Defence Housing
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SUBMISSION TO THE PARLIAMENTARY STANDING COMMITTEE ON PUBLIC WORKS

NEW HOUSING FOR DEFENCE HOUSING AUTHORITY AT MCDOWALL, BRISBANE, QUEENSLAND

Aerial representation Rode Road completed development

November 2004

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IDENTIFICATION OF THE NEED

1 OBJECTIVES

1.1 In this submission, the Defence Housing Authority (DHA) seeks approval from the Parliamentary Standing Committee on Public Works (PWC) to proceed with a major residential development at Brisbane, Queensland at a cost of $17.5 million.

1.2 The project objective is to provide 50 modern houses to be available for occupation in November 2006, to meet the operational needs of the Australian Defence Force (ADF) and the requirements of the Department of Defence (Defence).

2 THE NEED

2.1 DHA's capital investment and residential construction program for Brisbane (mainly to service the Enoggera Army Base) as incorporated in the 2004/05 – 2006/07 capital program is summarised in the following table:

	04-05	05-06	06-07
DEFENCE HOUSING FORECAST	**1137**	**1065**	**1092**
New Capital Investment Program (Total)	**83**	**69**	**70**
New Constructions	**13**	**59**	**50**

DHA Residential Construction Requirements for Brisbane

The 50 new properties that this project will provide are included in the 2006/07 capital program.

2.2 The housing provided under the proposed development is required to reduce the reliance on Rental Assistance in Brisbane, currently 336 houses or 24% of the total provisioning stock. In addition, lease expiries in the 05/06 and 06/07 years exceed 100 in each year with a significant proportion of these leased properties requiring replacement.

2.3 In February 2003, DHA acquired number 946 Rode Road, McDowell. During the purchase process, the owners of adjacent sites expressed interest in the sale of their properties. Subsequent negotiations with these owners resulted in the purchase of three adjoining sites. The resultant four sites provided a combined area of approximately 4.32 hectares

2.4 The Rode Road site is located approximately five kilometres from the Enoggera Army Base and 12 kilometres from Brisbane CBD. The land is within the Brisbane City Council local authority area and is classified as Emerging Community Area (i.e. zone) under City Plan 2000. All amenities, including schools, hospital and major shopping centres, are within one kilometre of the site, and the area is serviced by existing Brisbane City Council bus services. McDowall is a well

established suburb, sought after by ADF members due to its close proximity to the Enoggera Army Base.

2.5 DHA satisfies Defence accommodation requirements by a mixture of delivery methods:

(a) construction off-base with a view to retaining the properties or selling them with a lease attached;

(b) construction on-base to accord with Defence operational or policy requirements and/or if such construction is the most cost-effective for all concerned;

(c) direct purchase with a view to retaining the properties or selling them with a lease attached; and

(d) direct leases from the private rental market.

2.6 In locations where there is a high level of Defence demand, constructed housing delivered through bulk procurement contracts is the most effective provisioning option because designs can be geared to Defence requirements.

2.7 Construction in the suburb of McDowell, on land owned by DHA five kilometres to the Gallipoli Barracks, is considered an effective means of meeting, in part, the Defence housing requirement in Brisbane.

2.8 It is intended to utilise designs from the recent development completed at Mitchelton Brisbane, which have proven popular with ADF members and investors through the Sale and Leaseback Program.

3 DESCRIPTION OF THE PROPOSAL

3.1 The project involves the development of low density detached housing as follows:

50 lots being 40 conventional lots, 10 small lots; and
2 park lots. The development will include parkland of 6170m^2.

A montage of the proposed development can be viewed at (*Supplementary Item 14)*.

3.2 DHA surveys undertaken with Defence personnel based in the Brisbane region have shown a clear preference for detached dwellings, with townhouses being their second choice and apartments least preferred. Taking these preferences into account, planning has focused on providing as much detached housing as possible. The new residences will provide a range of floor plans and amenities that will be fully compliant with current Defence and community standards. All residences will incorporate a double garage and at least 18m^2 of covered terrace.

3.3 Infrastructure works involving roads, water, sewerage and storm water will be undertaken to current Brisbane City Council standards. Installation of electrical reticulation and telephone services will be undertaken primarily by Energex and Telstra.

