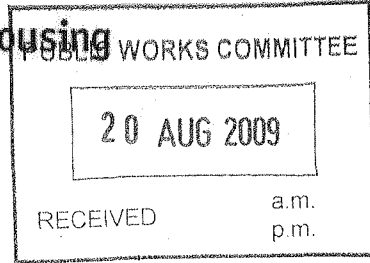
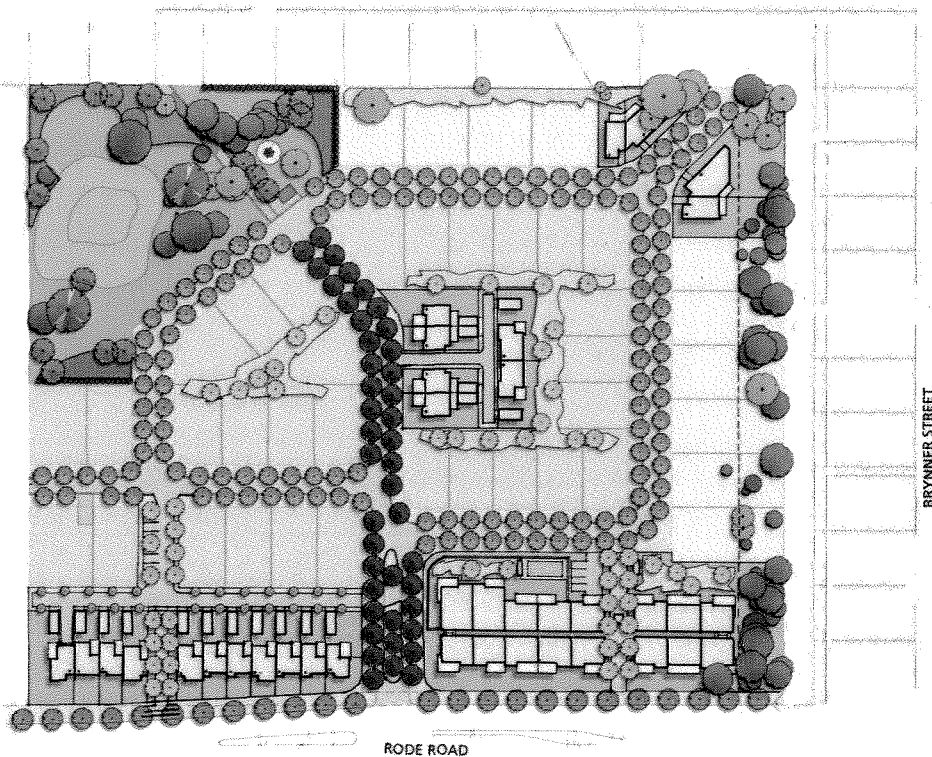


SL 20/08/09



**SUBMISSION TO THE  
PARLIAMENTARY STANDING COMMITTEE  
ON PUBLIC WORKS**

**PROPOSED CONSTRUCTION  
OF  
HOUSING FOR DEFENCE  
AT  
GORDON OLIVE ESTATE, MCDOWALL, QUEENSLAND**



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## **IDENTIFICATION OF THE NEED**

### **1 PROJECT OBJECTIVES**

- 1.1** In this submission, Defence Housing Australia (DHA) seeks approval from the Parliamentary Standing Committee on Public Works (PWC) to develop a 5.17 hectare site in the Brisbane suburb of McDowall, Queensland. See Supplementary Item 1.
- 1.2** The immediate objective of the Project is to provide 51 modern community standard dwellings, comprising 30 detached houses, four duplex dwellings and 17 townhouses in part satisfaction of the immediate housing requirements of Australian Defence Force (ADF) members serving in the Brisbane area, and particularly at Gallipoli Barracks, Enoggera, Brisbane.
- 1.3** Included in the Development Application submitted to Brisbane City Council (BCC) are 10 additional, larger sites for detached housing and a 5440 sq.m. lot to be used for a medium density unit development. Construction of dwellings on these lots is not included in the project under consideration. The 10 larger lots and the 5440 sq.m. lot will be sold (Section 4 refers).

### **2 HISTORICAL BACKGROUND**

- 2.1** Between August 2003 and June 2004, DHA purchased five parcels of land in the suburb of McDowall in Brisbane. The parcels, which were part of a previous rural residential settlement, progressively came on the market over the nine month period. The five original houses have been demolished for public safety reasons.
- 2.2** A number of development schemes were assessed in an effort to achieve an acceptable return on investment and meet BCC requirements. The current scheme that forms part of this proposal is an evolution of this process.

- 2.3** The site will be named the Gordon Olive Estate, honouring the memory of former Brisbane-born Battle of Britain pilot and distinguished community figure, Gordon Olive, CBE, who died in 1987.

