



Ms Carolyn McNally, Secretary  
NSW Department of Planning and Environment  
GPO Box 39  
SYDNEY NSW 2001

Attention Alexander Scott, Planning Officer - Infrastructure Projects

Dear Mr Scott

**Parramatta City Council submission to State Significant Infrastructure Planning  
Application WestConnex M4 Widening (SSI-6148)**

I refer the above State Significant Infrastructure Planning Application for the widening of the M4 from Church Street, Parramatta to Homebush Bay Drive resulting in four lanes of traffic in each direction. Key features of the first stage of the WestConnex M4-Widening, as it relates to the Parramatta Local Government Area, include:

- A new two lane viaduct for westbound traffic, on the southern side of the existing motorway from Church Street, Parramatta to Wentworth Street, Granville;
- Reconfiguration of the traffic lanes on the existing viaduct structure to four lanes eastbound and two lanes westbound (making a total of four lanes in each direction);
- Widening of the existing motorway to the south of the westbound carriageway between Wentworth Street, Granville and Duck River, Auburn;
- Construction of a new bridge/viaduct over Duck River;
- Widening and lengthening of the westbound and eastbound on ramps to the motorway at the James Ruse Drive interchange; and
- Widening and lengthening of the existing westbound on ramp at Church Street.

Following a review of the Environmental Impact Statement (EIS), Council considered the application at its meeting on 8 September 2014 and resolved to adopt the following submission.

Council acknowledges the wider positive transport outcomes of the proposed M4 Widening and the fully realised WestConnex project as providing safer freight movement's transportation and reduction of congestion on the Motorway. However Council has significant concerns in relation to the project proposal in terms of direct benefits to the existing and future residents of Parramatta:

1. Parramatta is recognised by the *Draft Metropolitan Strategy for Sydney* as Sydney's Premier Regional City and second CBD. Increasing traffic on surrounding roads and failing to provide new connections to the M4 for Parramatta does not support the expected growth projections or Parramatta's economic importance.

2. Council is deeply disappointed that the WestConnex Delivery Authority has removed the eastbound access to Westmead from the M4 (near Coleman Street) and a new westbound access from Parramatta at southbound Church Street to the M4 as shown in the original planning application in September 2013. Council requests reassessment of improved access to and from two of Sydney's largest employment areas – the Parramatta CBD and Westmead Health Precinct.
3. WestConnex's toll is projected to significantly increase traffic on Parramatta Road due to both the M4 widening and full WestConnex project. Council believes mitigation measures should be undertaken in conjunction with the M4 Widening project to alleviate the expected traffic congestion along Parramatta Road (refer Section 2). Council has significant concerns in relation to suitability of Urban Growth's proposed urban renewal along Parramatta Road in light of the projected increases in traffic and noise in this corridor (refer Section 3).
4. Council believes the \$30 million dedicated by WestConnex Delivery Authority for traffic improvements in Parramatta is insufficient to mitigate the impacts of the proposal on the surrounding road network, in particular along Parramatta Road. Adequate funding should be provided to implement the Regional and City Ring Roads for Parramatta (refer Section 1, 2 and 3)
5. Currently there are limited north and the south connections below the M4 corridor where pedestrians have direct and safe connections linking railway stations, shopping precincts and neighbourhoods. Council recommend the delivery of capital works providing improved connections for residents within the corridor (refer Section 4).
6. Council is concerned about the effect of a two year construction timeframe on the residents and businesses of Parramatta LGA, and it should be ensured that any planning approval contains specific construction management conditions to minimise noise, dust and traffic impacts.

Council outlines in the submission below specific recommendations and conditions of consent, to address these significant concerns. We trust the Department of Planning and Environment will consider and action these recommendations in the assessment of the planning application.

Council objects to the limited amount of time allocated to provide comment on the four volumes of the EIS and ask the Department to increase the length of time to provide comment for high impact State Significant Infrastructure planning application in the future.

Council's detailed comments relate to the following areas:

1. **Transport Impacts**
2. **Traffic Impacts**
3. **Land Use and Economic Development Impacts**
4. **Visual Amenity and Urban Design**
5. **Environmental Impacts**
6. **Hydrology and Flooding Impacts**
7. **Air Quality Impacts**
8. **Noise and Vibration Impacts**
9. **Socio-Economic Impacts**
10. **Heritage Impacts**



## **Key Concerns and Issues**

### **1. Transport Impacts**

The WestConnex EIS recognises that the primary function of the M4 Motorway in the transport network is as a through route for local and regional traffic including light and heavy freight. The local road network is for local trips which have origins and destinations within the local community. This road hierarchy should be the guiding principle for the entire WestConnex project. The following comments apply this principle as the basis to ensure the project impact on the Parramatta community is minimised and a long term benefit is gained from the project which otherwise has the potential to further canyonise suburbs such as Harris Park and Granville.

### ***Connectivity to the M4 and Road Improvements***

Council's major priority is the WestConnex Delivery Authority (WDA) should reassess the provision of eastbound and westbound ramp access to the M4 at Church Street.

Council would like the WDA to clearly justify the decision to Council of why the primary road entrance to the City of Parramatta (Church Street) is an inappropriate location for access to the motorway. The local traffic and amenity impacts of the M4 construction on the city should be mitigated by improved access to this essential infrastructure, and would build on the current significant development proposals in the area.

Council requests investigation into a westbound on ramp to the M4 from southbound Church, as a proposed clover leaf turn. This will improve access at southern part of the CBD and support future redevelopment in Auto Alley. In addition Council request investigation into an on ramp to M4 eastbound from northbound Woodville Road. This would potentially have significant impact reducing traffic movements along Parramatta Road (between Woodville Road and James Ruse Drive).

Council requests an M4 Motorway on/ off ramp directly into Camellia, which would potentially draw heavy vehicle away from James Ruse Drive and facilitate employment and economic growth in this precinct through improved access.

The Draft Metropolitan Strategy for Sydney highlights Parramatta as Sydney's Premier Regional City and single biggest concentration of employment outside Sydney CBD and North Sydney. As of 2011, Parramatta and Westmead have respectively 49,000 jobs and 17,000 and by 2031 Parramatta is expected to house an additional 21,000 jobs and Westmead an additional 7,000 jobs. The WestConnex – M4 Widening proposes a new Homebush Bay Drive on ramp and a new Olympic Park eastbound access to M4. In comparison Sydney Olympic Park currently holds 7,000 jobs is expected an additional 14,000 more jobs to 2031. The WestConnex project as designed currently does not recognise or support Parramatta's current or future economic importance. Instead improved access is provided to Sydney Olympic Park, which hosts weekly sporting events, instead of Sydney's thriving second CBD.

As the City of Parramatta is a major centre for jobs growth in the Metropolitan region, it should be part of a broader cost benefit assessment. A decision to invest in improved access



to WestConnex from Parramatta should be regarded as a significant regional opportunity for improved traffic flows and a catalyst for generating a significant return on State and Federal investment in terms of broader economic benefit.

Whilst Council acknowledges the dedication from the WestConnex Delivery Authority of \$30 million to be spent to “improve access to the Parramatta precinct”, and appreciates the current assistance from the Roads and Maritime Services with further feasibility and concept development, the funding will be inadequate to significantly address the road and access challenges facing Parramatta due to the project.

Economic development, land use and traffic impacts are further addressed by Council in Sections 2 and 3 below.

### ***Regional and City Ring Road***

Council developed the Western Sydney Regional Ring Road strategy (refer Attachment C) to improve traffic flow in the region and support continued growth in Parramatta. The wider connectivity between the M4 and the Regional and City Ring Roads for Parramatta will be essential to mitigate local traffic impacts further exacerbated by WestConnex. These regional and city road improvements will be dependent on funding key intersections upgrades and new and improved ramp links to the M4. Section 2 and 3 of this submission provides more detail.

### ***Impact of the Proposed Toll***

Council has concerns in relation to the impact of the reintroduction of tolling to vehicles on the M4. As outlined in the EIS, the toll will increase traffic on surrounding roads due to toll avoidance. Council recommends WestConnex Delivery Authority carefully consider reintroduction of the toll and the location of the toll infrastructure so to maximise use of the Motorway and minimise toll avoidance traffic along Parramatta Road.

Council recommends that if a toll is to be charged, it should encourage through travel by using GPS tracking technology to monitor vehicle routes and ensure through traffic remains on the motorway. This should include investigation of cameras on entry and exit ramps of the motorway to monitor vehicles and trucks clearly intending to avoid the toll. Those avoiding the toll should then be fined to discourage this behaviour in the future. This tolling method is widely used in Europe to ensure that freight vehicles use the motorway and only use local roads for deliveries.

