4.0 LANDSCAPE CHARACTER IMPACT

4.9 PRECINCT 8: WEST OF MAIN TOLL PLAZA TO HEATHCOTE ROAD

4.9.1 Existing Landscape Character

This section of the Motorway extends from Hammondville Public School in the east, through the residential suburbs of Hammondville to the south and Moorebank in the north, through to Heathcote Road.

The Motorway consists of two lanes in both directions with a grass median. Trees are planted in the median either side of Nuwarra Road and Heathcote Road. West of the toll plaza precinct, the Motorway is edged with wide embankments vegetated with Cumberland Plain Woodland, with a noise wall to the top. From approximately chainage 20400, the noise wall directly adjoins the Motorway on both sides, including on the bridge over Nuwarra Road, until Heathcote Road. Cumberland Plain Woodland vegetation is located between the noise wall and the property boundaries on both sides.

The Heathcote Road interchange contains on and off ramps in both directions, with embankments planted with Cumberland Plain Woodland vegetation.

4.9.2 The Project

The new eastbound and westbound lanes would be located within the existing median. They would be divided by a new concrete safety barrier typically with a 1.2 metre wide paved median on both sides, delineated by line marking. It is proposed to widen the bridge over Nuwarra Road by infilling between the existing eastbound and westbound lanes.

Under Heathcote Road, the existing w-beam guardrails are to be removed and concrete safety barriers would be installed to protect the existing central piers.

It is proposed to enhance the planting at the Heathcote Road interchange to a ‘parkland’ style to differentiate it from the overall bushland character of rest of the corridor.
New noise walls are proposed to infill sections on the southern side of the Motorway near the western end of Fitzgerald Avenue and from the western end of Hammondville Public School. On the northern side of the Motorway, a new noise wall is proposed from near the New Brighton Golf Course clubhouse, west to adjoin the existing wall. The majority of existing noise walls, except the section from the new wall to the Heathcote Road interchange on the southern side, are to be augmented from 0.3 to 1.5 metres for sections on the northern side, and from 0.7 to 2.8 metres for sections on the southern side of the Motorway. The existing noise wall on the southern side between Nuwarra Road and Heathcote Road is to remain at its current height. Small amounts of vegetation will be removed for the five metre clear area during the construction period, predominately at the locations of the new sections of noise wall.

New water quality/detention basins are to be installed within the road reserve, on both the northern and southern sides of the Motorway, immediately east of the Heathcote Road interchange.

New Motorway operations management and control systems (OMCS) conduits and cables are to be installed underground along the entire southern side of the Motorway, typically in the verge of the westbound carriageway. At underpass locations in this precinct (namely, Nuwarra Road) the crossing of the local road/s by the conduits/cables will be achieved by the installation of four galvanised steel conduits fixed to the outside face of the existing southern parapet of the westbound Motorway underpass bridge.

4.9.3 Landscape Character Assessment

Sensitivity

Due to the landscape character of this precinct being predominately a motorway with a grassed median with good groupings of tree plantings at Nuwarra Road and Heathcote Road, as described in 4.9.1, the precinct will have moderate to low sensitivity to the proposed changes.

Magnitude

The proposed upgrade in this precinct accommodates new eastbound and westbound lanes within the existing grassed median. This would increase the paved surface by approximately 25%. Additional line marking modifications would be required, and the existing wire rope barrier would be replaced with a concrete safety barrier. A number of native shrubs and small trees would be removed from the existing median. The installation new noise walls and augmentation of existing noise walls will cause the loss of a small amount of vegetation in some areas, but will have a minimal impact on the existing landscape character. The VMS’s are another element in the landscape and may cause the loss of some shrub and tree planting to provide clear sightlines.

Overall, the qualitative assessment indicates that the magnitude of the proposed upgrade in this precinct would potentially be moderate due to the loss of the grassed median and associated tree and shrub planting.
4.0 LANDSCAPE CHARACTER IMPACT

4.9 PRECINCT 8: WEST OF MAIN TOLL PLAZA TO HEATHCOTE ROAD

*Landscape Character Impact*

The qualitative assessment indicates that the landscape character impact of the proposed upgrade in this precinct is likely to be moderate due to the moderate to low sensitivity to change of the precinct and the moderate magnitude of the works.

