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AN ASSESSMENT OF TRAFFIC AND PARKING CONDITIONS FOR THE ST VINCENT'S RESEARCH PRECINCT CONCEPT PLAN

Prepared for

St. Vincent's & Mater Health

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1 INTRODUCTION

The St Vincent's Research Precinct (SVRP) is located to the north of the main St Vincent's Hospital Campus. It occupies most of the land bounded by Victoria Street, Burton Street, West Street and Liverpool Street, Darlinghurst.

The southern part of the site is occupied by the Garvan Institute. The northern part of the Precinct has been divided into three development stages, of which Stage 1, Victor Chang Cardiac Research Institute (VCCRI), has recently been completed. The University of NSW (UNSW) proposes to develop Stage 2, UNSW Institute of Virology (UNSWIV). A Joint venture between the Garvan Institute and St Vincent's Hospital proposes to develop Stage 3, a Campus Cancer Centre (GSVCCC).

To coordinate the proposed Stage 2 and Stage 3 developments between each other and with the existing surrounding developments, a Concept Plan has been prepared by a panel of Consultants. The present report forms part of this Concept Plan and documents an assessment of the traffic and parking impacts of the proposed developments. The work reported herein was undertaken by TEF Consulting under instruction from and commission by St Vincent's & Mater Health.

The underlying analysis and the results of the parking and traffic impacts assessment of the proposed development are detailed in the following Sections of the present Report.

Assessment of the parking impacts of the proposal has been carried out based upon the following information.

- Information regarding the existing and proposed activities and modes of operation of each facility provided by their respective management bodies;
- Parking and traffic surveys and observations carried out by TEF Consulting.

2 EXISTING CONDITIONS

2.1 The site

The SVRP site is located on a block of land bounded by Victoria Street, Burton Street, West Street and Liverpool Street. The location of the site is shown in **Figure 1**.

