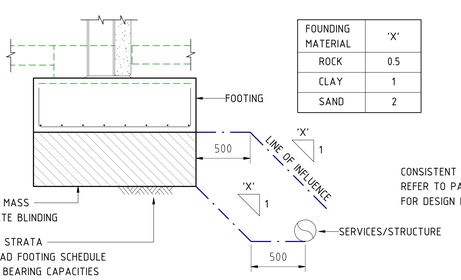
COLUMN VERTICAL BAR LAP SCHEDULE	
BAR⌀mm	LAP 'L' mm
20	800
24	1000
28	1200
32	1300
36	1500



COLUMN START

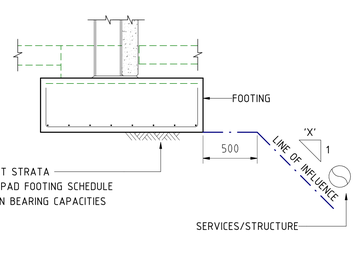
TYPICAL COLUMN START ELEVATION AT PILE

SCALE 1:20



FOUNDING MATERIAL	'X'
ROCK	0.5
CLAY	1
SAND	2

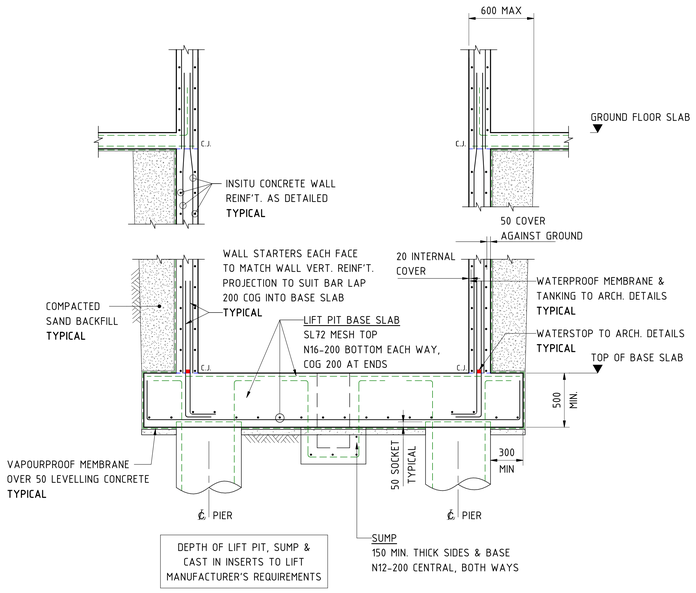
SERVICE/STRUCTURE INSIDE ZONE OF INFLUENCE OF FOOTING



SERVICE/STRUCTURE OUTSIDE ZONE OF INFLUENCE OF FOOTING

TYPICAL FOOTING DETAIL NEAR SERVICES

SCALE 1:20



TYPICAL SECTION THRU' LIFT PIT

SCALE 1:20

FOR TENDER

200mm 0 500 1000 1500 2000mm

SCALE 1:20 AT A0 SIZE SHEET

AMENDMENTS	DATE	ISSUE
ISSUED FOR TENDER, REVISION AS CLOUDED	21.01.21	F
ISSUED FOR 100% DETAILED DESIGN	14.10.20	E
ISSUED FOR 60% DETAILED DESIGN	01.10.20	D
ISSUED FOR INFORMATION	14.09.20	C
COLUMN DETAIL ADDED	12.06.20	B
ISSUED FOR INFORMATION	29.05.20	A

NORTH

ARCHITECT: fjmt

CLIENT: lendlease

PROJECT: FORT STREET PUBLIC SCHOOL
OBSERVATORY HILL
SYDNEY N.S.W. 2000

DESIGNED	DRAWN	DATE	SIZE	SCALE	CAD REF
A.McD.	D.dW.	MAY 2020	A0	AS NOTED	C014100.00 - S201

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Tel: (02) 9251-7600 Fax: (02) 9241-3731
email: mail@costinroe.com.au

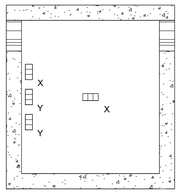
Costin Roe Consulting
PRECISION ACCOUNTABILITY

DRAWING No: FS- ST- DRG- 6- 00- 6- 00

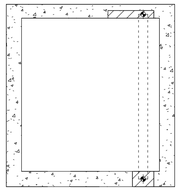
DRAWING TITLE: BUILDING J & H - FOOTING DETAILS

COSTIN ROE REFERENCE No: C014100.00 - S 201

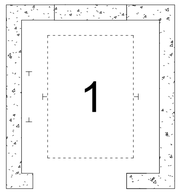
ISSUE: F



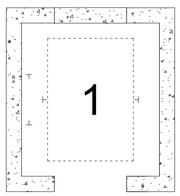
CEILING PLAN
Scale1:50



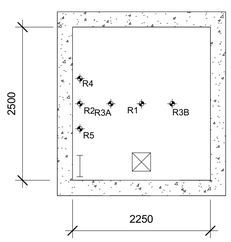
HEAD ROOM PLAN
Scale1:50



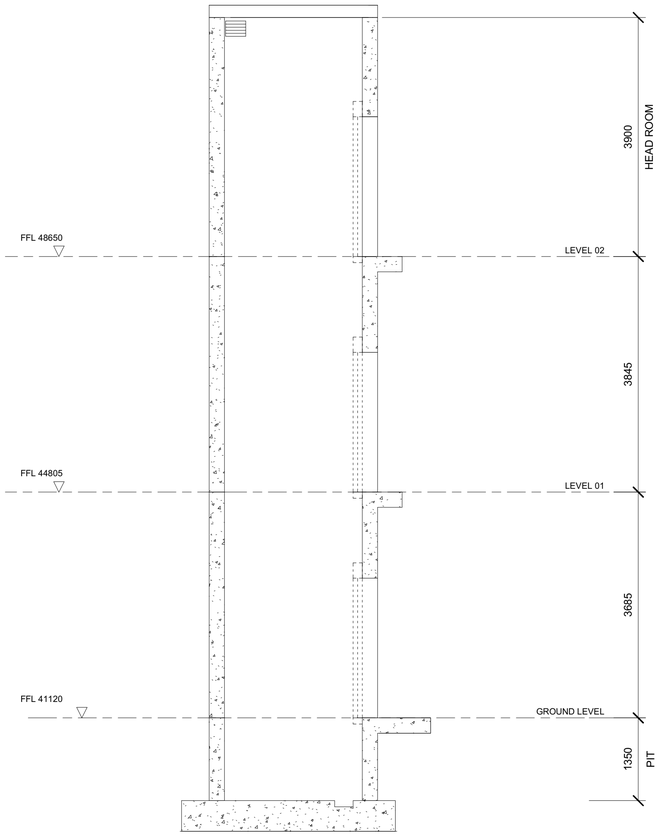
LEVEL 02 - FLOOR PLAN
Scale1:50



TYPICAL LEVEL - FLOOR PLAN
Scale1:50



PIT PLAN
Scale1:50



LIFT WELL SECTION
Scale1:50

LEGEND

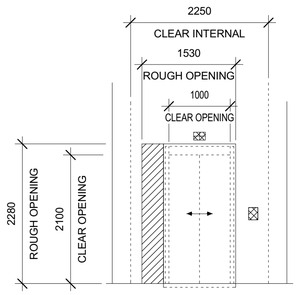
SYMBOL	DESCRIPTION
	HOIST MACHINE BEAM BY LIFT TRADE
	PIT ACCESS LADDER BY LIFT TRADE
	DRY SUMP 300Wx300Hx300D
	LIFTWELL RAIL
	REACTION FORCE LOCATION
	BLOCK OUT
	FULL DEPTH OPENING
	LIFTING EYE BY LIFT TRADE
	FIRE RATED LIFT WELL VENTILATION OPENING SIZE FOR 450 x 450mm CLEAR OPEN AREA. BY MECH TRADE

