

## Appendix H

# Visual Impact Assessment

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# VISUAL IMPACT ASSESSMENT



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## Expansion of Ceramic Tile Manufacturing Facility, Rutherford NSW

Prepared for National Ceramic Industries Australia.

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## 1.0 INTRODUCTION

### 1.1 Background

Moir Landscape Architecture has been commissioned by National Ceramics Industries Australia Pty Ltd (NCIA) to prepare a Visual and Landscape Assessment for the proposed expansion of the tile factory off Racecourse Road, Rutherford. The Visual and Landscape Assessment will support the Environmental Impact Assessment document prepared for the development and lodged with the Department of Planning for assessment under Part 3A of the Environmental Planning and Assessment Act, 1979.

Survey work for the study was undertaken on 18th June, 2009 using key viewpoints and locations with potential views towards the site. The report details the results of the field work, documents the assessment of the proposed development, and makes recommendations concerning ways to mitigate any impacts arising from the proposed development.

### 1.2 Objectives

The objectives of this report are as follows:

1. To identify and describe the existing visual/landscape environment and to evaluate its current qualities;
2. an assessment of the site in relation to any landscapes of local or regional significance;
3. visibility from the general surrounds including major roads and surrounding residential areas;
4. visual impacts from the proposed tile manufacturing facility expansions and operations; and
5. proposed mitigation measures to reduce visual impacts associated with the proposed expansion of the tile manufacturing facility.

## 2.0 STUDY METHOD

### 2.1 Visual Quality

Visual quality of an area is essentially an assessment of how viewers may respond to designated scenery. Scenes of high visual quality are those which are valued by a community for the enjoyment and improved amenity they can create. Conversely, scenes of low visual quality are of little value to the community with a preference that they be changed and improved, often through the introduction of landscape treatments.

As visual quality relates to aesthetics its assessment is largely subjective. There is evidence to suggest that certain landscapes are constantly preferred over others with preferences related to the presence or absence of certain elements.

The rating of visual quality for this study has been based on scenic quality ratings and on the following generally accepted assumptions arising from scientific research (DOP, 1988):

- Visual quality increases as relative relief and topographic ruggedness increases;
- visual quality increases as vegetation pattern variations increase;
- visual quality increases due to the presence of natural and/or agricultural landscapes;
- visual quality increases owing to the presence of waterforms (without becoming too common) and related to water quality and associated activity; and
- visual quality increases with increases in land use compatibility.

In addition to the above, cultural items may also endow a distinct character to an area and therefore contribute to its visual quality due to nostalgic associations and the desire to preserve items of heritage significance.

## 2.2 Visual Sensitivity

Visual sensitivity is a measure of how critically a change to the existing landscape is viewed by people from different areas. The assessment is based on the number of people affected, landuse, and the distance of the viewer from the proposal. (EDAW, 2000).

For example, a significant change that is not frequently seen may result in a low visual sensitivity although its impact on a landscape may be high. Generally the following principles apply:

- Visual sensitivity decreases as the viewer distance increases.
- Visual sensitivity decreases as the viewing time decreases.
- Visual sensitivity can also be related to viewer activity (e.g. a person viewing an affected site whilst engaged in recreational activities will be more strongly affected by change than someone passing a scene in a car travelling to a desired destination).

Sensitivity ratings are defined as high, moderate or low and are shown in the table below (EDAW, 2000).

VISUAL SENSITIVITY TABLE			
	DISTANCE ZONES		
LAND USE	Foreground (0-1km)	Middleground (1-6km)	Background (>6km)
Residential: Rural or Urban	High Sensitivity	High Sensitivity	Moderate Sensitivity
Tourist or Passive Recreation	High Sensitivity	High Sensitivity	Moderate Sensitivity
Major Travel Corridors	Moderate Sensitivity	Moderate Sensitivity	Low Sensitivity
Tourist Roads	High Sensitivity	Moderate Sensitivity	Low Sensitivity
Minor Roads	Moderate Sensitivity	Low Sensitivity	Low Sensitivity
Agricultural Areas	Moderate Sensitivity	Low Sensitivity	Low Sensitivity
Industrial Areas	Low Sensitivity	Low Sensitivity	Low Sensitivity

## 2.3 Visual Effect

Visual effect is the interaction between a proposal and the existing visual environment. It is often expressed as the level of visual contrast of the proposal against its setting or background in which it is viewed.

Low visual effect occurs when a proposal blends in with its existing viewed landscape due to a high level of integration of one or several of the following: form, shape, pattern, line, texture or colour. It can also result from the use of effective screening often using a combination of landform and landscaping.

Moderate visual effect occurs where a proposal is visible and contrasts with its viewed landscape however, there has been some degree of integration (e.g. good siting principles employed, retention of significant existing vegetation, provision of screen landscaping, appropriate colour selection and/or suitably scaled development).

High visual effect results when a proposal has a high visual contrast to the surrounding landscape with little or no natural screening or integration created by vegetation or topography.

## 2.4 Visual Impact

Visual impact is the combined effect of visual sensitivity and visual effect. Various combinations of visual sensitivity and visual effect will result in high, moderate and low overall visual impacts as suggested in the below table (EDAW, 2000).

