Contents

Introduction

This report provides a design verification of a proposed residential flat building at 1-3-5 Bathurst Street, Liverpool being land which comprises three existing house lots situated on the western side of Bathurst Street.

The author of this report is a qualified designer and I confirm that I have directed the design of the proposed development.

The remainder of this report sets out the manner in which the design quality principles set out in Part 2 of State Environmental Planning Policy No. 65-Design Quality of Residential Flat Development (SEPP 65) have been achieved by the subject design.

The design quality principles are set out in Part 2 of SEPP 65 as follows and this report is structured to address each of the Design Quality Principals in the same order

- Principle 1: Context and Neighborhood Character;
- Principle 2: Built Form and Scale;
- Principle 3: Density;
- Principle 4: Sustainability;
- Principle 5: Landscape;
- Principle 6: Amenity;
- Principle 7: Safety;
- Principle 8: Housing Diversity and Social Interaction;
- Principle 9: Aesthetics;

Principle 1: Context & Neighborhood Character

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions. Responding to context involves identifying the desirable elements of an area's existing or future character.
Well-designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighborhood. Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.

Proposal

The site is situated on the western side of George Street of Liverpool City Centre. In this context the site is situated at the northern end of the Liverpool CBD. It is a locality which has experienced significant redevelopment over the past several years and in the immediate vicinity of the site are existing six, five and four storey residential flat buildings, as well as nine storey residential flat buildings on the other side of Bathurst Street.

The future character of the northern gateway to the town centre is described in detail within Part 4 of DCP 2008. The following important characteristics of the desired future character are noted:

- The site is within the R4 High Density Residential zone and is within an area at the northern periphery of the city centre for which new residential developments are already focused.

- Landscaped setback requirement to Bathurst Street is 4.5m and the maximum height permissible is 35m. These controls result in a streetscape emphasis on built form and urban living rather than a suburban environment within generously proportioned landscaped settings.

Figure 1 below provides an oblique aerial photograph showing the height and siting of buildings within the vicinity of the site.

Figure 1: Site Context

The most significant elements contributing to the character of this locality are a strongly defined street edge, which reinforces the Hoddle grid street pattern with a 5 to 10 storey street edge along the whole area, until the intersection with Lachlan street, where are sited single and double storey dwellings.

The locality has developed subsequent to the introduction of SEPP 65 and it is clear that the Design Quality Principles have strongly informed the siting and design surrounding buildings. The proposed development is consistent with this context and character. The development provides a single building of 9 storey, which is clearly designed to appear as three separate buildings, to deliver a street wall height which is consistent with the maximum allowance in this area of the City Centre.

Principle 2: Built Form & Scale

Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings. Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements. Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.

Proposal

The bulk of the buildings generally comply with controls set out in the Liverpool DCP.
It is shorter than the maximum height allowed to try to avoid the client excessive cost construction for fire issues, also to avoid overshadowing to the southern adjoining property, the building is pushed towards streets frontage.

Due to this choice some sections of the building present depths grater than 18m allows from ADG, but in it is totality is well designed with a particular attention at the natural ventilation and solar access to single units.

Architectural features and balcony articulation will create patterns of light and shadow and reduce the perceived bulk of the building mass.

The scale of the proposed development, in terms of height, setback and site coverage is consistent with the Liverpool Design Excellence Panel suggestions and is also consistent with the scale of adjoining development.

The following Figure 2 shows the siting, footprint and building separations incorporated into the subject design are entirely responsive to, and consistent with the pattern of adjoining and surrounding development.