HEADROOM BEAM REACTIONS (kN)	
H1 = 40	H2 = 50
LIFTING EYES (SWL)	
X = 4000kg	Y = 2500kg

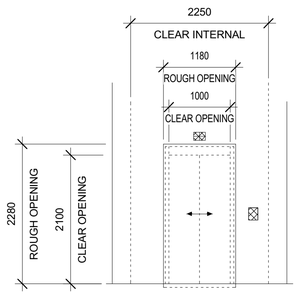
PIT REACTIONS (kN) INCLUDES ALLOWANCE FOR IMPACT		
CAR/CWT BUFFER	R1 = 145	R2 = 120
CAR RAIL	R3A = 120	R3B = 120
CWT RAIL	R4 = 145	R5 = 145

GUIDE RAIL FORCES (kN)		
CAR	Fx = 5.5	Fy = 3
CWT	Fx = 4.5	Fy = 2.5

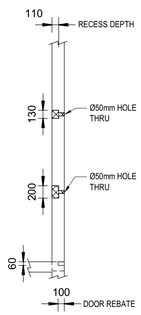
DESCRIPTION OF LIFTS	
LIFT Nos	1
CLASS	A
RATED CAPACITY	17P/1275kg
DRIVE	GEARLESS ELECTRIC TRACTION
SPEED	1.0 mps
CLEAR CAR SIZE	1400W x 2000D x 2200H
DOORS	1000W x 2100H 2PCO



LEVEL 02 - DOOR ELEVATION
Scale1:50



TYPICAL LEVEL - DOOR ELEVATION
Scale1:50



NOTES

1. THIS DRAWING SHOWS TYPICAL BUILDERS WORK DETAILS FOR A GENERIC MRL TRACTION LIFT, AND IS NOT INTENDED TO SHOW ALL DETAILS AND DIMENSIONS FOR EACH MANUFACTURER'S SPECIFIC LIFT REQUIREMENTS.
2. ALL DIMENSIONS ARE TYPICAL ONLY AND WILL REQUIRE REVISION TO SUIT THE LIFT SUB CONTRACTORS SPECIFIC LIFT REQUIREMENTS.
3. ALL BLOCKOUTS, OPENINGS AND CHASES ARE TYPICAL ONLY AND WILL REQUIRE REVISION TO SUIT THE LIFT SUB CONTRACTOR'S SPECIFIC LIFT REQUIREMENTS.
4. ALL REACTIONS ARE TYPICAL ONLY AND WILL REQUIRE REVISION TO SUIT THE LIFT SUBCONTRACTOR'S SPECIFIC LIFT REQUIREMENTS.
5. INSERT LOCATIONS FOR LANDING DOORS, LIFT AND COUNTER WEIGHT RAILS ETC. ARE NOT SHOWN. THE LIFT SUB CONTRACTOR SHALL PROVIDE ALL INSERTS TO THE BUILDER FOR INSTALLATION BY THE BUILDER.
6. THE LIFT SUB CONTRACTOR SHALL CONFIRM ALL FLOOR LEVELS AND OPENINGS ON THE LATEST REVISION OF THE ARCHITECTURAL DRAWINGS PRIOR TO ORDERING LIFT EQUIPMENT.
7. THE LIFT SUB CONTRACTOR SHALL PROVIDE ALL BUILDING WORK DETAILS, INCLUDING REACTIONS, OPENINGS, CHASES, BLOCK OUT DIMENSIONS AND ASSOCIATED LOCATIONS ETC. WITH SUFFICIENT TIME FOR REVIEW AND CHANGES IF REQUIRED AND TO AVOID DELAYS TO THE BUILDING CONSTRUCTION PROGRAM.
8. THE LIFT SUB CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO THE STRUCTURAL ENGINEER FOR REVIEW.
9. LIFTWELL WALL CONSTRUCTION TO BE TO STRUCTURAL ENGINEERS DESIGN

c.f Figure 5.8

THIS DRAWING HAS BEEN DOCUMENTED IN COLOUR
THIS DRAWING IS REQUIRED TO BE PRINTED IN COLOUR
FAILURE TO DO SO MAY RESULT IN LOSS OF INFORMATION
BLACK & WHITE PRINTING MAY BE USED IF SPECIFIC BLACK & WHITE DOCUMENTS HAVE BEEN OBTAINED FROM STANTEC

REV	DESCRIPTION	DRAWN	APP'D	DATE
D	ISSUED FOR TENDER	MCM	MCM	25.01.21
C	ISSUED FOR DETAILED DESIGN PHASE	SRP	KS	21.10.20
B	REVISED ISSUE	KS	MCM	02.10.20
A	PRELIMINARY ISSUE	SRP	KS	25.09.20

