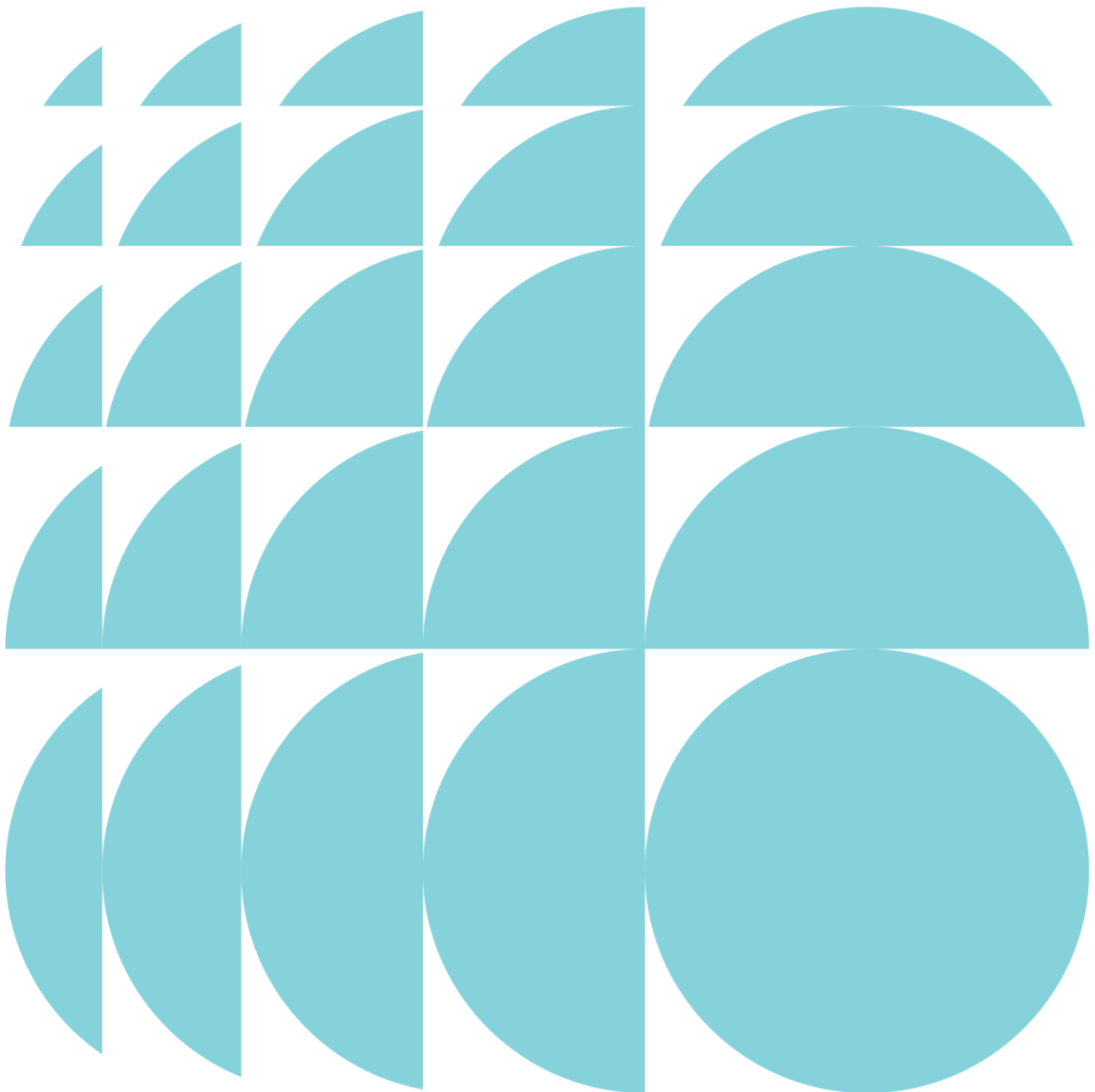


Statement of Environmental Effects

52 Scott Street, Liverpool
Early Works Integrated Development Application

Submitted to Liverpool City Council
On behalf of Built Development Group

12 December 2019 | 2190932



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1.0 Introduction

This Statement of Environmental Effects (SEE) is submitted to Liverpool City Council (Council) in support of a Development Application (DA) for site preparation and early works at 52 Scott Street, Liverpool.

The DA seeks approval for:

- Demolition of all existing structures on land at 52 Scott Street;
- Removal of seven (7) trees including six (6) trees on an adjacent site at 306-310 Macquarie Street; and
- Bulk earthworks to a maximum depth of RL 10.35, including shoring through the use of piles.

This SEE has been prepared by Ethos Urban on behalf of Built Development Group and is based on Demolition Plans prepared by FJMT (**Appendix A**), Civil Engineering Drawings prepared by RBG (**Appendix B**) and other supporting technical information appended to the report (see Table of Contents).

This report describes the site, its environs and the proposed development, and provides an assessment of the environmental impacts and identifies the steps to be taken to protect or lessen the potential impacts on the environment.

The DA is integrated development under section 4.46 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and requires an Aquifer Interference Approval from the NSW Office of Water under section 91 of the *Water Management Act 2000*.