### **3 THE NEED**

- 3.1** There are currently about 1700 Defence members with dependents who reside in the Brisbane area. The majority of these personnel work at Gallipoli Barracks, Enoggera.
- 3.2** DHA currently manages about 1300 dwellings in and around Brisbane, with 28.5 per cent of families in private rental situations receiving rent allowance (RA). The task for DHA is to reduce the percentage of RA to around 13 - 14 per cent.
- 3.3** Compounding this task is the number of lease expiries. While the majority of lease expiries are expected to be extended, a net deficit will occur that will need to be recovered by additional leases, direct purchases and constructions. In addition, in July 2007 Defence introduced its New Housing Classification Policy (NHCP) with a new (increased) minimum standard. A large number of houses in the Brisbane area are old and do not meet the new standard.
- 3.4** To increase the housing stock, replace houses that do not meet the new standard, together with the replacement of houses for which leases will expire, DHA has programmed the addition of 884 dwellings, including 383 constructions, over the financial years 2009/10 to 2012/13. These are shown in the following summary of DHA's estimated capital investment and residential construction program for the Brisbane area.

Financial Year		2009-10	2010-11	2011-12	2012-13	Total
Defence Housing Forecast		1694	1705	1789	1859	—
<b>OPENING STOCK</b>		<b>1311</b>	<b>1505</b>	<b>1602</b>	<b>1646</b>	—
Subtract lease expiries & disposals of sub-standard stock		72	168	168	83	491
<b>New housing</b>	New leases	10	15	15	0	40
	Conversions of existing leases	50	108	97	61	316
	Direct purchase of existing properties	35	40	50	20	145
	Total constructions	171	102	50	60	383
	<b>Total additions</b>	<b>266</b>	<b>265</b>	<b>212</b>	<b>141</b>	<b>884</b>
<b>CLOSING STOCK</b>		<b>1505</b>	<b>1602</b>	<b>1646</b>	<b>1704</b>	—

Table 1 : DHA Housing Requirements for Brisbane

**3.5** The development and construction of 51 dwellings on Gordon Olive Estate represents half of the new housing constructions for Financial Year 2010/11 in Table 1 and will make a significant contribution towards meeting the increased Defence housing requirement in the Brisbane area. Housing in this area is highly sought after by ADF members owing to its close proximity to the Enoggera Base.

#### **4 DESCRIPTION OF THE PROPOSAL**

**4.1** The proposal is to develop the existing five rural residential lots into 46 lots to provide a mix of low and medium density housing as follows:

- 40 lots, varying in size from 400 to 670 sq.m., suitable for detached residences (although only 30 will be used by DHA, as explained at paragraph 4.2);
- Three lots suitable for four duplex style town houses;
- A lot suitable for a group of six townhouses;
- A 'super lot' of 4475 sq.m. suitable for another 11 townhouses; and
- A super lot of 5440 sq.m. suitable for a multi storey development of up to 36 units.

The Site Master Plan at Supplementary Item 2 refers.

- 4.2** Of the 40 lots for low density, detached dwellings, 10 are steep and therefore more expensive to build on. Accordingly, they are not suitable for DHA purposes. These blocks are slightly larger, 570 – 670 sq.m., making them more attractive for sale to owner occupiers. The 5440 sq.m. super lot will also be sold.
- 4.3** In summary, DHA proposes to build 51 dwellings on 35 of the lots, with the remaining 11 (10 plus one super lot) to be sold. Further details of the proposal are found in the second part of this submission under the heading 'Technical Information'.

## **5 OTHER OPTIONS CONSIDERED**

- 5.1** In order to meet ADF operational and Defence housing requirements, DHA uses a variety of delivery methods, including on-base and off-base construction, direct purchase, and various leasing arrangements. Consideration of these methods for the Brisbane area is as follows:
- 5.1.1** On-base construction is not possible on Gallipoli Barracks, as there is no suitable site.
- 5.1.2** Direct purchase of dwellings is used to acquire stock, but such dwellings of the standard required by Defence are not available in the required locations and numbers. The four year program depicted in Table 1 has provision for 145 direct purchases.
- 5.1.3** Leasing is used extensively by DHA, but most leases are created through DHA's sale and lease back (SLB) program. Properties available for direct leasing to the standard required by Defence are in short supply in Brisbane. A realistic expectation is that only a small number of direct leases will be available in the Brisbane area over the four years from 2009/10 to 2012/13 inclusive.

## **6 REASONS FOR SELECTING THE PREFERRED OPTION**

- 6.1** In locations where there is a high level of Defence demand, constructed housing delivered through bulk procurement contracts is usually the most cost effective provisioning option. DHA is an experienced land developer with the ability to develop housing estates and contract out the construction of houses, with eventual sale through the SLB program. Moreover, control over the housing design enables DHA to deliver housing that is geared to Defence requirements in terms of the house specification and delivery time. The four year program has 383 constructions, including the 51 planned for Gordon Oliver Estate.

