

HEALTH INFRASTRUCTURE

Review of Environmental Factors

Sydney Ambulance Metropolitan Infrastructure Strategy (SAMIS)
Central Sydney Ambulance Station

Installation and operation of Electrical Substation

42-50 Parramatta Road (Arundel Street frontage), Forest Lodge

_planning Pty Ltd

Version 3 – Refined Final

16 December 2022



HI Planning Document Control

Version	Date	Author	Description	Reviewed by	Approved by
12	June 2022	HI Planning	REF Template Revision	TBC	TBC

Declaration

This Review of Environmental Factors (REF) has been prepared for Health Infrastructure (HI) and assesses the potential environmental impacts which could arise from the installation and operation of an electrical substation and its ancillary works at the SAMIS Central Ambulance Station at 42-50 Parramatta Road (Arundel Street frontage), Forest Lodge.

This REF has been prepared in accordance with the relevant provisions of *the Environmental Planning and Assessment Act 1979* (EP&A Act), *the Environmental Planning and Assessment Regulation 2021* (EP&A Regulation) and *State Environmental Planning Policy (Transport and Infrastructure) 2021* (TISEPP).

This REF provides a true and fair review of the activity in relation to its likely impact on the environment. It addresses to the fullest extent possible, all the factors listed in section 170 of the EP&A Regulation (that is, the Department of Planning and Environment's Guidelines for Division 5.1 assessments – June 2022), as well as the *Commonwealth Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Based upon the information presented in this REF, it is concluded that, subject to adopting the recommended mitigation measures, it is unlikely there would be any significant environmental impacts associated with the activity. Consequently, an *Environmental Impact Statement* (EIS) is not required. Further, the activity will not significantly affect threatened species, populations, ecological communities or their habitats, and therefore a Species Impact Statement (SIS) and/or Biodiversity Development Assessment Report (BDAR) is not required.

Declaration

Author:	Oliver Klein
Position:	Director
Company:	_planning Pty Ltd (ABN 25 620 516 583)
Date:	16 December 2022

Document Management, Tracking and Revision History

Version	Date	Author	Description	Reviewed by	Approved by
Final Draft v1	31 October 2022	Oliver Klein	Review of Environmental Factors	Justin Looke (Kane)	Anthony Dimech (HI)
Final (v2)	2 December 2022	Oliver Klein	Review of Environmental Factors	Justin Looke (Kane)	Anthony Dimech (HI)
Refined Final (v3)	16 December 2022	Oliver Klein	Review of Environmental Factors	Rachel Mitchell (HI)	Rachel Mitchell (HI)

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A	Planning Certificate	City of Sydney	Certif 2022305803 Dated 9/8/2022
B	AHIMS Search	NSW Government	Dated 8/8/2022
C	ASP3 Design Electrical servicing plans and statement	Webb Australia	AN-23553 – Sheets 1 to 12 dated 23/11/2022
D	Construction Management Plan	Kane Constructions	Rev 3 of 26/9/2022 With appendices of various dates
E	Notification letters	HI	5/8/2022
	Submissions	Adjacent neighbour – 139 Arundel St, Forest Lodge	7/8/2022
F	Acoustic Statement	JHA	Rev B of 11/8/2022
G	Flooding Statement	GRC Hydro	10/10/2022
H	BCA Statement	Group DLA	18/8/2022
I	Mitigation Measures	HI	16/12/2022

Abbreviations

Abbreviation	Description
AEC	Area of Environmental Concern
AHD	Australian Height Datum
AHIP	Aboriginal Heritage Impact Permit
AHIMs	Aboriginal Heritage Information Management System BC Regulation
AMG	Australian Map Grid
BC Act 2016	Biodiversity Conservation Act 2016
BC Act 2017	Biodiversity Conservation Act 2017
BC Regulation	Biodiversity Conservation Regulation 2017
BAM	Biodiversity Assessment Method
CA	Certifying Authority
CE	Chief Executive
CM Act	Coastal Management Act 2016
CMP	Construction Management Plan
CWC	Connecting with Country
CRA	Conservation Risk Assessment
DPC	Department of Premier and Cabinet
DPE	Department of Planning and Environment
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EES	Environment, Energy and Science
EPA	Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act 1979
EP&A Regulation	Environmental Planning and Assessment Regulation 2021
EPBC Act (Cwth)	Environment Protection and Biodiversity Conservation Act 1999
EPI	Environmental Planning Instrument
EPL	Environment Protection License
FM Act	Fisheries Management Act 1994
Ha	Hectares
HHIMS	Historic Heritage Information Management System
HI	Health Infrastructure
LEP	Local Environmental Plan
LGA	Local Government Area
MPS	Multipurpose Service
MNES	Matters of National Environmental Significance

Abbreviation	Description
NPW Act	National Parks and Wildlife Act 1974
NPW Regulation	National Parks and Wildlife Regulation 2009
NPWS	National Parks and Wildlife Service (part of EES)
NT Act (Cth)	Commonwealth Native Title Act 1993
OEH	(Former) Office of Environment and Heritage
PCMP	Preliminary Construction Management Plan
Planning Systems SEPP	State Environmental Planning Policy (Planning Systems) 2021
POEO Act	Protection of the Environment Operations Act 1997
Proponent	Health Infrastructure
REF	Review of Environmental Factors
RF Act	Rural Fires Act 1997
RFS	Rural Fire Service
Resilience and Hazards SEPP	State Environmental Planning Policy (Resilience and Hazards) 2021
SEPP	State Environmental Planning Policy
SIS	Species Impact Statement
TISEPP	State Environmental Planning Policy (Transport and Infrastructure) 2021
WM Act	Water Management Act 2000

Executive Summary

The Proposal

Health Infrastructure (HI) has developed the Sydney Ambulance Metropolitan Infrastructure Strategy (SAMIS) program to reshape NSW Ambulance's operations in Metropolitan Sydney. The proposed SAMIS Ambulance Station at 42-50 Parramatta Road, Forest Lodge is the last of 11 "superstations" to be constructed and is known as SAMIS Central. It is critical for delivery of ambulance services across central Sydney.

The development of SAMIS Central is subject to DA D/2020/1088 which was approved by the City of Sydney Local Planning Panel on 9 June 2021 for the staged construction to allow for the construction of an emergency services facility, a concept envelope for a future commercial development and subdivision of the site into two lots. The ambulance station is the first stage of the development. The ambulance station will be constructed on the proposed northern lot adjacent to the Arundel Street frontage and has no frontage to Parramatta Road. The street address for this lot is expected to change when the subdivision is registered on title. The second lot fronting Parramatta Road to the south will be subject to a future development. The subject REF is separate to, but related to this DA and its construction.

To meet the electrical demand of the proposed SAMIS Ambulance Station development and the future adjacent development at 42-50 Parramatta Road, Forest Lodge it will be necessary to establish a chamber substation on the premises due to capacity limitations of the local electricity distribution network. As development of the Ambulance Station will proceed first, the developer (HI) proposes to establish a single transformer surface chamber within the land parcel adjacent to the Arundel Street property boundary with HV and LV electricity network connections adjacent to the substation in the Arundel Street southern footway. In addition, a concrete encased ductline to the southern land parcel and associated easement for electricity purposes will be provided to facilitate an electricity network connection to the future development on that lot. The proposed works are described in more detail in the attached ASP/3 electrical design drawing "AN-23553 FOREST LODGE – ASP/3 DESIGN".

Minor consequential internal and external design changes to SAMIS Central arise in accommodating the substation. The internal changes primarily relate to refinement of disabled and pedestrian access, fire services and plant, and emergency egress. The external change primarily results in plant room and fire egress doors being relocated and a new screen being included in the place of these doors to conceal the substation. It is understood that these minor and consequential changes are able to be accommodated through the Crown certification process and through required and ongoing BCA compliance resulting from the operation of Prescribed Conditions as imposed by DA D/2020/1088. Accordingly, they do not form part of this REF.

Need for the Proposal

As part of the demolition of the former NSW Coroner's Court Building in this location a prior Ausgrid project No.AN-20630 was completed to facilitate the decommissioning and removal of redundant substation No.2945 from the premises.

The proposed works are now necessary to meet the electrical demand of this development, the future adjacent development on the southern land parcel, and to increase the capacity of the electricity network in the vicinity. The location of the substation, with a direct street frontage and access, is required as per Ausgrid standards and guidelines. This amongst other things requires an access for servicing and replacement, should that be needed.

Proposal Objectives

The proposal's objective is to ensure adequate electricity supply is provided to this essential service as well as the future development to its south and immediately adjacent developments.

Options Considered

A range of options / alternatives were considered, with the subject scheme identified as the preferred option. The options considered were:

- Location of the substation within the road reservation (whether Arundel Street or Parramatta Road) – this was not considered appropriate as it would obstruct access and visibility for pedestrians, cyclists and motorists which is highly undesirable.
- Location of the substation within the southern land parcel or rooftop of the ambulance station – whilst this would remove the substation from the road reservation it would however not provide suitable access for Ausgrid for servicing either deep within the development site or upon its rooftop. Placement on the rooftop would also require a significant revision to the design with regard to structural adequacy of the development. Placement within the southern land parcel fronting Parramatta Road would also severely impact the development potential and a coherent layout of that future development site.
- Location of the substation at ground level within the footprint and envelope of the development / ambulance station allows for no impact upon the adjacent road reservations and maintains access and safe visibility for pedestrians, cyclists, and motorists as per the existing scenarios at Arundel Street and Parramatta Road. Access is also able to be secured to the substation in accordance with Ausgrid requirements. Further, the ambulance station will not need significant structural redesign and the southern land parcel whilst being serviced by the substation remains unaffected by it. The placement of the substation within the footprint / envelope of the ambulance station at street level requires only a minor reconfiguration of parts of the ambulance station to maintain BCA, DDA, and fire servicing compliances. This disadvantage on balance is minor relative to the advantages.