4 ENVIRONMENTAL CONSIDERATIONS

4.1 Environmental Protection and Biodiversity. DHA commissioned an environmental assessment by landscape consultants of the proposed development's compliance with the provisions of the Environmental Protection and Biodiversity Conservation Act to ascertain whether it will have a significant impact on a matter of national environmental significance. The environment assessment report determined that the proposal is not a 'controlled action' as the proposed work does not have impact on a matter of national environmental significance and therefore does not require referral to the Department of Environment and Heritage under section 68(1) or (2) of the Environmental Protection and Biodiversity Conservation Act.

4.2 Contamination and Geology. DHA commissioned an investigation by consultant geotechnical engineers of the contamination risk of the site and site geology.

4.2.1 A search of Environmental Protection Agency register shows that none of the four lots comprising the site are on the Environmental Management Register or Contaminated Land Register. The site investigation included sampling at the site and testing of soils for potential contamination. The report concluded that the site history review and site inspection do not indicate that potentially contaminating activities have been, or are currently present on the site. The result of the laboratory testing show levels of heavy metal and organo-chlorine pesticides concentrations below the Environmental Investigation Levels. Based on the work completed no actual/potential areas of contamination have been identified and it is considered that there is a very low probability of encountering significant areas of gross contamination at the site.

4.2.2 The geological test locations indicted that the elevated parts of the site comprised thin fill layers of fill and gravely silts overlying low strength rock. The lower areas of the site comprised stiff clay material. No ground water was encountered in the test locations. The report concluded that the site is suitable for subdivision and housing using construction techniques consistent with the site conditions encountered and the report recommendations.

4.3 Flora and Fauna. A flora and fauna survey of the development site was conducted by consultant environment planners to determine whether there was any likelihood of the proposed development having any significant effect on the habitat of threatened species of flora and fauna. The survey also fulfilled other requirements of the *Natural Assets Planning Scheme Policy, Environmental Impact Assessment Planning Scheme Policy and Brisbane City Council Ecological Assessment Guideline 1998.*

4.3.1 The report concluded that the site has been significantly modified through agricultural pursuits and residential development and supports few significant environmental values. The proposed development ensures the protection of 18 of 54 isolated remnant and re-growth trees recorded. Five of six trees recorded on site as 'Significant Landscape Trees' under the Natural Assets Local Law (Interim) will also be retained.

4.3.2 The scattered trees across the site provide minor habitat for birds that are typical of the urban environment, possums and a few trees possibly utilised by transient koalas. The small patch of regrowth, although degraded by Lantana and Slash Pine, provides the best habitat values on site because of the presence of multi-layered vegetation and will therefore be retained.

4.3.3 It is proposed that the watercourse that is running through the site is rehabilitated with local native species and that retained clumps of trees be consolidated and protected through further rehabilitation activities. This rehabilitation has the potential to enhance fauna values associated with the site given the current absence of understorey elements. Possible koala movement through the site will be maintained through selective retention of existing remnant and regrowth trees and incorporation of koala food trees in rehabilitation areas and landscapes.

TECHNICAL INFORMATION

5 LOCATION

5.1 The house designs proposed will satisfy the criteria for core or strategic DHA stock in that they:

are close to Defence bases,
are of good quality construction,
have potential for future capital gains and/or good returns from sale and lease back (SLB), and
are close to good transport links to the rest of the city.

5.2 The suburb of McDowall is located (12) kilometres from the Brisbane city area and (5) kilometres from the Enoggera Army Base. A site location map is attached (*see Supplementary Information, Item 1*), together with an aerial view of the site (*see Supplementary Information, Item 2*).

5.3 The site is close to all amenities, including two schools, hospital and a major shopping centre, Westfield Shopping Centre at Chermside. It is serviced by the Brisbane City Council bus system. (*See Supplementary Information, Item 17)*

6 LAND OWNERSHIP

6.1 The land is owned by DHA. In February 2003, DHA acquired number 946 Rode Road. During the purchase process, the owners of adjacent sites also

expressed interest in the sale of their properties. The resultant four sites 946. Rode Road, 932 Rode Road, 41 Keona Road and 266 Trouts provided a total combined area of approximately 4.32 hectares.

7 SITE DESCRIPTION

7.1 The site addresses are 266 Trouts Road, 41 Keona Road, and 932 & 946 Rode Road, McDowall. Real Property descriptions are Lots 32, 34 & 35 on RP90821 and Lot 59 on RP94671 respectively.

