

## 3.4 Visual Impact Assessment

### 3.4.1 Visibility of project

The M5 Motorway corridor is a predominantly visually contained element due to the relatively flat / gently rolling nature of the landscape, coupled with the significant efforts to screen the Motorway corridor from the surrounding residential areas.

Views to the Project are generally seen down roads perpendicular to the M5 Motorway, or from reserves and open spaces adjacent to the Motorway. Views to the Project site at present comprise a mix of vegetated earth batters, noise walls, and bridges topped with noise walls where the M5 passes over roads perpendicular to the M5 corridor.

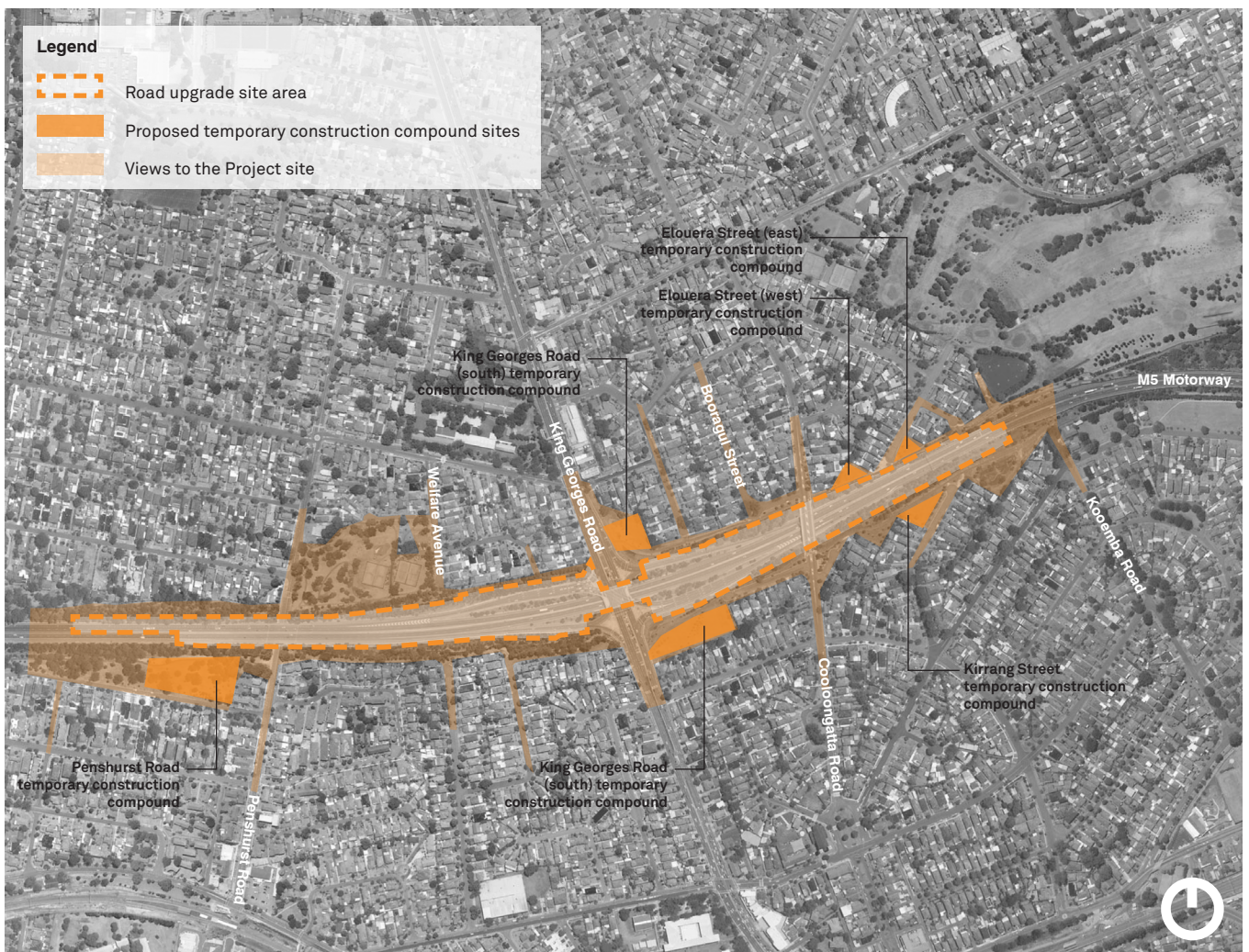


Figure 47 Visibility of project

### 3.4.2 Construction Impacts

Construction of the Project is anticipated to commence in mid 2015 and take about 18 months. The standard working hours on site would be between 7 am and 6 pm, Monday to Friday and 8 am to 1 pm on Saturdays.

