Landscape Character And Visual Impact Assessment

Proposed Campbelltown Road Upgrade

Between Camden Valley Way and Brooks Road

Final Draft

For
Roads and Maritime Services of New South Wales
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ARCHITECTURE
URBAN DESIGN
LANDSCAPE
EXHIBITIONS
INTERIORS
Figure 1 - Campbelltown Road context and Extent of Study Area
Campbelltown Road is a principal arterial road in South Western Sydney. It will be one of the main roads servicing the South West Growth Centre of the Sydney Metropolitan Area. The South West Growth Centre, along with the North West Growth Centre, has been identified as a key area for development in greater Sydney. The Growth Centres will include residential areas, employment zones and transport infrastructure.

Campbelltown Road will be upgraded to accommodate the anticipated increased traffic flows resulting from the development set to occur in this area.

The subject of this study is the section of Campbelltown Road between Camden Valley Way and Brooks Road. This section of road is approximately 5.4km long and lies on the boundary between Campbelltown and Liverpool City Council areas. (Refer to Figure 1 for the extent of the study area). A large portion of this road runs through the centre of the proposed major development site of Edmondson Park South. Refer Figure 2.

The proposed upgrade will incorporate a shared path beside the north-bound carriageway between Camden Valley Way and Brooks Road. A path will be constructed beside the south-bound carriageway for the majority of the road upgrade. An informal on-road cycleway will also be included.

The proposed upgrade of Campbelltown Road has been the subject of a number studies and reports including, but not limited to:

- Preliminary Environmental Investigation Campbelltown Road Upgrade – The Cross Roads to Leumeah (January, 2011) by Stuart J. Hill
- Campbelltown Road Urban Design Strategy (May 2005) by Johnson Pilton Walker for the RTA
- Campbelltown Road Corridor Strategy – Urban design Overall Strategy (June 2010) by the RTA
- Campbelltown Road Corridor Urban Strategy – Urban Design Analysis (June 2010) by the RTA

JPW has been appointed by Roads and Maritime Service (RMS) to work in conjunction with the RMS project team, to take these strategies to the next level, focusing on the study area.

METHODOLOGY

The purpose of this report is to inform the Review of Environmental Factors (REF) currently under preparation for the proposal.

This study will describe the landscape character of the existing corridor by dividing the study area into landscape precincts. An assessment of the impact of the proposed upgraded road upon the landscape character precincts was then prepared.

Section 2 is an analysis of the landscape character and the nominated precincts. The impacts upon the landscape character are then assessed.

Section 3 & 4 describe the visual impacts of the proposed road upgrade.

Section 5 outlines the urban design principles.

Section 6 describes mitigation strategies to reduce the impacts of the proposed upgrade.

This study has been carried out in accordance with the RMS Environmental Impact Assessment Guidance Note: Guidelines for landscape character and visual impact assessment.

Upon completion of the impact assessments, opportunities and constraints were assessed as a precursor to develop a strategic concept design for this section of the road corridor. Opportunities and likely sites for quality urban design and landscape works have been identified. Design strategies have been devised for the study area and will inform the detailed design.

This study has been based on the RMS concept design drawings received on 22.05.2012 and cross sections dated 01.08.2012.

The proposed road upgrade essentially follows the existing road alignment. The proposal would increase the road from an existing 2-lane carriageway to a 4 to 6-lane carriageway with a wide central median. This will also require some grade changes along the corridor.

It is understood that construction works and temporary work related to the construction will have impacts on the site beyond what is indicated on the concept design. It is anticipated that these temporary works will be controlled and minimised by RMS to reduce the impact on the landscape.

The proposed upgrade road design incorporates three bridges – one over the South Western Freeway (MS) and two minor bridges over a tributary for Maxwells Creek.
2.0 CONTEXTUAL ANALYSIS

2.1 Landscape Character Analysis

Existing Character

The majority of the existing road corridor could generally be described as a semi-rural landscape.

The Campbelltown Road Corridor Urban Strategy – Urban Design Analysis (June 2013) by then RTA identified a number of broad landscape character precincts along the entire length of Campbelltown Road. Three of these precincts fall within the study area. These are:

- Tree Lined Road: Corridor tree effect along road;
- Large Estates: large properties and large houses, generating low traffic volumes; and
- Proposed residential: housing estates, housing, high potential traffic generator.

These broad landscape character precincts still generally apply, though they are broken down further in order to describe the road corridor in more detail for this study.

When approaching Campbelltown Road from the north, via the Hume Highway, the landscape character of the study area is distinctly different from that of the Hume Highway. Road users leave a low-rise mixed use zone of residential and businesses, which hug the side of a six-lane highway and enter a semi-rural landscape where grasslands and trees dominate the land.

The change in landscape character upon entering Campbelltown Road is a sense of leaving the built up area and entering a semi-rural zone, though this is rapidly changing.

Topography

The northern entry to Campbelltown Road is at an elevated position with views across a shallow valley extending to where Campbelltown Road crosses the South Western Freeway. From this point, the road drops approximately 15m in elevation into a shallow basin. As it approaches the Southwestern (SW) Freeway it rises approximately 5m to the bridge that crosses the Freeway. The road drops momentarily but begins to rise again and continues to rise up to about 40m above the valley floor, just beyond Zouch Road. This is the highest point of the road profile, elevated approximately 26 metres above the entry point of Campbelltown Road. Beyond this, the road falls slightly before rising up to meet Denham Court Road. The transition zone between Denham Court Road and Brooks Road is generally flat or gently sloping.

The landform immediately adjacent the carriageway is essentially level with the road, with the exception of batters associated with the SW Freeway overpass and a few minor batters along the corridor.

Flood prone land

The northern side of Campbelltown Road through the shallow valley between the SW Freeway and Lawson Road is flood prone land. This is associated with the Maxwell Creek tributary, which ultimately drains to the Georges River. (PEI, Stuart J. Hill, 2011).

Vegetation

The dominant vegetation within the site is native trees, Eucalypts, that are either naturally occurring or have been planted. More than 80% of the existing road corridor is tree lined.

The naturally occurring Swamp Oak Floodplain Forest which exists in the shallow valley is an endangered ecological community. The Cumberland Plain Woodlands which occur in pockets throughout road corridor is a critically endangered ecological community (PEI, Stuart J. Hill, 2011).

Campbelltown Road Upgrade—Biodiversity Assessment: Summary prepared by Hyder Consulting also identifies the River Flat Eucalypt Forest.

