

Submission to the Northern Beaches Transport Review

Future-Proofed Light Rail Network Strategy

for the Lower North Shore and Northern Beaches Corridor



North Sydney Transport Association

May 2026

To Transport for NSW and the Northern Beaches Network Review team,

This submission argues that the Northern Beaches Network Review should not be limited to short-term bus route and road changes, but should also protect the long-term ability of the Northern Beaches and Lower North Shore to support higher-capacity public transport.

In particular, we recommend that Transport for NSW future-proof Military Road, Spit Road and the wider Northern Beaches corridor for a future street-running light rail network, supported in the short and medium term by bus priority infrastructure designed for eventual light rail conversion. We also recommend a rebuild of the Spit Bridge.

Military Road is one of Sydney's most important bus corridors. It carries a very high volume of public transport services between the Northern Beaches, Mosman, Neutral Bay, Cremorne, North Sydney and the Sydney CBD. However, the corridor is also highly constrained, heavily congested, and increasingly unable to scale through bus services alone. While bus improvements are necessary, they should not be treated as the final form of transport investment in the corridor.

The key recommendation of this submission is that any future changes to Military Road should preserve the option for a centre-running light rail alignment. This means protecting or creating medians, avoiding irreversible kerb and lane arrangements, and designing bus priority works in a way that could later be converted into fixed-track public transport.

A useful precedent can be seen in Sydney's south east, where major bus corridors were ultimately converted into the CBD and South East Light Rail. While the Northern Beaches corridor has different conditions, the same broad principle applies: high-demand bus corridors should be treated as potential future light rail corridors, not simply as permanent bus-only corridors.

The North Sydney Transport Association proposes that TfNSW consider a long-term light rail network for the region consisting of five key components:

1. **The Gore Hill Branch**
2. **The McMahons Point Branch**
3. **The Military Road Core**
4. **The Taronga Zoo Branch**
5. **The Northern Beaches Branch**

Together, these would form a connected Lower North Shore and Northern Beaches light rail network, integrated with Sydney Trains at St Leonards and North Sydney, and Sydney Metro at Victoria Cross, Crows Nest and potentially Dee Why if a future Northern Beaches Metro reaches that centre.

0. Table of Contents

0. Table of Contents.....	2
1. Strategic rationale.....	3
2. Integration with Sydney Metro.....	3
3. Military Road as the core corridor.....	4
4. Proposed light rail network.....	5
4.1 Gore Hill Branch.....	5
4.2 McMahons Point Branch.....	6
4.3 Military Road Core.....	6
4.4 Taronga Zoo Branch.....	7
4.5 Northern Beaches Branch.....	7
5. Bus priority as a transition stage.....	9
6. Station and stop design principles.....	9
Major interchange stops.....	9
Major centre stops.....	10
Local access stops.....	10
7. Service pattern concept.....	10
8. Urban and public domain benefits.....	11
9. Risks of not future-proofing the corridor.....	12
10. Recommended actions.....	12
11. Conclusion.....	13
12. Appendices.....	13
12.1 Potential name alternatives for the network.....	14
12.2 Geographical network map - North Sydney & Mosman Section.....	14
12.3 Geographical network map - Northern Beaches Section.....	15
12.4 Military Road Cross-Section - Before & After, Proposed.....	15
12.5 Spit Bridge Reconstruction, suggested alignment.....	16

1. Strategic rationale

The Lower North Shore and Northern Beaches have some of the most constrained transport geography in Sydney. Road access is concentrated into a limited number of corridors, particularly Military Road, Spit Road, Manly Road, Condamine Street and Pittwater Road. This creates a situation where buses, private vehicles, freight, local traffic, pedestrians and village centres all compete for the same limited road space.

The current bus network is essential, but it has clear long-term limitations. As demand increases, simply adding more buses can worsen congestion, increase dwell times at stops, and create more conflict at intersections and kerbsides. A high-frequency bus corridor can eventually become a victim of its own success, where the number of buses required to move people begins to reduce the efficiency of the corridor itself.