## **7 ENVIRONMENTAL CONSIDERATIONS**

- 7.1** The site is located in Brisbane's Mountains to Mangrove Corridor (see Supplementary Item 3) and is covered by BCC's Natural Assets Local Law. Review of the environmental considerations was undertaken by Chenoweth Environmental Planning and Landscape Architecture Consultants (Chenoweth EPLA), who advise that the site has been significantly modified through the former rural residential development which includes mown grass, gardens, planted trees and patches of remnant and regrowth vegetation. The report concludes that, given the history of the lots, the surrounding land uses and absence of wooded connectivity to greater parcels of land, the site is unlikely to be regarded as "crucial to the continuity of the linkage".

### **7.2 Retention of Significant Vegetation.**

- 7.2.1** The most significant and densest area of vegetation covers the eastern section of the site. To ensure maximum retention of this vegetation, an environmental protection zone (EPZ) will be created along the eastern boundary. The EPZ is included as part of the nine larger lots on the eastern boundary of the site. The EPZ will be fenced off during construction, and specific conditions will be placed on civil works contractors to minimise damage to the vegetation.



- 7.2.2** A large clump of vegetation which contains habitat value is also located toward the north-western corner of the site. Many of these trees will be retained in the open space drainage area – see Site Master Plan at Supplementary Item 2.
- 7.2.3** A Tree Retention Plan has been prepared by Chenoweth EPLA. Five significant landscape trees<sup>1</sup>, being forest red gums, have been identified in the north western corner of the site. Two of these trees are in good condition and will be retained within the open space area. Of the three trees to be removed, one has extensive wood moth damage, one is unsound with one third of the trunk circumference decayed at the base, and the third is not a good specimen, having a co-dominant stem.
- 7.2.4** An arboricultural consultant, Bunya Solutions, will prepare a Vegetation Management Plan for the operational works permit.

### **7.3 Impacts on Fauna**

- 7.3.1** A number of fauna species were recorded during Chenoweth’s site visits, none of which are scheduled under the *Nature Conservation (Wildlife) Regulation 1994* or the *Environment Protection and Biodiversity Act 1999*.
- 7.3.2** A data review of Wildnet records for a 1 km radius surrounding the subject site identified three significant fauna species: platypus, koala and grey-headed flying fox. However, Chenoweth EPLA advises that the site does not contain appropriate habitat for koalas or platypus or a significant habitat for the Grey Headed Flying Fox. Accordingly, the proposed development is not considered to constitute an ‘action’, as defined by the EPBC Act and therefore the development does not require referral to Environment Australia.
- 7.3.3** A fauna spotter/catcher will be employed during site clearing activities.

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<sup>1</sup> Significant Landscape Trees are defined under the Natural Assets Local Law 2003, which protects certain species greater than specified trunk diameters.

#### **7.4 Noise impacts.**

**7.4.1** The site is subject to traffic noise from Rode Road, which is able to be attenuated through attention to the design and construction of the buildings. Further detail is provided in section 19 of this submission.

**7.4.2** Noise associated with construction work will be managed by ensuring contractors' equipment operates within specified noise levels, restricting contractors' working hours and notifying adjacent residents of the expected noise impacts.

**7.5 Drainage.** Stormwater drainage from the site has been investigated and modelled by consultants *wrm water + environment* (WRM) who found that the proposed development does not impact on flood levels at adjacent properties. Drainage is addressed in further detail at paragraph 18.5.2.

### **8 HERITAGE CONSIDERATIONS**

**8.1** The site has previously been altered through rural residential development and there are no heritage considerations. The DHA proposal is to construct houses that will sympathetically connect to adjoining residential developments.

### **9 STAKEHOLDER CONSULTATION**

**9.1 Brisbane City Council.** The BCC has been consulted through three formal pre-lodgement meetings (for Development Approval) with a subsequent meeting post lodgement on 4 August 2009. In addition, informal meetings have been held with individual councillors to discuss specific aspects of the development. Paragraph 28.1 refers.

#### **9.2 Community.**

**9.2.1** Community consultation has been undertaken in accordance with the requirements of the Brisbane City Council planning legislation requirements as follows:

- Local residents were advised by letters containing the prescribed requirements by registered post on 24 July 2009.
- Public notification of the proposed development was advertised in the Courier Mail on 24 July. A public notice was erected on the development site from 27 July 2009 and will remain in place for a period of 30 working days, i.e. until 9 September 2009.

**9.2.2** Independent of the Council process outlined in paragraph 9.2.1, community feedback was independently sourced by DHA through an information evening held on 22 July 2009. This event, which was advised to residents through letter box drops and notices in the community newspapers on 8 July and 15 July 2009, attracted about 60 people, mostly local residents. The reception was generally positive, owing to DHA's ability to address concerns regarding traffic flows that were previously expressed at an earlier public information evening in 2005.

**9.2.3** The major source of concern for the community relates to the increased traffic from the estate and its effect on the school operation. The principal of the McDowall Primary School, Mr Bruce Fogarty, has written a letter to DHA raising several issues and making recommendations, including the separation of pedestrians and vehicles by means of a pedestrian overpass on Rode Road. This suggestion is not considered to be a reasonable request of the project, nor has it been supported by the BCC.