VISUAL IMPACT TABLE				
		VISUAL EFFECT ZONES		
		HIGH	MODERATE	LOW
VISUAL SENSITIVITY LEVELS	HIGH	High Impact	High Impact	Moderate Impact
	MODERATE	High Impact	Moderate Impact	Low Impact
	LOW	Moderate Impact	Low Impact	Low Impact

## 2.5 Methodology

The method applied to this study involved systematically evaluating the visual environment pertaining to the site and using value judgements based on community responses to scenery. The assessment was undertaken in five stages as noted below:

1. A description of the existing visual environment, including the identification and appraisal of visual catchments/landscape units;
2. the undertaking of a viewpoint analysis to identify sites likely to be affected by development of the site;
3. a photographic survey using a digital camera and a handheld GPS unit to record position and altitude;
4. an assessment of visual impacts; and,
5. the preparation of recommendations for impact mitigation and suggestions for suitable development to maintain the area's visual quality. The purpose of the above methodology is reduce the amount of subjectivity entering into impact assessment and to provide sufficient data to allow for third party verification of results.

## 3.0 EXISTING VISUAL CHARACTER

### 3.1 Regional context

The surrounding area of Rutherford is a mixture of old and new land uses with rural holdings, established and new residential areas, commercial and industrial development. The area is experiencing continued rapid development, primarily with the growth of the existing industrial subdivision and associated commercial development as well as the expansion of existing residential areas on former rural land.

The visual quality of the Maitland area is strongly defined by the rural land use with large areas of open pastures interspersed with pockets of native vegetation on surrounding low ranges. The local government area has a variety of landscape types such as highly scenic rural and natural landscapes, heritage streetscapes, existing and new residential areas, commercial and industrial development.

Visual catchments are areas of land that are usually defined by major ridgelines that prevent views beyond. The subject site falls into a visual catchment defined most strongly by the surrounding ridgelines to the immediate west, south, and east. North of the New England Highway, flat pastoral land extends for some kilometers to distant low ranges.

The regional burgeoning residential and commercial markets are generating a strong change in visual character with residential housing and industrial/commercial development beginning to

proliferate where rural uses previously dominated. This is especially true within the Rutherford area where the subject site is located.

### 3.2 Local Setting

The site for the proposed tile manufacturing facility is located within an industrial estate, south of the New England Highway, in the township of Rutherford, and within the local government area of Maitland. The total site area is approximately 16.83 ha and the topography relatively flat with a slight fall to the south. Access to the site is off Racecourse Road. An existing road located towards the western boundary provides access to the site as well as an existing power line easement and the Great Northern Railway, further south of the site.

The site is currently zoned 4A – General Industrial, under the Maitland City Council (MCC) Local Environment Plan (LEP). The development is permissible under the zoning with consent. The study area assessed by this report is the visual catchment surrounding the site, which is the approximate area from where any proposed changes would be seen.

The majority of the site has been cleared of vegetation above one metre in height. Vegetation coverage consists primarily of exotic grasses and other weed species. Some landscaping including tree planting has been undertaken as part of the construction of the existing tile factory. Existing trees are currently immature.

The site is bound by industrial development to the north and west. The older industrial plants to the west include concrete and steel manufacturers. The site is fenced with chainwire security fencing on all boundaries. Land to the immediate east is undeveloped and currently in private ownership. A development application has been lodged with MCC for a residential subdivision, 'Heritage Green', for the former Westside Golf Course and associated land. Earth mounds planted with bamboo occur on the Heritage Green land and adjoin the sites east and south boundaries. The earth mounds are approximately 4-5 metres high with dense screen planting of bamboo currently approximately 10 metres in height. The Main Northern Railway is located approximately 0.5km to the south of the site with the former Westside Golf Course to the immediate south. An existing Energy Australia electrical substation is located to the north, at the entry point off Racecourse Road. The boundary to the substation is fenced with razor wire/ man proof fence.

The site and its immediate environs have a poor to low scenic quality. Factors that contribute to defining this level of scenic quality include the flat topography, low height of surrounding trees, adjacent industrial and commercial development.

## 4.0 THE PROPOSAL

### 4.1 Summary of Proposal

The following has been adapted from the Environmental Assessment Scoping Report (22 Dec 2008). Please refer to the Scoping Report for further details and figures of the proposal.

### 4.2 Proposal Background

The NCIA facility produces high quality ceramic wall and floor tiles utilising a number of raw products including clay, feldspar and glazes.

The manufacturing process involves grinding and mixing of predominantly clay and feldspar, followed by a process of drying the mixture, adding dry glaze, roller pressing, additional dry glazing and decorating, additional pressing, cutting to size and firing in a kiln prior to packaging and dispatch.

NCIA has an existing approval for four production lines (known as Stages One to Four) that allows production of up to 12.8 million square meters of tiles per annum when all four Stages are operational. Stage One and Stage Two are operational producing approximately 6.4 million square meters of tiles per annum.

### 4.3 Proposal Description

NCIA propose to extend their current facility located at Rutherford, NSW. The expansion proposal is seeking approval to operate an addition four production lines (known as Stages Five to Eight). Approval to operate Stages Five to Eight would increase the maximum annual production to approximately 25.6 million square meters of tiles.

The proposal would involve:

- Construction of a second factory building adjacent to the current building to accommodate the proposed four additional production lines (Stages Five to Eight); and
- development of associated infrastructure and services.

## 5.0 VISUAL IMPACT

### 5.1 Viewpoint Analysis

This part of the visual assessment considers the likely impact the proposal would have on the local environment by selecting prominent sites, otherwise referred to as viewpoints. Viewpoints, as shown in Figure 2, were selected on the basis of where the proposal would appear to be most prominent, either based on the degree of exposure or the number of people likely to be affected. Sites were first selected by using topographical maps. This was followed by field inspections to ascertain the visibility from these sites. Further viewpoints were selected by driving or walking around the site area. (Note: The initial GPS reading for the proposal was taken towards the centre of the proposed building. Distances noted relate to this location).

