



SYDNEY BRISBANE PERTH JAKARTA

SUSTAINABLE BUILDING CONSULTANTS

CENTRAL PARK BLOCK 11

BUILDING SERVICES SSD-PA STATEMENT

Prepared By:



SUSTAINABLE BUILDING CONSULTANTS
ABN 23 808 082 432

Level 1, Tower 1
495 Victoria Avenue
Chatswood NSW 2067
Telephone: (02) 9419 4100
Facsimile: (02) 94118460
Email: syd@floth.com.au
Web: www.floth.com.au

Prepared For:

**Frasers Broadway Pty Ltd
Level 12, 101 Bathurst Street
Sydney NSW 2000**

Project No.: S13585
Date: 11th November 2014
Issue No: Revision A: SSD-PA Issue

**CENTRAL PARK
BLOCK 11**

S13585

BUILDING SERVICES SSD-PA STATEMENT

This register identifies each issue of and each amendment to this document by Revision No, Page No, the details of each amendment and date of issue.

[illegible]

CONTENTS

1.	GENERAL	1
1.1	INTRODUCTION.....	1
1.2	DEVELOPMENT DESCRIPTION	1
2.	DESCRIPTION OF SERVICES	2
2.1	MECHANICAL SERVICES	2
2.2	ELECTRICAL SERVICES.....	5
2.3	LIFTS.....	8

1. GENERAL

1.1 INTRODUCTION

The works described in this SSD-PA brief will form the basis of the following services installations:

- Mechanical Services
- Electrical & Communication Services
- Lift Services

Services will be in accordance with The Director General's Requirements dated 25th February 2014.

1.2 DEVELOPMENT DESCRIPTION

The State Significant Development Application seeks approval for the redevelopment of Block 11 as a mixed use/residential building, with associated non-residential/retail uses located on lower levels of the building consistent with the Concept Plan.

The proposed building consists of between 12 and 14 storeys, containing units, located above three levels of basement car parking containing car parking space, service area and storage for residents. The building consists of the following uses:

- o Retail/non-residential
- o Childcare Space
- o Residential

Details such as number of units, car parking spaces and gross areas are contained in the architect's report.

The proposed scheme has been selected as a result of a competitive design process undertaken in accordance with the Concept Plan and Statement of Commitments.

The building classifications are:

- | | |
|-----------------|----------|
| ▪ Carpark Areas | Class 7A |
| ▪ Retail Areas | Class 6 |
| ▪ Residential | Class 2 |
| ▪ Childcare | Class 9b |

2. DESCRIPTION OF SERVICES

2.1 MECHANICAL SERVICES

2.1.1 Regulations & Authority Requirements

All work will be in accordance with current relevant Standards, Codes and Regulations which include:

City of Sydney Council
State Codes/Guidelines for Control of Legionnaires' disease
Work Health Safety Legislation and Regulations
Building Code of Australia
N.S.W. Fire Brigades

Australian Standards:

AS 4254	Ductwork for air handling systems in buildings
AS 1324.1	Air filters for use in general ventilation & air conditioning
Part 1	Application, performance and construction
Part 2	Methods of test
AS 1668	SAA Mechanical Ventilation and Air Conditioning Code
Part 1	Fire precautions in buildings with air-handling systems
Part 2	Ventilation requirements
AS 1851	Maintenance of fire protection equipment
Part 6	Management procedures for maintaining the fire precaution features of air handling systems
AS 3666	Air handling and water systems of buildings - Microbial control
AS 1530	Early fire hazard tests
AS 1682	Fire Dampers
Part 1	Specification
Part 2	Installation
AS 1469	Acoustics - Methods for the determination of noise rating numbers
AS 2107	Acoustics - Recommended design sound levels and reverberation times for building interiors.
AS 3000	SAA Wiring Rules
AS 1674	Cutting and Welding Code

2.1.2 Air Conditioning Systems

The following air conditioning systems are to be installed:

a) Retail / Commercial Air Conditioning

Each retail area shall have a pair of hot and chilled water pipes for extension by the tenant into their A/C system.

