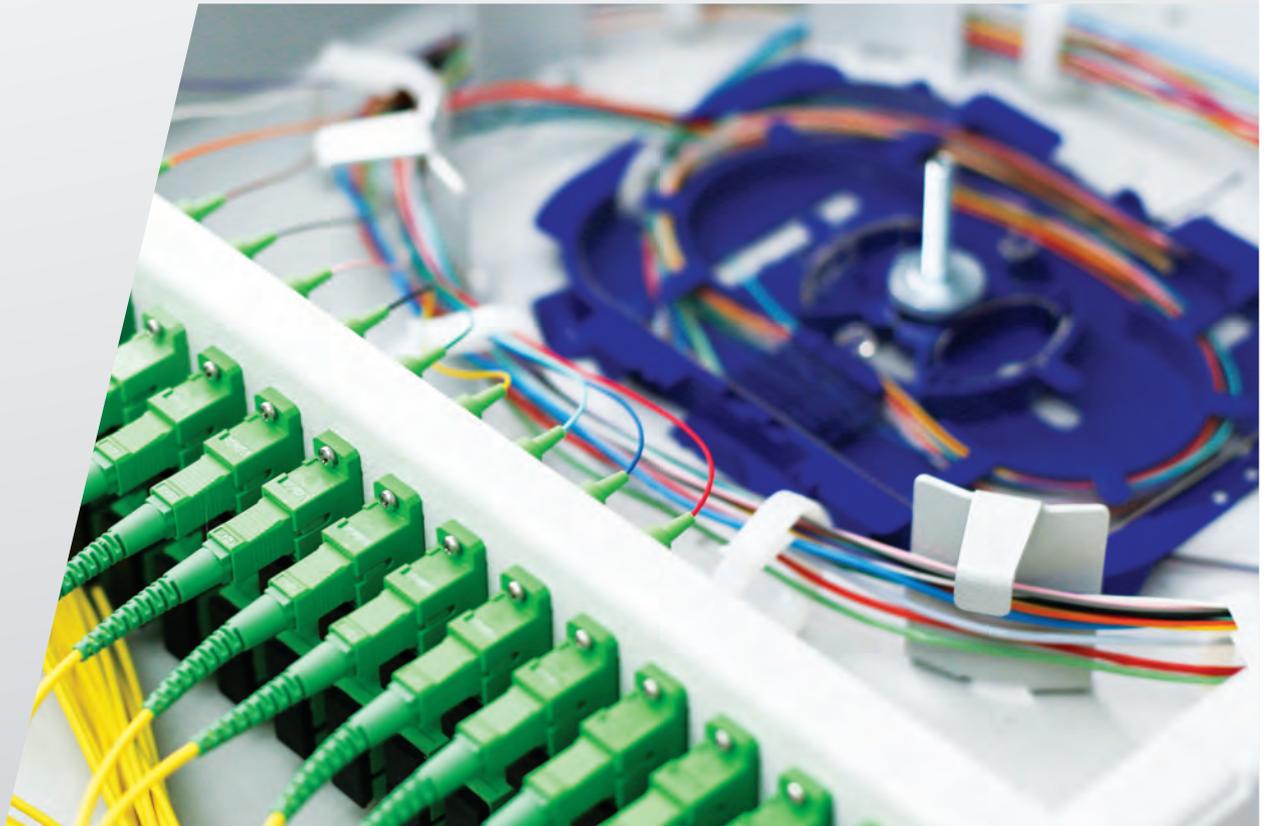

CHAPTER 13
ENGINEERING SERVICES





The engineering services around the Airport have been progressively upgraded with new developments to meet future demand.



13 Engineering services

The engineering services around the Airport have been progressively upgraded with new developments to meet future demand across the Airport. The engineering infrastructure on the Airport is in a significantly better state today than at the time of the privatisation of the Airport in 1998.

Canberra Airport has paid for all upgrades to engineering services and utilities including the provision of major off-site works. The land uses on the Airport [especially the airline terminal and commercial land uses] have only been possible due to the Airport's provision of on-and-off Airport utilities, including Grade 1 water supply, electricity supply, services and reticulation, co-generated electricity, stormwater and sewer, and substantial contributions to the road system around the Airport.

13.1 GAS

EXISTING SYSTEM

The ActewAGL natural gas main services the Airport providing multiple connections.

Gas powered trigeneration plants are now in place at the Majura Park offices as well as the terminal to provide environmentally friendly energy generation, with excess heat [created in the generation of electricity] used to heat and cool the buildings. The use of these plants increases the demand for natural gas supplies, which will continue to rise as the plants use increase with additional office occupation and passenger growth at the terminal.

2020 MASTER PLAN IMPLICATIONS

Additional gas supply may be required during the 20-year life of this 2020 Master Plan as on Airport development continues. Canberra Airport will work with Evoenergy and all other relevant parties to ensure the ongoing supply of adequate gas supplies to the Airport site.

13.2 SEWERAGE

EXISTING SYSTEM

Most areas served by sewerage infrastructure are currently reticulated with gravity collection systems, although some have sewerage pumping stations. The system effectively has four main ties from the Airport into the sewer mains provided by Icon Water.

2020 MASTER PLAN IMPLICATIONS

There is existing infrastructure in all parts of the Airport. In some cases, proposed developments are below the existing infrastructure, so the collection system needs to gravitate to a central pumping station with sewage pumped to the existing gravity collection system and connected to town infrastructure.