2.0 Background

The proposal relates to the broader Liverpool Civic Place site redevelopment plan which is detailed within the Concept DA (DA/485/2019) submitted to Council on 17 September 2019. Specifically, the Concept Proposal seeks approval for various uses within proposed building envelopes, including:

- A building envelope with a maximum height of RL 43.45 for the purpose of an information and education facility (public library) use;
- A building envelope with a maximum height of RL 84.25 for the purpose of a public administration building use, and either (or a combination of) commercial premises or child-care centre uses;
- A building envelope with a maximum height of RL 118.85 which will accommodate either (or a combination of) commercial premises, educational establishments, tourist and visitor accommodation or boarding house (student accommodation) uses;
- A landscaping and public domain concept including the provision of a public through-site link running north to south through the site, connecting Scott Street to the north through to Terminus Street to the south; and
- A building envelope for a three-level shared basement car park across the entire site to accommodate parking for all future uses (approximately 413 spaces, to be determined as part of future detailed DAs) and accommodating a public car park to be owned by Council.

The detailed design of Liverpool Civic Place will be subject to separate detailed development applications. An indicative detailed design is however provided at **Figure 1**. The benefits of this approach would allow the expedited local assessment and determination of an application for these 'early works', which are key to ensuring the development can be delivered in a timely manner.



Figure 1: Indicative photomontage of the Concept Proposal

Source: FJMT

3.0 Site Analysis

3.1 Site Location and Context

The Liverpool Civic Place site (the subject of the wider Concept DA) is located at 52 Scott Street and 306-310 Macquarie Street, Liverpool within the Liverpool Local Government Area. However, the early works predominantly relate to the 52 Scott Street site, with only tree removal proposed on the adjacent site at 306-310 Macquarie Street.

The site is located approximately 300m south west of Liverpool Railway Station and is also in the vicinity of a number of regionally significant land uses and features including Liverpool Hospital, Westfield Liverpool, Western Sydney University Liverpool Campus, the Georges River and Bigge Park public open space as illustrated at **Figure 2** below.

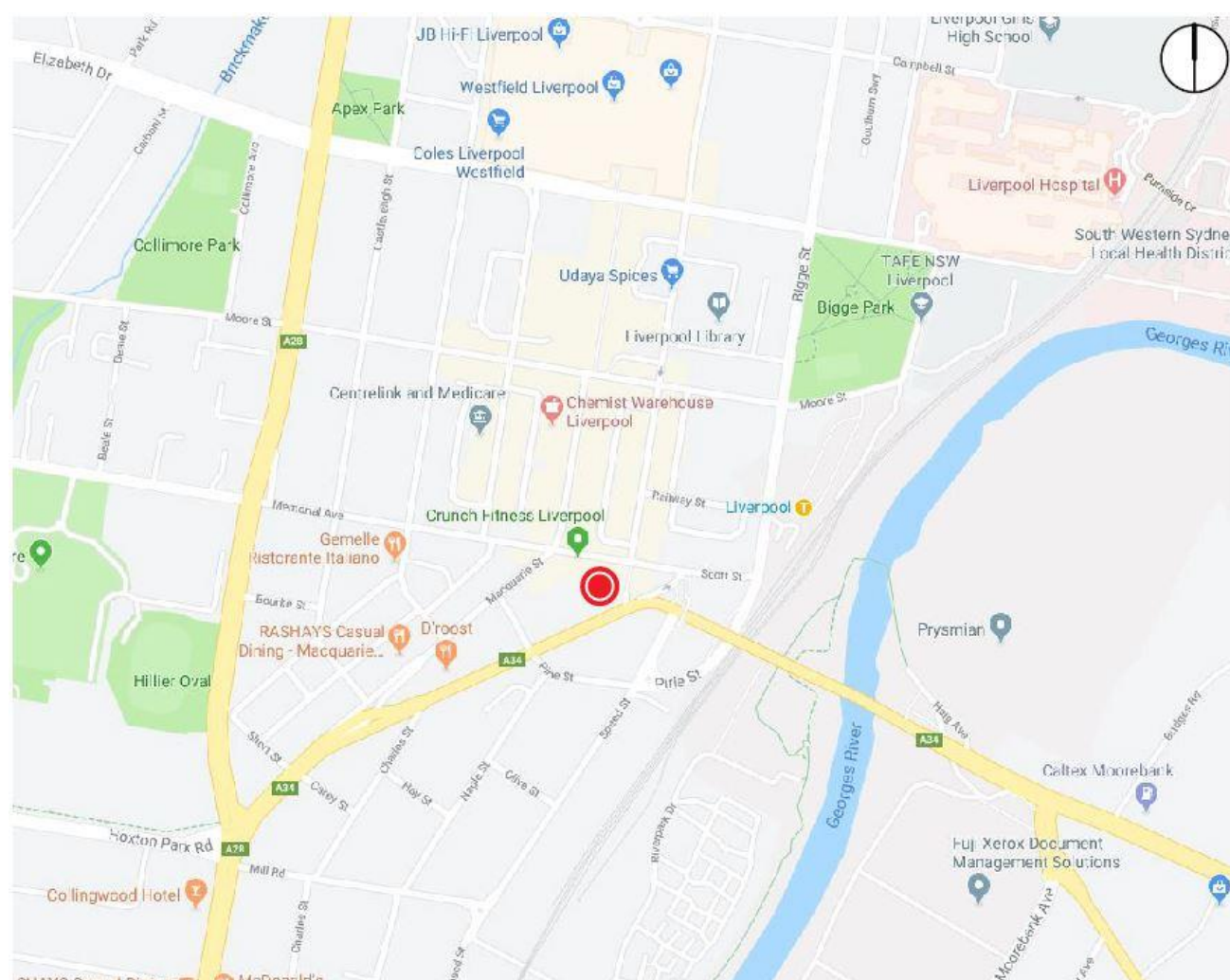


Figure 2: Site location

Source: Google Maps and Ethos Urban

3.2 Site Description

This site is irregular in shape and comprises 11 lots, legally described below:

- Lot 1 in DP 514817;
- Lot 2 in DP 229979;
- Lot 17 in DP 81842;
- Lot 3 in DP 229979;
- Lot 11 in DP 522284;
- Lot 100 in DP 877435;
- Lot 12 in DP 657056;
- Lot 1 in DP 507070;
- Lot 22 in DP 441010;
- Lot 23 in DP 441010; and
- Lot 1 in DP 229979.

The site has a total area of approximately 7,190m² and has three primary road frontages including Scott Street (98m frontage) to the north, George Lane (40m frontage) to the east and Terminus Street (115m frontage) to the south. An aerial photo of the site is shown in **Figure 3** below.

A Site Survey prepared by Veris is provided at **Appendix C**. The survey illustrates that the site slopes approximately 3.5m north from its Terminus Street frontage (RL 25.95) to its Scott Street frontage (RL 22.74). The site is largely free of vegetation, with scattered grass cover present within the eastern vacant lots and street trees lining the Terminus Street boundary.

The site is largely occupied by a two-storey commercial building with a large frontage to Scott Street (**Figure 4** and **Figure 5**). The existing commercial building is provided with an above ground car parking structure at the rear with a frontage to Terminus Street (**Figure 6**). The eastern portion of the site is occupied by a two storey retail building (**Figure 7**) with an adjoining car park at the rear (**Figure 8**). The two existing buildings are divided by a central vacant lot.



The Site

Figure 3: Site aerial

Source: Nearmap and Ethos Urban



Figure 4: Commercial building occupying the site as viewed from Scott Street (north east)



Figure 5: Commercial building occupying the site as viewed from Scott Street (north west)



Figure 6: Above ground car parking structure as viewed from Terminus Street (south east)



Figure 7: Commercial building occupying the site as viewed from Scott Street (north east)



Figure 8: Rear car park of the commercial building as viewed from Terminus Street (south east)

3.2.1 Access and Connectivity

Vehicular Access and Parking

The site has three street frontages, with Scott Street and Terminus Street being the primary street frontages. Scott Street functions as a collector road connecting Memorial Avenue through to Bigge Street and is aligned in an east-west direction. Scott Street is a two-way two lane road within a 12m wide carriageway with no vehicle access points to the site. Terminus Street is a classified RMS road including a two-way two lane road within a 13m carriageway. The site is currently provided with two left in/left out vehicle access points off Terminus Street (**Figure 9** and **Figure 10**).



Figure 9: Existing development from the south



Figure 10: Existing development from the south east

Pedestrian Access

Scott Street, Terminus Street and Macquarie Street are well-established pedestrian routes, with Liverpool Railway Station and the Liverpool retail precinct to the north being major generators of footfall traffic around the site. The site's eastern boundary fronts the George Street pedestrian access way which links Scott Street to Terminus Street.

3.2.2 Heritage

The subject site does not contain a heritage item nor is it located in a heritage conservation area. The broader Liverpool Civic Place site (Lot 201 DP 1224084, 306-310 Macquarie Street) contains a heritage item, being the Memorial School of Arts building (I99). No site preparation or early works are proposed on that lot. Additionally, the site is in the vicinity of several heritage items identified within the Liverpool LEP 2008. These heritage items include:

- I89 – Plan of Town of Liverpool (Early town centre street layout – Hoddle 1827);
- I91 – Commercial Building (formerly Rural bank and State bank);
- I92 – Boer War Memorial, including memorial to Private A.E Smith;
- I93 – Macquarie Monument;
- I94 – Row of 3 palm trees; and
- I109 – Liverpool Fire Station.

3.3 Surrounding Development

The Liverpool CBD is a growing strategic centre within Greater Western Sydney, comprising a true mixed use character. The Liverpool CBD is currently presented with opportunities for renewal and urban transformation which reflects the precinct's strategic positioning between Parramatta as Sydney's Central CBD and the future Badgerys Creek Aerotropolis. The site's immediate surrounding context is outlined below.

North

Development to the north of the site, on the opposite side of Scott Street includes retail and commercial buildings of two to three storeys (**Figure 11**). To the north east the street block contains higher density commercial and serviced apartment uses (**Figure 12**). Further north this development transitions into the Liverpool civic and retail centre bound by Macquarie Street (**Figure 13**) and George Street (**Figure 14**).



