



**162-168 GOUGER STREET, ADELAIDE
ELECTRICAL, MECHANICAL, HYDRAULIC AND FIRE SERVICES**

1. INTRODUCTION

This report provides a short description of the services infrastructure for the proposed development at 162-168 Gouger Street, Adelaide, South Australia.

The proposed development will comprise:

- An entry lobby, loading dock, waste room, bike storage, plant areas and three retail spaces at ground level,
- Carparking on levels 1 and 2,
- Communal areas on level 3,
- 104 sole occupancy Class 2 residential apartments on levels 4 to 14,
- Air conditioning and hydraulic plant on level 15.

2. ELECTRICAL SERVICES

A new SA Power Networks transformer will be provided at ground level in an enclosed sub-station on the Storr Street frontage in accordance with SA Power Networks requirements.

A Main Switchboard will be located in a separate switch room adjacent the transformer room in accordance with SA Power Networks requirements.

A retailer group meter panel will be located in the Main Switchboard. Retailer or Community Corporation metering of each sole occupancy apartment will be grouped into distribution boards on selected floors.

Sub-metering of services and facilities for electric vehicle charging in carparks will be provided to comply with the requirements of the National Construction Code – Volume 1 – Building Code of Australia.

Photo voltaic panels will be located on the roof to supplement the common property electrical demand.

3. TELECOMMUNICATIONS

Incoming telecommunications fibre optic lead in cable will be provided from Gouger Street to a Network Termination located in a comms room at ground level.

Rising fibre optic cables will be provided to secondary nodes on each floor and radiate to termination points in each apartment.

Conduits and cabling facilities will be installed in accordance with the requirements of the NBN.

A Master Antenna Television (MATV) system with a single external antenna will be provided for free to air television reception, with distribution to each apartment.

4. FIRE SERVICES

Fire services will be provided to the National Construction Code – Volume 1 – Building Code of Australia, SA Water, SA Metropolitan Fire Service and Australian Standards requirements for this type and classification of building. The effective height of the building will be less than 50 metres.

Water supply for fire-fighting purposes will be delivered from a 200mm town main in Gouger Street. The fire water connection will supply a fire water storage tank and fire pumps at ground level, together with a fire brigade booster on the Oakley Street frontage.

A combined fire hydrant / sprinkler ring main will supply fire hydrants and sprinklers throughout the building.

Fire hydrants will be provided on each level in each fire rated stairwell.

Sprinkler control assemblies will be provided on each level in a fire rated stairwell.

Fire hose reels will be provided in the retail tenancies at ground level, carparks on levels 2 and 3 and in the communal areas on level 3.

Portable fire extinguishers will be provided in public areas and corridors to provide required coverage of the fire risks.

A brigade monitored smoke detection and warning system will be provided with Fire Indicator Panel located in the main entry foyer off Oakley Street.

5. HYDRAULIC SERVICES

Domestic potable water will be supplied to the building from Gouger Street. The existing water meters will be removed and new water meters suitable for the new development will be provided.

Mains water will supply break tanks in the level 1 carpark level with transfer pumps to supply head tanks at level 15. Domestic water supply from the head tanks to upper levels will be boosted, and gravity fed to lower levels.

Hot water to each apartment and retail tenancies will be provided by a central hot water system on level 15 comprising air-to-water heat pumps and storage tanks.

Wastewater from the development will be connected to the existing 300mm SA Water sewers in Gouger Street.

Trade waste arrestor and provisions for greasy waste will be made for retail tenancies.

6. MECHANICAL SERVICES

Each sole occupancy unit, communal areas on level 3 and the retail tenancies at ground level will be provided with ducted air conditioners connected to individual outdoor condensing units located on the roof and in the carpark levels.

The level 1 and 2 carparks will be naturally ventilated with cross ventilation openings on opposite sides of the building.

Waste rooms will be mechanically ventilated with discharge at level 1.

Toilet exhaust from each apartment will be discharged through individual wall mounted louvre grilles above the balcony of the respective apartment.

Kitchens in the apartments will be provided with range hoods ducted to discharge through individual wall mounted louvre grilles above the balcony of the respective apartment.

If a retail tenancy requires commercial kitchen exhaust, local filtration and treatment of the exhaust air to remove smoke and odours will be provided with discharge at level 1.

Stairwell pressurisation fans will be provided on level 15 supplying pressurisation shafts adjoining each stairwell and pressurisation relief on each floor.