Soils

The majority of the soils within the study area are Wianamatta shales of the Liverpool subgroup, primarily Ashfield Shales and Minchinbury Sandstone (PEI, Stuart J. Hill, 2011).

Alluvial soils occur in the flood prone areas of the shallow valley.

The differing soil types present along the site effect the landscape character as they correlate with the vegetation community type and variation.

Land use

A consolidated land use map has been prepared incorporating the land use zones proposed for Edmondson Park. Refer Figure 3. This zoning, however, does not reflect the current land use pattern of the study area.

Heritage

The proposed Campbelltown Road upgrade contains heritage items such as:

- the Denham Court House and Chapel (built c. 1820s-1830s) at Lot 392 (DP 564854) this item is listed on the State Heritage Register;
- the Ingleburn Military Heritage Precinct (Bardia Barracks); and
- Mont St Quentin Oval and Entry Gates.

The Bardia Barracks, Oval and Entry Gates are considered to be of high heritage significance and have been recommended for listing on the State Heritage Register.

Milestones along Campbelltown Road are listed in the Campbelltown LEP 2008. The Liverpool LEP also lists Milestones in various locations along Campbelltown Road, some of which are located within the study area.

A site visit identified a road side tribute along the road corridor. This would need to be considered in the urban design of the upgraded road.

Further information on Heritage items is provided in the Non-Aboriginal Heritage Assessment and Statement of Heritage Impacts, 2013, prepared by Atefact Heritage for this project.

Circulation

The study area of Campbelltown Road is predominantly a vehicular corridor. Along the entire corridor, there are no formalised pedestrian paths, except for a small section between Beech Road and the Cross Roads Hotel car park entrance (near the corner of Camden Valley Way). A dedicated cycleway exists along the northern side of Campbelltown Road carriageway, between Camden Valley Way and just east of Lawson Road. This is part of the Campbelltown City Cycleway Network Map – North Zone (September, 2009). An extension of this cycleway is proposed for the remainder of the proposed Campbelltown Road upgrade.

The lack of pedestrian paths renders the road corridor somewhat inhospitable. At the time of the preparation of this report, the absence of pedestrian paths outside the residential development sites was noted, though extensive path systems exist within the development sites.

The proposed upgrade will incorporate a shared path beside the north-bound carriageway between Camden Valley Way and Brooks Road. A shared path will be constructed beside the south-bound carriageway for the majority of the road upgrade. An informal on-road cycleway will also be included.

Further information on Heritage items is provided in the Non-Aboriginal Heritage Assessment and Statement of Heritage Impacts, 2013, prepared by Atefact Heritage for this project.

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2.2 LANDSCAPE CHARACTER PRECINCTS

A journey through the site will encounter a number of different landscape character precincts. These landscape character precincts have been described below. Their locations are indicated in Figure 4.

Figure 4 - Landscape Character Precincts
LANDSCAPE CHARACTER PRECINCT 1  
Open, Elevated Entry Precinct

A road user beginning the journey from the northern end, at the intersection of Camden Valley Way leading to the Hume Hwy, leaves a low-rise, mixed use residential/business zone, which line the side of a six-lane carriageway.

Upon entering Campbelltown Road the landscape to the west is open and somewhat barren across the Cross Roads Hotel bitumen and tree-less car park. The road carriageway through this precinct is a minimum of six lanes wide.

To the east of the road, residential estates are being developed. This land will be developed into suburban density residential blocks similar to what is currently occurring south of Glenfield Road. This precinct will then be less distinctive from Landscape Character Precinct 2.

Land use
Land zoning in this area is under the category of enterprise corridor (according to the Liverpool LEP) and business development at the entry point to Campbelltown Road, which encourages mixed use development, includes home based businesses. The land use zone then changes to residential on the south-eastern side of the road.

Views
The views along the Hume Highway and Camden Valley Way are generally limited as these carriageways follows the ridge-line and distant views are obscured by the planting and buildings. Once the road user turns into Campbelltown Road, the landscape opens up revealing distant views to a tree-lined horizon.

The elevated position of Campbelltown Road overlooks a shallow valley where the view envelope is limited to the low ridge-line that encloses the valley to the south-east, and the road-side planting to the north-west.

LANDSCAPE CHARACTER PRECINCT 2  
Shallow Valley Precinct/Residential

Moving out of the Open, Elevated Entry Precinct the experience is one of the landform sinking into a shallow bowl or valley – the Shallow Valley Precinct/Residential. The six-lane road corridor travels through the base of the shallow valley.

To the south-east of Campbelltown Road, new residential estates are under construction. These have replaced semi-rural lands that have been cleared. These buildings are generally detached double storey houses on blocks of approx 450sqm, constructed of similar materials – pale rendered walls, dark grey roof tiles with occasional brick highlights. These consistent materials and built forms tend to create a bland monotonous landscape. The introduction of trees over time will help to break up and add interest to the landscape.

This residential estate is separated from Campbelltown Road by a palisade fence; however the homes are visible due to the gently rising landform of the valley.

This precinct incorporates a service station which is also a rest-stop for truck drivers.

Land use
This precinct is zoned 2(b) Residential B under the Liverpool LEP, which allows for low-rise detached and multi-dwelling housing, as well as community facilities and other related uses.

Views
The view envelope for the precinct is contained within the shallow valley of this precinct. The horizon visible from the road to the south-east is lined with houses.
LANDSCAPE CHARACTER PRECINCT 3
Shallow Valley Precinct/ Tree-lined Mixed Use

The north-western side of Campbelltown Road, through the shallow valley is enclosed by low batters planted with Eucalyptus trees that screen long warehouse-like walls of the Mixed Use zone.

The six-lane road is tree-lined predominantly with Eucalypts. This tree planting generally continues along the north-west side of the road until the intersection with Beech Road.

Land use
The land use of this precinct is Business Development to the north-west just south of Camden Valley Way. The land use in this precinct is generally characterised by large scale retail outlets of the Homemaker genre.

Views
Views within this precinct are limited and generally contained by the road-side planting. Views to and from Campbelltown Road, beyond the planting, are limited to the side streets that enter Campbelltown Road.

LANDSCAPE CHARACTER PRECINCT 4
Grassed Paddocks

The existing landform around Beech Road is flat, grassed sites that are awaiting development to the north-west and school paddocks forming part of the Hurlstone Agricultural High School lands to the south-east.

The road carriageway narrows from 6 lanes to 4 lanes in this precinct, ultimately narrowing down to two lanes to cross the SW Freeway.