Figure 11: Retail and commercial buildings to the north



Figure 12: Higher density development to the north east

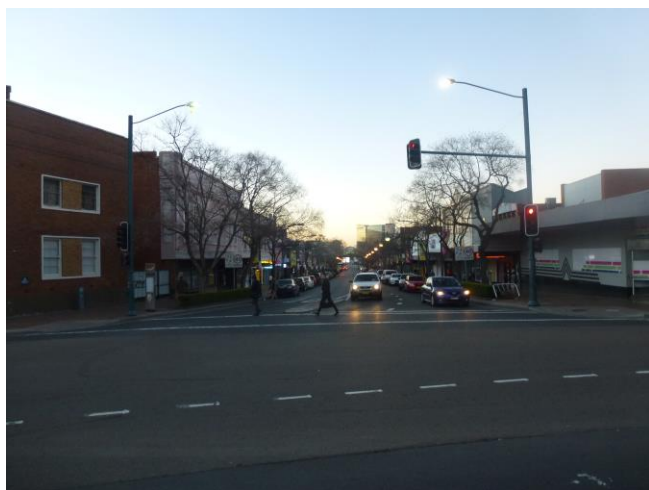


Figure 13: Macquarie Street to the north



Figure 14: George Street to the north

East

Development to the east of the site, on the opposite side of the eastern through site link, is a two storey commercial building (**Figure 15**). This building is not listed as a heritage significant item. To the east of this building is a larger two storey commercial building (**Figure 16**) which extends to the Scott Street and Terminus Street intersection. The Georges River and Liverpool Railway Station are a further 300m from the site and effectively mark the eastern boundary of the Liverpool CBD.



Figure 15: Two storey commercial building to the east of the George Street through site link



Figure 16: Two storey commercial building at the intersection of Scott and Terminus Street

South

To the south of the site and on the opposite side of Terminus Street, is the Telstra Exchange building that has a height of approximately four storeys (**Figure 17**). As well as this, various retail stores front Terminus Street. Further south of the commercial Terminus Street strip the area transitions to a residential character with a number of four to five storey residential flat buildings (**Figure 18**).



Figure 17: Telstra Exchange building and adjoining retail tenancies to the south



Figure 18: Retail and medium density residential uses fronting Terminus Street to the south

West

Immediately to the west is the heritage listed Memorial Arts Building and surrounding public domain (**Figure 19**). To the rear of this building is a nine storey mixed use development at 300 Macquarie Street (**Figure 20**). The mixed-use building presents a partial blank party wall to the site at the rear (**Figure 21**) and contains ground floor retail uses which are set back from the Memorial Arts Building and Macquarie Street. This adjoins a consolidation of low scale automotive service tenancies to the west (**Figure 22**).



Figure 19: Memorial Arts Building



Figure 20: Nine storey mixed use residential building to the west



Figure 21: Rear party wall presented to the site



Figure 22: Consolidated automotive service tenancies to the west

4.0 Description of Proposed Development

This application seeks approval for the following development:

- Demolition of all existing structures on land at 52 Scott Street;
- Removal of seven (7) trees including six (6) trees on land at 306-310 Macquarie Street; and
- Bulk earthworks to a depth of RL 10.35 including shoring through the use of piles.

The DA is accompanied by Demolition Plans (**Appendix A**) and Civil Engineering Drawings (**Appendix B**) which illustrate the proposed works.

4.1 Demolition Works

This application seeks consent for demolition of existing structures on site in accordance with the Demolition Plans prepared by FJMT at **Appendix A**. The plan proposes demolition of all existing structures on site including:

- The two storey commercial building fronting Scott Street and the associated above ground car parking structure fronting Terminus Street; and
- The two storey retail building fronting Scott Street and the associated at grade car park fronting Terminus Street.

4.2 Earthworks

This application seeks consent for earthworks involving the excavation of the land at 52 Scott Street in accordance with the Bulk Earthworks Plan prepared by Wood and Grieve Engineers at **Appendix D**. No excavation works are proposed for the land at 306-310 Macquarie Street. Excavation will be to a maximum depth of RL 10.35 and all fill will be removed from the site in accordance with the Waste Management Plan (refer to **Appendix G**). Shoring through the use of piles is proposed to serve as a retention system and support adjacent structures as the site is excavated. This is detailed further in the Structural Report prepared by RBG (**Appendix E**).

4.3 Tree Removal

Seven trees will be removed as part of the demolition works. These trees are of the following species:

- Four *pyrus calleryana*;
- Two *lagerstroemia indica*; and
- One *populus deltoides*.

Six of these are located on the land at 306-310 Macquarie Street (Lot 201 DP1224084) and one is situated adjacent to the southern site boundary. Refer to the Arboricultural Impact Assessment Report prepared by Birds Tree Consultancy at **Appendix F** and to **Section 5.14** for further detail.

4.4 Hours of Work

The type of work being undertaken at different stages of the development will vary depending on the associated activities. All works will be undertaken in accordance with the standard construction hours set out by the Interim Construction Noise Guideline. These hours are as follows:

- Monday to Friday (other than Public Holidays): 7:00am – 6:00pm;
- Saturday: 8:00am – 1:00pm; and
- Sunday and Public Holidays: No works to be undertaken.

It is estimated that the total duration of the construction works will be approximately 13 months from the commencement date.

4.5 Waste Management

A Waste Management Plan (WMP) has been prepared by DECC for the purposes of the early works proposed to be undertaken at the site (**Appendix G**). It has been prepared in accordance with Liverpool City Council's DCP waste management requirements. The WMP provides estimates of the amount of waste to be generated on site and confirms that materials will be recycled and reused where possible. It also details the materials that will be excavated in the process of the works. Waste will be classified, managed and removed in accordance with the WMP. Further detail is provided in **Appendix G**.

