28 July 2022

TfNSW Reference: SYD10/00774/40
Client Reference: MP10_0118 MOD 12

Key Sites & Regional Assessment
Department of Planning, Industry and Environment
Locked Bag 5022
Parramatta NSW 2150

Attention: Emma Butcher

RESPONSE TO SUBMISSIONS FOR EDMONDSON PARK CONCEPT PLAN - EDMONDSON PARK TOWN CENTRE

Dear Sir/Madam,

Reference is made to Department of Planning, Industry and Environment (the Department)'s correspondence dated 22 June 2022, regarding the abovementioned Modification application which was referred to Transport for NSW (TfNSW) for review.

TfNSW has reviewed the submitted information and notes that the response to TfNSW's submission has not adequately addressed TfNSW's concerns. TfNSW provides the following comments for the Department's consideration.

1. **Cumulative impact of MOD 5**
   TfNSW reiterates that the cumulative impact assessment with MOD 5 should also be considered in MOD 12. Mitigation measures should be provided if the traffic generated by the proposed MOD 12 would result in adverse impact on adjacent road network.

2. **Traffic signal warrant**
   No further information is submitted to support the proposed mid-block signalised foot crossing. If mid-block signalised foot crossing at this location cannot be achieved, alternative measures, addressing the potential safety issues, should be considered.

   In addition, no supportive information is provided to justify the need of the proposed signalised crossing at MacDonald Road, as currently there is no proposal to the western side of MacDonald Road.

   Should new signaled intersections be proposed, TfNSW requests warrant assessments to be undertaken. The approval and installation of traffic signals is dependent on general warrants in accordance with TfNSW requirements for Traffic Signal Design – Section 2 Warrants. TfNSW will review and assess any future new signals upon receipt of warrant assessment showing warrants for installation of traffic signals are met.

3. **Intersection Analysis**
   Further SIDRA modelling should be undertaken to identify the need for further mitigation measures without the influence of route assignment in micro-simulation modelling.

4. **Traffic Modelling review.**
   TfNSW has reviewed the Aimsun modelling, and associated modelling methodology report and future baseline scenario traffic assessment technical note and identifies the following major issues, which could impact on decision process. The traffic modeling should be revisited to address these major issues. Detailed modelling review comments are included in Attachment A.

   - **Modelling methodology report** - 4.4.2 Percentage of Heavy Vehicles - Future land use should be considered in determining the heavy vehicle percentage

   - **Modelling methodology report** - 4.4.3 Demand Matrices - The report notes that manual adjustments will be made to the demand to meet the calibration targets. It is not possible to verify what adjustments have been made. Manual adjustments could have implications to the trip length distribution and trip pattern and should be documented for verification.

   - **Baseline scenario technical note** - 3 Results and Attachment C - Turn volume are significantly different to Aecom RtS traffic report especially along Soldiers Pde. E.g. At Soldiers Parade/MacDonald Road intersection, total traffic in and out this intersection was almost 50% lower than Aecom report shown. There is no (only 2 vehicles) from Soldiers Pde (N) in 2026 PM peak which may underestimate the impact on another road network such as Bernera Rd and Camden Valley Way.

   - **Aimsun Modelling** – Demands - The demands have been input into the model as one-hour blocks. It is recommended to use 15 minutely profiles based off survey data as using just a one-hour block may underestimate the traffic impact during the peak

Should you have any questions, please do not hesitate to contact Mr. Felix Liu at 8849 2113 or email development.sydney@transport.nsw.gov.au.

Yours sincerely,

Laura Van putten
A/Senior Land Use Assessment Coordinator

Attachment-TfNSW Traffic Modelling Review Comments

Transport for NSW

TfNSW Operational Traffic Modelling Team Review and Comments

Edmondson Park Future Base model

21/09/2021

The following sections comprise a summary of TfNSW operational traffic modelling team's review of the Edmonson Park Future Base model and supporting document(s), prepared by Ason Group.