The new proposed toll will have a large effect on travel costs for residents and profit margins of freight carriers. This will lead to a flow on effect with added traffic flow onto parallel roads and through residential neighbourhood areas as motorists attempt to avoid paying tolls. Cumulative impacts on connectivity and traffic load and flow with the large range of concurrent developments in the area, including Westfield upgrade, Camellia, Westmead and Auto Alley.

Council requests that the WRTM model for the full WestConnex scenario includes all factors including the Parramatta Ring Road, Western Sydney Light Rail, proposed higher densities and local traffic conditions. This scenario should also be run with and without tolling. The toll choice assignment model should also be run with the toll collection points in various



positions to ensure, if tolling is to be used, the location of the tolled length minimises rat running of local streets by users to avoid the charge.

### ***Project mitigation measures***

Council requests that the full WestConnex scheme should include mitigation measures including the required works for the inner and outer Parramatta Ring Roads, the required planning, approvals and construction of the Western Sydney light rail staging areas in Camellia, improvements to access to the Westmead precinct and a Parramatta Access Strategy. Mitigation measures should also include a package of demand management strategies based on the polycentric city model which encourage employment, services and housing in centres reducing the need to travel. These mitigation measures should be applied along the motorway corridor as well as at its origin points to reduce the need of Sydney's communities to travel long distances by private vehicle.

### ***Active local transport***

The EIS states that the existing off road shared paths will be maintained during construction and be reinstated at the completion of the project. Council recommends a condition of consent ensuring both pedestrians and cyclists are provided with adequate equivalent alternate access during the construction period.

It is recommended that key north south routes connecting communities on either side of the viaduct be made more pedestrian and bike rider friendly. This should include a shared pedestrian and bicycle bridge adjacent to the current Bold Street Bridge, connections between local streets and the M4 viaduct shared path, and improved bicycle facilities along the local streets linking Granville, Harris Park and Parramatta. Section 4 of this submission provides more comments in relation to connectivity.

## **2. Traffic Impacts**

Council has reviewed the Traffic and Transport Working Paper prepared by Jacobs and AECOM August 2014. Council is concerned about the impact of the M4 Widening and the full WestConnex proposal on an increase in traffic on surrounding road network, in particular along James Ruse Drive and Parramatta Road.

### ***Traffic Impacts along Parramatta Road***

The modelling indicates a significant increase in traffic projected on Parramatta Road due to both the M4 widening and full WestConnex project. Based on the modelling data, of particular concern is:

- In 2021 the number of weekday vehicles along Parramatta Road is projected to be 43,990 with a 'do minimum' scenario to 59,370 under the M4 Widening scenario – an increase of 35%;
- In 2021 the number of weekday heavy commercial vehicles along Parramatta Road is projected to be 1,408 with a 'do minimum' scenario to 3,517 under the M4 Widening scenario – a 250% increase in heavy vehicle movements;



- In 2031, the number of weekday vehicles along Parramatta Road is projected to be 52,030 without WestConnex compared to a full WestConnex of 62,490 – an increase of 20%.

In addition key intersections along Parramatta Road are expected to experience significant Loss of Service (LoS) and vehicle delay when comparing the 'do minimum' scenario with M4 Widening in 2021 in the morning peak, namely:

- Vehicle delay increases from 67 seconds to over 140 seconds at the Church St / Parramatta Rd/ Woodville Rd / M4 westbound on ramp intersection.
- Vehicle delay increases from 50 seconds to over 140 seconds at Bold Street / Parramatta Road, resulting in a Loss of Service from a 'D' to an 'F'.
- Vehicle delay increases from 32 seconds to 67 seconds at Good St /Parramatta Road, resulting in Loss of Service from a 'C' to an 'E'.

The results of the Full WestConnex scenario in 2031 in the morning peak indicates further deterioration of intersections, with the intersections mentioned above resulting in a Loss of Service of 'F'.

Council request more information on the intersections at Good Street / Parramatta Road and Bold Street / Parramatta Road, specifically detailed data on traffic flows under all scenarios, including delays at each turn, and number of vehicle movements. Council requests that WestConnex Delivery Authority must include associated package of works to address drop in Level of Service (LoS) at these key intersections.

Given the projected increase of traffic on Parramatta Road, Council is concerned about the increasing impact of the at-grade railway crossing Carlingford Railway Line. The current traffic signals on Parramatta Road are not coordinated with the railway crossing and impact on traffic flow, therefore this impact may be further exacerbated with an increase in traffic.

Council requests that WestConnex undertake a micro simulation traffic modelling of the Parramatta Road corridor between Woodville Road / Church Street to James Ruse Drive, which investigates traffic impact of the proposal (including M4 Widening and full WestConnex scenarios) including all intersections along Parramatta Road and the railway crossing. This modelling should be undertaken prior to construction to inform mitigation or traffic measures to be in place in conjunction with the M4 Widening project.

Whilst Council is supportive of the Operational Traffic Review being undertaken 12 months after the operation of the M4 Widening, Council believes this is too late to undertake improvements to the Parramatta Road corridor. Any improvements undertake to the Parramatta Road corridor should be undertaken concurrently with the M4 Widening construction and operation timeframes.

Council recommends investigation a new road bridge over Clyde Railway Station, which connects Parramatta Road with Clyde Street. This connection would provide an alternate north – south access and and potentially reduce traffic at the Bold St / Parramatta Rd and Good St /Parramatta Rd intersections.



### ***Traffic Impacts along James Ruse Drive***

Modelling indicates that under the full WestConnex scenario, the intersection of James Ruse Drive /Prospect Street and James Ruse Drive / M4 Motorway westbound off-ramp are expected to be more congested. However Council notes that no improvement works are proposed to alleviate the increased traffic movements. As described in Land Use Section 3 below, James Ruse Drive provides an important connection to many growth areas including Rydalmere, Camellia and Parramatta CBD.

Council recommends that WestConnex Delivery Authority undertake traffic modelling (both strategic and micro simulation) of the intersection of James Ruse Drive and Hassall Street / Grand Avenue to determine if the project (M4 Widening and full WestConnex) will impact on this significant intersection. This intersection provides important access to many critical growth areas such as Camellia, Rydalmere, North West and Parramatta CBD.

In addition Council recommends investigation of providing a grade separation along James Ruse Drive at Grand Avenue / Hassall Street which will increase capacity and draw traffic away from Prospect St intersection with James Ruse Drive intersection.

In addition, Council recommends an M4 Motorway on/ off ramp directly into Camellia. As detailed in the Land Use Section 3 below, a new connection will draw heavy vehicle away from the southern portion of James Ruse Drive and will facilitate employment and economic growth in this precinct through improved access.

### ***Westbound traffic impacts***

Currently at evening peak, the M4 Motorway experiences traffic delays westbound at Duck River. With the proposed widening, Council expects the westbound traffic to experience significant delays west of Church Street, at Wentworthville due to the merging from 4 lanes to 3 lanes of traffic. The expected traffic queuing will have significant flow on impacts to the surrounding road network, including the westbound on-ramp at Woodville Road /Church Street / Parramatta Road. Council request more information on the westbound traffic movements at evening peak along the M4 motorway, west of Church Street.

### ***On ramp improvements***

The current level of detail provided on improvements Council is insufficient for Council to provide comment. Council recommends that WestConnex provide further design detail of the widening and lengthening of the westbound and eastbound on ramps to the motorway at the James Ruse Drive interchange and the widening and lengthening of the existing westbound on ramp at Church Street for Council's review.

### ***Construction Traffic Impacts***

Council supports the 24 hour project information line during construction, in addition to the regular notification and consultation with residents.

Council would like to be given notice of proposed road closures during construction and a copy of the Construction Traffic Management Plan.



Council recommends, prior to construction, engagement with key stakeholders, in relation to construction impacts and road closures. For example consultation with Rosehill Racecourse and University of Western Sydney as their event calendars may be significantly impacted.

In addition, Council requests that when more design detail becomes available, that WestConnex provide details of impacts on Council's footpath and roadways, with expected disturbances. Council would like our current standards to be used by the contractor in any reconstructions or restorations.

### **3. Land Use and Economic Development Impacts**

Parramatta suffers from significant "intra city traffic" caused by cars having to navigate the local road system in circuitous routes to access motorways such as the M4 and M2 via James Ruse Drive. This impacts significantly on the urban amenity and efficiency of the city, and significantly constrains it from fulfilling its role as the major central CBD for Metropolitan Sydney. Without improved access from the Parramatta CBD, Westmead, Rydalmere and Camellia to the M4, significant jobs growth and private capital investment opportunities may be reduced.

