

1027 ENV

INTRODUCTORY PLANNING STUDIO



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26th August 2011

Studio Foundations Portfolio

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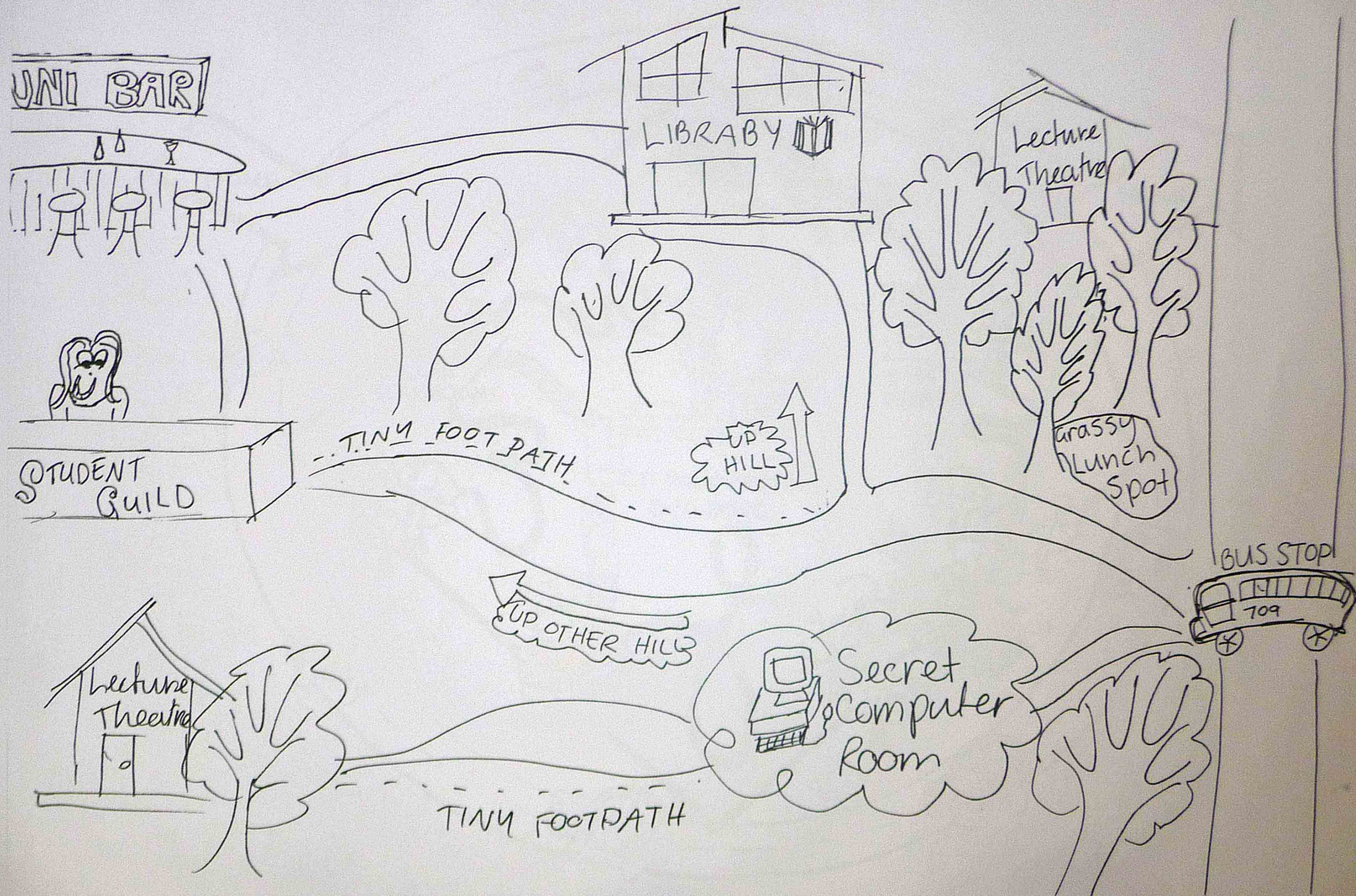
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FOUNDATION EXERCISE 1

