

SAH DAY SURGERY HORNSBY REDEVELOPMENT

DGRs

HYDRAULIC & FIRE SERVICES

1. **Potable Cold Water Supply**

The site is currently serviced by a network of “Sydney Water” watermains located as follows:-

- 150mm diameter – Palmerston Road
- 100mm diameter – Northcote Road
- 100mm diameter – Balmoral Street
- 150mm diameter – Balmoral Street

Refer Sydney Water diagram “watermains” attached.

Sydney Water has advised that the development will require a new connection to one (1) of the above mains. A Section 73 Application to Sydney Water will be submitted to confirm the connection point to supply the new development.

Proposal to reduce the development’s potable cold water demand

The incorporation of on-site potable and non potable water storage tanks will greatly reduce peak demand supply directly off the Authorities watermain. The water tanks will provide an adequate storage, so as to provide a continuous supply of potable cold water to the Hospital during Sydney Water emergency maintenance procedures or watermain failure.

On-site Rainwater Harvesting and non potable storage will assist in reducing potable cold water demand. Rainwater from all new major roof areas will gravitate and connect to a recycling/non potable water storage tank. The non potable water will be used for irrigation purposes and/or sanitary flushing throughout the new Building.

The following water saving conservation devices will be incorporated within the development:-

- ❑ 3/4.5 Litre WC cisterns
- ❑ 0.8 L/sec automatic urinal flushing
- ❑ Low flow tapware and appliances

The potable and non potable cold water service will be designed and constructed in accordance with AS 3500.1, National Plumbing and Drainage Part 1: Water Supply, New South Wales Code of Practice and Sydney Water requirements.

2. Sewer and Trade Waste Discharge

The development is currently serviced by two (2) "Sydney Water" sewer mains. A sewer manhole and 225mm diameter main is located within the centre of the site and runs in a southerly direction. A second 225mm sewer main is located in Balmoral Street.

Refer Sydney Water diagram "sewer mains" attached.

Sydney Water has advised that the site in-house drainage would gravitate to one (1) of the above sewer mains. A Section 73 Application to Sydney Water will be submitted to confirm the sewer connection point for the new development.

The sewer drainage systems will be designed and constructed in accordance with AS 3500.2, National Plumbing and Drainage Part 2: Sanitary Plumbing and Sanitary Drainage, New South Wales Code of Practice and Sydney Water requirements.

3. Trade Waste Drainage

A number of waste water systems will require pre-treatment prior to discharge into Sydney Water's sewer drainage system.

Process	Threats to Sewerage System	Minimum Pre-Treatment Requirements
Commercial Kitchens & Cafeterias	BOD, suspended solids, grease, and high temperature water	Appropriate sized grease arrestor
X-Rays	Trade waste drainage – silver, ammonia, sulphite – on-site containment.	Rinse water discharge only

The Trade Waste Drainage Systems will be designed and constructed in accordance with. AS 3500.2, National Plumbing and Drainage Code Part 2: Sanitary Plumbing and Sanitary Drainage, New South Wales Code of Practice, Sydney Water and EPA requirements.

4. Natural Gas Supply

The development is serviced by a network of 'Jemena' high pressure natural gas mains located as follows:-

- 32mm Northcote Road
- 110mm Palmerston Road
- 32mm Balmoral Street

Refer Jemena diagram "natural gas mains" attached.

It is envisaged that mechanical heating boilers, kitchen appliances and potable hot water heaters will be supplied with natural gas.

Jemena have identified that connection for the development will be from one (1) of the above mains.

A formal application to 'Jemena' will be lodged to determine the connection point for the new development.