Light rail offers a stronger long-term solution for the highest-demand parts of this corridor. It provides higher passenger capacity per vehicle, a more legible network structure, better integration with town centres, and a stronger basis for transit-oriented public domain improvements.

This submission does not argue that buses should be removed or replaced everywhere. Buses should continue to play an important role as local feeders, cross-regional links and flexible coverage services. However, the highest-demand trunk corridors should be planned with a future transition from bus priority to light rail in mind.

The review should therefore establish a clear public transport hierarchy:

- **Metro** as the regional high-speed trunk network
- **Light rail** as the medium-capacity surface distributor through dense corridors and centres
- **Buses** as local feeders, orbital connectors and lower-density coverage services

2. Integration with Sydney Metro

The proposed light rail network would not compete with Sydney Metro. Instead, it would complement it.

Sydney Metro provides high-speed, high-capacity access to the CBD and broader metropolitan network. However, metro stations alone do not provide fine-grain access across the Lower North Shore or Northern Beaches. A surface distributor is still needed to connect local centres, hospitals, ferry wharves, retail areas, tourist destinations and residential corridors into the metro network.

The proposed light rail network would integrate with metro at the following key locations:

- **Victoria Cross**, via the McMahons Point Branch
- **Crows Nest**, via the Gore Hill Branch
- **Dee Why**, if a future Northern Beaches Metro reaches that centre

These would not need to be in-station interchanges. The light rail and metro systems would remain separate. However, they should be planned as high-quality pedestrian interchanges, with short walking distances, clear wayfinding, safe crossings and coordinated public domain design.

If the Northern Beaches Metro proposed by Northern Beaches Council reaches Dee Why, then Dee Why should become a major multimodal interchange between metro, light rail and bus services. In that scenario, light rail would provide local distribution through Brookvale, Manly Vale, Seaforth, The Spit, Mosman, Neutral Bay, Cremorne and North Sydney, while metro would provide faster long-distance access.

There should also be provision for a future extension of the light rail network to Manly. A future metro line is unlikely to include a separate Manly spur, meaning light rail may be the most realistic high-quality fixed public transport option for connecting Manly into the wider Northern Beaches rapid transit network.

3. Military Road as the core corridor

Military Road should be treated as the core spine of any future Lower North Shore light rail network.

The proposed Military Road core would begin at **St Leonards Park**, then continue through:

- **Watson Street / Big Bear**
- **Neutral Bay Junction / Wycombe Road**
- **Cremorne Junction / Spofforth Street / Hayden Orpheum**
- **Spit Junction**

This corridor already functions as a major public transport spine. However, it is currently burdened by high bus volumes, congestion, turning conflicts and limited road space. Any review of Northern Beaches transport must recognise that Military Road is not just a local road or bus corridor. It is the main public transport gateway between the Northern Beaches, Mosman, Neutral Bay, Cremorne, North Sydney and the CBD.

The review should recommend that Military Road be progressively converted into a transit-priority corridor. In the short term, this could mean improved bus lanes, signal priority and stop rationalisation. However, these works should be designed so that they can later support a centre-running light rail alignment.

This would require:

- protecting median space where possible
 - avoiding road designs that permanently prevent light rail conversion
 - designing intersections with future light rail geometry in mind
 - avoiding fragmented kerbside-only bus priority where centre-running transit would be more appropriate
 - coordinating road upgrades with long-term public transport planning
 - treating bus lanes as potential light rail precursor infrastructure
-

4. Proposed light rail network

The North Sydney Transport Association proposes a five-part street-running light rail network.

4.1 Gore Hill Branch

The Gore Hill Branch would begin on **Reserve Road**, with stops at:

- **Gore Hill / Artarmon South / Campbell Street**
- **Royal North Shore Hospital**
- **St Leonards Station / Wadanggari Park**
- **Crows Nest Station**
- **Crows Nest Village / Crows Nest Shops**
- **St Leonards Park / Falcon Street**

The branch would run via Reserve Road, the Pacific Highway, Hume Street, Clarke Street, Willoughby Road, Burlington Street, Alexander Street and Falcon Street.