An area of the façade at high level will be allocated as a fresh air intake/kitchen exhaust makeup for tenant extension.

Kitchen exhaust riser will be provided for nominated food / café areas. The riser will discharge at roof level. Fans and hoods to be provided by the tenancy.

b) Gym Air Conditioning

The gym is to be supplied by a separate air handler or fan coil units designed to suit fitout arrangement. These air handler and fan coils are to be connected to main central chilled water and hot water reticulation systems

c) Community Room Air Conditioning

The community room is to be supplied by a separate air handler or fan coil units designed to suit fitout arrangement. The air handler and fan coils are to be connected to main central chilled water and hot water reticulation systems

d) Retail Common Area Systems

Separate chilled water fan coil units shall be provided for the following areas:-

- Retail/commercial garbage rooms

e) Residential Building Apartments

Chilled water fan coil units will be provided for each apartment, with appropriate zoning provisions.

The apartment system shall connect into the district chilled and hot water systems.

2.1.3 Ventilation Systems

a) Residential Building Apartments

The following ventilation systems are to be provided for each apartment:

Bathroom, Laundry & Toilet Exhaust

A fully ducted system shall be provided with motorised damper in each apartment, which can be operated from each separate enclosure.

The ducted systems shall discharged horizontally from each apartment.

b) Residential Building Common Areas

The following residential common area ventilation systems are to be provided:

- Toilet exhausts to gym, community areas.
- Garbage exhausts to garbage chute enclosures at each level and ground floor garbage and waste areas.
- Plantroom, storage and service areas supply and exhaust systems to code requirements.
- Carpark supply and exhaust systems to code requirements. The carpark exhaust will incorporate provisions to exhaust the contaminated groundwater plenum.
- Natural ventilation to common corridors.

c) Retail Areas

The following retail area ventilation systems are to be provided:

- Retail garbage and waste room exhaust systems.
- Provisional kitchen exhaust systems for retail tenants to nominated tenancies.

2.1.4 Essential Services Systems

The following essential services systems are to be provided:

a) Retail / Commercial Areas

Stair pressurisation systems to BCA requirements.

b) Residential Apartments

Stair pressurisation systems where required.

A lobby relief system in accordance with AS 1668.1.

c) Common Areas

Basement stair pressurisation systems.

Smoke exhaust mode integrated into the carpark exhaust system.

Fire control room and sprinkler valve room pressurisation systems.

2.2 ELECTRICAL SERVICES

2.2.1 Authority Compliance

The electrical services shall be designed in accordance with the requirements of the following:

City of Sydney Council
Building Code of Australia
Work Health Safety Legislation and Regulations

Australian Standards

AS 1158	Public Lighting Code - Road Lighting - Part 3.1 Pedestrian area (Category P) lighting - Performance and installation design requirements;
AS1680	Interior Lighting
AS1768	Lightning Protection
AS2201	Intruder Alarm System
AS2293	Emergency Evacuation Lighting in Buildings
AS3000	SAA Wiring Rules
AS 4282	Control of Obtrusive Effects of Outdoor Lighting
CPOCH	ACA Customers Premises Cabling Manual

2.2.2 Extent of Works

The electrical services shall include:

- a) Electricity Substation
- b) Consumers Mains
- c) Main Switchboards and Distribution Switchboards
- d) Sub-Mains to Essential and Non-Essential Plant and Equipment
- e) Metering of major loads to meet Green Star monitoring requirements.
- f) Lighting and Power to All Areas
- g) Emergency Lighting and Exit Signs
- h) Telecommunication Cabling
- i) Access Control System
- j) Door Intercom System
- k) MATV System

2.2.3 Electrical Systems

a) Power Supply

Power supply to the project will be provided from an indoor and sub-station located within the site.

b) Consumers Mains

Consumers mains with required fire rating will be provided from sub-station to main switchboard.

c) Main Switchboards

The main switchboards will be manufactured in accordance with AS3439 Form 3bih segregation, IP42 degree of protection to comply with AS1939.

d) Sub-Mains

Sub-mains will be provided to all services plant and equipment in accordance with the requirements of other services.

e) Energy Metering

Metering equipment for house services will be provided in the main switchboard. Metering for retail/ commercial will be located on a floor by floor arrangement in accordance with Energy Australia and NSW Service and Installation Rules requirements.