Site Details

The site is located at 42-50 Parramatta Road (Arundel Street frontage), Forest Lodge (Lot 1 DP 73917, Lot 1 DP 66015, Lot 2 DP 63825, Lot 1 DP 63825) within the City of Sydney LGA.

The overall site is approximately 3,500m² in area, with the ambulance station site some 2,100m² and the residual southern land parcel at about 1,400m².

The site is owned by the Health Administration Corporation (HAC).

There are no significant environmental planning issues related to the development or use of the site, noting the substantive redevelopment of the site is subject to DA D/2020/1088 which was approved by the City of Sydney Local Planning Panel on 9 June 2021 for the *staged construction to allow for the construction of an emergency services facility, a concept envelope for a future commercial development and subdivision of the site into two lots*. The ambulance station is the first stage of the development. The subject REF is separate to, but related to this DA and its construction.

Planning Approval Pathway

The proposed works are subject to the development without consent approval pathway under sections 2.44(1) and 2.44(2)(d) of the TISEPP for the substation and its associated works. Accordingly, this REF provides for the assessment of the works under these provisions.

Statutory Consultation

The REF scope of works was notified for 21 calendar days to the City of Sydney Council and occupiers of adjoining land under section 2.45(2) of TISEPP.

Note also that the City of Sydney notification was for an extended period of 40 days to concurrently address the notification requirements of section 45(4) of the *Electricity Supply Act 1995*.

The neighbour and Council notification commenced on 5 August 2022 with the neighbour notification concluding on 26 August 2022. The Council notification concluded on 14 September 2022. The notification concurrently satisfies the notification requirements of Ausgrid.

In response, one (1) submission was received from an adjacent neighbour. The City of Sydney did not make any submissions. See Section 5 of this REF for further details.

Environmental Impacts

The likely environmental impacts of the substation include construction-related matters primarily tied to the delivery and installation of the substation which will likely involve a partial and/or temporary road closure and possible vegetation trimming to the adjacent Arundel Street street tree (Tree 3).

The operational impacts primarily relate to noise from the substation and any electro-magnetic field (EMF) impacts to the public or the occupants of the ambulance station.

From a design perspective, the minor reconfiguration of the ground floor level of the ambulance station arises to accommodate the substation. The minor reconfiguration has adjusted fire services, emergency egress and accessible pathways. A BCA Statement confirms continued compliance with all relevant requirements. A Flooding Statement confirms that the substation (and ambulance station) floor levels are suitable to continue to cater for the worst-case storm / flooding events.

Visually the development will generally maintain the same appearance when viewed from Arundel Street, with the substation screened from the public realm and the design integrated to maintain a high visual amenity.

Discussion of these various impacts is set out in Sections 6 and 7 of this REF.

Based on the identification of potential issues, and an assessment of the nature and extent of the impacts of the proposed development, it is determined that:

- The extent and nature of potential impacts are minor and low, and will not have significant adverse effects on the locality, community and the environment;
- Potential impacts can be appropriately mitigated or managed to ensure that there is minimal effect on the locality, community; and
- Given the above, it is determined that an EIS is not required for the proposed development activity.

Justification and Conclusion

The proposed installation and operation of an electrical substation at the SAMIS Central Ambulance Station at 42-50 Parramatta Road (Arundel Street frontage), Forest Lodge is subject to assessment under Part 5 of the EP&A Act. The REF has examined and taken into account to the fullest extent possible all matters affecting, or likely to affect, the environment by reason of the proposed activity.

As discussed in detail in this report, the proposal will not result in any significant or long-term impact. The potential impacts identified can be reasonably mitigated and where necessary managed through the adoption of suitable site practices and adherence to accepted industry standards.

As outlined in this REF, the proposed activity can be justified on the following grounds:

- It responds to an existing need within the community;
- It generally complies with, or is consistent with all relevant legislation, plans and policies;
- It has minimal environmental impacts; and
- Adequate mitigation measures have been proposed to address these impacts.

The environmental impacts of the proposal are not likely to be significant and therefore it is not necessary for an EIS to be prepared and approval to be sought for the proposal from the Minister for Planning under Part 5.1 of the EP&A Act. Further, the activity will not significantly affect threatened species, populations, ecological communities or their habitats, and therefore a Species Impact Statement (SIS) and/or Biodiversity Development Assessment Report (BDAR) is not required.

On this basis, it is recommended that HI determine the proposed activity in accordance with Part 5 of the EP&A Act and subject to the adoption and implementation of mitigation measures identified within this report.

1. Introduction

Health Infrastructure (HI) proposes the installation and operation of an electrical substation at the SAMIS Central Ambulance Station at 42-50 Parramatta Road (Arundel Street frontage), Forest Lodge (the site) as part of its delivery of infrastructure and services to support the healthcare needs of the central Sydney community.

This Review of Environmental Factors (REF) has been prepared by _planning Pty Ltd on behalf of HI to determine the environmental impacts of the proposed installation and operation of an electrical substation that arise at the SAMIS Central Ambulance Station at 42-50 Parramatta Road (Arundel Street frontage), Forest Lodge. For the purposes of these works, HI is the proponent and the determining authority under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The purpose of this REF is to describe the proposal, to document the likely impacts of the proposal on the environment and to detail protective measures to be implemented to mitigate impacts.

The description of the proposed works and associated environmental impacts have been undertaken in the context of section 170 of the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation), that is, the Department of Planning and Environment's Guidelines for Division 5.1 assessments – June 2022, as well as the Australian Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The assessment contained within the REF has been prepared having regard to:

- whether the proposed activity is likely to have a significant impact on the environment and therefore the necessity for an EIS to be prepared and approval to be sought from the Minister for Planning and Homes under Part 5.1 of the EP&A Act;
- whether the proposed activity is likely to significantly affect threatened species, populations, ecological communities or their habitats, and therefore require a Species Impact Statement (SIS) and/or Biodiversity Development Assessment Report (BDAR); and
- the potential for the proposal to significantly impact *Matters of National Environmental Significance* (MNES) on Commonwealth land and the need to make a referral to the Australian Government Department of Environment and Energy for a decision by the Commonwealth Minister for the Environment on whether assessment and approval is required under the EPBC Act.

The REF helps to fulfil the requirements of section 5.5 of the EP&A Act, which requires that HI examine, and take into account to the fullest extent possible, all matters affecting, or likely to affect, the environment by reason of the proposed activity.

Proposal need and Alternatives

As part of the demolition of the former NSW Coroner's Court Building in this location a prior Ausgrid project No.AN-20630 was completed to facilitate the decommissioning and removal of redundant substation No.2945 from the premises.

The proposed works are now necessary to meet the electrical demand of this development, the future adjacent development on the southern land parcel, and to increase the capacity of the electricity network in the vicinity. The location of the substation, with a direct street frontage and access, is required as per Ausgrid standards and guidelines. This amongst other things requires an access for servicing and replacement, should that be needed. Accordingly, the alternatives are few. On balance, the proposed location provides for the best public, design, and operational and servicing outcomes for all stakeholders.

An overview of the alternatives, and an identification of the preferred alternative, for the Proposal are provided within Table 1.

Table 1: Alternatives considered for the Proposal

Alternative description	Advantages and disadvantages	Preferred alternative
Location of the substation within the road reservation (whether Arudel Street or Parramatta Road)	<p>Advantage: Not included within the site footprint or envelope and allows for the existing approved ground floor plan to be constructed.</p> <p>Disadvantage: Placement in the road reserve will obstruct access and visibility for pedestrians, cyclists and motorists which is highly undesirable.</p>	No
Location of the substation within the southern land parcel or rooftop of the ambulance station	<p>Advantage: Not included within the site footprint or envelope and allows for the existing approved ground floor plan to be constructed.</p> <p>Disadvantage: Suitable access is not provided either deep within the development site or upon its rooftop.</p> <p>Placement on the rooftop would also require a significant revision to the design with regard to structural adequacy of the development. Placement within the southern land parcel which fronts Parramatta Road would also severely impact the development potential and a coherent layout of that future development.</p>	No
Location of the substation at ground level within the footprint and envelope of the development / ambulance station	<p>Advantage: This allows for no impact upon the adjacent road reservations and maintains access and safe visibility for pedestrians, cyclists, and motorists as per the existing scenarios at Arundel Street and Parramatta Road.</p> <p>Access is also able to be secured to the substation in accordance with Ausgrid requirements.</p> <p>The ambulance station will not need significant structural redesign and the southern land parcel whilst being serviced by the substation remains unaffected by it.</p> <p>Disadvantage: The placement of the substation within the footprint / envelope of the ambulance station at street level requires only a minor reconfiguration of parts of the ambulance station to maintain BCA, DDA, and fire servicing compliances. This disadvantage on balance is minor relative to the advantages.</p>	Yes

2. Site Analysis and Description

The Site and Locality

Table 2: Description of the site

Site Description	
Address	42-50 Parramatta Road (Arundel Street frontage), Forest Lodge
Legal Description	Lot 1 DP 73917, Lot 1 DP 66015, Lot 2 DP 63825, Lot 1 DP 63825
Site Area	Approx. 3,500m ² (Ambulance Station site approx.. 2,100m ² and southern land parcel approx. 1,400m ² .)
Owners	Health Administration Corporation (HAC)
Heritage	<p>The site is not subject to any heritage listings, but is located near a number of local and State items and near Conservation Areas under Sydney LEP 2012. No Commonwealth / National items of heritage significance occur at or near the site.</p> <p>A recent AHIMS search in relation to the site indicates that the site is not subject to either a recorded Aboriginal site or a declared (or nearby declared) Aboriginal place.</p>

Existing Development

The site is the location of the former NSW Coroner's Court and is presently a construction site. DA D/2020/1088 was approved by the City of Sydney Local Planning Panel on 9 June 2021 for the *staged construction to allow for the construction of an emergency services facility, a concept envelope for a future commercial development and subdivision of the site into two lots*. The ambulance station is the first stage of the development. The subject REF is separate to, but related to this DA and its construction.