**9.2.4** Mr. Fogarty also requested that the school car park exit located opposite the entrance to the Gordon Olive Estate be included in the signalised entrance/pedestrian crossing to facilitate exit onto Rode Road. This would be an expensive undertaking that DHA considers unnecessary. Compared to the existing arrangement, DHA believes that exit from the school gate will be enhanced by the new traffic arrangement.

**9.2.5** The school principal has also raised issues related to disruption during construction. These will be addressed in the construction contract and with ongoing consultation with the school.

**9.3 Defence.**

**9.3.1** The Director of Relocations and Housing, Department of Defence, Mr. Alan McClelland, has been briefed on the project and has written a letter of support (see Supplementary Item 4).

**9.3.2** The Senior ADF Officer at Gallipoli Barracks has been briefed on the project.

**9.3.3** The Defence Families of Australia, National Convenor, Mrs. Nicole Quinn has been briefed on the project and has provided her support (see Supplementary Item 5 ).

**10 REVENUE**

**10.1** Details of the financial aspects of the project are included in a separate commercial in confidence briefing to the PWC.

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## **TECHNICAL INFORMATION**

### **11 LOCATION**

**11.1** The Gordon Olive Estate site is a 5.17 hectare in-fill site in the established suburb of McDowall, Brisbane, and close to schools and shops. The site is approximately 12km north of the Brisbane CBD and 5km north of the Gallipoli Barracks, Enoggera. Site location maps are at Supplementary Item 1.

### **12 PROJECT SCOPE**

**12.1** The scope of the project is to convert five large allotments, formerly part of an old rural residential settlement, into a modern residential precinct containing 46 lots:

- 40 lots, varying in size from 400 to 670 sq.m., suitable for detached residences (although only 30 are suitable for DHA);
- Three lots suitable for four duplex style town houses;
- A lot suitable for a group of six townhouses;
- A 'super lot' of 4475 sq.m. suitable for another 11 townhouses; and
- A super lot of 5440 sq.m. suitable for a multi storey development of up to 36 units.

The Site Master Plan at Supplementary Item 2 refers.

**12.2** DHA proposes to build 21 three-bedroom townhouses and use 30 of the 400 sq.m. lots for detached residences. As noted at paragraph 4, DHA proposes to sell 10 detached residence lots on the northern and eastern boundaries of the site, as well as the 5440 sq.m. lot.

### **13 SITE SELECTION**

**13.1** The site is one of the last remaining areas available for infill development in the locality. Its location is considered ideal for supplying accommodation for Army families posted to the Gallipoli Barracks, Enoggera, which is some

5km to the south. The site is close to the Grace Wilson Estate, which is a site developed by DHA over the period 2005 – 2007, on which 50 residences were built, winning a 2009 Queensland Award for Excellence for Small Residential Sub-divisions from the Urban Development Institute of Australia (UDIA).

## **14 SITE DESCRIPTION**

- 14.1** The site is rectangular in shape and has frontage to an arterial road, Rode Road, to the south, and to a local access road, Peck Street, to the north (see location map at Supplementary Item 1). The frontage along Rode Road is 246.6 metres. Connection to Peck Street is via a council controlled access strip at the north-western corner of the site. The strip will be cancelled and replaced by a new path to allow pedestrian and bicycle access (paragraph 21.4.1.4 refers).
- 14.2** The site forms part of the undulating landscape typical of the locality. (See aerial photograph at Supplementary Item 6). It does not have sufficient elevation to make it visually distinct within the district, but it includes a low central ridgeline that runs northerly from the Rode Road frontage, and a gully area that is prone to flooding (See Supplementary Item 7). Two drainage lines, a minor one on the eastern edge of the site and a more substantial overland flow path to the west, drain the site to the north. (further detail on drainage is at paragraph 18.5.2)
- 14.3** The site itself contains a sporadic covering of vegetation due to its recent history of residential development. This vegetation is predominately located toward the front of the site and along the eastern boundary away from previous building areas, and in the drainage area at the north-west corner. As many trees as possible will be retained. Environmental issues have been addressed in detail at Section 7 of this submission.

## **15 ZONING AND APPROVALS**

- 15.1** The site is zoned *Emerging Community Area*. This zoning provides for primarily low density residential development incorporating both conventional and small lot sizes, with some larger developments incorporating townhouse and unit style development. The DHA proposal is considered to be consistent with this land use.
- 15.2** An application for Development Approval has been submitted. As noted at paragraph 28.1, extensive consultation has been undertaken with BCC authorities and with individual councillors. While formal DA has yet to be issued, DHA believes that all major BCC concerns have been addressed and that a preliminary approval or Council notification of an intention to issue a DA will be to hand by the date of the PWC public hearing.