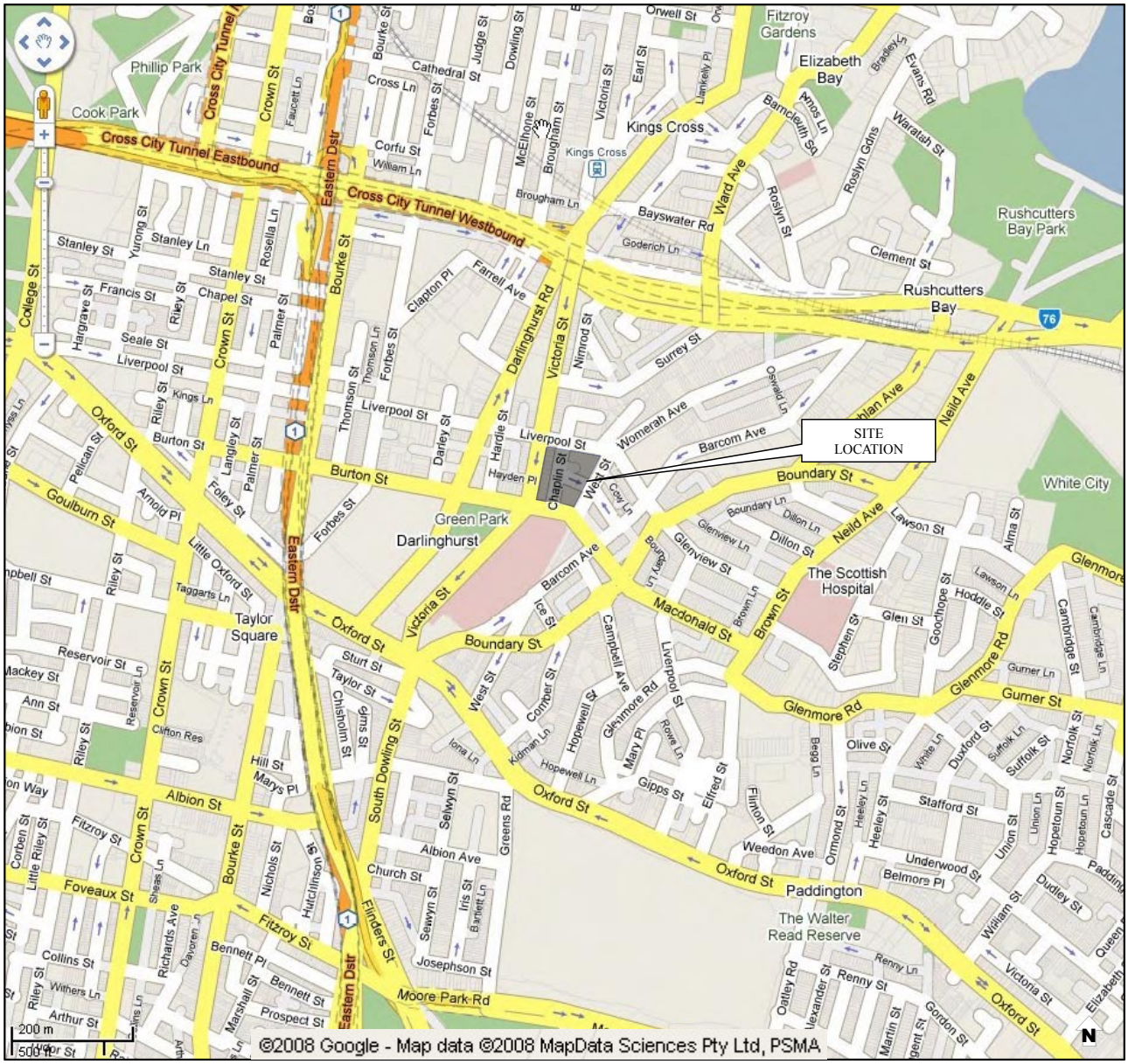

Figure 1. Site and environs

The Precinct occupies most of the land described above. The other main land uses on this land are the Green Park Hotel on the corner of Victoria Street and Liverpool Street and terrace houses and a medical centre in Victoria Street, north of the Garvan Institute. The main access to the site is from West Street, to both the car parking areas and the loading/unloading areas. There is a secondary access from Chapel Street, which provides an entry point to the medical centre car park. **Figure 2** overleaf shows the existing site access points.

Figure 2. Existing access locations.

2.2 Existing traffic conditions

2.2.1 Street conditions and traffic controls

Two major arterial routes are located within close distances to the Precinct – Oxford Street (State Road 172) and William St / Kings Cross Tunnel / Edgecliff Road (State Road 173). These streets provide the main east-west connections between the Sydney CBD and the Eastern Suburbs. Burton Street and Liverpool Street provide secondary east-west routes. Victoria Street and Darlinghurst Road, together with South Dowling Street and Boundary Street cross the above four routes from north to south, thus forming a comprehensive street grid which allows easy access to the area in all directions of travel. Traffic signals with pedestrian crossing facilities are provided at all intersections of the above streets, except the Burton St / West St intersection.

The street characteristics are shown in **Figure 3**.