Site Considerations and Constraints

Section 10.7 Planning Certificate No. 2022305803 dated 9 August 2022 identifies that the site is located within the B7 – Business Park zone under *Sydney Local Environmental Plan 2012*, and is provided at **Appendix A**.

Table 3: Section 10.7 Planning Certificate

Affectation	Yes	No
Critical habitat		✓
Conservation area		✓
Item of environmental heritage		✓
Affected by section 38 or 39 of the Coastal Management Act 2016 (CM Act)		✓
Proclaimed to be in a mine subsidence district		✓
Affected by a road widening or road realignment		✓
Affected by a planning agreement		✓
Affected by a policy that restricts development of land due to the likelihood of landslip		✓
Affected by bushfire, tidal inundation, subsidence, acid sulphate or any other risk		✓
Affected by any acquisition of land provision		✓
Biodiversity certified land or subject to any bio-banking agreement or property vegetation plan		✓
Significantly contaminated		✓
Subject to flood related development controls		✓

Affectation	Yes	No
Bushfire Prone Land		✓

The planning certificate does however indicate that the property is between the flood planning area and probable maximum flood.

An AHIMS Search has also be secured and is provided at **Appendix B**.

3. Proposed Activity

Proposal Overview

HI has developed the Sydney Ambulance Metropolitan Infrastructure Strategy (SAMIS) program to reshape NSW Ambulance's operations in Metropolitan Sydney. The proposed SAMIS Ambulance Station (SAMIS Central) at 42-50 Parramatta Road, Forest Lodge is the last of 11 "superstations" to be constructed. It is critical for delivery of ambulance services across central Sydney.

The substantive redevelopment of the site is subject to DA D/2020/1088 which was approved by the City of Sydney Local Planning Panel on 9 June 2021 for the *staged construction to allow for the construction of an emergency services facility, a concept envelope for a future commercial development and subdivision of the site into two lots*. The ambulance station is the first stage of the development. The subject REF is separate to, but related to this DA and its construction.

The development site at 42-50 Parramatta Road is to be subdivided into two lots. The ambulance station will be constructed on the proposed northern lot adjacent to the Arundel Street frontage and has no frontage to Parramatta Road. The street address for this lot is expected to change when the subdivision is registered on title. The second lot fronting Parramatta Road to the south will be subject to a future development – see **Figures 1 and 2** providing photomontages of the approved ambulance station (SAMIS Central) and the proposed subdivided lot, respectively.



Figure 1 – SAMIS Central photomontages as viewed from Arundel Street (Architectus)

To meet the electrical demand of the proposed SAMIS Ambulance Station development and the future adjacent development at 42-50 Parramatta Road, Forest Lodge it will be necessary to establish a chamber substation on the premises due to capacity limitations of the local electricity distribution network. As development of the Ambulance Station will proceed first, HI proposes to establish a single transformer surface chamber within the land parcel adjacent to the Arundel Street property boundary with HV and LV electricity network connections adjacent to the substation in the Arundel Street southern footway. In addition, a concrete encased ductline to the southern land parcel and associated easement for electricity purposes will be provided to facilitate an electricity network connection to the future development on that lot. The proposed works are described in more detail in the attached ASP/3 electrical design drawing "AN-23553 FOREST LODGE – ASP/3 DESIGN".

Minor consequential internal and external design changes to SAMIS Central arise in accommodating the substation. The internal changes primarily relate to refinement of disabled and pedestrian access, fire services and plant, and emergency egress. The external change primarily results in plant room and fire egress doors being relocated and a new screen being included in the place of these doors to conceal the substation. It is understood that these minor and consequential changes are able to be accommodated through the Crown certification process and through required and ongoing BCA compliance resulting from the operation of Prescribed Conditions as imposed by DA D/2020/1088. Accordingly, they do not form part of this REF.

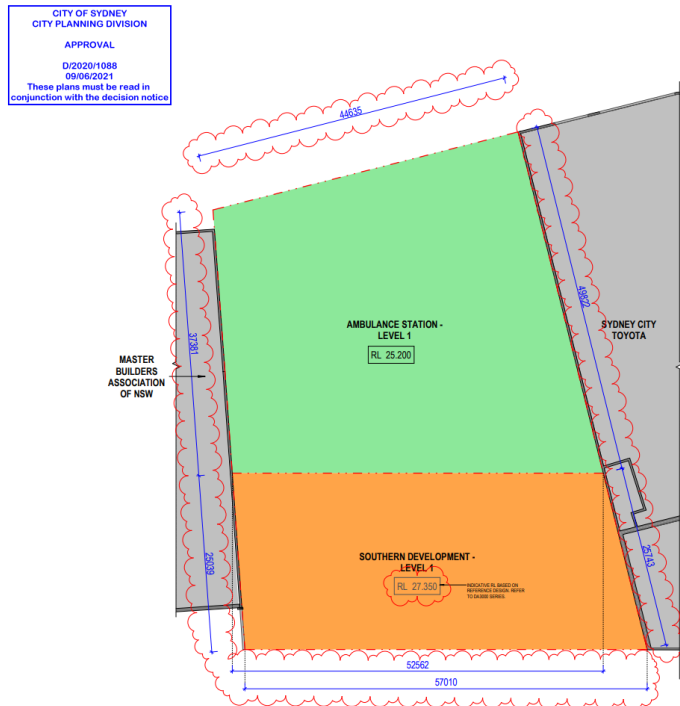


Figure 2 – Proposed subdivided lots (Architectus)

The approved ground level floor plan is included at **Figure 3** whilst **Figure 4** shows the current proposed reconfigured ground floor layout. Similarly, **Figures 5** and **6** each show the approved elevation and current proposed elevation, respectively. **Figure 7** shows the extent of the concrete encased ductline to the southern land parcel.



Figure 3 – Approved Ground Floor Plan with location of proposed substation circled (Architectus)