This branch would connect major employment, health and transport destinations. It would provide direct access to Royal North Shore Hospital, St Leonards Station, Crows Nest Metro and the Crows Nest village centre. It would also allow the Military Road core to connect directly into the St Leonards and Crows Nest metro/rail precinct.

This is one of the most important branches because it links the proposed light rail network to existing and future high-density centres.

4.2 McMahon's Point Branch

The McMahon's Point Branch would begin at **McMahon's Point Wharf**, then continue via Henry Lawson Avenue, Blues Point Road, Lavender Street, Blue Street and Miller Street, with stops at:

- **McMahon's Point Wharf**
- **East Crescent Street / French Street / Blues Point Hotel**
- **Commodore / Union Street / Lavender Street**
- **North Sydney Station / Blue Street**
- **Victoria Cross / Brett Whiteley Place**
- **North Sydney Oval / Ridge Street / Stanton Library / Ted Mack Park**
- **St Leonards Park / Falcon Street**

This branch would provide a strong ferry-rail-metro-light rail connection. It would link McMahon's Point Wharf, North Sydney Station and Victoria Cross Metro into the wider network.

The branch would also improve access to North Sydney Oval, Stanton Library, Ted Mack Civic Park and the North Sydney CBD fringe. It would help distribute passengers across North Sydney without relying only on buses or walking routes from metro stations.

4.3 Military Road Core

The Military Road Core would run from **St Leonards Park** to **Spit Junction**, with stops at:

- **St Leonards Park / Falcon Street**
- **Watson Street / Big Bear**
- **Neutral Bay Junction / Wycombe Road**
- **Cremorne Junction / Spofforth Street / Hayden Orpheum**
- **Spit Junction**

This would be the main trunk of the network. It would carry overlapping services from the Gore Hill, McMahon's Point, Zoo and Northern Beaches branches.

Because of this, the Military Road core would likely have the highest frequency in the network. It should be designed as a turn-up-and-go transit spine, with dedicated priority wherever possible.

4.4 Taronga Zoo Branch

The Taronga Zoo Branch would begin at **Spit Junction**, then continue along Military Road, Bradleys Head Road and Athol Wharf Road, with stops at:

- **Spit Junction**
- **Mosman Village / Belmont Road**
- **Raglan Street**
- **Rawson Oval / Cross Street**
- **Taronga Zoo Top / Taronga Zoo**
- **Taronga Zoo Wharf / Athol / Taronga Zoo Bottom**

This branch would serve both local and tourism demand. Taronga Zoo is one of Sydney's most important visitor destinations, yet access is currently split between bus, ferry and road-based travel. A light rail branch would create a clear, legible and attractive public transport route to the zoo, while also improving access for Mosman residents.

The branch would also strengthen ferry integration at Taronga Zoo Wharf.

4.5 Northern Beaches Branch

The Northern Beaches Branch would begin at **Spit Junction**, then continue via Spit Road, Parriwi Road, Manly Road, Burnt Bridge Creek Deviation, Condamine Street and Pittwater Road, with stops at:

- **Parriwi Road / North Mosman**
- **The Spit / Spit Bridge**
- **Seaforth / Sydney Road**
- **Kitchener Street / Burnt Bridge Creek**
- **Manly Vale / Kenneth Road**
- **Warringah Mall / Brookvale**
- **Brookvale Oval / Brookvale**
- **Dee Why / Howard Avenue**

This would be the main Northern Beaches branch and would form the long-term surface transit spine from the Lower North Shore to Dee Why.

It would connect major centres including Seaforth, Manly Vale, Warringah Mall, Brookvale and Dee Why. These locations already generate significant all-day demand and would benefit from a clearer, higher-capacity public transport corridor.

The branch should be planned so that it can integrate with a future Northern Beaches Metro at Dee Why. It should also allow for possible future extensions toward Manly, Curl Curl, Narrabeen or Mona Vale, depending on future demand and corridor planning.

A future light rail corridor to the Northern Beaches would also require serious consideration of the long-term role of the Spit Bridge.