## **16 DETAILS OF LAND ACQUISITION**

- 16.1** The site was acquired by DHA by purchasing five existing rural residential lots between August 2003 and June 2004. The five original houses were demolished for public safety reasons.

## **17 CODES AND STANDARDS**

- 17.1** All design and construction works carried out as part of this project will comply with or exceed local, State and Federal controls and requirements, and all housing works will meet the Building Code of Australia.
- 17.2** Civil works will be certified by Brisbane City Council.
- 17.3** All building construction requiring certification will be undertaken by approved Private Certifiers.
- 17.4** All contractors used for civil works and construction of houses will be accredited by the Federal Safety Commission.

## **18 PLANNING AND DESIGN CONCEPTS**

### **18.1 Structure, Materials and Finishes.**

**18.1.1** Dwellings will be constructed by local contactors engaged through a 'Design and Construct' request for tender. Contractors will be expected to submit 'project home' designs using materials that are durable and robust. Contractors will be required to deliver homes that are well constructed and that do not require regular maintenance such as painting.

**18.1.2** In addition, DHA will require contractors to use materials and designs that are sympathetic to the residential character of the area. This means that the architecture should not merely duplicate the existing development pattern and character but rather respond to that character and contribute to it positively. With these guidelines, DHA expects that designs tendered will be conventional timber framed brick veneer dwellings with a mix of rendered and face brick. It is also intended that, through the use of different external materials and finishes, no two adjacent detached houses will look identical.

**18.2 Subsurface Conditions.** A geotechnical survey has been carried out by consultants, Ron Richards and Partners. Their advice is that the site has been classified as 'S' (slightly) and 'M' (moderately) reactive, requiring little additional treatment for building foundations.

**18.3 Erosion and Sediment Control.** Development of the site will involve considerable excavation and earth works. All erosion and sediment controls will be established and maintained in accordance with Brisbane City Council's current Erosion and Sediment Control Standard and as documented on the approved Operational Works drawings for the project. During earthworks operations, detention basins will be used within the site to protect adjoining properties from runoff. The proposed development will not alter local drainage characteristics and will not cause ponding or negatively impact on adjacent properties or roadways.



**18.4 Excavation of Fill.** Excavation and fill operation and controls will be established during construction work. Dust emissions will be controlled by sprinkling from a water truck, and by minimising site disturbance.

**18.5 Hydraulic Services.**

**18.5.1 Water supply.** Water will be supplied through a single connection from Rode Road and will comply with BCC requirements and standards. Reticulation details will be finalised during the operational works approval process.

**18.5.2 Drainage.** A drainage plan has been prepared by consultant *wrm water + environment* (WRM). A schematic of the drainage system is at Supplementary Item 8. Features of the drainage plan are as follows:

- Storm water runoff from the western side of the ridge will drain to a drainage reserve of about 6840 sq.m. in the north-western corner of the site. The reserve is situated in an existing gully and includes the existing stormwater easements (which will be extinguished under the proposed development). The 100 year ARI flood level is contained within the reserve.
- Two bio-retention areas will be constructed within the drainage reserve, incorporating pre-treatment trashracks and sediment forebays. Water from these treatment areas flows into a shallow detention basin enabling filtered stormwater to be discharged to the existing culvert near Peck Street. The detention basin can also be used for passive recreation activities within the open space area when the basin is dry.
- Roof runoff from each dwelling will be collected in a 5000 litre tank. Overflow from the western rainwater tanks will be piped to the bio-retention areas for treatment prior to discharge to the stormwater system.
- Roof water from the lots along the eastern boundary of the site will be diverted back to the retention basin via a stormwater pipe as shown in Supplementary Item 8. Other runoff from these lots will drain to a

stormwater easement through an area of retained vegetation. This vegetation is assumed to act as a buffer strip, negating the requirement for a bio-retention area on this side of the site. Stormwater is then discharged into the existing council stormwater pipe at the rear of the Brynner Street properties.

- 18.5.3 Sewerage.** Preliminary design of the sewerage infrastructure has been carried out by the Jensen Bowers Group. It incorporates connection to existing Council sewerage reticulation network at two locations; one at Peck Street in the north-western corner of the site, and the other situated in private property in the north-east corner of the development site. Equivalent population predictions carried out by Jensen Bowers demonstrate that the existing council sewerage infrastructure has adequate capacity to accommodate the proposed development.
- 18.6 Electrical Services.** Electrical power will be provided underground in accordance with the requirements of BCC and Energex.
- 18.7 Gas Supply.** APA Group has advised that gas will be supplied to the site.
- 18.8 Telecommunications.** Telecommunications cabling will be provided underground to the requirements of the BCC and Telstra. Telstra and Optus advise that broadband access is available in the area.
- 18.9 Mechanical Services.** All houses will be air conditioned in accordance with Defence requirements, which for the Brisbane area require reverse cycle split systems fitted to the main bedroom and living rooms, plus ceiling fans to all bedrooms and living rooms.