The greatest visual impact is likely to be from the surrounding residential areas and points along Wollombi Road and the New England Highway. The proposed development would be evident from a number of local and distant viewpoints. However, in the context of the surrounding industrial area, this change would have minimal impact. Within the visual catchment there are a number of significant viewing locations. These include:

- Parts of the industrial estate.
- Neighbouring Golf Course to the south and east.
- Rural properties along Wollombi Road to the south.
- Residential properties to the north-east and north.
- Some distant views from rural properties to the west and north;

#### Visual impacts

The proposed height of the development means that it would be visible on a local and regional scale from some limited locations. The site is generally difficult to see from locations other than nearby areas for the following reasons:

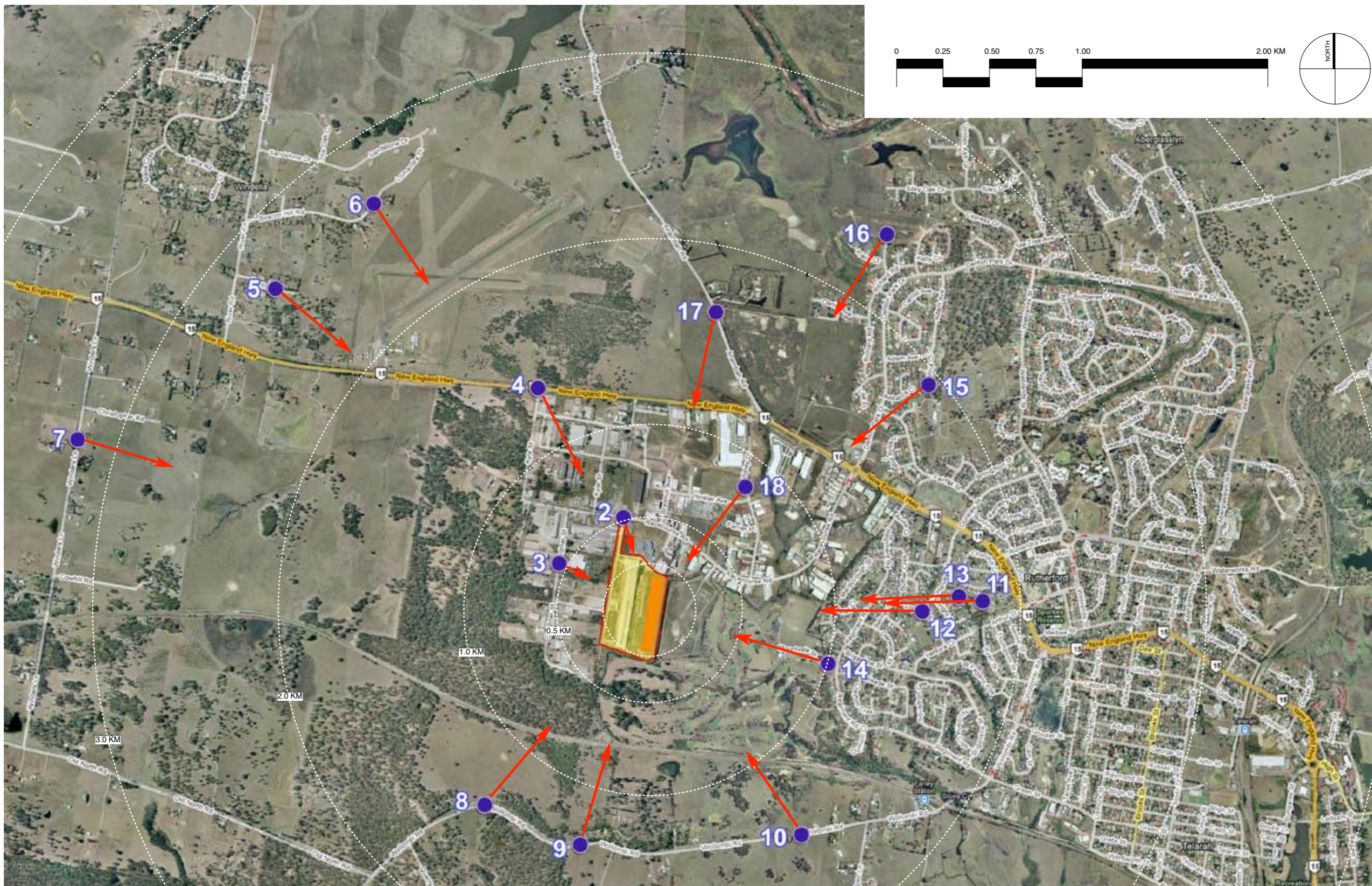
- The site area is enclosed within a visual catchment surrounded closely on the east, south and west by ridgelines.
- The industrial area is relatively low and the topography is flat.
- Some distant views will be available from isolated properties to the north.