4.6 Construction Staging

The broader Liverpool Civic Place is divided into two stages, being Council's assets (Stage 1) and the Developer Assets (Stage 2). As it is currently intended for Council to fully occupy the Stage 1 assets, it is feasible for these works to progress in advance of the Stage 2 assets, as no anchor tenant has been secured for Stage 2 at the time of writing. As such, this staging is proposed to embed flexibility for the Stage 1 early works to progress ahead of the Stage 2 works, ensuring the timely delivery of Council's assets, in the event that the securing of a tenant for Stage 2 is further protracted.

Accordingly, the proponent proposes to stage the Construction Certificates (CC) of the development in the following phases:

- **CC 1:** Demolition of entire site;
- **CC 2:** Excavation and piling of Stage 1 site (possible public domain embellishments to Stage 2 site); and
- **CC 3:** Excavation and piling of Stage 2 site.

In the event that Stage 1 proceeds in advance of Stage 2, the developer proposes to make good the Stage 2 site through temporary public domain embellishments as indicated in **Figure 23** below.

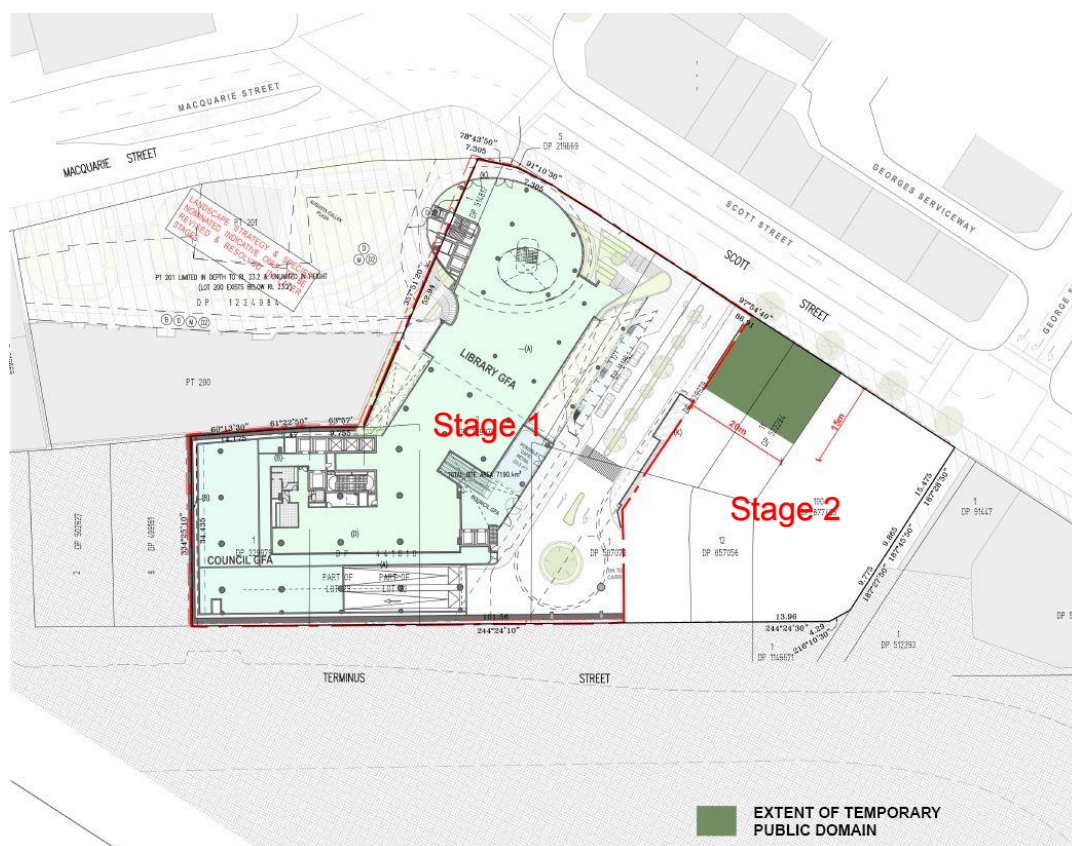


Figure 23: Indicative staging plan

Source: FJMT

5.0 Planning Assessment

This section considers the planning issues relevant to the proposed development and provides an assessment of the relevant matters prescribed in section 4.15(1) of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

5.1 Legislation and Environmental Planning Instruments

The DA's consistency and compliance with the relevant statutory plans and policies is located in **Table 1** below. Compliance with the key standards and guidelines highlighted in the table are discussed in the following sections of this environmental assessment.