## **19 ACOUSTICS**

- 19.1** Rode Road, to which the site has a frontage, is an asphalt two lane road with a posted speed limit of 60km/hr. Rode Road is planned to be upgraded into a four lane carriageway by 2016.
- 19.2** As the site is subject to traffic noise from Rode Road, traffic and acoustic consultants Carter Rytenskild Group (CRG) were engaged to assess the site in accordance with the Brisbane City Council "Noise Impact Assessment

Planning Scheme Policy". CRG determined that lots 1, 2, and 38 to 44 have outdoor private open space noise levels that are greater than the Council's road traffic noise criterion but that these can be treated by attention to the design and construction of the buildings.

- 19.3** To accord with CRG's recommendations, building layouts for buildings along Rode Road will have private recreation areas on the northern side of the buildings to provide screening of traffic noise. Treatments for internal noise in habitable rooms will be determined once building plans and pad locations are finalised.
- 19.4** Noise associated with construction work will be managed by ensuring contractors' equipment operates within specified noise levels, restricting contractors' working hours and notifying adjacent residents of the expected noise impacts.

## **20 WATER AND ENERGY CONSERVATION MEASURES**

**20.1 Water.** Reduction of demand on the potable mains supply will be achieved through the following means:

- plumbing – minimum WELS ratings 4 star for tap ware and showers and 6/3L dual flush toilets;
- the roof runoff from each dwelling will be connected to a 5kL tank. The collected water will be used for gardening purposes, the cold water washing machine tap and toilet flushing.

**20.2 Direct energy consumption.** All dwellings must comply with DHA's Performance and Design Requirements (see Supplementary Item 16). In particular, all dwellings must achieve a minimum 6 star Energy Efficiency Rating (EER) as certified by an independent accredited assessor, using NatHERS or other equivalent method.

## **21 MASTER AND SITE PLANNING CONSIDERATIONS**

**21.1 Lot arrangement.** The subdivision plan is shown at Supplementary Item 9. The site will be divided into 46 housing lots, ranging in size from 405sq.m. (detached house lots) to 5440sq.m. (for future higher density housing). As outlined at paragraph 4.2, the 5440 sq.m. lot and the ten steeper lots on the northern and eastern boundaries are to be sold.

**21.2 Dwelling Types** A variation of dwelling types is proposed, consistent with the area zoning of *Emerging Community Area*.

**21.2.1 Duplex.** A total of four duplex dwellings are proposed for Lots 8, 9 and 10 in the north-west corner of the site. These dwellings are consistent with the likely development theme on the adjoining site. Indicative layouts are at Supplementary Item 10.

**21.2.2 Townhouses.** Two groups of townhouses are planned for the site.

**21.2.2.1** Six two-storey townhouses are planned for Lot 29 in the centre of the site. These are 'car court' arrangements with rear vehicle access, creating an attractive street frontage with terraces and decks. Indicative layouts are at Supplementary Item 11.

**21.2.2.2** Lot 42 is planned for an 11 unit two-storey attached housing development with rear lane access and a street address to Rode Road. Building entry points are intended along the Rode Road frontage with private vehicle and service vehicle access via a rear lane. This avoids direct private driveway access onto Rode Road while maintaining an interface with the street, compatible with the existing detached housing that currently fronts it. A pedestrian walkway through the townhouse development links visitor parking area at the rear of the site and also contributes to the overall connectivity of the subdivision between Rode Road and Peck Street. Indicative layouts are at Supplementary Item 12.

**21.2.3 Detached Houses.** Thirty detached houses are to be constructed on Lots 15 to 41 and 43 to 46. These will be three-bedroom plus study single storey project homes with double garages. They will be constructed to DHA design requirement (Supplementary Item 16) and

accord with the architectural theme of the local locality, as noted at paragraph 18.1.2.

**21.2.4 Unit Development.** Lot 1 is intended for a future two and three storey development at the entry to Gordon Olive Estate, comprising 36 two bedroom units. The two storey elements are on the eastern end, closer to the Environmental Protection Zone and detached housing sites (see Supplementary Item 13.) The building heights and built form are consistent with other projects with frontage to Rode Road.

**21.3 Recreation Area.** Site master planning has been developed with consideration of a gully line running through the site to the west of the central ridge feature. This gully alignment is incorporated into the configuration of the streets and a drainage reserve that acts as open space incorporating a children's playground. A shallow detention basin in the drainage reserve will allow for passive recreation uses within the open space area when the basin is dry.

#### **21.4 Roads.**

##### **21.4.1 Connection to External Road Network.**

**21.4.1.1** The site will connect to the external road network via Rode Road at a signalised intersection. The proposed location for the access intersection with Rode Road is essentially at the existing pedestrian crossing, where sight distance is maximised and drivers are accustomed to stopping.

**21.4.1.2** The Rode Road intersection will be designed in a similar manner to the Ifield Street intersection to the east of the site, which provides pedestrian access to DHA's Grace Wilson Estate. A road widening dedication will be provided from the site along the northern verge of the Rode Road frontage as shown in the external traffic plans at Supplementary Item 14. This widening is required to allow for the provision of four traffic lanes along Rode Road, a 1.2m wide concrete footpath, and associated signs and lines. All requirements for the intersection layout will meet or exceed BCC standards.