lendlease fjmt NSW GOVERNMENT Education School Infrastructure

ARCHITECT/CLIENT

FORT STREET PUBLIC SCHOOL
OBSERVATORY HILL
SYDNEY NSW 2000

PROJECT

BUILDING D - PASSENGER LIFT
BUILDERS WORKS DETAILS

TITLE

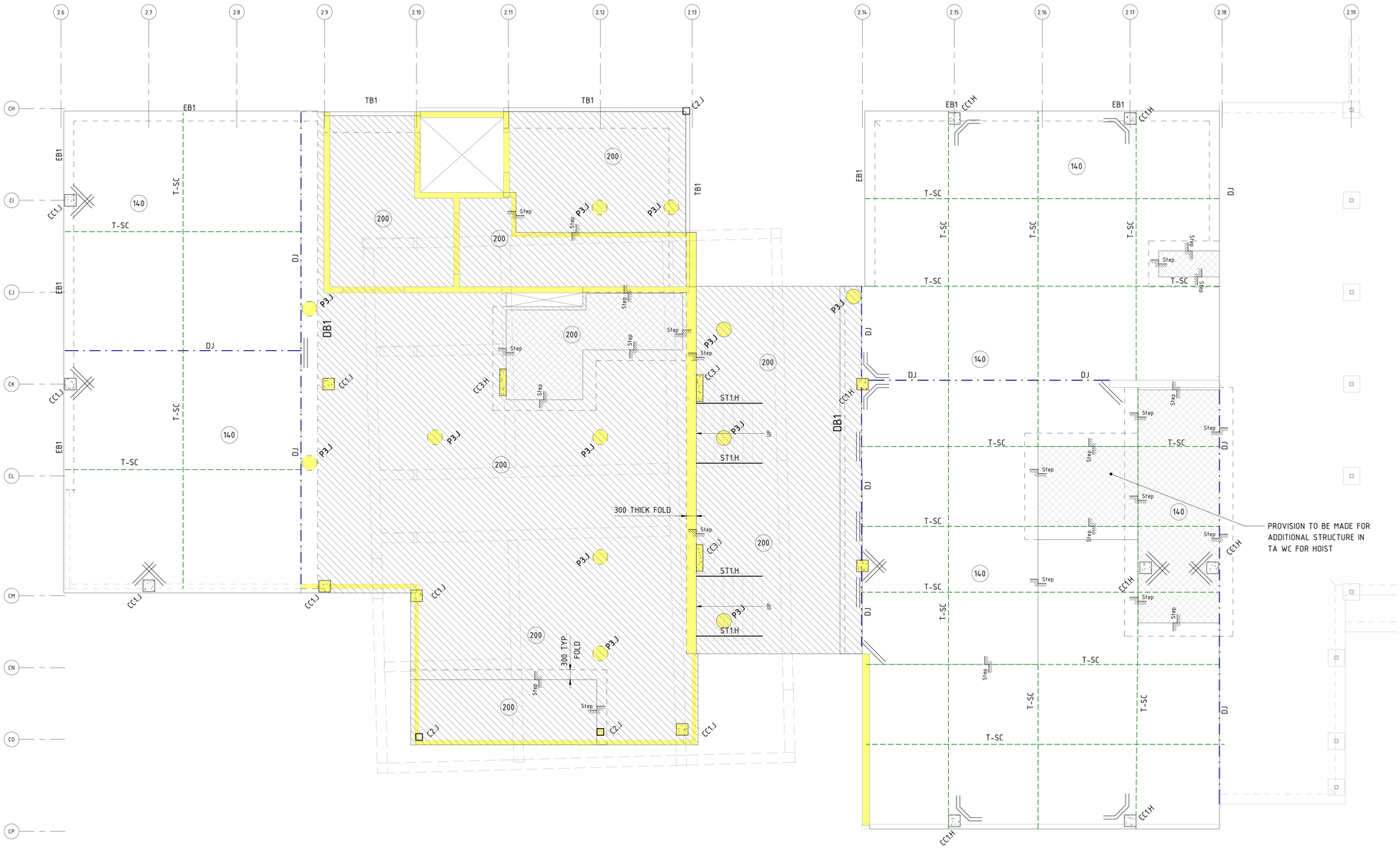
Stantec

TENDER

NOT FOR CONSTRUCTION

VERTICAL TRANSPORTATION SERVICES

SCALE @ A1	PROJECT No	DRAWING No	REV
1 : 50	44553	VT-DRG-000001	D



BUILDING J & H - GROUND FLOOR SLAB PLAN

1 : 50

c.f Figure 5.9

LEGEND:

- T-SC — DENOTES TIED SOFT SAW CUT JOINT
- DJ — DENOTES DOWELLED JOINT
- (140) — DENOTES MINIMUM SLAB THICKNESS (IN mm)
- DENOTES 200 THICK REINFORCED CONCRETE SLAB REINFORCEMENT RATE 120Kg/M³
- DENOTES LOAD BEARING ELEMENTS UNDER
- DENOTES SLAB SETDOWN TO ARCHITECTURAL DETAIL
- 2N16 TRIMMERS, 1500 MIN. LONG (50mm)

CONCRETE QUALITY					
ELEMENT	SLUMP	AGGREGATE (MAX SIZE)	CEMENT TYPE	ADMIXTURE	F'c (MPa)
OFFICE SLAB	80	20	SL	NIL	32
NOMINAL 56 DAY SHRINKAGE 650 MICROSTRAIN					

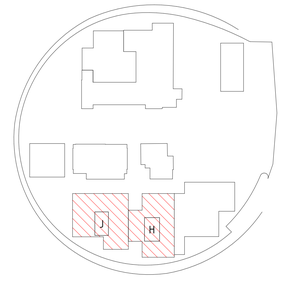
NOTES :

- GROUND FLOOR SLAB THICKNESS TO BE **140mm (U.N.O. ON PLAN)**
  F'c = 32 MPa, OVER 1 LAYERS OF 200 MICRON THICK VAPOURPROOF MEMBRANE, REINFORCED WITH SL82 MESH, 30mm TOP COVER
- ISOLATE ALL COLUMNS USING 20mm & WALLS USING 10mm JOINTEX OR SIMILAR APPROVED.
- SLAB CURING METHOD TO BE COMPATIBLE WITH ARCHITECTURAL FINISHES & CURRENT AUSTRALIAN STANDARDS. CHLORINATED RUBBER RATE TO MANUFACTURERS SPECIFICATION.
- PLACEMENT METHODOLOGY TO BE DETAILED & SUBMITTED FOR REVIEW.
- IF JOINT FILLING SHOULD BE FILLED BEFORE MOST OF THE SLAB SHRINKAGE HAS OCCURRED, SEPARATION SHOULD BE EXPECTED BETWEEN THE JOINT EDGE & THE JOINT FILLER, OR WITHIN JOINT FILLER ITSELF.

CRACKING NOTE :

ATTENTION IS DRAWN TO THE FACT THAT DUE TO THE NATURE OF CONCRETE, CRACKING OF A NON-STRUCTURAL NATURE MAY OCCUR. REINFORCEMENT HAS BEEN ADDED TO THE SLABS TO MITIGATE THE EXTENT OF CRACKING, HOWEVER IT IS NOT POSSIBLE TO GUARANTEE COMPLETE ELIMINATION OF SLAB CRACKING.

STEELWORK MEMBER SCHEDULE		
MARK	MEMBER	SIZE
ST1.H	STAIR STRINGER	250 PFC (TOES OUTWARDS)



KEY PLAN

N.T.S.

AMENDMENTS	DATE	ISSUE
ISSUED FOR TENDER	21.01.21	H
STEP DOWN SLAB ADDED	21.10.20	G
ISSUED FOR 100% DETAILED DESIGN	14.10.20	F
ISSUED FOR 60% DETAILED DESIGN	01.10.20	E
ISSUED FOR INFORMATION	14.09.20	D
GROUND FLOOR SLAB ALTERED TO SUIT NEW DESIGN	27.08.20	C
SLAB SETDOWN UPDATES	12.06.20	B
ISSUED FOR INFORMATION	29.05.20	A

NORTH

ARCHITECT: fjmt

CLIENT: lendlease

PROJECT: FORT STREET PUBLIC SCHOOL
OBSERVATORY HILL
SYDNEY N.S.W. 2000

DESIGNED	DRAWN	DATE	SIZE	SCALE	CAD REF:
A.McD	DdW	MAY 2020	A0	AS NOTED	C014100.00 - S210

Costin Roe Consulting Pty Ltd.
Consulting Engineers ACN 003 696 448
Level 1, 8 Windmill Street
Walsh Bay, Sydney NSW 2000
Tel: (02) 9251-7699 Fax: (02) 9241-3731
email: mail@costinroe.com.au

FOR TENDER

Costin Roe Consulting

PRECISION ACCOUNTABILITY

500mm 0 1 2 3 4 5m

SCALE 1:50 AT A0 SIZE SHEET

DRAWING No: FS- ST- DRG- 2- 00- 6- 10

DRAWING TITLE: BUILDING J & H - GROUND FLOOR SLAB PLAN

COSTIN ROE REFERENCE No: C014100.00 - S 210

ISSUE: H

Notes:

Drawings are based on survey data and may not accurately represent what is physically present.

Do not scale from this drawing. All dimensions are to be verified on site before proceeding with the work.

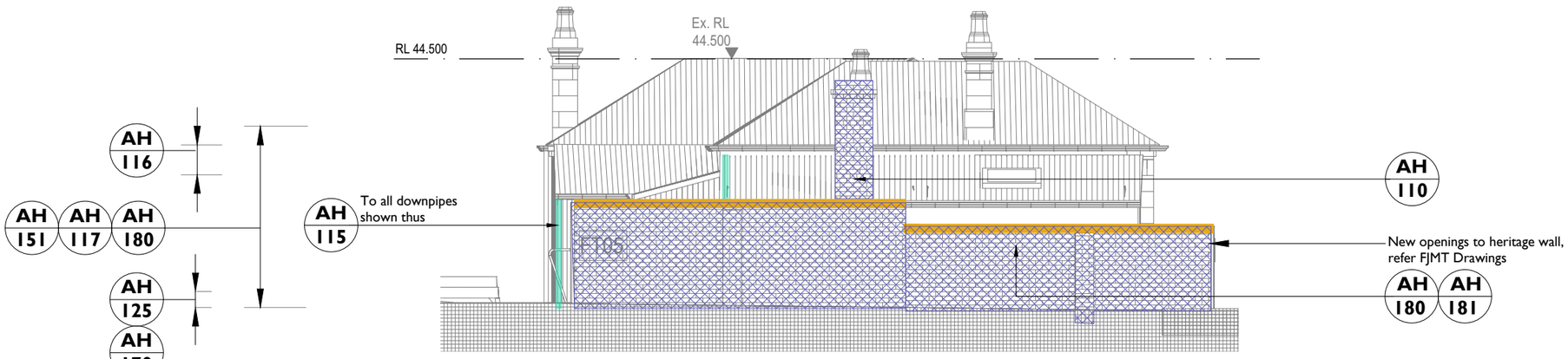
All dimensions are in millimeters unless noted otherwise.