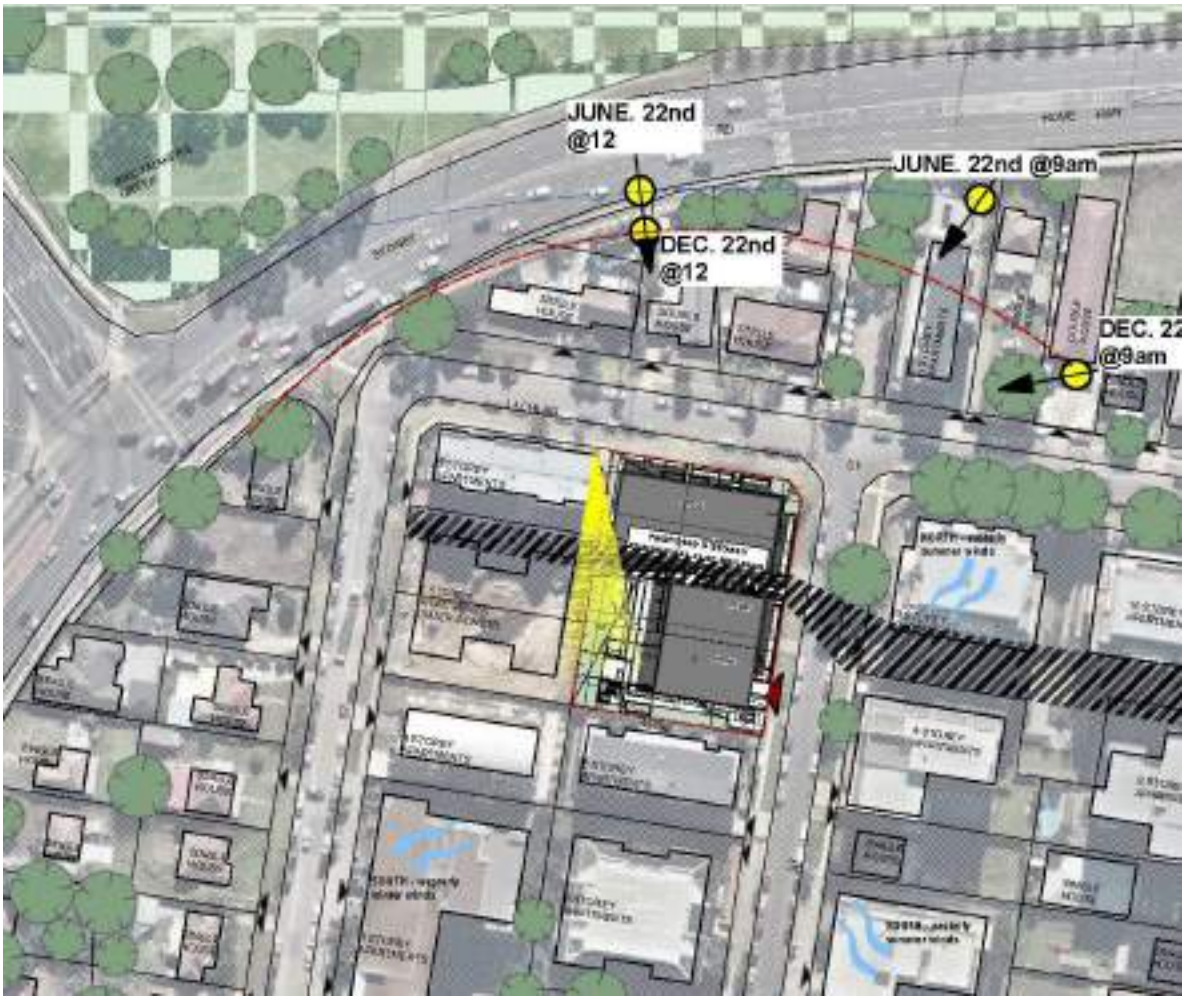

Figure 2 – Site analysis extract showing consistency of site coverage, building separation, height and setback with adjoining development.

Principle 3: Density

Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context. Appropriate densities are consistent with the area's existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.

Proposal

The density of the proposed development when assessed as a floor space ratio is 3.06:1, which compared to 3.16:1 allowed, result with a building not over developed.

However, the maximum building depth achieved is 22m which is more than 18m allowed. This has been reached in order to achieve the best outcome in terms of cross ventilation and sunlight access for the majority of the future residents.

Principle 4: Sustainability

Good design combines positive environmental, social and economic outcomes. Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and livability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials, and deep soil zones for groundwater recharge and vegetation.

Proposal

A minimum of 2 hours solar access is achieved from 75% of the units, with a total of 12% of them receiving no sun light during mid winter. 80% are naturally cross ventilated
The design of the building provide a good balance of units facing public streets and apartments facing the internal communal open space with attention to privacy and security issue.

Building materials from the demolition will be salvaged and recycled offsite as stated within the proposed construction waste management plan. Lastly, I note that the application is submitted with a BASIX Certificate which sets out, among other things, the required energy rating of proposed appliances.

Principle 5: Landscape

Good design recognizes that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well-designed developments is achieved by contributing to the landscape character of the streetscape and neighborhood. Good landscape design enhances the development's environmental performance by retaining positive natural features which contribute to the local context, coordinating water and soil management, solar access, micro-climate, tree canopy, habitat values, and preserving green networks. Good landscape design optimizes usability, privacy and opportunities for social interaction, equitable access, respect for neighbors' amenity, provides for practical establishment and long term management.