7.2 The site is irregular in shape and has two street accesses being Trouts Road and Keona Road. The site is an amalgamation of four large residential allotments surrounded by smaller traditional residential housing allotments to the south and north. (*See Supplementary Information, Item 3*)

7.3 The site falls towards a central channel flow path average site grades of approximately 10%. The grade of the channel is relatively flat at approximately 1%. An external catchment area of 14.9 hectares extends to the west of the development site with a minor catchment of 1.5 hectares contributing flow to the main channel from the north-west. The existing underground drainage is a 1200mm diameter drain located at the downstream property boundary. (S*ee Supplementary Information, Item 4*)

7.4 Major flows, which exceed the capacity of the underground drainage pipework passing under Rode Road, will pond on the development side of Rode Road initially and may subsequently overtop the crown of Rode Road and flow down Infield Street to the north of Rode Road. The lowest portion of the development site is located at the inlet headwall of the underground pipework passing under Rode Road. This low area is capable of holding back the majority of major flow events. This area of the development site will remain as parkland and will ensure that allotments on the development site are not affected by major flows and the development will not increase existing flood levels.

8 SCOPE OF WORK

8.1 Urban design principles. The development utilises best practice Urban Design Principles to achieve a functional, liveable and memorable community.

8.1.1 Housing Mix. The project incorporates a mix of conventional and small lots integrated into the existing housing stock. Smaller lots are concentrated along the proposed open space park corridor to ensure appropriate surveillance to all areas of public open space with the development.

8.1.2 Connectivity. Community nodes and gathering places have been created in highly visible locations that take advantage of the topography, landscape and local cultural values. These include existing nodes such as the bus stops on Rode Road and new nodes such as active parkland areas and hill top landscaping features. They have been designed to directly link into the street network and form a series of destinations within the development.

8.1.3 Open Space. Open space is well distributed with passive and active recreation areas that contribute to the stormwater management and complement the broader open space network. Key streets are located adjacent to the parks and open space to ensure frequent overlooking and passive surveillance of that parkland. In addition to parks, landscape centre medians provide assistance in the stormwater management and define key pedestrian links to Rode Road within the site.

8.1.4 Pedestrian Paths and Street Layout. The pedestrian paths and street layout have been integrated to provide a legible and memorable experience for the user. They respond to the topography, landscape and setting of the site. The layout directs views to key community nodes including parks, bus stops and the southern hill top. The design of each street carefully reflects its function and creates a walkable and permeable network of blocks. Natural drainage paths have also been integrated into the street layout to facilitate best practice stormwater management systems.

8.1.5 Lot Arrangement. Lots have been arranged to minimise the visual impacts of acoustic barriers to Rode Road and facilitate appropriate housing siting and design for conserving energy and non renewable resources. (S*ee Supplementary Information, Item 5 & 6*)

8.2 Roads. The traffic engineering report prepared by consulting traffic engineers reviewed the integration of the proposed development with the existing road network, the internal road network design and the impact of development traffic on the external road network. The connection of the development to the existing road network is proposed at two locations:

Keona Road (to the south)
Trouts Road (to the east)

8.2.1 The site access at Keona Road is proposed as an un-signalised, all movements access. The traffic report of the location of this access intersection confirms that it is in accordance with the minimum sight distance requirements for an intersection on a road with 50kph speed limit (i.e. 70m).

8.2.2 The site access at Trouts Road is also proposed as an un-signalised, all movements access. The traffic assessment confirms that it is in accordance with the sight distance requirements for an intersection on a road with a 60kph speed limit (i.e.110m).

8.2.3 The proposed connections to the external network ensure that development traffic is not concentrated to the extent that deficiencies are created in the surrounding road network. The key intersections in the vicinity of the site indicate that there is considerable excess capacity at the intersections indicating capability of these intersections to cope with development generated traffic. The proposed subdivision layout does not include 4-way cross intersections as all intersections are priority controlled T-intersections incorporating threshold treatments to signify entry to local streets.

8.2.4 The development involves the construction of new internal local access roads which comply with the hierarchy principles in Queensland Streets and Brisbane City Plan 2000. These roads have a total reserve width of 14 metres comprising a carriageway width 5.50 metres and verges 4.25 metres wide either side.

