

Melbourne Metro Rail Project Inquiry and Advisory Committee

Expert Evidence Submission Traffic and Transport

Haig Poulson Principal Engineer – Traffic Engineering

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List of Abbreviations

Please use the following abbreviations in your statement.

If you have additional abbreviations please add to this list.

MMRA - Melbourne Metro Rail Authority

MMRP - Melbourne Metro Rail Project

EES - Environmental Effects Statement

PSA - Planning Scheme Amendment

CoM - City of Melbourne

MPA – Metropolitan Planning Authority

EMF – Environmental Management Framework

EPR – Environmental Performance Requirement

Details of Qualifications

1.1 Name of Expert

Haig Poulson, Principal Engineer – Traffic Engineering, Council House 1, Little Collins Street, Melbourne

1.2 Qualifications

Diploma of Civil Engineering

CPEng (Ret) Institute of Engineers

1.3 Area of expertise

I have been a traffic engineer since 1976 and have been the Principal Engineer of Traffic Engineering at the City of Melbourne since 1989. During and before this time, I have been involved with and/or overseen a number of major Central City projects, including:

- The original closure of Swanston Street and the efficient and safe diversion of 28,000 vehicles per day from the street in 1990/91.
- The subsequent redevelopment of Swanston Street in 2012.
- The construction of all tram platforms in the City of Melbourne, which commenced in 2001 on Collins Street.
- The diversions of traffic associated with the construction of Melbourne Central in the 1980's.
- The installation of all separated bike lane facilities in the City of Melbourne which has led to significant increases in bike usage.
- The implementation and refinement of resident parking schemes throughout the municipality.
- The introduction of Local Area Traffic Management (LATM) schemes in South Carlton, North Melbourne, West Melbourne and Kensington which included significant community consultation and has resulted in significant reductions of through traffic using local streets.
- The implementation of laneway closures to improve pedestrian safety and activation, commencing with the closure of Degraves Street and Hardware Lane in the 1980's. There are now over 20 laneway closures throughout the Central City which has changed the face of Melbourne and has promoted the vibrancy of the laneway culture in Melbourne. This matter also required developing alternative local access and servicing arrangements for local properties.
- Introduction of the 40km/h Central City speed limit and 40km/h speed limits in local strip shopping centres and residential neighbourhoods throughout the municipality which have aimed to improve the safety of vulnerable road users.

- Development of Road Safety Plans since the 1980's which focused on vulnerable road users and associated 'Blackspot' treatments which have led to reduced crashes at key sites.
- Reduction of traffic signal cycle times within the retail core which aimed to reduce delays for pedestrians and trams.

1.4 Assistance in preparing evidence statement

Ross Goddard and John Tekieli of City of Melbourne's Engineering Services provided assistance in reviewing the City of Melbourne's submission and preparing this evidence report.

1.5 Instructions

This report has been prepared based on advice from Hunt and Hunt lawyers and from Council's Melbourne Metro Rail Project Team.

1.6 Details of any external expertise

None

1.7 Other reference documents

- Transport Strategy 2012
- Road Safety Plan 2013–17
- Walking Plan 2014-17
- Bicycle Plan (draft) 2016–2020
- Council Plan 2013–17
- Arden Macaulay Structure Plan 2012
- Beyond the Safe City Strategy
- Places for People
- City North Structure Plan
- Fawkner Park Master Plan
- JJ Holland Master Plan
- Domain Parklands Master Plan (under review)
- Motorcycle Plan 2015-2018
- AS/NZS 1428.4.1:2009 Design for access and mobility. Part 4.1: Mean to assist the orientation of people with vision impairment – Tactile ground surface indicators
- Queen Victoria Market Precinct Renewal Master Plan (2015)

1.8 Additional comments in respect to this statement

None

2. Executive Summary

2.1 Introduction

As an engineer with approximately 40 years traffic engineering, I have reviewed the CoM Submission in regard to traffic related matters. This includes a review of impacts on cars, trucks, trams, buses, bicycles, motorcycles, pedestrians and on-street parking, both during the construction phase of the MMRP and following construction.

2.2 Key points

I have concerns that the EES underestimates the ability of the road network to accommodate significant reductions of capacity of certain routes during and after construction of the MMRP (Ref: EPR T1 – "Develop and implement a transport management plan(s)... to minimise disruptions to traffic").