The proposed M4 Widening proposal does not address the access needs of a growing and changing Parramatta as a regional city. These major destinations including Westmead Health precinct, the Parramatta CBD as the largest professional services office market outside of Sydney CBD, and the industrial and education precincts of Camellia and Rydalmere will be disadvantaged by the lack of connectivity to the M4.

#### ***Parramatta CBD***

Parramatta is recognised by the [Draft Metropolitan Strategy for Sydney](#) as Sydney's Premier Regional City and second CBD. Parramatta is also expecting significant population and jobs growth. Pushing traffic onto local roads and failing to provide new connections to the M4 for Parramatta does not support the expected growth projections for Parramatta.

There should be allowance for new on/off ramps to connect the M4 with the southern part of the Parramatta CBD at Church Street. This is to improve connectivity and facilitate growth of the Parramatta CBD.

Council is currently reviewing planning controls for the Auto Alley Precinct. The review has been aimed at facilitating redevelopment, for commercial and mixed use purposes and latest plans would, if fully developed, deliver in the order of 26,000 jobs and 2,600 dwellings. This area of growth is not detailed in the EIS.

#### ***Camellia Precinct***

The EIS states that WestConnex addresses freight activity in an east-west direction in both the north and south western growth corridors, but fails to address the significant industrial lands at Camellia. The Camellia Precinct is home to some of the State's most significant industries, including Viva Energy (formerly Shell) which distributes approximately 40 per cent of Sydney's fuel supply. The precinct is also home to one of Sydney's premier event venues



in Rosehill Racecourse, and major Australian and International companies including Boral, CSR and Veolia.

Table 7.1 in the EIS, relating to agency consultation, incorrectly indicates that Parramatta City Council requested dedicated access to/from Rosehill Racecourse be included as part of the project.

Council is seeking access to the M4 to/ from Camellia, however this is not to support Rosehill Racecourse in isolation. Access to Camellia is already severely constrained and is via two main entry/ exit points at Grand Avenue (joining James Ruse Drive) and Wentworth Street (joining Parramatta Road). Pushing further traffic onto Parramatta Road will only further impact on an already congested road network in and around the Camellia Precinct.

Businesses in the Camellia precinct have repeatedly voiced that traffic and access is the biggest constraint for the Camellia Precinct and that a connection to the M4 would help the precinct to grow substantially.

There should be provision for a new direct on/off ramp directly into the Camellia Employment Lands precinct from the M4. This is consistent with Council's [Discussion Paper](#) for the Camellia Precinct and will facilitate employment and economic growth in this precinct through improved access.

### ***Parramatta Road Revitalisation***

The M4 Widening project and the re-introduction of the toll and will result in increased traffic along Parramatta Road, which will inhibit revitalisation of the corridor, as proposed by the NSW Government.

The area along Parramatta Road in Granville too, has had a lot of interest and change, leading to several planning proposals and development applications. The form and nature of these proposals have been residential towers approximately 25 storeys tall with ground floor retail/ commercial uses. This too puts added residential density on Parramatta Road. The future amenity of these residents will be affected adversely should a toll be introduced with more cars and price sensitive small business delivery using Parramatta Road as an alternate conduit.

Council is considering allowing residential on Parramatta Road, subject to the provision of commercial at ground level at the interface with Parramatta Road. Individual planning proposals will need to consider noise, pollution and traffic impacts, including the impacts of additional traffic on Parramatta Road as a result of the re-introduction of the toll on the M4.

To date Council has been involved in the NSW Government's Parramatta Road Urban Renewal Project. However UrbanGrowth NSW has yet to release the Draft Structure Plan for the corridor. Until the Draft Plan is released it is unclear the extent of renewal proposed along this part of the Parramatta Road corridor. Any renewal in this section of Parramatta Road will need to consider the increased traffic along Parramatta Road.

### ***Westmead***

WestConnex M4 Widening proposal does not address the current congestion issues or support growth in the Westmead precinct now or in the future. Section 4.4.1 of EIS does not



adequately provide sufficient detail or reason behind the cancellation of the proposed connection. The Westmead hospital precinct is utilised by people from all over Sydney as it is the largest health precinct in Australia, employing over 17,000 people. The NSW Draft Metropolitan Plan for Sydney and the NSW Health Infrastructure [Masterplan](#) for Westmead states that employment in this precinct will increase by a further 7,000 people. Therefore there should be provision for additional on/off ramps connecting the M4 to the Westmead Health Precinct at Hawkesbury Road.

#### **4. Visual Amenity and Urban Design**

Council has reviewed the Urban Design Concept, Landscape Character and Visual Impact Assessment Report dated July 2014.

The vintage of the existing M4 means that it was built as a vehicular priority infrastructure project with less regard to context - this characterises similar motorways of the same timeframe both in Australia and internationally. The RMS's "Beyond the Pavement " itself was prepared after the M4 was built and therefore the existing scenario does not adequately address the pedestrian needs as well as it should.

The M4 Motorway forms a vertical scar across the urban fabric of streets, connections and neighbourhoods. There are limited points where the areas north and the south of the M4 corridor can link with direct and safe connections linking railway stations, shopping precincts and neighbourhoods.

Council notes the current urban design analysis appears to accept this lack of connectivity as a given and primarily focuses on view impact mitigation using landscape and aesthetic improvements. While Council acknowledges a significant volume of urban design, landscape and visual analysis has been done, we believe the synthesis of these findings lead to few substantive urban design improvements/ mitigatory work. The proposed improvements are mainly landscape treatments and aesthetic treatment of pylons. Council recommends the future stages of design identify and deliver a list of capital works improvement addressing the issues below.

##### ***Improved pedestrian connectivity***

The motorway currently divides the northern and southern parts of Parramatta LGA. There are large numbers of people that travel along pedestrian and cycle the routes from Granville to Harris Park and Parramatta to access employment, public transport and services. Key north south routes connecting communities on either side of the viaduct be made more pedestrian and bike rider friendly.

The existing five north south pedestrian connections crossing the M4 corridor – this is insufficient number of crossing points for a 2.5km stretch. Given the growth expected in Parramatta City Centre, along Auto Alley and in Granville, Council recommends the proponent provide safer and more accessible, legible and direct pedestrian connections to connect the existing street networks north and south of the M4 corridor.



Council has attached graphic summary (refer Attachment A) of through streets, cul-de-sacs and formed cycle ways in the immediate vicinity of the M4 within Harris Park and Granville precincts. Council has also indicated where these pedestrian connections must be improved or established to mitigate the effect of the proposed works.

Council has also attached a photographic summary of the existing pedestrian/ cycle ways at street crossings along the M4 corridor between Church Street and James Ruse Drive (refer Attachment B). Of particular importance is the missing pedestrian link between the unformed easement of Duke Street across the Duck Creek culvert to Wigram Street, Tottenham and High Street highlighted by a white circle in Attachment A. Council has raised this issue at earlier meetings with WestConnex representatives, however has not been addressed in the proposal.

### ***Improvements to safety and security***

Council supports lighting under viaducts, adequately securing site areas and choosing sites areas in appropriate locations that minimise residential impact, as well as developing a hoarding strategy under the motor way and via-ducts. In addition cycleways and pedestrian connections to be audited using Safety By Design Principles, and the results inputted into the final designs.

Council are concerned at the safety of pedestrian/ cycleway links under the proposed viaduct with lack of adequate night lighting and casual surveillance. Therefore Council recommended that the proponent consider the following in the design detail:

- Useable and safe connections for pedestrians/people on bikes clearly identified.
- Improved night lighting for pedestrian and cyclists especially in undercover locations. We strongly recommend a lighting category for subways with a high risk of crime as per AS/NZS1158.3. Include CCTV surveillance where possible.
- Relocate pedestrian connections to open to sky situations for improved safety and security. Locate this with pedestrian scale night lighting. Where relocation is not possible (for example north south pedestrian connection crossings under viaducts) a lighting category for subways with a high risk of crime as per AS/NZS1158.3 for under cover pedestrian connections.
- The landscape screening provided in the chainage sections appear at odds with creating better pedestrian environments from a casual surveillance point of view. It is suggested that the shrubbery is replaced with tall canopy tree planting as well planting lower than 1 metre where it is located adjacent to pedestrian and cycle pathways to create better casual surveillance. As an example consider a similar condition to the tall canopy planting in between the viaducts in Darling Harbour as shown in Figure A.
- Consider opportunity for activation and use to improve safety and security along pedestrian and cycle routes (as described above).





Figure A: Tall canopy planting in between the viaducts in Darling Harbour (source: Google Street View accessed 29/08/2014)

### ***Proposed land use change***

There is reference in the report to a proposed change in land use along this corridor to better activate/ utilise the land, however not much detail is provided. Much of the land adjacent to the M4 Corridor is either flood affected, environmentally sensitive or has poor amenity and connectivity. Council would be very keen to have a better understanding of the nature of these proposed changes, its impact and alignment to Council's strategies and supports the reports recommendation for further consultation with Council.