The landform of the roadway gently rises to meet the bridge that crosses the SW Freeway. The exit ramp also rises and disappears beyond the low ridge line that encloses the valley. Scattered trees dot the landscape of the Hurlstone Agricultural High School paddocks while denser trees and shrubs line the road closer to the SW freeway on ramp and corridor.

Large transmission towers and power lines cut across this Precinct, continuing on beyond the horizon.

Land use
The area to the north-west of the road, between Campbelltown Road and the SW Freeway is zoned 'Heavy Industrial' under the Liverpool LEP, however this site is yet to be developed.

To the south-east, it is zoned '5(a) Special Use – Schools' under the Campbelltown LEP.

Views
The western views open up across flat grassed development blocks and are terminated by screen planting of the SW Freeway corridor. To the east they terminate along the low ridge that defines the shallow valley. To the south, the views are confined by the land rising with the road carriageway to the bridge that crosses the SW Freeway corridor. To the north, views are confined to the Hume Highway/Camden Valley Way ridge line.
LANDSCAPE CHARACTER PRECINCT 5
Alluvial Woodland / Tree-lined Corridor

The bridge that crosses the SW Freeway is like a gateway to the next landscape character precinct. The landform drops away from the overbridge to the floodplain zone. This flood prone land is the overflow zone for the Maxwell Creek tributary. This tributary runs through the woodland on both sides of the road. It currently runs under Campbelltown Road through a box culvert.

Tree planting to both sides of the road give appearance of a heavily vegetated landscape – a ‘bush’ landscape. The majority of this Precinct lies to the north of Campbelltown Road, extending to the south side of the road, and occupying both sides beyond the South West Rail Link (SWRL) corridor.

The tree-lined corridor creates the feeling of a ‘green tunnel’, evoking a sense of being in a bushland area.

The tree-lined corridor extends beyond Landscape Character Precinct 5 and into Landscape Character Precinct 7. To the road user, the character of these two zones is essentially the same, as the ‘green tunnel’ continues until Zouch Road.

Precinct 5 comprises the Cumberland Plain Woodland, which has critically endangered status under the Threatened Species Conservation (TSC) Act. It also contains River Flat Eucalypt Forest which is endangered under the TSC Act according to the Campbelltown Road Upgrade—Biodiversity Assessment: Summary, 2013, prepared by Hyder Consulting.

The character of the carriageway through this precinct also changes. East of the SW Freeway, the road becomes kerb-less with gravel shoulders, displaying characteristics of a rural road. The majority of the precinct consists of a 2 lane carriageway.

Land use
The majority of this area is zoned ‘E1 Environmental Protection – National Parks and Nature Reserves’. There are also small areas of Public Recreation.

The new South West Rail Link cuts through this Precinct. The construction of the railway will have an impact on this portion of the road, however this does not form part of the current assessment.

Views
From the road user’s view, the view catchment narrows as Campbelltown Road runs through the floodplain. The view envelope is restricted by the vegetation through this precinct, creating a green corridor.

LANDSCAPE CHARACTER PRECINCT 6
Ingleburn Gardens Drive/ Medium Density Residential (development site)

A very distinctly different landscape character to the Alluvial Woodlands, Precinct 6 is a suburban development with higher densities than single dwellings, and few trees. This precinct is currently under development.

Existing built forms include town houses as well as single and double storey detached houses on suburban sized blocks. The built forms are not as uniform in design and materials as Precinct 2, however, masonry and rendered walls dominate the material palette.

Few trees currently exist within this precinct though it is anticipated that trees will be part of the development and will soften the built forms over time.

This precinct is separated from the kerb-less 2-laned Campbelltown Road by a wall constructed from brick pillars and timber panels.

Land use
This site is zoned as 2(c) Higher Density Residential development under the Campbelltown Council LEP. This is equivalent to R3 Medium Density Residential under the SEPP (Exempt and Complying Developments) 2008. This zoning classification “makes provisions for land to be used for housing and a range of associated uses; permits a range of housing types, with identified density standards; and encourages the provision of a variety of housing types that are higher in density than traditional dwelling houses within locations that are accessible to public transport, employment and retail, commercial and service facilities”. Campbelltown (Urban Area), Local Environmental Plan 2002 (Amendment No 12).

As a result of this classification, it is expected that multi-dwellings such as villas, possibly low-rise units, duplexes and the like will be constructed in this area.

Views
The boundary wall limits views into and out of the residential estate from Campbelltown Road. The road is visible only from properties along the first 200-300 metres of Ingleburn Gardens Road.
LANDSCAPE CHARACTER PRECINCT 7

Enclosed Tree-lined Corridor

The character of this Precinct is largely of a tree-lined corridor which, to the road user, is an extension of Precinct 5. This 'green tunnel' extends from the site of the rail corridor to Zouch Road, with few breaks. One of the breaks includes the Ingleburn Military Heritage Precinct and Mont St Quentin Oval and Entry Gates.

The kerb-less 2-laned road gently winds and rises through this Eucalypt lined landscape to the top of the hill near the newly constructed water tower, where it opens up to a landscape of large residential estates.

The Arborist report prepared by Footprint Green dated 24 January, 2013, indicates that there are 47 trees of high landscape significance or very high landscape significance within the proposed road corridor, between the Ingleburn Military Precinct entrance and Zouch Road.

Land use

Previously zoned as Defence Land, Precinct 7 comprises B4 Mixed Use, R1 General Residential (similar to 2(b) Residential), Public Recreation and E1 National Parks and Nature Reserve.

The land zoned B4 Mixed Use under the SEPP (Major Development) 2005 Edmondson Park South Land Zoning Map, will “integrate suitable business, office, residential, retail and other development in accessible locations so as to maximise public transport patronage and encourage walking and cycling.” (www.planning.nsw.gov.au, viewed 2 April 2012).

Views

Views from within the corridor are generally limited to the tree planting along the edge of the road. Glimpses beyond the tree planting are seen, however the trees in the foreground tend to dominate the views, particularly from a driver’s perspective.

LANDSCAPE CHARACTER PRECINCT 8

Elevated Large Estates

This precinct primarily consists of large residential properties of approximately 1 to 2 hectares (ha). These are often large single or double storey homes surrounded by extensive lawn areas with scattered tree planting. The majority of these properties have transparent fences along the front boundary.

The built form of each property is unique. The material of choice is brick or rendered masonry and tiled roofs.

The plant material is a mix of exotics and native planting. The tree-lined roads have vanished and the majority of the vegetation is found within the property boundaries.

The Arborist report prepared by Footprint Green dated 24 January, 2013, indicates 17 trees that are of high landscape significance or very high landscape significance within the proposed road corridor between Denham Court House and Denham Court Road.

