

Brownfield Site to New Urbanism

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ABSTRACT

Moltoni Corporation is the developer of a new master planned community for the City of Geelong, located at Fyansford – “Fyansford Green”.

Fyansford Green will become an integrated residential and commercial development based on a sustainable community environment that offers a safe place for people to live, shop, work and play.

The vision is to create a village lifestyle consistent with principles of new urbanism. A neighbourhood that is diverse in use and population, where interaction is encouraged and celebrated through the provision of exceptional public spaces and a high quality public realm.

Fyansford Green includes the old Cemex Quarry and Geelong Cement Works sites occupying a total of 110 hectares. When completed these sites will provide around 1,500 – 2,000 dwellings.

The regeneration of two dilapidated sites into a vibrant new community is a unique opportunity for Geelong and Victoria and will set the benchmark for the regeneration of a Brownfield site into a master planned community.

The urban renewal of Fyansford with its strong industrial past will be transformed into a world class community. Building on the principles of new urbanism the development will include integrated land use, sustainable water use and reuse and smart housing.

Moltoni Corporation has worked closely with key stakeholders including the fostering of a strong partnership with the City of Greater Geelong over the last eight years to ensure that the strategic framework of the Geelong Planning Scheme supports Moltoni Corporation’s vision. The developer is committed to creating a community where profit does not compromise livability.

Fyansford Green is conveniently positioned approximately 5km west of the CBD and on the western edge of the current urban extent of Geelong, inside the new Geelong Ring Road. The land

is now rezoned, a Development Plan has been approved for the former Cement Works site, and the Stage 1 subdivision application has been lodged with Council.

KEYWORDS: New urbanism, brownfield redevelopment, urban renewal, mixed use, Geelong.

1. INTRODUCTION

Just as the early pioneers of Fyansford were drawn to the area to establish a settlement along the Moorabool River, laying the foundations for the Fyansford of today, Robert Moltoni, some 150 years later, found that Fyansford offered a unique opportunity to establish a new vibrant community in this location, which will change the shape of Geelong into the future.

Despite the prior predominance of industrial activity in the Fyansford area, the closure of the Geelong Cement Works and adjacent basalt quarry has left the area as a highly degraded and weed-infested industrial wasteland, desperately in need of rejuvenation. As one of Australia's foremost demolition and remediation specialists, the Moltoni Corporation (Moltoni), which was founded by Robert Moltoni in 1975, recognised the opportunity to rid Geelong of what had become urban blight. Through significant investment in the rehabilitation of these former industrial sites, Moltoni is in the process of transforming the area into an innovative and sustainable master planned community to be known as Fyansford Green.

Fyansford Green is situated at the western edge of the current urban extent of Geelong, conveniently located adjacent to the Geelong Ring Road, and in close proximity to the Fyansford village. The Fyansford village was established in the 1830's and retains heritage characteristics that will be recognised, preserved and celebrated in the future development of the site. Similarly, the Moorabool River, which traverses the site, and is currently degraded with limited accessibility, will be rejuvenated and revegetated, and made accessible to the public with enhanced landscape features, which will become a significant feature of the proposed development.

Fyansford Green will become a unique urban environment, and home to a vibrant community. The future residents of Fyansford Green, expected to number up to 6,000 people, will benefit from a high quality of life, a healthier lifestyle from a development that encourages walking and cycling, and close proximity to retail, commercial and community facilities at the proposed Fyansford village activity centre.

Fyansford Green will become an exemplary 'new urbanist' neighbourhood setting the benchmark for the regeneration of a brownfield site into a vibrant new community. This will be achieved by creating walkable streets with strong connectivity, a mix of uses and diversity, mixed housing at varying densities, with higher densities focused around the future Fyansford village activity centre, and quality architecture and urban design. By adopting a progressive and innovative approach to planning and design, Fyansford Green is intended to be a smart, green community with enhanced lifestyle and amenity, whilst meeting a range of sustainable community goals.

This paper outlines the origins of the 'new urbanism' movement and discusses how the proposed Fyansford Green development will embrace the principles of 'new urbanism' and transform the former industrial sites into a new master planned community for the City of Greater Geelong.

2. NEW URBANISM

2.1 History of New Urbanism

‘New urbanism’ emerged in the late 1980’s in the United States, and in some variation in Australia, Canada and the UK, in response to suburban sprawl, which was becoming more predominant in these countries. In essence ‘new urbanism’ aims to reduce traffic and eliminate sprawl. Sprawl was generally seen to be accompanied by the creation of unsustainable neighbourhoods that had a greater dependence on private vehicle use, with residents less likely to be able to walk to local shops or services. These neighbourhoods were generally characterised by non-permeable road networks, with large shopping centres based around sizeable, car-dependent catchments. Such neighbourhoods lacked the diversity and vibrancy required at street level for social and commercial interaction, and to promote a sense of community closeness.