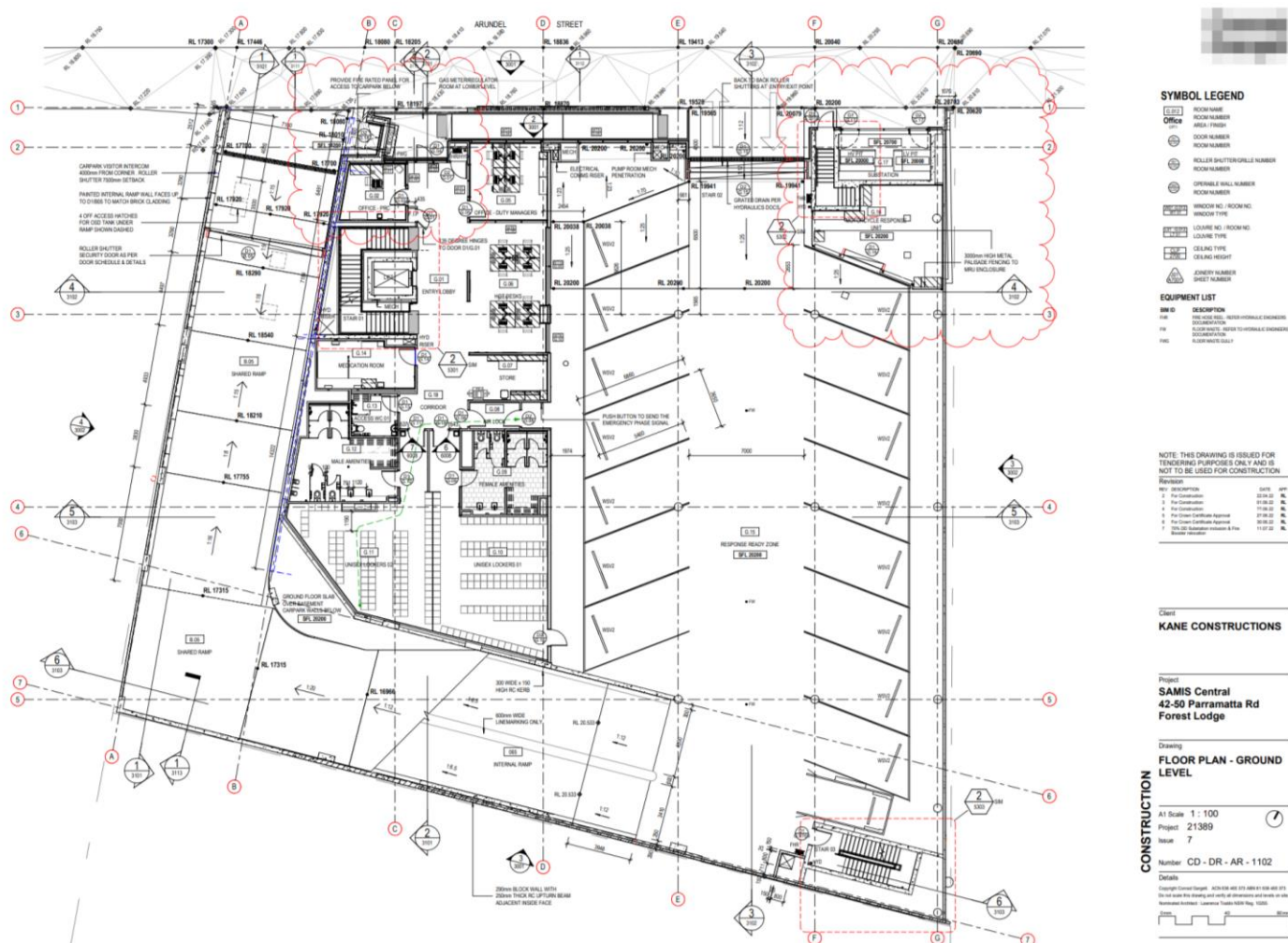


Figure 4 – Proposed Ground Level Plan (Conrad Gargett)

As part of the demolition of the former NSW Coroner's Court Building in this location a prior Ausgrid project No.AN-20630 was completed to facilitate the decommissioning and removal of redundant substation No.2945 from the premises.

The proposed works are now necessary to meet the electrical demand of this development, the future adjacent development on the southern land parcel, and to increase the capacity of the electricity network in the vicinity. The location of the substation, with a direct street frontage and access, is required as per Ausgrid standards and guidelines.

The proposal's objective is to ensure adequate electricity supply is provided to this essential service as well as the future development to its south and immediately adjacent developments.

The proposed electrical servicing plans (including the ASP/3 electrical design drawing "AN-23553 FOREST LODGE – ASP/3 DESIGN") are included at **Appendix C**.

Vegetation trimming required to complete this work includes the possible trimming of an existing street tree adjacent to the proposed substation. The existing street tree (Tree 3) is an *Acer buergerianum* / Trident Maple located in the Arundel Street southern footway near the proposed substation. Vegetation management including some trimming of the canopy on the eastern side of the tree may be required to allow delivery of heavy equipment into the substation, and trimming of some roots may be required to enable cable installation and jointing works in the vicinity. Note that this tree is protected under conditions 85 and 86 of DA D/2020/1088 and (if required) pruning of canopy and/or roots must be undertaken strictly in accordance with DA D/2020/1088 condition 87. This is addressed more fully below.

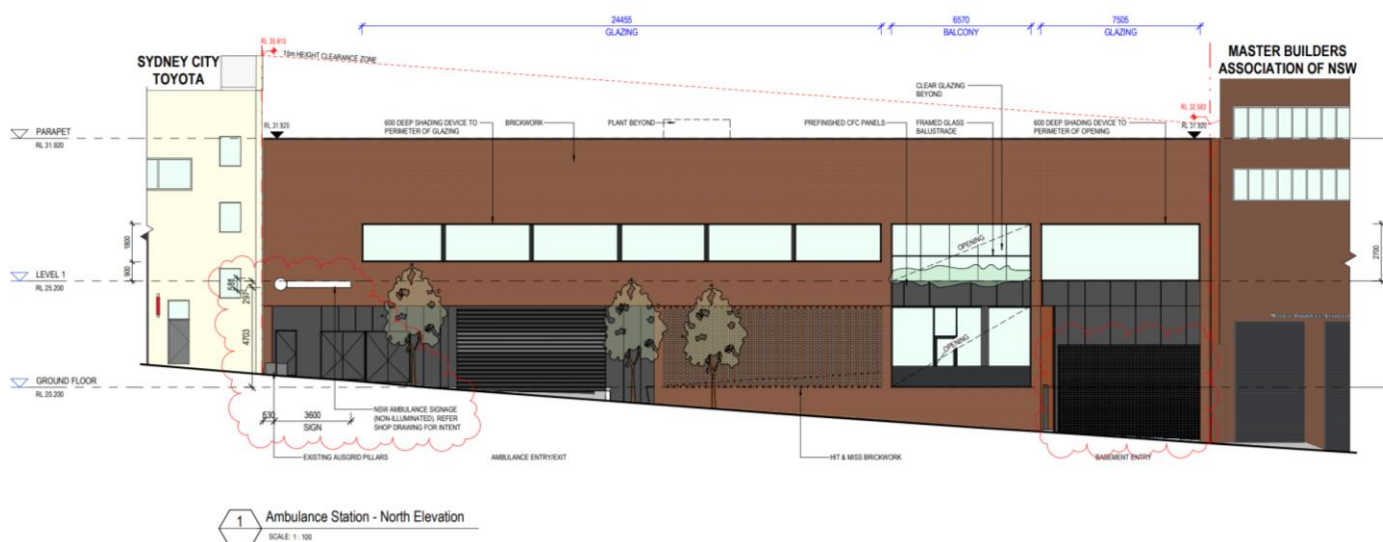


Figure 5 – Approved Arundel Street elevation (Architectus)

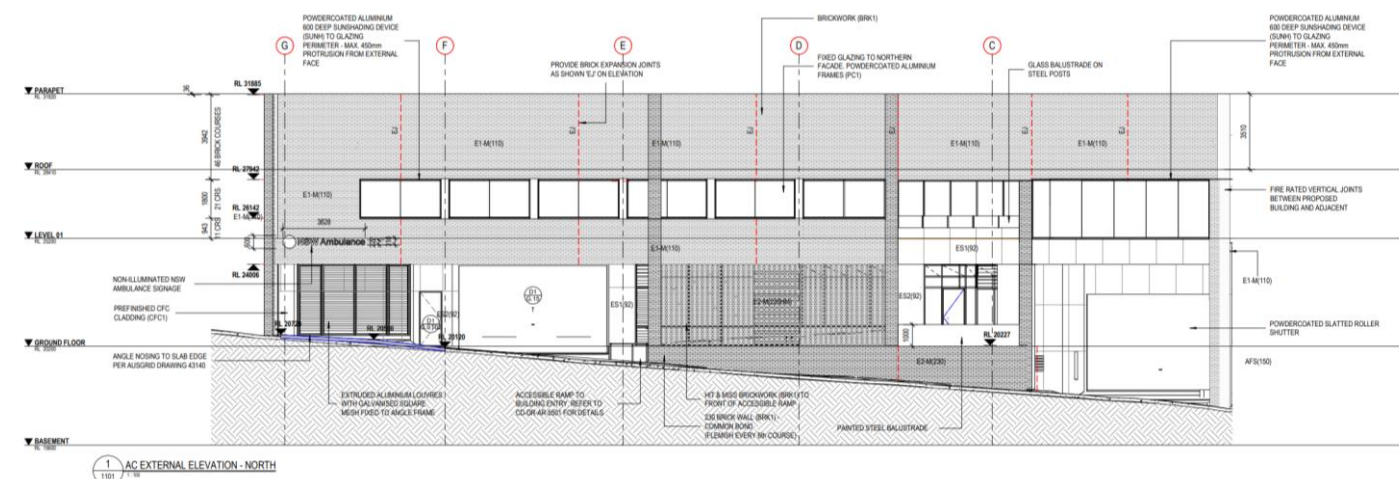


Figure 6 – Proposed Arundel Street elevation (Conrad Gargett)

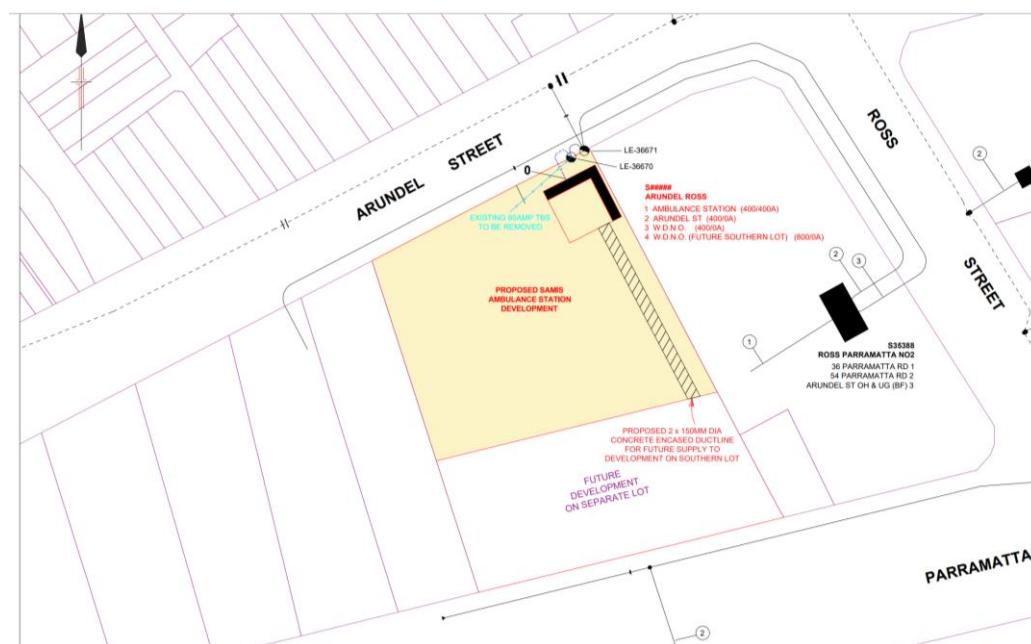


Figure 7 – Proposed extent of the concrete encased ductline to the southern land parcel (Webb Australia)

Construction Activities

The works are short term and sit within the wider construction program of the SAMIS Central construction itself. Once the building / substation chamber has been completed the fitout of the substation will take place. All deliveries for the substation will be managed by traffic control with the proposed application to council for footpath occupancy or lane closure if required.