5. Fire Services

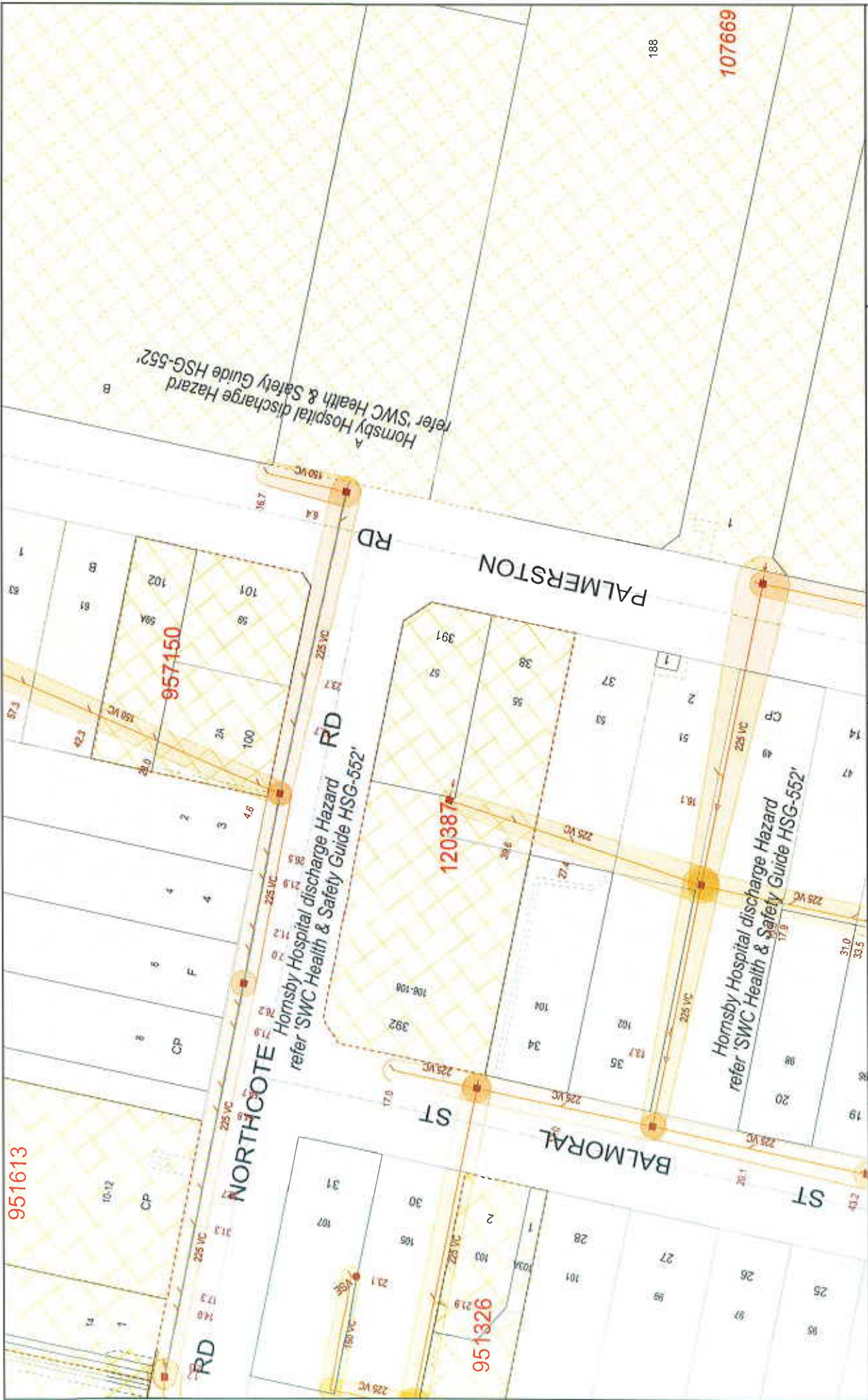
The Fire Sprinkler System shall be designed and constructed in accordance with current BCA and AS 2118.1 – 1999.