Leading up to the emergence of ‘new urbanism’ as a movement which advocates a range of principles, walkable neighbourhoods with interconnected street networks were being encouraged, as were narrow roadways to slow traffic, housing variety and the design of lots around energy efficiency. Similarly, transit oriented development and mixed used development were also being promoted around the world. ‘New urbanism’ embraced all of these attributes, and more, in its approach to achieve a more sustainable urban structure.

In contrast to suburban sprawl neighbourhoods that require residents to heavily depend on their cars, ‘new urbanist’ neighbourhoods enable residents to walk to essential goods and services. However, as De Villiers (1997) notes “cars should be kept in perspective... (and) land use patterns should make walking, bicycling and public transport viable alternatives to driving, especially for everyday trips”.

In ‘new urbanist’ neighbourhoods community interaction is encouraged through the provision of recreational areas, a mixed use main street with easily accessible services and facilities, and the creation of quality urban designed places. Public places and open spaces are accessible by residents and social interaction is encouraged through centrally located community facilities.

‘New urbanist’ neighbourhoods are desirable to residents due to their quality architecture and urban design, as well as landscaped open spaces. Architecture that promotes energy efficiency is often featured in ‘new urbanist’ design, and historic preservation and design which responds to existing heritage is advocated. In ‘new urbanist’ neighbourhoods, the built environment is characterised by a diverse population and mix of uses and housing, with higher densities promoted around activity centres. The higher densities also assist in making public transport viable.

Environmental sustainability is also encouraged through energy efficient lot design, water conservation and integrated water management, and a neighbourhood design that promotes public transport, walking and cycling. Further, environmental sensitivity is promoted through design which responds to site features and ecology.

Many of the key principles of ‘new urbanism’ which have been discussed here, when combined “add up to a high quality of life well worth living, and create places that enrich, uplift, and inspire the human spirit” (Newurbanism.org n.d.).

2.2 New Urbanism in Practice

Generally regarded as the leaders of the ‘new urbanist’ movement, Andres Duany and his wife

Elizabeth Plater-Zyberk, co-founded the Congress for New Urbanism (CNU), which is the leading international organisation promoting ‘new urbanist’ design principles. Through their firm Duany Plater Zyberk & Company (DPZ) in Miami, Florida, they have received a number of awards for their achievements in the design of over 300 new and existing communities in the United States and overseas. (DPZ n.d.).

‘New urbanism’ principles have been adopted worldwide at various development scales; from a local scale such as for buildings, to a regional scale where entire towns have been designed. Projects are varied and range from greenfield urban extensions and the design of new towns, to retrofitting existing developments and brownfield redevelopments.

There are examples both in Australia and overseas, where the transformation of large brownfield sites into ‘new urbanist’ neighbourhoods, has taken place. Brownfield redevelopment projects relate to industrial or commercial sites that may be abandoned or underutilised, and are available for re-use. Although such sites may have significant environmental constraints requiring extensive and costly soil contamination clean-up, building demolition or bulk earthworks, they generally provide opportunity for productive re-use, particularly as they are often located adjacent to major roads and rivers.

In Australia notable examples of ‘new urbanist’ brownfield redevelopment include:

- » Valley Lake in East Keilor– is the site of the former Niddrie Quarry and is currently being redeveloped into a residential housing estate. The quarry area incorporates a lake, and also offers extensive open space areas as well as retail, community and recreation land uses (and is being developed by VicUrban).
- » Salentine Ridge in Perth – involved the transformation of a former disused limestone quarry into a new residential village, and although this development does not demonstrate all principles of ‘new urbanism’, it features medium-high density housing and a high quality of lifestyle (undertaken by Moltoni in a joint venture arrangement).

Notable overseas examples of ‘new urbanist’ brownfield redevelopment include:

- » Seaside, Florida, United States – was the first ‘new urbanist’ town, consisting of a master planned community with mixed use development, and was designed by DPZ and built in the early 1980’s. “Seaside was a very important project”, recognised for the quality of its architecture and the quality of its streets and public spaces (DPZ n.d.).
- » Stratford City, East London, UK – is a former railway goods yard which will become the Olympic Village for the 2012 Olympic Games in London. Following the games approximately 3,500 new homes will become available as a residential location to be accompanied by parks and open spaces, community facilities and transport links.