The specific documents and traffic model(s) provided for the review are outlined in Table 1.

Table 1: Reviewed material

Material	File name	File description	Received date
Aimsun models	EdSquare_2026_s1_v1.ang EdSquare_2036_s1_v1.ang	The 2026 and 2036 future base Aimsun model files	15/09/2021
Reports	RENAI-WRM-ENGAGEMENT-821-637614838527929497-P0818r02v2 Modelling-Methodology-Report Ed.Square MOD-12 Issue-II.pdf P0818tn01v1_Ed Square_Scenario 1 (Baseline).pdf	The modelling methodology report and future baseline scenario traffic assessment technical note	15/09/2021

Table 2 and Table 3 provides a summary of review comments.

Table 2: Summary of review comments of the reports

Item	Section	Comment	Priority
1	Modelling methodology report	4.1 Assessment Year and Model Periods Future land use should be considered to determine whether one hour is sufficient to model the traffic impacts	Minor
2	Modelling methodology report	4.2 Modelling Scenarios Although it is stated 5 scenarios will be assessed, Table 2 only shows 4 scenarios	Minor
3	Modelling methodology report	4.3.5 Model Parameters Non-default parameters should be listed out with justification in the report	Minor

4	Modelling methodology report	4.4.2 Percentage of Heavy Vehicles Future land use should be considered in determining the heavy vehicle percentage	Major
5	Modelling methodology report	4.4.3 Demand Matrices The report notes that manual adjustments will be made to the demand to meet the calibration targets. It is not possible to verify what adjustments have been made. Manual adjustments could have implications to the trip length distribution and trip pattern and should be documented for verification.	Major
6	Baseline scenario technical note	2.2.3 Public Transport (Bus) The bus routes listed are all existing. Given that the two models developed were for future scenarios, were there any future bus routes modelled as proposed in the Modelling methodology report (in section 4.4.4)?	Minor
7	Baseline scenario technical note	3 Results Although calibration and validation results are not necessary, model stability results should still be presented to ensure the results do not change significantly between seeds	Minor
8	Baseline scenario technical note	3 Results It is unclear whether the results presented are for the average or for the median seed. This should be stated clearly and if the latter, then the median seed value should also be stated for each scenario	Minor
9	Baseline scenario technical note	3 Results and Attachment C Turn volume are significantly different to Aecom RtS traffic report especially along Soldiers Pde. Eg. At Soldiers Pde/MacDonald Rd intersection, total traffic in and out this intersection were almost 50% lower than Aecom report shown. There is no (only 2 veh) from Soldiers Pde (N) in 2026 PM peak which may underestimation the impact on other road network such as Bernera Rd and Camden Valley Way	Major

Table 3: Summary of review comments of the Aimsun models

Item	Section	Comment	Priority
1	Geometry	Based on aerial imagery, certain intersections appear to already have been upgraded recently in late 2020 (e.g. the Henderson Rd / MacDonald Rd roundabout) yet the 2026 model shows they will be upgraded further (e.g. said roundabout has been coded as a 2 lane roundabout). Have these upgrades already been confirmed?	Minor
2	Geometry	The kerbside lane on the north west approach at the Campbelltown Rd / Ray Simpson Ave intersection has been modelled as a LT and T shared lane whereas aerial imagery suggests this is LT only	Minor