#### Local views

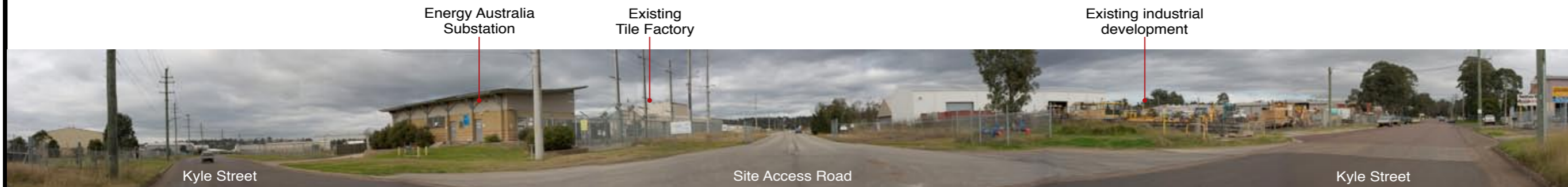
Views of less than one kilometre of the site are currently possible from areas within the industrial subdivision and the former Westside Golf Course. Viewers at these locations would see some of the visual changes associated with this proposal. These are subsequently described and assessed.

#### Distant views

Distant views of the site are currently possible from a number of locations, such as residential areas of Rutherford, Wollombi Road and rural properties off Wollombi Road, and the low range to the north.



**FIGURE 2 - VIEWPOINT ANALYSIS**



PHOTOGRAPHIC PANORAMA



**VIEWPOINT:** VP02

**LOCATION:** Intersection of Racecourse Road & site access road

**COORD.:** 32' 42.787S  
151' 30.181E

**ELEVATION:** 28 m

**DISTANCE:** 0.48 km

**Description:**

Photograph at the entry to the site off Kyle Street looking SSE towards the expansion area. An existing Energy Australia substation occurs at the intersection of Racecourse Road and the site access road. Overhead powerlines run the parallel to the site entry road in a SSW direction. The area is characterised by industrial development containing a number of vacant lots. The topography is generally flat and largely devoid of trees. A vegetated ridgeline is visible to the south and established residential areas of Rutherford are visible to the east. There are distant views to mountain ranges, between existing buildings, to the north.

**Comments:**

From this viewpoint future expansion of the facility would be visible however largely screened by the substation and the existing tile factory.



**VIEWPOINT:** VP03  
**LOCATION:** Gardiner Street  
**COORD.:** 32' 42.939S  
 151' 29.956E  
**ELEVATION:** 28 m  
**DISTANCE:** 0.53 km

**Description:**  
 View from Gardiner Street looking east towards the site. The south west portion of the existing industrial area is well established with older style building and pockets of existing native vegetation. The area has an aesthetically poor visual quality due to visual clutter such as signage, powerlines, large parking areas and lack of any unity in architectural or landscape theming.

**Comments:**  
 From this viewpoint the existing higher sections including the northern stacks are visible as glimpse views between buildings and vegetation. Any future expansion of the facility would be of a similar shape and form to the existing factory and largely screened by the existing mass of the building.



PHOTOGRAPHIC PANORAMA



<p><b>VIEWPOINT:</b> VP04</p> <p><b>LOCATION:</b> Intersection of Kyle Street &amp; New England Highway</p> <p><b>COORD.:</b> 32' 42.424S 151' 29.873E</p> <p><b>ELEVATION:</b> 28 m</p> <p><b>DISTANCE:</b> 1.29 km</p>	<p><b>Description:</b></p> <p>View from the intersection of Kyle Street and the New England Highway. Kyle Street forms the western boundary to the industrial area with existing pasture/bushland occurring on the low lying land further west. A rural supplies warehouse occurs at the intersection of Kyle Street and the New England Highway. The existing tile factory is largely screened from the New England highway with only the occasional glimpse view to the highest section of the building. This is due to the height and bulk of existing buildings situated between the site and the highway combined with the flat topography of the area.</p>	<p><b>Comments:</b></p> <p>From this viewpoint the existing tile factory is not visible. Existing industrial development provides good screening of the site from a pedestrian and vehicular scale. Future expansion to the facility would not be visible from this viewpoint.</p>
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PHOTOGRAPHIC PANORAMA



**VIEWPOINT:** VP05

**LOCATION:** Denton Close, Windella

**COORD.:** 32' 42.111S  
151' 28.963E

**ELEVATION:** 56 m

**DISTANCE:** 2.67 km

**Description:**

View looking in a south east direction towards the site. The area is characterised by rural residential which appears to have been slowly developed over approximately 20 years. The topography is gently undulating with views to the industrial area from the higher parts of Denton Close. Existing trees associated with dwellings, combined with bushland immediately west of the industrial area provides partial screening of the estate.

**Comments:**

From this viewpoint the existing higher sections of the existing tile manufacturing facility, including the northern stacks, are visible as glimpse views between vegetation. Due to the viewing angle any future expansion of the facility on the site would be screened by the existing mass of the building.



PHOTOGRAPHIC PANORAMA



**VIEWPOINT:** VP06

**LOCATION:** Beacon Hill Road,  
Windella

**COORD.:** 32' 41.847S  
151' 29.295E

**ELEVATION:** 44 m

**DISTANCE:** 2.68 km

**Description:**

View looking in a south east direction towards the site. The area is characterised by established rural residential adjoining more recent residential development to the north. The large area of cleared land in the foreground occurs on land associated with Rutherford Airport. As the elevation is lower than viewpoint 05 views to the existing tile factory are screened by vegetation in the middle ground of the photograph.

**Comments:**

Due to the topography and existing vegetation, the site and any future expansion of the facility on the site would be screened from view.



PHOTOGRAPHIC PANORAMA



**VIEWPOINT:** VP07

**LOCATION:** Winders Lane, Lochinvar.

**COORD.:** 32' 42.559S  
151' 28.244E

**ELEVATION:** 89 m

**DISTANCE:** 3.29 km

**Description:**

View looking ESE towards the site from Winders Lane. The viewpoint is located at a local high point and crest in the road. The area is characterised by small rural holdings. Parts of the existing tile factory are visible from this location however views diminish with elevation as the viewer travels north and south along Winders Lane. The older residential area of Rutherford is visible in the background.

