

Appendix 1 – UDLP Submissions and Responses

Executive Summary

The NorthConnex Urban Design and Landscape Plan (UDLP) has been prepared in accordance with Condition of Approval B33. The UDLP is a logical development of the objectives and principles outlined in the initial UDLP included in the NorthConnex Environmental Impact Statement (EIS).

The UDLP was exhibited on the NorthConnex website during November 2016, along with display copies at local council offices and local libraries, the NorthConnex Community Information Centre, Roads and Maritime Services, Milsons Point Office, Department of Planning and Environment (DP&E), and at the relevant State and Federal Member of Parliament (MP) offices. A total of 13 public buildings and six MP's offices provided display copies.

Urban Design and Landscape Plan – Stage One

The UDLP – Stage One encompasses the overall NorthConnex urban design principles and objectives, urban design experience, and design methodology for the project, including the M2 Integration works. Specific elements included are:

1. Interchanges
2. Landscape and planting design principles, including motorway corridor planting design
3. Portals and dive structures
4. Noise barriers
5. Retaining walls
6. Cut batter treatments
7. Bridges and underpasses
8. Miscellaneous items such as throw screens, privacy screens and shared paths
9. Remote infrastructure such as road signage
10. Residual sites and rehabilitated sites.

Other elements to be included in future UDLP stages will include tunnel interiors (principles, strategies, narrative concept and visual events, and tunnel architecture), operational compounds and buildings including landscape design, and decorative lighting concepts.

Public Exhibition and Consultation Process

Consultation was open from 1 November to 30 November, 2016. Late submissions were accepted up to Friday 9 December, 2016. Community members were encouraged to provide their feedback via mail (PO Box 343, Pennant Hills 1715), email (enquiries@northconnex.com.au), phone (1800 997 057) or in person (NorthConnex Community Information Centre, 118 Yarrara Road, Pennant Hills).

The UDLP – Stage One was displayed online at www.northconnex.com.au/UDLP and an A3 size hardcopy was displayed at the following locations:

- Hills Shire Council, 3 Columbia Court, Baulkham Hills
- Hornsby Shire Council, 296 Pacific Highway, Hornsby
- Ku-ring-gai Council, 818 Pacific Highway, Gordon
- Parramatta City Council, 126 Church Street, Parramatta
- Turramurra Library, 5 Ray Street, Turramurra
- Pennant Hills Library, corner of Ramsay Road and Yarrara Road, Pennant Hills
- Epping Library, Chambers Court, Epping
- Hornsby Central Library, 28-44 George Street, Hornsby
- Baulkham Hills Library, Railway Street, Baulkham Hills
- Castle Hill Library, cnr Castle Street and Pennant Street, Castle Hill

- Roads and Maritime Services, Level 1, 22-40 Ennis Rd, Milsons Point
- Department of Planning and Environment, Level 22, 320 Pitt Street, Sydney
- NorthConnex Community Information Centre, 118 Yarrara Road, Pennant Hills

Advertisements advising the exhibition of the Urban Design and Landscape Plan were placed in local newspapers on the following dates:

Publication	First publication date	Second publication date
North Shore Times	10 November 2016	24 November 2016
Northern District Times	09 November 2016	23 November 2016
Hornsby Advocate	10 November 2016	24 November 2016
Hills Shire Times	08 November 2016	22 November 2016
Hills News	10 November 2016	24 November 2016

Direct Consultation Process

Targeted emails were sent to the project community database on 2 November 2016. The project community database comprised 1953 people who have previously expressed interest in the project and agreed to be added to the project electronic mailing list.

The project team distributed 505 community letters to eleven locations inviting feedback and door knocked or telephoned 44 individual properties as part of targeted consultation.

Residents who were door knocked or telephoned provided feedback that provided information on:

- Distance between the new noise wall and their property
- Height of the new noise wall at their property
- Proposed colour of the new noise wall at their property, both facing the motorway and facing their property
- Proposed finish of the new noise wall at their property, both facing the motorway and facing their property
- Vegetation proposed to be planted between the noise wall and their property
- New noise wall construction material
- Proposed timing of new noise wall construction
- How to provide further feedback on the UDLP.

The feedback form was delivered back to the respondent, with an acknowledgement of receipt of their UDLP feedback, and the submission number for future reference. Residents will continue to be responded to on matters involving current construction.

Attendees at the pop up shop information sessions listed below were informed of the UDLP consultation and provided with information on how to access the UDLP and make comment.

Location	Date
Normanhurst West Public School	06 November 2016
Danes Gourmet Café, Wahroonga	12 November 2016
Royal Institute for Deaf and Blind Children, North Rocks	27 November 2016

A formal acknowledgement was sent to all respondents via email or mail which thanked them for their submission and provided the submission number for future reference.

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Clarifications during the Exhibition Period

Minor clarifications were raised in the Community Involvement Group (CIG) meetings held during the UDLP exhibition period.

The North CIG raised a question regarding the number of lanes on the M1 Pacific Motorway in the area adjacent the NorthConnex entry and exit dive troughs (there are two lanes plus chevroned shoulder southbound diverging to three lanes prior the North Shore Railway bridge, and three lanes northbound merging to two lanes past NorthConnex). Updated images to clearly illustrate the chevroned shoulder were placed on the NorthConnex website.

The South CIG clarified a concern with the visibility of truck clearance lights through a transparent noise wall on the Hills M2 eastbound cycleway bridge. There is the potential for distracting fleeting glimpses of the truck side clearance lights if visible through the transparent noise wall (refer Submission UDLP 042).

Submissions Received

A total 63 submissions were received. Submissions were received as mail, email, phone call, SMS or in person via doorknock, Community Information Centre visit or a scheduled meeting.

Method received	Number of submissions
Door knock	42
Email	11
Scheduled meeting	4
Community Information Centre visit	3
Mail	1
Phone call	1
SMS	1

Submissions were received from:

1. Local Councils – Hornsby Shire, Hills Shire, and Parramatta City Council
2. Special Interest Groups – Bike North
3. Community members

Common Issues Raised in Submissions

There were a number of common issues raised in the submissions. These could be categorised as:

1. The noise wall construction to be undertaken immediately
2. The heights of the noise walls be increased, particularly on the Hills M2 Motorway
3. The colour of the wall that the resident sees
4. Planting type, and maturity of planting at inception, plus maintenance
5. Interest in the design of the support facility buildings at the north, Trelawney Street, Wilson Road, and the south Motorway Operations Complex.

A detailed breakdown of the issues raised is in the following table.

Issue	Number of submissions	UDLP related
Vegetation	37	Yes
Construction	19	Yes
Noise wall colour/finish	22	Yes
Other	9	No
Request for information	13	Yes
Noise wall height and/ or alignment	12	No
Current construction	11	No
Maintenance (operational)	8	Yes
Current maintenance	6	No
Noise modelling/monitoring	5	No
Graffiti	4	Yes
Consultation	3	Yes
Access	2	Yes
Design	4	Yes
No comment	3	Yes

Summary of Responses to Submissions

The responses to the received submissions can be summarised as:

Non - UDLP related issues

Non UDLP related issues have been identified and responded to as follows:

- Issues that are categorised as 'other' are considered out of scope of the UDLP. These included suggestions for noise mitigation, moving a CCTV camera, changing speed limits, the end use of land not required by the project, truck exhaust and speeds, involvement of community volunteers, grade separation and improvements to roads and facilities not forming part of the project.
- 'Noise wall height and alignment' is determined by the operational noise assessment (<http://northconnex.com.au/environment-and-approvals/operational-noise-assessment>), therefore no changes are proposed in response to these submissions.
- Issues relating to 'current construction' have been referred to the project team for response.
- Issues relating to 'current maintenance' have been referred to the relevant motorway operator for consideration.
- Issues relating to 'noise modelling/monitoring' are considered out of scope of the UDLP as post construction noise monitoring will be done as required by the Operational Noise Management Plan and in accordance with CoA E24, E25 and E26.

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Summary of Responses to Submissions (cont'd)

UDLP related issues

- Vegetation
 - was the most common feedback, with many submissions expressing a preference for quick growing, dense and leafy replacement vegetation to reduce visual and noise impacts. Some submissions also suggested vegetation that is mature, not bushfire prone, won't drop leaves, and won't encourage snakes and vermin. Planting additional to that proposed, as well as particular species were requested. One comment objected to the use of hydromulch or compost blanket seeding mixes
- Construction related issues
 - was the second most common with many residents expressing a preference for noise walls to be constructed as soon as possible to mitigate construction noise impacts. Additional comments related to work hours and program, painting of noise walls, gaps in noise walls, concern with noise during construction and reinstatement of council fences.
- Noise wall colour and finishes
 - Most comments on 'noise wall colour and finishes' were in agreement with UDLP proposed colour schemes, with some suggestions for alternative colours and finishes. These suggestions will be reviewed and implemented, where there is common consensus by residents in the immediate vicinity.
- Requests for information
 - were responded to within the consultation period if possible, with the remainder provided with responses in this report.
- Maintenance
 - Comments categorised as 'maintenance' refer to the future maintenance of vegetation and cycleways, with clarifications requested on the organization responsible for maintenance. Concerns were expressed with the level and frequency of maintenance and snake and fire hazard risks.
- Graffiti
 - The category 'graffiti' relates to making the new noise walls graffiti resistant and not reusing graffitied panels.
- Consultation
 - Comments relating to 'consultation' involve the level of detail of a landscaping plan, concern that the plan is subject to further development, inconsistencies in cycleway routes in two maps and an acknowledgement of the UDLP elements to be displayed in Stage Two .
- Access
 - The comments relating to 'access' involve signage, barriers and connections for cyclists.
- Design
 - 'Design' issues raised were in relation to variable message signs (purpose and location), the Hewitt Avenue shared path, obstructions to cyclists, and speed limits from the M1 into the tunnel.
- Three submissions received as feedback forms for the targeted consultation did not provide any comment.

Changes or Clarifications in Response to Submissions:

In response to community submissions received the following changes or clarifications have been made to the project:

- Noise wall colour/finish – a number of submissions requested consideration of specific colours to the noise wall facing their properties. Where these are a different to the colour proposed in the UDLP, the colour preference is noted, will be reviewed, and where there is common consensus in the immediate vicinity, will be implemented.
- The transparent noise wall on the eastbound cycleway bridge will be made translucent for the sections that provide visibility of truck side clearance lights.
- Clarification of maintenance responsibilities. The responses to the queries regarding landscape maintenance, distinguishes between the establishment maintenance period undertaken by the Contractor, and the long term maintenance that is undertaken by the relevant land owner (Roads and Maritime Services or motorway operator) or local council.

