1.0  INTRODUCTION
The project
This Landscape Character and Visual Impact Assessment (LCVIA) is a component of the REF for the Sydney Harbour Wharves Upgrade Program.

Jane Irwin Landscape Architecture has been engaged by Hansen Yunken for Roads and Maritime Services NSW (RMS) to assess the development proposals for the upgrade of a number of ferry wharves throughout Sydney Harbour. The wharves are within the inner harbour and are currently being used by ferry commuters; recreational vessels; and accessed by the general public.

Assessment envelope
For the purposes of this assessment, and to provide some flexibility should the position of the wharf need to be adjusted due to any site or navigational constraints, an envelope has been used to assess the potential landscape character and visual impacts of the proposal. The height of the new pontoon roof structure would vary according to the tide but would generally be around the same height of the existing roof. The area shown in red outline at Figure 16, combined with the fluctuating height of the pontoon roof structure, forms the envelope that has been used to undertake this assessment.

Purpose and scope of this report
The LCVIA Report has been prepared for RMS as part of the Review of Environmental Factors (REF) for the Cremorne Point wharf upgrade.

Under clause 68 (4) of the State Environment Planning Policy (SEPP Infrastructure) 2007, development for the purposes of a wharf may be carried out by or on behalf of a public authority on any land without consent, subject to the requirements of Part 5 of the Environmental Planning and Assessment Act 1979 (the Act). Under the Act, “land” includes the sea.

Part 5 of the Act defines development involving (among other things) the use of land, carrying out of work and demolition and construction of buildings as an activity. When considering an activity RMS as the determining authority must examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity. This is done through the preparation of a REF.

The requirements of an REF are specified in Environmental Planning and Assessment Regulation 2000 (the Regulations) clause 228 (Under the regulations, guidelines have been developed for the likely impacts of marinas and related facilities such as wharves). The guidelines therefore apply to the commuter wharf projects. LCVIA forms one of the environmental factors which requires consideration as part of the REF process. The Department of Urban Affairs and Planning - EIS Guideline - Marinas and Related Facilities - September 1996, sets out issues to consider if a proposal is likely to have a visual impact.

a) Visual impact from adjoining properties and from surrounding land and water — consider potential impacts such as changed or obstructed views due to:
   •  The facility form, bulk, colour or reflectivity.
   •  Lighting from security requirements or night operations.
   •  Boat mooring and movements.
   •  The clearing of vegetation.
b) Proposed methods of reducing visual impact such as landscaping, materials selection and design and orientation of structures.

Report structure
The structure of this report is as follows:
1.0  Introduction - outlines the purpose of the report including the assessment methodology
2.0  Contextual analysis and brief for the new wharf including urban design objectives for the project
3.0  Landscape Character Impact Assessment
4.0  Visual Impact Assessment
5.0  Summary and Mitigation Strategy

NSW Transport - Road and Maritime Services urban design policies and guidelines
This report has been prepared based on the structure outlined in the RMS Environmental Impact Assessment Practice Note EIA-N04 - Guideline for landscape character and visual impact assessment. (EIA- No4 Guidelines) March 2013.
The guidelines differentiate between visual assessment (the impact on views), and landscape character (the impact on the aggregate of an area’s built, natural and cultural character or sense of place).

Tasks outlined in the guide include:

- Analyse landscape character.
- Identify landscape character zones.
- Assess landscape character impacts.
- Assess the visibility of the proposal.
- Identify key viewpoints.
- Assess visual impacts.
- Refine the concept design to avoid and minimise landscape character and visual impacts.
- Develop a mitigation strategy to minimise landscape character and visual impacts.

These tasks are undertaken to inform the project approval authority, other agencies and the community about the landscape character and visual impact of the proposal and what mitigation strategies should be implemented, as well as improve the proposals overall design.

**Assessment methodology**

According to the terms defined within the EIA-N04 Guideline, both a landscape character and a visual impact assessment have been conducted to determine impacts of the proposal on the character of the place and the views within that place.

The assessment grading for the landscape character assessment and visual impact assessment is set out in Table 1 below. Through this table impact is assessed based on both the sensitivity and magnitude.

Landscape character relates to the built, natural and cultural aspects that make a place unique. Landscape character assessments refer to the sensitivity (ability to absorb change) of the character zone to the proposed change and the magnitude or scale of the project within the character zone. EIA-N04 Guideline notes that Landscape Character Assessment is the assessment of impact on the aggregate of an area’s built, natural and cultural character or sense of place.

Visual impact assessments refer to the quality of a view, type of viewer, number of viewers, and how sensitive it is to the proposed change, while magnitude refers to the nature (eg. scale, colour, reflectivity, materials) of the project and its proximity to the viewer. EIA-N04 Guideline refers to visual assessment as the assessment of impact on views. It addresses people’s views of an area from their homes or other places of value in the community.