### ***Impact of the raised viaduct and overshadowing***

The raised viaduct separated with an open to sky planting zone appears very high (refer Figures 7.28 and 7.32). The height means a bigger view and shadow impact being located north of residential areas in Granville and Harris Park. While some attempt has been made to get away from the infrastructure generated aesthetics of the past, it is overall an obtrusive intervention that makes the existing bleak environment at grade even bleaker. Council recommends that the solar and view impacts be minimised by lowering the new viaduct.

Section 9.4 of the Assessment Report provides an overshadowing assessment of the proposed viaduct. Council is concerned in relation to the overshadowing impact on private residents along Arthur, Hamilton, Albert and Good Streets. It acknowledged that the exact viaduct design and location will be determined when the successful contractor undertakes detailed design. Therefore Council recommends that during design detail the proponent must provide the following:

- A series of shadow diagrams at 21 December and 21 June at 9, 12 and 3pm which clearly compare the existing motorway shadowing and the proposed additional shadowing from the new viaduct.
- A schedule of residences which are impacted by overshadowing, that is, receive less than 3 hours of solar access to their habitable rooms and to at least 50 per cent of their private open space. (This standard is consistent with Parramatta Development Control Plan 2011).



Council recommends that the NSW Department of Planning consider requiring WestConnex to acquire properties are unduly impacted by the new viaduct due to overshadowing.

### ***Social and community infrastructure - works of public benefit***

Given the growth that is foreseen in the future in the immediate vicinity of the M4 Motorway, there is a lack of social and community infrastructure to mitigate the impact of the motorway which further divides and splits the precinct. Ensuring access to adequate open / community space for the community will be important for physical and psychological health and wellbeing.

Providing for, as well as enabling facilities outlined below could bring communities together and deliver/ enable works of public benefit for the local community. There is some mention of this in the analysis but does not translate committed actions other than mitigatory landscape works. Therefore Council also recommends, in consultation with the community, that the proponent activates the ground plane, and suggests the following:

- Community gardens on RMS land holdings.
- Office accommodation for NGOs/ social providers, such as the Men's Shed, to provide activity as well as providing casual surveillance and territoriality of the uninhabited spaces under the viaducts. Any facilities could be demountable and temporary structures.
- Sports and recreation facilities like basketball courts (similar to King George V Recreation Centre built along the Sydney Harbour bridge ramp/ viaduct as illustrated in Figure B).
- Cultural facilities like artists' studios, pottery kilns and workshops located in the undercroft of the motorway viaduct.
- Public art and lighting opportunities where these activity occur (similar to the Glasgow example in Figure C below).

Council would welcome RMS or WestConnex Delivery Authority undertaking further consultation with the community to determine the priority needs and preferred uses of open space servicing particular communities in Granville.





Figure B: Basketball court and undercover sports facilities located at King George V Recreation Centre built along the Sydney Harbour bridge ramp/ viaduct (source: Google Street View accessed 29/08/2014)



Figure C: Public art and lighting along Garscube Road under the M8 motorway flyover Cowcaddens, Glasgow, Scotland. (Source: <https://www.flickr.com/photos/abbozzo/4863770790/in/photostream/>)

### **Activation and better utilisation of the Duck Creek Corridor**

It is recommended that a pedestrian and vehicular share way/ slow vehicular speed street is located along the southern edges of the Duck Creek/ M4 easement to facilitate activation and better utilisation of the Duck Creek Corridor as indicated Attachment A.

## **5. Environmental Impacts**

A number of existing and potential environmental issues are known to be associated with the project including impacts relating to noise and vibration, air quality, land contamination, water quality, waste, and management of soils including acid sulphate soils.

It is recognised that much of the site which forms part of the M4 Widening project is already a highly disturbed environment. It is expected that some works related to this project may result in improved outcomes, for example potential remediation of contaminated land) whilst others may lead to a net overall negative impact, for example decline in air quality.

As the EIS proposes, most environmental impacts can be managed and mitigated by developing and implementing appropriate controls in specific Management Plans for both construction and operational phases of the project. Council are interested in reviewing the next stage that requires more detailed management plans including:

- Soil and Water Management Plan
- Acid Sulphate Soils Management Plan



- Resource and Waste Management Plan (70,000 cu.m of material)
- Construction Environmental Management Plan
- Contaminated Lands Management Plan including Remedial Action plans
- Asbestos Management Plan

Therefore Council recommends that the proponent shall provide copies of Detailed Construction and Operational Management Plans for all aspects of the project to Council for review and comment before commencement of works.

In relation to specific environmental issues, Council provides the following comments:

### ***Biodiversity***

The project involves native riparian vegetation removal and increased shading at A'Becketts Creek, Duck Creek and Duck River crossings. Duck Creek and Duck River riparian zones contain Mangrove Forest and an isolated patch of moderately disturbed Swamp Oak Floodplain Forest endangered ecological community (including one significant hollow bearing tree).

Fauna surveys have not identified any endangered flora or fauna species within the corridor due to the limited habitat value of existing vegetation. However, pockets of dense exotic vines and shrubs provide important habitat for small birds as highlighted in the fauna surveys.

Duck River provides the most significant habitat corridor that links upstream and downstream habitat and this connectivity needs to be protected and strengthened.

Council supports in-principle a net improvement in biodiversity in accordance with the Office of Environment and Heritage "Principles for the use of biodiversity offsets in NSW" through habitat enhancement. However Council recommends in undertaking offsets that the proponent should be required to:

- Identify the area in hectares of revegetation versus area of vegetation removal.
- Provide further detailed information required about implementing habitat reconstruction along the Duck River biodiversity corridor as per the Biodiversity Assessment.
- Require further details regarding fish habitat offsets as per the Biodiversity Assessment.
- Develop detailed planting plans and species lists for revegetation sites that should be provided for Council review.
- Install of a minimum of 50 microbat nestboxes for attachment to the supporting pillars (portal frames).

The EIS mentions that a Noise and Vibration Plan will be prepared and that construction timetabling will be done to minimise noise impacts including time and duration restrictions, respite periods and frequency. Most of the discussion was around impact on residents. **Council recommends** that the Noise and Vibration Plan also needs to consider impact on fauna particularly migratory and roosting birds and the Grey Head Flying Fox colony to the south at Clyde.

### **Weed Control**

Council supports weed removal and restoration of native vegetation along corridor (particularly along A'Becketts Creek, Duck Creek and Duck River) which will improve local habitat value and connectivity for native wildlife. The proponent should achieve this through the development of a costed Vegetation Management Plan for RMS lands within the M4 corridor. Council recommends that the Vegetation Management Plan should identify programmed incremental weed control and revegetation works along the riparian creek corridors

### **Water Quality**

The project should incorporate constructed sediment / water treatment ponds to remove motorway pollutants prior to discharge into A'Becketts Creek, Duck Creek & Duck River). Similar water quality treatments have been implemented on other major road projects such as the Lane Cove Tunnel at Artarmon.

The concept drainage design currently provides for water quality treatment through vegetated swales with rock check dams, and spill management basins where space permits. Permanent water quality ponds are not proposed due to space constraints. Council recommends permanent Gross Pollutant Traps (GPT's) to capture litter from the road corridor. Design needs to ensure that adequate and permanent access ways are provided to ongoing monitoring and maintenance of all these structures. The report notes that post-construction monitoring would be required for a period of two years to ensure successful establishment of landscaping and vegetation cover. However no details are provided in relation to the monitoring of water quality and maintenance of water quality treatment structures and spill basins.

### **Water and Energy**

Construction of the project is estimated to require up to 50 megalitres of water (non-potable and potable). The EIS states that water would be available along the M4 Motorway from the existing filling points (potable water requiring metered standpipes) or the wet detention basins. However given the proximity of the Rosehill Recycled Water Scheme to the project, Council recommends that the proponent should consider alternative sources of water to replace the potable supply where possible.

The environmental management measures proposed to minimise or mitigate greenhouse gas emissions during construction and operation of the project appear non-committal in terms of outcomes. Wording substantially indicates that opportunities will be "assessed" but does not commit specifically to any energy reduction actions. Council recommends that the proponent be required to agree to using measures including efficient lighting, renewables and using materials with lower embodied energy provide an opportunity to significantly reduce emissions associated with the project.

Western Sydney experiences periods of extreme heat in summer and the Urban Heat Island effect is a real issue for residents and workers. The hard and dark surface of a road way will likely retain and emit heat. Council recommends that use of materials which minimise the impacts of heat and the retention and/ or replanting of surrounding natural areas will help to ameliorate heat impacts associated with the project.