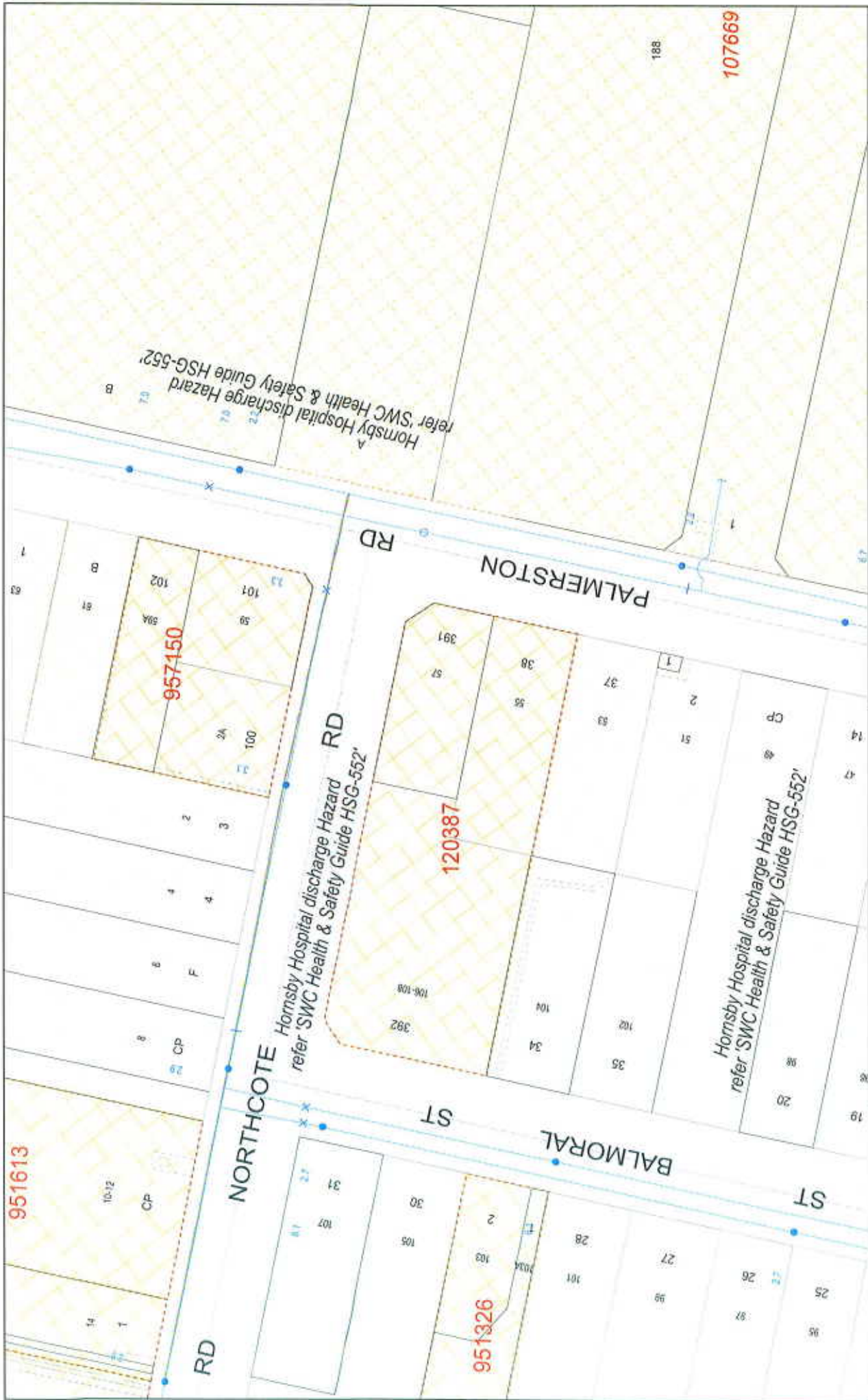
The Fire Hydrant and Hose reel system shall be designed and constructed in accordance with BCA 2010, AS 2419.1 – 2005, AS 2441 – 2005.

The Fire Detection and Alarm System shall be designed and constructed in accordance with current BCA, AS 1670.1 – 2004 and AS 1668.1 – 1998.

The Sound System and Intercom System for Emergency Purposes shall be designed and constructed in accordance with current BCA and AS 1670.4 – 2004.

The "Sydney Water" watermain network shall provide adequate supply for all required wet pipe fire services.





NATURAL GAS MAINS

