4.3 VISUAL IMPACT ASSESSMENT

OVERVIEW
The potential visual impact of the Stage 1 project has been assessed in relation to a number of key viewpoints. It is based on the existing pattern of land use and development adjoining the works. Visual impact of the concept proposal relating to the Stage 2 area will be assessed in the Stage 2 EIS report. The method of assessment involved:

• Defining the scale or size, form and type of the proposal within the context of the study area
• Establishing an estimated visual catchment, through desktop analysis and ground-truthing on site
• Identifying key viewpoints from where the proposal would be visible
• Identifying key viewpoints within the proposal (road user views)
• Assessing the level of potential visual impact on viewers at these viewpoints from the proposal.

VISUAL IMPACT ASSESSMENT METHODOLOGY
The magnitude of change to existing views and the sensitivity of the viewers has been assessed for each of the chosen viewpoints in accordance with the Roads and Maritime impact grading matrix (refer Table 4-1).

Magnitude
Magnitude of change to existing views refers to the nature and scale of the proposal, and the extent and proximity of the view to the works. Magnitude represents the contrast in scale, form and type of the proposal works to the location and context to which it is to be placed.

A high magnitude results if the proposal works are of a major scale and are considered out of scale or uncharacteristic of the existing visual character, or if there is considerable modification to the existing landscape. A moderate magnitude would result if the proposal works are prominent but not considered to be substantially uncharacteristic with the existing visual character. A low magnitude results if there is minimal alteration to the existing view and the works are of a scale and nature that is consistent with the existing visual character.

Sensitivity
Sensitivity is the measure of the visual importance of the view and is dependent on the following:

• Distance between viewer and the works
• The category of viewer such as resident, visitor or worker
• The elements of the proposal that are visible
• Importance of the view.

Visual sensitivity includes the consideration of the perceived cultural and historical values of the visual environment and the elements within it. Generally, viewers with the highest sensitivity include:

• Residents who have existing views that would be affected by the proposal works
• Users of public open space where their attention is focused on the visual landscape, for example, lookouts or other scenic natural areas
• Communities that place high cultural and historical significance on the visual landscape.

Viewers with the lowest sensitivity are most likely to be:
• Employees working within an enclosed workplace and focused on their work – however interesting views should be provided for them within a short walk from their workplace
• Motorists (apart from tourists) whose attention is focused on driving – however it is important to provide a stimulating motorist experience.

Impact
Impact is the combination of the magnitude and sensitivity rating in accordance with the Impact Assessment Grading Matrix (refer to Table 4-1).

Visual impact zones
A combination of the physical characteristics of the site, the nature of the existing road corridor and the proposal itself define the visible area and the catchment from where the works are visible. This visual catchment has then been defined

Visual assessment precincts and viewpoints
Within the Primary VCZ, Visual Assessment Precincts have been identified based on key centres of activity associated with the proposal.

Viewpoints within visual assessment precincts have been selected and assessed as a group for potential impacts.

The chosen viewpoints within the visual assessment precincts have been assessed using the following methods:
• Field investigations, site photography and mapping
• Computer generated visualisations based on 3-dimensional design and survey data
• Aerial views and transects using Google Earth Professional software.

In measuring the impact of change within the visual assessment precinct, the following conditions have been taken into account:
• Distance between viewer and road
• Elevation change between viewer and road
• A visual and desktop assessment made of the vertical and horizontal field of view impacted on by physical site features
• An assessment made of the type of intervention made by the proposal into the existing landscape.

The assessments are undertaken against the following primary conditions:
• Public domain impacts
• The impact from private properties or other selected locations
• The impact upon users of the road itself or other connecting roads.
Refer to Figure 4-2 for visual catchment zone and visual assessment precinct identification. Into two Visual Catchment Zones based on geographic proximity to the proposal and include:

- Primary visual catchment zone approximately 0 – 25 m
- Secondary visual catchment approximately 25 – 100 m.

**PRIMARY VISUAL CATCHMENT ZONE**

An assessment of the immediate terrain, built form and vegetation has determined the Primary visual catchment zone as an approximate 25 metre band around the proposal kerb line. The zone captures the front line of resident houses and front facades of commercial buildings from where the most impacted views are located.

Local residences tend to be located at similar elevations to the road, typically slightly above on the southern side and slightly below on the northern side, although there are locations where this varies. Commercial properties, primarily on the southern side would have views over the proposal from higher floors. Many commercial properties and residences are surrounded by vegetation, which in its Users of institutions would also be impacted, namely Forest High School and Forest Alliance Church. In these locations widening and vegetation loss would be experienced, which would open up views of the proposal and associated infrastructure such as retaining walls.

Another aspect of visual impact is its relationship to headlight glare and noise. Residences in close proximity to the proposal may also experience these changes in their environmental conditions. Refer to Section 5.3 of this report for strategies that deal with these issues.