## **Contamination**

Council has reviewed the Phase 1 site contamination assessment and a Phase 2 detailed site assessment. A number of contaminants were identified including

- Asbestos fragments as well as fibres in fill soils with 3 areas between Church Street and Deniehy Street requiring action prior to the construction phase.
- Polycyclic aromatic hydrocarbons (PAH) in fill soils.
- Hydrocarbons (naphthalene) in groundwater
- Lead, mercury, PAH and asbestos in sediments present in A'Becketts Creek, Haslams Creek, Duck Creek and Duck River.
- Potential Acid Sulphate Soils (ASS) and sediments.
- Potential for hydrocarbon and landfill gas associated with closed landfill.

The report details the areas where asbestos has been identified and states that *"the project area would require appropriate remediation and management to reduce risk to site users."* Council notes that no detailed report has been submitted in relation to asbestos contamination.

Section 4 of the report, titled *Assessment of impacts* assesses the potential impacts of the project regarding contamination during both construction and operation phases and that the Contaminated Land Management Plan (CLMP) would manage the remediation and subsequent validation of the contaminated land, including any certification required via a remediation action plan (RAP).

Council believes that further information is required to enable assessment of this application, therefore recommends that Council review a Remedial Action Plan (RAP) completed by a suitably qualified professional, detailing how all identified contamination is to be handled in accordance with the NSW Environmental Protection Authority, Contaminated Sites Guidelines. (SEPP 55) and all other relevant reports as noted in the report required to be prepared.

## **6. Hydrology and Flooding Impacts**

Council has reviewed the Hydrology and Flooding Technical Study and Appendices. The study indicates significant impact to flooding in A'Becketts Creek where proposal parallels (above) section of creek south of existing M4 Motorway. The greatest impact on flood levels will occur between Church St and the railway line in Holroyd City Council area immediately west of boundary with Parramatta Council.

The report recognises that the suggested mitigation measures, which will not be fully assessed until detailed design phase, may still result in adverse impact to property. If at that stage these cannot be suitably resolved to result in no adverse impact (including consideration for climate change) then it is considered that mitigation measures be extended to include property acquisition. Council recommends that the proponent shall provide copies

of Detailed Flood Assessment (based on design detail) to Council for review and comment before commencement of works.

The report acknowledges that suitable construction site compounds are limited and result in being located close to waterways. Even though these will be temporary the impact of buildings, materials etc. becoming dislodged during flood events can be significant on downstream areas through potential blockage or collision. Council recommends that detailed attention should be given to ensure the compounds can resist all flood forces and remain contained to minimise adverse impact as well as develop emergency management plans so that personnel are aware of flood situation and appropriately respond during emergency events.

The recommendation in regard to the review of the condition and structural adequacy of existing culverts prior to retention in proposal is noted. It is also noted that analysis has indicated that the culverts have adequate hydraulic capacity for a 1% AEP in an unblocked scenario. Council recommends that the review also include consideration of hydraulic capacity for blocked scenario in line with emerging Australian Rainfall and Runoff guidelines and incorporation of appropriate measures.

## **7. Air Quality Impacts**

Council has reviewed the Air Quality Assessment prepared by Todoroski Air Sciences Pty Ltd and has been completed in accordance with the relevant impact assessment criteria outlined in the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW* (NSW EPA 2005).

The report concludes that the M4 Widening project would reduce traffic emissions along and beside the motorway and that any increase is unlikely to result in any discernable effects on regional air quality.

The WestConnex M4 Widening Environmental Overview document argues that "Air quality in Sydney has improved since the 1980s, largely due to initiatives to reduce air emissions from industry, motor vehicles, businesses and homes" and that "modelling shows the project would generally reduce traffic emissions along the M4 Motorway due to smooth traffic flow."

However, the report also notes that there is likely to be a slight decline in air quality near Parramatta Road with both with the completion of the M4 Widening project in 2017 and with the full WestConnex Scheme implemented by 2027. There is no statement on potential health impacts from changes to air quality on Parramatta Road which is already worse than at nearby sensitive receivers, as noted in the report. The Parramatta Road corridor has a variety of uses, including commercial, industrial and residential and the potential health impacts on residents and workers in this location to be further monitored.

The proposal satisfies the requirements of Council's controls and can be supported, subject to special conditions of consent. Council recommends that the proponent carries out Air Quality every 2 to 5 years to ensure predicted levels are being achieved.



## **8. Noise and Vibration Impacts**

The Noise Impact Assessment Report has been reviewed by Council. It has been completed in accordance with the Interim Construction Noise Guideline (ICNG) regarding the construction phase and the NSW Road Noise Policy (RNP) regarding the operation phase and outlines the potential for noise during both construction and operation and vibration impacts on affected properties.

Table 25 of the report details the nature and level of noise exceedences predicted during construction therefore some mitigation would be necessary during this phase. Noise mitigation measures are outlined in the report at 8.6 page 63 and Table 26 summarises possible noise disturbances. Mitigation is discussed at 8.6.3 Construction Noise Mitigation Measures on pages 65-67 and then summarised in Table 27 (page 67) and 8.6.4 Mitigation Summary.

As per Table 14 (page 34) of the report, 3 residences within the Parramatta Local Government area were utilised to measure existing and predicted noise levels – A02-06 25A Arthur Street, Granville, A02-07 9 A'Beckett Street, Granville and A03-01 55 Railway Street, Granville. Day time measurements are predicted to increase by 0-1 dBA and Night time by 1-2 dBA.

Council notes that the proposal includes a full re-sheet of the existing M4 Motorway surface with a low noise pavement surface. In addition noise barriers are proposed and noise attenuation of individual properties to mitigate sensitive receiver noise levels will be carried out.

The report states that there is potential for ground vibration levels to exceed the human comfort criteria. Vibration Mitigation measures are discussed in section 11.6 Vibration Mitigation and should be adopted.

The proposal satisfies the requirements of Council's controls and can be supported, subject to standard and special conditions of consent as recommended in the *SLR Global Environmental Solutions WestConnex – M4 Widening Pitt Street, Parramatta to Homebush Bay Drive, Homebush Construction and Operational Road Traffic Noise and Vibration Impact Assessment Report No. 610.12109-R2*. Council therefore recommends adopt all recommendations contained in the Impact Assessment Report relating to both operational and construction noise and vibration mitigation measures.

## **9. Socio-Economic Impacts**

Council has reviewed the Socio-economic Assessment report by Jacobs (Australia) Group Pty Ltd dated 16 July 2014 which provides clear information on the impact of the WestConnex M4 Widening Project for the affected suburbs of Parramatta, Rosehill, Granville and Clyde. The report provided key demographics and social infrastructure for the Parramatta LGA. The report also provided a range of measures and safe guards for mitigating on amenity, health and wellbeing, and access and connectivity for communities closest to the project works.

### ***Communication Strategy during construction***

The report acknowledges that Parramatta is highly diverse, with 50 per cent of the population speaking a language other than English. The WestConnex Draft Communication



Strategy mentions a wide range of consultation tools and activities to inform local and broader communities of the project including timing and duration of construction activities, potential impacts and proposed mitigation. This communication strategy also takes into account cultural diversity of communities near the project.

Council recommends that all communication materials such as community updates need to be provided in a range of written languages and the 24 hour free call on-going enquiries requires translations in the top five key languages of Parramatta which include Arabic, Mandarin, Cantonese, Korean and Hindi/Gujarati.

The report notes that during construction road closures/ changes and construction noise, dust and use of heavy vehicles will impact on the affected suburbs amenity and on operation of local services and social infrastructure such as schools, childcare centres, nursing homes, buses, community transport etc. There will also be increased traffic from construction vehicles (heavy and light) in local residential areas.

The report mentions the development and implementation of parking strategies will be implemented for the construction workers such as parking within construction compounds to mitigate against increases in congestion of residential streets in the sounding areas. The report addresses ways to manage access and connectivity issues including school pedestrian safety.

Council recommends the following measures to reduce impact on local communities:

- Development of a specific section within the overall communication strategy to deal with the construction phase and proactively communicating with key stakeholders on plans and progress of plans. This needs to include – schools, childcare, community transport, nursing homes, meals on wheels, local bus services etc.
- Development of specific environmental and traffic management plans that take into consideration major social infrastructure in close proximity to motor way – including at a minimum schools and childcare centres, health facilities, libraries. The plan will need to identify specific strategies for noise, dust and vibration.
- Individuals and Carers relying on home assistance and services are kept proactively informed of project progress so as not to be affected by changes in road and traffic congestion and construction issues.
- Council recommends that WestConnex develop and implement individualised and tailored communications and supports for the three households (including renters or owner occupier) who will be displaced from their homes as a result of motorway construction. At minimum this should include linking with real estate agents and community housing providers as relevant to support finding new accommodation.
- As noted in the report that the project may offer local youth employment opportunities. Council recommends that the proponent reach out to migrants who are professionals, however lack Australian experience, and assist them gaining recognition of their qualifications.