Based on these two assessment criteria a judgement must be made as to the quality of design outcome, and the strategies for mitigating and balancing the objectives of the project with its impact on its setting.

<table>
<thead>
<tr>
<th>Magnitude</th>
<th>High</th>
<th>High to Moderate</th>
<th>Moderate</th>
<th>Moderate to Low</th>
<th>Low</th>
<th>Negligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>High impact</td>
<td>High impact</td>
<td>Moderate-high</td>
<td>Moderate-high</td>
<td>Moderate</td>
<td>Negligible</td>
</tr>
<tr>
<td>High to Moderate</td>
<td>High impact</td>
<td>Moderate-high</td>
<td>Moderate-high</td>
<td>Moderate-high</td>
<td>Moderate</td>
<td>Negligible</td>
</tr>
<tr>
<td>Moderate</td>
<td>Moderate-high</td>
<td>Moderate-high</td>
<td>Moderate-high</td>
<td>Moderate-high</td>
<td>Moderate</td>
<td>Negligible</td>
</tr>
<tr>
<td>Moderate to Low</td>
<td>Moderate-high</td>
<td>Moderate-high</td>
<td>Moderate-high</td>
<td>Moderate-high</td>
<td>Moderate-low</td>
<td>Negligible</td>
</tr>
<tr>
<td>Low</td>
<td>Moderate</td>
<td>Moderate-low</td>
<td>Moderate-low</td>
<td>Moderate-low</td>
<td>Low impact</td>
<td>Negligible</td>
</tr>
<tr>
<td>Negligible</td>
<td>Negligible</td>
<td>Negligible</td>
<td>Negligible</td>
<td>Negligible</td>
<td>Negligible</td>
<td>Negligible</td>
</tr>
</tbody>
</table>

Table 1. Landscape character and visual impact grading matrix
2.0 CONTEXTUAL ANALYSIS

Location
The study area for the following Visual Impact Assessment report is Cremorne Point Wharf located at Cremorne Point on the northern shore of Sydney Harbour approximately 2.5km by water from the CBD and 6km by road.

Landscape Context
The ferry wharf is located off Milson Road within the suburb of Cremorne Point on the western foreshore of the peninsula facing south east. Cremorne Point lies between two deep bays Mosman Bay to the east and Shell Cove to the west. The peninsula consists of a sandstone ridge which descends steeply to the water. Along the north eastern and north western foreshores the land has been modified by a sea wall and a gently sloping reserve mediates between the residential apartment blocks and the shoreline. Cremorne Point is one of the few peninsulas on the harbour to have a completely public foreshore reserve wrapping around its edge. At the southern point the reserve forms a pocket of bushland with extensive views around the harbour. The top of the ridge is highlighted by Cremorne Road which runs the length of the point. The built form of the peninsula is predominantly residential apartment blocks and houses dating from the Federation Period through to the 1920’s and 1930’s.

Character of the wharf in its setting
The wharf is located at the end of Milson Road and extends to the south west from the foreshore. To the back of the wharf is a large concrete paved area adjacent to the bus turning space. A sandstone cutting frames the northern side of Milson Road and divides the lower foreshore area from the residential apartment buildings and reserve above. To the north west of the wharf, the heritage listed building Woorilla House projects out from the foreshore seawall. To the south east of the wharf the foreshore changes from a formal seawall, level foreshore and sandstone cutting, to a natural sandstone edge which extends around the point and slopes up to the reserve above.

The existing wharf consists of an enclosed metal shed on a concrete base and timber piles extending from the foreshore edge. An open steel gangway connects to the pontoon, which is of steel and timber construction and is enclosed on two sides by glass screens. The current wharf was partially sunk during a severe storm in 2007.

Heritage Context
RPS has prepared a Statement of Heritage Impact for the proposal and reports that the significance of the wharf is that;
“Cremorne Point Wharf has been an important transport location since the 1910s. Its use predates the development of the Sydney Harbour Bridge which now allows vehicular services to and from the Cremorne Point area.

The establishment of a wharf in the current location had a considerable influence on the early development of the surrounding locality with regard to urban and built form. The highly scenic setting of the Cremorne Point Wharf within Sydney Harbour provides the site with high aesthetic value. This value is further reinforced by the impressive views from the site and encompassing the site featuring sites such as the Sydney CBD skyline and the Sydney Harbour Bridge.

The heritage significance of the Cremorne Point Wharf is embodied only by its location and its continuity of function including any physical evidence demonstrating its long history of use. Furthermore, its highly scenic visual setting is also considered to contribute to the heritage significance of the site. The fabric of the wharf largely dates from 2007 and is considered to be of negligible heritage significance.”
Figure 2. Plan of existing wharf (courtesy of Group GSA)

Figure 3. Existing wharf (image - JILA)
The Sydney Harbour Foreshores and Waterways DCP 2005 classifies Cremorne Point under a Landscape Character Type 9.