Cognition and Behaviour



ORIGINAL COGNITIVE MAP OF GRIFITH UNIVERSITY



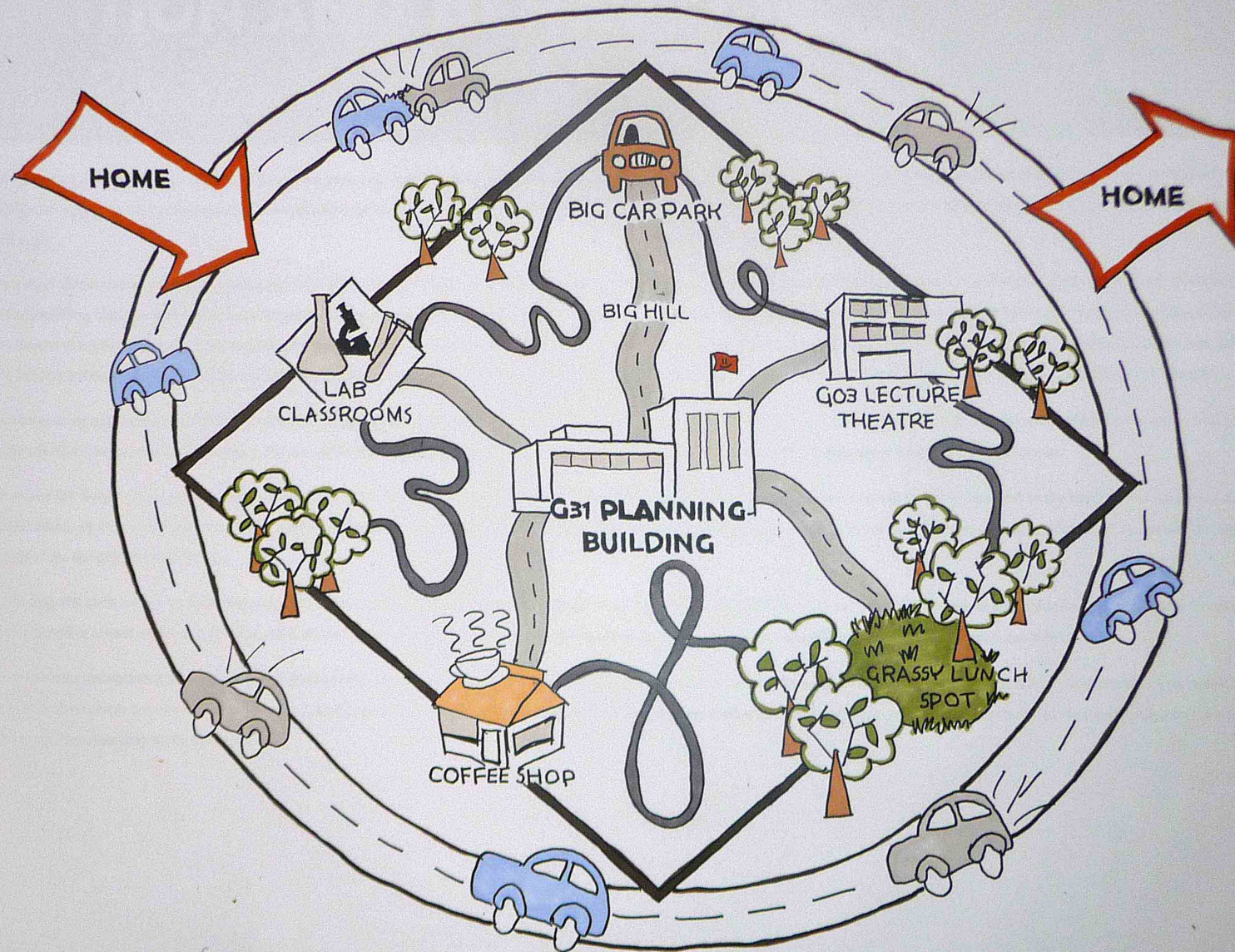
FOUNDATION EXERCISE 1

Cognition and Behaviour

Jessica Strickland

26th August 2011

REVISED COGNITIVE MAP OF GRIFITH UNIVERSITY



COGNITION AND BEHAVIOUR

Personal Reflection



A cognitive map is a visual representation on an individual's perception and experience of an area. To gain a deeper understanding of cognition and to analyse my own personal cognition of my surroundings I created two cognitive maps of the Griffith University Gold Coast campus, an original map and then a revised, more considered version. There are vast differences between my original and revised cognitive map and I attribute these to two significant personal changes I have undergone since drawing the first map.

Firstly, I now have a much clearer understanding of cognition and I was able to incorporate this understanding into my revised map. For example, I ensured that the size, location, orientation, depiction, inclusion or exclusion of elements of the campus were true reflections of my cognitive experiences. I also sought to incorporate order and structure in my revised map which show how I move through the campus. For example, from left to right on my map, arrows depict my movement to the campus then home at the end of the day. Additionally, the car park is located centrally at the top of my cognitive map as entering and parking on the campus is generally the first thing I do. From my revised map it can be seen that I then make my way down to the planning building and that's where I spend the majority of my day. From that central area, I may move to a number of different places (left to the coffee shop, right to a lecture) before returning to G31 then home.

Secondly, the differences in my map represent a shift in my values and my perceptions of the campus. Originally I did not have much to do with G31, but due to spending a lot of time in the studio, it has now become an integral part of my campus experience and therefore is central to my revised cognitive map. The size and location of the planning building on my map is representative of its importance to my cognitive experience of the campus.

Another example of how the changes in my cognitive map are reflective of the changes in my personal values is how transport is depicted. Originally I relied heavily on public transport so the bus stop was included in the first cognitive map. However, my increased reliance on my car has resulted in the bus stop being completely omitted and the car park featuring as a prominent feature. Also, due to this personal change, vehicular access routes around and through the campus are a far more prominent feature of the design in the revised map.

My revised cognitive map also gives a representation of my cognitive experiences as I navigate through the campus. It can be seen that the paths from G31 to various other locations are bold as I use them regularly. However, I am not as familiar with the paths that connect other parts of the campus together and don't use them regularly as I find many of them disorientating. This can be seen by my depiction of these routes as small, confusing lines.