Purcell shall be notified in writing of any discrepancies.

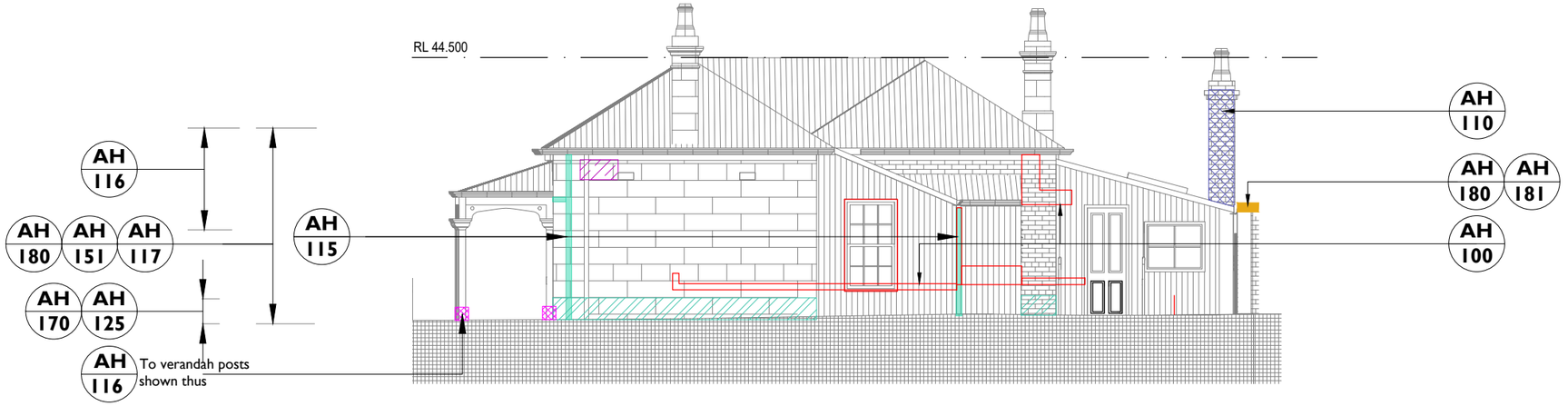
No verification has occurred and conservation works have been annotated to this base.

This drawing is to be read in conjunction with all conservation documentation prepared by Purcell including Schedule of Conservation Works 22 January 2021 and Specification 22 January 2021 as well as specialist structural advice and Architectural documentation.

Drawing based on FJMTs Architectural Documentation.



1/212 South 1:100



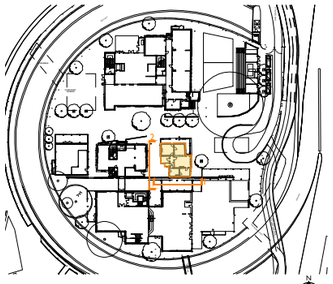
2/212 West 1:100

1:100 Scale

0 1m 2m 3m 5m

CONSERVATION WORKS LEGEND

- New Render - decorative or flat
- Render repair - decorative or flat
- Damp proof course repair
- Face Brick repair / reconstruct
- Paint removal, repair substrate
- Repair / reinstate Rainwater goods
- Concrete & Screed repair
- Timber Repairs
- Metal / Timber frame window repair / replacement
- Metal Repair
- Repair historic building signage
- Wall or roof weathering - flashing/ capping (new, re-dress or repair)
- Existing flooring - salvage, repair/ re-lay
- New framed lining, refer FJMT drawing
- Repair vents
- Item over (eg soffit or ceiling)
- New Works
- Damp Repair hard-plaster brick wall and/or plaster soffit
- Cracking
- Demolition / Removal
- Hard-plaster repair - decorative or flat



Key Plan not to scale

c.f Figure 5.10

Contract Documentation D5 Issue

ISSUE	DATE	DRAWN	CHECKED	DESCRIPTION
2	21 Jan 2021	SN	TS	CAD Drawing Background Update
1	21 Oct 2020	SN	TS	Updated for 100% issue
First Issue	07 Aug 2012	SN	TS	

CLIENT	Lendlease
PROJECT	Fort Street Public School
DRAWING TITLE	Building C Proposed Elevation - South & West
SIZE & SCALE	A3L 1:100
DRAWING STATUS	ISSUED FOR APPROVAL
JOB NUMBER	240067
DRAWING NO.	AH-DRG-102212
REVISION	2

PURCELL

Office #25, The Commons Central, 20-40 Meagher St, Chippendale NSW 2008
Nominated Architect NSW: Tracey Skowronek 11029 ABN: 23 609 207 301

FOR CONTINUATION REFER TO FS-HY-DRG-201110

FOR CONTINUATION REFER TO FS-HY-DRG-201310

ALLOW TO CONNECT TO INGROUND CIVIL STORMWATER DRAINAGE

ALLOW TO CONNECT TO INGROUND CIVIL STORMWATER DRAIANGE SYSTEM (TYPICAL).

RL 39.575 (TOP OF GULLEY)

ALLOW TO PROVIDE A REFULX VALVE WITHIN A SEALED INGROUND PIT 600MM (W) X 600MM (L) X (D) ON THE SEWER DRAINAGE SYSTEM WITH A CLASS 'D' LID. ALLOW TO PROVIDE PVC RISER AND HANDLE TO A HEIGHT WITHIN 100MM OF THE UNDERSIDE OF THE PIT LID.

REFER TO FS-HY-DRG-000010 FOR CONTINUATION.

ALLOW TO CONNECT TO SYDNEY WATER SEWER MAIN.

BOUNDARY TRAP

ALLOW TO CONNECT TO INGROUND CIVIL STORMWATER DRAINAGE

ALLOW TO CONNECT TO INGROUND CIVIL STORMWATER DRAINAGE

ALLOW TO PROVIDE A REFULX VALVE WITHIN A SEALED INGROUND PIT 600MM (W) X 600MM (L) X 1250MM (D) ON THE SEWER DRAINAGE SYSTEM WITH A CLASS 'D' LID.

INGROUND SANITARY DRAINAGE SERVICES RETICULATION SHOWN INDICATIVELY. REFER TO CIVIL ENGINEER TRENCH DETAIL FOR LOCATION.

ALLOW TO CONNECT TO INGROUND CIVIL STORMWATER DRAINAGE

ALLOW TO CONNECT TO NEARBY INGROUND CIVIL STORMWATER PIT. REFER TO CIVIL ENGINEER DOCUMENTATION FOR EXACT LOCATION. ALLOW TO INSTALL FROG FLAP DEVICE ON OUTLET OF OVERFLOW PIPE FOR MAINTENANCE PURPOSES.

ALLOW TO CONNECT TO INGROUND CIVIL STORMWATER DRAINAGE

COLD SHELL SCOPE. REFER TO FS-HY-SOW-90002

ALLOW TO CONNECT TO INGROUND CIVIL STORMWATER DRAIANGE SYSTEM.

ALLOW TO CONNECT TO NEARBY INGROUND CIVIL STORMWATER PIT. REFER TO CIVIL ENGINEER DOCUMENTATION FOR EXACT LOCATION. ALLOW TO INSTALL FROG FLAP DEVICE ON OUTLET OF OVERFLOW PIPE FOR MAINTENANCE PURPOSES.