## **10. Heritage Impacts**

Council has reviewed the heritage assessments, the Non-Indigenous Assessment and Statement of Heritage Impacts and Aboriginal Archaeological Survey Report, and deems the recommendations of this report to be reasonable.



The report also opines that Council, should be notified of the works at the Duck River, located within Parramatta Archaeological Management Unit (AMU) 2698. The report states that as these works are likely to have a minor impact on the heritage significance of this AMU, a copy of this heritage assessment should be forwarded to Council after submission of the EIS. However, given that consent authority for disturbance of grounds is the NSW Office of Environment and Heritage (OEH), in this case Council recommends that the report should be forwarded to the NSW OEH.

Council appreciates the opportunity to comment on the application. Should you wish to discuss any of the above matters please contact Bianca Lewis, Place Manager on 9806 5531.

Yours sincerely

Yours sincerely



Cr John Chedid

**Lord Mayor**

**Parramatta City Council**



Greg Dyer

**Chief Executive Officer**

**Parramatta City Council**



**Attachment A:** Pedestrian Connections Plan.

**Attachment B:** Photographic Summary

**Attachment C:** Western Sydney Regional Ring Road

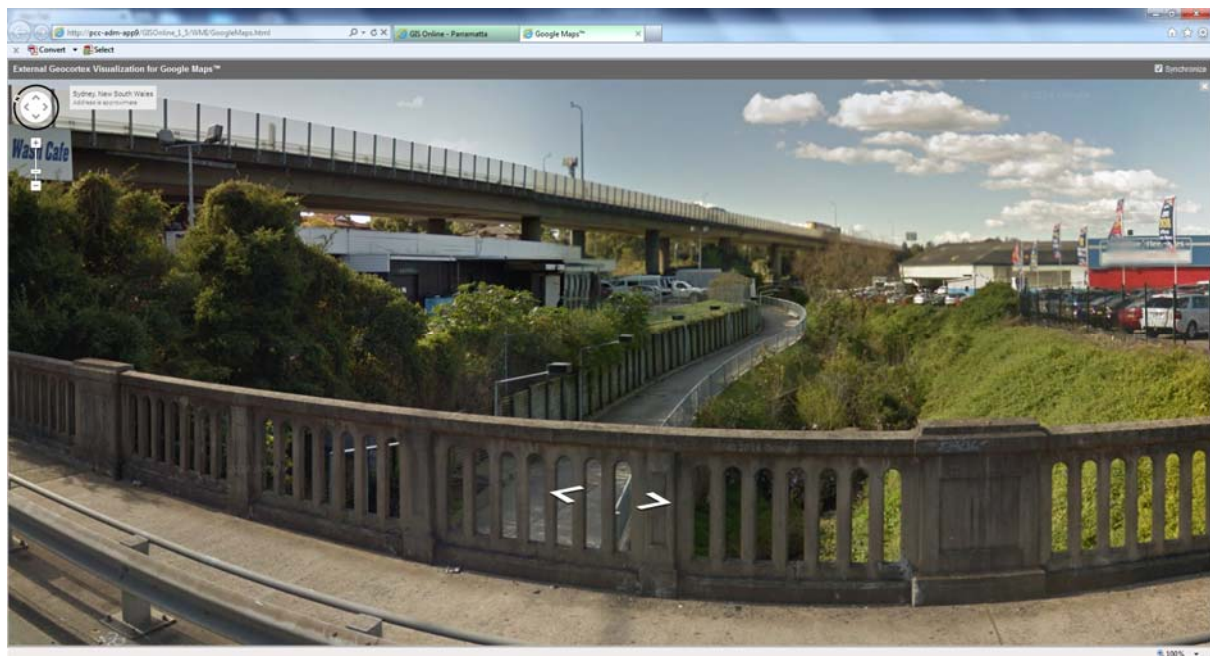




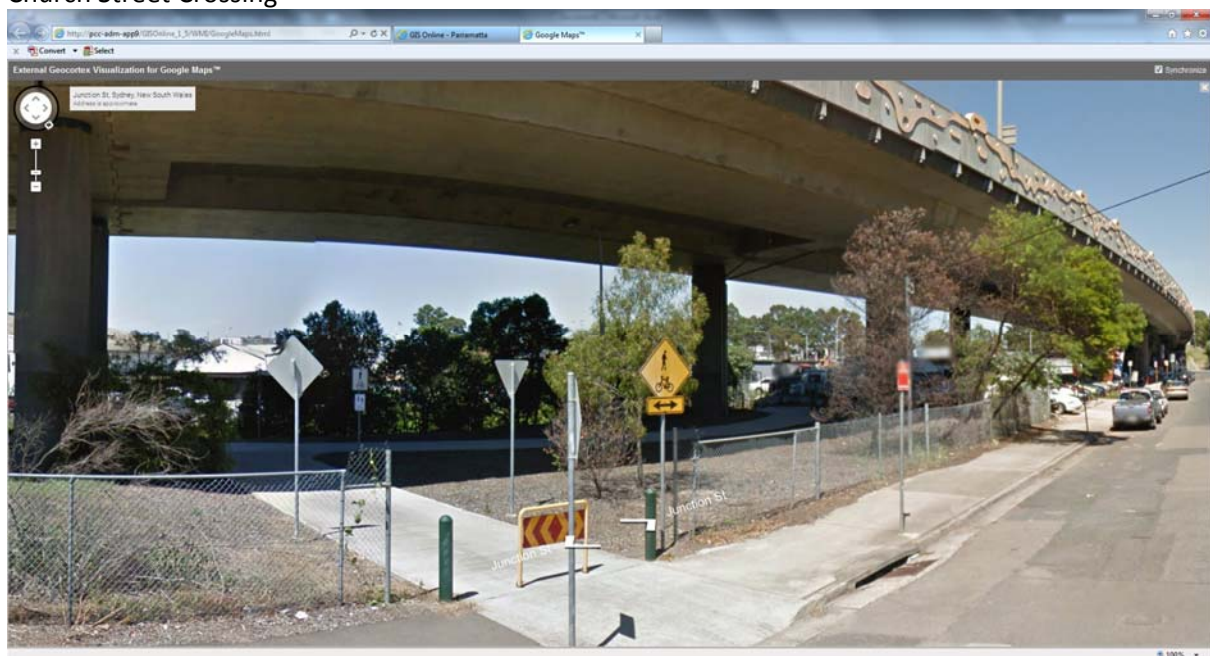
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VEHICULAR PEDESTRI-  
AN SHAREWAY ALONG  
MOTORWAY TO BETTER  
ACTIVATE DUCK CREEK

RECOMMENDED PEDESTRIAN CONNECTIONS ASSOCIATED WITH M4 WIDENING  
TO BE READ IN ASSOCIATION WITH PARRAMATTA COUNCIL'S URBAN DESIGN COMMENTS 29/8/2014