3	School zone	Only one section in the southbound direction along MacDonald Rd south of Campbelltown Rd has a school zone speed change applied (via traffic management). However, the section running immediately downstream does not and neither do the northbound sections running opposite	Minor
4	Signals	The Campbelltown Rd / Soldiers Pde intersection has been coded with intergreens of 6s whereas SCATS shows intergreen times of 8s for each phase	Minor
5	Signals	A few intersections do not seem to have signal actuation set up optimally. One example is the Campbelltown Rd / Soldier Pde intersection in the 2026 PM scenario. As shown in Figure 1, the southbound movement on the north approach first turns red. However, the corresponding northbound movement continues to remain green for several seconds afterwards. Over this time, another vehicle has already arrived at the north approach but is unable to pass the intersection as that movement had prematurely turned red	Minor
6	Demands	The demands have been input into the model as one hour blocks. It is recommended to use 15 minutely profiles based off survey data as using just a one hour block may underestimate the traffic impact during the peak	Major
7	Vehicle parameters	Certain vehicle parameters appear to have been changed from the default (e.g. car widths, lateral clearances of all vehicles, imprudent lane changing, etc.). Justification for making these changes should be provided in the documentation	Minor
8	Experiment parameters	The relative gap parameter in the mesoscopic DUE scenarios appear to have been increased from the default of 0.5% to 1.5%. Justification for changing this should be provided in the documentation	Medium
9	Results	The PM results could not be retrieved as the PM sqlite files were not provided as seen in Figure 2	Minor
10	Results	A number of high volume OD pairs appear to have a variety of routes, each with a similar number of vehicles as shown in Figure 3 and Figure 4. This seems quite unusual given the intersection performance presented in the documentation	Minor