3.0 FYANSFORD GREEN – HISTORY AND NEW BEGINNINGS

3.1 History of the Site

It is Moltoni’s objective to understand, respect and build on the previous history of the site in the future development of Fyansford Green, as advocated by ‘new urbanism’.

The Fyansford township was established on the banks of the Moorabool and Barwon Rivers in the 1830’s. For some time, the area was dominated by the establishment of industrial related operations and surrounding agricultural activities, and was supported by the small Fyansford village.

In 1890, the Geelong Cement Works established its plant on the east side of the Moorabool River. This resulted in significant development and quarrying related activities being undertaken on the land that transformed the area to predominately industrial. The layout of the cement works took advantage of the steep slope of the site with the heavier industrial operations situated at the bottom of the escarpment. The cement works had a strong visual presence within Geelong with the cement stacks at the top of the escarpment being visible around Geelong.

A quarry was established in the 1950's on land to the west of the Moorabool River and was used to quarry basalt and included an associated rock crushing and asphalt batching plant. The quarry also provided material to the Geelong Cement works site.

The Cement works continued on the site until 2001 when the operations ceased. Since the decline of the cement works, the majority of the industrial buildings have been demolished however a number of former industrial structures still remain on the site, including the silo buildings on McCurdy Road. In addition, the combination of the decline in demand for basalt and the depletion of the site's resources resulted in the quarry closing in 2008.

3.2 Vision for Fyansford Green

From the outset Moltoni has worked closely together with a number of key stakeholders in order to regenerate the site into a vibrant neighbourhood designed with the community's best interests in mind. This has aided Moltoni in achieving genuine support and stakeholder buy-in for Fyansford Green. Moltoni acknowledges that early consultation has contributed to developing the vision for Fyansford Green.

Moltoni's mission statement for Fyansford Green is outlined below:

"We aim to create a place which is diverse in amenity and population. Where interaction is encouraged and celebrated through the use of functional public spaces and a high quality public realm. A destination which is inclusive, diverse and rich in life.

A place where pedestrians have safety and freedom equal to that of the motor vehicle, and where streets will be framed by exciting and interesting architecture creating a diverse place that will enrich community life."

3.3 Development Features

The proposed Fyansford Green development will be a unique urban environment that will provide a variety of residential densities, passive and active recreation zones with a strong link to the Moorabool River. At the heart of Fyansford Green will be the Fyansford village, offering retail, commercial and community facilities for the future residents of Fyansford Green. With abundant open spaces and the rejuvenated Moorabool River environs centrally located through the development, Fyansford Green will become a sought-after residential location.

The Fyansford Green development will achieve the Moltoni vision through the following development features based upon the principles of 'new urbanism'.¹

¹ The list of 'new urbanist' principles listed in Section 3.3 of this paper is predominantly sourced from www.newurbanism.org

3.3.1 Walkability

The design of Fyansford Green has been based on the premise that residents will be able to walk to shops, parks, community facilities and other services within approximately 10 minutes from either their place of work or home. Streets will be designed to be pedestrian-friendly, with tree-lined and pleasantly landscaped streets, on-street car parking and active street frontages with buildings facing onto public open spaces. Further, the pedestrian network will have natural surveillance along streets and from lots fronting on to streets to enable personal safety and security for residents, particularly at night.

The development will provide safe walkable distances to existing bus services to the east of Fyansford Green, as well as to the bus service extensions that will be provided through the development in future. In addition, all residents will be able to walk to a Fyansford Green bus service at no cost to residents, linking to train services and the Geelong CBD, under an initiative that Moltoni is currently investigating.

3.3.2 Connectivity

Connectivity is a key component of Fyansford Green and the street network will include a hierarchy of streets that will disperse traffic and encourage walking within the neighbourhood. A high quality pedestrian network will be provided throughout Fyansford Green making walking an enjoyable and safe experience.

The road, pedestrian and cycle networks within Fyansford Green will be well connected to enable permeability throughout the development, with limited or no cul-de-sacs, and also provide good connection to existing community, recreational and commercial facilities in the Geelong area and surrounds.

The proposed off road pedestrian and cycling tracks of Fyansford Green will link to the proposed Riverlee development in the north, as well as to the existing off-road bicycle/ walking tracks that run adjacent to the Moorabool and Barwon Rivers. Cycling routes will also connect residents to the wider cycle network, linking the development to the Geelong City Centre.

3.3.3 Mixed Use and Diversity

The Fyansford village will be located at the heart of Fyansford Green, and will be the focal point of the development as an activity centre with a mix of employment, commercial, retail and community uses. This mixed use activity centre will contain restaurants, shops, offices, apartments, and community and recreation facilities.