This precinct sits on the top of a hill and is the highest elevation of the study area. The kerb-less 2-laned road tends to follow the ridge line through this precinct.

Land use

This precinct is zoned ‘7(d5) Environmental Protection 1 ha minimum’ under the Campbelltown LEP and ‘RU2 Rural Landscape’ under the Liverpool LEP. Both of these land use zones require a minimum lot size of 1 ha, with the objective of retaining the rural character of the area.

Views

Though the road tends to follow the ridge line, views beyond the large estates are difficult due to tree planting and built forms. This also means that views to the road corridor from beyond the immediate properties are also unlikely.

As the majority of the existing front boundary fences are transparent to a degree, views to and from the immediate adjacent properties to the road are common.

Views open up between Denham Court Road and Brooks Road. Views to the west of Campbelltown Road overlook the rolling landscapes of the large estates (refer Figure 19).
2.3 LANDSCAPE CHARACTER IMPACT

ASSESSMENT

The Landscape Character Impact assesses the magnitude of the proposal against the sensitivity of the Landscape Character Precinct, without mitigating measures being applied.

“Sensitivity refers to how sensitive the character of the setting is to the proposed change.” (RMS 2011)

Magnitude refers to the level of intrusion of the proposal within the existing landscape due to factors such as scale and extent of earthworks required to implement the proposal.

Figure 20 has been replicated from the RMS document ‘EIA-N04: Guidelines for Landscape Character and Visual Impact Assessment’ (Reviewed March 2011), and will be used to determine the impact of the proposal upon each landscape character precinct.

Precinct 1 has been rated as having a LOW sensitivity to the proposal due to the:
- existing width of the road corridor being similar to the proposal;
- absence of trees that would be required to be removed along the road corridor;
- open nature of the landscape.

The magnitude of the proposal in this precinct is also considered to be LOW as the proposal:
- would not greatly impact on the existing landscape;
- - is similar to the existing road layout, though it requires additional width in the overall road corridor to incorporate the shared and pedestrian paths. Consequently, steeper batters are required to both sides of the road corridor - cut batters to the north west and fill batters to the south east.

Landscape Character Impact for Landscape Character (LC) Precinct 1 is, therefore, LOW.

Future Development Implications
The current zoning within Precinct 1 will see its character change over time. This Precinct will ultimately be built up with increased business and residential development.

Figure 21 - Precinct 1 – Open, Elevated Entry Precinct
Precinct 2 has been rated as having a LOW sensitivity to the proposal due to:
- the built up nature of the residential development;
- existing width of the road corridor being similar to the proposal;
- minimal number of trees that would be required to be removed;
- general disconnection to the existing road corridor for a large portion of this precinct due to the construction of a wall along the Campbelltown Road boundary; the service station, however, has a closer relationship with the road – immediate entry and exit from Campbelltown Road.

The magnitude of the proposal in this precinct is considered to be MODERATE-LOW as the proposal would:
- impact on the existing batter that screens the service station - the new road alignment and adjoining batter will remove the existing planting and will cut into the service station property and its existing hardstand area;
- generally maintain the same road carriageway width, however, will require additional width in the overall road corridor to incorporate the shared and pedestrian paths.

Landscape Character Impact for LC Precinct 2 is, therefore, MODERATE-LOW, as it will have some impact on the existing landscape.

**Future Development Implications**
The land use zoning for Precinct 2 will ultimately see the precinct as a built up residential area where the boundary fence will divide the residential estate from the road. Mitigating measures that reduce the need for noise walls (where possible) would be considered in the detailed design. The focus of the residential development will not be Campbelltown Road, but the internal circulation of the residential estate.

Precinct 3 has been rated as having a LOW sensitivity to the proposal due to:
- existing width of the road corridor being similar to the proposal;
- lack of 'front door' address to Campbelltown Road.

The magnitude of the proposal in this precinct is considered to be MODERATE as the proposal would:
- require some impact on the existing landscape – a portion of the proposed road alignment will be slightly elevated above the existing levels;
- impact on the existing batter which will impact on existing trees.
- require additional width in the overall road corridor to incorporate the shared and pedestrian paths, which will impact on existing trees.
- require a portion of screen planting to be removed from the planted batter;
- widen the existing road carriageway near Beech Road.

Landscape Character Impact for LC Precinct 3 is, therefore, MODERATE-LOW. The buffer planting along Campbelltown Road within the precinct would be retained wherever possible. Mitigating measures would be implemented to minimise the removal of trees. If the removal of trees is required – reinstatement of trees should be incorporated in the detailed design where possible.

Batters would be minimised where possible and feathered into the adjoining landform to minimise the impact of level changes.

**Future Development Implications**
The Business Development zone will continue in Precinct 3, though it is not expected to greatly alter the Precinct’s character along the road corridor.
### IMPACT ON LANDSCAPE CHARACTER PRECINCT 4 – GRASSED PADDOCKS

Precinct 4 has been rated as having MODERATE TO LOW sensitivity to the proposal due to the:
- open nature of the landscape
- existing width of the road corridor being similar to the proposal for a portion of the precinct;
- existing trees that would be required to be removed.

The magnitude of the proposal in this precinct is considered to be MODERATE as the proposal would:
- have some impact on the existing landscape due to the wider road corridor required for the bridge duplication over the SW Freeway;
- have an elevated road alignment of up to four metres above the existing ground level;
- require the removal of existing trees;
- require additional width in the overall road corridor to incorporate the new overbridge and shared path.

Landscape Character Impact for LC Precinct 4 is, therefore, MODERATE.

#### Future Development Implications

Although Precinct 4 is currently a relatively uniform landscape character type (grassed paddocks with edge tree planting), the land use zoning on opposite sides of Campbelltown Road differ. The north-western side is zoned industrial and this will ultimately be an industrial area – most likely with warehouse style buildings, whilst the other side will remain school property. The built up nature of the industrial estate would not be compromised by the possible upgrade to a six lane road way. The batters shown in the road concept plan would need to be addressed in the detailed design to mitigate their impact.

### IMPACT ON LANDSCAPE CHARACTER PRECINCT 5 – ALLUVIAL WOODLAND/TREE-LINED CORRIDOR

Precinct 5 has been rated as having HIGH TO MODERATE sensitivity to the proposal due to the existing endangered vegetation communities are found in this precinct.