**Comments:**

From this viewpoint the higher, northern section of the existing tile factory is visible above bushland in the middle ground of the photograph. Given the location of the proposed expansion area, (located on the eastern side of the existing facility) and the viewing direction from the west, views to any future expansion of the facility would be limited and largely screened by the existing factory.



PHOTOGRAPHIC PANORAMA



**VIEWPOINT:** VP08

**LOCATION:** Wollombi Road

**COORD.:** 32' 43.641S  
151' 29.640E

**ELEVATION:** 62m

**DISTANCE:** 1.50 km

**Description:**

View towards the site looking in a north-east direction. Wollombi Road follows the ridgeline to the south of the site. The area is characterised by large homesteads on large, semi-rural lots. Remnant roadside vegetation contributes to the rural character and, in part, provides partial screening of the site. This is the first point from Wollombi Road where the industrial area comes into view as viewers travel east towards Rutherford. There are distant views to mountain ranges to the north.

**Comments:**

From this viewpoint future expansion of the facility would be visible however largely screened by the existing tile factory.

Wollombi Road

Powerline easement

Existing Tile Factory

Existing industrial development

Wollombi Road



PHOTOGRAPHIC PANORAMA



**VIEWPOINT:** VP09  
**LOCATION:** Wollombi Road  
**COORD.:** 32' 43.760S  
 151' 29.975E  
**ELEVATION:** 71 m  
**DISTANCE:** 1.43 km

**Description:**  
 View looking NNE towards the site. Wollombi Road follows the ridgeline to the south of the site. The area is characterised by large homesteads on large, semi-rural lots. Remnant roadside vegetation contributes to the rural character and, in part, provides partial screening of the site. There are distant views to mountain ranges to the north.

**Comments:**  
 From this viewpoint the higher section of the existing tile factory are visible. A clearing in the vegetation associated with a powerline easement has created a view corridor in line with the sites western boundary. From this viewpoint future expansion of the facility would be visible however partially screened by existing trees in the foreground and middle ground.



PHOTOGRAPHIC PANORAMA



**VIEWPOINT:** VP10

**LOCATION:** Wollombi Road

**COORD.:** 32° 43.727S  
151° 30.823E

**ELEVATION:** 50 m

**DISTANCE:** 1.54 km

**Description:**

View looking north-west towards the site. Wollombi Road follows the ridgeline to the south of the site. The Great Northern Railway is partly visible in the middle ground of the photograph. The land between the rail line and the site is 'Heritage Green', formerly known as 'Westside Public Golf Course'. As the viewer travels east along Wollombi Road and crosses the rail line the landscape character changes from semi-rural to residential. There are distant views to mountain ranges to the north and north west.

**Comments:**

From this viewpoint the bulk and length of the existing tile factory is clearly evident. Future expansion of the facility would be visible from the location and would provide considerable screening of the existing building. Vegetation on adjoining land would provide some softening of the built form and assist in reducing the apparent height and scale of the building.

Mobile Phone Tower

Existing established residential



PHOTOGRAPHIC PANORAMA



**VIEWPOINT:** VP11

**LOCATION:** Open Space off Churchill Cres.

**COORD.:** 32' 43.056S  
151' 31.479E

**ELEVATION:** 66 m

**DISTANCE:** 1.87 km

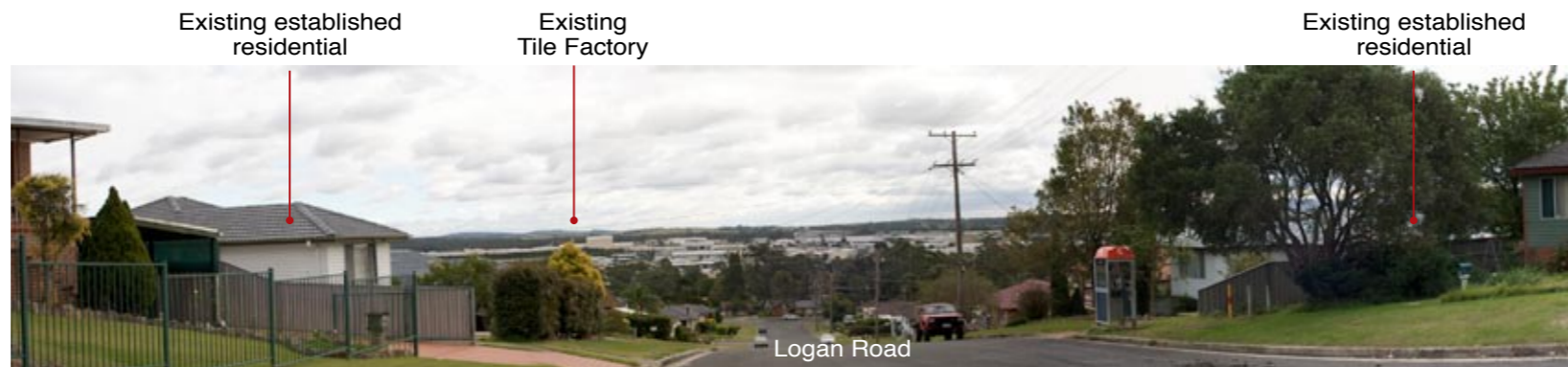
**Description:**

View looking east towards the site from a local high point and area of public open space. The reserve is located within an established residential area. The older subdivisions are comprised of modest houses with established gardens. The area has a bushland feel in parts due to the presence of large established trees located within private gardens, parks and open space areas. Views towards the site are all most completely screened by existing mature trees. There are distant views to mountain ranges to the north west.