Table 1: Summary of consistency with Environmental Planning Instruments

Plan	Comments	
Legislation		
Water Management Act	The proposed development includes excavation depths reaching RL10.35. The Preliminary Geotechnical Investigation prepared by Golder Associates (Appendix H) outlines that the groundwater level is at RL17.5. As such, base excavation is approximately 7.15m deeper than the groundwater level and will require activity approval under section 91 of the Water Management Act. This renders the proposal integrated development pursuant to section 4.46 of the EP&A Act.	
State Environmental Planning Policies		
SEPP 55 – Remediation of Land	A Preliminary Site Investigation has been undertaken by Douglas Partners (Appendix I) and confirms that the site can be made suitable for the proposed development subject to the recommendations of the report (refer to Section 5.3 below).	
SEPP (State and Regional Development) 2011	The proposed development is considered to be regionally significant development pursuant to Schedule 7 of the State and Regional Development SEPP, given that the proposal constitutes 'Council related development' with a cost of works exceeding \$5 million (refer to QS Report at Appendix J).	
Local Planning Instruments		
Liverpool Local Environmental Plan 2008	2.1 Land use zones	The proposal is consistent with the objectives of the B4 Mixed Use Zone, as it forms part of the required works to facilitate the Liverpool Civic Place development as prepared under DA/485/2019.
	2.7 Demolition requires development consent	The proposed application seeks development consent for demolition works in accordance with Clause 2.2 of LLEP 2008.
	4.3 Height of Buildings	N/A
	4.4 Floor Space Ratio	N/A
	5.10 Heritage conservation	There are no heritage items located on the site, however the site adjoins a local heritage item. In accordance with Clause 5.10(5) a Heritage Impact Assessment has been prepared by NBRIS and is submitted at Appendix K . Further discussion is provided at Section 5.7 .
	7.7 Acid sulfate soils	The site is mapped as Class 5 under the Acid Sulfate Soils Map of the LEP and the Geotechnical Report at Appendix N identifies the acid sulfate soil content. Accordingly, an Acid Sulfate Soils Management Plan is not required to be prepared.
	7.8 Flood planning	Council has confirmed that the proposed concept is not impacted by flood waters. As such, there are no flood planning requirements imposed on the development. Refer to Section 5.15 below.
	7.31 Earthworks	The proposed application seeks development consent for earthworks in accordance with Clause 7.31 of LLEP 2008. The Construction Management Plan at Appendix D demonstrates how the earthworks will be undertaken to minimise disruption and environmental impacts.

5.2 Development Control Plans

The proposed development is consistent with the objectives of the Liverpool Development Control Plan 2008 (LDCP 2008). As required under section 4.15(3A) of the EP&A Act, a consent authority is required to apply DCP provisions flexibly and allow reasonable alternative solutions that achieve the objects of those standards. Where alternate solutions to the provisions are proposed, they are identified in **Table 2** and discussed in the following sections of this environmental assessment.

Table 2: Summary of consistency with Liverpool DCP 2008

Control	Comment
2. Tree Preservation	
This section applies to applications to remove trees with or without a development application for a development	The proposed development involves the removal of seven trees, which is detailed in the Arboricultural Impact Assessment at Appendix F . Further discussion is provided at Section 5.14
8. Erosion and Sediment Control	
The development application shall be accompanied by either a Soil and Water Management Plan (SWMP) or an Erosion and Sediment Control Plan (ESCP).	An Erosion and Sediment Control Plan has been prepared by Wood and Grieve Engineers and is provided at Appendix D .
14. Demolition of Existing Developments	
All demolition work must comply with the Australian Standard AS2601 - 1991, The Demolition of Structures.	The demolition works will comply with the relevant Australian Standards and can be conditioned accordingly.
Security fencing such as hoardings must be provided around the perimeter of the demolition site prior to work commencing to prevent access by unauthorised persons at all times during the demolition period. Approval of the fencing by Council must be received prior to erection.	Security fencing and hoarding will be provided around the perimeter of the demolition site prior to work commencing to prevent access by unauthorised persons during the duration of demolition works.
Demolition must not be conducted in high winds to ensure dust does not spread beyond the site boundaries.	Demolition will not be conducted at times when there are strong winds to prevent the spread of dust beyond the site boundaries.
All lead contaminated materials identified in the building must be handled and disposed of in accordance with the NSW Environment Protection Authority's requirements.	The Destructive Hazardous Building Materials Assessment undertaken by Prensa (Appendix L) confirms that no lead contaminated materials have been identified at the site.
Dust Controls must be implemented on site prior to and during demolition.	The contractor will include detailed dust management measures in the Construction Management Plan prior to the commencement of works.
Asbestos, if identified in the building, must be removed and disposed of in accordance with the requirements of Work Cover.	Asbestos has been identified in the building. It will be removed accordingly by a licenced contractor prior to demolition. Refer to the Hazardous Materials Survey provided at Appendix L .
All trucks/trailers entering or leaving the site must have their loads adequately covered. A sign indicating this should be placed at the entry to and exit from the site.	Prior to the commencement of works the contractor will include detailed requirements for trucks and trailers to have their loads covered in the Construction Management Plan, including signage indicating this requirement.
Temporary toilet facilities must be provided on the site until all demolition work is completed.	Temporary amenities will be provided on the site until the demolition work is completed. This is outlined in the Construction Management Plan at Appendix D .
Demolition activities on site must be limited to the following hours: - Monday to Friday 7:00am to 6:00pm - Saturday 8:00am to 1:00pm - No work on Sunday and Public Holidays	The demolition works included in the proposal are all set to take place during these hours. This is set out above in Section 4.4 .
Sound pressure levels emanating from the site must not exceed levels established by the NSW Environment Protection Authority.	Complies. Sound pressure levels emanating from the site will not exceed the levels established by the NSW Environment Protection Authority. Further discussion is provided in Section 5.11 .
A Waste Management Plan (WMP) is to be submitted with the Development Application. The WMP must include volume or area estimates and information about reuse, recycling and disposal options for all types of waste produced on-site, including excavation materials.	Complies. A Waste Management Plan accompanies the Application at Appendix G . Further discussion is provided at Section 5.10 below.