While the majority of the Project could be constructed during these standard hours, a number of construction activities would need to be undertaken at night. Night time works would generally commence after the evening peak.

The Project construction works are described in Chapter 6 of the EIS and briefly summarised in Section 1.5.2 of this report.

#### 3.4.2.1 M5 Motorway carriageway

##### *Proposed upgrade*

Construction areas associated with the M5 Motorway carriageway environs that will be experienced by Motorway users, will broadly encompass all areas within the confines of the southern and northern Motorway boundary noise walls; along the Motorway approaches on King Georges Road and associated on and off-ramps.

The works as experienced by Motorway users will be characterised by traffic management including lane closures, diversions to alternate sides of the carriageway and restrictions on vehicle speeds, in addition to construction vehicle entry and exit lanes to works areas and associated hoardings. Construction plant and vehicles will periodically be visible both from the carriageway, and projecting above construction hoardings. Heavy haulage vehicles will be present on the carriageway, particularly at the beginning of the Project to remove cleared and excavated materials. Major elements that will be subject to construction and likely to be visible from the carriageway will include: road widening and new lanes; widening of the Penshurst Road and Cooloongatta Road bridges; retaining walls facing into the corridor, and new noise walls.

Works are likely to periodically occur at night both within the Motorway corridor and to some construction compounds, with lighting set to levels commensurate with safety, security and construction needs.

##### *Assessment criteria*

The following assessment criteria are relevant:

- Observer type: M5 Motorway users (motorists) will be the primary observer for this area
- Number of observers: high numbers of motorists will be impacted by the works
- Duration: various stages of the works will be visible for a period of at least 18 months, with views being either of short duration when travelling at normal Motorway speeds, or periodically more detailed when stopped or slowed as part of the traffic management process
- Frequency: for many motorists, the construction works will be viewed five (5) days a week, twice a day over much of the duration of the construction period.

### Assessment

The sensitivity of the motorist observers is considered to be Low, given that the travel is likely to be routine and associated with work activities; commuting to and from work, or travelling across the city for other purposes.

The magnitude of change is considered to be Moderate, given that even though the works will be viewed by a large number of observers, the duration of the view will generally be of a relatively short period within the context of the overall journey, and will be temporary in nature, notwithstanding that it will occur over a period of at least 18 months.

The above provides an overall visual impact assessment rating of Moderate to Low (refer Table 7).

Table 7 Impact Grading Matrix for the Construction phase of the M5 Motorway carriageway

		MAGNITUDE			
		HIGH	MOD	LOW	NEG
SENSITIVITY	HIGH	H	HM	M	N
	MOD	HM	M	ML	N
	LOW	M	ML	L	N
	NEG	N	N	N	N

#### 3.4.2.2 Temporary construction compounds

The compounds would comprise various elements of the following:

- Temporary buildings
- Hardstand parking areas
- Materials laydown and storage areas
- Perimeter fencing, including visual screening where necessary.

Refer Section 1.5.2.5 for more information regarding construction compounds.

#### King Georges Road (south)

##### Existing situation

The construction compound will be located within an open space area left over from the initial M5 Motorway construction (refer Figure 9). The area is flanked to the:

- south by free-standing, predominantly single storey residential development on Pallamana Parade that backs onto the area (backs of houses between 10-15m from compound boundary), and a single dwelling on King Georges Road (5m from fence) with the side of a large shed facing onto the area. The rear fences are generally in the order of 1.8 metres high (refer Figure 48)
- east by a single storey residence (1m from compound boundary) that faces onto Allambie Crescent and presents the side of the house towards the area (refer Figure 48)
- north by M5 Motorway, with a view to a tall noise wall with limited screen planting (refer Figure 49 and Figure 50)





Figure 48 Panorama of the site for the proposed King Georges Road (south) construction compound taken from the shared path, centre of the site, showing the back fences of the residences to the south and east, and the informal native planting



Figure 49 Photograph showing the southern side of the noise wall on the northern boundary of the site, adjacent to the Motorway



Figure 50 Northern side of the noise wall, adjacent to the Motorway, showing planting including Canary Island date palms (i.e. facing the King Georges Road intersection)



Figure 51 One of three dead fig trees adjacent to the northern boundary of the park

- west by the very busy King Georges Road, and three (3) residences on the western side of the road with direct views into the area (front fence of residences approximately 40 -45m from compound boundary).