Proposal

The landscaping concept for the proposed development covers 25% of the site area and involves a perimeter landscape treatment, including street frontages and deep soil at the corner and at the back of the property. A communal open space is also provide on the roof top, with recreational facility surrounded by landscaping.

The building separations principally accommodate pedestrian movement functions, including disabled access, as well as recreation facility for the residents of the property giving the best connection with the internal communal open space. Densely planted formal garden areas are provided surrounding the entire building in order to provide a vegetated buffer separation with the adjoining properties and street frontages.

The communal open space provided in the western south corner of the property is designed to give recreational opportunities for residents of different range of age group, including barbeque areas, play equipment and seating for individual or groups, integrated in a large area of deep soil and turf area, which accommodate appropriately scaled trees, with a good balance of evergreen, deciduous trees and shade structures.

Principle 6: Amenity

Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well-being. Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas, and ease of access for all age groups and degrees of mobility.

Proposal

The development provides 11% of one bedroom apartments, 79% of two bedrooms apartments and 10% of three bedrooms apartments, ensuring a good mix of units and size.
10% of the units are designed to meet the requirements of AS 4299-1995 Adaptable Housing.
20% of units in total are designed to meet the Universal Design standards, including the 10% requirement for adaptable housing.

The unit layout is consistent with the better design practice guidelines contained within the NSW Apartment Design Guide and serve to achieve good acoustic privacy. Window and balcony locations, together with the use of blade wall privacy screens, will ensure satisfactory visual privacy both internal and external to the site.

Each unit is designed to maximize natural cross ventilation and solar access.

Private internal storage spaces are provided in each units as well as enclosed private storage at basement level. Balconies exceed minimum size requirements whilst maximizing ground floor private open space.

The residential amenity of the development is further improved by the provision of generously proportioned, high quality communal open space and roof top terrace.

Principle 7: Safety

Good design optimizes safety and security, within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximize passive surveillance of public and communal areas promote safety. A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily maintained and appropriate to the location and purpose.

Proposal

The building has been designed to incorporate safety by providing clearly defined quality pedestrian entries at ground floor level that complies with all regulations and codes referring to disability (AS 1428.1).

The threshold between public communal and private areas are clearly defined to ensure a sense of ownership between public and private domains.

The building maintains direct site lines to the residential lobby to the street. All entrance lobby's will provided with lighting at night to ensure a passive surveillance to the street.

All accesses are well distinguished with different materials and height level. Most of the apartment overlooks generally two aspects of the property, avoiding blind corners and hidden spaces.

Security key system will be provided for each units, as well as secure car park located in two locked up basement levels.

Principle 8: Housing Diversity and Social Interaction

Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets. Well-designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix. Good design involves practical and flexible features, including different types of communal spaces for a broad range of people, providing opportunities for social interaction amongst residents.

Proposal

The proposed development provides a good mix of unit sizes and includes 11 x one-bedroom units; 76 x two bedroom units and 10 x three-bedroom units. This proposed unit mix satisfies DCP requirements, as well as the Apartment Design Guide providing opportunity for families in the surrounding suburbs to move in the area when it is needed with also a good choice of affordable houses and price differentiation.
Communal Open space is well connected through the internal lobbies and support the communal life of the building accommodating recreational facilities for range of age group of residents.
The subject site is well serviced in terms of access to social facilities and the proposal will add to the supply and choice of housing opportunities within the Liverpool CBD.

Principle 9: Aesthetics

Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures. The visual appearance of well-designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.

Proposal

The aesthetic treatment of the development has sought to emphasis horizontal expression as well as provide elegant yet simple street facades. These facades integrate with the architectural language of surrounding sites whilst avoiding visual pastiche.

Each elevation are heavily comprised of balcony balustrades and careful attention has been paid to manipulating the materials, colours and treatments of the same to achieve distinctive and patterned elements into the street elevations.

The design has also achieved well defined base, middle and top elements with light weight metal cladding used to define the top two storey of the front tower.

Proposed materials have been selected on the basis of proven durability. Proposed colours include a mixed pallet of earthy tones which are consistent with surrounding buildings combined with other materials and tones more appropriate to the high-density suburban context of the site.

Conclusion

In accordance with the requirements of Clause 50(1A) of the Environmental Planning and Assessment Regulation 2000, I confirm that I have directed the design of the proposed development and that I am a registered architect.

I also confirm that the proposed development has been designed in accordance with the 9 design quality principles set out within SEPP 65-Design Quality Of Residential Flat Development.