<table>
<thead>
<tr>
<th>Precinct 8: West of Main Toll Plaza to Heathcote Road</th>
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</thead>
<tbody>
<tr>
<td>Sensitivity</td>
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<tr>
<td>Magnitude</td>
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<tr>
<td>Landscape Character Impact</td>
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</tbody>
</table>
4.0 LANDSCAPE CHARACTER IMPACT

4.9 PRECINCT 8: WEST OF MAIN TOLL PLAZA TO HEATHCOTE ROAD

Illustration 48:
Precinct 8: Existing situation overlaid with proposed upgrade works. Refer to page 29 for Legend (plan supplied by HBO+EMTB)
4.0 LANDSCAPE CHARACTER IMPACT

4.10 PRECINCT 9: HEATHCOTE ROAD TO MOOREBANK AVENUE

4.10.1 Existing Landscape Character

To the north of the Motorway is the Moorebank industrial area. To the south is the residential area of Brooklands Village and a recent industrial/commercial precinct in Moorebank.

The Motorway character is slightly different in this precinct as it consists of three lanes in both directions. The westbound carriageway travels on a part of the initial section of the Motorway built by the RTA in the mid 1980's and is of concrete construction. A thin grass median separates the carriageways until east of the Moorebank Avenue interchange, where a type F barrier replaces it.

There is a narrow verge of Cumberland Plain Woodland vegetation on both sides of the Motorway. On the southern side, the noise wall sits reasonably close to the carriageway for the length of the Brooklands Village residential area, where it ends. There are no noise walls to the industrial areas. Glimpses of these areas can be had through the trees.

4.10.2 The Project

The new eastbound and westbound lanes would be located within the existing median to provide fours lanes in both directions. They would be divided by a new concrete safety barrier typically with a 1.2 metre wide paved median on both sides, delineated by line marking.

It is proposed to enhance the planting at the Moorebank Avenue interchange to a ‘parkland’ style to differentiate it from the overall bushland character of rest of the corridor.

East of Moorebank Avenue the Motorway reverts back to its existing configuration of three lanes in both directions.

New noise walls are proposed for a short section west of the Heathcote Road interchange, and to adjoin the existing section of wall, that will remain at its
existing height for approximately 250 metres, near Greenhills Avenue west for a distance
of 200 metres, on the southern side of the Motorway. The existing sections of noise wall
on the southern side are to be augmented from 0.3 to 0.6 metres. Significant amounts
of vegetation will be required to be removed to provide a five metre clear area during
construction, on the property side from the Heathcote Road interchange west to Bungonia
crescent, and on the Motorway and property sides for the rest of the noise wall.

One new variable message sign (VMS) is proposed for the westbound carriageway in the
mid section of the precinct.

Immediately west of the Heathcote Road interchange, significant water quality/detention
basin works are proposed on both the southern and northern sides of the Motorway within
the road reserve. Further west, approximately half a kilometre east of Moorebank Avenue,
basin works are proposed on both side of the Motorway within the road reserve.

4.10.3 Landscape Character Assessment

Sensitivity

Due to the landscape character of this precinct being predominately a motorway with a
grassed median, as described in 4.10.1, the precinct will have low sensitivity to the proposed
changes.

Magnitude

The proposed upgrade in this precinct accommodates new eastbound and westbound lanes
within the existing grassed median. This would increase the paved surface by approximately
20%. Additional line marking modifications would be required, and the existing wire rope
barrier will be replaced with a concrete safety barrier. A number of native shrubs and small
trees would be removed from the existing median. The installation of new noise walls
and augmentation of existing noise walls will cause the loss of a significant amount of
existing trees and shrubs and will expose a greater amount of noise wall in this precinct. The
VMS’s are another element in the landscape and may cause the loss of some shrub and tree
planting to provide clear sightlines.

Overall, the qualitative assessment indicates that the magnitude of the proposed upgrade in
this precinct would potentially be high to moderate due to the loss of the grassed median
and associated tree and shrub planting, and other tree and shrub planting to the verges due
to the installation of new, and augmentation of existing noise walls.

Landscape Character Impact

The qualitative assessment indicates that the landscape character impact of the proposed
upgrade in this precinct is likely to be moderate due to the low sensitivity to change of the
precinct and the high to moderate magnitude of the works.