**Comments:**

From this viewpoint the existing tile factory is almost completely screened from view. Existing houses and established trees provide visual fragmentation of the built form.

VISUAL IMPACT ASSESSMENT



PHOTOGRAPHIC PANORAMA



**VIEWPOINT:** VP12

**LOCATION:** Cnr. of Harvey & Logan Road

**COORD.:** 32' 43.066S  
151' 31.205E

**ELEVATION:** 42 m

**DISTANCE:** 1.45 km

**Description:**

View looking east towards the site from the corner of Logan Road and Harvey Road. The older subdivisions are comprised of modest houses with established gardens. The area has a bushland feel in parts due to the presence of large established trees located within private gardens, parks and open space areas. From this view point the site and neighbouring industrial development is clearly visible.

**Comments:**

From this viewpoint the bulk and length of the existing tile factory is clearly evident. Future expansion of the facility would be visible from the location and would provide considerable screening of the existing building. It should be noted the present views of the industrial development surrounding the proposed development site includes a range of visually dominant building types and colours



PHOTOGRAPHIC PANORAMA



**VIEWPOINT:** VP13  
**LOCATION:** Park off Finney Close  
**COORD.:** 32' 43.018S  
 151' 31.361E  
**ELEVATION:** 53 m  
**DISTANCE:** 1.69 km

**Description:**  
 View looking east towards the site from an existing pocket park/reserve located off Finney Close. The existing tile factory and part of the industrial area are clearly visible. Existing established trees, houses and topography assist in screening the existing tile factory in part. Distant views to mountain ranges are visible in the background of the photograph.

**Comments:**  
 From this viewpoint the existing tile factory is visible. Future expansion of the facility would be visible from the location and would provide considerable screening of the existing building. It should be noted the present views of the industrial development surrounding the proposed development site includes a range of visually dominant building types and colours.



PHOTOGRAPHIC PANORAMA



**VIEWPOINT:** VP14

**LOCATION:** Entry to Heritage Green off Regiment Drive

**COORD.:** 32' 43.234S  
151' 30.900E

**ELEVATION:** 20 m

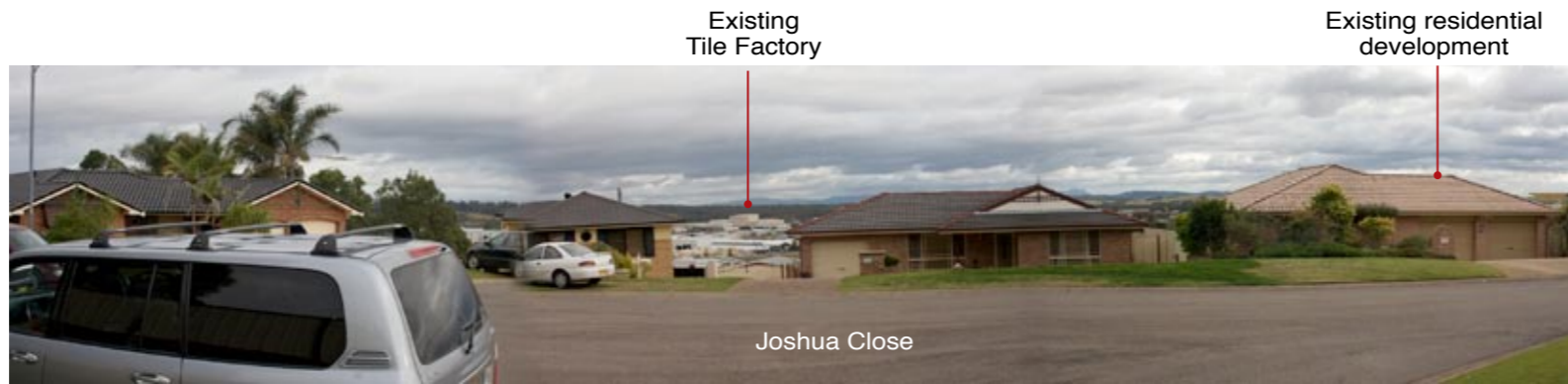
**DISTANCE:** 1.04 km

**Description:**

View from the entry to Heritage Green - Formerly Westside Golf Course. Looking east toward the site. The existing Tile Factory is visible however existing vegetation provides visual fragmentation of the eastern elevation. The length and height of the existing building is clearly evident.

**Comments:**

From this viewpoint the existing tile factory is clearly visible. Future expansion of the facility would be visible from the location and would provide considerable screening of the existing building. It should be noted the present views of the industrial development surrounding the proposed development site includes a range of visually dominant building types and colours.