Fyansford Green will accommodate a range of land uses, and will provide for and encourage diversity and the interaction of people. In addition to the diversity offered by the Fyansford village, Hyland Street will be transformed into a high street with strip shopping adding to the diversity and vibrancy of the development.

3.3.4 Mixed Housing

Fyansford Green will provide a range of dwelling types and forms, including a diversity of housing types, designs and prices, to address community housing choices and needs, and cater for a range of lifestyles. This will support the creation of a balanced and diverse community.

Higher density housing will be provided within close proximity to the town centre, and is essential to

creating a lively town centre. The higher residential densities will enable greater numbers of residents to have easy access to shops, transport links and other services. In addition to higher density housing Fyansford Green will also provide for medium density and standard residential development.

3.3.5 Quality Architecture, Urban Design and Heritage

The urban design and architecture of the Fyansford village activity centre will create a sense of place for the community and will incorporate a high quality public realm. Further, the wider development will feature street art and valued streetscapes and places for people to enjoy. In addition, existing heritage at Fyansford will be respected and enhanced through appropriate heritage interface design responses, the use of interpretive pieces where suitable, and the restoration of some heritage buildings such as the former orphanage.

Moltoni has a dedicated architecture and urban design team which actively engages with the Council to develop the shared vision for Fyansford Green.

3.3.6 Traditional Neighbourhood Structure

Fyansford Green will have a traditional neighbourhood structure whereby the road network will permeate the development site providing strong connectivity for pedestrians, cyclists and motorists. Where possible a grid road network will be employed, however the road network will also respond to topographical constraints such as the river and escarpment.

In ‘new urbanism’, “the centre of each neighbourhood should be defined by a public space and activated by locally orientated civic and commercial facilities” (De Villiers 1997). In Fyansford Green this is provided by the Fyansford village to be located centrally within the development in order to bring a strong community focus to a central location accessible by all residents. This will enable easy access to shops, community facilities and public transport, and provide places where people can meet and interact.

This neighbourhood structure differs from that which is predominantly found in Geelong, where there is greater reliance on vehicular transport to access services and facilities.

3.3.7 Increased Density

The Fyansford Green master plan provides for higher residential densities within close proximity to Fyansford village, and lower densities as one moves further away from this activity centre.

The presence of the cement silos at the top of the escarpment has represented a certain built form and height in this location, which Moltoni sees as an opportunity to maintain. By providing development at the silo site (pending demolition of the silos) at a size and scale consistent with the silos, such as high rise, high density apartment type development, future residents at this location will receive spectacular views of the Geelong region to the west and of Corio Bay to the east. Similarly, the visual impact of this high density development in this location will be minimal given adjacent residents in this area have grown accustomed to the height and scale of the silos.

3.3.8 Green Transportation

Fyansford Green will offer residents green transportation options through a pedestrian-friendly design that encourages walking and cycling to be used as daily transportation between residents homes and places of employment.

Although there are limited public transport opportunities at Fyansford Green, which is typical of development in outer urban areas, and in Geelong, existing bus services can be extended into the development to service future residents. In addition, Moltoni is currently proposing an initiative to provide a Fyansford Green bus service at no cost to residents, linking residents to train services and the Geelong CBD.

3.3.9 Sustainability

It is Moltoni's objective for the Fyansford Green development to be based on the principles of sustainable development and be the first example of a fully integrated water, stormwater and wastewater development in the Geelong area. Fyansford Green will become a permanent green landscaped village through the use of recycled water, which will be collected and then treated off site, before being piped back through a 3rd pipe system for the watering of public open space and street landscaped areas. Other sustainable water initiatives currently being considered for Fyansford Green include rainwater harvesting, water efficient appliances and gardens, and water sensitive urban design.

By adopting a progressive and innovative approach to planning and design, Fyansford Green is intended to be a smart, green community with enhanced lifestyle and amenity whilst meeting a range of sustainable community goals. The Fyansford Green development will feature environmentally sustainable design features and promote smart housing with an objective to become a suburb with a minimised carbon footprint.

Moltoni is working together with the Green Building Council of Australia and the Urban Development Institute of Australia to become the first accredited green star rated estate development.

3.3.10 Site Responsive Design

The Fyansford Green development will be based on a site responsive design approach, and will be derived from the form of the site, and also be reflective of it. The landscape qualities and character of the site are a direct reflection of the site form and topography. This is characteristic of the 'new urbanism' approach which aims to be responsive to site features and ecology.