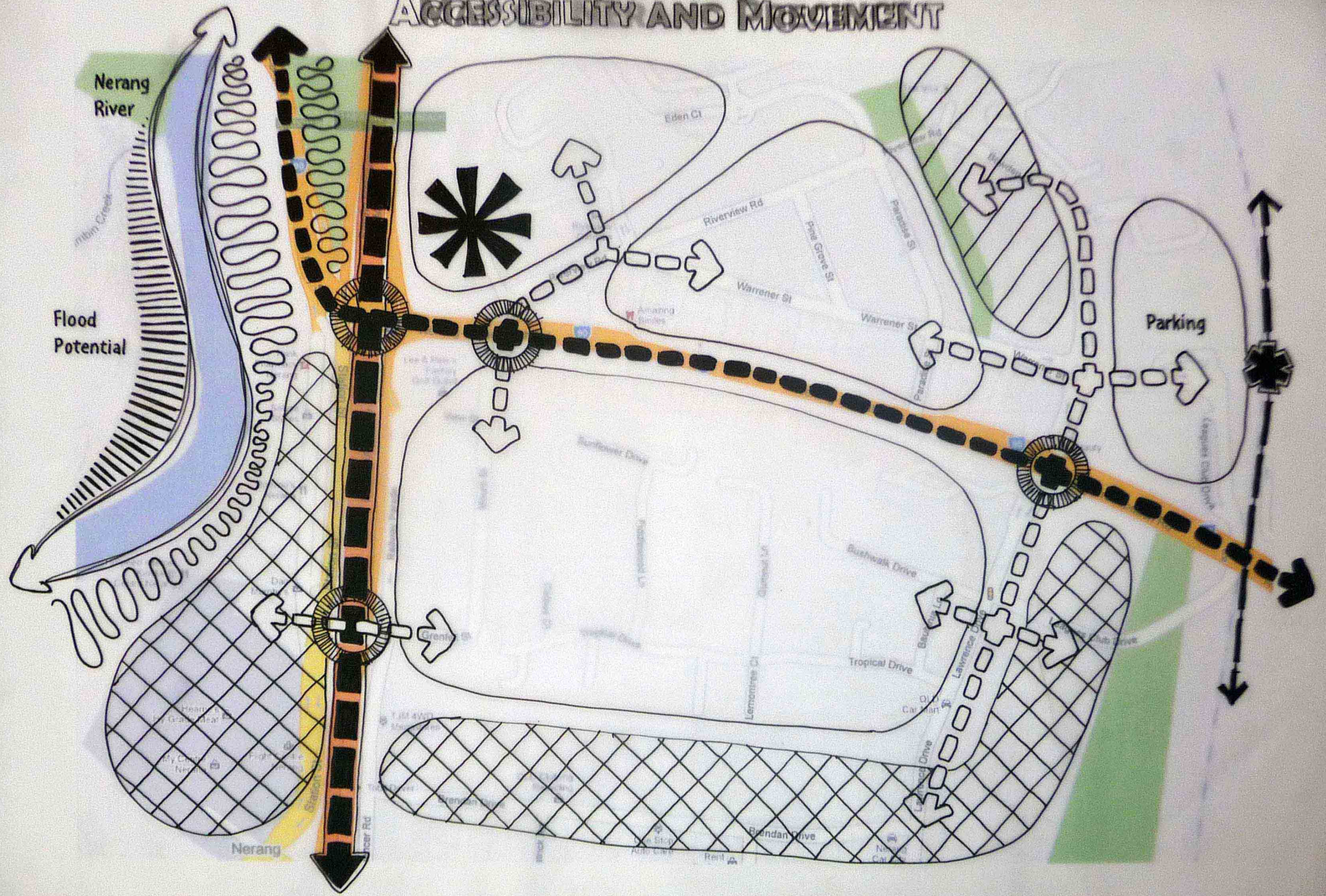
Overall this exercise made me understand that people's values, beliefs, routines, history and lifestyles can all affect the way they experience or perceive a place. I also learned how important it is to understanding how various design elements (good and bad) can critically affect how people perceive or experience a place. My developed knowledge of cognition was useful in designing my residential development as I was able to ensure I included various design features to ensure that residents and visitors have a positive cognitive experience of the development.

FOUNDATION EXERCISE 2

Reading and Interpreting Maps



ACCESSIBILITY AND MOVEMENT



FOUNDATION EXERCISE 2
Cognition and Behaviour Maps

Griffith University
 Not to Scale
 Jessica Strickland
 26th August 2011



Legend	
Railroad	Site
Vegetation Barrier	Train Station
Major Motorway	Major Intersection
Major Road	Green Space
Critical Access Road	Residential
	Commercial/Light Industrial

MAP OF NERANG PRECINCT



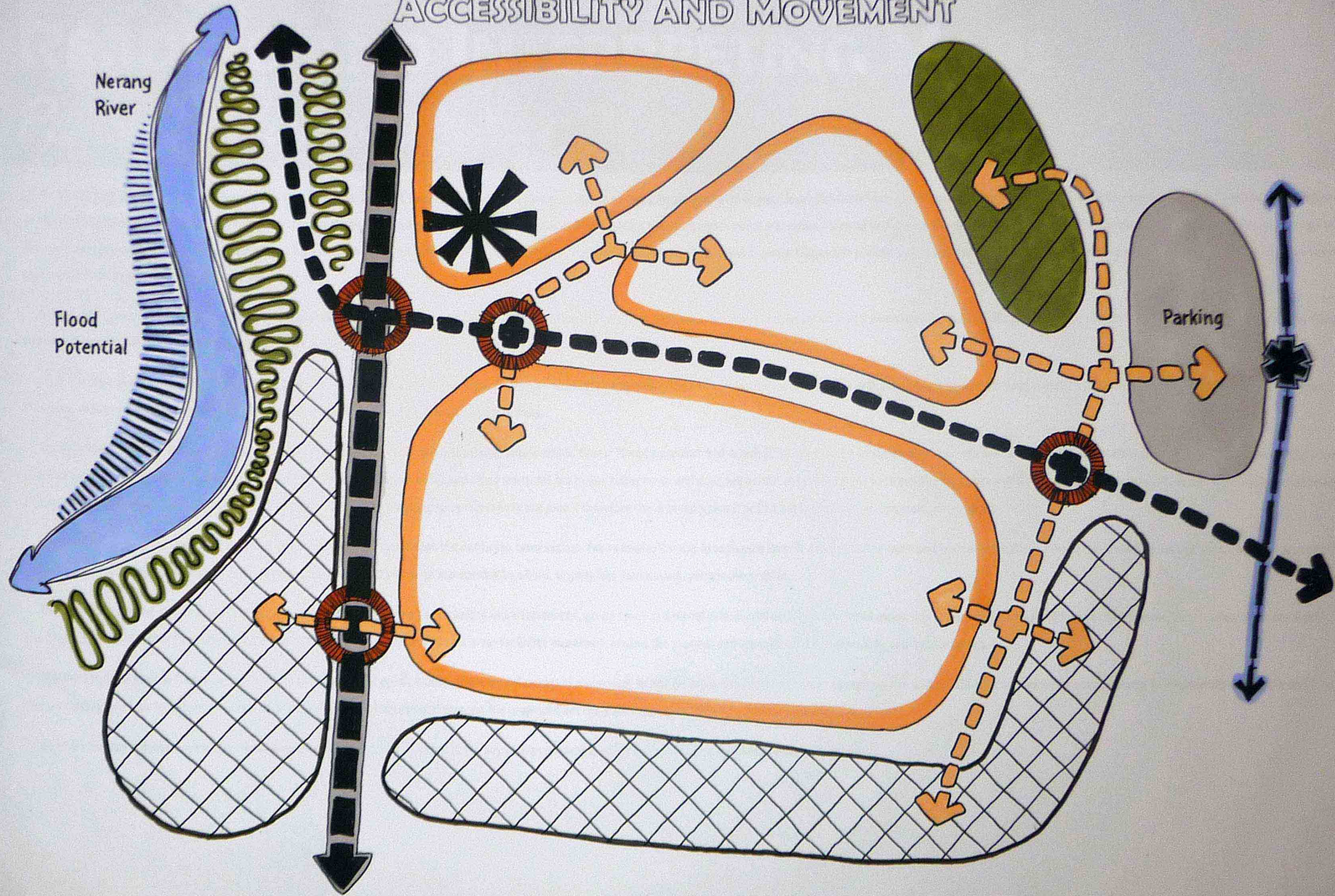
FOUNDATION EXERCISE 2
Reading and Interpreting Maps