“These areas are significant because they contain natural foreshores interspersed with more developed areas and provide a key feature and visual variety to the total landscape. The natural shoreline has significant visual features. However, it is also developed with swimming pools, retained edges and boat sheds. Sections of vegetated skyline have been preserved. The intent is to retain these natural features and only encourage development that is consistent with the scale, design and siting of that which exists.”

“Any development within this landscape is to satisfy the following criteria:

- It is sited so remaining rock outcrops, cliff lines or vegetated shorelines are protected and not obscured.
- It is sited to ensure that the continuous line of any natural feature is preserved and remains the dominant feature in the landscape.
- It is sited and designed to maintain the vegetation cover on the upper slopes and ridgelines.
- Major points and entrances to the bays are preserved in their natural state.
- Existing character, natural, cultural and heritage features of the islands are retained.
- Colours should match native vegetation as closely as possible with trim colours drawn from natural elements such as tree trunks and stone.”
Planning Context
Due to the prominent position of Cremorne Point within the harbour and the wharf’s location on the western side, the proposed wharf falls within the Sydney Opera House buffer zone and therefore must be assessed in relation to clause 58B within the Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 to ensure the preservation of views from Sydney Opera House towards the proposed wharf and from the public places around the proposed wharf to the Sydney Opera House.

Clause 58B within the Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 outlines the following items to be taken into consideration in relation to development within the Sydney Opera House buffer zone including:
(a) the objectives set out in clause 53 (2),
(b) the need for development to preserve views and vistas between the Sydney Opera House and other public places within that zone,
(c) the need for development to preserve the world heritage value of the Sydney Opera House,
(d) the need for development to avoid any diminution of the visual prominence of the Sydney Opera House when viewed from other public places within that zone.

Project Description
General Brief
• To repair, renew and upgrade berthing structures in order to extend the design life of the structures.
• To upgrade passenger facilities to meet public expectations.
• To create a functional, distinctive and iconic design theme for Sydney Harbour which will both unify and identify the harbour wharves and ferry commuter system.
• To incorporate current disabled access standards and unify public domain design elements.
• To institute a defined maintenance regime for the relevant wharves with some certainty of ongoing costs.

Specific items in Architectural Brief
• Accommodate and assimilate heritage structures and heritage surroundings.
• Make maximum use of existing structures and urban design elements while recognising that terminals are located in prominent positions on Sydney Harbour and the quality of urban design and heritage values will be subject to significant public scrutiny and evaluation. To this end, the objectives and requirements of stakeholders, principally Local Councils and the Urban Design Review Panel of the Sydney Harbour and Foreshores Committee will need to be met.
• Provide a roof form/shape which is innovative but not visually intrusive, reflective or blocks views from adjacent/nearby residences and facilities.

The proposal would include the demolition and removal of the existing wharf pontoon and gangway and the construction of a new wharf as follows:

Figure 18. Indicative location of temporary works compound
Demolition and removal of the existing pontoon and gangway.
- The existing covered pontoon and gangway including steel piles, glass screens, and associated facilities such as signage, information totem, seating, and closed circuit television (CCTV) system would be demolished and removed to an off-site location by barges.
- The existing waiting shed which connects the gangway to the foreshore is to be retained. The entrance to the gangway at the southern end of the waiting shed will be made good using weatherboard, glass or another building material that is similar in style and colour to the existing materials.

Construction of a new wharf
- Construction of a covered concrete bridge about three metres wide by six metres long connecting the land to a gangway. The bridge would contain a curved zinc roof supported by steel columns and stainless steel balustrades. The bridge would connect to the land adjacent to the north eastern corner of the existing waiting shed and would be oriented at an angle of about 90 degrees to the land. The bridge descends to a platform at a maximum 1:14 gradient. The concrete bridge would be supported by about four piles constructed from a mixture of steel and concrete.
- Construction of a covered aluminium gangway about 16 metres long and about three metres wide. The gangway would connect the bridge with a new floating pontoon. The gangway would be supported by the bridge and the floating pontoon and its gradient would vary according to the tides. The orientation of the gangway would be at an angle of about 135 degrees to the ramp.
- Construction and installation of a rectangular shaped steel floating pontoon about 12 metres wide by 27 metres long off the gangway. The pontoon would have one berthing face on the southern side. The pontoon would contain a curved zinc roof supported by steel columns, glass and stainless steel balustrades and seating. The floating pontoon would be held in place by four steel piles. The floating pontoon would be at about a 90 degree angle to the gangway.
- Installation of safety and security facilities including lighting, closed circuit television (CCTV), ladders to the water from the pontoon, a life ring on the pontoon platform, glass weather screen and tactile floor treatments.
Ancillary facilities

- A temporary compound would be established including site sheds, an amenities shed and storage containers for tools and some materials. The location of the temporary compound is to be confirmed and would be subject to local council review and agreement.
- The connection of electrical power to an existing supply to provide power to the wharf for lighting and security.
- The connection of water lines and meter to existing supply to provide water to the wharf for maintenance.
- The proposal would include provision for electronic ticketing systems, which may be implemented in the future but would not be provided as part of this proposal.