Current form, partially screens views of the proposal. Vegetation loss associated with widening would tend to open up views in some locations, which highlights why new planting would be critical.
Figure 4-2: Visual impact assessment plan

LEGEND
- PRIMARY VISUAL CATCHMENT ZONE (25m)
- SECONDARY VISUAL CATCHMENT ZONE (100m)
- KEY ATTRACTOR
- EXISTING VEGETATION & NATIONAL PARK
- EXISTING STREET TREES (SURVEYED)
- ASSESSED VIEWPOINT'S
- 3D VIEWPOINT

VAP 01: SKYLINE SHOPS
VAP 02: FRENCHS FOREST ROAD EAST
VAP 03: PARKWAY
VAP 04: FOREST WAY NORTH
VAP 05: NAREE ROAD
VAP 06: WARRINGAH ROAD EAST
VAP 07: WARRINGAH BUSINESS PARK
VAP 08: THE FOREST HIGH SCHOOL

NBH: CONNECTIVITY AND NETWORK ENHANCEMENTS: STAGE 1
VISUAL ASSESSMENT PRECINCT 01: SKYLINE SHOPS

Location

This visual assessment precinct is located at the eastern end of French’s Forest Road East, including the Skyline Shops, Allambie Grove Business Park, Allambie Road and a section of Warringah Road and associated intersections.

The precinct contains viewpoints: 01-06. Refer Figures 4-3 to 4-8 and Plates 4-6 to 4-9 for visual representation of selected viewpoints.

Visible elements of the proposal:

- Widening of Allambie Road between Frenchs Forest Road and Warringah Road
- Widening of Frenchs Forest Road at the intersection with Allambie Road and associated low retaining walls less than 1 metre high, facing commercial property
- Signalling of Allambie Road / Frenchs Forest Road intersection
- Removal of roadside parking in front of Skyline Shops
- Widening of Warringah Road between Rodborough Road and Courtley Road.

Affected viewers:

- Workers and customers of Skyline Shops, as well as small medical related suites on Frenchs Forest Road
- Workers at Allambie Grove Business Park
- Residents on Frenchs Forest Road, between Patanga Road and Inverness Avenue and immediate houses on side streets
- Pedestrians and cyclists
- Road users (assessed separately).

The visual impact on these viewpoints is described in Table 4-9.
Substantial tree removal would be required along the western edge of Allambie Road next to Allambie Grove Business Park.

Car parking relocated from the front of the existing shops to make way for intersection and footpath widening.

Figure 4-4: VAP 01 viewpoint locations

Figure 4-5: VAP 01 aerial oblique view, looking north along Allambie Road from Warringah Road
Substantial tree removal would be required along western edge of Allambie Road next to Allambie Grove Business Park.

Car parking relocated from the front of the existing shops to make way for intersection and footpath widening.

Plate 4-6: Viewpoint 1, looking north along Allambie Road from Warringah Road towards Skyline Shops and the intersection with Frenchs Forest Road East.

Plate 4-7: Viewpoint 2, looking north along Allambie Road at Skyline Shops and the intersection with Frenchs Forest Rd East.
Car parking relocated from the front of the existing shops to make way for intersection and footpath widening.

Substantial tree removal would be required along southern edge of Frenchs Forest Road East due to intersection widening.
Plate 4-9: Viewpoint 6, looking east along Frenchs Forest Road East towards the intersection with Allambie Road

Figure 4-7: VAP 01 aerial oblique view, looking west along Frenchs Forest Road East from the intersection with Allambie Road (Source: Background terrain image: Copyright Google, Digital Globe, 2010)

- Existing kerb largely retained along northern verge of Frenchs Forest Road
- Minor road and footpath widening along southern verge of Frenchs Forest Road East
- Minor road and footpath widening along southern verge of Frenchs Forest Road East
- Existing kerb largely retained along northern verge of Frenchs Forest Road East
Figure 4-8: Viewpoint C, looking east along Frenchs Forest Road East towards the intersection with Allambie Road and Skyline Shops.

- Car parking relocated from the front of the existing shops to make way for intersection and footpath widening.
- Substantial tree removal would be required along southern edge of Frenchs Forest Road East due to intersection widening.

Existing kerb largely retained along northern verge of Frenchs Forest Road.

NOTE: This visualisation illustrates the urban design recommendations to be considered further during detailed design development and are subject to change.
Table 4-9: VAP 01 IMPACT RATING

<table>
<thead>
<tr>
<th>VISUAL ASSESSMENT PRECINCT</th>
<th>SENSITIVITY</th>
<th>MAGNITUDE</th>
<th>IMPACT</th>
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<td>01 Skyline Shops</td>
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<td>Moderate</td>
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<td>Partly industrialised/commercialised mixed with suburban residences.</td>
<td>Widening and signalisation Vegetation loss including street trees.</td>
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VISUAL ASSESSMENT PRECINCT 02: FRENCHS FOREST ROAD EAST

Location
This precinct is located on Frenchs Forest Road East, between Inverness Avenue and Nandi Avenue.

Viewpoints: 07-11. Refer Figure 4-9 to 4-12, and Plates 4-10 to 4-14.

Visible elements of the proposal:
• Signalisation of Romford Road/ Frenchs Forest Road intersection
• Widening of a small section of footpath
• New footpaths and associated landscaping and street trees.