Church Street Crossing

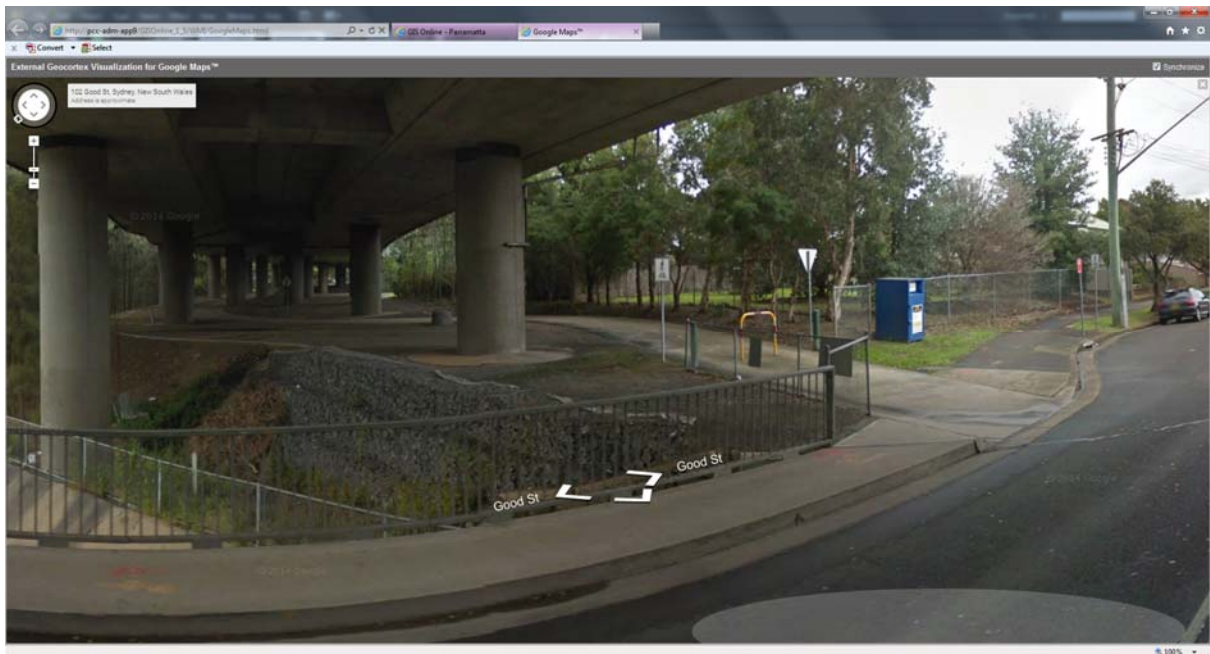


Junction Street Crossing

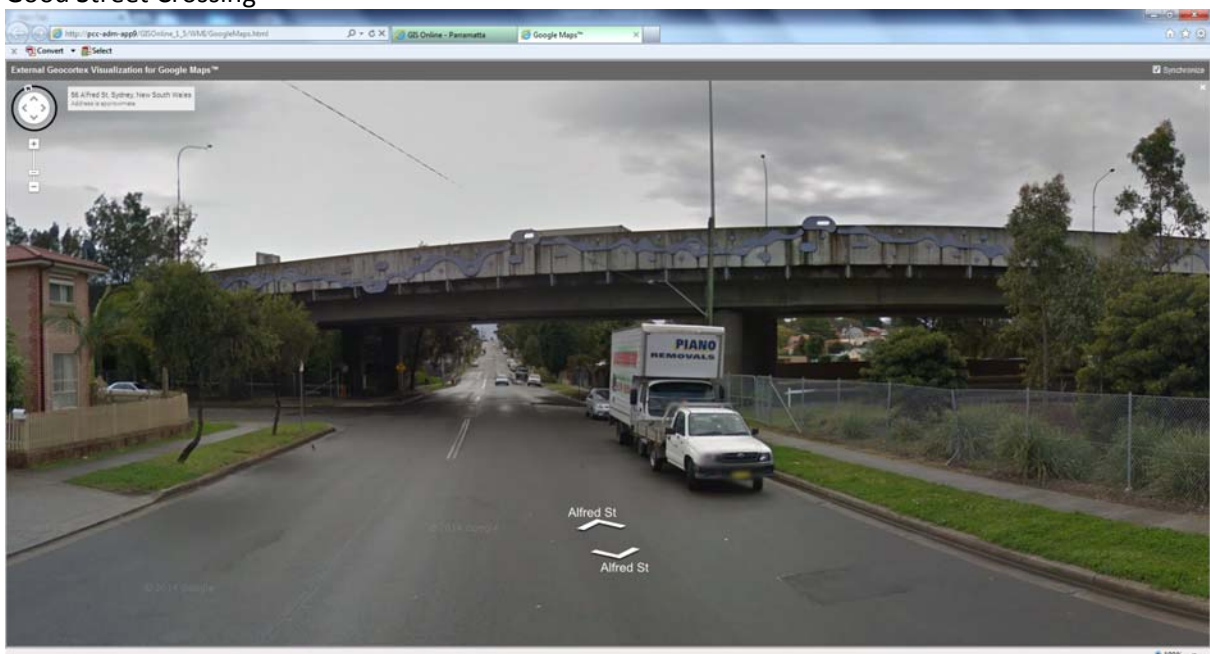


Duke Street Crossing – this is an unformed street lacking connection to the existing shareway





Good Street Crossing



Alfred Street Crossing



Arthur Street Crossing



James Ruse Drive Crossing



# ROADS TO DELIVER NSW 2021 IN WESTERN SYDNEY

A focus on the social and economic development of Western Sydney and Parramatta is needed to advance the objectives of NSW 2021.

Efficient road networks can help the rapidly expanding Western Sydney population access employment and training opportunities close to home, including in the region’s central city: Parramatta. They can also help cross-regional flows of people and freight passing through Parramatta on their way to other destinations.

Parramatta is the centre of Sydney and already the second largest employment centre outside the Sydney CBD, with a broad economic base and high value-adding industries.

It is uniquely placed to alleviate pressure on Sydney’s transport networks and to progress the NSW 2021 priorities of:

**Goal 1** – Improving the performance of the economy through investment, jobs growth and the emergence of specialised sectors.

**Goal 4** – Increasing competitiveness through enhanced business confidence and innovation in key industries.

**Goal 6** – Strengthening the NSW skill base by improving access to education and training.

**Goal 20** – Building liveable centres that encourage jobs growth close to where people live.

Changes to existing road infrastructure is required to support the growth of Western Sydney and the emergence of a knowledge-based employment destination at Parramatta.

Two NSW 2021 goals form the basis of the road solution contained in this document:

**Goal 7** – Reducing travel times by improving the efficiency of road networks during peak times.

**Goal 10** – Improving road safety by targeting black spots.

NSW 2021 State Goal	Western Sydney Goal	Proposal	Estimated Cost
<b>Goal 7</b> – Reducing travel times by improving the efficiency of road networks during peak times	Reducing congestion in and around regional city and improving cross-regional traffic flows	Establish Regional Ring Road around Parramatta CBD and Westmead	<b>Stage 1</b> \$66 million <b>Stage 2</b> \$124 million <b>Stage 3</b> \$155 million
<b>Goal 10</b> – Improving road safety by targeting black spots	Reducing accidents by separating intersections and pedestrians		

To discuss this proposal please contact Parramatta Council on 9806 5466  
 parracity.nsw.gov.au/work  
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 Version V / October 2012



# WESTERN SYDNEY REGIONAL RING ROAD

PARRAMATTA CITY COUNCIL



# WESTERN SYDNEY REGIONAL RING ROAD

### Issue

Eight strategic road corridors converge on Parramatta, entangling cross-regional car and freight flows and causing excessive congestion. A Regional Ring Road can improve traffic flow in the region and support the continued growth of the city of Parramatta.

### Solution

A series of intersection upgrades along the M4, James Ruse Drive and Cumberland Highway will create a free flowing arterial road and allow traffic to circumnavigate Parramatta and Westmead quickly and efficiently. Parramatta Council is developing a City Ring Road to complement the

Regional Ring Road and establish best practice traffic management to, from and within the expanding regional city.

### Benefit

- > Untangles arterial road network converging on Parramatta / Westmead
- > Improves cross-regional traffic flows
- > Reduces journey times, improve network efficiency (productivity)
- > Reduces accidents by separating intersections and pedestrians
- > Reduces congestion and associated vehicle emissions
- > Provides for future knowledge employment growth in Western

Sydney via economic development of Parramatta CBD and Westmead biomedical hub (34,000 net additional jobs by 2036)

> Improves James Ruse Drive and access to Camellia

### Cost

Three high priority schemes are required to establish the Regional Ring Road at an estimated cost of \$66 million.

Eleven lower order schemes are also required at an estimated additional cost of \$279 million.

Total state government investment: \$345 million.