The current Spit Bridge is one of the most significant physical constraints on the Military Road–Spit Road–Manly Road corridor. Its opening span creates an unavoidable disruption to road-based transport, including buses, private vehicles, freight and emergency access. Even where bridge openings are scheduled, the need to lift the bridge introduces a structural reliability issue into one of the most important transport corridors serving the Northern Beaches.

The North Sydney Transport Association recommends that Transport for NSW investigate the long-term replacement of the Spit Bridge with a higher fixed bridge, constructed immediately to the west/left of the existing bridge alignment, in order to remove the need for bridge openings while preserving corridor continuity.

A replacement bridge in this location could allow the existing corridor to remain operational during construction while enabling a future structure to be designed around modern transport requirements. This should include provision for:

- dedicated public transport priority
- future light rail tracks or safeguarded light rail space
- improved pedestrian and cycling facilities
- safer and more reliable road geometry
- reduced disruption from bridge openings
- better long-term resilience for emergency and public transport access

The bridge should not be considered only as a road asset. It should be treated as a strategic public transport corridor crossing.

If the Northern Beaches Branch of the proposed light rail network is to operate reliably between Spit Junction, Seaforth, Manly Vale, Brookvale and Dee Why, then the crossing of Middle Harbour must be designed to support continuous high-capacity transit. A bridge that must regularly open to maritime traffic is not ideal for a future rapid transit spine.

Replacing the Spit Bridge with a higher fixed structure would provide a generational opportunity to improve the corridor's reliability, remove a major operational bottleneck, and future-proof the crossing for light rail, buses, walking and cycling.

This recommendation does require eventual bridge replacement as part of the Northern Beaches Branch. The review should identify the Spit Bridge as a strategic constraint and ensure that any future corridor planning preserves the option of a higher replacement bridge directly adjacent to the current alignment.

5. Bus priority as a transition stage

The North Sydney Transport Association supports improved bus priority, but it should be designed as part of a staged pathway toward light rail rather than as a permanent endpoint.

Short-term bus priority should include:

- continuous bus lanes where possible
- transit signal priority
- rationalised stopping patterns
- better interchange design, with improved pedestrian access to stops
- reduced conflict between buses and general traffic

However, these measures should be designed with future light rail conversion in mind.

For example, a median bus priority corridor may be more useful than a kerbside bus lane if the long-term goal is centre-running light rail. Similarly, stop consolidation should consider future platform locations, not just existing bus stop spacing.

This approach would allow TfNSW to improve current bus operations while also reducing the cost and disruption of a future light rail conversion.

6. Station and stop design principles

The light rail stops should be designed according to their role in the network.

Major interchange stops

These include:

- Victoria Cross
- Crows Nest
- St Leonards
- Dee Why

These stops should have:

- larger platforms
- strong pedestrian access
- clear interchange paths

- weather protection
- high-quality wayfinding
- integration with bus and metro services

Major centre stops

These include:

- Spit Junction
- Neutral Bay Junction
- Cremorne Junction
- Mosman Village
- Warringah Mall
- Brookvale Oval

These stops should support local centres, retail activity, pedestrian movement and bus interchange where needed.

Local access stops

These include:

- Parriwi
- Kitchener
- Manly Vale
- Raglan Street
- Rawson Oval
- East Crescent

These stops should be compact, accessible and well-integrated with surrounding streets.

7. Service pattern concept

The proposed network should operate as an interlined street-running light rail system.

The Military Road core should carry the highest frequency, with services from multiple branches overlapping between St Leonards Park and Spit Junction.

Possible service patterns could include:

- Northern Beaches to McMahons Point
- Northern Beaches to Gore Hill / St Leonards

- Zoo Branch to Gore Hill / St Leonards
- McMahons Point to Zoo Branch
- Branch terminus to Military Road short-turn services during late-night periods
- Short-turn Military Road services during peak periods

This structure would allow many passengers to travel across the Lower North Shore and Northern Beaches without needing to transfer between multiple buses.

It would also allow service frequency to match demand. The Military Road core would receive the most frequent service, while branches could operate at slightly lower but still high all-day frequencies.

8. Urban and public domain benefits

A light rail corridor would not only improve transport capacity. It would also support better urban design.