The EES could also underestimate the impact on pedestrians during construction, and in particular the potential impact after the opening of the MMRP on pedestrian storage areas at signalised intersections caused by passengers exiting from existing and new railway stations. This concern refers to pedestrians being able to safely store on the footpath and the ability for other pedestrians walking along those footpaths to circulate past stationary pedestrians (Ref: EPR T2 – "Provide suitable routes for pedestrians to maintain connectivity"). For example, the intersection of Spencer Street and Collins Street currently experiences significant pedestrian storage capacity issues due to high railway passenger volumes generated by Southern Cross Station. Similar concerns are also currently experienced near Parliament Station at the intersections of Spring Street / Lonsdale Street and Spring Street / Collins Street. I would not want to see these situations replicated in streets such as Swanston Street, Flinders Street, Collins Street and La Trobe Street where existing pedestrian volumes are already high and the addition of new railway passenger volumes to the street network can only exacerbate congestion and circulation levels.

The EES also appears to have underestimated the impact of concurrent building works, such as multi-level construction sites, and public utility service upgrades requiring road closures. It is essential that the development of traffic management plans associated with MMRP takes into consideration the requirements and impacts that existing, planned and future building and road/public utility works will have on the general movement of all road users in the inner city (Ref: EPR T1 – "Traffic management plan(s) must be developed recognising other projects operating concurrently, where relevant").

It is also essential that the MMRP develops appropriate communication measures to ensure that Emergency Services are aware of all traffic management measures, such as road closures or narrowings, associated with construction works that may impact on their response times. The MMRA must ensure that every effort is made to ensure that all road closures are designed to allow adequate emergency vehicle access to abutting properties (Ref: EPR T1 – "In consultation with emergency services, develop suitable measures to ensure emergency service access is not inhibited").

Truck routes to and from work sites must ensure minimal travel on the local street network and that maximum use is made of the arterial road network. This is particularly relevant at the main construction site at Arden Station where truck movements should be confined to Laurens and Arden

Street when connecting to the arterial road network (Ref: EPR T1 – "Potential routes for construction vehicles travelling to and from all Melbourne Metro construction work sites").

The staging or establishment of truck holding bays in on-street parking areas remote from the site, while necessary to minimise traffic congestion, should not be supported within the Central City due to the high demand for on-street parking (Ref: EPR T1 – "Potential routes for construction vehicles travelling to and from all Melbourne Metro construction work sites" and T1 – "Special arrangements for delivery and removal of large loads").

While I support the need to reduce the impacts of construction works on adjacent public transport services, any compensatory actions should not be at the expense of local residents/businesses or overall road safety (Ref: EPR T2 – "Develop and implement measures to minimise disruption to the tram and bus networks").

Key issues include:

- MMRA and contractors must work with the City of Melbourne to develop Construction Traffic Management Plans to minimise impacts on local properties and local road users, including pedestrians, cyclists, tram and bus passengers. (Ref: EPR T1 "Develop and implement a transport management plans"). This must include approval of truck routes and development of innovative construction techniques, such as a 'just in time' construction management methodology, particularly for the Central City station construction sites (Ref: EPR T1 "Potential routes for construction vehicles travelling to and from all Melbourne Metro construction work sites"). Pedestrian access to/from and around all train station works must be safely maintained and meet Australian and New Zealand Standards for the Design for Access and Mobility (Ref: EPR T2 "Provide suitable routes for pedestrians to maintain connectivity"). Tram and bus services should not be impacted by construction works or vehicles (Ref: EPR T2 "Develop and implement measures to minimise disruption to the tram and bus networks").
- The replacement of car parking to off-set permanent or temporary parking losses due to the project during both the construction and legacy phases (Ref: EPR T1 "Provision of alternate parking where possible"). The lack of any on-site off-street parking facilities results in a high reliance on on-street parking for many Inner City properties, particularly for delivery and servicing needs. Consequently, the temporary or permanent loss of on-street parking surrounding the various station sites needs to be carefully considered and investigated on a case-by-case basis and suitable replacement loading zone parking areas provided in close proximity.
- The provision of adequate bicycle parking at the new Stations (No reference in the EPR's). Given that no off-street car parking spaces will be provided at the station, all commuters will have to access the stations via sustainable transport options. The need to provide adequate off-street bike parking at the new stations, particularly Arden, Parkville and Domain, is further emphasised by the facts that these stations either have only average public transport connections or excellent bike lane connections and in the Arden Station case have a catchment area in excess of 1 kilometre radius, which could encourage more access by cyclists. Subsequently, a proportion of commuters will travel by bicycle to access these stations and subsequently adequate bicycle parking supplies should be provided in safe, well-lit and sheltered areas in close proximity to the station entrances to cater for future demands. This will eliminate the need for cyclists to park opportunistically on footpaths surrounding the station, which would also lead to reduced accessibility for pedestrians.