Google Maps
 Jessica Strickland

Scale 1:4000
 26th August 2011



ACCESSIBILITY AND MOVEMENT



FOUNDATION EXERCISE 2
Cognition and Behaviour

Griffith University
Jessica Strickland
Not to Scale
26th August 2011



Legend	
Railroad	Site
Train Station	Green Space
Vegetation Barrier	Residential
Major Intersection	Commercial/Light Industrial
Major Motorway	Major Road
Critical Access Road	

READING AND INTERPRETING MAPS

Personal Reflection



A concept plan is a schematic, graphical depiction of relationships and interactions between elements within an area. My concept plan depicts accessibility and movement as well as key planning issues within Nerang Precinct, specifically in relation to the residential development site. I felt it was important to gain an understanding of these impacts through concept planning and found it was a fundamental first step in the design process of Le Jardins Residential Development. In researching the area and recognising key issues, I was able to develop a concept plan that utilises simple, bold graphics, a minimalistic colour scheme and a succinct legend to portray a clear message. The concept plan assisted me to formulate ideas for Le Jardins and facilitated decision making in the design process.

As the main message I chose to depict in my concept plan was accessibility and movement in relation to the site, it was important that I represented it as a prominent feature on the plan through the choice of a large bold symbol. Also, to show access and movement in and out of Nerang precinct, I included arrows, indicating continuity of routes.

With the close proximity of the site to Nerang River and the low elevation of the area, an obvious major planning issue is flooding potential, as can be seen in the Gold Coast City Council flood maps (2010). I therefore felt it was important to represent this issue on my concept plan by drawing the river surrounded by sprawling, blue, permeable lines.

Another planning issue relevant to the site is the presence of several major transport routes which dissect Nerang precinct and which form loud, often impenetrable, boundaries. These routes can both assist and inhibit movement within the precinct as well as accessibility to the site, local facilities, public transport nodes and other areas. M1 is a major access route and does not permit easy movement between the Southern and Western areas of the precinct, except where other roads bisect it. The M1 also generates noise pollution which is another dominant planning issue relevant to the area. I therefore chose to represent it with a bold, dominating, impermeable graphic.

Other major roads in the area have an effect on accessibility and movement but not to the same extent. For example, Nerang-Broadbeach Road is a major access route and creates a division between the North-Eastern and South-Western sides of the precinct, but it is not as impervious or noisy. It is for this reason that I chose to represent it by a bold, slightly less dominating, permeable graphic.

There are also several different types of areas within the vicinity of the site including other residential, green space and mixed commercial and light industrial areas. It is important for access routes to exist between these to allow residents to utilise the facilities and amenities they offer. Critical access roads between these different areas facilitate movement around the precinct and are indicated by permeable, convivial graphics.

The Nerang train station is in close proximity to the site and, as public transport is a crucial means of movement to and from Nerang Precinct, I chose to represent it with a bold graphic that is obvious. However, as the majority of access to and from the precinct is vehicular in nature, the most dominating aspects of my concept plan are the roads and not the public transport routes.

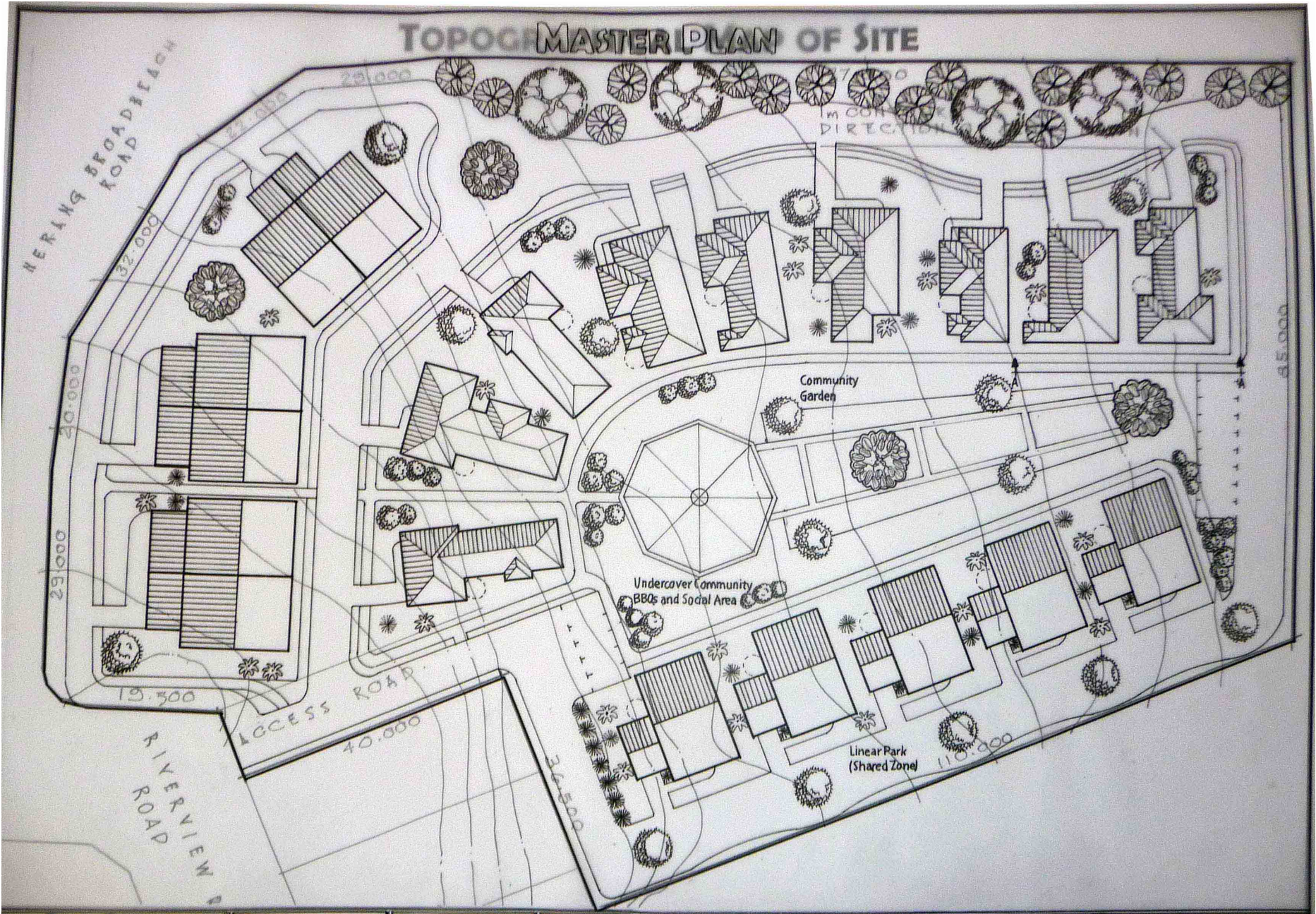
Overall I feel my representation effectively depicts accessibility and movement and key planning issues that are relevant to the residential development site.