Military Road currently functions as both a transport corridor and a village main street. Many urban planners would use the term “stroad” (meaning a high-speed road with impaired shop usage as a result) to describe it. In places such as Neutral Bay, Cremorne and Mosman, this creates conflict between movement and place. A well-designed light rail corridor could help reorganise the street around a clearer public transport spine, improved pedestrian crossings, better footpaths and more attractive centre environments.

Potential urban benefits include:

- reduced bus clutter
- more legible streets
- improved pedestrian safety
- stronger village identities
- better public transport access to local businesses
- improved visitor access to Taronga Zoo and harbour destinations
- stronger transit-oriented planning around Brookvale and Dee Why

Fixed public transport infrastructure also gives greater certainty for long-term planning than bus routes alone.

9. Risks of not future-proofing the corridor

The most significant risk is that short-term road and bus upgrades could unintentionally prevent better long-term options.

If Military Road is redesigned without preserving future light rail geometry, it may become much harder and more expensive to convert later. Kerb changes, intersection layouts, medians, turning lanes and redevelopment setbacks all shape what is possible in the future.

The review should therefore avoid decisions that lock the corridor into a bus-only model.

Risks of inaction include:

- worsening bus congestion
- reduced long-term corridor capacity
- increased cost of future conversion
- loss of median space
- poorer metro integration
- continued over-reliance on CBD-bound buses
- missed opportunities for public domain improvements

Future-proofing does not require immediate light rail construction. It simply means ensuring that today's decisions do not block tomorrow's options.

10. Recommended actions

The North Sydney Transport Association recommends that the Northern Beaches Network Review:

1. Recognise Military Road as a future higher-capacity transit corridor.
2. Recommend that Military Road, Spit Road and the Northern Beaches trunk corridor be future-proofed for possible light rail conversion.
3. Ensure that any bus priority upgrades are designed to be compatible with future centre-running light rail.
4. Preserve or create median space along Military Road where feasible.
5. Avoid irreversible road designs that would prevent fixed-track transit.
6. Integrate future light rail planning with Sydney Metro at Victoria Cross, Crows Nest, St Leonards and Dee Why.
7. Identify Dee Why as a future multimodal rapid transit interchange.
8. Consider a staged transition from bus priority to light rail, rather than treating bus priority as the final transport outcome.
9. Plan for high-quality interchange between buses, light rail, metro and ferries.
10. Protect the possibility of future light rail extensions to Manly, Mona Vale, Narrabeen or other Northern Beaches centres.

11. Include the proposed five-component light rail network as a long-term corridor option in future transport planning.
 12. Ensure councils and TfNSW coordinate planning controls, road upgrades and redevelopment decisions around future transit needs.
-

11. Conclusion

The Northern Beaches Network Review is an important opportunity to improve bus services in the short term. However, it should also be used to protect the long-term transport future of the Lower North Shore and Northern Beaches.

The corridor cannot rely indefinitely on adding more buses to already constrained roads. Military Road in particular should be treated as a future higher-order public transport spine.

The North Sydney Transport Association therefore urges TfNSW to adopt a future-proofing approach: improve bus priority now, but design it so that future light rail remains possible.

A five-component light rail network, integrated with Sydney Metro and supported by local buses, would provide a more scalable, legible and attractive transport system for the region.