8.2.5 The development also includes two non-standard examples of divided 'local access road', Streets 4 and 5, with a landscaped swale drain in the median between the carriageways. These have a total reserve width of 26.5 metres, including two separate carriageways each of 3.5 metres (one way), an 11 metre wide median and verges 4.25 metres wide. These will operate as one-way roads, and will service no more that 11 lots each. The proposed 3.5 metre carriageways are considered adequate under 'Queensland Streets – Design Guidelines for Subdivision Streetworks' which states that a 3.5metre carriageway provides sufficient room for simultaneous use by a car travelling at 30kph and a cyclist.

8.2.6 The traffic consultant has discussed the planning of the future road network in the vicinity of the site with Brisbane City Council and the Department of Main Roads. The relevant aspects of the road planning are summarised as follows:

> Department of Main Roads has a major North-South corridor running to the east of Trouts Road (South of Rode Road). This was originally (i.e. 20 years ago) preserved as a road corridor for a four-lane road. Initial planning had been done, however it has lapsed in its relevancy, and there is the potential now to utilise the corridor for a bus-way, light rail or road facility.
>
> Brisbane City Council has advised that Rode Road abutting the site will need, in the future, to be widened to match the pavement configuration on the northern edge of Rode Road. The width of the future resumption has been advised by Brisbane City Council and the proposed development has been designed to accommodate this resumption.
>
> Brisbane City Council has advised that there is no land dedication required on Keona Road.

8.3 Services. Storm water drainage, communications, sewerage reticulation, and electrical services are discussed in paragraph 13 below.

8.4 Amenity provision. The proposed development provides an area of 6170m^2 of dedicated park which equates to (14.3%) of the total site area. The location of this parkland area is in accordance with the McDowall/Bridgeman Downs Local Plan which identifies the need for a neighbourhood parkland within the subject site and incorporating an overland flow path corridor which extends from the west through to Rode Road. The parkland provides the opportunity for the retention of significant trees within these areas to ensure the preservation of significant species.

8.5 Housing types. Typical house plans have been prepared for town planning purposes and a selection is attached (*see Supplementary Information, Items 7, 8, 9 & 10*) together with an example of the resultant streetscape that will shape the

character of this development (*see Supplementary Item 13*). The new detached houses will have four bedrooms and be Defence category 4B1 and 4B2.

9 HERITAGE CONSIDERATIONS

9.1 The development site is not identified in Brisbane City Council's Heritage Register Planning Scheme Policy and is not identified as any of the following:

A place of cultural heritage significance;
A place of special cultural significance to indigenous people; or
A place of natural heritage significance.

9.2 Consequently the current development application for Rode Road, McDowall does not trigger assessment against the Heritage Place Code under the Brisbane City Plan 2000 and is suitable for residential redevelopment.

10 ZONING AND APPROVALS

10.1 The Brisbane City Plan designates the site as being Emerging Community Area. The predominant form of residential development in Emerging Community Areas has traditionally been low density housing on conventional lots however increasing numbers of small lots and townhouses are also being approved. The proposal incorporates a mix of (40) conventional lot sizes ranging between 450m^2 to 743m^2 and (10) 'small code' lots lot sizes ranging from 400m^2 to 445m^2 which is consistent with the strategic intent and desired environmental outcomes for new urban development in emerging community areas. The proposed redevelopment is compliant in this respect.

10.2 The approving authority for the Development Application is Brisbane City Council. The relevant codes and policies against which the Development Application will be assessed are:

(a) Primary:
- Structure Plan Code
- Subdivision Code

(b) Secondary:
- Biodiversity Code
- Filling & Excavation Code
- Stormwater Management Code
- Services, Works and Infrastructure Code

(c) Planning Scheme Polices:
- Noise Impact Assessment Planning Scheme Policy
- Transport and Traffic Facilities Planning Scheme Policy
- Management of Urban Stormwater Quality Planning Scheme Policy
- Natural Assets Planning Scheme Policy.

11 SITE DEVELOPMENT CONSIDERATIONS

11.1 The main site development considerations apart from ancillary engineering services (see paragraph 12 below) are access and drainage.

11.2 Access. For this proposed development it is desirable to provide multiple access points to the existing road system. This ensures that the development's traffic is not concentrated at one access creating deficiencies in the operation of the surrounding road network. To address access the development proposal includes access to Keona Road and Trouts Road.