The magnitude of the proposal in this precinct is considered to be HIGH TO MODERATE as the proposal would have an impact on the existing landscape due to the:
- removal of a number of existing trees;
- the changes to the Environmental Protection Zone
- widening of the road corridor to more than twice the existing width;
- 9m high batter required for bridge duplication over the SW Freeway;
- 2.3m elevated road alignment above existing levels and associated batters;
- extension of the bridge for the creek to flow under the road corridor

Landscape Character Impact for LC Precinct 5 is, therefore, MODERATE-HIGH. Minimising the impact of the batters wherever possible, will need to be part of the mitigating measures to be considered in the detailed design. Extensive tree planting will also need to be included in the final design.

#### Future Development Implications

Precinct 5 will be impacted by 4 future developments, they are:
- the upgrade of Campbelltown Road
- the SWRL and overbridge
- the expansion of residential development
- the duplication of the SW Freeway overpass.

The road corridor, as mentioned above, will double in width, potentially removing a large number of trees.
Precinct 6 has been rated as having MODERATE TO LOW sensitivity to the proposal due to:
- absence of trees that would be required to be removed;
- the built up nature of the residential development;
- relatively narrow existing width of the road corridor.

The magnitude of the proposal in this precinct is considered to be LOW as the proposal will not greatly impact on the existing landscape due to the minimal interaction with the existing road corridor. An existing boundary wall along the boundary between Campbelltown Road and the residential sub-division disconnects the two.

Therefore the Landscape Character Impact for LC Precinct 6 is MODERATE-LOW.

Future Development Implications
The Ingleburn Gardens Estate that makes up Precinct 6 will continue to expand, however this will not alter the character of the Precinct relative to Campbelltown Road. The residential estate will not focus on Campbelltown Road but on internal spaces and circulation.

Precinct 7 has been rated as having HIGH TO MODERATE sensitivity to the proposal due to:
- the visually continuous line of trees along the road side;
- the rural character of the landscape;
- presence of heritage items.

The magnitude of the proposal in this precinct is also considered to be HIGH TO MODERATE as the proposal will:
- have an impact on the tree-lined corridor - trees will require removal through this precinct to accommodate the wider road corridor;
- impact on the rural character of the precinct – the proposal is more than twice the width of the existing road corridor;
- impact the heritage oval resulting from the altered road alignment.

Landscape Character Impact for LC Precinct 7 is, therefore, MODERATE-HIGH.

Future Development Implications
The new zoning for Edmundson Park South Precinct heavily impacts on the character of Precinct 7. The Mixed Use and Residential Zoning would alter the character of the landscape adjacent to the road corridor, which is currently dominated by open woodland and grassed paddocks, behind the tree-lined road corridor.

The detailed design plan would need to address opportunities to re-establish trees through this precinct to replace trees that will be removed as part of the road upgrade.
Precinct 8 has been rated as having a MODERATE sensitivity to the proposal due to:
- this precinct being zoned as ‘Environmental Protection’;
- the semi-rural character of the precinct with its gentle, meandering two lane rural road.

The magnitude of the proposal in this precinct is considered to be HIGH TO MODERATE as the proposal will:
- have an impact on the existing landscape,
- more than double the width of the existing road corridor,
- require the removal of some existing large trees within the properties and along the road side,
- reduce the size of some residential properties, including Denham Court House which is listed as a heritage item on Local and State Heritage registers,
- produce cut batters up to 2m to the eastern side, and fill batters of up to 2m on the western side.

Therefore the Landscape Character Impact for LC Precinct 8 is **MODERATE-HIGH**.

**Future Development Implications**

The land use zoning for Precinct 8 remains the same, therefore the landscape character of the adjacent large residential estates will generally remain the same as it is currently.

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**CONCLUSION**

The landscape character impact of the proposed Campbelltown Road upgrade, between Camden Valley Way and Brooks Road, ranges from LOW to MODERATE-HIGH with an overall average of **MODERATE**.

Generally, the Landscape Character Precincts that currently have a six-lane carriageway is rated as having a LOW or MODERATE-LOW Impact (Precincts 1-3). All other areas where the carriageway is predominantly 2-lane, the impacts are rated as MODERATE to MODERATE-HIGH (Precincts 4-8). These ratings are essentially due to the character of the road corridor changing from a rural/semi-rural scale to a highway style profile. The road widening requires the clearing of the vegetation that creates the ‘genius loci’ (sense of place) of Campbelltown Road. Cut and fill required for the road works also impacts upon the landscape through landform modification and additional clearing of vegetation. Temporary works such as basins and cut of drains above batters need to be minimised wherever possible to reduce the overall impact on the site.

The Detailed Design would address the following issues to mitigate the impacts of the Campbelltown Road Upgrade, such as:
- grading of batters;
- retaining existing trees wherever possible;
- re-planting wherever practical; and
- screening through planting or other appropriate methods, such as mounding and fencing.

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**Figure 28 - Landscape Character Matrix for Landscape Character Precinct 8 – Elevated Large Estates**

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3.0 VISUAL IMPACT ASSESSMENT

The true visual catchment area of the Campbelltown Road study area is somewhat limited due to the landform, vegetation and built elements that exist along the road corridor. The view catchment for the majority of the project site is generally contained within the road corridor. There are some properties that have views onto portions of the road corridor; however, the visual impacts of the proposal would be mostly from within the corridor itself, rather than “key view points”. This Visual Impact Assessment is based upon the landscape character precincts as the landscape character and visual aesthetic are inextricably linked. This also provides continuity and clarity for the purpose of this report.

The key view points within the road corridor are from the driver’s perspective.

The Visual Impact Assessment is based on existing conditions and the impact of the proposal. It does not take into consideration the impact of future alterations resulting from development and mitigating strategies.

Generally, the largest impact would be the removal of trees along the road corridor – this alters the landscape character as well as the visual aesthetic of the road corridor.

Figure 29 shows the theoretical visual catchment or the Visual Envelope Map (VEM) according to topographic information – however this does not reflect the true VEM of the study area. The road corridor is screened from many potential view points by trees, buildings and screen planting.
The Visual Impact of the proposed road upgrade on Precinct 1 is considered to be NEGLIGIBLE. The proposed road corridor is similar to the existing road corridor and consequently, the visual impact would be minimal within this precinct.

As this precinct is in an elevated position, the views from this precinct overlook the shallow valley to the bridge over the M5. The changes resulting from the road upgrade are minimal from this viewpoint.

The Visual Impact of the proposed road upgrade on Precinct 1 is considered to be NEGLIGIBLE. The proposed road corridor is similar to the existing road corridor and consequently, the visual impact would be minimal within this precinct.