ALLOW TO CONNECT TO NEARBY INGROUND CIVIL STORMWATER PIT. REFER TO CIVIL ENGINEER DOCUMENTATION FOR EXACT LOCATION. ALLOW TO INSTALL FROG FLAP DEVICE ON OUTLET OF OVERFLOW PIPE FOR MAINTENANCE PURPOSES.

c.f Figure 5.11

HYDRAULIC SERVICES PIPEWORK IS DRAWN OUT OF STRATA

PIPEWORK IS DRAWN AS VIEWED OUT OF STRATA

NORTH POINT

NOT SCALE FROM DRAWINGS, CHECK & VERIFY ALL DIMENSIONS & LEVELS BEFORE COMMENCEMENT OF ANY WORK.
THIS DRAWING IS REQUIRED TO BE PRINTED IN COLOUR. FAILURE TO DO SO MAY RESULT IN LOSS OF INFORMATION.

KEY PLAN

REV	AMENDMENT	DATE
05	CONTRACT DOCUMENTATION ISSUE	12/03/2021
04	CONTRACT DOCUMENTATION ISSUE	22/01/2021
03	100% DETAILED DESIGN	21/10/2020
02	DRAFT 100% DETAILED DESIGN	14/10/2020
01	60% DETAILED DESIGN	30/09/2020

PROJECT
Fort Street Public School
Observatory Hill, Upper Fort St, Millers Point NSW 2000

ARCHITECT
fjmt studio architecture interiors landscape urban community
sydney melbourne uk
Level 5, 70 King Street t +61 2 9251 7077 w fjmtstudio.com

CLIENT
NSW GOVERNMENT
School Infrastruture

Warren Smith & Partners Pty Ltd
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02 9299 1312 wsp@warrensmith.com.au
www.warrensmith.com.au ABN 36 300 430 126
CONSULTING ENGINEERS
Hydraulic Services Fire Services
Civil Services Sydney Water Accredited Water Servicing Co-ordinator and Designer
SERVING THE CONSTRUCTION INDUSTRY SINCE 1981.

TITLE
GROUND FLOOR SOUTH - DRAINAGE SERVICES

SCALE	DRAWN	DESIGNED	CHECKED	APPROVED
1 : 100	SZ	JS	SS	DP

DATE 09/08/20
JOB No. 6469001
DRAWING No. FS-HY-DRG-201210
REV 05

SHEET SIZE: A1

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ALLOW TO PROVIDE QMAX PUMPING SYSTEMS HYDRO Q5 OR EQUIVALENT FOR RAINWATER REUSE.
ALLOW TO PROVIDE PRESSURE REDUCING VALVE FOR INGROUND IRRIGATION SUPPLY.
POWER REQUIREMENT: 1 X 15AMP SINGLE PHASE GPO

PCW 32

ALLOW TO PROVIDE ZIP ALL IN ONE (BOILING/CHILLED/HEATED/COLD) UNDERSINK UNIT WITH SENSOR TAPS FOR TEA SINK.
POWER REQUIREMENT: 2.2kW / 240V

HOSE TAP FOR MANUAL IRRIGATION

FOR

FOR CONTINUATION REFER TO FS-HY-DRG-202110

PCW 32(PE100)

HOSE TAP FOR OVERFLOW RELIEF GULLY

PCW 20 [B]

PCW 32

ALLOW TO PROVIDE IRRIGATION HOSE TAP WITH VACCUUM BREAKER ADJACENT TO PUMPSET FOR MANUAL IRRIGATION. ALLOW TO PROVIDE INGROUND CAPPED CONNECTION POINT FOR LANDSCAPE DRIP IRRIGATION SYSTEM.

RAINWATER TANK POTABLE COLD WATER TOP UP SUPPLY. ALLOW TO LOCATE TOP UP SUPPLY PIPE ABOVE THE OVERFLOW OUTLET OF THE RAINWATER TANK (AIR GAP).

POTABLE COLD WATER SUPPLY TO DRINKING FOUNTAINS.

PCW 25

PCW 25(CU)-[B]

PCW 25(PE100)

PCW 25(CU)

PCW 32(PE100)[B]

PCW 63(PE100)

INGROUND WATER SERVICES RETICULATION SHOWN INDICATIVELY. REFER TO CIVIL ENGINEER TRENCH DETAIL FOR LOCATION.

ELECTRIC INSTANTANEOUS WATER HEATER STAFF WC(EOT)
3 - PHASE 27kW / 40AMP / 415V

ELECTRIC INSTANTANEOUS WATER HEATER STAFF WC(EOT)
3 PHASE 27KW / 40AMP / 415V

ALLOW TO PROVIDE ZIP ALL IN ONE (BOILING/CHILLED/HEATED/COLD) UNDERSINK UNIT WITH SENSOR TAPS FOR TEA SINK.
POWER REQUIREMENT: 2.2kW / 240V

HOSE TAP FOR OVERFLOW RELIEF GULLY

LOT 5 SYDNEY WATER METER AND BACKFLOW ASSEMBLY. SYDNEY WATER RESPONSE TO DETERMINE FINAL LOCATION.

TMV IN BOX

PCW 20(CU)

ELECTRIC INSTANTANEOUS WATER HEATER (CANTEEN/KITCHEN)
STIEBEL ELTRON 3 - PHASE
27kW / 40AMP / 415V

COLD SHELL SCOPE. REFER TO FS-HY-SOW-90002

PCW 40(CU)

PCW 50(PE100)

ALLOW TO PROVIDE ZIP ALL IN ONE (BOILING/CHILLED/HEATED/COLD) UNDERSINK UNIT WITH SENSOR TAPS FOR TEA SINK.
POWER REQUIREMENT: 2.2kW / 240V

ALLOW TO PROVIDE DUAL 25mm BACKFLOW PREVENTION DEVICES AND VARIABLE SPEED DRIVEN COLD WATER SERVICES PUMPSET
POWER REQUIREMENT: 2 X 1.5kW / 415V / 5.8A AND 2 X 10A GPO'S

ALLOW TO PROVIDE IRRIGATION HOSE TAP WITH VACCUUM BREAKER ADJACENT TO PUMPSET FOR MANUAL IRRIGATION. ALLOW TO PROVIDE INGROUND CAPPED CONNECTION POINT FOR LANDSCAPE DRIP IRRIGATION SYSTEM.

ALLOW TO PROVIDE IRRIGATION HOSE TAP WITH VACCUUM BREAKER ADJACENT TO PUMPSET FOR MANUAL IRRIGATION. ALLOW TO PROVIDE INGROUND CAPPED CONNECTION POINT FOR LANDSCAPE DRIP IRRIGATION SYSTEM.

RAINWATER TANK POTABLE COLD WATER TOP UP SUPPLY. ALLOW TO LOCATE TOP UP SUPPLY PIPE ABOVE THE OVERFLOW OUTLET OF THE RAINWATER TANK (AIR GAP).

ALLOW TO PROVIDE TRAP PRIMER TO CHARGE FLOORWASTE IN CLEANERS STORE.
POWER: 1 X GPO

ALLOW TO PROVIDE QMAX PUMPING SYSTEMS HYDRO Q5 OR EQUIVALENT FOR RAINWATER REUSE. ALLOW TO PROVIDE PRESSURE REDUCING VALVE FOR INGROUND IRRIGATION SUPPLY.
POWER REQUIREMENT: 1 X 15AMP SINGLE PHASE GPO

ELECTRIC INSTANTANEOUS WATER HEATER (TEACHER WC)
3 - PHASE 27kW / 40AMP / 415V

RAINWATER TANK POTABLE COLD WATER TOP UP SUPPLY. ALLOW TO LOCATE TOP UP SUPPLY PIPE ABOVE THE OVERFLOW OUTLET OF THE RAINWATER TANK (AIR GAP).