The general environs comprises a large turfed area (approximately 130m x 50 m) that slopes gently to the east. The area has a semiformal native tree planting that broadly bisects the area, comprising immature Canary Island Palms (refer Figure 50) that run alongside King Georges Road and lead into the area from King Georges Road, along a shared path that runs east to west through the site. The area is screened to views from King Georges Road from the north by an existing high noise wall, and from the south by the above described residential development on Pallamana Parade.

Native tree development within the area generally appears to be stunted, or dead as with three (3) small fig trees that are located alongside the noise wall (refer Figure 51). The landscape amenity qualities of the area are limited, including no provision of park furniture. Recreational user numbers seem likely to be low, potentially comprising of informal kick-about and similar unstructured activities.

#### Proposed upgrade

The compound will be located immediately behind the residential properties backing onto the area, and along the edge of the shared path, and have an approximate site area of 6,200 m<sup>2</sup>. The compound will house the main office, amenities and materials, and will be accessed from King Georges Road and Allambee Crescent . Selected existing trees within the compound site will be retained.

#### Representative observer types / locations

Representative observer types and locations will comprise:

- residents, including:
  - generally limited views over back and side fences from adjoining residences
  - three residences on the west side of King Georges Road that will look directly onto the compound and a further 2-3 that will have close oblique views ( approximately 50-60m from compound boundary)
  - residences in addition to those listed above, fronting Cooloongatta Road and Allambee Crescent (south), that will be subject to views of heavy and / or light vehicle movements associated with the compound
- Recreational users of the reserve, including:
  - the shared path
  - informal kick-about activities
- Motorists on King Georges Road and using Allambie Crescent.

### Assessment criteria

The following assessment criteria are relevant:

- Observer type: recreational users and residents will be impacted which are both sensitive observer types
- Number of observers: a small number of residents and potentially small to moderate number of recreational users (particularly re. the shared path) will be impacted by the works. Large numbers of motorists on King Georges Road will see the compound, although it will be seen within the context of the broader construction project. Small numbers of primarily residents on Allambee Crescent will see a small part of the compound when entering and leaving their premises
- Duration: the compound will be visible for a period of at least 18 months, with views from motorists on King Georges Road being either fleeting or for short periods while waiting for the lights to change, and peripheral to the road focussed user experience
- Frequency: the compound will be subject to traffic movements up to six (6) days a week over the duration of the construction period.

### Assessment

The sensitivity of the resident observers and recreational users is considered to be Low, given that the area is not readily viewed by large numbers of sensitive observers; the area adjoins King Georges Road; and is of low visual amenity that is anticipated to have relatively low recreational user numbers.

The magnitude of change is considered to be Moderate, given that:

- the compound is large but not readily visible from most sensitive observers, however, given the size of the compounds, residents may have views to taller elements within the compound projecting above the fence line
- the compound is located in an area of low visual amenity that is anticipated to have relatively low user numbers
- selected existing trees within the compound will be retained
- the duration over which the compound will occupy the site is temporary, notwithstanding that it will be for a period of at least 18 months.

The above provides an overall visual impact assessment rating of Moderate to Low (refer Table 8).

Table 8 Impact Grading Matrix for the King Georges Road (south) construction compound

		MAGNITUDE			
		HIGH	MOD	LOW	NEG
SENSITIVITY	HIGH	H	HM	M	N
	MOD	HM	M	ML	N
	LOW	M	ML	L	N
	NEG	N	N	N	N



### *King Georges Road (north)*

#### Existing situation

The construction compound will be located within an open space area left over from the initial M5 Motorway construction (refer Figure 9). The area is flanked to the:

- south by the M5 Motorway
- east by four (4) single storey residences on Allambee Crescent (north) backing onto the area (15-25m from rear wall of residences)
- north by four (4) single storey residences on Burradoo Road backing onto the area (Note: the residence on the corner of Burradoo Road and King Georges Road appears to have an attic room with dormer windows, one of which overlooks the proposed construction compound area). The rear walls of the residences are between 15-30m from the compound boundary.
- west by King Georges Road with residences on the west side of the road looking directly (6 no. between 45-50m from front of residences to compound boundary) or with oblique views (3 no. between 50-60m from front of residences to compound boundary) to the area.