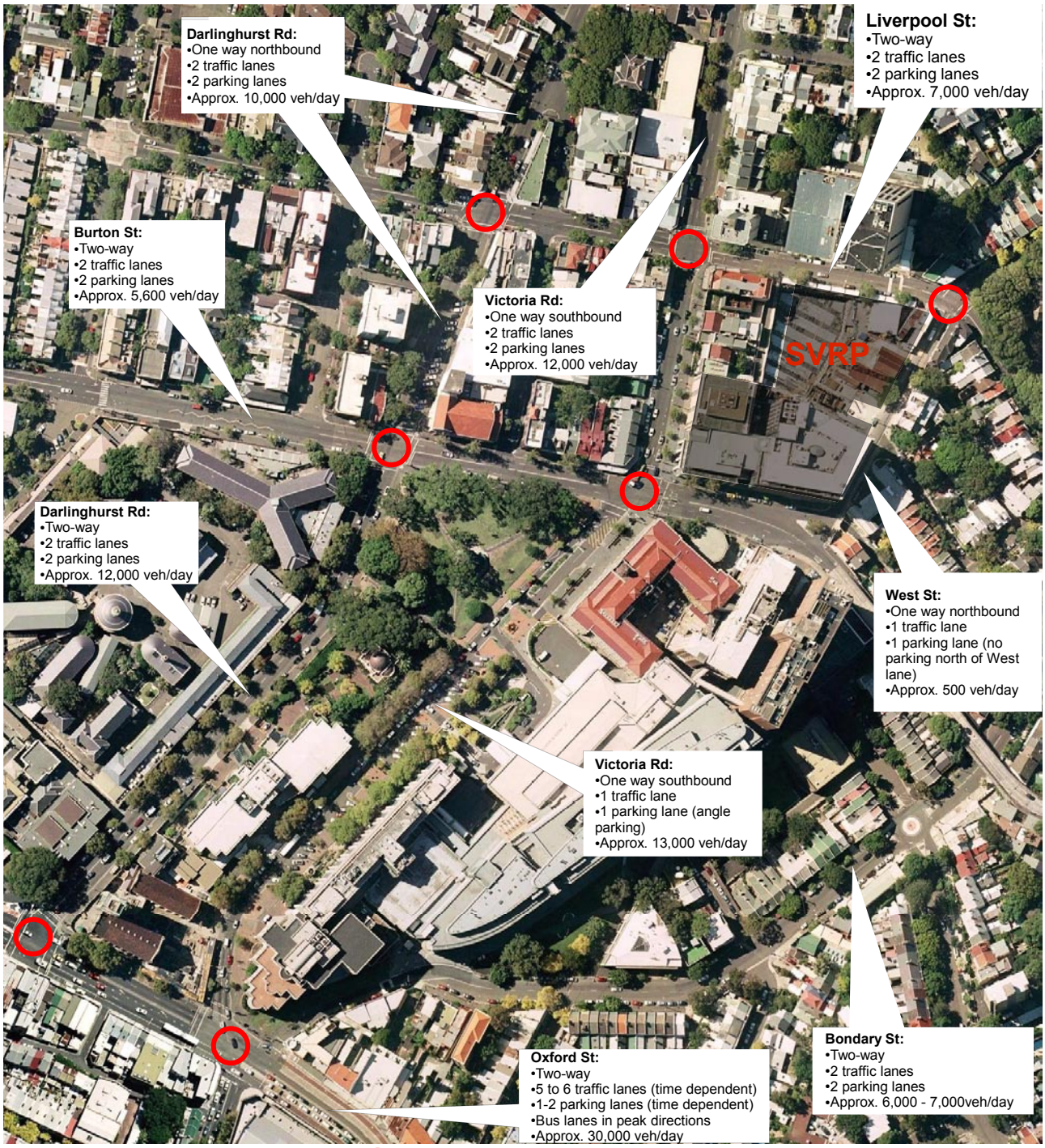

Figure 3. Street characteristics and traffic controls.

TEF conducted traffic counts at all key intersections in the vicinity of the Precinct on Thursday 30 October 2008 between 3:00 pm and 7:00 pm and on Friday 31 October 2008 between 6:00 am and 9:00 am. The commuter peak hours at the intersections occurred between 7:45 am and 8:45 am and from 5:30 pm to 6:30 pm. The peak hour intersection turning volumes are shown in **Figure 4**. The detailed results of the traffic surveys are attached in **Appendix A**.

Operation of the key intersections with the existing traffic volumes has been checked using SIDRA Intersection software, SCATES (for Oxford Street intersections) and Aimsun microsimulation model.