ALLOW TO PROVIDE QMAX PUMPING SYSTEMS HYDRO Q5 OR EQUIVALENT FOR RAINWATER REUSE.
ALLOW TO PROVIDE PRESSURE REDUCING VALVE FOR INGROUND IRRIGATION SUPPLY.
POWER REQUIREMENT: 1 X 15AMP SINGLE PHASE GPO

c.f Figure 5.12

PIPEWORK IS DRAWN AS VIEWED BETWEEN FLOOR LEVELS

HYDRAULIC SERVICES PIPEWORK IS DRAWN AS VIEWED BETWEEN FLOOR LEVELS

NORTH POINT

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KEY PLAN

REV	AMENDMENT	DATE
04	CONTRACT DOCUMENTATION ISSUE	22/01/2021
03	100% DETAILED DESIGN	21/10/2020
02	DRAFT 100% DETAILED DESIGN	14/10/2020
01	60% DETAILED DESIGN	30/09/2020

PROJECT
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www.warrensmith.com.au ABN 36 300 430 126
CONSULTING ENGINEERS
Hydraulic Services Fire Services
Civil Services Sydney Water Accredited Water Servicing Co-ordinator and Designer
SERVING THE CONSTRUCTION INDUSTRY SINCE 1981.

TITLE
GROUND FLOOR SOUTH - WATER SERVCES

SCALE	DRAWN	DESIGNED	CHECKED	APPROVED
1 : 100	SZ	JS	SS	DP

DATE 09/08/20
DRAWING No. FS-HY-DRG-202210
REV 04
JOB No. 6469001

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SHEET SIZE: A1

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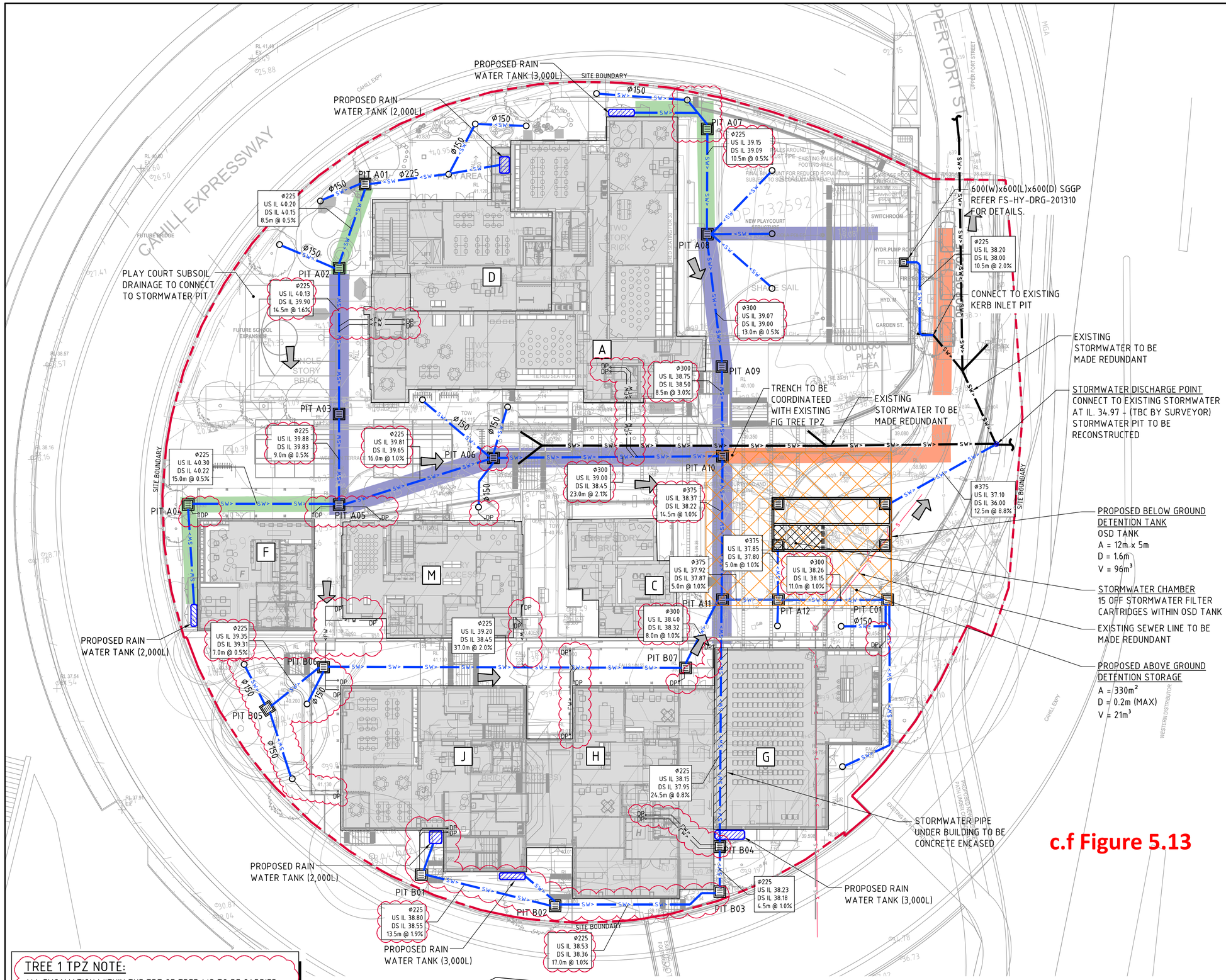


LEGEND:

LEVELS DATUM IS AHD.

EXISTING SITE LEVELS AND DETAILS BASED ON SURVEY INFORMATION PROVIDED.

- SGGP, SINGLE GRATED GULLY PIT
- RWO, RAINWATER OUTLET
- GD, GRATED DRAIN
- PROPOSED DRAINAGE LINE
- EXISTING DRAINAGE LINE
- ROOFWATER DOWNPIPE (INDICATIVE)
- ROOFWATER LINE
- EXISTING SEWER LINE
- PROPOSED RAINWATER TANK
- OVERLAND FLOW DIRECTION
- DENOTES SHARED TRENCH - TYPE 1
  - STORMWATER
  - POWER
  - COMMS
  - HYD
  - FIRE
  - SEWER
- DENOTES SHARED TRENCH - TYPE 2
  - HYD
  - FIRE
  - POWER
  - SEWER
- DENOTES SHARED TRENCH - TYPE 3
  - STORMWATER
  - HYD/SEWER
- DENOTES ABOVE GROUND DETENTION STORAGE

PIT SCHEDULE

PIT No.	GRATE RL	TYPE	SIZE	COMMENT
PIT A01	41.03	S.G.G.P	900x900	
PIT A02	41.12	S.G.G.P	900x900	
PIT A03	40.73	S.G.G.P	900x900	
PIT A04	41.16	S.G.G.P	900x900	
PIT A05	41.16	S.G.G.P	900x900	
PIT A06	40.95	S.G.G.P	900x900	
PIT A07	40.00	S.G.G.P	900x900	
PIT A08	40.00	S.G.G.P	900x900	
PIT A09	40.10	S.G.G.P	900x900	
PIT A10	39.35	S.G.G.P	900x900	
PIT A11	39.50	S.G.G.P	900x900	
PIT A12	39.45	S.G.G.P	900x900	
PIT B01	40.01	S.G.G.P	900x900	
PIT B02	39.40	S.G.G.P	900x900	
PIT B03	39.75	S.G.G.P	900x900	
PIT B04	39.64	S.G.G.P	900x900	
PIT B05	40.20	S.G.G.P	900x900	
PIT B06	41.10	S.G.G.P	900x900	
PIT B07	39.75	S.G.G.P	900x900	
PIT C01	39.50	S.G.G.P	900x900	

NOTE:
ALL SURFACE INLET PITS TO BE FITTED WITH OCEAN PROTECT OCEAN GUARD PIT INSERTS.

NOTE:
ALL NEW ROOF AREAS TO DISCHARGE TO PROPOSED RAINWATER TANK WITH OVERFLOW TO NEAREST STORMWATER PIT U.N.O.

TREE 1 TPZ NOTE:
ALL EXCAVATION WITHIN THE TPZ OF TREE 1 IS TO BE CARRIED OUT UNDER THE DIRECTION AND SUPERVISION OF THE SITE ARBORIST (AQF LEVEL 5 QUALIFICATIONS).