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Submission Number	Submission type	Issue	Submission	Project Team Responses	Incorporated in Design
Local Councils and Special Interest Groups					
UDLP048 Bike North	Email	Access	<p>At both the Northern and Southern tunnel portals, grade separation has successfully been achieved for the existing through-cycle ways on the M2 and M1. So from Bike North's point of view the needs of cyclists in being able to travel through these areas uninterrupted and without having to cross over any motorway traffic lanes appear to have been met.</p> <p>Well done NorthConnex. It seems no 'gauntlet running' will be required of cyclists having to cross over traffic to continue their journeys.</p> <p>However, given some of the sharp corners involved in the proposed cycle way tunnels and ramps etc., good signage and good lighting will be critical to cycling safety in these areas.</p>	Design of the cycle paths has had to address a number of specific issues where resolution results in tight curves. Signage will include both pavement markings and other signage to clearly indicate bike route destination, advisory and warning signs. Paths separated from the road carriageway will be provided with suitable lighting.	Yes
		Access	Also, where the eastbound M2 cycle way underpass tunnel empties back out on to the M2 there will need to be a barrier that forces riders to turn left as they emerge from the tunnel to prevent them from inadvertently straying out into the traffic! (See Section 8-14).	The specific design of the exit to the eastbound Hills M2 mainline shoulder has a traffic barrier to guide cyclists and to protect motorists from the underpass opening.	Yes
		Vegetation	Where plants are located to the side of the proposed cycle ways, care will need to be taken to select plant species which, when fully grown, will not encroach into, and compromise the safety of, any cycle way.	The detail design of planting immediately adjacent cycle paths will take into account form and growth characteristics of species in providing suitable selections.	Yes
		Other	For the future, given the fine example set by the engineers and conceptualisers who have designed the grade separations for the NorthConnex tunnel portal cycle way intersections, it would be good to see the same outcomes achieved elsewhere on the M2 where at the moment a number of situations arise requiring cyclists having to cross busy/ high-speed traffic flows to continue their journeys.	Noted	Noted

Noted = Comment not required to be implemented

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Submission Number	Submission type	Issue	Submission	Project Team Responses	Incorporated in Design
UDLP049 Hills Shire Council	Email	Vegetation	Noise barriers are proposed along the rear of properties on Gum Grove Place, Larchmont Place, Savoy Ct, Lisle Ct, Mundon Place and Westmore Drive, to provide a noise barrier from the motorway to existing residential properties. It is noted that noise barriers Type 2, Type 5 and Type 6A will be located adjacent to these properties. All of the noise barrier types indicate that vegetation is to be planted on neighbourhood side of the barrier. The landscaping should include mature plant and tree species to provide appropriate screening from the time the noise barrier is installed. 2. Noise barriers are proposed along the rear of properties on Gum Grove Place, Hillside Place and Easton Road adjacent to the NorthConnex Motorway Operation Complex. Noise barrier Type 6C is proposed to be installed in this location. The landscaping proposed on the neighbourhood site should include mature plant and tree species to provide appropriate screening from the time the noise barrier is installed.	The detail design of planting on the neighbourhood side of the noise walls is subject to design development, but will be in accordance with the Sect 8.3 Landscape Principles and Section 8.4 of the UDLP 'Planting Design Principles'. Size of planting stock will be governed by limitations on weight carried by hand on steep batters, species, and available space. Generally, smaller size planting stock grows faster than larger stock, promoting a greater survivability rate overall. Compound areas will be provided with some mature plantings, to be developed in the UDLP Stage 2.	Yes Refer UDLP Stage 1b
		Consultation	It is noted that the Urban Design Landscape Plan - Stage 1 does not include the complete package of urban design and landscape works. In particular, it does not cover the motorway operations compound, control centre, the southern ventilation facility, lighting concepts or the landscape strategy for the motorway operations complex. Council will provide further comments when the next stage of the plan is released.	Noted	Refer UDLP Stage 2
		Maintenance	Plan DG-0710 has a note referring to a proposed pocket park located on Woonona Ave near Fern Ave and the Northern Ventilation Facility. This area is also noted that on plan DG-1104 as being designated for revegetation with endemic species to match the existing environment. Council is supportive of the creation of a new pocket park in this location however requests that further information be provided in relation to the design and asset maintenance of the area, along with clarification of future ownership. It is requested that more information be provided to council to enable better understanding of this proposal.	Hornsby Council's support for the proposed landscaped area is noted. The land has been acquired by Roads and Maritime Services as part of the NorthConnex Project, and will be maintained by Roads and Maritime Services.	Yes
UDLP058 Hornsby Shire Council	Email	Design	Plan DG-0861 shows a design for a shared path at the end of Hewitt Avenue in Wahroonga. Council support improved pedestrian and cycle connections in this location including the provision for accessible ramps that meet all the required Australia Standards, however the creation of large paved area, excessive width to the stairs and ramps, along with seating terraces are not supported. There is no existing or proposed cycle network that this shared path would link to and the current ramp arrangement does not provide effective connection to the existing footpaths network. This area does not have enough pedestrian movement to justify the creation of "plaza" style environment. Council proposes that: - the paving is reduced and replaced with more grass and trees. - the stairs and ramps are reduce in scale, and - the ramp exits on Hewitt Avenue at a location where pedestrians are coming from and doesn't return on itself. A suggested alternative arrangement is attached for consideration.	The shared path at Hewitt Avenue provides a public accessible pedestrian connection from Pennant Hills Rd at the M1 intersection down to Hewitt Avenue. It replaces the current narrow and substandard connection. The overall level change is 5.5m approximately, and the gradients down Hewitt Avenue exceed the requirements of AS1428 for external accessible paths, hence the design does not attempt to extend south down Hewitt Avenue as it will not provide a 'compliant accessible path'. Widths of the ramps are sized to permit two way traffic as required in Austroads and Australian Standards, and to accommodate motorised scooters that are commonly used. Detail development of the design will reduce the paving as much as possible.	No HSC proposed scheme would not comply with Aust Standards or Austroads 'Shared Path'
		Vegetation	Plan DG-0709 proposes a footpath and verge upgrade to the land along Pennant Hills Road associated with a future potential development site. Further detail is to be provided in relation to the levels along this boundary and what treatments will be provided as it appears there will be a level differences between the existing road and future surfaces. Large trees were removed from the site to facilitate the works. These trees were visually significant and replacement trees should be provided as part of these proposed works to reinstate the leafy streetscape.	The future development site between Russell Avenue and Pearce's Corner will be returned to Roads and Maritime Services on completion of the project. The new footpath verge is proposed to provide a paved pathway and grass. There will be a level change from the boundary to the residual land, as previously existed for this site frontage. Future redevelopment, access points off roads are subject to future development approvals.	No

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UDLP058 Hornsby Shire Council cont'd	Email	Vegetation	The proposed noise Barrier Type 3 uses landscape (grasses) in planter beds are considered not sustainable to maintain in the longer term. Appropriate irrigation and drainage will be required in the design to ensure the survival of any landscaping associated with this type of noise wall. RMS will be required to maintain any landscaping provided in the type 3 noise barriers. In other words Council will not accept any landscape maintenance responsibilities.	Council's comments are noted. This noise wall and compound security wall is owned by RMS and maintained during the Motorway concession period by the operator.	Yes
		Vegetation	Council requested that the landscape establishment period following construction and planting is a minimum two years to ensure success of any revegetation landscape works undertaken as part of the construction project. The two year maintenance period is consistent with other RMS infrastructure projects.	Landscape establishment maintenance periods vary between 12months for Local Area Works and 24 months for NorthConnex Motorway assets.	Yes
		Vegetation	Section 8.14 refer to site rehabilitation. This should involve tree plantings and be more than grass seeding. To ensure appropriate tree species are used for rehabilitation seed collection and propagation of indigenous species should be occurring from trees in the local area.	Rehabilitation will be completed with endemic species (in the first instance) and locally native species in accordance with Condition of Approval D43.	Yes
		Maintenance	The current arrangement for maintenance of road verges associated with the M1 is that is maintenance of all landscaping that is within the motorway side of the noise barrier is the responsibility of RMS. Council request confirmation that this maintenance arrangement will remain following construction works.	The respective Motorway Operators will be responsible for landscape maintenance within their respective lease areas, either Hills M2 Motorway or NorthConnex Motorway. Outside of these lease areas RMS will maintain until agreed otherwise with the relevant Council.	Yes
		Request for information	Council also notes that details for the Wilson Road Tunnel Support Facility and Trelawney Street Tunnel Support Facility have not yet been provided and request that information on these be provided prior to any commencement of final works.	Information for these facilities will be in the second phase of the UDLP and will be provided to Council for comment in early 2017.	Refer UDLP Stage 2
UDLP060 Parramatta City Council	Email	Other	Currently, there is no pedestrian leg on the southern side of the Pennant Hills Road and M2 Motorway Intersection, forcing pedestrians to cross at five lights to continue their journey. Recommendation: Install pedestrian leg on southern side of intersection.	There is no proposal to modify the signalised intersection of Pennant Hills Road and Hills M2 Motorway as part of the NorthConnex Project.	No
		Other	Currently, the eastern side of the intersection is a Shared User Path, but the kerbs and crossings are not wide enough and are missing bicycle lanterns so cyclists are legally required to dismount whilst crossing. Recommendation: A zebra crossing at the south east corner of the intersection is either: (a) converted to a signalised crossing (with bike lanterns) or, (b) adjacent cycle crossing lanes next to zebra crossing.	There is no proposal to modify the signalised intersection of Pennant Hills Road and Hills M2 Motorway as part of the NorthConnex Project.	No
		Other	Currently, only the eastern side of the intersection is a Shared User Path. Recommendation: A zebra crossing at the south east corner of the intersection is either: (a) converted to a signalised crossing (with bike lanterns) or, (b) adjacent cycle crossing lanes next to zebra crossing. All crossings at the Pennant Hills Rd and M2 Intersection should be suitable for use by not only pedestrians but cyclists to allow cyclists a choice of travel directions.	There is no proposal to modify the signalised intersection of Pennant Hills Road and Hills M2 Motorway as part of the NorthConnex Project.	No