11.2.1 The internal road layout connecting these access points is in accordance with the hierarchy principles contained in Queensland Street and acceptable design in Brisbane City Plan 2000.

11.2.2 The performance of the road network in the immediate vicinity of the development is not anticipated to be impacted by development traffic and it is not anticipated that network improvements will be required. The road network has considerable excess capacity at intersections in the vicinity of the development and development traffic can be integrated.

11.3 Hydraulics and Drainage. A report on site hydrology was prepared by consultant civil engineers. The development was categorised as high risk in accordance with Brisbane City Council's Water Quality Management Guidelines as the proposed development is a subdivision involving the creation of more than six lots. The Site Based Stormwater Management Plan prepared by our consultant engineers, includes practical measures to address stormwater issues addressing this categorisation. The Site Based Stormwater Management Plan defines the extent of the localised overland flow path, lawful point of discharge, and flood immunity requirements. The report confirms that the site is above the 1 in 100 year flood level for both the existing and the proposed development.

11.3.1 Risk of erosion and subsequent sediment control during the construction phase will be addressed by the development of an Erosion and Sediment Control Plan submitted to Brisbane City Council. The incorporation of the permanent detention basin upstream of the site outfall will minimise the passage of sedimentation to downstream sites.

11.3.2 All allotments will be designed in accordance with Brisbane City Council Subdivision and Development Guidelines to ensure they achieve the relevant flood immunity, being;

Q50 for allotment fill;
Q50+300mm for non-habitable floor; and
Q50+500mm to habitable floor.

11.3.3 The Site Based Stormwater Management Plan demonstrates that the stormwater discharge from the proposed development achieves appropriate treatment of stormwater through the inclusion of the following Water Sensitive Urban Design techniques throughout the development area;

Vegetated buffer strips providing initial removal of sediment;
Grass swale drain providing drainage for a wide range of pollutants and suitable areas of sheet flow within allotments and adjacent to parkland;
Porous pavers (internal driveways) providing pollutant removal and infiltration for daily flows;
Bio-retention system providing higher degree of pollutant removal of nutrients suitable for areas within open space following pre-treatment by the above mentioned devices;
A detention basin pond to reduce peak run-off and sedimentation via increased detention time; and
A semi-permanent pond providing tertiary treatment of stormwater and in addition valuable wildlife habitat and significant visual and recreation amenity for park users.

11.3.4 The site falls into an existing central overland flow path, which will continue to be used for stormwater treatment with the introduction of control devices such as swales, vegetated buffers, bio-retention system and detention basins. The dedicated open space areas provide sufficient space for the incorporation of these control devices. Significant vegetation will be retained onsite to control stormwater quality and maintain wildlife habitats. The point of discharge has been identified as the existing drain at the downstream boundary.

11.3.5 The stormwater management strategy has been prepared in accordance with the provisions of Brisbane City Council's Stormwater Management Code ensuring flows entering the existing drain at the downstream boundary will remain at pre-development levels. The use of pipe drainage within the development has been minimised in accordance with Water Sensitive Urban Design Principles.

12 ENGINEERING SERVICES

12.1 Water. Brisbane Water indicates a 300 diameter main exists in Rode Road with sufficient capacity to serve the development. Brisbane Water has confirmed that connection to the existing street system will be approved. All reticulation within the estate will comply with the requirements of Brisbane Water. Appropriate hydrants will be provided as required by Brisbane Water within the development.

12.2 Electricity. Energex has confirmed that the site is adequately serviced by electricity and has advised that;

(a) the development would be served by underground reticulation connected to the existing 11kV assets in the area;

(b) an 11kV extension to a transformer would provide for low voltage reticulation;

(c) the existing network would be capable of sustaining the additional load and no additional upgrades would be required; and

(d) new street lighting will need to be provided in accordance with the requirements of Brisbane City Council. The cost of this work is included the project estimates.

12.3 Gas. Origin Energy has advised that gas is not available in close proximity to the site and therefore the site is not capable of being serviced. Consequently, the proposed development will be serviced by electricity.

12.4 Sewerage. Brisbane Water has confirmed that the sewer has adequate capacity to service the development**.** A 150mm diameter trunk sewer currently runs through the site. Proposed reticulation will be constructed to Brisbane Water requirements. Some sewer works may be required within the development to divert the existing main to suit the lot layouts.