The typical construction methodologies would be utilised and include the use of a concrete cutter and wet vac, excavator, tip truck, skip bin, mobile crane and the like. The extent of the proposed work is localised to the vicinity of the electricity network assets that need to be established.

All work would occur within the construction site at 42-50 Parramatta Road, Forest Lodge, apart from cable installation and jointing and access to the construction site which would occur within existing roadways. Work would occur within the Arundel Street public road reserve and, as such, provisions for traffic management would be made sufficient to meet local Council and the Roads and Maritime Service (RMS) standards.

Table 4: Project Timeframes and Construction Activities

Construction activity	Description
Commencement Date	Within the overall SAMIS Central construction program which has commenced
Work Duration/Methodology	The delivery and installation of the substation is within the overall construction program and is anticipate to be completed within a week.
Work Hours and Duration/Construction	<p>The approved construction hours are implemented as part of this scope. These are:</p> <p>(a) All work, including building/demolition and excavation work, and activities in the vicinity of the site generating noise associated with preparation for the commencement of work (eg. loading and unloading of goods, transferring of tools etc) in connection with the proposed development must only be carried out between the hours of 7.30am and 5.30pm on Mondays to Fridays, inclusive, and 7.30am and 3.30pm on Saturdays, with safety inspections being permitted at 7.00am on work days, and no work must be carried out on Sundays or public holidays.</p> <p>(b) All work, including demolition, excavation and building work must comply with the City of Sydney Code of Practice for Construction Hours/Noise 1992 and Australian Standard 2436 - 2010 Guide to Noise Control on Construction, Maintenance and Demolition Sites.</p> <p>(c) Notwithstanding the above, the use of a crane for special operations, including the delivery of materials, hoisting of plant and equipment and erection and dismantling of on-site tower cranes which warrant the on-street use of mobile cranes outside of above hours can occur, subject to a separate application being submitted to and approved by Council under Section 68 of the Local Government Act 1993 and Sections 138/139 of the Roads Act 1993.</p> <p>Note: Works may be undertaken outside of hours, where it is required to avoid the loss of life, damage to property, to prevent environmental harm and/or to avoid structural damage to the building. Written approval must be given by the Construction Regulation Team, prior to works proceeding.</p> <p>Note also respite periods have been nominated for noisy works exceeding 75db, or exceed the internal noise management level. The following nominated respite hours are.</p> <p>Monday to Friday: 7:30am-8:00am</p> <p>Saturday: 8:00am-9:00am</p> <p>Monday to Saturday: 12:00pm-2:00pm</p>
Ancillary Facilities	As per the existing Construction Management Plan in place
Plant Equipment	As per the existing Construction Management Plan in place

Construction activity	Description
Source and Quantity of Materials	As per the existing Construction Management Plan in place
Traffic Management and Access	As per the existing Construction Management Plan in place

A refined Construction Management Plan building upon the existing one in operation by Kane Constructions is provided at **Appendix D**.

Operational Activities

The only operational aspects related to this REF are that related to the substation itself, including its later maintenance.

Use

No change of use arises in relation to the approved SAMIS Central development in itself. The capacity and operation of the ambulance station remains as approved under DA D/2020/1088. Any change to those conditions of consent are subject to a separate modification to the City of Sydney or otherwise a separate REF, or the like.

Operation Hours

The ambulance station is intended to operate 24 hours per day and 7 days per week. Similarly, the substation will be in operation in the same manner.

Staff / Patients

No new or changed staff or workforce numbers or arrangements arise from this proposed scope.

Traffic and Parking

No changes to the access and parking arrangements arise from this scope of works.

Maintenance

The Activity includes future maintenance, operation, inspection, repair and decommissioning. This may include works undertaken out of normal working hours and vegetation management works. All works would be undertaken in accordance with Ausgrid's NS174C Environmental Handbook for Construction and Maintenance and Ausgrid's Tree Safety Management Plan or equivalent procedures in force at the time.

4. Statutory Framework

Activity Description under TISEPP

Section 4.1 of the EP&A Act states that if an EPI provides that development may be carried out without the need for development consent, a person may carry out the development, in accordance with the EPI, on land to which the provision applies. However, an environmental assessment of the development is required under Part 5 of the Act.

State Environmental Planning Policy (Transport and Infrastructure) 2021 (TISEPP) aims to facilitate the effective delivery of infrastructure across the State. Division 5, Subdivision 1 of the TISEPP outlines the approval requirements for electricity transmission or distribution works. This includes electrical substations.

The site is zoned B7 – Business Park under the *Sydney Local Environmental Plan 2012*. The B7 – Business Park zone is a prescribed zone under the TISEPP. Note, development for the purpose of an electricity transmission or distribution network (including an electrical substation) may be carried out by or on behalf of an electricity supply authority or public authority without consent **on any land**. HI (is a public authority) and the works are otherwise being carried out on behalf of Ausgrid, an electricity supply authority.

Therefore, the proposal is considered an ‘activity’ for the purposes of Part 5 of the EP&A Act and is subject to an environmental assessment (REF). The proposal is considered an ‘activity’ in accordance with section 5.1 of the EP&A Act because it involves the carrying out of a work, the demolition of a building or a work, and the use of land, that is not Exempt Development or prohibited under an environmental planning instrument.

Under provisions of the TISEPP, the following activity is to be undertaken.

- The installation and operation of an electrical substation and its ancillary works at ground level addressing Arundel Street.

TISEPP consultation is discussed within section 5 of this REF.

Table 5: Description of proposed activities

Division and Section within TISEPP	Description of Works
Division 5, Subdivision 1 – section 2.44(1) and (2)(d)	<p>Development for the purpose of an electricity transmission or distribution network may be carried out by or on behalf of an electricity supply authority or public authority without consent on any land.</p> <p>In this section, a reference to development for the purpose of an electricity transmission or distribution network includes a reference to development for any of the following purposes if the development is in connection with such a network—</p> <p>...</p> <p>(d) establishment of a new substation or an increase in the area of existing substation yards or the installation of equipment, plant or structures in existing substation yards or substation buildings.</p> <p>The works are on ‘any land’ and the prevailing B7- Business Park zone is not a relevant pre-condition to qualification for the REF pathway. As above, HI (is a public authority) and the works are otherwise being carried out on behalf of Ausgrid, an electricity supply authority.</p>

Environmental Protection and Biodiversity Conservation Act 1999

The provisions of the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) do not affect the proposal as it is not development that takes place on or affects Commonwealth land or waters. Further, it is not development carried out by a Commonwealth agency, nor does the proposed development affect any matters of national significance. An assessment against the EPBC Act checklist is provided at Table 6.

Table 6: EPBC Checklist

Consideration	Yes/No
The activity will not have any significant impact on a declared World Heritage Property?	No
The activity will not have any significant impact on a National Heritage place?	No
The activity will not have any significant impact on a declared Ramsar wetland?	No
The activity will not have any significant impact on Commonwealth listed threatened species or endangered community?	No
The activity will not have any significant impact on listed migratory species?	No
The activity does not involve nuclear actions?	No
The activity will not have any significant impact on Commonwealth marine areas?	No
The activity will not have any significant impact on Commonwealth land?	No
The activity does not relate to a water resource, a coal seam gas development or large coal mining development?	No

Environmental Planning and Assessment Act 1979

Duty to Consider Environmental Impact

Part 5 of the EP&A Act applies to activities that are permissible without consent and are generally carried out by a public authority. Activities under Part 5 of the EP&A Act are assessed and determined by a public authority, referred to as the determining authority. Health Infrastructure is a public authority and is the proponent and determining authority for the proposed works.

For the purpose of satisfying the objects of the EP&A Act relating to the protection and enhancement of the environment, a determining authority, in its consideration of an activity shall, notwithstanding any other provisions of the Act or the provisions of any other Act or of any instrument made under the EP&A Act or any other Act, examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity (refer to sub-section 1 of section 5.5 of the EP&A Act).

Section 170 of the EP&A Regulation defines the factors which must be considered when assessing the likely impact of an activity on the environment under Part 5 of the EP&A Act. This is set out in the Department of Planning and Environment's Guidelines for Division 5.1 assessments – June 2022, which provides reference to factors to be considered under section 171(2) of the EP&A Regulation.

Table 7 below demonstrates the effect of the proposed development activity on the matters listed for consideration in sub-section 3 of section 5.5 of the EP&A Act.