The general environs of the area comprises turf, a large mass planting bed and a semi-formal planting of Canary Island Palms that form the northern arm of the similar gateway planting to the southern corresponding area (as above). As noted above, all adjoining residences back onto the area. The area is screened to views from King Georges Road from the south by an existing high noise wall, and partially screened from the north by Burradoo Road.

Tall, mature trees within the area are limited to trees within adjoining residences or close to the eastern boundary.

#### Proposed upgrade

The compound will adjoin the eastern residential properties backing onto the area, and along the edge of the shared path, and have an approximate site area of 1,000 m<sup>2</sup>. The compound will be used for materials laydown, and will be accessed from King Georges Road via the shared path. Mature trees along the eastern edge of the compound will be retained.

#### Representative observer types / locations

Representative observer types and locations will comprise:

- residents, including:
  - generally limited views over back fences from adjoining residences, with the exception of the residence on the corner of Burradoo Road and King Georges Road that will have a limited view over the compound
  - six (6) residences on the west side of King Georges Road that will look directly onto the compound and a further three (3) that will have close oblique views
- Recreational users of the reserve, including:
  - the shared path
  - potentially, informal kick-about activities
- Motorists on King Georges Road.

### Assessment criteria

The following assessment criteria are relevant:

- Observer type: recreational users and residents will be impacted which are both sensitive observer types
- Number of observers: a small number of residents and potentially small to moderate number of recreational users (particularly re. the shared path) will be impacted by the works. Large numbers of motorists on King Georges Road will see the compound, although it will be seen within the context of the broader construction project
- Duration: the compound will be visible for a period of at least 18 months, with views from motorists on King Georges Road being either fleeting or for short periods while waiting for the lights to change, and peripheral to the road focussed user experience
- Frequency: the compound will be subject to traffic movements up to six (6) days a week over the duration of the construction period.

### Assessment

The sensitivity of the resident observers and recreational users is considered to be Low, given that the area is not readily viewed by large numbers of sensitive observers; the area adjoins King Georges Road; residents looking onto the area from the west do so over King Georges Road; and the area is of relatively low visual amenity that is anticipated to have relatively low recreational user numbers.

The magnitude of change is considered to be Low, given that the compound will not be readily visible from most sensitive observers; the compound is located in an area of low visual amenity that is anticipated to have relatively low user numbers; existing trees along the eastern boundary of the compound will be retained; and the duration over which the compound will occupy the site is temporary, notwithstanding that it will be for a period of at least 18 months.

The above provides an overall visual impact assessment rating of Low (refer Table 9).

Table 9 Impact Grading Matrix for the King Georges Road (north) construction compound

		MAGNITUDE			
		HIGH	MOD	LOW	NEG
SENSITIVITY	HIGH	H	HM	M	N
	MOD	HM	M	ML	N
	LOW	M	ML	L	N
	NEG	N	N	N	N



### *Kirrang Street (south)*

#### Existing situation

The construction compound will be located within an open space area left over from the initial M5 Motorway construction (refer Figure 9). The area is flanked to the:

- south-west by a row of single storey residences facing onto Kirrang Street (residencies between 30-55m from compound boundary), with the side wall of the end residence facing the area (1m off site boundary)
- east by eight (8) predominantly single storey residences facing onto the area (residencies between 25-45m from compound boundary)
- north by a vegetated noise mound with a visually prominent semi-mature tree cover defining the edge of the M5 Motorway (refer Figure 52).

The general environs of the area comprises an open turfed area with low tree planting along the street edge, and limited taller tree planting along the residential edge. A shared path runs broadly east to west along the edge of the M5 Motorway and the northern edge of the subject area.