<table>
<thead>
<tr>
<th>Precinct 9: Heathcote Road to Moorebank Avenue</th>
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<tr>
<td>Sensitivity</td>
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<td>Magnitude</td>
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<tr>
<td>Landscape Character Impact</td>
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</table>
4.0 LANDSCAPE CHARACTER IMPACT

4.10 PRECINCT 9: HEATHCOTE ROAD TO MOOREBANK AVENUE
LANDSCAPE CHARACTER IMPACT  4.0

4.10 PRECINCT 9: HEATHCOTE ROAD TO MOOREBANK AVENUE

Illustration 52:
Precinct 9: Existing situation overlaid with proposed upgrade works.
Refer to page 29 for Legend (plan supplied by HBO + EMBT)
4.11 PRECINCT 10: MOOREBANK AVENUE TO HUME HIGHWAY

4.11.1 Existing Landscape Character

The Motorway continues through industrial Moorebank before making a second crossing of the Georges River. West of this are the residential suburbs of Liverpool to the north and Casula to the south.

In this precinct, the Motorway consists of four lanes in both directions, including the twin bridges over the Georges River. West of the river, noise walls sit adjacent to the westbound off ramp to the Hume Highway, and between the Motorway and the residences in Liverpool on the north side.

There are expansive views from the bridge and its approaches, in both directions along the river and to the suburbs of Liverpool and Casula and to the Moorebank industrial area.

4.11.2 The Project

Only minor changes in line marking and to the approaches to the on and off ramps to both Moorebank Avenue and Hume Highway are proposed.

Under the Hume Highway, the existing w-beam guardrails are to be removed and concrete safety barriers would be installed to protect the existing central piers. It is proposed to enhance the planting at the Hume Highway interchange to a ‘parkland’ style to differentiate it from the overall bushland character of the rest of the corridor.

A new infill noise wall is proposed on the northern side of the Motorway between the railway line and the Hume Highway. The two existing sections between the infill wall are to be augmented. The existing wall on the southern side is to be augmented by 3.6 metres. No vegetation is expected to be removed on this side, though the height of the wall will increase substantially. A significant

Illustrations 53 - 55: Character images of the Moorebank Avenue to Hume Highway precinct: view west approaching the Georges River showing concrete safety barrier, view west on the bridge, and view south west to Casula
amount of vegetation is expected to be removed to provide a five metre clear area during the construction of the western half of the new noise wall.

One new variable message sign (VMS) may be provided in the eastbound direction in this precinct.

Water quality/detention basin works are proposed on the northern side of the Motorway, within the road reserve, west of the Georges River. This is to be located between the Motorway and the existing noise wall.

New Motorway operations management and control systems (OMCS) conduits and cables are to be installed underground along the entire southern side of the Motorway, within the road reserve, typically in the verge of the westbound carriageway. In this precinct the crossing of the Georges River (West) by the new OMCS conduits/cables will be achieved by the installation of four galvanised steel conduits fixed to the outside face of the existing southern parapet of the westbound Motorway bridge over the River.

4.11.3 Landscape Character Assessment

Sensitivity

Due to the landscape character of this precinct being predominantly a motorway, as described in 4.11.1, the precinct will have low sensitivity to the proposed changes.

Magnitude

The proposed upgrade in this precinct would not amount to any increase in pavement width. The only visual indicators to the upgrade would be possible line marking modifications and the new VMS’s. The installation of the new noise wall will cause the loss of some existing trees and shrubs and the augmentation of the existing noise wall will substantially increase the amount of wall visible. The proposed sedimentation basin would not be visible to motorists or outside viewers.

Overall, the qualitative assessment indicates that the magnitude of the proposed upgrade would potentially be moderate to low due to the changes taking place, particularly the loss of trees and shrubs due to the installation of the new noise wall, and the substantial increase in height of the existing noise wall.

Landscape Character Impact

The qualitative assessment indicates that the landscape character impact of the proposed upgrade in this precinct is likely to be moderate to low due to the low sensitivity to change of the precinct and the moderate to low magnitude of the works.