Control	Comment
A Dilapidation Report for any demolition within the zone of influence of any other building.	This is supported as an appropriate condition of consent.
17. Heritage and Archaeological Sites	
Where a proposal involves a heritage item, it will be necessary to lodge a Statement of Heritage Impact.	There are no heritage items located on the site, however the site adjoins a local heritage item. As such, a Heritage Impact Assessment has been prepared by NBRIS and is submitted at Appendix K . Further discussion is provided at Section 5.7.1 .
The Council may grant consent to carry out development involving the excavation or filling of land or the erection (involving disturbance of land) or demolition of buildings on land which is an archaeological site that has non-Aboriginal significance or a potential archaeological site that is reasonably likely to have non-Aboriginal significance only if: - It has been considered an archaeological report; and - It is satisfied that any necessary excavation permit required by the Heritage Act 1977 has been granted.	A Historical Archaeological Assessment has been undertaken by Extent Heritage (Appendix M), which finds that the site's archaeological potential ranges from nil-low to moderate. Further discussion is provided in Section 5.8 .

5.3 Contamination

A Preliminary Site Investigation has been undertaken by Douglas Partners (refer to **Appendix I**), which outlines that the site contains potential contaminants including uncontrolled filling, existing and former buildings on site, the former fire station and the adjacent mechanical workshop. Notwithstanding, the report confirms that the site can be made suitable for the proposed development and future uses consistent with the requirements of SEPP 55, subject to the following risk management actions:

- A hazardous building materials survey is undertaken prior to demolition of the existing buildings with subsequent appropriate (legal) removal, disposal and clearance of any hazardous building materials;
- A Remediation Action Plan (RAP) and/ or Asbestos Management Plan (AMP) will need to be developed prior to the commencement of bulk earthworks to inform appropriate management of asbestos contaminated soils; and
- Development of an unexpected finds protocol prior to commencing works to address any materials of concern that may be encountered during excavation (including odours, staining or underground storage tanks).

A Hazardous Materials Survey has been prepared and is included at **Appendix L**, and the Proponent is supportive of removing any Asbestos Containing Materials (ACM) or remediating the site in accordance with the EPA's standard requirements prior to the commencement of works.

5.4 Geotechnical Conditions

A Geotechnical and Environmental Investigation Report (**Appendix N**) and a Preliminary Geotechnical Assessment (**Appendix H**) have both been prepared by Golder Associates. The Preliminary Geotechnical Assessment was submitted with the Concept DA to address the entire site, and the subsequent Geotechnical Investigation relates to the scope of the early works, with emphasis particularly on the excavation and piling and suitability for the associated future basement structure.

Golder Associates has identified that the base of the excavation for the future basement will be approximately 7m below the current static groundwater level. Consequently, groundwater will flow into the excavation from the bulk rock and more importantly from the fractured rock. Based on the estimated groundwater inflow rate for the permanent condition (i.e. 2.2 ML/year), it is anticipated that seepage into the excavation could be controlled by perimeter and subfloor drainage connected to a sump and pump system. On this basis, a drained basement may be considered for this site. Pursuant to the development of the detailed recommendations within the Golder Associates report, it is determined that the geotechnical conditions of the site can be made suitable for the proposed demolition and future works on the site.

5.5 Hazardous Materials

A Hazardous Building Materials Assessment was undertaken by Prensa, which includes a Hazardous Materials Survey (**Appendix L**). The results of the survey indicate that asbestos, synthetic mineral fibre materials and ozone depleting substances all occur at some parts of the site. No polychlorinated biphenyls, lead-containing paint or lead-containing dust were identified or suspected to be present. It is recommended that any hazardous building materials are removed by a licenced contractor in accordance with the recommendations set out in **Appendix L**.

5.6 Structural Adequacy

A Structural Report has been prepared by RBG (**Appendix E**) outlining design assumptions and requirements for the structural design of the retention system and the structural scheme, along with Civil Engineering Drawings (**Appendix B**) that are to be incorporated into the design. With reference to the Structural Plans, RBG conclude that the proposed works are structurally feasible.

5.7 Heritage

5.7.1 European Heritage and Archaeology

The Heritage Impact Statement prepared by NBRS (**Appendix K**) confirms that the proposed demolition works will not result in any adverse impacts to the adjacent heritage significant Memorial Arts Building. The buildings and structures proposed to be removed are not identified as having any heritage significance, either by the NSW Heritage Council, Liverpool City Council or by NBRS. As a result, the demolition of these buildings is acceptable subject to the recommendations included in **Appendix K**. It is noted that the future detailed designs on site will need to demonstrate an appropriate impact on the surrounding heritage items.

The site has been investigated for general archaeological potential in the Historical Archaeological Assessment undertaken by Extent Heritage (**Appendix M**). This assessment finds that the site's archaeological potential ranges from nil-low to moderate.

As the site may contain some relics of local significance, the report recommends the following:

- A program of archaeological testing is to be carried out;
- An application for an archaeological excavation permit under section 140 of the Heritage Act 1977 be submitted to the Heritage Council of NSW and be accompanied by an Archaeological Research Design; and
- Subsequent to this section 140 approval, archaeological testing will be undertaken on the site to determine if any relics are present. Depending on the results of the testing and if relics are found, a short archaeological salvage excavation may be required.