# PROPOSED UPGRADES

### STAGE 1 HIGH

1	Extend right turn lane from James Ruse Dr to Grand Ave reduces congestion on James Ruse Dr	<\$1 m
2	Camellia Link Road (under James Ruse Dr to Unwin St) provides a direct connection to the M4	\$5 m
3	Grade separate James Ruse Dr from Grand Ave/Hassall St to remove delay to James Ruse Dr traffic	\$60 m
TOTAL		\$66 m

### STAGE 2 MEDIUM

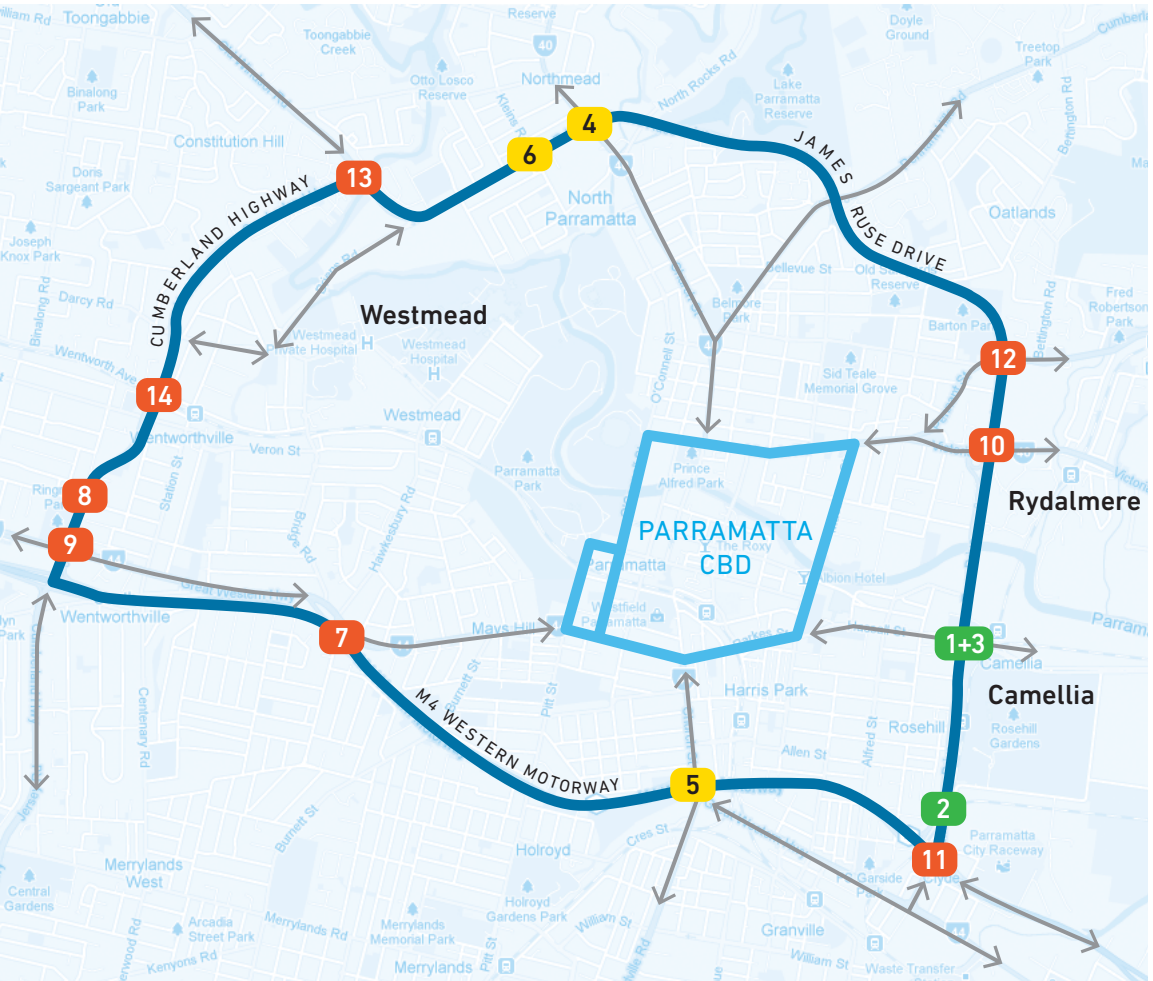
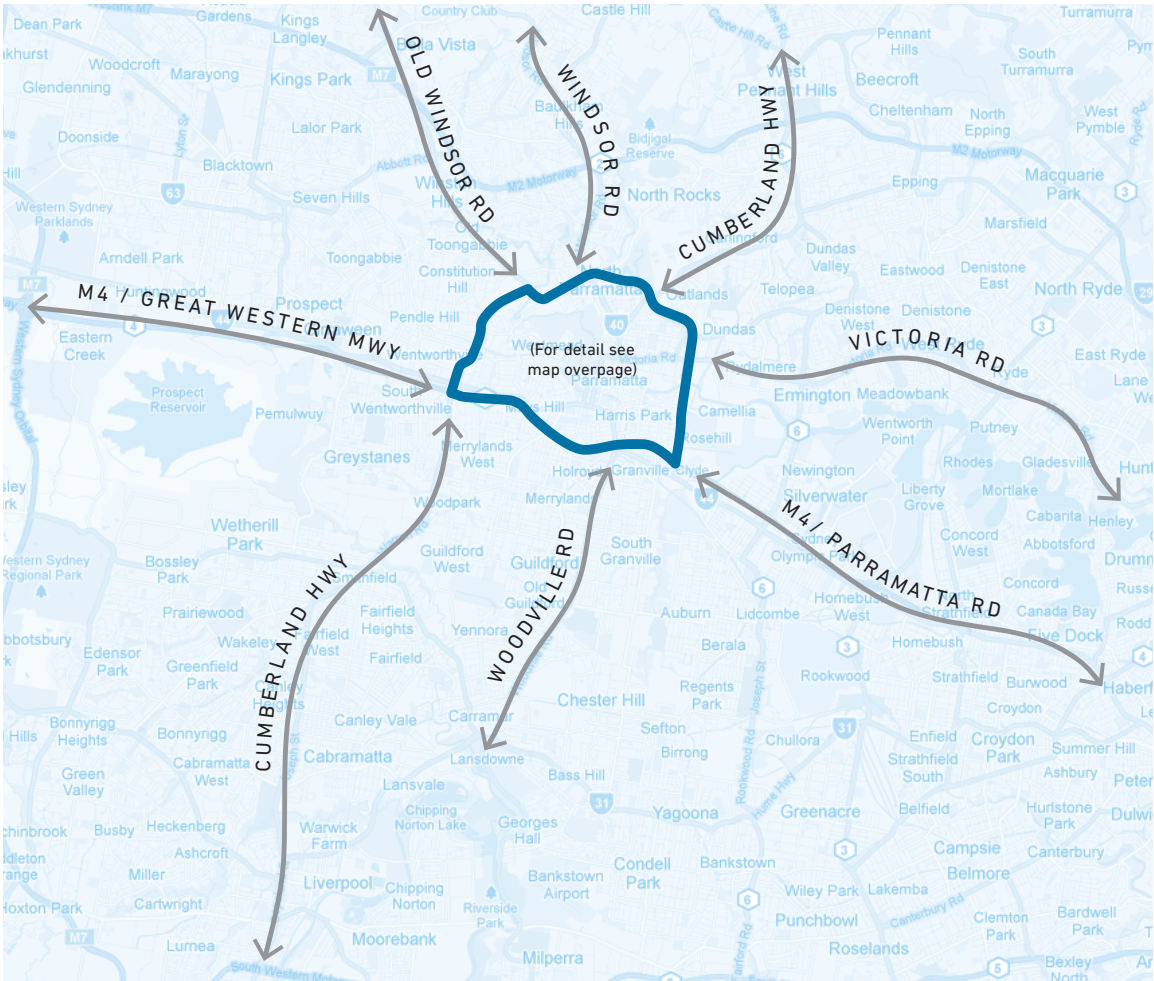
4	Widen Windsor Rd bridge over Cumberland Hwy	\$20 m
5	Increase access to the M4 from Woodville Rd and Church St	\$4 m
6	Lower the Cumberland Hwy between Windsor Rd and Redbank Rd	\$100 m
TOTAL		\$124 m

### STAGE 3 LOW

7	New off-ramp from M4 to Great Western Hwy	\$20 m
8	Reduce access from Smith St to Cumberland Hwy and new pedestrian bridge	\$3 m
9	Grade separate Great Western Hwy/Cumberland Hwy and Cumberland Hwy/M4	\$60 m
10	New ramps between James Ruse Dr and Victoria Rd	\$40 m
11	New on-ramp from James Ruse Dr to M4	\$20 m
12	Improve right turn from Kissing Point Rd to James Ruse Dr	\$1 m
13	Improved turning capacity along Cumberland Hwy at Old Windsor Rd/Hart Dr	\$4 m
14	Close Wentworth St, new pedestrian bridge & modify Darcy St	\$7 m
TOTAL		\$155 m
PROJECT TOTAL		\$345 m

### Western Sydney Regional Ring Road in context

- > Eight strategic road corridors converge on Parramatta causing excessive congestion.
- > The M4, James Ruse Drive and Cumberland Highway are focused on moving traffic to and from the Sydney CBD. With some modification, they could also manage traffic flows into and around Parramatta.
- > Only the M4 and the Cumberland Highway are covered by the Roads & Maritime Services' Pinch Point Program.



### Western Sydney Regional Ring Road in context

- > Proposed Regional Ring Road with complementary City Ring Road.
- > The arrows show key road connections between proposed Ring Roads.
- > The numbers refer to proposed improvement schemes 1-14. Colours indicate priority status: green - high, yellow - medium, red - low.

- Regional Ring Road
- City Ring Road