**21.4.1.3** Traffic consultants TTM Group (TTM) have determined that the proposed site development is expected to generate only 1-3% of the overall traffic volume on any road in the vicinity, which is considered minimal. Operation of the Rode Road intersection during peak hours will not exceed 85% degree saturation, right turn queues will not exceed 20m, and average delays will be only 15 seconds. Supplementary Item 14 includes a diagram of the intersection.

**21.4.1.4** The use of Peck Street as a second vehicular access point was investigated but discounted because it was found it would require the construction of a road bridge as well as adversely affecting the amenity of surrounding properties to the north. To maintain connectivity to the local neighbourhood and McDowall Village shops and encourage alternative modes of transport, pedestrian and cycle access will be provided from Peck Street, through the construction of a walk/cycleway across the drainage area.

#### **21.4.2 *Internal Road Network.***

**21.4.2.1** With two exceptions, internal roads will generally be a 5.5m wide carriageway within a 14m wide road reserve, in accordance with Council standards. The exceptions are:

- On the road adjacent to the open drainage reserve, a reduced verge width of 0.75m is provided on the side adjacent to the open drainage reserve, and
- the entry road has an increased reserve width to 20m.

**21.4.2.2** All roads within the site will function as 'local access roads'. There will be no cul-de-sacs within the site, with all roads forming a loop of some description. However, in the short term there will be two terminated road stubs (about 30m long) to allow for eventual connection through to the adjacent, yet-to-be-developed sites to the west and north-east (see Supplementary Item 14).

**21.4.2.3** Speed control is achieved by curve and intersection spacing, with maximum street leg length being approximately 100m.

## **21.5 Footpaths.**

**21.5.1 External.** A standard condition of approval will be the construction, repair and reinstatement of pedestrian footpaths along the Rode Road site frontage. Also, the existing signalised pedestrian crossing of Rode Road will be incorporated into the access road intersection, as will a new signalised pedestrian crossing of the access road (see Supplementary Item 14).

**21.5.2 Internal.** Formal footpaths will in general not be provided through the site (as per Council guidelines), however in order to provide for pedestrian linkages from the adjacent community to McDowall Primary School, a formal path will be provided through the site, linking the pedestrian crossing of Rode Road at the site entry intersection, and the Peck Street road stub, and incorporating elevated sections where necessary through the open drainage reserve.

**21.6 Car Parking.** The detached dwellings will be designed to accommodate two parking spaces each. The townhouses and multi-unit dwellings will have one undercover parking space per unit, but limited visitor parking. It should be noted that the 5.5m. carriageway width provided on the public local access roads throughout the site allows for one moving lane plus a lane of parking, as per Council design guidelines.

## **22 PROVISION FOR PEOPLE WITH DISABILITIES**

**22.1** No provision will be made for families with disabilities. Defence families with special needs are accommodated by DHA by either modifying existing homes, or by renting properties that are already modified or that can be modified to meet the particular requirements of the family.

## **23 HERITAGE CONSIDERATIONS**

**23.1** The development site is not identified in Brisbane City Council's Heritage Register Planning Scheme Policy and is not identified as a place of cultural heritage significance, a place of special cultural significance to indigenous

people or a place of natural heritage significance. Accordingly, the development does not trigger assessment against the Heritage Place Code under the Brisbane City Plan 2000 or the Queensland Heritage Act and is suitable for residential redevelopment.

## **24 COMMUNITY FACILITIES**

**24.1 Shops and Services.** The site is served by a shopping plaza in Flockton Street, about 3 km to the south, and by the McDowall village shops to the north. A family medical centre and a private hospital are also located in Flockton Street.

**24.2 Public transport.** A bus stop is located in Rode Road on the eastern end of the frontage. This stop currently caters only for school buses. A new bus stop will be provided on the western end of the site which will be indented and will cater for both school and city buses.

### **24.3 Education.**

**24.3.1 Primary Schools.** The McDowall Primary School is located across Rode Road from the site and is accessed by a signalised pedestrian crossing. Discussion with the school principal indicates that the school has the capacity to absorb the expected primary school population of the Gordon Olive Estate.

**24.3.2 Secondary Schools.** The entrance to Gordon Olive Estate is about 3km from high schools in the neighbouring suburbs of Chermside West, and Everton Park.

**24.4 Child Care Facilities.** The following child care facilities all located in McDowall are considered to have adequate capacity to accept the potential increase in children in the estate:

- Chatterbox Child Development & Care Centre;
- ABC learning Centre;
- McDowall Village Childcare;
- Tumble Tots Private Day Care.