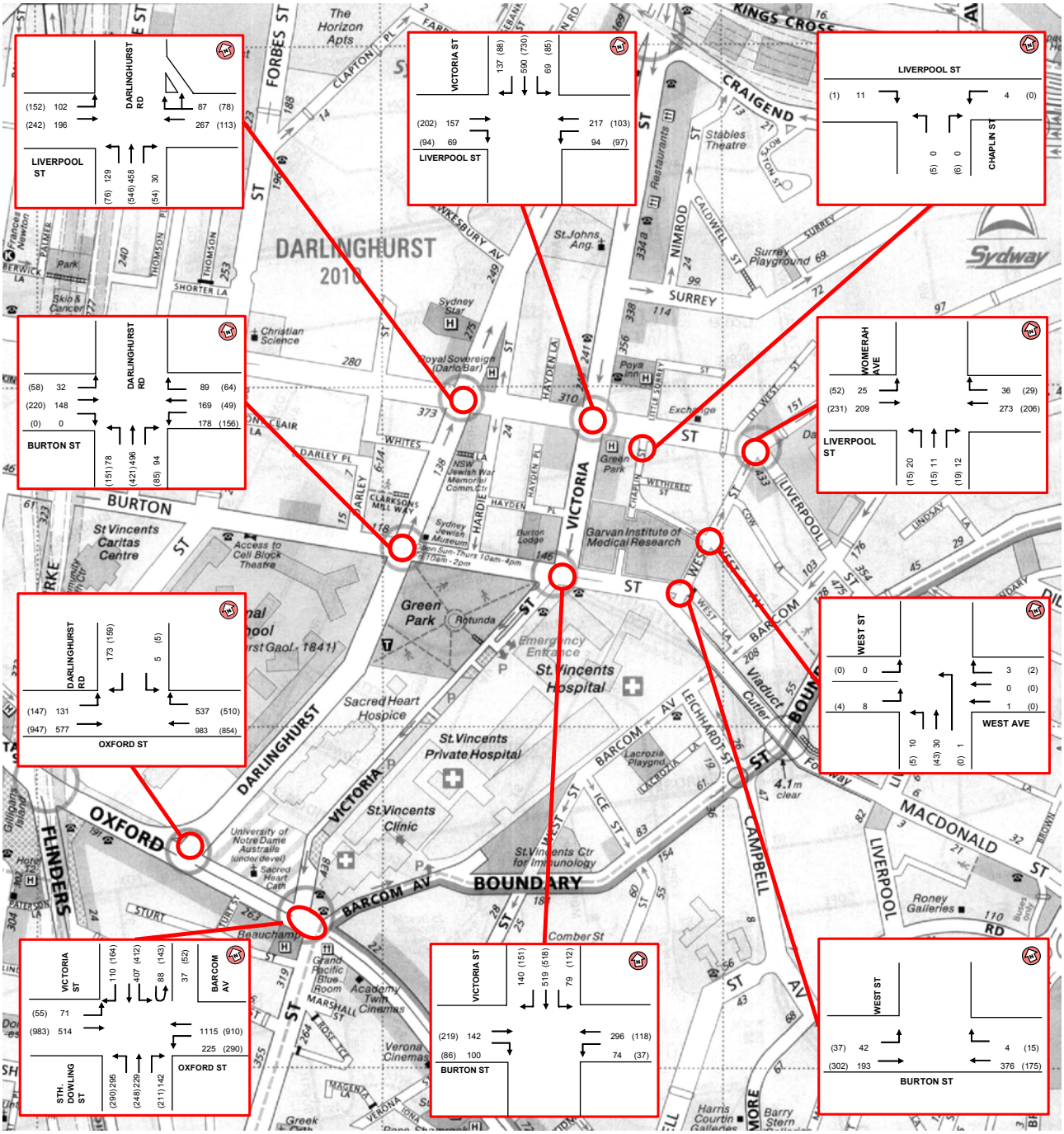

Figure 4. Existing peak hour intersection traffic volumes.

The results of the modelling are shown in **Table 2.1**. These results indicate that all key intersections currently operate at good Levels of Service (LoS) in both morning and afternoon peak periods, except the intersection of Oxford St / Victoria St / South Dowling St / Barcom Ave, which experiences moderate capacity problems.