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UDLP060 Parramatta City Council cont'd	Email	Other	Currently, there is no clearly marked safe facilities or transition zone for cyclist to access the M2 Cycleway from southbound of Pennant Hills Road. In the existing proposal, the lane ends before the kerb ramp. Recommendation: A safe transition zone for cyclists needs to be provided or communicated more clearly in the plan.	There is no proposal to modify the signalised intersection of Pennant Hills Road and Hills M2 Motorway as part of the NorthConnex Project.	No
		Consultation	There is ambiguity about existing information presented in the document. The cycling network map on p37 of the document does not match with the map presented on p182. Recommendation: All existing cycleway elements pictured in documentation should be confirmed.	There are discrepancies in the roads identified as 'low difficulty routes' and 'moderate difficulty routes' south of the M2 Motorway. These errors will be corrected in the revision issued for the approval of the Secretary.	Yes
		Design	There are concerns about how wide the handrails on the cycle bridge are as an unnecessarily wide handrail can obstruct the path of the cyclist and be of safety hazard. Recommendation: There should also be a minimising of handrails into operating space and cycle ways on any bridge structure.	The cycle paths on, over, or under the Motorway are all single direction. The cycle paths have been designed in accordance with the relevant Austroads guidelines which requires the provision of guide rails. A guide rail is provided at 1300mm high, and needs to provide a minimum of 150mm clearance in order to avoid the snagging of pedals on vertical faces.	Yes
		Maintenance	Although not mentioned in the UDLP, there are concerns about detritus and glass accumulating on the cycleway from associated motorway activities which poses a safety hazard to cyclists using the M2 shoulder lanes. Recommendation: Clarify if there is a commitment to schedule cleaning of the M2 shoulder lanes / cycleway.	Maintenance of the Hills M2 Motorway will continue to be conducted in accordance with the existing operational maintenance schedule and the Hills M2 Motorway code of maintenance standards.	Noted
		Other	There is no mention of improvement to Oakes Road Tunnel, one of the only north-south connections on the M2. Oakes Road tunnel is a bleak environment with poor lighting and general aesthetics that is undesirable or unsafe for pedestrians. There is also a lack of integration between the tunnel and its general surrounds. Recommendations: Oakes Road Tunnel needs to be improved lighting and amenities to enhance the pedestrian experience and safety. There should be a whole of street approach to link the areas to the north and south with lighting and amenities. Areas near and around these through-connection points which penetrate the urban barrier the motorway creates, forms and opportunity to integrate the through connection points by providing and improving commuter parking and facilities such as childcare centres next to interchanges.	Improvements to the existing bus stops, including the existing pedestrian paths, are not part of the NorthConnex Project. Consideration of improvements to the current supply of commuter parking on land that is outside of the NorthConnex Project Approval is a matter more appropriate for Council and Transport for NSW (in relation to commuter bus services). Enhancements to 'interchange areas' with more or improved shopping facilities and childcare is on land outside of the NorthConnex Project Approval and would be expected to be addressed in a Council Local Environmental Plans and Development Control Plans. These issues are outside the scope of the NorthConnex Urban Design and Landscape Plan.	No Noted
		Vegetation	The City of Parramatta supports the proposed tree plantings, shrubs, grasses and groundcovers which utilise indigenous species to mitigate visual impacts and for remediation of disturbed areas.	Noted.	Yes
		Vegetation	City of Parramatta Council notes that works will not involve any significant bushland removal and existing mature vegetation between private properties and the existing M2 Motorway is to be retained and protected (with the exception of that requiring removal for the Westbound Tunnel Exit). However, it is noted that works will occur in proximity to <i>Epacris Purpurasens</i> , a threatened species under the Threatened Species Conservation Act 1995. Recommendation: Works in the vicinity of <i>Epacris Purpurasens</i> require supervision of the project ecologist to ensure appropriate protection measures are implemented.	Locations of <i>Epacris</i> species have been mapped in the design and identified on-site. Sites are protected, or if affected, plants are translocated in accordance with the approved Flora Translocation Strategy.	Yes

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UDLP060 Parramatta City Council cont'd	Email	Other	The bus networks and bus setdowns along the motorway corridor and southern interchange located in proximity or within the City of Parramatta local government area has not been located. The analysis is also lacking clear pedestrian movement and desirability links.	There are two Motorway bus stops on the subject area of the Hills M2 Motorway - Oakes Road and Barclay Road. The pedestrian links and connectivity to these stops / interchanges remain unchanged. The analysis of other desirability paths and connectivity links are discussed in the submission subject below.	No Noted
		Other	In addition, there is no mention of improvement of the bus interchange on the motorway. Bus interchanges in the motorway form opportunities to provide pedestrian connectivity that is safe, well lit and supported by facilities as commuter parking, shops and amenities such as childcare centres. Recommendation: Upgrades to the bus network and interchange areas should be included in the plan as part of the urban design and landscape capital works program.	Upgrades to existing bus stop shelters are not proposed as part of the NorthConnex Project. Consideration of improvements to the current supply of commuter parking is on land that is outside of the NorthConnex Project Approval, and is a matter more appropriate for Council and Transport for NSW (in relation to commuter bus services). Enhancements to interchange areas with more or improved shopping facilities and childcare is on land outside of the NorthConnex Project Approval and would be expected to be addressed in a Council Local Environmental Plan and Development Control Plan. These a issues are outside of the NorthConnex Urban Design and Landscape Plan.	No Noted
M2 Motorway, North Rocks (west)					
Williams Road					
UDLP011 (Williams Rd)	Targeted consult	Noise wall height/alignment	Can currently see trucks on the motorway from residence. Prefer noise wall to be higher so less visual impact from trucks and motorway.	The height of the noise walls have been set in accordance with the RMS Guidance - Environmental Noise Management Manual (ENMM) and are not subject to change.	No
		Other	Need better noise mitigation as noise from motorway is too loud and treatments installed don't work effectively. Need double glazing on windows.	The height of the noise walls and at receiver treatments have been set in accordance with the RMS Guidance - Environmental Noise Management Manual (ENMM) and is not subject to change. Operational noise monitoring will be conducted post-opening to verify if the noise walls comply with the guidelines.	No
		Current construction	Dust from construction needs better mitigation.	Dust generation is minimised through the implementation of the Construction Air Quality Management Plan in accordance with Condition of Approval D57(e). This item has been referred to project team for consideration and direct response	Yes
		Vegetation	As much foliage as possible needs to be planted to mitigate noise and visual impacts. Quick growing, dense, thick and tall vegetation to be planted.	Rehabilitation landscaping will be conducted with native species. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth. Size of planting stock will be governed by limitations on weight carried by hand on steep batters, species, and available space. Generally, smaller size planting stock grows faster than larger stock, promoting a greater survivability rate overall.	Yes
UDLP023 (Williams Rd)	Targeted consult	Noise wall height/alignment	Would like new noise wall to be higher as will see more of the motorway at the new height of 5m and set back of 2m - at least 6m high. Why are noise walls higher at some locations than others? it dips at this location so allow more noise and more visual impact	The height of the noise walls have been designed in accordance with the RMS Guidance - Environmental Noise Management Manual (ENMM) is not subject to change. The new noise wall at this location has been designed to be stepped to follow the topography of the land.	No
		Noise wall colour/finish	Green will blend with vegetation best	Of the nine residents commenting on the colour of this noise wall, two preferred charcoal to the existing green colour with one of these commenting that they would also be happy with green. It is recommended to proceed with painting the noise wall the existing green colour.	Yes
		Construction	Would like to see built asap	Installation of the noise walls will occur as quickly as possible in line with Condition of Approval D17.	Yes
		Noise monitoring/modelling	Would like to see post construction/operational noise monitoring done at peak hour	Operational noise monitoring will be conducted in accordance with Conditions of Approval E24, 25 and 26.	Yes

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Submission Number	Submission type	Issue	Submission	Project Team Responses	Incorporated in Design
		Current construction	Impacted by construction dust which is damaging pool decking.	Dust generation is minimised through the implementation of the Construction Air Quality Management Plan. This query has been referred to project team for consideration and direct response.	Yes
UDLP024 (Williams Rd)	Targeted consult	Noise wall height/alignment	<p>Will see more of motorway with more visual impact. Can currently see truck drivers in cabins. With the movement and height of new noise wall, will now be able to see 3 lanes of traffic which will include truck wheels in lane 1 and cabins in lane 2. Does this comply with EA? Resident will also be more exposed to truck exhaust over the top of the wall.</p> <p>Thanks for the email copy, following your visit 8th November 2016. On reviewing same and on taking further measurements, based on the engineers markings on the wall which indicate that the wall will be moved 2.72 metres towards my home with no increase in height, I advise the following:</p> <p>1 I will then be able to physically see the asphalt roadway for lanes 1 and 2 east bound 2 I will be able to physically see the drivers of semi-trailers in lanes 1, 2, 3 eastbound, Bus drivers in both East and Westbound Bus Only lanes 3 I will be able to physically see the exhaust stacks of semi-trailers in lanes 6, 7 and 8 westbound. 4 As I will able to physically see semi-trailer exhaust stacks across all 8 lanes I will therefore DIRECTLY hear the sounds emitted from all large vehicles as they will be physically visible from the living area of my home! As I am sure you will agree, this is totally unacceptable and contrary to the reason for the original installation of the noise barrier wall! Please advise how items 1 to 4 listed above, comply with the original approval of noise suppression for homes effected by the motorway.</p>	<p>The height of the noise walls have been designed in accordance with the RMS Guidance - Environmental Noise Management Manual (ENMM) is not subject to change. Noise walls are for the purpose of operational noise impact reduction only, not visual impacts.</p> <p>The Operational Noise Plan has assessed and identified properties for architectural treatment as part of the noise mitigation.</p>	No
UDLP031 (Williams Rd)	Targeted consult	Vegetation	Fast growing high density plants.	Rehabilitation landscaping will be conducted with native species. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth.	Yes
		Vegetation	Landscaping, when is it going to be done?	Landscaping will be done as early in the construction program as possible.	Yes
		Current maintenance	White ants from the trees.	White ants are part of the overall eco-system, and protection of individual properties from potential pests is the responsibility of the property owner.	Noted
		Construction	Happy for wall erection to start asap.	Noise walls will be installed as quickly as possible in line with the intent of Condition of Approval D17.	Yes
UDLP032 (Williams Rd)	Targeted consult	Noise monitoring/modelling	Who does the noise modelling?	The noise modelling was completed by Wilkinson Murray Pty Ltd who are a member firm of the Association of Australian Acoustical Consultants and the work completed has been carried out in accordance with the relevant guidelines and legislation.	Noted
		Vegetation	Trees need a foliage height of 5m at least.	A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth and longevity. Planting will be implemented as a mix of understory and high canopy trees. Selection will be selected from the range of plant communities in the corridor and compatible with the specific environment. Planting sizes will be based on a number of factors, mainly ensuring that long term growth is healthy and effective. Noting that some taller growing species cannot be planted near the roadway due to safety requirements.	Yes
		Maintenance	Ongoing maintenance - who is going to look after it long term and how often will they maintain?	Maintenance of the landscaping is discussed in Section 8.16 of the UDLP. The long term maintenance of the landscaping will be the responsibility of Hills M2 Motorway operator after establishment of the landscape.	Yes
		Noise wall colour/finish	Prefer the charcoal colour if possible but happy with green.	Noise wall colour preference is noted. Of the nine residents commenting on the colour of this noise wall, two preferred charcoal to the existing green colour. It is recommended to proceed with painting the noise wall the	Yes