- The development of travel to work and parking plans for workers at each construction site. No on-street car parking spaces will be reserved for MMRP workers due to the competing demands for this finite resource across the municipality. Workers should be encouraged to commute via sustainable transport modes, which could include special bus shuttles from outlying areas, or use off-street parking supplies (Ref: EPR T4 "Travel Demand Strategy" and T1 "Provision of car parking for construction workers where possible").
- The proposed re-distribution of tram services to the western end of the CBD and the subsequent required tram stop upgrades which will be required along William Street (Ref: EPR T6 "Review, with PTV and Yarra Trams, the bus and tram services in the area... to reduce the reliance on the Swanston Street tram corridor"). Any tram stop upgrades on William Street must consider the existing bike lanes and should consider reducing the existing excessive gap between tram tracks, which is assumed to be a remnant from an era when tram overhead support poles were located between the tracks.
- The proposed connection of Elizabeth Street and Flinders Street tram services and the subsequent road and footpath configurations proposed in both streets (Ref: EPR T6 "Review, with PTV and Yarra Trams, the bus and tram services in the area"). I support measures to widen footpaths in Flinders Street, particularly immediately adjacent to the Flinders Street Station entrance (opposite Elizabeth Street) where observations have indicated already that the existing footpath already reaches capacity approximately 5-6 times per hour during the AM peak. This situation is not only potentially dangerous with increasing train patronage levels, it also prevents circulation of pedestrians walking east/west along the Flinders Street footpath (Ref: EPR T6 "Optimise the design of Melbourne Metro Stations to ensure integration with existing and planned future uses").
- Proposals to improve pedestrian access between Flinders Street Station and tram stops located in Swanston Street and Flinders Street (Ref: EPR T6 "For interchange between the new CBD South station and the existing tram services along Flinders Street and Swanston Street"). The existing southbound Federation Square tram platform is already at capacity during the AM peak and measures to increase the capacity and/or improve pedestrian connections and safety should be considered as part of this project.
- The proposed construction works associated with the approved Southbank Boulevard
 Masterplan redevelopment, which may restrict truck access depending on the timing of works
 (Ref: EPR T1 "Potential routes for construction vehicles travelling to and from all
 Melbourne Metro construction work sites" and T1 "Traffic management plan(s) must
 be developed recognising other projects operating concurrently, where relevant").
- The design of stations should provide high quality pedestrian connections to adjacent public transport services, such as tram and bus stops (Ref: EPR T6 – "Optimise the design of Melbourne Metro Stations to ensure integration with existing and planned future uses").
- Way-finding signage should be provided for the proposed underground pedestrian
 connections at CBD South and CBD North Stations (Ref: EPR T7 "Provide way-finding
 information to enhance connectivity for pedestrians and public transport users").
 These underground connections should encourage connections between train stations, and
 also connections to the street network, thereby reducing the volume of pedestrians crossing
 at highly congested signalised intersections.

MMRA should undertake surveys of travel behaviour before, during and after construction
works to provide a quantitative assessment of the impacts that the project has on vehicle
movements, public transport services, pedestrian and bicycle movements and road safety.
This will not only assist in evaluating the success of the final public transport improvement,
but also provide an evaluation of the impacts on all other transport services during the
disruptions associated with construction of the project (Ref: EPR T1 – "Monitoring of travel
behaviour changes caused by construction works, including pre-construction baseline
data").

The comments provided above are applicable to all station sites, but have not necessarily been repeated in subsequent sections of this report.

3. Tunnel alignment options below Domain Parklands and Emergency Access Shafts

3.1 Summary of Key Issues

The EES does not adequately comment on the potential impact on pedestrians and cyclists created by the Emergency Access Shafts (Ref: EPR T3 – "Develop and implement transport management measures on consultation with relevant authorities for cyclists and pedestrians").

In particular, the Linlithgow Emergency Access Shaft location option is adjacent to an existing shared bicycle / pedestrian path. It is unknown whether the emergency access shaft would require a closure or diversion of this pathway.

3.2 Issues

It is not clear whether the Linlithgow Avenue emergency access shaft requires road closures and what the impact will be on traffic movements and on-street parking supplies (Ref: EPR T1 – "Linlithgow Avenue"). The EES suggests that road closures will be required for ground treatment works, but it is unclear of the impact on traffic management or access to on-street parking.

The impact on footpaths and shared paths resulting from the proposed Emergency Access Shaft location options is unclear (Ref: EPR T3 – "Develop and implement transport management measures on consultation with relevant authorities for cyclists and pedestrians").