<table>
<thead>
<tr>
<th>Precinct 10: Moorebank Avenue to Hume Highway</th>
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<tbody>
<tr>
<td>Sensitivity</td>
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<td>Magnitude</td>
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<td>Landscape Character Impact</td>
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LANDSCAPE CHARACTER IMPACT 4.0

4.11 PRECINCT 10: MOOREBANK AVENUE TO HUME HIGHWAY

Illustration 56:
Precinct 10: Existing situation overlaid with proposed upgrade works. Refer to page 29 for Legend (plan supplied by HBO+EMTB)
4.12 PRECINCT 11: HUME HIGHWAY TO BEECH ROAD

4.12.1 Existing Landscape Character

The adjoining landuse in this precinct is entirely residential, including the suburbs of Casula to the south east and Lurnea and Prestons to the north west. The Motorway returns to two lanes in both directions with a grass median. There are small groupings of scattered shrubs in the median, with tree planting at De Meyrick Avenue and Kurrajong Road. Wide verges with Cumberland Plain Woodland is located west of the Hume Highway. 250 metres west of this intersection, the noise wall abuts the carriageways for the next 300 metres. On the eastern side, a large area of land is currently being used for the storage of roadside refuse, and is proposed for a future service centre. On the western side is a large embankment vegetated with Cumberland Plain Woodland through to Kurrajong Road with a section of noise wall abutting the carriageway, either side of De Meyrick Avenue. On the eastern side, the noise wall abuts the carriageway from Graham Avenue to Kurrajong Road. Cumberland Plain Woodland vegetation sits behind the wall and the residential property boundaries. The remaining section of the precinct is quite open with wide, sparsely vegetated embankments to the approaches to the M7 interchange. There are a number of existing sedimentation basins in this precinct. These are unseen from the Motorway.

4.12.2 The Project

It is proposed to infill the existing grass median to accommodate the new eastbound and westbound lanes. The lanes would be separated by a concrete safety barrier typically with a 1.2 metre wide paved median, delineated by line marking.

The bridge over De Meyrick Avenue would be infilled to accommodate the new

Illustrations 57 - 59:
Character images of the Hume Highway to Beech Road precinct: view west from the western side of the Hume Highway, wide vegetated embankments, wide verges adjacent to the eastbound carriageway
4.12.3 Landscape Character Assessment

**Sensitivity**

Due to the landscape character of this precinct being predominately a motorway with a grassed median with good groupings of tree and shrub planting, as described in 4.12.1, the precinct will have moderate sensitivity to the proposed changes.

**Magnitude**

The proposed upgrade in this precinct accommodates new eastbound and westbound lanes within the existing grassed median. This would increase the paved surface by approximately 25%. Additional line marking modifications would be required, and the existing wire rope barrier would be replaced with a concrete safety barrier. A number of native shrubs and small trees would be removed from the existing median. The infill of the De Meyrick Avenue bridge would have minor overshadowing effects. The installation of new noise walls and augmentation of existing noise walls will cause the loss of a significant amount of existing trees and shrubs, and minor losses to a large section of the precinct. This will expose a greater amount of noise wall in these locations. The VMS is another element in the landscape and may cause the loss of some shrub and tree planting to provide clear sightlines. The sedimentation basins are unlikely to be visible.
4.0 LANDSCAPE CHARACTER IMPACT

4.12 PRECINCT 11: HUME HIGHWAY TO BEECH ROAD

Overall, the qualitative assessment indicates that the magnitude of the proposed upgrade in this precinct would potentially be high to moderate due to the loss of the grassed median and associated tree and shrub planting, and other tree and shrub planting to the verges due to the installation of new, and augmentation of existing noise walls.

Landscape Character Impact

The qualitative assessment indicates that the landscape character impact of the proposed upgrade in this precinct is likely to be high to moderate due to the moderate sensitivity to change of the precinct and the high to moderate magnitude of the works.

<table>
<thead>
<tr>
<th>Precinct 11: Hume Highway to Beech Road</th>
<th>Sensitivity</th>
<th>Moderate</th>
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<tbody>
<tr>
<td>Magnitude</td>
<td>High to Moderate</td>
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<tr>
<td>Landscape Character Impact</td>
<td>High to Moderate</td>
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</tbody>
</table>
4.12 PRECINCT 11: HUME HIGHWAY TO BEECH ROAD

Illustration 60:
Precinct 11: Existing situation overlaid with proposed upgrade works. Refer to page 29 for Legend (plan supplied HBO+EMTB)