Further background information relating to European Archaeology is provided in **Appendix M**.

5.7.2 Aboriginal Heritage and Archaeology

An Aboriginal Heritage Due Diligence Assessment has been prepared by Extent (**Appendix O**) identifying the potential for Aboriginal relics to be present on the site and the procedure in the instance that any are discovered during development.

The Assessment concludes that there is a low risk of Aboriginal objects being located at the site. Notwithstanding, it notes that the scope of works does not preclude the potential for isolated finds, which are common in this locality, even in disturbed contexts. As such, the report recommends that if any unexpected Aboriginal objects, sites or places are discovered during construction, all works should cease, and the proponent should discuss the matter with a heritage professional to determine the subsequent course of action.

5.8 Erosion and Sediment

The Erosion and Sediment Control plan at **Appendix D** details the measures that will be implemented to manage stormwater flows, including:

- Diversion of clean water around the site into stormwater downstream of the works;
- Installation of additional sediment fencing;
- Pumping captured stormwater to a water treatment facility;
- Placement of sediment controls around and along any stormwater drains; and
- Rain and groundwater within the excavation is to be pumped offsite and all water will be treated prior to discharge to prevent water pollution.

5.9 Waste Management

Construction Waste Management is detailed in the WMP prepared by DECC (**Appendix G**). The WMP has been prepared in accordance with Liverpool City Council's DCP waste management requirements, providing estimates of the amount of waste to be generated on site and confirms that materials will be recycled and reused where possible. It also details the materials that will be excavated in the process of the works. Waste will be classified, managed and removed in accordance with the WMP. Further detail is provided in **Appendix G**.

5.10 Noise and Vibration

A Construction Noise and Vibration Management Plan has been prepared by Wood and Grieve Engineers (refer to **Appendix P**). This report utilises 3D noise modelling to predict the noise levels generated on the site during the course of the early works development. It confirms that the predicted noise levels generated from the demolition activities on the site will generally not exceed the relevant noise criteria set out in the relevant standards and guidelines.

It is noted that the equipment used during construction may result in temporary exceedances of the noise criteria, depending on where works are undertaken on the site. Furthermore, the report recommends that noise impacts be mitigated by using screening, mobile cranes and appropriate reversing and warning alarms that minimise environmental noise impacts. A notification and complaints procedure will also be established in accordance with the Construction Noise and Vibration Management Plan to ensure that neighbouring properties are not adversely affected in instances where the noise criteria cannot be complied with.

5.11 Construction Traffic and Vehicle Access

The proposed works are expected to generate approximately 100 truck movements per day. The peak vehicle movements during the works will be Monday to Friday 7:00am to 3:00pm. A Construction Traffic Management Plan will be prepared prior to the commencement of works to ensure that the impacts of construction vehicles on the surrounding road network are managed.

There will be two vehicle access points to the proposed development site, with these respectively located on Scott and Terminus streets. All construction vehicles and contractor vehicle parking will be contained on site during the early works. Material handling will generally be undertaken on site and where this is not possible, it will be conducted under a council approved Traffic Management Plan.

Further detail is provided in the Construction Management Plan prepared by Wood and Grieve Engineers at **Appendix D**.

5.12 Tree Removal

An Arboricultural Impact Assessment has been prepared by Birds Tree Consultancy (**Appendix F**) which recommends the removal of seven trees and the retention of 34 trees. The removal of seven trees on the site is justified on the basis that the location of these trees will see them encroach upon key aspects of the proposed development. As a result, the proposed trees should be removed as part of the demolition works. Refer to the Arborist Report at **Appendix F** for further detail. It is noted that the future detailed design on site will contain a comprehensive landscape scheme to integrate a natural landscaped character on site.

5.13 Flooding

A Contamination, Ecological and Flood Report has been prepared by Cardno and is included at **Appendix Q**. The report finds that the site is not within the 100 year ARI flood extent and as such it is anticipated that the early works will not be impacted by flooding.

5.14 Site Suitability and Public Interest

The proposed works are suitable for the site and in the public interest as:

- The proposed demolition works can be undertaken with development consent and with minimal impact on the surrounding site and land uses;
- It will contribute to the redevelopment of the site in accordance with Council's vision for a mixed use precinct at the site;
- They will prepare the land for future renewal, including a public library, public domain and commercial assets, in line with DA/485/2019 that is being concurrently assessed by Council; and
- The environmental and social impacts are negligible and can be appropriately addressed through standard conditions of consent.

6.0 Conclusion

The proposed development seeks approval for excavation and site preparation works. This SEE has provided a detailed assessment of the proposal against the relevant matters under section 4.15(1) of the EP&A Act. The application is recommended for approval given the following reasons:

- The proposed development is consistent with the aims and objectives of the Liverpool LEP 2008 and the Liverpool DCP 2008 as well as the relevant State Environmental Planning Policies.
- Supporting technical studies which accompany this DA confirm that the environmental impacts associated with the proposal will not give rise to any adverse impacts; and
- The proposed works will contribute to the timely redevelopment of the site for the new Liverpool Civic Place and therefore are considered suitable for the site and in the public interest.