12.5 Telecommunications. Telstra has indicated that it can supply the necessary telecommunications to the proposed development, including all design and planning prior to construction. Should the existing capacity be less than required for the development, Telstra has advised that the required upgrades would be provided at their own cost.

12.6 Erosion and Sediment Control Plan. 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 not cause ponding or negatively impact on adjacent properties or roadways.

12.7 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.

12.8 Noise. An Environmental Noise Impact Report was undertaken by consultant acoustic engineers to assess noise impacts in accordance with Brisbane City Council's Noise Impact Assessment Planning Scheme Policy. The criteria for road traffic noise in Brisbane City Council controlled roadways are assessed as both an external level in recreation areas and as an internal level inside the house.

12.8.1 The report identifies the road traffic noise levels that are to be adhered to, are defined in accordance with Brisbane City Councils Noise Impact Assessment Planning Scheme Policy Methodologies Guideline and internal noise limits to be adhered are defined in Australian/New Zealand Standard AS/NZS 2107:2000.

12.8.2 Based on projected increases in road traffic volumes on Rode Road and the provision of a 3m dwelling setback distance from the shared property boundary with Rode Road (identified as the worst case scenario), the report recommends that a 3.5m high acoustic barrier be constructed along the Rode Road frontage with 2.9m high acoustic barrier returns. The barrier is recommended to be

constructed upon an earth bund to reduce the height of the fence component (e.g. earth bound 1.5m in height, with a 2m fence on top).

12.8.3 The construction of the acoustic barrier will result in the predicted road traffic noise levels being within 1dB of Brisbane City Council's criteria for outdoor recreation areas at ground floor level. This predicted noise level applies to Lots 1, 28, 29 and 37. All other Lots will be exposed to noise levels below the criteria and will not require acoustic treatment. Recommendations regarding building shell treatments to Lots 1, 28, 29 and 37 have been provided for ground floor and first floor levels to achieve internal noise criteria levels. Recommended acoustic treatments include fibreglass batts in ceilings and wall voids, double sided aluminium foil over rafters, and some increase in thickness of windows (e.g. 6.38mm laminated glass instead of a standard type window of 4mm plain glass). To achieve the required internal noise levels doors and windows will require to be closed therefore it is likely that housing to these lots be air-conditioned. These acoustic treatments will be incorporated in Lots 1, 28, 29 and 37. All other lots will be built in a standard construction.

12.8.4 Predicted road traffic noise levels for outdoor recreation areas at first floor level will be above the Brisbane City Council's criteria. The report recommends that the design of housing building façades fronting or at 90^{o} to Rode Road should not comprise first floor open areas which contribute to formal open space areas (e.g. verandas). This recommendation will be incorporated in the designs.

12.8.5 Based upon the reports findings, and the inclusion of the acoustic treatments recommended, the proposed development will be acceptable under Brisbane City Council's Noise Impact Assessment Planning Scheme Policy.

12.9 Water Quality. A stormwater management plan has been developed in an effort to ensure that stormwater run off during the construction period and as an ongoing measure will be treated in accordance with the Brisbane City Council's Water Quality Objectives.

13 CODES AND STANDARDS

13.1 All housing works carried out as part of this project will be in accordance with all statutory requirements and regulations including the current Building Code of Australia (BCA) and Federal and Queensland law.

13.2 The sub-division design will be in accordance with Brisbane City Council's Subdivision and Development Guidelines and Federal and Queensland law.

14 ENERGY CONSERVATION

14.1 Energy conservation will be a prime design consideration. Energy conservation principles have been applied to a number of aspects of the project including urban design, engineering and housing design.

14.2 The urban design of the project reduces car dependence and promotes walking by providing good pedestrian connectivity to key community destinations within and outside the site.

14.3 The stormwater engineering and landscaping have been integrated to reduce the quantity and improve the quality of stormwater runoff within the development.

14.4 All houses will be required to provide optimal passive solar performance and achieve a minimum of 4-star energy rating. The designs have previously achieved a 4-star energy rating and will achieve a similar rating for this project.