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Submission Number	Submission type	Issue	Submission	Project Team Responses	Incorporated in Design
				existing green colour and communicate this decision to the two residents expressing a preference for charcoal.	
		Noise wall height/alignment	Concerns about new wall height.	Noise wall extent and heights have been designed in accordance with the RMS Guidance - Environmental Noise Management Manual (ENMM)	Noted
		Construction	Ok with construction of walls to start.	Noise walls will be installed as quickly as possible in line with Condition of Approval D17.	Yes
UDLP034 (Williams Rd)	Targeted consult	Noise wall colour/finish	Can we paint the orange wall on other side with something that will blend into the natural environment.	The orange on the motorway side of the noise wall is part of an overall M2 Motorway Upgrade Project Urban Design and Landscape Plan that was submitted for public consultation, and subsequently approved by the Department of Planning and Environment. A change to that approved Plan is not proposed.	No
		Vegetation	High foliage vegetation preferred. High density trees preferred / fast growing. Vegetation with range of life expectancy and long life expectancies.	Rehabilitation landscaping will be conducted only with native species as outlined in Section 8.4 of the UDLP. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth and longevity. Planting will be implemented as a mix of understory and high canopy trees. Selection will be selected from the range of plant communities in the corridor and compatible with the specific environment. Planting sizes will be based on a number of factors, mainly ensuring that long term growth is healthy and effective. This is mainly achieved by using smaller planting stock.	Yes
		Construction	Quicker finish, quicker normality.	Noise walls will be installed as quickly as possible in line with Condition of Approval D17.	Yes
UDLP052 (Williams Rd)	Email	Noise wall height/alignment	<p>Having viewed the documentation for the UDLP at Baulkham Hills Library, I was shocked to see the lack of work planned to properly improve the entire noise wall on the south side of the construction in the Williams Road, North Rocks area. While a new noise wall is planned for part of that area, the area west of 21 Williams Road is not improved. The noise wall in that area is inadequate and not effective enough. The noise measurements that were made for the environmental plan were done at the base of the wall, not in "real space" where reflections from other surrounding surfaces help to amplify and magnify the traffic and road noise. They also were done on a single day. I also doubt the new noise wall to the east of 21 Williams Road will be of adequate height to properly isolate those residents in that area.</p> <p>The entire noise wall from Barclay Road bridge needs to be increased in effectiveness as well as lengthened to the west. This area does not enjoy the high rock walls on which noise barriers are placed like the area east of the Barclay Road bridge. The residents of Williams Road are stuck with road level noise barriers that are ineffective in isolating residents from the noise of passing traffic.</p> <p>I will express my dissatisfaction with the treatment of Williams Road residents as we unfairly suffer the noise from a commercial development that has not taken the opportunity of new works to improve noise isolation and to reduce the impact on residents.</p>	<p>Noise wall extent and heights have been designed in accordance with the RMS Guidance - Environmental Noise Management Manual (ENMM). The noise modelling was completed by Wilkinson Murray Pty Ltd who are a member firm of the Association of Australian Acoustical Consultants and the work completed has been carried out in accordance with relevant guidelines and legislation.</p> <p>The operational noise assessment is available for review on our web page http://northconnex.com.au/environment-and-approvals/operational-noise-assessment.</p>	No

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Submission Number	Submission type	Issue	Submission	Project Team Responses	Incorporated in Design
Rajola Place					
UDLP021 (Rajola Place)	Targeted consult	Construction	Timing of construction [of] noise walls	Noise walls will be installed as quickly as possible in line with Condition of Approval D17.	Yes
		Noise wall height/alignment	Noise wall needs to be higher to eliminate sight of orange noise wall on other side of M2. Didn't realize they would have direct line of sight to the orange noise wall when it was first proposed so they didn't raise an objection. Would like to remedy this situation now by raising height.	The height of the noise walls have been designed in accordance with the RMS Guidance - Environmental Noise Management Manual (ENMM) is not subject to change. The noise walls are only designed to reduce noise, not visual impacts,	No
		Noise wall colour/finish	Prefers green (existing) colour on side of noise wall facing property no orange.	Noise wall colour preference noted. Of the nine residents commenting on the colour of this noise wall, two preferred charcoal to the existing green colour with one of these commenting that they would also be happy with green. It is recommended to proceed with painting the noise wall the existing green colour.	Yes
		Construction	Would like wall to be constructed asap.	Installation of the noise walls will be completed as quickly as possible in line with Condition of Approval D17.	Yes
		Current maintenance	Dead trees behind noise wall need to be removed now.	Dead trees often form important habitat to native species therefore their removal is not proposed. This query has been referred to Hills M2 Motorway operator for consideration.	Noted
		Vegetation	Prefer fast growing, dense vegetation and tall trees.	Rehabilitation landscaping will be conducted only with native species as described in Section 8.4 of the UDLP. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth. Landscaping will be done as early in the construction program as possible.	Yes
		Other	Can dead trees in the area behind the noise wall that don't form part of NorthConnex construction footprint be replaced?	Referred to Hills M2 Motorway operator for consideration.	Noted
		Other	Would like Barclay Rd compound to be converted to a commuter car park at project completion.	The preferred rehabilitation or other uses of sites is subject to further investigation.	Yes Noted
		Other	Would like access to land behind noise wall at project completion to be able to access bus stop quickly A footpath is preferred.	The suggested footpath would require access through the Hills M2 Motorway corridor. The Motorway corridor is secured for public safety, and public access through the corridor is not proposed.	No Noted
		Maintenance	What is plan for ongoing maintenance behind wall? Boundary needs to be maintained to reduce risk of snakes and for fire hazard reduction.	Maintenance of the landscaping is discussed in Section 8.16 of the UDLP. The long term maintenance of the landscaping will be the responsibility of Hills M2 Motorway operator after establishment of the landscape.	Yes
UDLP022 (Rajola Place)	Targeted consult	Construction	Happy for noise wall construction asap.	Noise walls will be installed as quickly as possible in line with Condition of Approval D17.	Yes
		Noise wall colour/finish	Happy with proposed existing colour for noise wall facing property.	Noise wall colour preference is noted. Of the nine residents commenting on the colour of this noise wall, two preferred charcoal to the existing green colour with one of these commenting that they would also be happy with green. It is recommended to proceed with painting the noise wall the existing green colour.	Yes
		Vegetation	Use quick growing plants for revegetation behind noise walls to minimise soil erosion.	Rehabilitation landscaping will be conducted with native species. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth. Cover crop seeding is used to minimise erosion, while longer term plants establish, as referenced in Section 8.4 of the UDLP.	Yes

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Submission Number	Submission type	Issue	Submission	Project Team Responses	Incorporated in Design
UDLP030 (Rajola Place)	Targeted consult	Noise wall colour/finish	Prefer the charcoal colour.	Noise wall colour preference noted. Of the nine residents commenting on the colour of this noise wall, two preferred charcoal to the existing green colour with one of these commenting that they would also be happy with green. It is recommended to proceed with painting the noise wall the existing green colour.	No
		Vegetation	Visual impacts are a concern. Vegetation that grow fast and dense to hide the traffic. Prefer mature trees. Not trees that shed leaves.	Rehabilitation landscaping will be conducted with native species as outlined in Section 8.4 of the UDLP. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth.	Yes
		Other	Don't want the [Barclay Road] compound to be a parking lot. Want the compound to be rehabilitated or turned into a park for kids.	Your suggestion regarding the end use of the land has been referred to the Hills M2 Motorway operator and Roads and Maritime Services for consideration.	Noted
		Construction	Happy for the wall to start asap.	Noise walls will be installed as quickly as possible in line with Condition of Approval D17.	Yes
UDLP040 (Rajola Place)	Targeted consult	Vegetation	Keep green because blends with the trees.	Colour preference for rear of noise wall is noted.	Yes
		Construction	Supportive of new noise walls to start asap.	Installation of the noise walls will occur as quickly as possible in line with Condition of Approval D17.	Yes
		Other	Please get truck speed cameras on M2 to stop them speeding on the motorway.	The posted speed of the Hills M2 Motorway is 100km/h, speed enforcement is not part of the UDLP.	Noted
UDLP040 (Rajola Place) cont'd	Targeted consult	Other	NRMA needs to keep closer eye on condition of trucks and their exhausts.	The NRMA are not part of the NorthConnex Project Delivery Team. Suggestions such as this should be made directly to the NRMA.	Noted
		Vegetation	Fast growing and bushy trees. Trees should be 6m in height. Trees should be good for native animals.	Rehabilitation landscaping will be conducted only with native species. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth and longevity. Planting will be implemented as a mix of understory and high canopy trees. Selection will be selected from the range of plant communities in the corridor and compatible with the specific environment. Planting sizes will be based on a number of factors, mainly ensuring that long term growth is healthy and effective. This is mainly achieved by using smaller planting stock.	Yes
Perry Street					
UDLD020 (Perry Street)	Targeted consult	Noise wall colour/finish	Happy with proposed existing green colour on residents side of noise wall.	Colour preference noted. Of the nine residents commenting on the colour of this noise wall, two preferred charcoal to the existing green colour with one of these commenting that they would also be happy with green. It is recommended to proceed with painting the noise wall the existing green colour.	Yes
		Vegetation	Would like revegetation done asap.	Landscaping will be done as early in the construction program as possible.	Yes
		Construction	Would like noise wall construction done asap.	Installation of the noise walls will be completed as quickly as possible in line with Condition of Approval D17.	Yes
		Vegetation	Would like to see replanted with dense foliage.	Rehabilitation landscaping will be conducted with native species. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth.	Yes
		Current construction	Will continue to monitor drainage for any concerns.	This comment relates to a previous drainage issue experienced by the customer and has been referred to the project team.	Noted

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Submission Number	Submission type	Issue	Submission	Project Team Responses	Incorporated in Design
UDLP033 (Perry Street)	Targeted consult	Noise wall colour/finish	Not the orange, prefers the green walls.	<p>Noise wall colour preference is noted. The combination of orange and charcoal coloured noise walls were implemented as part of the M2 Upgrade Works and is in accordance with the approved M2 Upgrade UDLP.</p> <p>Of the nine residents commenting on the colour of this noise wall, two preferred charcoal to the existing green colour with one of these commenting that they would also be happy with green. It is recommended to proceed with painting the noise wall the existing green colour.</p>	Yes
		Request for information	Send link to UDLP - refer to page 17-13.	Information provided.	Yes
		Vegetation	Quick growing vegetation. Like birds would be great for them to have trees to live in. Bottlebrush potentially planted.	Rehabilitation landscaping will be conducted with native species, including <i>Callistemons</i> (bottlebrush) as part of the planting palette (refer UDLP Table 8.4) . A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth.	Yes
		Construction	Happy for walls to start ASAP.	Noise walls will be installed as quickly as possible in line with Condition of Approval D17.	Yes

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M2 Motorway, North Rocks (east)					
Hepburn Road					
UDLP007 (Hepburn Rd)	Targeted consult	Current maintenance	Fencing at rear of property - snake fence	Referred to Hills M2 Motorway operator for consideration.	Noted
		Vegetation	Please incorporate as many trees as possible	Rehabilitation landscaping will be conducted with native species as described in Section 8.4 of the UDLP. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth. Size of planting stock will be governed by limitations on weight carried by hand on steep batters, species, and available space. Generally, smaller size planting stock grows faster than larger stock, promoting a greater survivability rate overall. The rehabilitation planting will be a combination of ground, mid and upper storey species. Noting that some taller growing species cannot be planted near the roadway due to safety requirements.	Yes
UDLP012 (Hepburn Rd)	Targeted consult	Maintenance	No Comment on noise walls, feedback relates to maintenance and UDLP. What is the maintenance plan for vegetation behind noise wall at my location? Grass is currently overgrown with no maintenance done. The current lack of maintenance is a fire risk.	Maintenance of the landscaping is detailed in UDLP Section 8.16. The maintenance of the landscaping will be the responsibility of the Hills M2 Motorway operators. Grass height (fire) concern to be forwarded to Hills M2 Motorway operator for consideration.	Yes
UDLP014 (Hepburn Rd)	Targeted consult	Graffiti	Noise wall should be graffiti resistant	All noise walls are painted, any graffiti is removed/painted over as part of a 'graffiti removal program' by the Hills M2 Motorway operator.	Yes
		Other	A CCTV camera on the M2 motorway is visible from my property. Can it be moved so not visible?	CCTV camera referred to appears to be an existing camera located on the eastbound carriageway and installed as part of M2 upgrade work. Relocation of roadside equipment on eastbound carriageway is not part of the scope of the UDLP. The request will be referred to the Hills M2 Motorway operator for consideration.	No
UDLP016 (Hepburn Rd)	Targeted consult	Noise wall colour/finish	Prefer consistent colouring of rear of wall as it currently changes colour at this location. Prefer charcoal colour but consistency is more important.	Colour preference is noted. This noise wall is currently mainly charcoal, with a green section at either end (at 26 Hepburn Road and 9 Dale Place). It is proposed that the whole noise wall from Carlton Road to Dale Place be painted charcoal for consistency and in line with resident's preferences.	Yes
		Graffiti	Graffiti resistant surface is required.	All noise walls are painted, any graffiti is removed/painted over as part of a 'graffiti removal program' by the Hills M2 Motorway operator.	Yes
		Vegetation	Prefer a 2m high dense hedge or bush to be planted at rear.	Rehabilitation landscaping will be conducted with native species as described in Section 8.4 of the UDLP. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth.	Yes
UDLP017 (Hepburn Rd)	Targeted consult	No comment	Can't see much over the back fence	Noted.	Noted
UDLP018 (Hepburn Rd)	Targeted consult	Construction	Can the gap between top of footing and bottom of panels be eliminated to reduce motorway noise?	Small gaps are provided under noise walls to maintain overland drainage flow paths. These may be able to be closed after review on a case by case basis. There is a gap between the top of the footing and the bottom of the panels as part of the noise wall design. This gap has been taken into consideration when designing the noise walls and predicting operational noise levels. The project team will endeavour to minimise the gap at this location if possible.	No Noted
		Construction	Discussed installing panels from M2 side to reduce impacts.	Confirmed that access for construction of new of noise walls would be from motorway side and the new wall will be erected prior to the removal of the existing noise wall.	Yes