As this precinct is in an elevated position, the views from this precinct overlook the shallow valley to the bridge over the M5. The changes resulting from the road upgrade are minimal from this viewpoint.
The Visual Impact of the proposed road upgrade on Precinct 2 is considered to be MODERATE-LOW.

Views from the adjacent residential properties will be obscured by the existing wall along the boundary of the road corridor (refer Figure 34).

The proposed road corridor is similar to the existing road corridor, except where the road widens in the vicinity of the service station/restaurant and cuts into the cliff that partially screens the service station from the road (and the road from the service station). If the service station and adjoining residence may be considered key viewing points – the road widening and the associated earthworks and tree removal would impact upon the views from the service station and residence. The tree removal will open up views to the roadway.

Generally, as the views within this precinct are limited, the visual impact of the road corridor is not significant. The bridge duplication over the SW Freeway, including the associated tree removal, would alter the drivers views from Precinct 2 and 3 (refer Figure 37).

However, localised views from the road corridor would be impacted due to the proposed removal of trees in Precinct 3, as a result of the widening of the verge to accommodate the shared path.
The Visual Impact of the proposed road upgrade on Precinct 3 is considered to be MODERATE-LOW.

The proposed road corridor is similar to the existing road corridor, with the exception of a proposed shared path which increases the overall corridor width. Additional fill will be required resulting in the removal of trees from the existing buffer planting along the boundary of the business zone. Refer Figure 37. The key view points in the precinct are from the road corridor itself, therefore the visual aesthetic will be impacted. A portion of the screen planting would be removed as part of the proposed upgrade to Campbelltown Road. Mitigating measures would need to be implemented to minimise this impact. The bridge duplication over the SW Freeway, including the associated tree removal, will alter the drivers views from Precinct 2 and 3.
VISUAL IMPACT ON LANDSCAPE CHARACTER PRECINCT 4 – GRASSED PADDOCKS

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Figure 39 - Landscape Character Matrix for Landscape Character Precinct 4

The Visual Impact of the proposed road upgrade on Precinct 4 is considered to be LOW.

The road carriageway through this precinct is similar to the existing carriageway, however it widens to incorporate the bridge duplication over the SW Freeway. The key view points to the duplication, the associated earthworks and retaining walls, are from the road corridor itself (refer Figure 40) and from the SW Freeway. The 9 metre batter supporting the approach to the new bridge would have an impact on the visual landscape of the SW Freeway due to the high wall and new over bridge construction which would be larger than the existing bridge; however, from a driver’s point of view it is just a momentary change from the existing visual catchment.
The Visual Impact of the proposed road upgrade on Precinct 5 is considered to be MODERATE-HIGH.

The visual impact of the road upgrade is substantial through this precinct. The widening of the carriage way to more than triple the existing width, along with the removal of trees has a visual impact from a driver’s perspective. The key view point within this precinct is from the carriageway. The impact of the bridge duplication over the SW Freeway would change the aesthetic of the road, from a rural bushland drive to a highway (refer Figures 43 and 44).

Figure 42 - Landscape Character Matrix for Landscape Character Precinct 5

Figure 43 - Existing condition in Precinct 5

Figure 44 - Artistic impression of road upgrade in Precinct 5

Figure 45 - Sight lines from Precinct 5

Figure 46 - Key Plan

Figure 47 - Sight lines from Precinct 5

Figure 46 - Key Plan
The Visual Impact of the proposed road upgrade on Precinct 6 is considered to be MODERATE-HIGH. The impact from the road corridor is substantial. The widening of the carriageway to more than triple the existing width, along with the removal of trees, in the adjacent Precinct 5, would have a substantial visual impact from a driver's perspective. The views from some of the residences of the Ingleburn Gardens Estate may be impacted due to the reduced number of trees and the increased distance of the tree line from the viewing point. The majority of the carriageway pavement will be screened by the existing noise wall along the boundary of the estate.
The Visual Impact of the proposed road upgrade on Precinct 7 is considered to be HIGH.

The proposed road upgrade includes a substantial increase in the road width through this precinct. This road widening requires the removal of trees which currently line the roadway. The “green tunnel” created by these trees will disappear – hence the visual impact of the upgrade is quite substantial.

There are some residential properties set back from the road through this precinct. The removal of trees will impact on the views from the residences, however, the greatest impact will be from the viewpoint of the driver.

This precinct incorporates Mont St Quentin Oval. The proposed upgrade would visually impact upon the oval as it would encroach into the set back zone of the oval and minor regrading would be required for the new road construction. The shared path would be diverted in order to maintain the heritage entry gates. These proposed works would visually alter the views to and from the Oval. The treatment of this landform change in the detailed design would determine the quality of the Oval’s altered appearance.
The Visual Impact of the proposed road upgrade on Precinct 8 is considered to be HIGH.

The road carriageway through this precinct generally follows the ridgeline, and as a result, there are no key view points that look down onto Campbelltown Road through this precinct. Most of the buildings are set back from the road. The views will be impacted by the removal of trees and the addition of cut and fill batters.

The Watch Tower Society building has been identified as a key view point. The views from here would alter substantially due to the removal of trees and the addition of cut and fill batters.

A portion the heritage listed Denham Court House property would be affected by the proposed road upgrade. This would have a visual impact from the property and surrounding properties. The post and rail fence along the property boundary as well as a number of large trees would require removal. The road upgrade requires a cut batter of approximately 1-2m high along the road corridor adjacent to this property. This drop in the landform will screen the road from the viewpoint of the residence; however, the greatest impact will be from the viewpoint of the driver.

Between Denham Court Road and Brooks Road, there are views across grassed paddocks from Campbelltown Road as it is an elevated position. Key view points to the proposed road upgrade are distant. This section of road would also have batters above and below the new road carriageway, but would transition back to the existing 2 lane alignment at Brooks Road, therefore they are relatively temporary.
CONCLUSION
The overall visual impact of the proposed upgrade to Campbelltown Road can be divided into two broad areas: one area to the east of the SW Freeway — (Landscape Character Precincts 1-4) and the other to the west of the SW Freeway (Landscape Character Precincts 5-8). In the area to the east of the SW Freeway, the visual impact is considered to be Moderate-Low as the existing road corridor is similar to the proposed upgrade and the visual impact from key viewpoints and from within the road corridor, largely due to the proposed removal of trees along the boundary of Precinct 3.