The proposed design is based around the enhancement of existing environmental features, including the Moorabool River and its surrounds, and the escarpment to the east. Land adjacent to the river is predominantly in private ownership presently, but the development proposes to convert the Moorabool River environs to public ownership so that future residents can appreciate this natural feature.

The proposed development aims to capitalise on views available from high points along the eastern escarpment. Further, it proposes to respect the location and character of existing remnant trees, particularly those located along the Moorabool River corridor, by the retention of such trees in public open space areas, and further extending the character of these trees where possible.

3.3.11 Quality of Life

The future residents of Fyansford Green will benefit from a higher quality of life, a healthier lifestyle from a development that encourages walking and cycling, close proximity to the retail, commercial and community facilities at Fyansford village, and close proximity to a revitalised Moorabool River environment with bike trails, parks and natural features.

Fyansford Green will become a place where people meet to enjoy their work, social and leisure time, offering residents an improved quality of life. Fyansford Green will create a community where residents know their neighbour and a place where there is a feeling of safety and well-being for residents and visitors alike. Social, economic and environmentally responsible development will be the cornerstone of the community.

4.0 PROJECT REALISATION

4.1 Planning Approvals

Moltoni has undertaken a comprehensive planning process with the City of Greater Geelong to facilitate the regeneration of the former brownfield sites into a residential and mixed-use development at Fyansford Green. This process has involved extensive stakeholder collaboration and consultation with a wide range of agencies, authorities, local community and other interest groups.

To facilitate a new residential development and accompanying, community, retail, commercial and recreation uses on the site, both the Geelong Cement Works and quarry sites were rezoned from their former industrial zoning in separate planning scheme amendments. Much of the land was rezoned to residential, with business and mixed use zones applied to the existing Fyansford village and immediate surrounds to facilitate a community and commercial precinct. The Moorabool River environs and escarpment were rezoned to public conservation and public park zonings.

In order to ensure a coordinated approach to the development of the site the rezonings also included a requirement for the preparation of two separate development plans for the former cement works and former quarry sites respectively.

In February 2009, Moltoni lodged a development plan for the former Cement Works site with the City of Greater Geelong. The development plan will guide the future development and subdivision of Fyansford Green. Approval of the development plan has now been granted for the former Cement Works site, and the preparation of a development plan for the former quarry site is soon to be prepared. A planning application for Stage 1 of the subdivision, which consists of approximately 150 lots has been lodged with the City of Greater Geelong, and this application is currently being assessed by relevant Council Officers and statutory referral authorities.

4.2 Works on Site and Timeframes

Moltoni is currently undertaking bulk earthworks and land shaping on the former cement works site in preparation for residential development. Remediation is also being undertaken to ensure that the land is appropriately remediated prior its occupation of residential properties. Construction of the lots in Stage 1 of Fyansford Green (located in the former cement works site) is due to commence in early 2010, with lots due to be completed by mid 2010.

Completion of Fyansford Green (including both the former cement works site and the former quarry site) is expected to take 12 years.

4.3 Cutting Edge Design and Innovation

Moltoni will continue to seek and implement innovative and sustainable design initiatives for Fyansford Green in order to remain at the cutting edge. By adopting a progressive and innovative approach to planning and design, Fyansford Green will be a smart, green community with enhanced lifestyle and amenity whilst meeting a range of sustainable community goals.

Moltoni is working closely with the relevant water and wastewater authorities to achieve a 3rd pipe recycled water system from the outset of the development for sustainable water use and re-use at Fyansford Green, in order to achieve integrated water management objectives. Similarly, Moltoni is working together with relevant agencies to become the first accredited green star rated estate development.

Moving forward, Moltoni will persist in exploring alternative energy solutions and applying innovative design solutions and smart housing initiatives to Fyansford Green in order to reduce the development's carbon footprint and remain at the cutting-edge. Further, Moltoni will continue a collaborative approach with stakeholders to ensure that the project design and implementation remain consistent with the interests of all stakeholders.

5.0 CONCLUSION

Moltoni is embarking on a project that will transform two highly degraded and weed-infested brownfield sites back to a use that is both environmentally sensitive and responsive, and beneficial to the Geelong community. Moltoni will continually endeavour to find positive, sustainable and beneficial outcomes for the Fyansford Green site, through its desire to adopt innovative design solutions and remain at the cutting edge.

In Fyansford Green, Moltoni seeks to ensure that the design process, layout, structure and form provide for a development that is appropriate to the local context and supports a vibrant, diverse and inclusive community, offering residents an improved quality of life. This will be achieved by embracing the principles of 'new urbanism'.

Moltoni will continue to engage with and empower the local community to ensure that the future of Fyansford Green is designed and developed to meet the needs of the community.

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