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UDLP018 (Hepburn Rd) cont'd	Targeted consult	Noise wall colour/finish	Would prefer gray colour on resident's side of noise wall and a consistent colour.	Colour preference noted. This noise wall is currently mainly charcoal, with a green section at either end (at 26 Hepburn Road and 9 Dale Place). It is recommended that the whole noise wall from Carlton Road to Dale Place be painted charcoal for consistency and in line with resident's preferences.	Yes
		Maintenance	What is the plan for maintenance of vegetation planted behind noise wall?	Maintenance of the landscaping is discussion in Section 8.16 of the UDLP. The maintenance of the landscaping will be the responsibility of the Hills M2 Motorway operator.	Yes
		Vegetation	New planting should be of a sufficient density to survive and revegetate to former density. Planting should be timed to maximise plant survival.	Planting densities will be in accordance with the RMS specifications. This provides a suitable density of understorey and canopy plantings for growth and survival of the overall landscape plantings.	Yes
		Construction	Further to our discussion last Monday 7.11.16, can you please confirm the following: NEW NOISE WALL 1. That the new noise wall will be built before the current noise wall is demolished.	Our construction plan is to build the new noise wall in this location prior to the removal of the existing noise wall. In recognising the construction impact to local residents and as part of our aim to reduce these impacts where possible, extensive investigations have been carried out and it was determined we can be safely erected the new walls before bringing down the existing one. Where this is not possible alternate temporary measures will be installed in accordance with Condition of Approval D17.	Yes
		Vegetation	2. That no additional clearing beyond that which has already been done, is needed to allow for the new wall to be built first.	Clearing is minimised where ever possible in accordance with Condition of Approval D43. As part of work to install the new noise walls, there is currently no need to remove any additional vegetation. In the event this changes, suitable notification will be provided.	Yes
		Request for information	3. The distance the new noise wall will be moved, relative to the current wall. Can you please provide a plan with those dimensions plotted	Information provided on the alignment of the new noise wall.	Yes
		Request for information	4. The height of the new wall relative to the current wall. You indicated that the new wall would be the same height as the current wall. We are also concerned to know whether the new wall will be the same height above the finished road surface as is currently the case.	The height of the noise walls and at receiver treatments have been set in accordance with the RMS Guidance - Environmental Noise Management Manual (ENMM) and is not subject to change.	Yes
		Construction	5. Please confirm timing for the works, including the commencement and completion dates	Our intention is to install the noise walls as quickly as possible in line with Condition of Approval D17. Adjacent residents will be notified of the planned noise wall construction start and finish dates, prior to the start of work.	Yes
		Consultation	This report [UDLP] is next to useless. Drawing M21-CM+-12-3002-UD-DG-2104 purports to explain the landscape treatment for the area adjacent to Hepburn Road North Rocks. The quality of the plans on line document is so poor that it needs to be magnified on screen to try to read the details - and of course all clarity is then lost.	The plan referred to is labelled 'Landscape Concept'. It is not intended to be a detailed design. The specific notes that refer to this area adjacent this location are 'Retain and Protect Existing Vegetation' in the corridor. On the new batter it shows 'Proposed frangible landscape mix of low native shrub, grasses and groundcovers and informal native trees'. The rehabilitation planting will be a combination of ground, mid and upper storey species.	Yes
		Consultation	That drawing [M21-CM+-12-3002-UD-DG-2104] comes with the following caveat: "Design subject to further development, vegetation and project elements shown is indicative only." So in other words, NorthConnex will change it to suit themselves and do what they like anyway. So what is the point of seeking community feedback ?	We are seeking feedback on the design approach to ensure that it is largely consistent with the views of the community. The design documentation has specifically not progressed to final For Construction Drawings to allow the ability to make amendments based on community feedback.	Yes
		Vegetation	Not surprising then that section 17.4 of the Plan doesn't even acknowledge that an urban design principle should be to re-establish a dense bushland backdrop to homes to restore visual amenity at least equivalent to that which was lost by clearing for the integration works – as usual, you only give a stuff about what it looks like for the motorists.	The first principle in the UDLP Section 17.4 includes consideration of visual amenity from homes, "Ensuring the urban and landscape design delivers a safe, positive, functional and pleasing visual experience for traffic pedestrians, disabled and corridor neighbourhoods".	Noted
Vegetation	On the extremely limited, and poorly detailed information presented, it seems that maybe, just maybe, you will replant native trees adjacent to the new wall. It is not clear whether that is for the entire length of the new wall, but it should be. Before the previous M2 upgrade there was an extremely dense stand of TREES right along this part of the motorway.	Planting densities will be in accordance with the RMS specifications as documented in in UDLP Section 8.4: Planting design principles. This provides a suitable density of understorey and canopy plantings for growth and survival of the overall landscape plantings.	Yes		
Vegetation	Leightons effort at re-landscaping was one single row of saplings, planted at the toe of the fill batter. Those trees got absolutely no maintenance, and most died. Further, the entire area became a weed infested wasteland. Again, only worried about making sure it looks nice for the paying customer – because obviously nobody lives beside the M2 do they	Planting densities will be in accordance with the RMS specifications as documented in in UDLP Section 8.4: Planting design principles. Maintenance of plantings will be the responsibility of the Hills M2 Motorway operator and as detailed in Section 8.16.	Yes Noted		

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UDLP018 (Hepburn Rd) cont'd	Targeted consult	Vegetation	My comments on the landscape component are: 1. Re-landscaping must be dense and continuous for the entire length of the area adjacent to Hepburn Road and Dale Place. It must comprise a dense mid-story – as well as continuous canopy trees which must have a mature heights exceeding that of the noise wall. Section 17.6 says “Trees are all planted individually at super-advanced size (25 litre) in specific locations beyond safety clearance distances where shown on the plans.” Revegetation adjacent to Hepburn Road must meet that criteria of using super-advanced size (25 litre) pot sizes, to offset the many mature canopy trees that you, and the previous bunch, removed.	The rehabilitation planting will be a combination of ground, mid and upper storey species. Noting that some taller growing species cannot be planted near the roadway due to safety requirements. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth. More mature plants perform less satisfactorily than smaller planting stock, and over time don't grow as quickly. Where trees are specified at 25 Litre sizes, they will be planted as detailed.	Yes
		Vegetation	2. The use of Hydromulch or Compost Blanket Seeding Mixes is not acceptable. As per section 17.6.1 direct planting is to be prioritised to this area to achieve the greatest revegetation impact.	A combination of planting methodologies will be used.	Noted
		Vegetation	3. The landscaping must apply for the whole area that has been cleared – it must not be one paltry row of saplings like last time.	Noting that some taller growing species cannot be planted near the roadway due to safety requirements.	Noted
		Vegetation	4. The landscaping must be properly maintained – for at least the first two summers. This means someone has to come along and actually water during dry periods.	Maintenance of the landscaping is detailed in Section 8.16. The maintenance of the landscaping will be the responsibility of the Hills M2 Motorway.	Yes
		Noise wall colour/finish	Noise wall treatment It seems we are to get both Type 1 and Type 2 noise barrier treatments. My comments are: 1. The type 1 walls appear to be painted bright orange to the motorway, with the side facing residents being “ painted to match existing conditions” (refer page 17-30). Type 2 walls are said to be painted a dark recessive colour. (Page 17-30).	Comment noted. The 'orange' noise walls are used where the noise wall is immediately adjacent the carriageway, such as on filled embankments and bridges (Yale Close) or detention basin retaining walls. Where the noise wall moves away and up the top of cut batters a 'charcoal' noise wall is used. The residential side of both noise walls is 'charcoal'.	Yes
Noise wall colour/finish	2. The current noise wall behind our house is 2 colours – the original green, and the more recent charcoal. Which colour are we going to get. ? Our preference is the charcoal (Dulux 'Domino' from memory). Given that you know the what the current colour is (and from memory it is the same consultant for this draft plan as was used for the equivalent document last time) why don't you just come out and say what the colour will be, instead of using a generic reference like 'dark recessive colour '?	Colour preference noted. This noise wall is currently mainly charcoal, with a green section at either end (at 26 Hepburn Road and 9 Dale Place). It is recommended that the whole noise wall from Carlton Road to Dale Place be painted charcoal for consistency and in line with resident's preferences.	Yes		
UDLP041 (Hepburn Rd)	Targeted consult	Current construction	Red circle on tree, what is it?	This issue has been referred to project team for direct response.	Yes
		Vegetation	Native trees preferred - likes the birds	Noted. Rehabilitation landscaping will be conducted with native species. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth. Planting densities are documented in the UDLP Section 8.4: Planting design principles. This provides a suitable density of understorey and canopy plantings for growth and survival of the overall landscape plantings, and would be more conducive to promoting native bird life.	Yes
Dale Place					
UDLP004 (Dale Place)	Targeted consult	Graffiti	If we re-use panels, please ensure no graffiti panels are used. Can we make panels graffiti free.	All panels will be painted upon completion, therefore if any panels are re-used any existing graffiti will be painted over.	Yes
UDLP013 (Dale Place)	Targeted consult	Request for information	Where is UDLP is on display and timing of noise wall construction?	Information provided on the location and timing of the UDLP display, plus noise wall construction.	Yes
		Vegetation	Would like to see casuarinas planted behind the noise wall	Plant species suggestion is noted. Detail investigation of the final landforms will guide the selection of suitable species to ensure optimal conditions for growth and survival. Casuarinas may not be the most suitable species for the shale / sandstone soil profiles of the M2 Motorway.	No