Signed,

Eduardo Villa
(NSW Architects Registration Board)
Registration No. 6813

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ABN 43 064 952 692

Building Designers & Consulting Civil & Structural Engineers

PROPOSED RESIDENTIAL DEVELOPMENT

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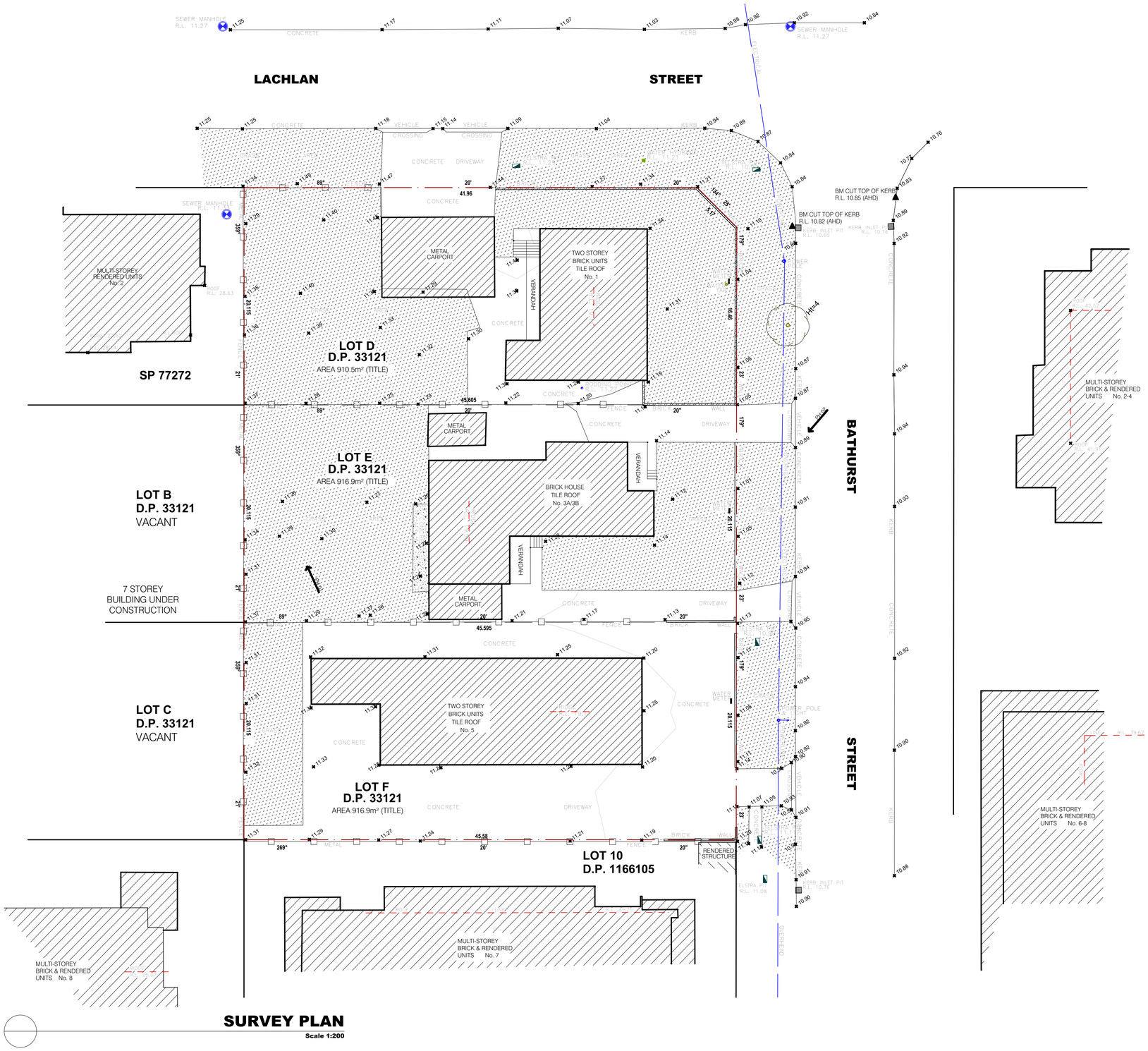
SHEET INDEX

ARCHITECTURAL

Issue	Description	Date
A	FOR DA	18.10.2016

Drawn	Checked	Project #
D.R.	CZ	P4714

Acitivity Type	Job #	Issue
DA	1349-16	**A**



Issue	Description	Date	Drawn	Issued
A	FOR DA	18.10.2016	D.R.	CZ

General Notes:

1) All dimensions and floor areas are to be verified by the Builder prior to the commencement of any building work. Any discrepancies are to be brought to the attention of the designer.
2) Levels shown are approximate unless accompanied by reduced levels.
3) Figured dimensions must be taken in preference to scaling.
4) All boundary clearances must be verified by the surveyor prior to commencement of any building work.
5) Where engineering drawings are required such must take preference to this drawing.
6) Stormwater to be discharged to Councils' requirements and AS 3500.3-1990.
7) All services to be located and verified by the Builder with relevant authorities before any building work commences.