The wharf (including the bridge, ramp, gangway and pontoon) would be constructed to be accessible to people with a disability for no less than 80 per cent of the high and low tide levels listed in standard tide charts. The marshalling and storage of most equipment, plant and materials, and the pre-fabrication of parts, pre-casting of headstocks and fit outs, would be carried out by a contractor at an offsite facility. The construction and demolition materials and equipment would be delivered/removed from the site using barges. A majority of the construction and demolition activity would also be undertaken from the barges on the water with only minor works such as connection to services undertaken from the land. Construction contractors would generally arrive at the site via water with only minimal vehicle access to the site required (up to about 15 vehicle movements per day).

The proposal would require the Cremorne Point Wharf to be closed to all ferries, water taxis and other vessels/watercraft for the duration of construction to enable the works to be carried out and would be re-opened to these vessels on completion of construction.

An overview of the proposal including the approximate location of the temporary compound is shown in the figures 18 & 19.

Architectural Character

The proposed ferry wharf installation would replace the existing concrete wharf, steps and shelter with three new interconnected elements adjacent to the foreshore:

**The Pontoon**

The pontoon would be the central gathering or holding place for ferry passengers. It is sized to accommodate passengers, with its users mainly consisting of commuters. Its primary purpose would be to provide shelter from the weather and a secure environment while passengers wait to board ferries and other vessels.

The roof form on the pontoon would be curvilinear, clad in a unfinished zinc or metal sheet (light grey in colour), and would achieve the lowest profile necessary to shed rainwater. The roof form and its surrounding glass screens would assist in deflecting wind away from waiting passengers. Internally the shelter would have a curved ceiling to give an uplifting and welcoming feel to the space.

The pontoon would operate with the tides and vary in level with the tides. It would consist of an uncovered platform that would always sit about 850mm above water level. The pontoon would be supported by and operate around four steel piles that would be fixed in the harbour. The height of these would be determined by the tidal range. They would also be painted in a predominantly light colour, primarily for navigation purposes.

**The Gangway**

The gangway would be used by passengers to move from the land based structures to the platform and eventually on to ferries. This element would be affected by tidal movements, like the pontoon, and consequently would rise and fall. It is designed to be a transitional space and would be slightly lower in scale than the adjoining shelter. The structure would employ a truss system. Views would be maintained through the gangway as it is generally open and light.

**The Bridge**

The bridge would form a cantilevered structure between the foreshore and the pontoon. It would be of an open construction with a stainless steel balustrade.

**Lighting**

Lighting at night would be designed to achieve adequate illumination for safety and security, whilst trying to reduce glare, and loss of light to the sky. All this is required so as not to create a brightly illuminated object that is hazardous to the ferry and other maritime operations.

Lighting would be achieved through a series of up/down lights flooding the ceiling of the pontoon roof, whilst illuminating the floor only, and not the surrounds.

Lighting of the gangway would be by down lights illuminating the floor.
Figure 20. Architectural elevations of proposed wharf structure
3.0 LANDSCAPE CHARACTER IMPACT ASSESSMENT

Surrounding Landscape Character
In assessing the landscape character of Cremorne Point and how the proposed wharf will fit within this, it is important to consider:

- The character of Cremorne Point as a prominent peninsula on the northern side of Sydney Harbour consisting of foreshore reserves fronting residential apartment buildings.
- How the existing structure of the wharf occupies a highly prominent position on the south western side of the point and mediates between the landscape character of the natural reserve at the point and the residential buildings to the north of the wharf.
- The existing character from the water and opposite points is of a layering of landscape foreshore reserves at waters edge extending up to apartment buildings along the ridge.
- There is a consistency in the materials, form, colour etc. in this environment. The foreshore reserve is a consistent element at water level and the slopes and ridge comprise a range apartment buildings of a similar scale.
- Iconic elements within the surrounding landscape include Woorilla House on the foreshore to the north of the wharf, Sydney Harbour more broadly; and from the point itself the expansive visual connection to the Sydney Harbour Bridge, Sydney Opera House and the CBD skyline.
- The location of the wharf towards the centre of the harbour, extending beyond neighbouring points, affords it a high level of prominence in the harbour landscape.