## **25 FIRE PROTECTION AND SECURITY MEASURES**

- 25.1** Dwelling construction will conform to Australian standards and the Building code of Australia.
- 25.2** Combined security / insect screens will be fitted to all external doors, including sliding doors, and security screens will be fitted to all opening windows.

## **26 OCCUPATIONAL HEALTH AND SAFETY**

- 26.1** All DHA contractors to be used in the project will be accredited by the Federal Safety Commissioner.

## **27 LANDSCAPING**

- 27.1** A landscape plan has been prepared by consultants Deike Richards and is summarised on the Site Master Plan at Supplementary Item 2.
- 27.2** Where possible, the plan retains the useful existing native vegetation on the drainage reserve in the north-west corner of the site, including two of the five significant trees, and in the EPZ on the eastern boundary, as described at paragraph 7.2. Understorey weeds will be removed from bushland areas and replaced with site indigenous species. Plantings in the detention basin and the EPZ will assist in removing sediments and nutrients from stormwater flows, improving downstream water quality. Additional canopy trees will be planted to provide an enhanced wildlife habitat.
- 27.3** As the detached housing blocks are not large, there is little scope for tree planting in the gardens of residences. To compensate, trees will be planted along the verges of all internal roads, providing a shade canopy to pedestrians. Trees will also be planted around the townhouse lot in the centre of the estate. A palette of tree types is included at Supplementary Item 15.

- 27.4** Landscaping within residential properties will include paved driveways, pathways and terraces, turf, low maintenance native gardens and timber yard fencing. Turf areas will be provided only in the private recreation spaces. All lawn grass species will be low water use suited to the Brisbane area.
- 27.5** The gardens of residences will be planted with native shrubs that are drought resistant, suitable for the soil type and vigorous growing, and plants will be selected to complement the character of the general area. Garden beds will be mulched, and spacing of plants will be such to achieve a 'semi-mature look' (i.e. fully covered plant beds) after five years growth and 'established look' after 15 years growth.

## **28 CONSULTATION WITH AUTHORITIES**

### **28.1 Brisbane City Council.**

- 28.1.1** Pre-lodgement meetings (for Development Approval) were held with BCC in October 2006, March 2008 and April 2009, with a subsequent meeting on 4 August 2009. Issues raised by the BCC have been addressed in the design of the sub-division and external the traffic layout.
- 28.1.2** Meetings have been held with individual councillors to discuss aspects of the development. The main issue concerned the treatment of the north-western drainage area. The councillors' concerns have been satisfied in the current design of the site.
- 28.1.3** The BCC has advised DHA that the proposal is supported in principle, but that final DA will be subject to a detailed assessment of DHA's application, including the review of any issues raised via the public submission process. Formal submission for DA was lodged on 9 June 2009.
- 28.2** A project briefing has been provided to the local Federal Member of Parliament, Mrs Yvette D'Ath MP, member for Petrie.

## **29 IMPACT ON THE LOCAL COMMUNITY**

### **29.1 General.**

**29.1.1** The eventual addition of up to 100 families to the suburb of McDowall should have little impact. As indicated in paragraph 21.4, vehicular traffic from the Estate will represent only 1-3 per cent of the overall traffic volume on any road in the vicinity, which is considered minimal. The principal of the McDowall Primary School welcomes additional children to the school, improving the school's viability.

**29.1.2** The pedestrian connectivity via Peck Street will improve access to local services such as the school and public transport along Rode Road for residents living to the north of the Estate.

**29.2 Economic.** The proposed project will have a positive economic effect during the development and construction period. Economic activity is generated by individuals and local businesses working directly on site as well as by individuals and businesses off-site providing goods and services to support the project. The construction of 51 new dwellings is not expected to affect either the sale or rental markets for residential accommodation in the local area. Sale of properties will be confined to the investor market, while the reduction in rental demand will be a very small proportion of the Brisbane market.

## **30 PROJECT COSTS**

**30.1** The estimated overall project cost is \$27.2 m. including land.

**30.2** The cost of the project will be met from DHA equity and debt funding.

## **31 PROJECT DELIVERY SYSTEM**

**31.1** Development and construction packages will be contracted on a fixed price lump sum basis to a select panel of tenderers who will have been successful in addressing the selection criteria from a publicly advertised open call for expressions of interest. The successful tenderer will be required to comply

with the DHA Performance and Design Requirements (Supplementary Item 16), and with architectural guidelines aimed at delivering homes that are sympathetic to the general character of the area.

## **32 PROJECT SCHEDULE**

**32.1** Subject to Parliamentary approval in or by December 2009, the significant milestones to achieve completion of the project by June 2009 are:

<b>Activity</b>	<b>Start</b>	<b>Completion</b>
<i>Preparation of detailed documentation for civil works</i>	January 2010	March 2010
<i>Civil works tender, evaluation and award</i>	March 2010	May 2010
<i>Civil engineering works</i>	May 2010	October 2010
<i>Dwelling construction tender, evaluation and award</i>	September 2010	November 2010
<i>Construction of 51 dwellings</i>	November 2010	June 2011