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Project
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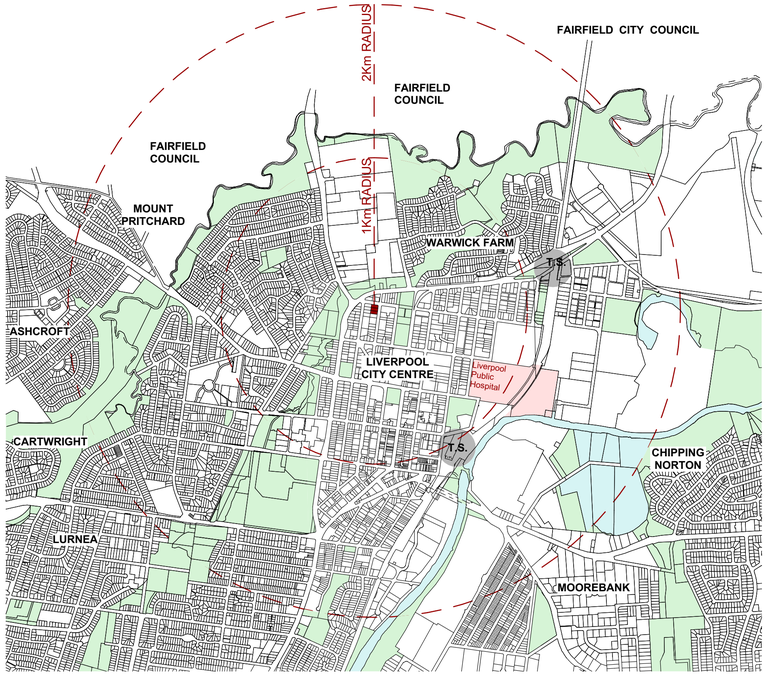
Lot D-E-F DP33121 - n. 1-3-5 Bathurst Street
LIVERPOOL

Client SYNERGY DEVELOPMENT GROUP

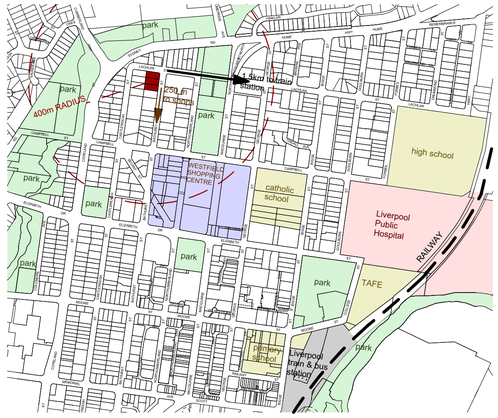
Title
SURVEY PLAN

Drawn	Checked	Date
D.R.	CZ	JUNE 2016
Activity Type	**Job #**	**Scale @ A1**
DA	1349-16	AS SHOWN
Project #	**Sheet #**	**Issue**
P4714	A01	**A**



WIDER CONTEXT PLAN

Scale 1:20000



NEIGHBOURHOOD CONTEXT PLAN

Scale 1:10000

STREETSCAPE CONTEXT PLAN

Scale 1:2000

PUBLIC OPEN SPACES

HYDROLIGICAL PLACES

PUBLIC HOSPITAL

TRAIN STATIONS

SHOPPING CENTRE

EDUCATIONAL PLACES

PROPOSED DEVELOPMENT PROPERTY

PROPOSED VEHICULAR CROSSING

EXISTING BUILDINGS

EXISTING VEHICULAR CROSSING

EXISTING STREET TREES

Issue	Description	Date	Drawn	Issued
A	FOR DA	18.10.2016	D.R.	CZ

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Client
SYNERGY DEVELOPMENT GROUP

Title
URBAN SITE ANALYSIS

Drawn	Checked	Date
D.R.	CZ	JUNE 2016
Acitivity Type	Job #	Scale @ A1
DA	1349-16	AS SHOWN
Project #	Sheet #	Issue
P4714	A02	A