Table 7: Matters for consideration under Sub-Section, Section 5.5 of the EP&A Act

Matter for Consideration	Impacts of Activity
<p><i>Sub-section 3:</i></p> <p>Without limiting subsection 1, a determining authority shall consider the effect of any activity on any wilderness area (within the meaning of the <i>Wilderness Act 1987</i>) in the locality in which the activity is intended to be carried on.</p>	<p>The works are not located within a wilderness area and do not impact any wilderness areas given the highly modified and urbanised environment within which it sits.</p>
<p>Note: If a biobanking statement has been issued in respect of a development under Part 7A of the <i>Threatened Species Conservation Act 1995</i>, the determining authority is not required to consider the impact of the activity on biodiversity values.</p>	

Environmental Planning and Assessment Regulation 2021

As above, Section 170 of the EP&A Regulation defines the factors which must be considered when assessing the likely impact of an activity on the environment under Part 5 of the EP&A Act. This is set out in the Department of Planning and Environment's Guidelines for Division 5.1 assessments – June 2022, which provides reference to factors to be considered under section 171(2) of the EP&A Regulation. These requirements are considered at section 6.1 of this REF.

Other NSW Legislation

The following table lists any additional legislation that is required to be considered if it is applicable to the proposed activity.

Table 8: Other Possible Legislative Requirements

Legislation	Comment	Relevant? Yes/No
State Legislation		
Rural Fires Act 1997	The site is not identified on the Bushfire Prone Land Map	No
Biodiversity Conservation Act 2016	The site does not contain any critical habitat, threatened species or ecological population or community	No
Water Management Act 2000	The site of the works is not within 40 metres of a watercourse and is not within what is defined as waterfront land.	No
Contaminated Land Management Act 1997	The site is not listed on the register of contaminated sites based on the Planning Certificate.	No
Heritage Act 1977	There are no impacts on local, State or National heritage that would require any further or new assessment.	No
Roads Act 1993	Ancillary works are proposed within the Arundel Street roadway to configure new Ausgrid connections to the wider electricity network.	Yes
Other Acts as required	As noted earlier in the REF, section 45 of the <i>Electricity Supply Act 1995</i> also applies to these works, including the need to notify Council under section 45(4). The works are work comprising the erection, installation or extension of electricity works on public land, where public land includes land under the control and management of a public or local authority. This includes Council's road reserve for works within it and the HAC-owned ambulance site.	Yes
State Environmental Planning Policies		
State Environmental Planning Policy (Resilience and Hazards) 2021	Contamination and any HAZMAT has already previously been addressed by the Coroner's Court building demolition works REF and the DA for the new ambulance station. For the purposes of this REF the site is a remediated site.	No.
State Environmental Planning Policy (Transport and Infrastructure) 2021	The only remaining consideration within this SEPP is whether the works relate to any traffic-generating development, which they self-evidently do not. No notification to TfNSW is required or warranted.	No.
State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021	Whilst the site is located in the area covered by this SEPP, it is not a State Significant Precinct or located within one.	No.
Sydney Local Environmental Plan 2012		
Zone	B7-Business Park – whilst the site sits within this zone, the substation is ancillary to and supports and permissible land use for which development has been recently granted and for which construction is nearing completion.	No.
Height of Buildings	The maximum building height control is 15m. The maximum height of the new ambulance station building is RL 31.92 or 14.3m at the northern elevation facing Arundel Street at the development site's lowest point. The substation sits at ground level well within the maximum height established by the approved development's envelope.	No
Floor Space Ratio	1.5:1. The approved development's FSR was 1.7:1 to an adjusted maximum FSR of 1.52 once end-of-trip facility concessions / bonuses were factored in. The substation's chamber does not further add to or	No.

Legislation	Comment	Relevant? Yes/No
	alter this approved FSR. No new floorspace is generated as a result of the substation that generates additional capacity or intensity of use at the site.	
Heritage	<p>The site is not subject to any heritage listings, but is however located near a number of local heritage items and near Conservation Areas under Sydney LEP 2012. The University of Sydney, University Colleges and Victoria Park is identified on the State Heritage Register, whilst other individual State items are located further afield and no Commonwealth / National items of heritage significance occur at or near the site.</p> <p>With the substation forming part of the approved built form and envelope of the ambulance station, no further or new heritage consideration is warranted.</p>	No
Flood Planning	Under clause 7.15 of the LEP the flood planning level is 1:100 ARI (average recurrent interval) flood event, or otherwise known as the 1% AEP, plus 0.5 metres freeboard. Special consideration is given to the ambulance station as a 'critical facility'. In this circumstance the flood planning level is 1% AEP flood level + 0.5 m or the PMF (whichever is higher).	Yes – see further discussion in the following sections of this REF.

5. Consultation

The REF scope of works was notified for 21 calendar days to the stakeholders outlined in Table 9.

Table 9: Agencies and stakeholders notified

Stakeholder	Relevant section
City of Sydney Council	Section 2.45(2) of TISEPP
Occupiers of adjoining land	Section 2.45(2) of TISEPP

Note also that the City of Sydney notification was for an extended period of 40 days to concurrently address the notification requirements of section 45(4) of the *Electricity Supply Act 1995*.

The neighbour and Council notification commenced on 5 August 2022 with the neighbour notification concluding on 26 August 2022. The Council notification concluded on 14 September 2022. A map of the extent of the neighbour notification is set out below in **Figure 8**. This extent concurrently satisfies the notification requirements of Ausgrid.

Copies of the notification letters, as well as responses received, are provided at **Appendix E**.



Figure 8 – Extent of neighbour notification (SixMaps)

An overview of the comments received are outlined and responded to in the table over.

Table 10: Outcomes of consultation

Issue raised	Date received	Response	Reference
Adjacent neighbour – 139 Arundel Street, Forest Lodge			
<p>I received a mail drop of now the installation of a substation right across my place. Is access to this substation purely within the internal building or is there external access or any vents etc facing Arundel Street which will allow noise to be emitted if not purely within the internal building Please also confirm when acoustic testing was undertaken and what noise levels were read, what times of day etc. Please confirm what expected noise emissions will be due to the substation and if I can hear these from my house what the solution will be. Please confirm what is the 'accepted' noise emission limits and what are these based on. I have been asking for double glazing but still no information on this. This is a small cost compared to the cost of the development and impact to my place and well being. As mentioned have I one of the worst affected homes on Arundel being directly opposite the drive way and now a substation. I am surprised NSW Health which should have a good understanding of health will not take measures to ensure there is no impact to my (and others) health and well being</p>	7 August 2022	<p>The submitter was provided with the acoustic statement prepared by JHA. This sets out as follows:</p> <p><i>This letter has been prepared in order to address the proposed sub-station as part of the SAMIS Central Superstation in regards to potential noise impacts to the nearest residential receivers to the north across Arundel Street.</i></p> <p><i>The noise criteria was extracted from the Acoustic Report for DA1 prepared by JHA Engineers and are derived from NSW EPA Noise Policy for Industry, where the lowest most stringent criteria is during night time at 43dB(A). The substation sound power levels (SLWs) have been taken from the AUSGRID EGN Transformer Noise Calculator. The transformer model is a 'Wilson City/suburban Chamber 750 kVA' and has a sound power level (SWL) of 65dB. Based on the SWL noise level of the transformer, the predicted sound pressure level to the nearest residential receiver on Arundel Street has been calculated to 36dB(A). Therefore the predicted noise level is significantly below the night time noise criteria of 43dB(A) to the nearest most affected residential receiver.</i></p> <p><i>The relevant documentation has been reviewed for the substation and noise criteria for the surrounding residential receivers and a noise assessment conducted. Based on the noise assessment conducted for the sub-station, it can be confirmed that the predicted sound pressure levels at the nearest residential receivers will meet the night-time criteria established in the acoustic report, and no additional acoustic mitigation measures are required.</i></p> <p><i>Based on the results of the assessment, the operation of the sub-station is predicted to comply with the relevant noise emissions limits and not result in any adverse acoustic impact onto nearby residences.</i></p> <p>No further correspondence was received from this submitter. Note that NSW Ambulance staff met with this submitter to discuss the broader project including this substation.</p>	<p>The acoustic statement (as also provided to the submitter) is found at Appendix F. No further action is considered necessary.</p>

As set out in Table 10 above, only one submission was received, being from the adjacent neighbour at 139 Arundel Street, Forest Lodge.

The City of Sydney did not make any submissions during the 40 days period provided to it to satisfy both the TISEPP and *Electricity Supply Act 1995*.

6. Environmental Assessment

Environmental Planning and Assessment Regulation 2021 – Assessment Considerations

The relevant assessment considerations under section 170 of the EP&A Regulation 2021 (though the application of the Department of Planning and Environment's Guidelines for Division 5.1 assessments – June 2022, which provides reference to factors to be considered under section 171(2) of the EP&A Regulation. These are provided below.