STUDIO EXERCISE 3

Residential Development

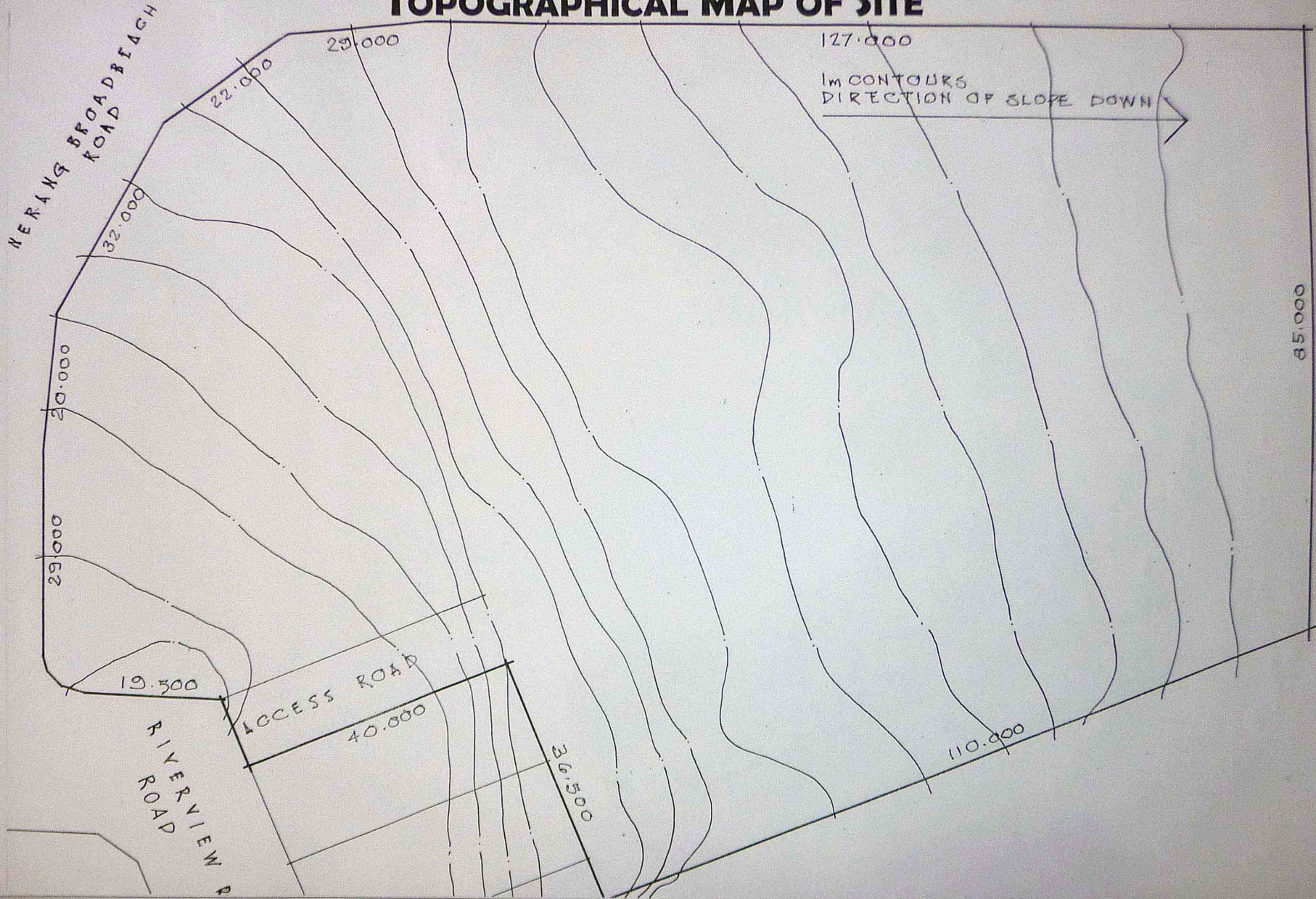


TOPOGRAPHIC MASTER PLAN OF SITE



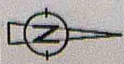
LES JARDINS <i>Residential Complex</i>	Griffith University	Scale 1:500		Legend	Citrus sinensis	Zamia furfuracea	Malus domestica	Underground water tank
	Jessica Strickland	26th August 2011			Carica papaya	Eucalyptus tereticornis	Eucalyptus cinerea	Prunus armeniaca

