6.5 OTHER STRUCTURES, ELEMENTS & TREATMENTS

OTHER URBAN DESIGN ELEMENTS

Roadside elements are ancillary items necessary for the effective operation of the roadway. These typically include roadside safety barriers, kerbs, lighting and water quality structures such as basins and channels. The urban design recommendations presented in Table 6.1 are provided for these roadside elements and street furniture as they can contribute positively to the character of both the roadway and the local landscape. These recommendations would be refined further during detailed design and will inform the urban design and landscape plan for the project.

Table 6.1: SUMMARY OF URBAN DESIGN RECOMMENDATIONS FOR ROADSIDE ELEMENTS AND STREET FURNITURE.

ELEMENT	LOCATION	RECOMMENDATION	RATIONALE			
RETAINING WALLS	Windsor Wharf Reserve	Retaining walls constructed with precast concrete panels with grey concrete and dark grey exposed aggregate. A precast concrete capping unit should be used at the top of the wall. Consideration should be given to terracing the wall in two or more steps to avoid the need for railings at the top of the wall.	The recessive colour would allow for the visual character of the adjoining foreshore planting to dominate. This would also help to make the wall visually recede when viewed from a distance. The integral finish to the concrete panels would be practical for construction and reduce long term maintenance requirements.			
BALUSTRADES AND BARRIERS	Shared path on bridge	Collapseable pedestrian and cyclist slimline balustrade to upstream edge of shared path.	 Minimise the scale and bulk to increase transparency. Maximise views along the river reach. The material colour and finish should compliment the adjacent vehicle barriers on the bridge. 			
	Bridge traffic barriers	Concrete 'Half Type F' barrier with twin steel rail.	 Minimise barrier thickness and height. Maximise views along the river reach. Twin rail barrier provides increased detail and transparency than a single barrier. 			
	Windsor Wharf Reserve retaining wall.	Slimline balustrade integral with the retaining wall.	 Maximise transparency and views to the river. Maximise transparency when viewed from the northern foreshore and from the river. 			
LIGHTING	Required for the length of the new works. Lighting for The Terrace and under the bridge to be confirmed with Council.	Lighting to be minimised to meet requirements set out in ASTI58. Ensure uniformity in size, height and spacing of lights. Bridge lighting should be designed to compliment the form and symmetry of the bridge. Use galvanised steel lightposts.	 Reduce visual dominance of the works, to retain the parkland character around the river foreshore. Create a subtle and attractive nighttime setting around and on the bridge. Provide for safe pedestrian and cycle circulation and access. 			
STREET FURNITURE	Parklands and open spaces, - to be confirmed with Council.	Replacement parkland seating, picnic tables and litter bins to be provided where appropriate, in close consultation with Hawkesbury City Council.	Enhance seating and picnicking opportunities within parkland and open space areas.			
SCOUR PROTECTION	Northern foreshore	Construction of the rock faced scour protection with roughly dimensioned sandstone blocks, loosely coursed, would create a more ordered and more attractive appearance. The spaces between the scour protection rocks would be planted, wherever possible, with sedges to minimise the hard visual appearance of the works.	 Reduce visual impact of structure. Create a more ordered appearance to reflect the visual importance of the foreshore and its relationship with the adjoining parkland setting. Facilitate informal access to the river. 			
WATER QUALITY BASINS	Northern bank, east of the replacement bridge	Minimise the size of proposed permanent basins. Plant with native riparian species.	□ To provide a natural aesthetic. □ Reduce the visual impact of the basins on the surrounding areas.			

6.6 PLANTING

PLANTING DESIGN

The general approach to the planting design for this project is to integrate the new works into the existing landscape setting and to further define and reinforce the unique landscape character zones. This approach aims to enhance the unique sense of arrival to Windsor both from the north and south while also strengthening the landscape character of historic Thompson Square. In order to do this the planting must strike a balance between screening the works from sensitive visual receptors and maintaining and enhancing key views and vistas to the surrounding landscape.

PLANTING DESIGN PRINCIPLES

The planting concept has been guided by the following design principles:

- Revegetation of all areas affected by the new works.
- Revegetation of residual land affected by the works that is not viable for amalgamation.
- Provision of planting at outside verges wherever possible to minimise the visual scale of the roadway.
- Provision of planting on fill embankments and shallow cut batters to stabilise the earthworks, minimise their visual impact and integrate them with the character of the surrounding landscape.
- Provision of planting to screen the works from sensitive adjacent land uses where applicable.
- Provision of 'gateway' planting at key intersections and important cultural areas to provide visual landmarks and enhance local identity.
- Use of provenance plant material (plants grown from locally collected seeds) wherever possible for all native plantings, in particular native revegetation.