Table 11: Summary of Environmental Factors Reviewed in Relation to the Activity

Relevant Consideration	Response/Assessment		
a) Any environmental impact on a community	<p>The proposal will have no direct impact upon the community or the users of the ambulance station. The electrical substation will be screened and sit behind louvres. The visual amenity will be consistent with that accepted and as approved under the recent DA for the ambulance station.</p> <p>Consideration has been given to the possible impacts of electro-magnetic fields (EMF) emanating from the the substation. Details are set out below this table. In general, the impacts are able to be mitigated through internal design measures. No external impacts arise for users of the Arundel Street footpath.</p> <p>Further consideration has also been given to the possibility of any increased noise or vibration impacts arising from the operation of the substation.</p> <p>Webb Australia has advised that the total predicted transformer noise of 30dB (Sound Pressure Level) is at the property boundary of the nearest receiver on the north side of Arundel St opposite the substation. The Transformer Sound Power Level is 65dB.</p> <p>An acoustic assessment undertaken by JHA (and included at Appendix F) indicates:</p> <p><i>The noise criteria was extracted from the Acoustic Report for DA1 prepared by JHA Engineers and are derived from NSW EPA Noise Policy for Industry, where the lowest most stringent criteria is during night time at 43dB(A). The substation sound power levels (SLWs) have been taken from the AUSGRID EGN Transformer Noise Calculator. The transformer model is a 'Wilson City/suburban Chamber 750 kVA' and has a sound power level (SWL) of 65dB. Based on the SWL noise level of the transformer, the predicted sound pressure level to the nearest residential receiver on Arundel Street has been calculated to 36dB(A). Therefore the predicted noise level is significantly below the night time noise criteria of 43dB(A) to the nearest most affected residential receiver.</i></p> <p><i>The relevant documentation has been reviewed for the substation and noise criteria for the surrounding residential receivers and a noise assessment conducted. Based on the noise assessment conducted for the sub-station, it can be confirmed that the predicted sound pressure levels at the nearest residential receivers will meet the night-time criteria established in the acoustic report, and no additional acoustic mitigation measures are required.</i></p> <p><i>Based on the results of the assessment, the operation of the sub-station is predicted to comply with the relevant noise emissions limits and not result in any adverse acoustic impact onto nearby residences.</i></p> <p>Overall, the impacts are minimal and generally neutral.</p>	-ve	
		Nil	X
		+ve	
(b) Any transformation of a locality	The proposal does not transform the locality.	-ve	
		Nil	X
		+ve	

Relevant Consideration	Response/Assessment		
(c) Any environmental impact on the ecosystem of the locality	The proposal will have no impact upon any ecosystem in the locality.	-ve	
		Nil	X
		+ve	
d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality.	As the substation will be screened by louvres which are integrated within the façade design of the ambulance station, the proposal will have no new or different aesthetic impact to that already approved by the recent DA. Otherwise, there is no recreational, scientific or other environmental quality or value impact upon the locality.	-ve	
		Nil	X
		+ve	
e) Any effect on locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific, or social significance or other special value for present or future generations.	The proposal has no impact upon the locality, and/or a place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific, or social significance or other special value for present or future generations.	-ve	
		Nil	X
		+ve	
(f) Any impact on the habitat of protected fauna (within the meaning of the National Parks and Wildlife Act 1974)	The proposal does not impact upon the habitat of protected fauna (within the meaning of the National Parks and Wildlife Act 1974).	-ve	
		Nil	X
		+ve	
(g) Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air	The proposal does not result in the endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air.	-ve	
		Nil	X
		+ve	
(h) Any long term impacts on the environment	There are no long term impacts upon the environment.	-ve	
		Nil	X
		+ve	
(i) Any degradation of the quality of the environment	The proposal does not reduce the quality of the natural or built environment.	-ve	
		Nil	X
		+ve	
j) Any risk of safety of the environment	The risks to the environment with respect to EMF has been considered to be low and within normal guidelines and standards.	-ve	
		Nil	X
		+ve	
(k) Any reduction in the range of beneficial uses of the environment	There is no reduction in the range of beneficial uses of the environment.	-ve	
		Nil	X
		+ve	
(l) Any pollution of the environment	There will be no additional pollution of the environment arising from the operation of the substation, including noise pollution that would be discernible at relevant distances to sensitive receivers (and at relevant times of day and night).	-ve	
		Nil	X
		+ve	
(m) Any environmental problems associated with the disposal of waste	There are no environmental problems associated with the disposal of waste arising because of the proposal.	-ve	
		Nil	X
		+ve	
		-ve	

Relevant Consideration	Response/Assessment		
n) Any increased demand on resources (natural or otherwise) that are, or are likely to become, in short supply	The proposal does not facilitate any increased demand on resources (natural or otherwise) that are, or are likely to become, in short supply	Nil	X
		+ve	
(o) Any cumulative environmental effects with other existing or likely future activities.	The visual, noise, and EMF impacts of the proposal when considered in conjunction with other nearby uses and activities does not give rise to any significant impacts or cumulative environmental effects. The use and proposal is modest in its context.	-ve	
		Nil	X
		+ve	
(p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions.	N/A	-ve	
		Nil	X
		+ve	
q) Applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1	The proposal is for an electrical substation. No strategic planning outcomes are impacted. In any case, the substation supports the effective delivery and operation of the approved ambulance station and the residual lot to be later developed. This DA was considered to support applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act at the time of its assessment and approval.	-ve	
		Nil	X
		+ve	

The factors to be considered also require consideration at section 171(2)(r) of *other relevant environmental factors*. The following is commentary and assessment of a range of other relevant environmental factors under this REF.

Electro-magnetic fields (EMF)

Webb Australia has provided information (dated 30 June 2022 via aconex) with respect to the likely EMF impacts or risks associated with the placement and operation of the substation. This relates to workers / occupants within the ambulance station as well as pedestrians within the Arundel Street footpath.

Occupational Exposure

Occupational exposure refers to adults exposed to time-varying electric, and magnetic fields from 1Hz to 10MHz at their workplaces, generally under known conditions, and as a result of performing their regular or assigned job activities. Employed people are generally regarded as members of the General Public. The consensus of the bodies that regulate safety aspects of radiation (e.g. ARPANSA in Australia, ICRNIRP the International Commission on Non-ionizing Radiation Protection, etc.) is that there is no proven biological effects due to 50Hz radiation below the 2000mG (200 μ T) levels where heating becomes an issue. Therefore in terms of human exposure, supplementary shielding of the substation rear wall and ceiling slab is not necessary.

Equipment Compatibility

Equipment compatibility with electric and magnetic fields is dealt with in AS/NZS 61000.6.1:2006 Electromagnetic compatibility (EMC) - Generic standards - Immunity for residential, commercial and light-industrial environments. The objective of this Standard is to provide designers, manufacturers and testers of equipment incorporating electrical or electronic operation with methods of testing to ascertain immunity to electromagnetic disturbance. The test specifications and maximum acceptable extremely low frequency magnetic field levels for avoidance of interference outlined in the standard is 3 A/m (37.5mG) for all equipment other than cathode ray tubes (that are now uncommon). This is not to say that equipment will not continue to function correctly at field strengths exceeding 37.5mG - rather it means that equipment tested to the standard is not certified to function correctly at field strengths exceeding 37.5mG.

Estimated Field Levels

From our calculations, the field strength for a 750kVA transformer operating at rated power decays to less than 37.5mG at a distance of 2.17m from the centre of the transformer. The EMF field strength in the room above the substation will be below 37.5mG, so shielding the substation ceiling slab is not required for equipment compatibility. The EMF field strength in the room behind the substation (presently designated Motorcycle Response Unit) will exceed 37.5mG. The higher level field level bubble intrudes into the room a maximum of 920mm directly behind the transformer 1m above floor level. If electronic equipment is to operate in this space then shielding the rear wall of the substation should be considered.

If the substation is upgraded to a 1000kVA transformer in the future, the higher field level bubble will intrude into the room a maximum of 1140mm.

The design of the rear wall of the substation has been modified with shielding to prevent any internalised impact upon the Motorcycle Response Unit. Its electronic equipment has been provided with the necessary protection to allow for its standard and expected operation.

Flooding

The following assessment and text was provided in the SEE for the SAMIS Central development.

Under clause 7.15 of the LEP the flood planning level is 1:100 ARI (average recurrent interval) flood event, or otherwise known as the 1% AEP, plus 0.5 metres freeboard. Special consideration is given to the ambulance station as a 'critical facility'. In this circumstance the flood planning level is 1% AEP flood level + 0.5 m or the PMF (whichever is higher).

The ambulance station addresses Arundel Street, with two vehicular access points and one pedestrian access, as well as an emergency egress, as discussed in Section 4 of this SEE.

The principal ambulance access is from the easternmost / highest part of the site at this street frontage, whilst staff parking is provided via the westernmost / lowest part of the site via the proposed shared accessway which generally sits in the same location as the existing basement driveway from Arundel Street into the former NSW Coroners Court building.

The pedestrian access sits at an approximate midpoint between the two via a ramp. A further emergency access is located at the site's eastern boundary.

Flood planning advice from GRC Hydro (see Appendix L) has assessed the floor levels and freeboard of the development and applied performance criteria under the Sydney DCP to justify the proposed freeboard of 1% AEP flood level + 0.1 m at a minimum. This freeboard in consideration of flood behaviour, climate change, the design of the development, and likely risk has been demonstrated to achieve an appropriate flood planning level response, noting all ground level openings and accessways to Arundel Street variously satisfy 1% AEP flood level + 0.1 m; 1% AEP flood level + 0.5 m or the PMF levels.

Similarly, for flood impacts arising from the development and flood behaviour, given the existing site is subject to a 100% coverage and this is proposed to be maintained, there would be no material impact on future flood behaviour.