In the area to the west of the SW Freeway, the visual impact is, on average, Moderate-High. This is primarily due to the road carriageway increasing from a 2-lane ‘rural’ road to a 4 lane arterial road, with the possibility of an upgrade to a 6 lane road. The road upgrade will require the removal of a number of trees which will have an impact on the visual aesthetic on the existing landscape, from key viewpoints and from within the road corridor. This impact will need to be addressed and require mitigation works, which will be part of the urban design concept plan.
4.0 VISIBILITY OF PROPOSAL IMPACT ASSESSMENT

As described in the previous section, the visibility of the proposal is limited due to the small visual catchment surrounding the site. The proposal will only be visible from precincts identified previously.
5.0 URBAN DESIGN OBJECTIVES

The primary aim of an upgrade to Campbelltown Road is to improve the capacity and safety of the corridor for drivers, cyclists, pedestrians and public transport. Urban design quality is a major factor that needs to be taken into consideration during the detailed design. The Urban Design objectives for Campbelltown Road would guide the detailed design for the proposal. Although, this study outlines the Urban Design objectives for the proposal, these may be expanded for the entire Campbelltown Road corridor.

Urban Design Objectives:
- **Natural Qualities**
  - Reduce removal of existing vegetation to an absolute minimum necessary to accommodate the upgrade.
  - Maximise opportunities for planting, reinforcing the indigenous species of the area.
  - Design earthworks to fit existing (natural) topography.
  - Protect watercourses and maintaining naturalistic profiles and installing attractively designed water quality control ponds etc, if required.

- Aesthetic Qualities
  - Design to provide an interesting and pleasant journey
  - Reflect the differences in character along the corridor (eg rural, suburban etc)
  - Reinforce a ‘sense of place’ at key locations
  - Improve the visual and natural qualities of the environment as far as possible in impacted areas
  - Exploit and enhance significant views from the corridor
  - Screen poor views from road
  - Screen views of road from residential areas
  - Integrate noise control methods into the landscape/ minimise use of noise walls
  - Compliment to the new development occurring along Campbelltown Road.

- Cultural Qualities
  - Provide a safe and convenient route for all users
  - Provide convenient access for local residents between suburbs and key destinations
  - Provide safe and functional cycle and pedestrian paths where appropriate and feasible
  - Retain and protect or incorporate heritage elements in the design
  - Screen overhead services where feasible
  - Minimise maintenance through the selection of robust durable materials – fit for purpose and place whilst maintaining quality design in elements and placement.

When considering the urban design of the road corridor, strategies to mitigate the impacts on the landscape character and visual aesthetic, as well as the following qualities, should be considered.

- **Natural Qualities**
  - Reduce removal of existing vegetation to an absolute minimum necessary to accommodate the upgrade.
  - Maximise opportunities for planting, reinforcing the indigenous species of the area.
  - Design earthworks to fit existing (natural) topography.
  - Protect watercourses and maintaining naturalistic profiles and installing attractively designed water quality control ponds etc, if required.

- Aesthetic Qualities
  - Design to provide an interesting and pleasant journey
  - Reflect the differences in character along the corridor (eg rural, suburban etc)
  - Reinforce a ‘sense of place’ at key locations
  - Improve the visual and natural qualities of the environment as far as possible in impacted areas
  - Exploit and enhance significant views from the corridor
  - Screen poor views from road
  - Screen views of road from residential areas
  - Integrate noise control methods into the landscape/ minimise use of noise walls
  - Compliment to the new development occurring along Campbelltown Road.

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  - Provide a safe and convenient route for all users
  - Provide convenient access for local residents between suburbs and key destinations
  - Provide safe and functional cycle and pedestrian paths where appropriate and feasible
  - Retain and protect or incorporate heritage elements in the design
  - Screen overhead services where feasible
  - Minimise maintenance through the selection of robust durable materials – fit for purpose and place whilst maintaining quality design in elements and placement.
6.0 LANDSCAPE CHARACTER AND VISUAL IMPACT MITIGATION STRATEGY

This study has described the impacts on landscape character and the visual landscape for eight defined landscape character precincts. This section will briefly summarise the impacts and list strategies for mitigating the impacts as well as outlining potential opportunities for implementing urban design components into each precinct.

GENERAL CONSTRUCTION PHASE MITIGATION STRATEGIES

During construction of the upgrade, temporary works such as detention basins, silt traps, cutoff swales and drains above and below batters may be required. It is expected that these elements will only be used when absolutely necessary and that they will be controlled and minimised. These temporary elements will be removed and landscaped to match the surrounding landscape treatment. If cutoff drains or swales are required as a permanent fixture, their location, size and treatment would need to be carefully considered. These drains/swales need to be minimal and treated so that they blend into the landform and landscape character. They must be vegetated and transition smoothly into the surrounding landform. The use of subsoil drains should be considered wherever possible to minimize the area of disturbance beyond the batters. Cutoff drains/swales have not been shown in the urban design indicated in this report. These need to be resolved and integrated at the time of detailed design for the road.

LANDSCAPE CHARACTER PRECINCT 1

Landscape Character Impact: MODERATE–LOW
Visual Impact: NEGLIGIBLE

The view over the shallow valley is the key element of this precinct.

Opportunities

This precinct provides an opportunity to:

- Set the “theme” – a sense of place – for this section of Campbelltown Road;
- Create a subtle landmark through ‘feature’ or ‘signature’ planting at the entry to Campbelltown Road – this planting could be a ‘signature’ for key areas of the road corridor;
- Include urban design elements to the new bridge and existing bridge

Opportunities to improve the visual and physical amenity for both the road user and the local residents. These include:

- Introduction of tree and shrub planting along the residential estate boundary;
- Allow for a pedestrian path along Campbelltown Road and access to commercial area on other side of road, such as at controlled crossings;
- Providing planting to the service station edge while maintaining sight lines to entry / exit driveways.

The new tree planting will help to establish the tree-lined character of the road corridor by reflecting the road-side planting of Precinct 3.

LANDSCAPE CHARACTER PRECINCT 2

Landscape Character Impact: MODERATE–LOW
Visual Impact: LOW

This precinct is currently devoid of trees as it is under going urban development.

Opportunities

There are opportunities in this precinct to improve the visual and physical amenity for both the road user and the local residents. These include:

- Introduction of tree and shrub planting along the residential estate boundary;
- Allow for a pedestrian path along Campbelltown Road and access to commercial area on other side of road, such as at controlled crossings;
- Providing planting to the service station edge while maintaining sight lines to entry / exit driveways.

The new tree planting will help to establish the tree-lined character of the road corridor by reflecting the road-side planting of Precinct 3.

LANDSCAPE CHARACTER PRECINCT 3

Landscape Character Impact: MODERATE–LOW
Visual Impact: MODERATE–LOW

This precinct has well established trees for a large portion of the road corridor. The current concept road design indicates that some trees would be impacted as a result of the introduction of the shared path. The alignment of the shared path may be altered to avoid disturbing the buffer planting, particularly the trees wherever possible. If tree removal is necessary, then replacement tree planting will be required.