TOPOGRAPHICAL MAP OF SITE

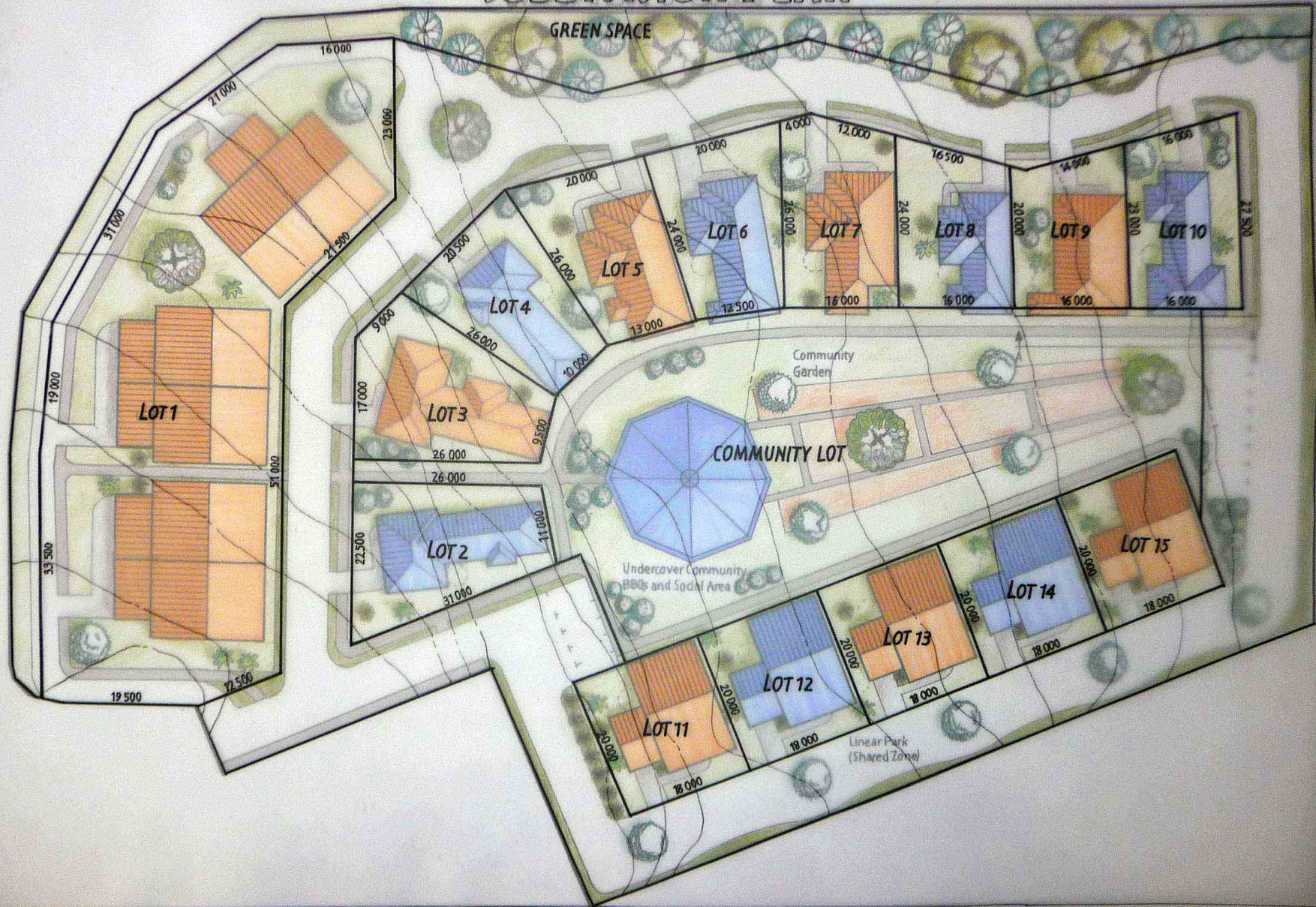


LES JARDINS
Residential Complex

Griffith University Scale 1:500
Jessica Strickland 26th August 2011

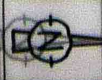


SUBDIVISION PLAN



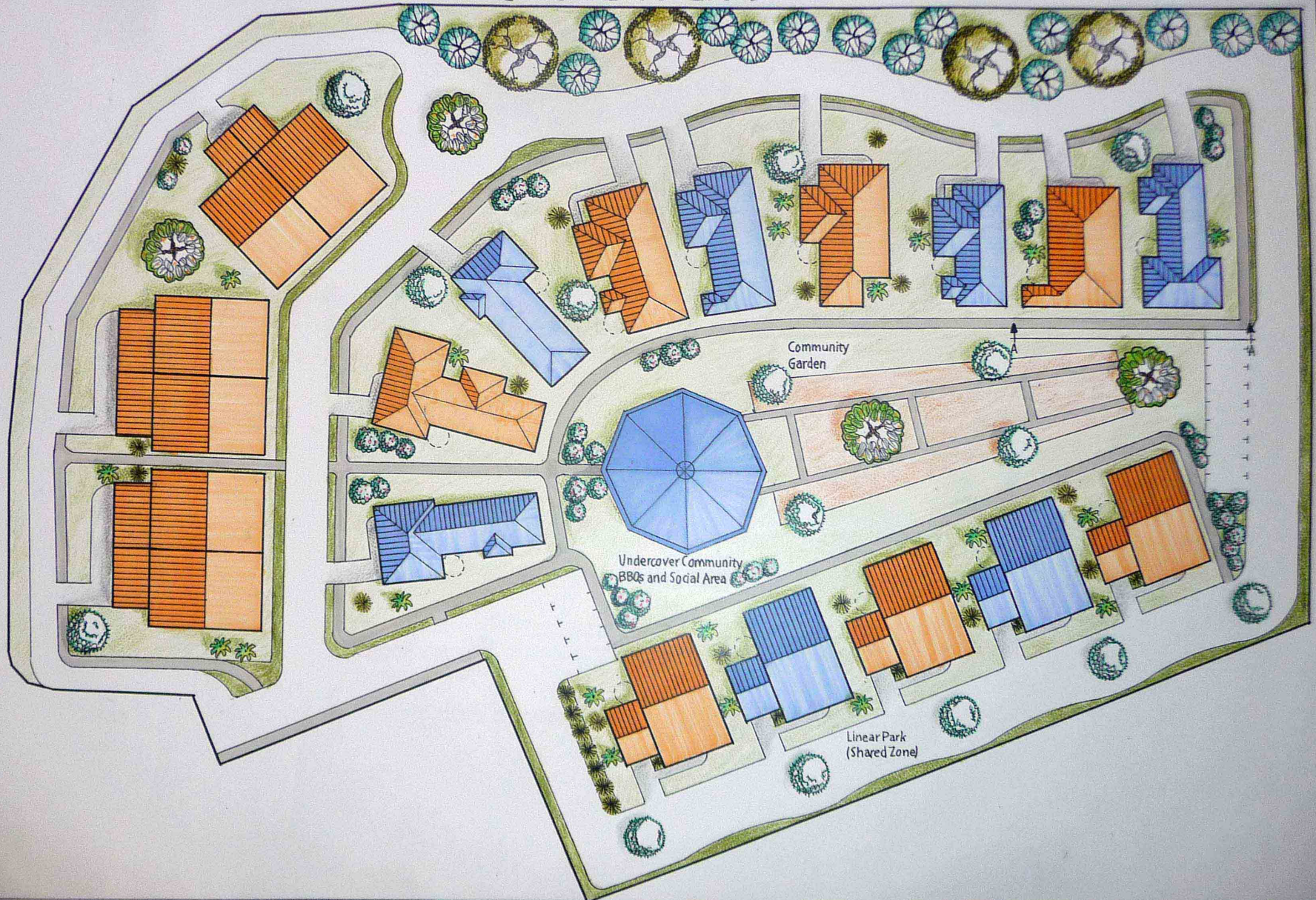
LES JARDINS
Residential Complex

Griffith University
Jessica Strickland
Scale 1:500
26th August 2011



Legend	
	Green space
	Community Garden
	Undercover Community BBQs and Social Area
	Linear Park (Shared Zone)
	Lot boundaries
	Lot numbers
	Other features