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UDLP019 (Dale Place)	Targeted consult	Maintenance	What is the plan for maintenance with the new noise walls (behind walls)?	Maintenance of the landscaping is discussed in Section 8.16 of the UDLP. The maintenance of the landscaping will be the responsibility of the Hills M2 Motorway operator after establishment of the landscape.	Yes
		Noise wall height/alignment	Noise wall drops at rear of property, can that be evened out to same height?	The height of the noise walls have been designed in accordance with the RMS Guidance - Environmental Noise Management Manual (ENMM) to mitigate noise. The new noise wall at this location will be level and will not dip in front of this property.	Yes
		Noise wall colour/finish	Prefer colour to be grey as per neighbours.	This noise wall is currently mainly charcoal, with a green section at either end (at 26 Hepburn Road and 9 Dale Place). It is recommended that the whole noise wall from Carlton Road to Dale Place be painted charcoal for consistency and in line with resident's preferences.	Yes
		Graffiti	New walls to be graffiti resistant	All noise walls are painted, any graffiti is removed / painted over as part of a 'graffiti removal program' by the Hills M2 Motorway operator.	Yes
		Other	Exhaust from accelerating vehicles out of tunnel, would prefer limit to be 80km to Windsor Road.	The posted traffic speed is not part of the UDLP consultation process.	No
Yale Close					
UDLP001 (Yale Close)	Targeted consult	Construction	Prefer to work Thurs / Fri so son can recover on weekend, prefer not to be relocated	Both the Project Conditions of Approval and the Project Environment Protection Licence stipulates the standard construction hours. Works to construct the noise walls and other project elements need to be constructed in accordance with these standard hours where ever possible. However, every effort will be made to accommodate this request where feasible.	Noted
UDLP015 (Yale Close)	Targeted consult	Noise wall colour/finish	Would prefer [existing] green colour for new noise wall on side fencing of property.	Colour preference is noted. It is proposed to retain the existing proposed green colour at this location.	Yes
		Construction	Construction should consider needs of tenant with special needs child	Both the Project Conditions of Approval and the Project Environment Protection Licence stipulates the standard construction hours. Works to construct the noise walls and other project elements need to be constructed in accordance with these standard hours where ever possible. However, every effort will be made to accommodate this request where feasible.	Noted
DLP002 (Yale Close)	Targeted consult	Vegetation	Happy with natives, want them to be green and able to grow quickly.	Rehabilitation landscaping will be conducted with native species as described in Section 8.4 of the UDLP. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth. Size of planting stock will be governed by limitations on weight carried by hand on steep batters, species, and available space. Generally, smaller size planting stock grows faster than larger stock, promoting a greater survivability rate overall. The rehabilitation planting will be a combination of ground, mid and upper storey species. Noting that some taller growing species cannot be planted near the roadway due to safety requirements.	Yes
		Construction	Happy for noise wall installation to start as quickly as it can to be finished and minimize impact	Noise walls will be installed as quickly as possible in line with Condition of Approval D17.	Yes
UDLP003 (Yale Close)	Targeted consult	Current construction	What is happening with the white ants that inhabited the trees that were cut down?	Vegetation removed was mulched and taken off site as green waste which also included any insects that may have inhabited the vegetation. It should be noted that white ants and other insects are an important part of the natural eco-system and are not specifically targeted for removal as part of ongoing maintenance.	Noted
		Current construction	Confirm Christmas shut down	There will be no construction work from 23 December to 3 January. However a site team will be maintaining environmental controls during this period.	Yes
UDLP005 (Yale Close)	Targeted consult	Current maintenance	Maintenance at rear of property received letter that said would do in October.	Referred to Hills M2 Motorway operator for consideration.	Noted

Appendix 1 – UDLP Submissions and Responses

UDLP008 (Yale Close)	Targeted consult	Vegetation	Would like vegetation that is not bushfire prone and is maintained regularly. Also consideration be given to vegetation that won't encourage snakes and vermin	Noted, however the rehabilitation landscaping will be conducted only with native species. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth. Size of planting stock will be governed by limitations on weight carried by hand on steep batters, species, and available space. Generally, smaller size planting stock grows faster than larger stock, promoting a greater survivability rate overall. Maintenance of the landscaping is detailed in Section 8.16. The maintenance of the landscaping will be the responsibility of the Hills M2 Motorway operators.	Yes
UDLP025 (Yale Close)	Targeted consult	Request for information	Would like contact details of fencer who installed boundary fence.	Resident rescinded request.	Noted
		Noise wall colour/finish	Would prefer green for noise wall colour facing our property but happy with majority preference if it was to be the existing colour.	Noise wall colour preference noted. Seven residents and one non-residing property owner were consulted at this location. Six did not raise objection with the proposed existing colour with one stating a preference change the existing colour to green. It is recommended to proceed with the proposed existing colour at this location and communicate this decision to the resident.	No
		Current construction	Increased number of insects in house since vegetation clearing - can house be sprayed?	This issue has been referred to project team for consideration and direct response.	Noted
		Request for information	Why was M2 widened on the south side and not the north side?	The eastbound widening of the Hills M2 was undertaken as part of the M2 Upgrade Works completed July 2013. A westbound widening to Windsor Rd is being undertaken as part of the NorthConnex Project as detailed in the EIS and Project Approval. Both of these widening works occurred on the south side of the motorway due to ecological and indigenous heritage considerations on the northern side, particularly between Barclay Road and Oakes Road.	Yes
UDLP025 (Yale Close) cont'd	Targeted consult	Noise monitoring/modelling	Post construction noise monitoring should be done at peak hour when noise levels are highest as well as other times.	Post construction noise monitoring will be done in accordance with the Operational Noise Management Plan prepared in accordance with CoA E24, E25 and E26.	Yes
		Vegetation	Replant vegetation that won't drop leaves seasonally. It should be dense and leafy all year.	Rehabilitation landscaping will be conducted with native species. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth. Planting densities are documented in the UDLP Section 8.4: Planting design principles. This provides a suitable density of understorey and canopy plantings for growth and survival of the overall landscape plantings.	Yes
		Current maintenance	Noxious weed (lantana) at rear of property needs to be removed.	This issue has been referred to the Hills M2 Motorway operator for consideration.	Noted
UDLP029 (Yale Close)	Targeted consult	Construction	Please start construction of the work asap so widening can be complete and permanent walls installed.	Installation of the noise walls will occur as quickly as possible in line with Condition of Approval D17.	Yes
		Vegetation	Can we have creepers/vines on the retaining wall. Can plant be planted between my property and the bridge.	It is not proposed to plant creepers or vines on retaining structures as it decreases the durability of the 100 year design life of the wall. Where feasible, screening with planting would be implemented between the wall and any property.	Yes

Appendix 1 – UDLP Submissions and Responses

West Pennant Hills					
Lisle Court, Savoy Court, Larchmont Place					
Submission number	Submission type	Issue	Submission	Project Team Responses	Incorporated in Design
UDLP042 (Lisle Court)	Email	Request for information	I am a CIG member and was going to leave the following questions until next Monday nights meeting, but thought they may require some prior investigation. Most matters relate to the Eastbound off ramp from the M2. Page 26 Motorway Incident Response Bay – please advise exact location. P.126 appears to show it West of Oakes Rd. opposite Robyne Place (off Westmore Drive). Page 119	An incident response bay is planned to provide rapid response for eastbound/northbound traffic incidents. The location is approximately in line with Robyne Place.	Yes
		Maintenance	Landscape Maintenance Plan – is this only during construction or ongoing?	The Landscape Maintenance Strategy includes work undertaken during the establishment period and also ongoing maintenance as the vegetation develops and matures.	Yes
		Noise wall colour/finish	Page 150 Cycle Bridge (Eastbound) - Shows a transparent noise wall (type 5 – P.124 & P.132). In a previous discussion with NorthConnex Project Manager, he was going to investigate using an opaque section to prevent emission of light to local residences.	To provide Crime Prevention Through Environmental Design (CPTED) surveillance and safety of this section of the cycle way, the cycle bridge ramp on the east side of the Hills M2 Motorway does not have opaque panels, and lighting of this is shielded to prevent spill. The entry to the ramp will be provided with translucent panels in specific sections to minimise or reduce vision of the clearance lights on the sides of large trucks.	Yes Design adjusted
UDLP042 (Lisle Court) cont'd	Email	Design	Page 164 Variable Message Signs – Two of these locations, (Castle Hill Rd. & Beecroft Rd.), have no access to (No Suggestions) and the third, (Carlingford Rd.), is many Kilometres away. What is the purpose of these? I am happy for answers to the above to be related to me verbally at next Mondays meeting if that's easier. A few other minor queries will no doubt also be covered at that meeting.	The location of variable message signs is determined by the Transport Management Centre and are installed on approach roads to the NorthConnex tunnel, including the Hills M2 widenings, and other existing motorways. The signs provide advance notice of traffic incidents or traffic conditions to motorists.	Yes
UDLP050 (Savoy Court)	SMS	Construction	One item I would like to include in the UDLP – as the decline starts to the tunnel starts west of us & M2 existing vehicles will have a concrete wall behind them to reflect noise, I would request that the noise walls on our side of the exit decline are very effective so the noise here is at least no worse than with just the M2.	New noise walls will be built to replace the existing noise walls on the Hills M2 Motorway eastbound off-ramp to Pennant Hills Road, as well as to the northbound NorthConnex Tunnel entry ramp.	Yes
UDLP057 (Larchmont Place)	Telephone	Vegetation	Noise wall and concrete retaining wall to be pleasing with surrounding vegetation.	The detail design of planting on the neighbourhood side of the noise walls is subject to design development, but will be in accordance with the Section 8.3 Landscape principles and Section 8.4: Planting design principles. The exact extent of planting on the neighbourhood side will be subject to a number of factors, such as, the interface with existing plantings, landforms, and the line where cuttings and retaining walls crossover.	Yes
		Noise wall colour/finish	Both [noise wall and concrete retaining wall] to be painted in green colour including concrete.	Colour preference for the noise walls are noted. It is not proposed that that concrete is painted a colour, it is treated with an anti-graffiti coating.	Yes
		Vegetation	Vegetation to be planted adjacent to his property. UDLP currently only has vegetation planted up to his neighbour. All vegetation to be quick growing and high density. Has asked why are we not planning to vegetate adjacent to his property when there has been clearing work there.	Rehabilitation planting will only occur in areas cleared by the NorthConnex Project. Rehabilitation of the construction areas will take place on completion of the construction, using a mix of native shrubs and trees to create an understorey and high canopy.	Yes

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Submission number	Submission type	Issue	Submission	Project Team Responses	Incorporated in Design
Gum Grove Place					
UDLP009 (Gum Grove Place)	Targeted consult	Vegetation	Prefer established vegetation (screening).	Rehabilitation landscaping will be conducted with native species. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth Size of planting stock will be governed by limitations on weight carried by hand on steep batters, species, and available space. Generally, smaller size planting stock grows faster than larger stock, promoting a greater survivability rate overall. The rehabilitation planting will be a combination of ground, mid and upper storey species. Noting that some taller growing species cannot be planted near the roadway due to safety requirements.	Yes
		Noise wall colour/finish	I want a natural colour and finish. Something like bamboo.	Colour preference is noted.	Noted. Adjoining neighbours with different colour preference
UDLP010 (Gum Grove Place)	Targeted consult	Noise wall colour/finish	Change colour from grey to green. .	Colour preference is noted.	Noted. Adjoining neighbours with different colour preference
		Vegetation	Vegetation to screen the height of the wall.	Rehabilitation landscaping will be conducted with native species. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth. Size of planting stock will be governed by limitations on weight carried by hand on steep batters, species, and available space. Generally, smaller size planting stock grows faster than larger stock, promoting a greater survivability rate overall. The rehabilitation planting will be a combination of ground, mid and upper storey species. The growth of the vegetation will screen the noise wall over time.	Yes
		Request for information	Please ensure you inform us about the tunnel operation facility urban design	The motorway operational facilities will be covered in Phase 2 of the UDLP, anticipated to be on display for public comment in Quarter 1, 2017.	Refer UDLP Stage 2