STORMWATER DRAINAGE PLAN

SCALE 1:200

2m 0 5 10 15 20m

SCALE 1:200 AT A1 SIZE SHEET

FOR TENDER

AMENDMENTS	DATE	ISSUE
ISSUED FOR TENDER	22.01.21	G
FINAL 100% DETAILED DESIGN ISSUE	21.10.20	F
CIVIL 100% DETAILED DESIGN ISSUE	14.10.20	E
CIVIL 60% DETAILED DESIGN ISSUE	01.10.20	D
REVISED AS CLOUDED	30.09.20	C
REVISED AS CLOUDED	14.09.20	B

ARCHITECT: fjmt

CLIENT: lendlease

PROJECT: FORT STREET PUBLIC SCHOOL
OBSERVATORY HILL
SYDNEY, NSW, 2000

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF:
XC	MdW	AUG '20	-	A1	AS NOTED	FS-CV-DRG-104000

Costin Roe Consulting Pty Ltd.
Consulting Engineers ACN 003 696 446
Level 1, 8 Windmill Street
Walsh Bay, Sydney NSW 2000
Tel: (02) 9251-7699 Fax: (02) 9241-3731
email: mail@costinroe.com.au ©

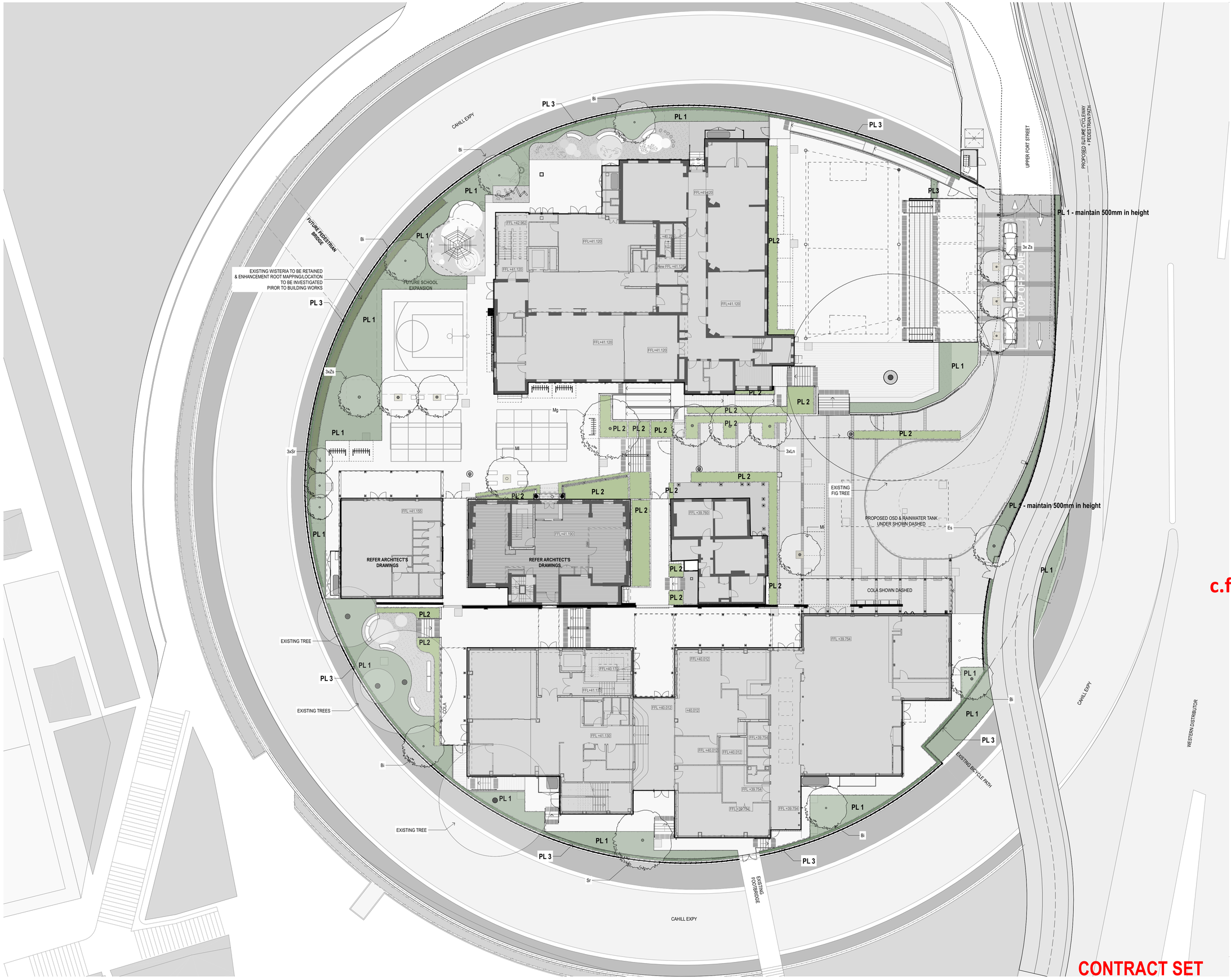
Costin Roe Consulting

PRECISION | COMMUNICATION | ACCOUNTABILITY

DRAWING TITLE: STORMWATER DRAINAGE PLAN

DRAWING No: FS-CV-DRG-1040000

ISSUE: G



0 2 5 10m

GENERAL NOTES

- ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR BEFORE PROCEEDING WITH THE WORK.
- ALL LEVELS RELATIVE TO 'AUSTRALIAN HEIGHT DATUM'.
- DO NOT SCALE DRAWINGS. USE FIGURED DIMENSIONS ONLY.

legend

PROPOSED TREES

EXISTING TREES TO BE RETAINED

TRF

PL 1 - Total Area: 522m²

PL 2 - Total Area: 210m²

PL 3 - Total Lineal Meters: 246Lm

PL 4 - Total Area: 110m²

Landscape Planting Schedule

CODE	BOTANICAL NAME	COMMON NAME
	TREES	
Ln	*Lagerstroemia indica "Natchez"*	Crepe Myrtle
Zs	*Zelkova serrata 'Green Vase'*	Japanese Zelkova
Mg	*Magnolia Grandiflora*	Southern Magnolia
Ml	*Magnolia 'Little Gem'*	Little Gem
Es	*Eucalyptus saligna*	Sydney Bluegum
Bi	*Banksia integrifolia*	Coast Banksia
Sr	*Syzigium resilience*	Lilly Pilly
	PL 1 - Perimeter planting	
	Banksia spinulosa	Creeping Banksia
	Casuarina glauca Cousin It	Dwarf sheoak
	Correa alba	White Correa
	Dianella caerulea "breeze"	Blue Flax-lily 'Breeze'
	Dichondra repens	Kidney Weed
	Juniperus conferta	Shore Juniper
	Liriope mascari 'Isabella'	Dwarf Liriope
	Lomandra katrinus	Lomandra
	Pandorea pandorana	Wonga Wonga Vine
	Russelia equisetoformis	Fore cracker plant
	Trachelospermum jasminoides	Star Jasmine
	Viola hederacea	Native violet
	Westeria sinensis	Chinese wisteria
	Westringia Zena	Coast Rosemary
	PL 2 - Heritage planting	
	Buxus sempervirens	Boxes
	Liriope mascari 'Isabella'	Dwarf Liriope
	Rhaphiolepsis indica 'Oriental Pearl'	Indian Hawthron
	Syzigium'Tiny Trev'	Lilly Pilly
	Viola hederacea	Native violet
	PL3 - Planting to perimeter fence	
	Trachelospermum asiaticum	Jasmine
	Westeria sinensis	Chinese wisteria
	PL4 - Fig tree planting	
	Philodendron 'Xanadu'	Xanadu Philodendron

c.f Figure 5.14

rev	date	name	by	chk
07	22/1/21	Contract Set Issue	EM	RT
06	21/10/20	100% DD Documentation	MMG	RT
05	28/9/20	Landscape Design Development Phase, 60% Documentation	MZ	RT
04	27/9/20	Preliminary For Review	MZ	RT
03	12/6/20	Schematic Design Initiatives - ECI VM Phase Submission	AWY	RT
02	5/6/20	Preliminary for Coordination	MZ	RT
01	27/5/20	Preliminary for Review	MZ	RT