GRC Hydro has now reviewed the revised drawings to accommodate the substation and has advised as follows with respect to this REF.

The recently supplied construction plans (Number CD - DR - AR – 1101 and CD - DR - AR – 1102) show the proposed entrance locations and levels. A subsequent email dated 6/10/2022 recorded that the basement stair access from Arundel Street will have a step-up from the street. I confirm the proposed entrances are suitably high to provide protection against flooding. In addition, the building will not cause any impact on existing flood behaviour, as previously determined.

See the Flooding Statement at **Appendix G**.

BCA and DDA / Access Compliance

Group DLA has provided a BCA compliance statement within which it states as follows:

Compliance with the BCA for these specific is capable of being achieved by a combination of compliance with the deemed-to-satisfy (DTS) provisions and the provision/documentation of performance solutions in accordance with Clause A5.2 of the BCA by a suitably qualified consultant/s to achieve compliance with the performance provisions of the BCA, the provision and assessment of these reports/documents will occur at the Crown Certificate (CC) stage.

Further consideration and review with respect to compliance with the Disabled Access, and Section J Energy Efficiency provisions has been undertaken by suitably qualified consultants which is separate to this statement.

Notwithstanding the above comments we note that specific detailed compliance with the Building Code of Australia is not a prescribed head of consideration under Section 4.15 of the Environmental Planning & Assessment Act 1979 and accordingly, we trust that the determination of the REF will not be subject to the assessment of any technical matters under the State's building regulations.

With respect to DDA and accessibility compliance, ABS (Accessible Building Solutions) certifies that the relevant Design Standards have been satisfactorily incorporated, or are capable of being incorporated, within the design of building work. Where there is insufficient information provided on the drawings, compliance is assumed to be achieved.

See **Appendix H** in relation to BCA compliance.

Tree / vegetation pruning

Vegetation trimming required to complete this work includes the possible trimming of an existing street tree adjacent to the proposed substation. The existing street tree is an *Acer buergerianum* / Trident Maple located in the Arundel Street southern footway near the proposed substation. This is Tree No.3 from the original DA assessment.

Vegetation management including some trimming of the canopy on the eastern side of the tree may be required to allow delivery of heavy equipment into the substation, and trimming of some roots may be required to enable cable installation and jointing works in the vicinity.

Note that this tree is protected under conditions 85 and 86 of DA D/2020/1088 and (if required) pruning of canopy and/or roots must be undertaken strictly in accordance with DA D/2020/1088 condition 87.

Condition 86 will be reinforced and replicated in whole as part of the mitigation measures tied to this REF. Under condition 87 of the DA consent, Council's approval is needed for any street tree pruning as set out below.

(a) The consent from Council's Tree Management Officer must be obtained prior to the undertaking of any street tree pruning works including tree roots greater than 40mm diameter. Only minor pruning works will be approved by Council.

(b) Any pruning that has been approved by Council, must be carried out by a qualified Arborist (AQF3), and must be in accordance with AS4373 Australian Standards 'Pruning of Amenity Trees'.

Note however that being ancillary to the installation of the substation, the pruning of this tree is possible via section 2.3(3) of the TISEPP as follows:

(3) If this Chapter provides that development for a particular purpose that may be carried out without consent includes construction works, the following works or activities are (subject to and without limiting that provision) taken to be construction works if they are carried out for that purpose—

(a) accessways,

(b) temporary construction yards,

(c) temporary lay-down areas for materials or equipment,

(d) temporary structures,

(e) investigations (including geotechnical and other testing, surveying and the placement of survey marks, and sampling),

(f) clearing of vegetation (including any necessary cutting, pruning, ringbarking or removal of trees) and associated rectification and landscaping,

(g) demolition,

(h) relocation or removal of infrastructure,

(i) extraction of extractive materials at the construction site solely for the purpose of the construction.

In the DA's Arboricultural Assessment, this tree was identified as follows:

Tree 3. Acer buergerianum

This mature tree is approximately 7m tall with a canopy spread of 4m. It has a single trunk with a DBH of 220mm. This tree is in good health and condition with minimal deadwood and epicormic growth.

The tree was identified as having only 'moderate' significance and a 'moderate' retention value. It has a 2.64m Tree Protection Zone and should be protected as per Section 8 of the Arboricultural Assessment.

The appropriate course of action in this respect is a set of mitigation measures re-emphasising the adherence to the Tree Protection Measures during construction as set out in the Arboricultural Assessment, and as relevant compliance with Conditions 86 and 87 of the DA consent, notwithstanding their lack of application in the direct instance.

7. Summary of Impacts

Any likely impacts relating to the proposed activity have been considered and are discussed above in the preceding and as summarised in Table 12 below where matters remain required to be addressed in mitigation measures. All issues relating to the project are largely minor and will not cause significant impact as a result of the proposed activity. All mitigation measures relating to the project are provided in **Appendix I**.

Table 12: Summary of impacts relating to the activity

Issue	Discussion
Construction Management	All construction management related to the substation shall be consistent with that of the requirements of DA D/2020/1088 for the construction of SAMIS Central. This includes all subsequently approved Construction Management Plans (and the like) in place for the current construction works and includes the Construction Management Plan (and its appendices) that form part of this REF – see Appendix D .
Hours of works	<p>The approved construction hours are implemented as part of this scope. These are:</p> <p>(a) All work, including building/demolition and excavation work, and activities in the vicinity of the site generating noise associated with preparation for the commencement of work (eg. loading and unloading of goods, transferring of tools etc) in connection with the proposed development must only be carried out between the hours of 7.30am and 5.30pm on Mondays to Fridays, inclusive, and 7.30am and 3.30pm on Saturdays, with safety inspections being permitted at 7.00am on work days, and no work must be carried out on Sundays or public holidays.</p> <p>(b) All work, including demolition, excavation and building work must comply with the City of Sydney Code of Practice for Construction Hours/Noise 1992 and Australian Standard 2436 - 2010 Guide to Noise Control on Construction, Maintenance and Demolition Sites.</p> <p>(c) Notwithstanding the above, the use of a crane for special operations, including the delivery of materials, hoisting of plant and equipment and erection and dismantling of on-site tower cranes which warrant the on-street use of mobile cranes outside of above hours can occur, subject to a separate application being submitted to and approved by Council under Section 68 of the Local Government Act 1993 and Sections 138/139 of the Roads Act 1993.</p> <p>Note: Works may be undertaken outside of hours, where it is required to avoid the loss of life, damage to property, to prevent environmental harm and/or to avoid structural damage to the building. Written approval must be given by the Construction Regulation Team, prior to works proceeding.</p> <p>Note also respite periods have been nominated for noisy works exceeding 75db, or exceed the internal noise management level. The following nominated respite hours are.</p> <p>Monday to Friday: 7:30am-8:00am</p> <p>Saturday: 8:00am-9:00am</p> <p>Monday to Saturday: 12:00pm-2:00pm</p>
Tree pruning	Any vegetation of tree pruning required to install the substation shall adhere to the Tree Protection Measures during construction as set out in the Arboricultural Assessment approved as part of DA D/2020/1088 for the construction of SAMIS Central, and as relevant compliance with Conditions 86 and 87 of that DA consent.
Operational management	The activity under this REF also includes future maintenance, operation, inspection, repair and decommissioning. This may include works undertaken out of normal working hours and vegetation management works. All works shall be undertaken in accordance with Ausgrid's NS174C Environmental Handbook for Construction and Maintenance and Ausgrid's Tree Safety Management Plan or equivalent procedures in force at the time.

8. Summary of Mitigation Measures

Mitigation measures are to be implemented for the proposal to reduce impacts on the environment. The mitigation measures are provided at **Appendix I**.

Summary of Impacts

Based on the identification of potential issues, and an assessment of the nature and extent of the impacts of the proposed development, it is determined that:

- The extent and nature of potential impacts are minor and low, and will not have significant adverse effects on the locality, community and the environment;
- Potential impacts can be appropriately mitigated or managed to ensure that there is minimal effect on the locality, community; and
- Given the above, it is determined that an EIS is not required for the proposed development activity.

9. Justification and Conclusion

The proposed installation and operation of an electrical substation and its ancillary works at the SAMIS Central Ambulance Station at 42-50 Parramatta Road (Arundel Street frontage), Forest Lodge is subject to assessment under Part 5 of the EP&A Act. The REF has examined and taken into account to the fullest extent possible all matters affecting, or likely to affect, the environment by reason of the proposed activity.

As discussed in detail in this report, the proposal will not result in any significant or long-term impact. The potential impacts identified can be reasonably mitigated and where necessary managed through the adoption of suitable site practices and adherence to accepted industry standards.

As outlined in this REF, the proposed activity can be justified on the following grounds:

- It responds to an existing need within the community;
- It generally complies with, or is consistent with all relevant legislation, plans and policies;
- It has minimal environmental impacts; and
- Adequate mitigation measures have been proposed to address these impacts.

The environmental impacts of the proposal are not likely to be significant and therefore it is not necessary for an EIS to be prepared and approval to be sought for the proposal from the Minister for Planning under Part 5.1 of the EP&A Act. Further, the activity will not significantly affect threatened species, populations, ecological communities or their habitats, and therefore a SIS and/or BDAR is not required.

On this basis, it is recommended that HI determine the proposed activity in accordance with Part 5 of the EP&A Act and subject to the adoption and implementation of mitigation measures identified within this report.