Appendix 1 – UDLP Submissions and Responses

Pennant Hills					
Verney Drive, Pennant Hills Rd					
Submission number	Submission type	Issue	Submission	Project Team Responses	Incorporated in Design
UDLP026 (Verney Drive)	Information Centre	Request for information	Clause 17.2.4 shows shading north of Eaton Road is this correct? The sooner the better for this project	This page shows the vegetation communities and types at the Southern Interchange. North of Eaton Road there is: 1. Grey shading which indicates that the private properties were not able to be, or were not surveyed at the time; 2. Hatching of Pennant Hills Road and side roads (Eaton Road and Copeland Road) indicates that adjustments in the road reserve are to occur, such as new signage and modifications to linemarking.	Yes
UDLP028 (Pennant Hills Rd)	Email	Request for information	Can you please direct us to where in the plan we will find info for the design and landscaping at the Wilson facility? I could find very little detail of the proposed landscaping for this site regarding plant selection and placement. Can you also advise if the Wilson facility will be fenced with controlled access upon completion of the project, especially in regards to public access on the border of the facility and adjoining properties.	There are two stages of the Urban Design and Landscape Plan. The report currently on display is Stage One and provides an introduction to the urban and landscape design for the project and includes elements such as portals, noise walls, retaining walls, bridges and overall landscape design principles. Tunnel design, architectural design and landscape, sustainability, design of site compounds and operational ancillary facilities (which includes the Wilson Road facility) will be included in the second stage which will be provided for community comment in early 2017. All operational facilities will be fenced and secured.	Refer UDLP Stage 2

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M1 Motorway, Wahroonga (west)					
Bundarra Ave Woonona Ave, Fern Ave					
UDLP027 (Bundarra Ave)	Information Centre	Request for information	I would like to know if there is more information given in a hard copy of the Urban Design and Landscaping Plan if I visit one of the venues mentioned in your email. I have used the link to see what there is about the M1 area and found only one attachment that was very general. I note at present a wall is being erected on Woonona Ave, is that meant for noise reduction or privacy for the ventilation site?	The wall being constructed at Woonona Avenue is temporary hoarding around the northern ventilation outlet on the corner of Woonona and Bareena Avenue, Wahroonga. It provides noise attenuation from M1 traffic noise in accordance with Condition of Approval D17 as well as construction noise, until the permanent noise wall can be constructed. It also reduces the visual impact of the construction site. The height of the final operational noise walls are designed in accordance with the RMS Guidance - Environmental Noise Management Manual (ENMM).	Yes
		Construction	The noise from the M1 is increasing as more and more vegetation is being removed north of Edgeworth David Ave to the railway line. Can you please inform me of what NorthConnex intends to do to rectify this problem	Vegetation clearing is required to construct new noise walls. The new noise walls need to be realigned because of the localised widening in this section for the NorthConnex construction. If required, temporary noise walls will be provided until the noise walls are constructed. New plantings will be provided as outlined in Section 8.9 of the UDLP.	Yes
		Construction	Thank you for your reply today, however you did not understand what I asked in my final paragraph. I am sorry I gave the wrong direction in my email, I should have said south not north. The noise from the M1 is increasing as more and more vegetation is being removed south of Edgeworth David Ave to the railway line. Can you please inform me of what NorthConnex intends to do to rectify this problem. I am talking about now in 2016 not when the tunnel is finished in 2019, when I hope the noise should be less than at present as most of the traffic should be in the tunnel in this area. I would like to know when you will be replacing the timber noise barriers that have been there since the M1 opened. What length of time will there be from when you remove the old barriers and the new noise reduction barriers will be erected?	See response above. The noise walls will be installed as quickly as possible in line with Condition of Approval D17. We have started installing the foundations for the walls and will start to installing posts and panels in late 2016 and early 2017.	Yes
UDLP053 (Woonona Ave)	Meeting	Current construction	Temporary noise hoarding - when would it be painted, what is happening with the temporary fence and what the plans are for the Benson Close footpath. Requested acoustic blankets be placed on the gates into the site.	Issues relating to temporary construction hoardings and fencing are not part of the permanent works described in the UDLP. Responses to these enquiries have been referred to the project team for consideration and direct response.	Noted
UDLP054 (Fern Ave)	Letter	Noise wall height/alignment	1. sound barriers facing residential side (Hebel wall) as follows: A. I prefer the sound barrier to be least 4m high (the current timber wall is approx. 3.5m high). I understand that the height of the wall is based on acoustics, however I am also viewing my proposed height of the wall for security purposes. The height of the wall may provide a lesser likelihood for vandals to climb the structure.	The height of the noise walls have been set in accordance with the RMS Guidance - Environmental Noise Management Manual (ENMM) and is not subject to change. Noise walls are designed and installed to attenuate road traffic noise, not to provide security for the corridor.	Yes

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		Noise wall colour/finish	B. I prefer the colour "mist green" or equivalent (or similar to attached image extracted from "NorthConnex Urban design and landscape plan - stage 1). a colour that blends with the vegetation within the surrounding immediate area. I preferably do not want to see any bright alternate colours seen from the residential side. Simply neutral environmental colours. This also includes the building. As I understand to date that the building may be taller than the sound barrier surrounding the "stack" site.	Colour preference for noise wall and buildings is noted.	Noted Refer UDLP Stage 2
		Noise wall colour/finish	C. Preferably, I like to have the Hebal wall routed with textured vertical strips with random widths of between 50mm and 300mm with similar plain surface separations as the routed surface	Comment is noted. The routed pattern will be facing to the motorway, not to the residential properties.	Yes
		Vegetation	2. landscaping as follows: A. landscaping similar to your proposal "NorthConnex urban design and landscape plan - stae 1" refer to attachment. B. However, the maintenance is an issue. I understand that connex will maintain the vegetation for about five years? Considering the aforementioned matter i would prefer landscaping that is easily maintained in the long term that may be taken over by local authority.	Your support of a landscape consisting of understorey and tall canopy trees is noted, and that it may lessen the risk of graffiti. Landscape establishment maintenance of non-Motorway areas is a minimum 12 months. Decisions on transfer to another party, such as Council, are made between the Council and Roads and Maritime Services. Maintenance of the Motorway areas is the responsibility of Roads and Maritime Services and the relevant motorway operator.	Yes
		Vegetation	C. I prefer more trees or tall shrubs established along Woonona Avenue and Bareena Avenue for two reasons. Firstly, to provide good screening of the structure and the sound barrier; and secondly if planted closely to the sound barrier there's a lesser likely chance for graffiti to the wall as the trees positioned correctly may inhibit there intent for viewing purposes. Additionally the closeness of the trees positioned close to the wall creates difficult access and movement to apply graffiti. I would like to add that there has been uptake on graffiti in the general area, my above suggestions is simply to make it harder or measures in place to lessen the likely hood of graffiti to occur. on the matter of vandalism, it didn't take long when the standalone house that was boarded up on the corner of Woonoona and Bareena Avenues within a short period.	A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth and longevity. Planting will be implemented as a mix of understory and high canopy trees with open grass areas. Selection will be selected from the range of plant communities in the corridor and compatible with the specific environment. Planting sizes will be based on a number of factors, mainly ensuring that long term growth is healthy and effective. This is mainly achieved by using smaller planting stock. The density of the planting will be in accordance with the RMS specifications, as documented in Section 8.4: Planting design principles of the UDLP.	Yes
		Noise wall height/alignment	With this in mind, I prefer a taller wall for the purposes of added security and lesser likelihood for vandalism rather than the height based on acoustics	Noise wall design is based only on noise attenuation requirements of the RMS Guidance-Environmental Noise Management Manual (ENMM) and does not take security requirements into consideration. The height of the compound wall to the northern facility is 4.2m minimum.	Yes
Lochville St (west) Douglas Ave Edgeworth David Ave					
UDLP006 Lochville St (west)	Email	Noise wall height/alignment	We are writing to raise a concern with the UDLP for the proposed noise barriers on the M1 Motorway as part of the NorthConnex project. We have received notification with the ref: of N0143 (attached) The map with the notification shows the extent of the proposed noise wall installation. As shown it spans the whole length of Douglas Avenue to the South of Edgeworth David Avenue and North to the end of Carrington St. BUT it does not continue further South towards the proposed stack, exit portal and administration development at the Woonona Avenue/Fern Avenue junction. We are at a complete loss in trying to understand the logic that could promote such a decision. There are inhabited properties in the stretch of Woonona Avenue between Lochville St and the extension of Fern Avenue (to the East). These properties should also enjoy the benefits of enhanced noise attenuation that the NorthConnex project brings. We live at (address removed). As the wall, as presently proposed, stops short of our exposure to the motorway we will continue to be subjected to the noise from motorway. We ask that the proposed noise attenuation barrier be extended to the South to , at least, the portal/stack area.	The exhibited UDLP (p10-5, drawing NCX-CM+-01-3003-UD-DG—0814) shows noise walls extending from the south side of Edgeworth David Ave to the Ventilation Facility Compound as suggested.	Yes

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UDLP036 (Douglas St)	Targeted consult	No comment	No comment	Noted	Noted
UDLP037 (Douglas St)	Targeted consult	No comment	No comment	Noted	Noted
UDLP046 (Douglas St)	Targeted consult	Vegetation	Please replant leafy, bushy vegetation. Don't plant native trees such as bottlebrush as they are too spindly. Suggest planting Leighton Green firs and Lilly pili.	Vegetation preferences are noted however rehabilitation of the construction areas will take place on completion of the construction, using a mix of native shrubs and trees to create an understorey and high canopy. The planting principles are outlined in Section 8.4 of the UDLP and planting palettes are outlined in Section 8.9 of the UDLP, and include <i>Acmena smithii</i> (Lilly Pilly). No 'nuisance weeds', such as Leighton Green (<i>Cypress Leylandii</i>), will be used.	Yes
UDLP056 (Douglas St)	Targeted consult	Construction	Concerned about construction noise.	Construction noise is minimised in accordance with the Construction Environmental Management Plan. NorthConnex are intending to erect the permanent noise walls as soon as practicable in order to provide noise mitigation to adjoining residents during construction.	Noted
		Construction	Council boundary fence will be reinstated	All motorway corridor fencing will be reinstated if it has been removed.	Yes
UDLP044 (Edgeworth David Ave)	Targeted consult	Vegetation	Happy to hear that trees are remaining.	Refer to Section 8 of the UDLP for Landscape principles and Planting design principles. Rehabilitation of the construction areas will take place on completion of the construction, using a mix of native shrubs and trees to create an understorey and high canopy.	Yes
		Noise wall colour/finish	Loves brown/grey colour.	Colour preference noted. It is recommended to proceed with the proposed charcoal colour (Dulux Domino) for the resident's side of the noise wall at this location.	No
Deakin Way, Carrington St (west)					
UDLP043 (Deakin Way)	Targeted consult	Vegetation	Will there be any plantings afterwards. Will grow back grass. Would prefer something leafy and dense. All good	Refer to Section 8 of the UDLP for Landscape Principles and Planting Design Principles. Rehabilitation of the construction areas will take place on completion of the construction, using a mix of native shrubs and trees to create an understorey and high canopy.	Yes
UDLP035 (Deakin Way)	Targeted consult	Noise wall height/alignment	We have just had a very nice visit from your representatives working on the new super tunnel. I believe I am a rare non-complainant of the project quite honestly I can't wait for the tunnel to get rid of the trucks on Pennant Hills Road. Our townhouse faces the highway (M1) and the new proposed sound wall, which is at right angle to Edgeworth David Avenue. We were hoping that the new wall could creep up Edgeworth David Avenue to cover the bridge for us (and also, of course, to lower the noise off Edgeworth David Avenue). We were advised that that is not possible, so we discussed the replanting of vegetation once the wall is complete and the temporary roadworks removed.	The respondent property is located on the uphill side of the M1 Pacific Motorway. Noise wall extent and heights have been designed in accordance with the RMS Guidance - Environmental Noise Management Manual (ENMM). Rehabilitation landscaping will be conducted only with native species as outlined in Section 8.4 of the UDLP. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth and longevity. Planting will be implemented as a mix of understorey and high canopy trees.	Yes