15 LANDSCAPING

15.1 Priority will be given to retaining as many existing established trees and other vegetation as possible. Understorey weeds will be removed from bushland areas and replaced with site indigenous species. Additional canopy trees will be planted to provide an enhanced wildlife habitat.

15.2 Plantings associated with swales and detention basins will assist in removing sediments and nutrients from stormwater flows improving downstream water quality.

15.3 Avenue trees, parkland trees and trees on private properties have been located to minimise runoff and erosion. These trees provide shade and shelter and help reduce air temperatures by generating breezes during the warmer months of the year, reducing the need for mechanical climate modification to the housing.

15.4 Planting proposed for the development will be low maintenance, low water demanding, and non-weedy. Plants have been selected to complement the character of the general area. (*see Supplementary Information Item 11 & 12*).

15.5 Landscaping within residential properties will include paved driveways, pathways and terraces, turf, low maintenance native gardens and timber yard fencing.

16 CONSTRUCTION PROGRAM

16.1 The construction packages will be contracted on a fixed price lump sum basis to tenderers, who have successfully completed the selection process from an expression of interest.

16.2 Subject to PWC and DHA Board approval, the construction program is planned to commence in October 2005 with civil engineering works. Housing construction will commence on January 2006 and with completion by November 2006.

17 PROJECT FEASIBILITY

17.1 Financial analysis confirms that the construction project is feasible within a budget of $17.5 million (including GST). This budget includes civil engineering and housing construction costs, design fees, local authority fees and construction contingency. It does not include the cost of land acquired for $4.3 million.

17.2 The DHA Board is satisfied that the proposed development as described in this submission is an appropriate, timely and cost effective way to meet, in part, the housing needs of ADF personnel and their families in the Brisbane region.

18 COMMUNITY CONSULTATION

18.1 Community consultation has been undertaken in accordance with the requirements of the Brisbane City Council planning legislation requirements. In addition community feedback will be sourced through information evenings seeking to include local residents in the consultation process. Feedback from local residents with adjoining property and property owners in Laurina Crescent was specifically sought. All adjoining landowners were consulted to assist in the development of a Structure Plan for the neighbourhood which would allow orderly development of the Emerging Community land. Input form some landowners proved useful in developing a mutually beneficial plan for land development by all landowners.

18.2 Public notification of the proposed development was advertised on the development site from 24 November 2003 for a period of 20 working days. Local residents were advised by letters containing the prescribed requirements by registered post on 24 November 2003. Public notices were placed in the community newspaper, Northwest News, on 26 November 2003.

18.3 Letter box drops to local residents were undertaken on 2 March 2004 inviting them to an information night which was held on 11 March 2004. The information night provided local residents with an opportunity to review the development proposal and discuss aspects of the proposal with DHA and their design consultants. Feedback from the information night was in the main positive with concerns expressed by local residents to the proposed use of Laurina Crescent as one of the accessways to the development, the sizing of housing lots, vehicle access to Rode road providing ‘rat running’ opportunities for motorists taking advantage of a possible shortcut from Rode Road to Keona Road and storm water flow management.

18.4 In response to the feedback from local residents DHA consulted with Brisbane City Council to seek to improve the proposal by considering the concerns of local residents. Brisbane City Council agreed to DHA’s proposal to remove access to Laurina Crescent and access the development fro Keona Road, increase the lot sizes, in particular on the western boundary of the site near Keona Road, delete the access to Rode Road and retain significant vegetation onsite to naturally control stormwater flow to maintain outflows at pre-development levels.

18.5 A letterbox drop to local residents was undertaken on 13 April 2004 to advise local residents of the amendments agreed to by Brisbane City Council. As a result of these amendments being made to the proposed development a second public notification process was initiated under Brisbane City Council's planning legislation requirements. Public notification of the proposed development was advertised on the development site from 14 April 2004 for a period of 20 working days. Local residents were advised by letters containing the prescribed requirements delivered by registered post on 14 April 2004. Public notices were placed in the community newspaper, Northwest News, on 14 April 2004.

18.6 DHA received from some local residents, copies of correspondence they had written to Brisbane City Council and also correspondence directed to DHA in regard to the proposed development. Each item of correspondence received a response from DHA providing DHA's rationale for the development's design considerations in response to the particular concern raised.

18.7 It is DHA's intention to hold a further information evening to coincide with the final Development Application approval and the Public Works Committee referral.