Residential apartments will be individually metered.

f) Distribution Switchboards

Distribution boards will to comply with AS3439 Form 1 segregation, IP42 degree of protection to AS1939.

g) Lighting

The lighting in the public accessible areas will meet the minimum requirements of AS1680.0- Interior Lighting Part 0: Safe Movement. The illuminance levels will equal to those recommended in:

AS 1680.1	Interior Lighting Part 1: General Principles and Recommendations
AS 1680.2.0	Interior Lighting Part 2.0: Recommendation for Specific Tasks and Interiors
AS 1680.2.1	Interior Lighting Part 2.1: Circulation Spaces and Other General Areas

All house and public area lighting will be controlled by a lighting control system.

External lighting will be provided around the building, under awnings and all access points. Lighting will be designed using the latest lamp technology to minimise energy use. Intelligent lighting controls will monitor ambient light conditions to ensure light are switched on only when required. Secondary circulation areas will be provided with base lighting only when traffic is low. Movement sensors will switch on additional lighting when the area is being used.

h) Emergency and Exit Lighting

The system will be designed and installed to the requirements of the Building Code of Australia (BCA) and AS2293 – Emergency evacuation lighting for buildings Parts 1, 2 and 3 using emergency and exit lights with integral batteries and chargers.

i) General Purpose Power

General purpose outlets (GPOs) and power connections to equipment will be designed and installed in accordance with AS3000 – SAA Wiring Rules.

j) Telecommunications Cabling

Broadband internet services are proposed to be reticulated throughout the building using Fibre-To-The-Home passive optical network. Network Termination Devices will be provided within each apartment for apartment internet and phone, and within the MDF room for internet and phone services to the building services (lifts, BMS, metering, security, and the like).

A common backbone copper based data cabling system will be provided throughout the building for the transport of building services (BMS, CCTV, access control, intercom, metering) communications. Each service will be segregated from the others using physical (by patching) and virtual (by virtual LAN) segregation.

k) Access Control System

The building will be provided with an access control system that complies with AS2201 – Intruder Alarm Systems. To facilitate the after hours entry to the building by the residents and retail operators, card readers will be provided at the following locations:

- Car park entry and exit.
- In each lift.
- Ground floor foyer entries
- Childcare lobby & lift

l) Door Intercom System

Each apartment will be provided with an intercom system to the respective entry lobby. The handset will have a door release button to obtain visitor entry which will be interfaced with the respective lift to allow access to the floor which allowed access.

m) MATV System

The project will be provided with a MATV system that complies with AS1367 – Multiple Outlet Distribution Systems – Sound and vision as well as with AS3815 – A Guide to Coaxial cabling in Single and Multiple Premises.

The system will distribute to each apartment the local free to air television channels. The system will also distribute satellite Pay TV signals to each outlet.

n) Lightning Protection System

Each building will be provided with lightning protection air terminals connected to down conductors within the building. The air terminal will be 5 metres above the highest point of the building structure. Surge arrestors will also be provided at the main switchboard.

2.3 LIFTS

2.3.1 Authority Compliance

The vertical transportation services will be designed in accordance with the requirements and recommendations of the following:

City of Sydney Council
Fire & Rescue NSW
Building Code of Australia (BCA)
Work Health Safety Legislation and Regulations

Australian Standards including:
AS1428.2 Design for Access and Mobility
AS1735.1 General Requirements
AS3000 SAA Wiring Rules

Include any materials or equipment required to meet such regulations whether specifically shown or described in the documents or not.

2.3.2 Passenger Lifts

The passenger lifts shall:

- Serve each lobbies shown on the drawings
- Accommodate stretcher to comply with the BCA.
- Be accessible to BCA requirements
- Comply with BCA
- Be provided with shaft and pit lighting to statutory requirements.