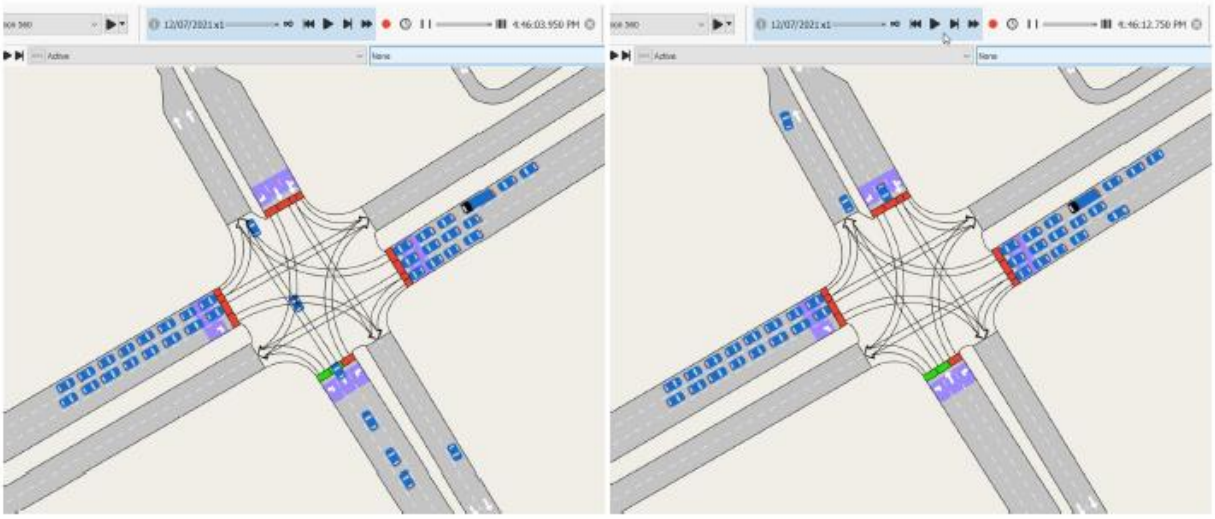

Figure 1: 2026 PM signals at Campbelltown Rd / Soldier Pde

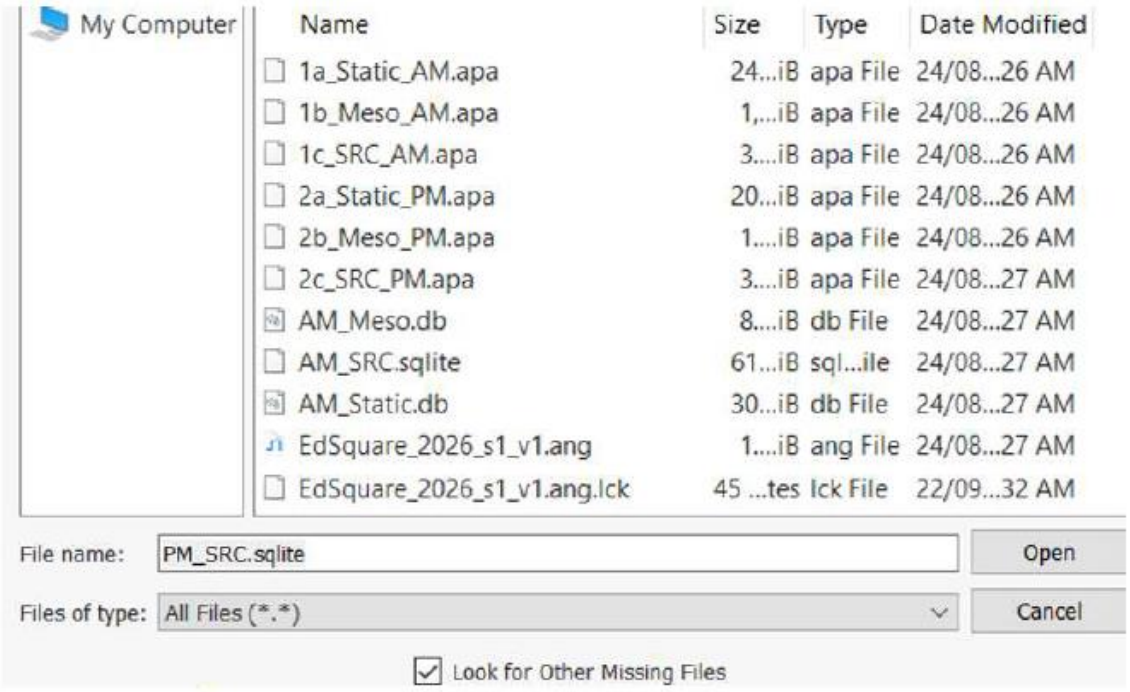

Figure 2: PM sqlite files not provided