PHOTOGRAPHIC PANORAMA



**VIEWPOINT:** VP15

**LOCATION:** Joshua Close

**COORD.:** 32' 42.396S  
151' 31.272E

**ELEVATION:** 61 m

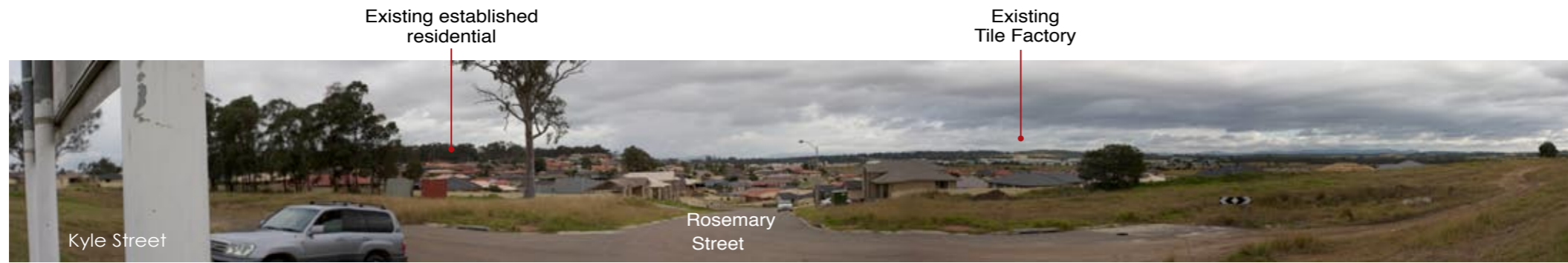
**DISTANCE:** 1.95 km

**Description:**

View looking south west towards the site from existing residential area on the northern side of the New England Highway. This part of a recently developed subdivision forms the western side of a ridgeline with houses orientated towards the south-west, west and north-west. The area contains newer homes on small lots. Tree planting has not featured strongly nor has tree retention or street tree planting. The existing tile factory and neighbouring industrial development is clearly visible in the middle ground of the photograph. Distant views to mountain ranges are visible in the background.

**Comments:**

From this viewpoint the existing tile factory is visible. Future expansion of the facility would be visible from this location. It should be noted the present views of the industrial development surrounding the proposed development site includes a range of visually dominant building types and colours.



PHOTOGRAPHIC PANORAMA



**VIEWPOINT:** VP16  
**LOCATION:** Terminus of Rosemary Street  
**COORD.:** 32' 41.947S  
 151' 31.113E  
**ELEVATION:** 42 m  
**DISTANCE:** 2.40 km

**Description:**  
 View looking WSW towards the site from vacant land currently under construction for residential housing. The area is undergoing rapid change with growth in residential housing, development of vacant lots in the existing industrial area, and a proposed business park located on the northern side of the New England Highway. From this viewpoint the northern section of the existing tile factory is clearly evident.

**Comments:**  
 From this viewpoint the existing tile factory is visible. Future expansion of the facility would be visible from this location. It should be noted the present views of the industrial development surrounding the proposed development site includes a range of visually dominant building types and colours and any visual impact associated with the proposal should be viewed in light of future approved development.



PHOTOGRAPHIC PANORAMA



**VIEWPOINT:** VP17  
**LOCATION:** Anambah Road  
**COORD.:** 32' 41.978S  
 151' 30.374E  
**ELEVATION:** 25 m  
**DISTANCE:** 1.96 km

**Description:**  
 View from Anambah Road looking SSW towards the site. This is the first point from Anambah Road where the industrial area comes into view as viewers travel south towards Rutherford. The tile factory is not visible from Anambah Road north of this viewpoint due to topography and existing vegetation.

**Comments:**  
 From this viewpoint parts of the future expansion of the facility would be visible. It should be noted the present views of the industrial development surrounding the proposed development site includes a range of visually dominant building types and colours and any visual impact associated with the proposal should be viewed in light of future approved development. Future industrial development on the northern side of the New England Highway is likely to screen the proposal from view.



PHOTOGRAPHIC PANORAMA



**VIEWPOINT:** VP18

**LOCATION:** Shiple Drive

**COORD.:** 32' 42.671S  
151' 30.611E

**ELEVATION:** 22 m

**DISTANCE:** 0.85 km

**Description:**

View from Shiple Drive looking south-west across vacant land to the northern facade of the existing tile manufacturing facility. Existing commercial and industrial buildings combined with viewing angle provides effective screening of the facility from others sections of estates road network.

**Comments:**

From this viewpoint parts of the future expansion of the facility would be visible. It should be noted the present views of the industrial development surrounding the proposed development site includes a range of visually dominant building types and colours and any visual impact associated with the proposal should be viewed in light of future approved development. As vacant land in the estate is developed views of the proposal will be limited.

# Photomontage 1:

View from Wollombi Road looking north west towards the site (VPT10).



# Photomontage 2:

View from the corner of Harvey Road and Logan Road looking east towards the site (VPT12).



Existing view



Photomontage

# Photomontage 3:

View from Joshua Close south west towards the site (VPT15).



## 5.3 Visual Impacts

Overall, the proposed expansion of the tile manufacturing facility would result in impacts on the existing surrounding environment in terms of landscape and scenic values. The visual impacts associated with the proposal will vary depending on the viewing location. The existing facility is already visible from certain viewpoints and the future expansion to the east would result in changes to the existing visual environment. The visual impacts of the factory will vary according to the viewpoints from which the factory will be seen. The potential visual impacts associated with the changes are assessed below.

### **New England Highway**

The proposed development would be visible from points along the New England Highway. These visual changes would be most prominently from the east at the top of the ridgeline when entering Rutherford from Telarah. It is noted that views when travelling from the west are limited and existing industrial development, north of the site, would screen the proposal from view.

### **Wollombi Road**

Wollombi Road follows the ridgeline to the south of the site. The area is characterised by large homesteads on large, semi-rural lots. Vegetation here is predominately spotted gum / ironbark tall open forest. Much of the land has been cleared for pastoral lands. Remnant roadside vegetation contributes to the rural character and currently partially filters views of the site. The majority of houses on Wollombi Road would be able to see the proposed development, at a distance, with the nearest houses being approximately 1.2 km away.