Figure 21. Landscape character zones
<table>
<thead>
<tr>
<th>Landscape character zone</th>
<th>Description of zone</th>
<th>Description of impact by proposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cremorne Point</td>
<td>Cremorne Point lies between two deep bays; Mosman Bay to the east and Shell Cove to the west. The peninsula is formed by a sandstone ridge which descends steeply to the water on both sides. Along the north eastern and north western foreshores the land has been modified by a sea wall and a gently sloping landscape reserve mediates between the residential apartment blocks and the shoreline. Cremorne Point is one of the few peninsulas on the harbour to have a completely public foreshore reserve wrapping around its edge. At the southern point the reserve forms a pocket of bushland with extensive views around the harbour. Cremorne Road runs the length of the point along the ridge. The built form of the peninsula is predominantly residential apartment blocks dating from the Federation Period through to the 1920's and 1930's.</td>
<td>The impact is considered moderate. The character of Cremorne Point is tied to its prominence in the harbour, its distinct character of a continuous landscape foreshore wrapping around both sides of the point, its relationship to built form, and its linear structure stretching along the ridge. The proposed wharf upgrade will change the relationship of the pontoon to the foreshore shifting it further south so that it will lie predominantly across the landscape reserve of the point. The scale increase, along with the shift in alignment will introduce a change to the character of the point.</td>
</tr>
<tr>
<td>Kurraba Point</td>
<td>The peninsula to the west of Cremorne Point, consists predominantly of residential flats which extend down to the water’s edge. There is a small public reserve at the point of the peninsula which wraps around the western side.</td>
<td>Impact is considered moderate to low due to the close proximity of the wharf to this character zone. The character of Kurraba Point is defined by the harbour which surrounds it. The narrow ridge of the peninsula combined with the structure of streets ensures that the experience within the suburb is always against a backdrop of water. Being so close Cremorne Point is a point of difference to the heavily built nature of Kurraba Point. The proposed wharf will introduce a shift in materials, scale and alignment.</td>
</tr>
<tr>
<td>Neutral Bay</td>
<td>The extensive bay between Kurraba Point and Kirribilli. The bay has a mixed foreshore of reserves, residential frontages and jetties, boat moorings, and HMAS Platypus. The residential suburb of Neutral Bay surrounds the foreshore and extends to the north up to the ridge of Military Road.</td>
<td>The impact is considered negligible due to the distance from the character zone. The character of the bay and the larger suburb is tied to the geography of the bay and the dominant presence of the harbour, as well as the built form of mixed residential, foreshore parks, military bases and small commercial precincts.</td>
</tr>
<tr>
<td>Kirribilli</td>
<td>The residential suburb extending from the Sydney Harbour Bridge and Bradfield Highway on the western flank, to the edge of Neutral Bay on its eastern side. The suburb contains many heritage buildings dating from the 19th and early 20th century, including Kirribilli House and the Governor General’s residence.</td>
<td>The impact is considered negligible due to the distance from the character zone. The character of Kirribilli is closely tied to its heritage buildings, proximity to the Sydney Harbour Bridge and harbour, and its extensive foreshore.</td>
</tr>
<tr>
<td>Shell Cove</td>
<td>The deep body of water on the western side of Cremorne Point, between Cremorne and Kurraba Points. Filled with boat moorings the cove terminates in the north in a shallow estuary area.</td>
<td>The character of this zone is tied to its contrasting foreshores on Cremorne and Kurraba Points and the boat moorings that fill the majority of the bay. While the proposed wharf sits on the periphery of this zone, it forms the largest built element along the eastern shore of the cove. Changes to the size, alignment and material quality of the wharf will have a moderate impact on this character zone.</td>
</tr>
<tr>
<td>Landscape character zone</td>
<td>Description of zone</td>
<td>Description of impact by proposal</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Mosman Bay</td>
<td>A long northern harbour bay stretching between Cremorne and Mosman and flanked at its southern end by Cremorne Point to the west and Curraghbeena Point to the east. The shoreline rises steeply up on both sides except at the northern end where Reid Park occupies the natural drainage line. The bay is predominantly used for recreational boating and rowing. A large number of private moorings, and a marina fill the bay to the north and west of the ferry wharf.</td>
<td>The impact is considered negligible. The character of Mosman Bay is contained between the two peninsulas of Mosman and Cremorne Point. While relatively close in distance to this character zone, the form of the point and the location of the proposed wharf on the opposite side ensure that the impact is negligible. Upgrades of the Mosman Bay wharf will form a link in character to Cremorne Point wharf on completion.</td>
</tr>
<tr>
<td>Sydney Harbour</td>
<td>The large body of water extending to the south of the wharf. Sydney Harbour is a flooded river valley and as such contains steep ridged peninsulas which enclose harbours, bays, coves and inlets along its length.</td>
<td>The character of Sydney Harbour is set by its unique landform, remnant natural headlands, and history of industrial and working harbour use. Cremorne Point has a strong link to the history of land settlement on the northern shore of the Harbour and the retention of the ferry wharf use at this location is a link to this history. Impact on the character of the Harbour is considered low while the function of the wharf is to be retained, it occupies a prominent position within the broader landscape.</td>
</tr>
</tbody>
</table>