The existing sewer connections into the Icon Water sewer mains are operating with significant capacity available therefore it will be possible to connect additional facilities without downstream augmentation works.

Current Icon Water requirements do not allow for blocks to be served through adjoining sites. The Defence golf course sewer currently joins into the sewer mains on the Airport site. This is against Icon Water requirements and may need to be corrected in the future.

13.3 STORMWATER

EXISTING SYSTEM

Stormwater catchments incorporating the Airport site extend well beyond the Airport toward the pine plantations to the east of the Airport. All areas of the Airport are currently supported by gravity stormwater collection systems comprising underground pipes and open drains.

Stormwater drainage is directed from catchment areas into the adjoining Woolshed Creek [a tributary of the Molonglo River] and Molonglo River systems. Canberra Airport continues to partner with the ACT Government in the cost of maintenance of downstream connections between the Airport and the Molonglo River and Woolshed Creek to ensure satisfactory drainage capacity.

The catchment area of the Airport site is about 441 hectares and the catchment areas upstream of the Airport are about 1,145 hectares, giving a total catchment area of 1,586 hectares.

Significant changes to stormwater flows were made in 2006 with the extension of Runway 17/35 to the south. This involved the provision of significant stormwater detention basin infrastructure as well as a major drainage diversion to the south. Further detention structures have been constructed upstream of Fairbairn and on airport upstream of the aviation fuel farm. All detention structures are designed to reduce peak stormwater and to provide sediment control of stormwater into and within the airport.

2020 MASTER PLAN IMPLICATIONS

The Canberra Airport Water Management Plan outlines Canberra Airport's actions to manage stormwater flows on the Airport in a sustainable manner. The Water Management Plan is updated from time to time and will guide the further development of stormwater infrastructure on the Airport.

Further information on the Canberra Airport Water Management Plan and management of stormwater more generally is included in the Environment Strategy.

In the short term, it will be necessary to manage run-off from the upstream stormwater catchments [most of which are located on Department of Defence land] before it enters the Airport north of Fairbairn and Runway 17/35. The management of this run-off is critical to aviation safety and will involve the construction of the remaining catchment drains, detention basin, and the maintenance of the diversion banks originally identified in the approved 1999 Master Plan.

WATER QUALITY CONTROL

Pollution control is an integral part of any drainage system and all developments at the Airport will meet the standards set out in the approved Environment Strategy. Developments are also subject to a CEMP and have in place sediment and erosion control plans.

13.4 POTABLE WATER SUPPLY

EXISTING SYSTEM

Potable water supply to the Airport is supplied by Icon Water at a single meter point.

The existing Airport potable water supply is divided into four zones corresponding with the four precincts and has adequate capacity to handle significant growth. All onsite water pipes from the single supply point have been paid for and maintained by the Airport. In addition, the Airport has built a multi-million-dollar onsite pumping station at the main supply point to maintain pressure across the network.

2020 MASTER PLAN IMPLICATIONS

Water reticulation to most precincts on the Airport can be provided from the existing system. Significant upgrades to the water system, both on and off Airport, have been completed at the Airport's cost to ensure a high-quality Grade 1 water supply.

A water ring main has been developed around the whole Airport to increase the reliability of water supply. It may be necessary for Icon Water to provide additional points of supply to the Airport's ring main in the future to maintain the quality and reliability of supply.

13.5 ELECTRICAL

EXISTING SYSTEM

Three high voltage Evoenergy feeders supply power to the Airport. A primary feeder has been upgraded to meet capacity growth associated with development on Airport. With the ongoing growth in development across various precincts other feeders will need further upgrades to maintain the electrical supply over the long term and to provide for adequate capacity and reliability. The Evoenergy electricity network is supplemented by trigenerated and Solar power at a number of on Airport points.

2020 MASTER PLAN IMPLICATIONS

Further development will require the provision of new and upgraded external networks by Evoenergy. Additional trigenerated power, Solar or alternative power sources will be considered on a case-by-case basis.

13.6 TELECOMMUNICATIONS

EXISTING SYSTEM

Telstra provides landline [copper and fibre optic] telecommunications services to all precincts of the Airport. TransACT provides an optical fibre service to Brindabella Park, Majura Park, and Fairbairn precincts and are considering providing fibre services to other precincts. Underground communication ducts in all precincts owned by the Airport permit several carriers. The majority of carriers provide mobile telephony services across the Airport.

Recognising that the Telecommunications Act 1997 does not apply at airports, Canberra Airport will work with telecommunications providers to augment the Airport's conduit network for use by such providers on reasonable commercial terms.

2020 MASTER PLAN IMPLICATIONS

Upgrades to existing telecommunications infrastructure by the various carriers will be required over time to handle the anticipated growth and development at the Airport.

13.7 AIRPORT ACCESS

Subject to law, all infrastructure and utility providers must apply for access from Canberra Airport prior to undertaking any works on Airport land.

No works may commence until such time as the relevant access licence has been executed by the provider. Any proposed works must comply with the Master Plan for that area or precinct of the Airport. Works may not commence until approval has been given by both Canberra Airport and the Airport Building Controller.

All works are to be undertaken in accordance with the Canberra Airport Safety, Security and Environment Procedures.