19 OTHER ORGANISATIONS CONSULTED

19.1 A project briefing has been given to the local member of Brisbane City Council, Councillor Norm Wyndham, regarding this development, to provide the local member with an opportunity to be briefed on the project.

19.2 Pre-lodgement and lodgement meetings have been held with Brisbane City Council.

19.3 Commander 1DIV/DJFHQ, Brigadier Ian Flawith, has been briefed on the project and has provided his support (*see Supplementary item 15)*.

19.4 Commander 7th Brigade, Brigadier Dave Chalmers, has also been briefed on the project and has confirmed his support for the project as a means of providing suitable housing for Defence personnel.

19.5 The Defence Families of Australia National Convenor, Ms. Maureen Greet, confirmed her support for the proposal (*see Supplementary item 16*).

20 DEVELOPMENT APPLICATION

20.1 The proposal has been prepared with extensive input from Brisbane City Council. The Development Application has been reviewed by Brisbane City Council and approval granted on 31 August 2004. Appeals against the Development Approval have been made by adjoining landholders G & M Belperio and A & K Douglas and by local residents T & D Connolly.

20.2 The appeals have been referred for hearing in the Land and Environment Court with a likely hearing date of January /February 2005. Prior to these dates

meetings will be held between the parties, which include Brisbane City Council, and their experts, with a view to limiting or settling the issues in dispute.

21 PROJECT PLAN

21.1 Based on a requirement for progressive delivery of housing to meet the Defence posting cycles, the significant milestones to achieve completion of the project by November 2006:

December 2004	Obtain PWC referral;
March 2005	PWC public hearing;
May 2005	Obtain PWC & Parliamentary approval
October 2005	Commence civil construction
January 2006	Complete civil construction
January 2006	Commence housing construction
October 2006	Complete housing construction

22 PROJECT ESTIMATES

22.1 The estimated overall project cost of $17.5 million has been determined by a consultant quantity surveyor. The project cost is based on the approved town planning concepts of providing 9 low-set houses and 41 two-storey houses together with associated services.

22.2 The estimated overall project cost is based on delivery by fixed price lump sum tenders from suitably experienced building contractors. The estimated overall project cost includes civil engineering and housing construction costs, local authority fees, design fees and construction contingency.

23 FINANCING ISSUES

23.1 Funding for the proposal will be sourced by DHA from any or all of the sale of surplus housing stock, the public sale of development houses, funds realised from the sale and leaseback scheme, application of surplus operating capital, or debt financing.

23.2 It is intended to make all residences in this development available for Sale & Leaseback.

24 PROJECT MANAGEMENT

24.1 The project will be managed by DHA with the support of professional design consultants and civil engineering and building contractors.

LOCAL IMPACTS

25 ECONOMIC IMPACTS

25.1 Australian manufactured building products will receive preferential treatment in the selection of construction materials and finishes.

25.2 The proposed project will have a positive effect on the local economy during the construction period, not only through persons working directly on the site but also through the many others off-site who will be supplying material, plant and equipment.

26 HOUSING MARKET IMPACTS

26.1 In the general Brisbane housing market and McDowall area in particular, construction of 50 new houses is not expected to affect either the sale or rental markets for residential accommodation.

27 COMMUNITY IMPACTS

27.1 Community impact is considered to be low. The subject land has, up until recently, been used for broad hectare residential purposes. Under the Brisbane City Plan 2000 (as well as the previous Town Plan for the City of Brisbane), the site is designated for future urban development, primarily in the form of low density residential purposes consisting of detached houses on both small and conventional allotment sizes. Any development proposed is subject to a Development Application which must comply with planning scheme requirements and the following:

- Land use and transport planning;
- Traffic, civil and hydraulic engineering;
- Environment (e.g. noise impacts);
- Ecology and biodiversity; and
- Urban design.

27.2 Public Open Space must be considered in the form of parkland within the development site (see Paragraph 8.1.3).

27.3 The intended design for the parkland will provide recreational and landscape values and an area for children to play and families to enjoy together (see Paragraph 15). To achieve this, a multi-age, multi-use play structure will be provided together with a seating area positioned adjacent to the play equipment for the convenience of supervising adults. The sitting area also provides the opportunity for good surveillance from the adjacent streets

27.4 The proposed development incorporates and complies with all of these requirements.