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		Vegetation	We are hoping that new shrubs can be planted along the edge of Edgeworth David Avenue, where the trees were felled. There is a big, open gap now, which once was full of plant life and hid ED Avenue and it's bridge. It would be wonderful to put back the greenery we lost when the trees were felled. We don't find it necessary to plant tall trees, but nice thick, green shrubs or small trees would be perfect. I am hoping that you will make note of our request. I am quite happy to pay for plants to be planted.	Refer to Section 8 for Landscape principles and Planting design principles, including planting densities. Rehabilitation of the construction areas will take place on completion of the construction, using a mix of native shrubs and trees to create an understorey and high canopy. Selection will be selected from the range of plant communities in the corridor and compatible with the specific environment. Planting sizes will be based on a number of factors, mainly ensuring that long term growth is healthy and effective. This is mainly achieved by using smaller planting stock.	Yes
UDLP038 (Carrington St)	Targeted consult	Noise monitoring/modelling	Will it reduce noise by much?	The noise attenuation provided by noise walls have been set in accordance with the RMS Guidance - Environmental Noise Management Manual (ENMM). Please refer to the operational noise assessment at www.northconnex.com.au for the predicted noise levels at your location following installation of noise walls.	Noted
UDLP039 (Carrington St)	Targeted consult	Noise wall colour/finish	Tree green colour makes more sense than orange	Noise wall colours in the northern area of the Project are proposed to be tones of grey background and green. No orange walls are proposed for the northern areas.	Yes
UDLP045 (Carrington St)	Targeted consult	Noise wall height/alignment	I would like it to extend further north. Based on current modern acoustic design, it would be good to extend that type of wall.	Respondent property is located on the south side of Carrington Road. A new noise wall will be constructed to replace the existing wall demolished for the widening that extends approximately 105 metres north of Edgeworth David Road. This new wall overlaps in front of the existing unaffected timber noise wall. The end of the new noise wall is approximately 20 metres north of the southern boundary of the Strata Plan property. Noise wall extent and heights have been designed in accordance with the RMS Guidance – Environmental Noise Management Manual (ENMM).	Yes
		Construction	When is the completion date?	Adjacent residents will be notified of the planned noise wall construction start and finish dates, prior to the start of work.	Noted
		Current construction	Driveway drains don't clear out well.	This issue has been referred to project team for consideration and direct response	Noted
M1 Motorway, Wahroonga (east)					
Burns Road					
Submission number	Submission type	Issue	Submission	Project Team Responses	Incorporated in Design
UDLP059 (Burns Rd)	Meeting	Vegetation	The UDLP currently proposes native grasses for landscaping of the area between 1-3 Burns Road and the M1 noise wall. Can the landscaping plan include trees as well to help cover up the noise wall?	The drainage pipes from both south of the North Shore Rail and the west of the M1 Motorway discharge to the realigned Cockle Creek adjacent this property. There is no space within the creek land for trees without requiring further property acquisition of private property and downgrading the functionality of the common property within the residual property.	No

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Bareena Ave (east)					
Submission number	Submission type	Issue	Submission	Project Team Responses	Incorporated in Design
UDLP047 (Bareena Ave)	Email	Request for information	<p>Thank you for sending the information re the noise wall and proposed vegetation planting. I feel quite concerned about the proposed height of the wall. As I mentioned to you in our telephone conversation on Monday, since the removal of the vegetation behind the existing wall, we are now able to see the traffic on the M1.</p> <p>I feel that the proposed height of the new noise wall will provide an even greater view of this traffic. I understand that there will be a 'dive down' behind the wall however there will be many cars that will not be using the tunnel and I fear that they will be visible from our street.</p> <p>I would appreciate it if you could make a time when your team could come out and meet with myself and my neighbours to show us exactly where the wall will be and help us to appreciate the impact it will have on our street. I am available any day after 4 or any time on a Thursday or Friday as well as the weekend.</p>	Information was provided at a meeting and UDLP062 was submitted following the meeting. Refer to responses on UDLP062	Noted
UDLP062 (Bareena Ave)	Meeting	Vegetation	<p>Concerned with the visual impact experienced by residents due to the removal of trees at the bottom of the Bareena Avenue cul-de-sac. Residents were advised previously that the site would be restored to its original condition, however only two trees remain with more trees to be removed and the Urban Design and Landscape plan doesn't propose any revegetation at this location. This will leave a view of a large concrete wall where previously the noise wall could not be seen due to the leafy trees in between. Can NorthConnex work with Council and RMS to maximize what little space is left to plant trees that will one day grow back to restore the location to its former condition?</p>	The cul-de-sac at the bottom of the east side of Bareena Ave is very close to the creek wall and new noise wall, effectively providing a wall six metres high. Areas to the north of Bareena Ave will be landscaped with a mix of planting, including tall canopy trees, understorey plantings and suitable grass species to form a mix of open and planted spaces in wider areas. Areas that result in little residual space that are adjacent road reservations will be discussed with council to optimize revegetation opportunities.	Yes
UDLP062 (Bareena Ave) cont'd	Meeting	Request for information	Would like more information on the colour and finish of the noise wall at this location.	The face of the noise wall facing the residential properties will be painted with a recessive mid-grey colour, as outlined in Section 10.3 and 10.4 of the UDLP.	Yes
		Request for information	Would like more information on the proposed landscaping north of the Bareena Avenue cul-de-sac.	North of the Bareena Ave cul-de-sac (east side) will be planted with tree species endemic to the area, to assist in screening the new noise wall.	Yes
		Request for information	What would be the view of the ventilation facility across the M1 from the rear and front of 20 and 22 Bareena Avenue?	The top of the ventilation outlet is approximately 30 metres above the northbound M1 Motorway, and the top of the ventilation building will be approximately 20 metres above the northbound M1 Motorway. The design of these facilities will be illustrated in the UDLP Stage 2, scheduled for early 2017.	Yes Refer UDLP Stage 2
UDLP063 (Bareena Ave)	Meeting	Vegetation	Area behind Coonabarra Road, between Bareena Avenue and Lochville Road should be revegetated with trees, not shrubs and grasses, to restore the site to its former condition and block the view of trucks on the M1.	The area of the Cockle Creek realignment from south of Burns Road to north of Bareena Ave will be comprised of two sections where the Creek alignment is hard against new motorway dive structure. Planting within the realigned Creek channel will be limited so as not to restrict flow, and where there are spaces suitable for tall trees, these will be planted with tall canopy and understorey planting as appropriate.	Yes
		Request for information	Will the view of trucks on the M1 be increased with the wall moving closer to my property and no increase in wall height?	With the noise wall at a proposed height of 4.2 metres (resulting in a level above Bareena Ave approximately six metres), views of trucks would be expected to be limited.	Yes
		Design	What is the speed limit from the M1 into tunnel and when does it slow down if speed is reduced? If speed is to be reduced it should be reduced well before residential areas so the impact of truck braking noise is minimised.	The posted speed of the M1 Motorway and NorthConnex lanes is 80kmph from north of Edgeworth David Rd bridge.	Yes

Appendix 1 – UDLP Submissions and Responses

UDLP051 (Bareena Ave)	Information Centre	Vegetation	I'm interested in what trees will be planted in the Bareena/Lochville precinct - are some big trees being planted too? The planting in figure 10.9 looks really lovely but are some longer eucalyptus going to be planted to replace the ones that have been cut down?	The landscape and planting design principles are presented in Sections 8.3 and Section 8.4 of the UDLP. A combination of direct seeding and tube stock will be used in the landscaping as this type of planting offer the best opportunity for fast growth and longevity. Planting will be implemented as a mix of understory and high canopy trees. Selection will be selected from the range of plant communities in the corridor and compatible with the specific environment. Planting sizes will be based on a number of factors, mainly ensuring that long term growth is healthy and effective. This is mainly achieved by using smaller planting stock.	Yes
		Noise wall height/alignment	How high is the barrier wall going to be?	The new noise wall is 4.2 metres above the M1 motorway level, which varies in height above the finished mound height. Sections of the existing mound north of Lochville Ave will be reduced by 1.5 metres to two metres to allow for the noise wall	Yes
		Current construction	How low is the mound of dirt going to be and where is the dirt going that is being removed at present?	The area of the Cockle Creek realignment from south of Burns Road to north of Bareena Ave will be comprised of two sections where the creek alignment is hard against new motorway dive structure. With the noise wall at a proposed height of 4.2 metres (with a level above Bareena Ave approximately six metres), views of trucks would be expected to be limited. Planting within the realigned creek channel will be limited so as not to restrict flow, and spaces suitable for tall trees will be planted with tall canopy and understory planting as appropriate.	Yes
Coonanbarra Road					
UDLP061 (Coonanbarra Rd)	Email	Vegetation	Following on from our already grave concerns about the mismanagement and lies we have already been subjected to in relation to the NorthConnex project, we have reviewed the UDL in relation to our property at Coonanbarra Road Wahroonga. As far as I can understand the area at the back of our property will be planted with native shrubs and grasses which is great however I don't see anything on your plan which indicates that you will be replanting any of the many trees which have been destroyed to make way for your construction. If this is the case then it is completely unacceptable to us. We previously had lovely bushland with many beautiful mature trees which were in keeping with the area. If these are not replaced then we are backing onto essentially a very large concrete sound barrier with only a few shrubs???	The land immediately behind the respondent's property was private land. The land was acquired by RMS for the motorway works. The area forms part of the Cockle Creek realignment and connection to the existing alignment, and consists of open grass land, and a vegetated bank on the western edge adjacent of the widened M1 Motorway and NorthConnex southbound entry ramp. Areas adjacent the motorway will be planted with tree species endemic to the area to assist in screening the new noise wall.	Yes
		Noise wall colour/finish	Also in regards to the sound barrier I note that the motorway side will have visual treatment however the residential side will not. Does this mean that we are looking at a very tall plain concrete wall??	The face of the noise wall facing the residential properties will be painted with a recessive mid-grey colour, as outlined in Section 10.3 and 10.4 of the UDLP.	Yes