At the detailed planting design stage, which would include further refinement of the plant species selection, particular consideration should be made for ongoing maintenance requirements.

Principles include:

- ¬ Selection of plant species that are robust, non-invasive and not fire-promoting.
- Use of local provenance plant material for native revegetation plantings, particularly in riparian areas.
- □ Use of species climatically suited to the local area for cultural plantings.
- ¬ Exclusion of all species on weed lists applicable to the local area.
- Placement and species selection for planting within the road corridor (e.g verges) to be in accordance with clear zone and sight stopping distance requirements.

INDICATIVE PLANTING PALETTE

An indicative planting palette has been developed for the planting concept, which provides the framework for detailed species selection and planting design during the detailed design phase. The final selection of plant species would be undertaken in consultation with Council, the local community and key stakeholders.

The indicative planting palette has been divided into the three distinct character zones as presented here in table 6.2. A selection of images for the key tree species proposed is also presented on the following page.

Table 6.2: INDICATIVE PLANT SPECIES LIST

BOTANICAL NAME	COMMON NAME	MATURE HEIGHT	MATURE SPREAD	THOMPSON SQUARE	RIVER FORESHORE	NORTHERN INTERSECTION
LARGE TREES - PARKLAND						
Agathis robusta	Kauri Pine	30m	I2m	•		•
Araucaria cunninghamii	Hoop Pine	30m	I0m	•		•
Casuarina cunninghamiana	River She Oak	20m	8m		•	
Casuarina glauca	She Oak	I8m	8m		•	•
Corymbia maculata	Spotted Gum	25m	I2m			•
Eucalyptus species	Eucalyptus species	25m	I2m		•	•
Ginkgo biloba	MaidenhairTree	I8m	I0m	•		
Liquidamber styraciflua	Liquidamber	25m	I2m	•		
Melaleuca quinquenervia	Paperbark	20m	8m		•	
Quercus palustris	Pin Oak	25m	I 0m	•		•
MEDIUM SIZE TREES - PARKL						
Brachychiton populneus	Kurrajong	I2m	8m	•		•
Jacaranda mimoisifolia	Jacaranda	15m	8m	•		
Melia azedarach	White Cedar	I2m	8m	•		•
Schinus molle var. areria	Peppercorn	I2m	8m	•		
Ulmus parvifolia	Chinese Elm	9m	7m	•		
SHRUBS - GARDEN BED PLA						
Acacia floribunda	White Sally Wattle	4m	2m		•	
Baeckea virgata 'dwarf'	Twiggy Heath Myrtle	lm	Im	•		•
Banksia ericifolia	Heath Banksia	3-5m	2.5m			•
Banksia spinulosa	Hairpin Banksia	2-4m	2,5m			•
Callistemon spp.	Bottle Brush	I-4m	1.5m	•	•	•
Gahnia sieberiana	Saw Sedge	I.2m	1.5m		•	
Leptospermum spp.	TeaTree	2-4m	2m	•	•	•
Melaleuca thymifolia	Thyme Honey-myrtle	Im	Im	•		•
Westringia fruticosa	Coast Rosemary	2m	2m	•		•
GROUNDCOVERS - GARDEN						
Brachycome multifida	Cut Leaf Daisy	0.2m	0.5m	•		
Baumea articulata	Jointed Twig Rush	2m	Im		•	
Dianella 'Little Jess'	Flax Lily	0.2m	0.5m	•		•
Ficinia nodosa	Clubrush	0.4m	0.5m		•	•
Hardenbergia violacea	Native sarsaparilla	0.3m	0.5m	•		•
Juncus species	Common Rush	Im	Im		•	
Juniperus horizontalis	Creeping Juniper	0.3m	lm	•		
Liriope muscari	Lily Turf	0.6m	0.4m	•		
Lomandra longifolia	Mat Rush	Im	lm		•	•
Lomandra 'Tanika'	Tanika Mat Rush	0.3m	0.5m	•		•
Myoporum parvifolium 'Yareena'	Creeping boobialla	0.1m	lm	•		•
Viola hederacea	Native Violet	0.2m	Im	•		

Table 6.3: INDICATIVE TREE SPECIES.

PARKLAND FEATURE / KEY SIGNATURE TREE SPECIES











MEDIUM SIZED TREE SPECIES



Jacaranda mimosifolia (Jacaranda)

Schinus molle var. Areria (Peppercom)



Brachychiton populneus (Kurrajong)



Ulmus parvifolia (Chinese Elm)

RIVERINE TREE SPECIES











Syncarpia glomulifera (Turpentine)