**Sensitivity - Moderate**

Cremorne Point wharf currently comprises of a moderate scaled pontoon, gangway and fixed shore waiting area. The exposure of this wharf to extreme weather and swell conditions on the harbour requires a larger structure to withstand these challenges. The sensitivity of the proposal is highest in its immediate character zone, where the limited number of structures along the foreshore sets the wharf, along with the heritage building to the north, as the primary focus in a predominantly natural landscape.

**Magnitude - Moderate to Low**

The proposed wharf signals a shift in scale and materiality as well as alignment from the foreshore. The magnitude of this change within the surrounding landscape character zones is considered moderate to low. The existing pontoon and gangway structures are to be removed and a new pontoon, gangway and bridge installed. The existing enclosed wharf structure on the foreshore is to be retained. The proposed wharf introduces a new alignment along the foreshore and a covered roof to the pontoon and gangway.

**Overall Landscape Character Impact - Moderate**

Cremorne Point wharf is currently located at the junction between the modified foreshore and the natural foreshore of the southern end of the point. The wharf forms a mediating element between the two conditions of the peninsula, the modified shoreline and seawall with residential development above, and the natural sandstone edge of the bush reserve. The impact on the immediate character zone is considered moderate. The increase in scale, shift in alignment and change in materiality all contribute to a change in the landscape character at this specific point along the foreshore. The proposed wharf will shift to the east of the current pontoon, with the bulk of the structure extending across the natural foreshore edge of the reserve. The mediating role of the current wharf will be changed with the built nature of the foreshore extending further into the natural reserve.

The change in materials, scale and alignment will have a broader moderate impact on the landscape character of Kurraba Point and Shell Cove, where the wharf forms a large built element along a predominantly unbuilt foreshore edge.

There will be a low to negligible impact on the more distant character zones due to reduced proximity to the proposed changes, the internal focus of many of these character zones, and the reduced prominence of the proposed wharf in relation to these landscape characters. While the proposed wharf signals a shift in scale and material palette, it does represent a link to a family of wharves throughout the harbour which share the same language and form.
4.0 VISUAL IMPACT ASSESSMENT

The proposed Cremorne Point wharf upgrade introduces a new larger scale built element against the existing foreshore. The key viewpoints are described in Figure 22.

Distance zones have been established within the visual catchment to aid in assessing the impact on key views. These zones are shown in the diagram below and referenced in the table. Distance has been broken down to:

- Foreground zone (FZ): 0-250m from the viewer
- Middle ground zone (MZ): 250m to 500m
- Background zone (BZ): areas greater than 500m from proposed new wharf

Key viewpoint locations include:

1. Wharf surrounds
2. Milson Road
3. Reserve at top of sandstone cutting north of wharf
4. Cremorne Point Reserve to east of wharf
5. Sydney Harbour on approach from the west
6. Circular Quay and Sydney Opera House
7. Neutral Bay
8. Kirribilli Wharf