MASTER PLAN











LES JARDINS
Residential Complex

Griffith University
Jessica Strickland

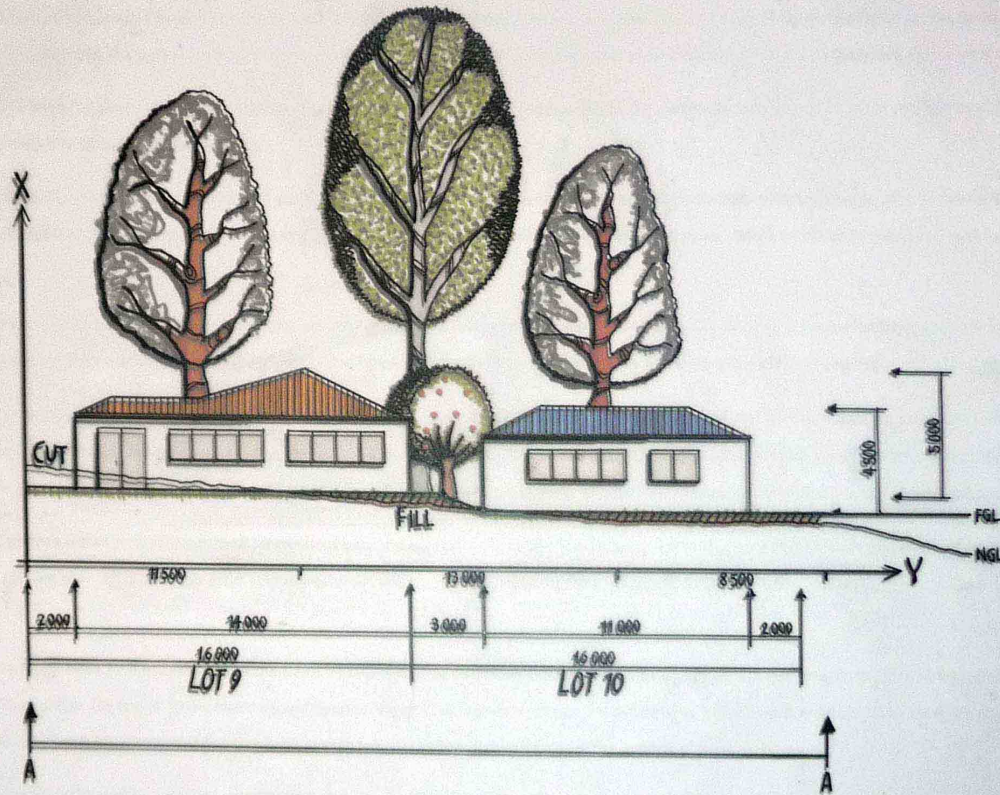
Scale 1:500
26th August 2011



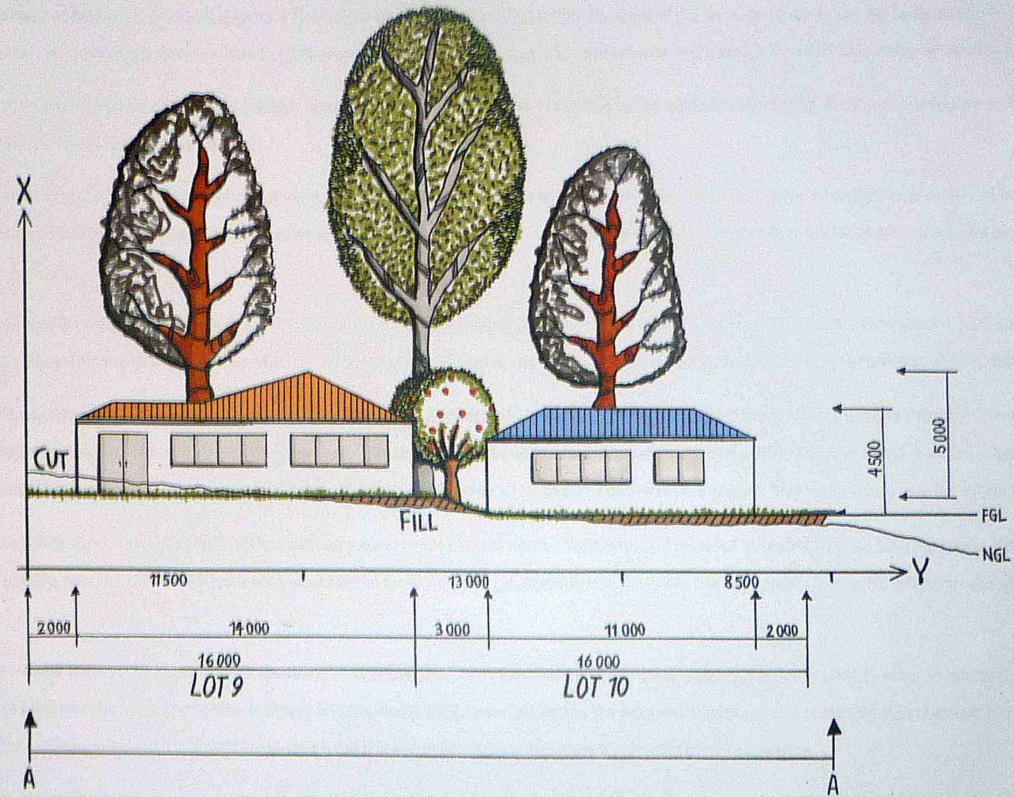
Legend

-  *Citrus sinensis*
-  *Zamia furfuracea*
-  *Malus domestica*
-  Underground water tank
-  *Carica papaya*
-  *Eucalyptus tereticornis*
-  *Eucalyptus cinera*
-  *Prunus armeniaca*

SECTION / ELEVATION



SECTION / ELEVATION



LES JARDINS
Residential Complex

Griffith University

Scale 1:200

Jessica Strickland

26th August 2011

RESIDENTIAL DEVELOPMENT

Personal Reflection



The key to good residential design is to consider the development of homes not houses (Carmona & Tiesdell 2006). I considered this carefully throughout the creation of my design for Le Jardins Residential Complex. The planning process of my subdivision design required the careful consideration of many factors including the issues identified in my concept plan. The result of this careful consideration was a design for a desirable, safe, sustainable development suitable to its surroundings.

As part of the critical first stages of my planning process I considered the context and target market. Nerang consists predominantly of families in the moderate socio-economic range and has an average of 3 people per house (ABS 2008). This information shaped my decision to include medium sized 2-3 bedroom houses on relatively small lots.

I felt it was important to create a design that focuses on a good quality of life, community spirit and sense of place. I did this through creating an open-style, community oriented design, with no fenced boundaries and with attractive and functional communal spaces and facilities. As the French name suggests, self-sufficiency through gardening is the key focus of Le Jardins. A community garden is provided to encourage residents to grow their own food and the majority of trees are fruit bearing and are suitable to the Gold Coast climate.

All Torrens Title lots back onto the community park for child friendly accessibility and the strata title has easy access via a footpath and pedestrian crossing. By creating a barrier between the park and the road (the park is surrounded by either parking or houses) I have created a child safe area for residents to enjoy. This design feature along with the lack of fences does result in the issue of privacy however, with sufficient vegetation screening, this issue is easily resolvable.

Sustainability is a key element of Le Jardins and is widely recognised to be an important part of residential design (McCullough, 2008). I carefully considered the WA Sustainability Principles (State Government Western Australia 2004) and incorporated the following in my design: effective placement and alignment of houses to save energy, underground rain water tanks, large areas of green space, and smaller lot sizes. Water sensitive urban design was also carefully considered and no pools were included in the design. Additionally, permeable paving throughout the linear park and swails throughout the subdivision allow water to penetrate the ground. Grey water is also recycled within Le Jardins and is used on the gardens.