#### Proposed upgrade

The compound will adjoin the side boundary of the adjoining residential property, and cover virtually the whole space with the exception of the Council verge on Kirrang Street. It will also run along the edge of the shared path. The compound will have an approximate site area of 1,600 m<sup>2</sup>, be used for materials laydown, and accessed from Kirrang Street, via Tallawalla Street, Yarallah Place and Ponyara Road. Mature trees along the south-western edge of the compound will be retained.

#### Representative observer types / locations

Representative observer types and locations will comprise:

- residents, including:
  - views from side windows looking over a low side fence of the adjoining residence
  - views from the front gardens of the eight residences facing onto the area from the cul-de-sac end of Kirrang Street, and also available each time residents leave or enter their premises
- Recreational users of the area, including:
  - the shared path
  - potential informal kick-about activities
- Motorists (local residents) accessing their properties from Kirrang Street.

#### Assessment criteria

The following assessment criteria are relevant:

- Observer type: recreational users and residents will be impacted which are both sensitive observer types
- Number of observers: a small number of residents and potentially low to moderate number of recreational users (particularly re. the shared path) will be impacted by the works.
- Duration: the compound will be visible for a period of at least 18 months
- Frequency: the compound will be subject to traffic movements up to six (6) days a week over the duration of the construction period.



Figure 52 Photograph of the site of the proposed Kirrang Street (south) construction compound in the centre middleground of the photo, looking west along the shared path adjacent to the Motorway

- Context: the compound will be seen within the context of other substantial construction works, specifically the re-profiling of the existing noise mound and addition of a new, tall noise wall.

### Assessment

The sensitivity of the resident observers and recreational users is considered to be High, given that the area is part of a quiet cul-de-sac, associated with a visually pleasant vegetated noise mound and shared path / open space corridor, and is directly over-looked by up to eight (8) residences.

The magnitude of change is considered to be Moderate, given that the compound will be readily visible by most sensitive observers; and the compound will be located within a quiet area of relatively high visual amenity. However, the number of sensitive observers is anticipated to be low to moderate; the scale of the compound is relatively small and will be seen within the context of other works; existing trees within and adjoining the compound will be retained; and the duration over which the compound will occupy the site is temporary, notwithstanding that it will be for a period of at least 18 months.

The above provides an overall visual impact assessment rating of High to Moderate.

Table 10 Impact Grading Matrix for the Kirrang Street (south) construction compound

		MAGNITUDE			
		HIGH	MOD	LOW	NEG
SENSITIVITY	HIGH	H	HM	M	N
	MOD	HM	M	ML	N
	LOW	M	ML	L	N
	NEG	N	N	N	N

### *Elouera Street (east)*

#### Existing situation

The construction compound will be located within an open space area left over from the initial M5 Motorway construction (refer Figure 9). The area is flanked to the:

- south by a shared path and the M5 Motorway (refer Figure 53)
- east by a single storey residence with side windows partially looking over the area (set 1m off side boundary)
- west by single storey residences of which five (5) look directly onto the area (front of residences between 25-35m from compound boundary), and a further three (3) have closely oblique views onto the area (front of residences between 25-45m from compound boundary).

The general environs of the area comprises a quiet cul-de-sac looking onto a shared path, tall noise wall with a narrow screen planting in front of it. The subject area comprises a small, open turfed area with six (6) semi-mature native trees planted over approximately half the total area. The landscape amenity of the area is relatively low.

#### Proposed upgrade

The compound will adjoin the side boundary of the adjoining residential property, and cover virtually the whole space. It will also run along the edge of the shared path. The compound will have an approximate site area of 500 m<sup>2</sup>, be used for materials laydown, and accessed from Elouera Street, via Alkoomie Street and Cooloongatta Road and Moorefields Road via the shared path. The existing trees within the compound will be retained.

#### Representative observer types / locations

Representative observer types and locations will comprise:

- residents, including:
  - partial views from the side windows of the adjoining residence
  - views from the front gardens of the eight residences facing onto the area from the cul-de-sac end of Elouera Street, and also available each time residents leave or enter their premises
- Recreational users of the area, including:
  - the shared path
  - potential informal kick-about activities
- Motorists (local residents) accessing their properties from Elouera Street.