### **Former Westside Golf Course (Heritage Green)**

Heritage Green is located directly south and east of the site. Most of the former golf course is sited lower and existing mounding and screen planting around the perimeter provides some screening of the adjoining industrial estate and hence the proposed development. The proposed development would be visible from the elevated entry to Heritage Green off Regiment Road, approximately 1.0 km away. Due to restrictions on access the visual impact from within the Heritage Green Site has not been fully assessed.

### **Residential areas**

To the east and north-east the major consideration is the potential views from residential areas of Rutherford, particularly the newer areas and any new residential development that will occur there. The older subdivisions to the east and south-east are comprised of modest houses with established gardens. The area has a bushland feel in parts due to the presence of large established trees located within private gardens, parks and open space areas.

The newer subdivisions to the north-east contain newly constructed houses on smaller lots.

Landscaping at this stage is confined to shrubs and areas of turf. Tree planting has not featured strongly nor has tree retention or new street tree planting. The amenity of the area is improved by nearby tree covered ridges and views over pastoral lands. Contained within this residential area is a small commercial area located at the base of the Hill on the New England Highway.

These residential areas have a moderate sensitivity due to the potential for impacts that would effect existing permanent residents. Residents in the most elevated areas (especially Clayton Crescent, Garwood Street and neighbouring roads within south Rutherford; and Adam Avenue and Joshua Close in the northern areas of Rutherford) would see the development at an approximate distance of 2km and 1.5km respectively. However, their present views of the industrial subdivision surrounding the proposed development site this includes a range of visually dominant building types and colours.

### **Semi-rural**

The land to north of the New England Highway is predominantly rural in character. The topography is generally flat and extends in a northerly direction to distant low ranges. Contained within the foreground are scattered houses, an old drive-in, and Anambah land-fill site. Rutherford Aerodrome is located to the north-west. The area has a pleasant visual amenity which is degraded by views of industrial and residential development, and transmission lines crossing pastoral lands.

## 6.0 RECOMMENDATIONS

These recommendations seek to achieve a better visual integration of the proposed tile manufacturing facility expansion and the existing landscape character at both, local and regional scales. The mitigation measures attempt to lessen the visual impact of the proposed development whilst enhancing the visual character of the surrounding environment. They are made notwithstanding issues raised by other consultants (e.g. traffic, engineering, heritage etc).

### 6.1 Impact Mitigation Strategies

#### Landscaping

1. Planting of native vegetation around the perimeter of the proposed factory in locations unaffected by internal road ways or infrastructure easements. This helps reduce the scale of the building.
2. The planting of vegetation endemic to the area will assist in the integrating the proposed development with the existing landscape character, in particular the large canopies which will have a positive impact in the broader view.
3. Locally sourced native plant species, especially trees, should be utilised throughout the development. They help preserve the landscape character and scenic quality of the area as well as building habitat for local fauna. Native species are also well suited to local conditions (i.e. soil, climate, etc.) and will build on the existing vegetation assemblages in the area. Understorey planting will also contribute to the habitat values and screening potential of the proposed landscape works.

#### Colour and materials selection

The following suggestions for external construction materials are made:

- The use of appropriate colours to blend with the surrounding environment and reduce the visual dominance of the building.
- The use of a range of cladding materials and colours to reduce the overall scale and break up the monotony of the building.
- The use of non metallic / shiny materials that may cause reflection / glare.

General landscape principles:

- use of heavily mulched planting beds to reduce evapotranspiration;
- the use of native plant materials, preferably those locally native to the area;
- no high maintenance plant selections;

- no lawn within non-accessible areas or high shade areas; and
- use of ground covers that act like a green mulch.

Maintenance is essential to ensure that landscape works are allowed to grow to their full potential and that established landscaping is kept in top condition. Any landscape works should be maintained for a minimum of twelve months, after which the plants should be well established quality soil material to ensure good growth and retention of water.

#### Lighting

The design for lighting of the facility shall ensure that all external lighting for the proposed facility is mounted, screened, and directed in such a manner so as not to create a nuisance to surrounding properties or roadways. The lighting shall be the minimum level of illumination necessary and shall comply with AS 4282 (INT) 1995 - Control of Obtrusive Effects of Outdoor Lighting.

Recommendations aim to mitigate lighting to less than significant levels.

- Lights shall not be placed to cause glare or excessive light spillage on neighbouring sites.
- Lighting near adjoining properties shall be shielded with cut off luminaires.
- Building illumination and architectural lighting shall be indirect.
- Lighting to car park areas and for security purposes is to be low intensity.

## 7.0 REFERENCES

### Publications:

Colleran, JR. & Gearing D., (1980) A Visual Assessment Method for Botany Bay, Landscape Australia, 3, August.

DOP (1988) Rural Land Evaluation, Government Printer, Department of Planning.

EDAW (Australia) Pty Ltd., (2000) 'Section 12 – Visual Assessment', The Mount Arthur North Coal Project: Environmental Impact Statement, URS Australia Pty Ltd, Prepared for Coal Operations Limited.

State Pollution Control Commission, (1981) Guidelines for Visual Assessment and Management of Coastal Landscapes.

Wright G., (1973) Landscape Quality: A Method of Appraisal, Royal Australian Planning Institute Journal, October.

### Maps:

Gregory's Newcastle Street Directory, Universal Press Pty Ltd, 24th Edition 2003

<http://map.google.com.au>

2008 Google - Map data Sciences Pty Ltd, PSMA