Figure 22. Visibility of project and key viewpoints
<table>
<thead>
<tr>
<th>Viewpoint</th>
<th>Setting</th>
<th>Visible elements</th>
<th>Sensitivity</th>
<th>Magnitude</th>
<th>Distance zone</th>
<th>Overall rating</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Figure 4 &amp; 5 Foreshore north of wharf</td>
<td>CBD skyline, eastern suburbs, harbour</td>
<td>Pontoon and gangway</td>
<td>HM</td>
<td>HM</td>
<td>FZ</td>
<td>HM</td>
<td>The impact is considered high to moderate. The proposed pontoon is larger in scale and will extend further to the south east. The greatest view loss will be from the foreshore to the south of the fixed foreshore wharf building and from within the building itself where the angled windows on the south eastern face will be partially blocked by the new wharf. Transparent material selection, reduction of fixed elements on the pontoon have sought to minimise this impact. Tidal fluctuation will also vary the level of view loss. Views from the foreshore to the north of the wharf building will be improved with the shift in alignment of the new structure opening up greater harbour views from this angle.</td>
</tr>
<tr>
<td>2 Figure 6 Milson Road</td>
<td>Heritage House (2 Milson Road), eastern suburbs, harbour</td>
<td>part of gangway</td>
<td>L</td>
<td>L</td>
<td>FZ</td>
<td>L</td>
<td>The impact is considered low as views of the pontoon section of the wharf are blocked for most of the street on approach by the heritage house. Impacts on views from the heritage house would also be low given that the existing wharf structure is located within the northern part of the assessment envelope thus any potential views south and south east are already highly obstructed.</td>
</tr>
<tr>
<td>Viewpoint</td>
<td>Setting</td>
<td>Visible elements</td>
<td>Sensitivity</td>
<td>Magnitude</td>
<td>Distance zone</td>
<td>Overall rating</td>
<td>Comment</td>
</tr>
<tr>
<td>-----------</td>
<td>---------</td>
<td>------------------</td>
<td>-------------</td>
<td>-----------</td>
<td>---------------</td>
<td>---------------</td>
<td>---------</td>
</tr>
<tr>
<td>3 Figure 7 &amp; 8 upper reserve to north west of wharf + adjacent residences</td>
<td>Eastern suburbs, harbour</td>
<td>Pontoon and gangway</td>
<td>M</td>
<td>L</td>
<td>FZ</td>
<td>ML</td>
<td>The elevated position of this viewpoint on top of the sandstone cutting behind the wharf renders the proposed changes visible from some points and hidden by the retained wharf structure and heritage building at others. The impact is considered moderate to low. The proposed wharf will anchor off the foreshore sea wall to the south east of the retained wharf building. Views from the north will be opened up as the bulk of the pontoon is hidden by the foreshore building. Views from adjacent residences will have a moderate to low impact. The elevated viewpoint combined with the oblique angle of the view towards the wharf ensure that the main views of the Harbour are preserved.</td>
</tr>
<tr>
<td>4 Figure 9, 10 &amp; 11 Cremorne Point Reserve looking west towards wharf</td>
<td>Sydney Harbour Bridge, Sydney Opera House, CBD skyline, Kurraba Point</td>
<td>Pontoon and part of gangway</td>
<td>M</td>
<td>HM</td>
<td>FZ</td>
<td>HM</td>
<td>The impact is considered high to moderate. The reserve consists of a clearing at the highest point, surrounded by dense vegetation extending down to the water. Filtered views are available from the main area, with clear views to the wharf only available off the track. The proposed new wharf will extend further across the foreshore of the reserve. The use of transparent materials within the proposed structure will reduce the impact on these views.</td>
</tr>
<tr>
<td>5 Figure 12 &amp; 13 Sydney Harbour looking north east on approach to wharf</td>
<td>Cremorne Point, Bradleys Head, harbour</td>
<td>Pontoon</td>
<td>M</td>
<td>ML</td>
<td>MZ</td>
<td>M</td>
<td>The impact is considered moderate. Currently the wharf provides the mediation point between the modified foreshore to the north and the natural reserve at the southern end of the point. The proposed changes will see the proposed pontoon shift further across the natural foreshore of the reserve extending the built area of the foreshore and impacting on the view of the reserve on approach by water.</td>
</tr>
<tr>
<td>Viewpoint</td>
<td>Setting</td>
<td>Visible elements</td>
<td>Sensitivity</td>
<td>Magnitude</td>
<td>Distance zone</td>
<td>Overall rating</td>
<td>Comment</td>
</tr>
<tr>
<td>-----------</td>
<td>---------</td>
<td>-----------------</td>
<td>-------------</td>
<td>-----------</td>
<td>--------------</td>
<td>----------------</td>
<td>---------</td>
</tr>
<tr>
<td>6 Figure 14 Circular Quay/ Sydney Opera House looking north east towards wharf</td>
<td>Cremorne Point, Bradleys Head, harbour</td>
<td>Pontoon</td>
<td>L</td>
<td>L</td>
<td>BZ (over 1.5km)</td>
<td>L</td>
<td>Views from Circular Quay and the Sydney Opera House will have a low impact due to the distance to the proposed wharf and its scale within the broader view of the harbour. The most visible element of the proposed upgrade will be the pontoon. Impact has been reduced through low reflectivity materials.</td>
</tr>
<tr>
<td>7 Figure 15 Neutral Bay near North Sydney ferry wharf (High Street) looking east</td>
<td>Kurraba Point, Cremorne Point, eastern suburbs, harbour</td>
<td>Pontoon</td>
<td>N</td>
<td>N</td>
<td>BZ</td>
<td>N</td>
<td>The impact on views is considered negligible. Views to the proposed wharf are limited by Kurraba Point.</td>
</tr>
<tr>
<td>8 Figure 16 &amp; 17 Kirribilli wharf looking east</td>
<td>Kurraba Point, Cremorne Point, eastern suburbs, harbour</td>
<td>Pontoon</td>
<td>N</td>
<td>N</td>
<td>BZ</td>
<td>N</td>
<td>Views from Kirribilli wharf would have a negligible impact due to the distance from the proposed upgrade and its small scale within the overall view.</td>
</tr>
</tbody>
</table>