Opportunities

In this precinct, there are opportunities to:

- Avoid impact to the existing screen planting where possible;
- Provide opportunity for the commercial developments to connect to shared path where possible/practical.

LANDSCAPE CHARACTER PRECINCT 4

Landscape Character Impact: MODERATE–LOW
Visual Impact: LOW

Within this precinct, some existing trees will require removal due to the widening of the carriageway and the approach to the new north-bound bridge over the SW Freeway. There is no existing development in this precinct.

Opportunities

There are opportunities to:

- Plant trees prior to construction so that screen/tree planting may be established;
- Install feature/signature trees at both ends of over-bridges;
- Blend batters into the adjacent landscape;
- Introduce screen planting along school site;
- Include urban design elements to the new bridge and existing bridge for a thought out and high quality result (refer below).

The existing retaining wall on NW side of the road along the development site boundary will amplify the level differences between the upgraded road and the proposed development site. The proposed levels of the industrial site are unknown at this stage. These level changes would need to be addressed as part of the detailed design when it will be more likely to understand the proposed design and levels of the industrial area.

Bridges

The bridge proposed for the duplication over the SW Freeway is shown in the road concept design to be at a different deck level to the existing bridge due to the proposed construction method and span length required. This is not an ideal situation, however if it is necessary, the softest levels of the two bridges should be the same for visual consistency.

The new bridge and the existing bridge should to read as a coherent set of elements in the landscape. The bridges should be of similar ‘language’ in materials, colour and details of finishes. The existing bridge is simple and lacks any quality urban design elements. Where possible, the future bridge urban designers should review the facade of the existing bridge for opportunities to improve its appearance and integrate it with the new bridge.

The design for the new bridge and renovation of the existing bridge should follow the guidelines set out in the RMS document “Bridge Aesthetics – Design guidelines to improve the appearance of bridges in NSW” RTA, July 2006.
The proposed road upgrade through this precinct has an impact on the Environmental Protection Zone (Alluvial Woodland – containing an endangered ecological community). The existing residential estate (Precinct 6) places constraints upon the proposed road alignment and forces the carriageway widening into the woodland area. Consequently a number of trees require removal.

**Mitigation Strategy**

To minimise the impact of the road construction, the following mitigation measures are recommended:

- Minimise extent of impact on woodland through minimising the road corridor width and through sensitive construction methods;
- Minimise extent of fill through this zone;
- Reduce impact of rail bridge through screening (maintaining existing trees where possible - considering safety requirements);
- The concept design has already considered these factors in an effort to minimise the impact of the proposed upgrade through this sensitive area.

**Opportunities**

- Maintain existing trees in median wherever possible to soften impact of SWRL bridge from road corridor on both sides of SWRL Bridge and using wire rope barriers;
- Prior to construction, a revegetation plan would be prepared. Seed banks found in the topsoil should be taken advantage of and used in a revegetation program.

**LANDSCAPE CHARACTER PRECINCT 6**

Landscape Character Impact: MODERATE-LOW
Visual Impact: MODERATE-HIGH

The impact upon this precinct is a result of the road widening into the adjacent woodland, consequently setting the visible tree-line further away from the Ingleburn Gardens Estate impacting their views and closeness to bushland.

**Opportunities**

- Plant trees and shrubs along the boundary fence, screening the fence from the road and the road from the estate;
- Densely plant trees along the boundary of designated open space areas;

**Mitigating Strategies**

- Early establishment of tree and shrub planting, where possible, throughout the corridor and in particular in areas closest to existing buildings, such as the Watch Tower Society property.
- Establish trees wherever possible within the road corridor given constraints of setbacks and sightlines
- Use frangible trees within the median to establish a canopy wherever possible

**Constraints**

The Ingleburn Military Heritage Precinct, Mont St Quentin Oval and the heritage gates place constraints upon the alignment of the road corridor. The concept road design has addressed the issue of maintaining one of the gates by diverting the pedestrian path. The other gate will require relocation. Its new location and the design around the gate to be retained.

**Landscape Character Impact**

- Early establishment of tree and shrub planting within the road corridor;
- Use frangible trees within the median to establish a canopy wherever possible

**Considerations**

- The retention of this character as well as the increased road width and cut and fill batters required to accommodate the upgraded road corridor. The retention of this character as well as the protection of the heritage precinct must be of high priority for this precinct.

**Mitigation Strategies**

- Establish planting early wherever possible within the road corridor.
- Different vertical alignment of shared/pedestrian paths on both sides of the road.

**Opportunities**

- Establishing wooded entry zones or ‘book ends’ to the Edmondson Park development;
- Early establishment of tree and shrub planting along Denham Court Road at intersection;
- Create a distinctive experience for this section of Campbelltown Road, such as the use of feature tree planting of species not used elsewhere along Campbelltown Road.
7.0 URBAN DESIGN CONCEPT

URBAN DESIGN OBJECTIVES

A concept design plan has been prepared in an effort to mitigate some of the impacts resulting from the works required to upgrade Campbelltown Road. This design has responded to the quality of the existing site and the desire to maintain the essence of the existing landscape character in the road corridor.

The urban design has also taken into consideration the recommendations and advice in the RMS (RTA) document Beyond the Pavement – RTA urban design policy and procedures and design principles (August, 2009).

General principles that have been applied for the Urban Design include:

- Retaining existing trees wherever possible.
  Adjustments to the road concept design have been recommended wherever an opportunity exists to do so, in order to maximise the number of trees retained. Some trees may be retained for the four lane option, however will need to be removed for the possible future six lane option when that eventuates. The retention of these trees in the interim will be an important asset to the road corridor as they will provide a continuing tree lined character while new trees planted as part of the road works have time to establish.

- Minimising steepness of batters wherever possible.
  In locations where the road level differs to the adjacent existing ground levels, the batters should be feathered out and extended into the landscape wherever practical to minimise the visual impact of the road and to blend it into the surrounding landscape.

- Planting trees wherever possible and practical.
  In an effort to keep the tree lined character of Campbelltown Road, trees need to be retained wherever possible and in areas where trees are required to be removed, new tree planting should be established both within the road corridor and in adjoining areas to re-establish the tree lined landscape.

- Integration with adjoining developments

- Work with adjoining development to establish trees along the road corridor and within development

The following plans and sections describe the proposed concept plan for the urban design of Campbelltown Road.