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project

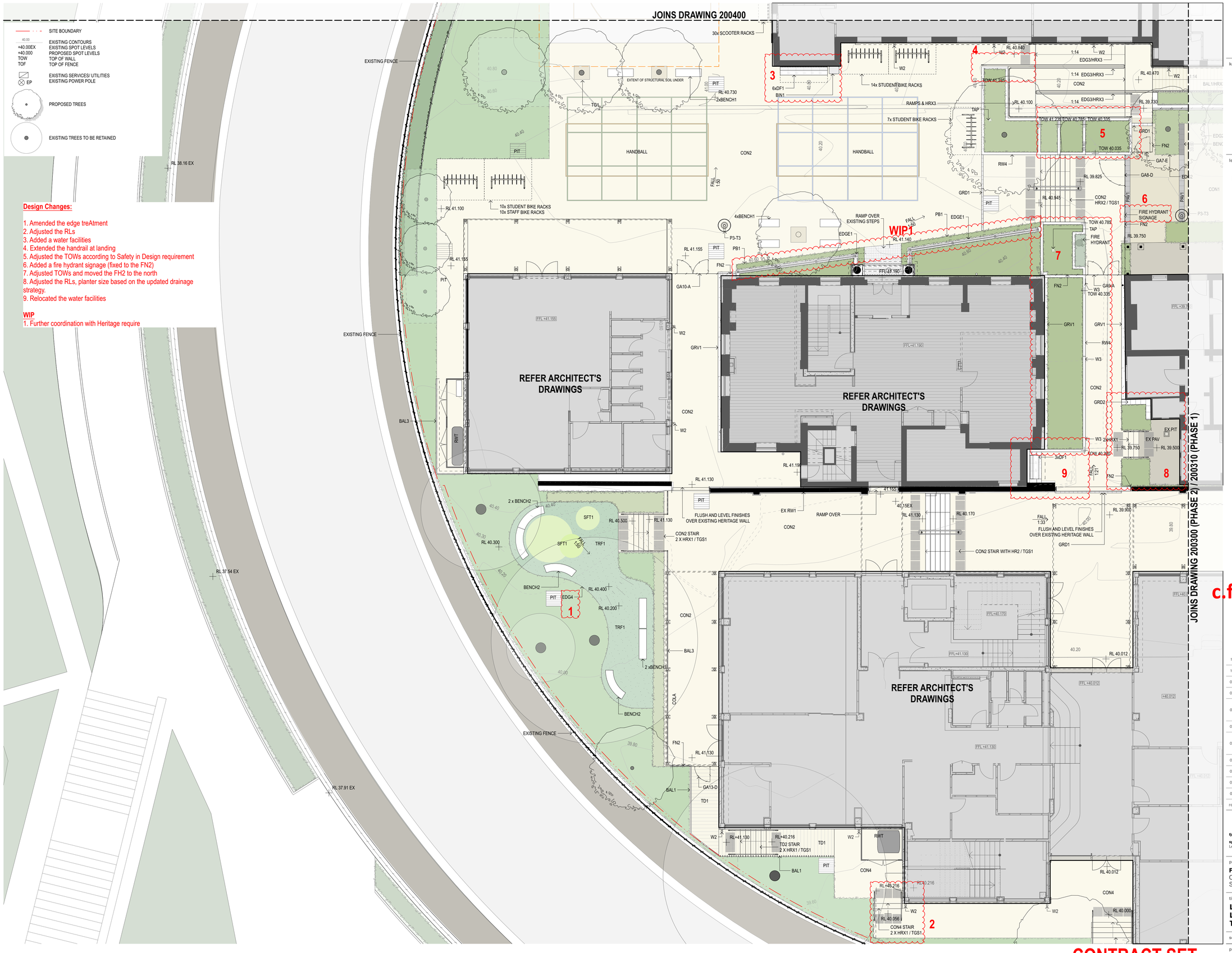
Fort Street Public School
Observatory Hill
Sydney NSW 2000

title

Landscape
Landscape Planting Ground Plan - Phase 2

scale	1:200 @ A1	first issued	27/5/20
project code		sheet no.	revision
FSS	LA_DRG_**100014**		**07**

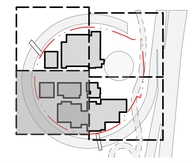
CONTRACT SET



GENERAL NOTES

- ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR BEFORE PROCEEDING WITH THE WORK.
- ALL LEVELS RELATIVE TO 'AUSTRALIAN HEIGHT DATUM'.
- DO NOT SCALE DRAWINGS. USE FIGURED DIMENSIONS ONLY.

keyplan



legend

CODE	ITEM
ASP	Asphalt
BAL1	Balustrade
BAL2	Balustrade
BAL3	Balustrade
BENCH1-5	Bench type 1- 5
BIN1	Bins
BL1	Bollard
CON1 - 4	Concrete Pavement Type 1 - 5
DF1	Drinking Fountain
EDG1 -5	Edge type 1 -5
FN1	Ball court Fence
FN2	Palisade fence
FP1	Flag Pole
GA1-D	GA1-D
GA10-A	GA10-A
GA11-C	GA11-C
GA13-D	GA13-D
GA14-A	GA14-A
GA2-D	GA2-D
GA3-B	GA3-B
GA4-B	GA4-B
GA5-E	GA5-E
GA6-A	GA6-A
GA7-E	GA7-E
GA8-D	GA8-D
GA9-A	GA9-A
P	External GPO
GRD1	Grated Drain
GRD2	Dish Drain
GRV1	Gravel
HOOP	Basketball Ring
HRX1	External Single Handrail
HRX2	External Double Handrail
HRX3	External Single Handrail
LIN1	Line marking
LIN2	RMS Line marking
MPB1-5	Mass planting 1-5
MUL1	Mulch
EXPAV	Existing Paving to be retained
PAV1-4	Paving type 1 - 4
PIT1	Stormwater pit
PB1	Planter Heritage interface
RW1 - 5	Wall Type 1 -5
RWT	Rain water tanks
SFT1	Softfall
SN1 - 2	Stair Nosing Type 1 -2
SC1	Shade cloth
PC1	Pole protective cushion
POLE 1	Structural support posts
TD1	Timber Decking
TD2	Timber Stair treads
TG1	Tree Grate 1
TGSI 1 - 2	Tactile Indicators 1 -2
TRF1	Turf Type1
W2, P1, P3-T3, V1	Lightings

c.f Figure 5.15

CONTRACT SET

rev	date	name	by	chk
11	22/1/21	Contract Set Issue	EM	RT
10	18/12/20	Draft for Tender Coordination	AWY	RT
09	21/10/20	100% DD Documentation	MMG	RT
08	7/10/20	Issue 100% DD Documentation - DRAFT	MZ	RT
07	28/9/20	Landscape Design Development Phase, 60% Documentation	MZ	RT
06	27/9/20	Preliminary For Review	MZ	RT
05	12/6/20	Schematic Design Initiatives - ECI VM Phase Submission	AWY	RT
04	5/6/20	Preliminary for Coordination	MZ	RT
03	27/5/20	Preliminary for Review	MZ	RT
02	18/12/19	Preliminary Schematic Design	CTK	RT
01	15/11/19	Preliminary Schematic Design	AWY	RT

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project
Fort Street Public School
Observatory Hill
Sydney NSW 2000

title
Landscape
Landscape Ground Floor Southern Terrace Zone

scale	1:100 @ A1	first issued	15/11/19

project code	sheet no.	revision
FSS	LA_DRG_**200200**	**11**

curio

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