N=Negligible; L=Low; ML=Moderate-Low; M=Moderate; HM=High-Moderate; H=High

**Overall visual impact - Moderate to low**

The overall visual impact of the proposed wharf at Cremorne Point would be moderate to low. The visual range of the proposed wharf is extensive due to its prominence at the end of the point and position centrally within the harbour. However the highest impact on views is from the area immediately surrounding the wharf, particularly those from within the existing fixed foreshore structure, and from within the reserve looking to the CBD and Harbour Bridge to the west, above the proposed wharf. Views from Milson Road and the foreshore areas directly to the north of the wharf and elevated on the sandstone cutting behind will be improved by the proposed shift in alignment, with more of the bulk of the wharf hidden behind the existing foreshore wharf building to be retained.

Views towards Cremorne Point will be moderately affected as the proposed pontoon shifts further south east across the natural foreshore edge of the reserve.

The proposed changes to the wharf include replacement of gangway and pontoon and a small increase in the scale of both. The greatest change comes from the alignment of these elements to the foreshore which while opening views up on the north western side of the wharf from the fixed foreshore structure and adjacent footpath, will result in some view loss from the opposite side of the building and from parts of the reserve behind the wharf.

There will not be any view loss from neighbouring residential properties to the north of the wharf as they are elevated above and away from the wharf. The proposed structure will be substantially blocked from these angles by the bulk of the existing wharf building to be retained on the foreshore.

Long range views from surrounding points and on approach across the harbour will have a negligible impact as shift in alignment and scale from the existing structure to the proposed wharf diminishes over distance.

The impact on views towards and from Sydney Opera House as outlined in SEPP 58B - Protection of world heritage value of Sydney Opera House, is considered negligible. Views have been assessed particularly in relation to item (b) and (d) with the proposed wharf preserving views and vistas between the Sydney Opera House and the public places surrounding the wharf, and with the proposed structure maintaining the visual prominence of the Sydney Opera House within the buffer zone.
5.0 SUMMARY OF URBAN DESIGN PRINCIPLES AND MITIGATION STRATEGY

Urban design objectives and principles
Based on the landscape character and visual impact assessment the following urban design principles and objectives for the proposed Cremorne Point wharf have been identified:

- Provide a unified and consistent design both with the proposed structure and existing built elements along the foreshore.
- Maintain views through the proposed structure.
- Ensure that the iconic elements, including the heritage house, Cremorne Point Reserve, and views to the CBD, Sydney Harbour Bridge and Sydney Opera House are maintained and their character zones not adversely affected by the replacement wharf.

Landscape character and visual impact mitigation strategy
The proposed wharf replaces the current pontoon and gangway with replacement structures orientating to the south. The structure is a small increase in scale to the current wharf and includes a bridge, covered gangway and pontoon. The roof over the pontoon combined with the extension of the wharf further to the south form the key changes.

Scale
The size of the proposed wharf in catering to the future commuter demand and user amenity represents an increase on current provision. Proposed elements have been designed to retain simple clear lines that do not diminish its visual strength on views towards the foreshore. As one of the two built elements along the Cremorne Point foreshore, this small increase in scale is noticeable.

Design
Material selection, location of services, and a standardised family of elements form the key design strategies for mitigating the impact of the proposed wharf. Attention has been made to ramps and walkways within the proposed wharf to meet access standards. The proposed wharf has been designed for amenity through covered walkways and protection screens to minimise impacts of weather on ferry users.

Colour
Colour plays an important role in mitigating the impact on views and landscape character. Selection of materials and paint colour respond to the surrounding palette, are low in reflectivity, and complement the surrounding context through neutral tones. Overall the proposed wharf would promote a unified palette of materials which, while responding to the maritime heritage and surrounding character, also separates the structure as a piece of architectural design.

Summary
The overall impact of the proposal is considered to be moderate. The prominent position of the Cremorne Point wharf ensures a wide visual impact area around the harbour. The predominantly natural character of Cremorne Point at water level, combined with the limited built elements on the foreshore, exacerbates the impact of changes to this structure. The proposed wharf will introduce a new architectural form and material palette to the foreshore and to Cremorne Point more broadly, however the upgrade will link this wharf to a ‘family of wharf structures throughout the harbour.

Mitigation efforts in the design and material selection of the pontoon and gangway will reduce the impact of the proposed wharf over the greater distance zones. The exposure of this wharf to impacts from extreme seas and weather require a robust design adapted to this particular position. While some view loss and impact on character along the foreshore will occur, the benefit of a stable, protected and maintainable wharf upgrade at this location is of key concern.