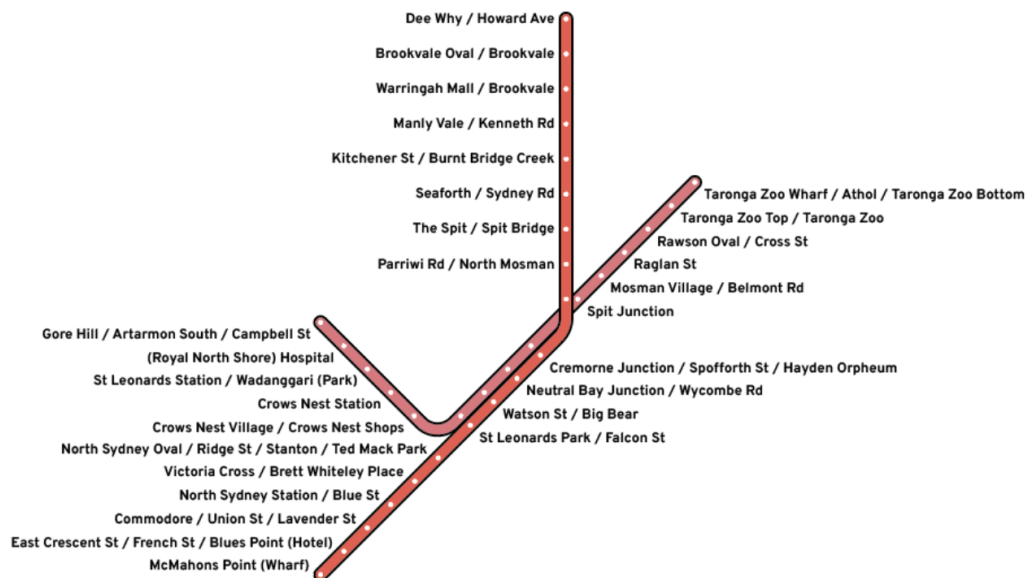
This submission does not ask TfNSW to immediately commit to building the full network. It asks TfNSW to ensure that the option is not lost.

The decisions made through this review may shape the corridor for decades. For that reason, the review should not simply ask how to make the current bus network work slightly better. It should ask how the Northern Beaches and Lower North Shore can be prepared for the next generation of public transport.

Submitted on behalf of the
North Sydney Transport Association

12. Appendices

12.1 Potential name alternatives for the network



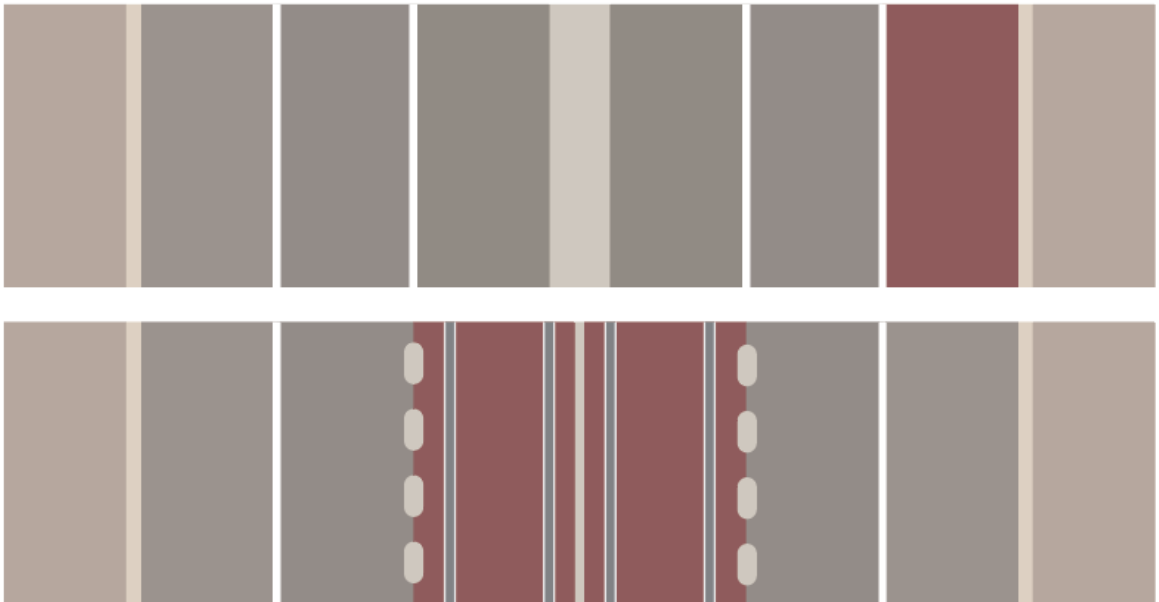
12.2 Geographical network map - North Sydney & Mosman Section



12.3 Geographical network map - Northern Beaches Section



12.4 Military Road Cross-Section - Before & After, Proposed



12.5 Spit Bridge Reconstruction, suggested alignment