To maximise accessibility I incorporated a road and path system that allows ease of access to all lots without unnecessarily obscure routes. Furthermore, I provided an invitingly wide bike/pedestrian shared path that provides full access around the site and links to Nerang-Broadbeach Road. I included disabled parking near the community areas with access to the facilities via the accommodating footpath. I ensured roads, footpaths, driveways and spaces between houses and obstacles were of a sufficient size to allow access when required.

As was addressed in the concept planning stage, flooding is a major issue as the lower third of the site is susceptible (Gold Coast City Council 2010). Unfortunately it is not feasible to place all lots on the upper part of the site so a compromise was reached. I placed a road reserve at the lowest part of the site to minimise the impact on residents should flooding occur. I did, however, design the subdivision with the understanding that there are engineering solutions available to accommodate and manage development in areas with high flood potential. Also, I placed vegetation and distance between the lots and major roads to minimise the impacts of noise pollution.

Safety was another important consideration in the design process of Le Jardins. I utilised various traffic calming mechanisms such as windy roads, sharp curves, a roundabout and a shared-zoned linear park which incorporates trees as obstacles. These measures were employed as a means to slow down drivers, and increase child safety. I also used various design techniques to improve safety. For example, by having large, open, well-lit areas which are overlooked by houses, the likelihood of crime or unfavourable behaviour is decreased. Although the scale of my master plan is too small to depict street lights, I also considered their importance in increasing safety and so Le Jardins community.

Overall, I strived to create a residential design that incorporated important principles of sustainability as well as effective design elements to encourage a healthy sense of community and a safe, enjoyable lifestyle for residents.

REFERENCE LIST



Australian Bureau of Statistics 2008, *National Regional Profile: Nerang (Statistical Local Area)*, ABS, Canberra, Available: <http://www.abs.gov.au/AUSSTATS/abs@.nsf/781eb7868cee03e9ca2571800082bece> (8th August 2011).

Carmona, M. & Tiesdell, S. 2006, *Urban Design Reader*, Architectural Press, London.

Gold Coast City Council 2010, 'Natural Hazard (Flood) Management Areas OM17', *Our Living City: Gold Coast Planning Scheme 03 Version 1.2*, Available: www.goldcoastcity.com.au/planningscheme (20th August 2011).

McCullough, K. 2008, 'Sustainable Residential Development: Planning and Design for Green Neighbourhoods', *Journal of the American Planning Association*, vol. 74, no. 4, pp. 526-527.

State Government Western Australia 2004, *Leading by Example: The Sustainability Code of Practice for Government Agencies and Resource Guide for Implementation*, Available: www.dec.wa.gov.au/component/option,com_docman/task,doc.../Itemid,/ (20th August 2011).