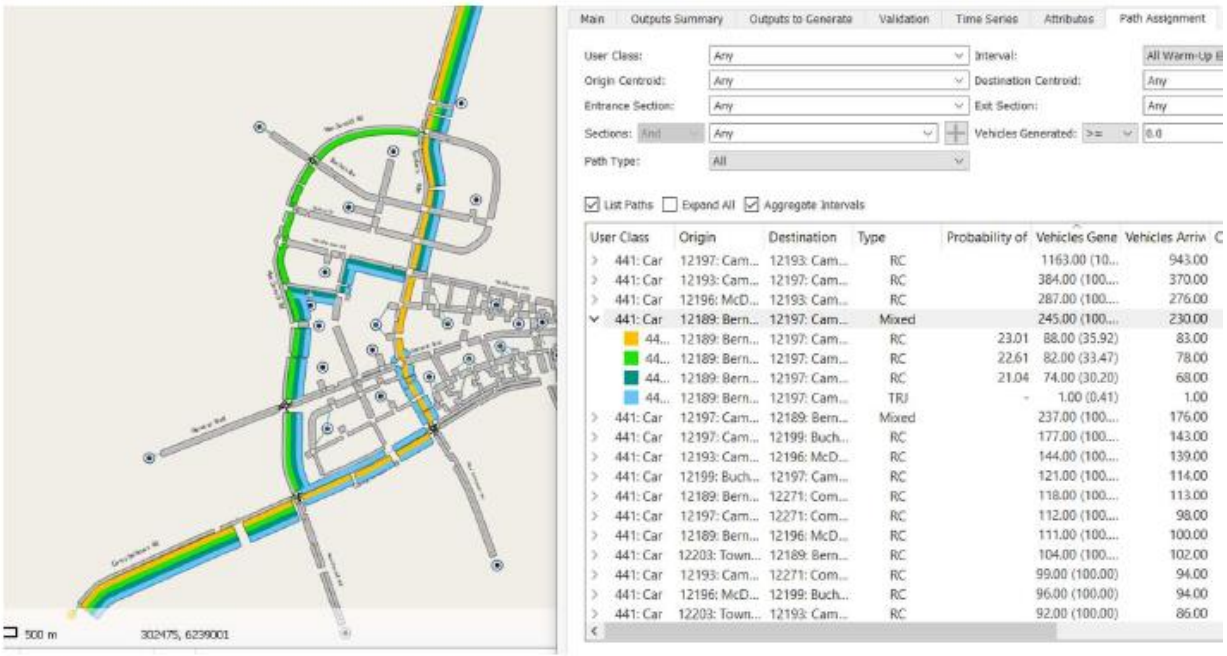

Figure 3: Path assignment from 12189 to 12197

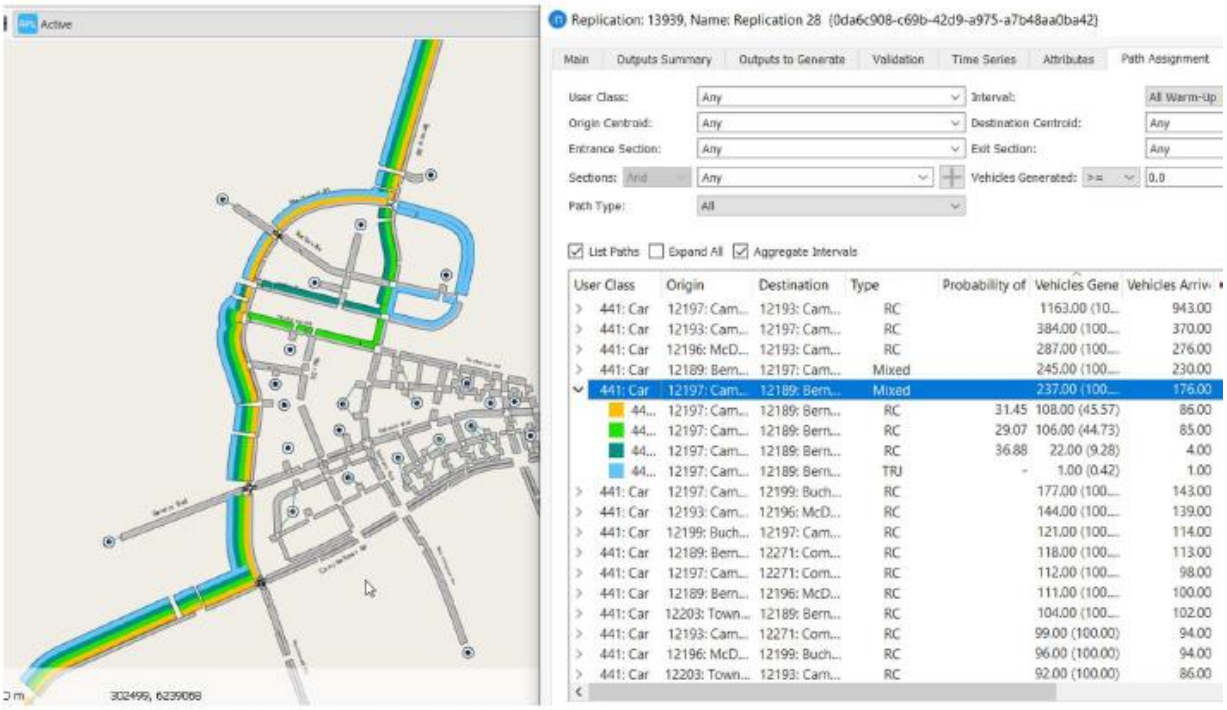

Figure 4: Path assignment from 12197 to 12189