#### Assessment criteria

The following assessment criteria are relevant:

- Observer type: recreational users and residents will be impacted which are both sensitive observer types
- Number of observers: a small number of residents and potentially low to moderate number of recreational users (particularly re. the shared path) will be impacted by the works
- Duration: the compound will be visible for a period of at least 18 months
- Frequency: the compound will be subject to traffic movements up to six (6) days a week over the duration of the construction period.
- Context: the compound will be seen within the context of other substantial construction works, specifically the replacement of the existing noise wall, and potentially of works within the M5 Motorway carriageway and





Figure 53 View of the proposed Elouera Street (east) construction compound site, with the Motorway noise wall to the right of frame

associated elements for a period of some weeks.

### Assessment

The sensitivity of the resident observers and recreational users is considered to be Moderate, given that the area is part of a quiet cul-de-sac, associated with a relatively low level of visual amenity, and is directly over-looked by up to six (6) residences.

The magnitude of change is considered to be Moderate, given that the compound will be readily visible from most sensitive observers; and the compound will be located within a quiet area, but with relatively low visual amenity. However, the number of sensitive observers is anticipated to be low to moderate; the scale of the compound is small and will be seen within the context of other works; existing trees within and adjoining the compound will be retained; and the duration over which the compound will occupy the site is temporary, notwithstanding that it will be for a period of at least 18 months.

The above provides an overall visual impact assessment rating of Moderate (refer Table 11).

Table 11 Impact Grading Matrix for the Elouera Street (east) construction compound

		MAGNITUDE			
		HIGH	MOD	LOW	NEG
SENSITIVITY	HIGH	H	HM	M	N
	MOD	HM	M	ML	N
	LOW	M	ML	L	N
	NEG	N	N	N	N



### *Elouera Street (west)*

#### Existing situation

The construction compound will be located within an open space area left over from the initial M5 Motorway construction (refer Figure 9). The area is flanked to the:

- south by a shared path and the M5 Motorway (refer Figure 54)
- east by a single storey residence adjoining on the side face (approximately 1m off side boundary)
- west by single and double storey residences of which three (3) back onto the area (rear wall of residences between 15-30m from compound boundary).

The general environs of the area comprises a small, triangular and empty pocket of turf flanked by rear and side fences, and a shared path closely abutting a tall noise wall with limited screen planting in front of it. The landscape amenity of the area is low.

#### Proposed upgrade

The compound will take up the whole site. The compound will have an approximate site area of 900 m<sup>2</sup>, be used for materials laydown and amenities, and will be accessed, as with Elouera Street (east), from Elouera Street, via Alkoomie Street and Cooloongatta Road and Moorefields Road via the shared path.

#### Representative observer types / locations

Representative observer types and locations will comprise:

- Residents, some of whom may have partial views into the site
- Recreational users of the area, including:
  - the shared path
  - potential informal kick-about activities.

#### Assessment criteria

The following assessment criteria are relevant:

- Observer type: recreational users will be impacted and residents may be impacted, both of which are sensitive observer types
- Number of observers: a small number of residents and potentially low to moderate number of recreational users (particularly re. the shared path) will be impacted by the works
- Duration: the compound will be visible for a period of at least 18 months
- Frequency: the compound will be subject to traffic movements up to six (6) days a week over the duration of the construction period.
- Context: the compound will be seen within the context of other substantial construction works, specifically the replacement of the existing noise wall, and potentially of works within the M5 Motorway carriageway and associated elements for a period of some weeks.

#### Assessment

The sensitivity of the resident observers and recreational users is considered to be Low, given that the area is of low level of visual amenity, and unlikely to be substantially over-looked by residents.

The magnitude of change is considered to be Low, given that the compound will be located within an area of low visual amenity, with the number of sensitive



Figure 54 View towards the proposed Elouera Street (west) construction compound site, with the Motorway noise wall to the left of frame

observers anticipated to be low to moderate (potentially re. shared path users). The scale of the compound is small and will be seen within the context of other works; and the duration over which the compound will occupy the site is temporary, notwithstanding that it will be for a period of at least 18 months.

The above provides an overall visual impact assessment rating of Low (refer Table 12).

Table 12 Impact Grading Matrix for the Elouera Street (west) construction compound

		MAGNITUDE			
		HIGH	MOD	LOW	NEG
SENSITIVITY	HIGH	H	HM	M	N
	MOD	HM	M	ML	N
	LOW	M	ML	L	N
	NEG	N	N	N	N