Affected viewers:
• Workers at Allambie Grove Business Park, Skyline Business Park
• Workers and customers of Parkway Hotel
• Residents on Frenchs Forest Road and immediate houses on side streets
• Pedestrians and cyclists
• Road users (assessed separately).

The visual impact on these viewpoints is described in Table 4-10

Figure 4-9: Key plan
Figure 4-10: VAP 02 viewpoint locations

Figure 4-11: VAP 02 aerial oblique view looking west along Frenchs Forest Road East at the intersection with Romford Road and further to Wakehurst Parkway
Plate 4-10: Viewpoint 7, looking east along Frenchs Forest Road East from next to the Parkway Hotel.

Plate 4-11: Viewpoint 10, looking west along Frenchs Forest Road East from opposite the Skyline Business Park.

Existing kerb largely retained along this section of Frenchs Forest Road. Footpath improvements undertaken.
Plate 4-12: Viewpoint 8, looking north at the intersection of Frenchs Forest Road East with Romford Road from a corporate driveway

Plate 4-13: Viewpoint 9, looking west along Frenchs Forest Road from the intersection with Romford Road on approach to the intersection with Wakehurst Parkway

Existing kerb largely retained along this section of Frenchs Forest Road. Footpath improvements undertaken
Substantial tree removal on approach to the intersection with Wakehurst Parkway due to slip lane extension.

Figure 4-12: VAP 02 aerial oblique view looking west along Frenchs Forest Road East at the intersection with Nandi Avenue on approach to the intersection with Wakehurst Parkway.

Plate 4-14: Viewpoint 11, looking west along Frenchs Forest Road East at the intersection with Nandi Avenue on approach to the intersection with Wakehurst Parkway.

Table 4-10: VAP 02 IMPACT RATING

<table>
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<tr>
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<td></td>
<td>-  Signalisation</td>
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<td>commercialised mixed with</td>
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<td>-  Footpath improvements and landscape.</td>
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<td>suburban residences</td>
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<td>- Tree lined boulevard.</td>
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VISUAL ASSESSMENT PRECINCT 03: PARKWAY NORTH

Location
This precinct is located at the intersection of Frenchs Forest Road with Wakehurst Parkway.

Viewpoints: 12-18 and B. Refer Figure 4-13 to 4-16 and Plates 4-15 to 4-19.

Visible elements of the proposal:
• Substantial widening of Frenchs Forest Road to accommodate additional turning lanes and new west bound lanes
• Widening of Wakehurst Parkway to accommodate turning lanes and additional lanes.
• New traffic signals and refuge islands
• New widened footpaths
• Cutting and retaining walls up to two metres high, facing road users
• Substantial vegetation loss.

Affected viewers:
• Workers at Business Park
• Residents on Frenchs Forest Road, between Nandi Avenue and former Bantry Bay Road (78, 80, 106, 108, 110, 112, 114, 116 Frenchs Forest Road and 1, 2A Nandi Avenue)
• Pedestrians and cyclists
• Road users (assessed separately).

The visual impact on these viewpoints is described in Table 4-11.

Figure 4-13: Key Plan
Figure 4-14: VAP 03 viewpoint locations

Plate 4-15: VAP 03, looking north along Wakehurst Parkway at the intersection with Frenchs Forest Road East

Substantial tree removal on approach to the intersection with Wakehurst Parkway due to slip lane extension

(Source: Background terrain image: Copyright Google, Digital Globe, 2010)
Substantial tree removal on approach to the intersection with Wakehurst Parkway due to slip lane extension

Plate 4-16: Viewpoint 12, looking west along Frenchs Forest Road East at the intersection with Wakehurst Parkway

Plate 4-17: Viewpoint 15, looking south along Wakehurst Parkway from the intersection with Frenchs Forest Road East

Existing bus lane and bicycle path to be connected with proposed upgrade
Figure 4-15: VAP 03 aerial oblique view looking south along Wakehurst Parkway at the intersection with Frenchs Forest Road

Figure 4-16: VAP 03 aerial oblique view looking east along Frenchs Forest Road West towards the intersection with Wakehurst Parkway

Steep longitudinal falls through intersection with Frenchs Forest Road and Wakehurst Parkway

Substantial tree removal along southern edge due to road widening. Pedestrian access maintained

Traffic Island to be removed

NBH site
Private driveway access and existing utilities to be maintained along northern edge of Frenchs Forest Road East.

Substantial tree removal along southern edge due to road widening. Pedestrian access maintained.

Substantial tree removal on approach to the intersection with Wakehurst Parkway due to slip lane extension.

Existing bus lane and bicycle path to be connected with proposed upgrade.

Table 4-11: VAP 03 IMPACT RATING

<table>
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<th>VISUAL ASSESSMENT PRECINCT</th>
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<td>HIGH TO MODERATE</td>
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<td>▼ Partly industrialised/commercialised mixed with suburban residences</td>
<td>▼ Substantial widening</td>
<td></td>
</tr>
<tr>
<td></td>
<td>▼ Dense bushland fringes</td>
<td>▼ Substantial vegetation loss.</td>
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