While locations (for emergency access shafts) adjacent to existing roads maybe preferred, as they reduce the need for hardstand areas, thereby minimising impacts on parkland areas, it is unclear what the impact will be in regards to the management of pedestrian and/or bicycles on these adjacent footpaths or shared paths (Ref: EPR T3 – "Develop and implement transport management measures on consultation with relevant authorities for cyclists and pedestrians").

It is assumed that the use of the Fawkner Park Tennis Club site for an emergency access shaft would also require the creation of vehicle access onto Toorak Road West, which would impact on trees and on-street parking (Ref: EPR T1 – "Develop and implement a transport management plan"). However, more details are required on the impact these works will have on on-street parking and how this would exacerbate the proposed loss of off-street parking adjacent to the community centre in Fawkner Park. The need for a vehicle cross-over at each of the emergency access point options is also unclear.

Any proposal to include a Clearway on the south side of Toorak Road needs to substantiated as this will also exacerbate the other losses of on-street and off-street parking in the area (Ref: EPR T1 – "Toorak Road").

Adequate cycling and pedestrian access along shared paths must be maintained through Fawkner Park and encourage connections to Park Street (Ref: EPR T1 – "Provision of suitable routes for cyclists and pedestrian to maintain connectivity... to Fawkner Park").

4. Western Portal (Kensington)

4.1 Summary of Key Issues

Any consideration of the opening of Ormond Street and Tennyson Street, at Childers Street, to allow truck access to the 50 Lloyd Street Business Park during the construction phase of MMRP, is strongly opposed as it will create opportunities for through traffic to use the local street network to avoid congestion on the arterial network (Ref: EPR T1 – "Childers Street").

My understanding is that the Alternative Design Option being considered may allow heavy and high vehicle access to the Business Park through the construction site along Childers Street, without requiring trucks to use Ormond or Tennyson Streets via road openings. Further clarification on the proposed truck access routes for the Alternative Design Option is requested (Ref: EPR T1 – "Childers Street" and "Potential Routes for Construction Vehicles travelling to and from all Melbourne Metro Constriction Works Sites").

4.2 Issues

I support an alternative design that retains the closures of Ormond Street and Tennyson Street, at Childers Street, during both construction and legacy stages of the project, in order to prevent through traffic using the area and also prevent large vehicles accessing the Business Park via the streets south of Macaulay Road (Ref: EPR T1 – "Childers Street" and "Potential Routes for Construction Vehicles travelling to and from all Melbourne Metro Constriction Works Sites").

I support investigating opportunities to upgrade South Kensington Station if it can be demonstrated that this would improve pedestrian safety and access. Detailed community consultation on any upgrade or relocation of the station is recommended (Ref: EPR T2 – "Provision of Suitable Routes for Pedestrians... for users of South Kensington Station").

I do not support any proposed relocation of the existing Childers Street shared path to JJ Holland Park, due to the almost certain conflict between path users and commuter cyclists (Ref: EPR T1 – "Provision of Suitable Routes for Cyclists and Pedestrians... Childers Street, JJ Holland Park, South Kensington Station").

As discussed above, I do not support any design options which change access along Childers Street which would lead to "through" traffic using the local street network to bypass the busy arterial road network of Kensington Road and Macaulay Road. Large trucks which are unable to use Lloyd Street, due to low bridge clearances, should be able to access the Business Park directly along Childers Street (Ref: EPR T1 – "Childers Street" and "Potential Routes for Construction Vehicles travelling to and from all Melbourne Metro Constriction Works Sites").

A survey referred to in the City of Melbourne's submission indicates that, during the AM peak hour, only one cyclist was observed using the shared path located on the south side of Childers Street, while the remaining cyclists were observed to be using the roadway. Given the results of this survey, I query the need to provide a new shared path along Childers Street. Preferably, improved on-road bike lanes could be investigated post construction of MMRP with a separate pedestrian only path maintained. However, it is acknowledged that an alternative design will be required during construction periods when the Childers Street roadway is closed to most vehicle and bicycle traffic. An alternative and safe cycling connection should be investigated and installed following community consultation (Ref: EPR T1 – "Provision of Suitable Routes for Cyclists and Pedestrians...

Childers Street, JJ Holand Park, South Kensington Station" and T7 – "Develop and Implement a permanent shared use path along the northern side of Childers Street").

A parking management plan should be developed to address the proposed reduction of on-street parking supplies along Childers Street, which services local residents train passengers and park users. This plan should address impacts during construction and legacy stages. The alternative design option (discussed in the City of Melbourne submission) is also preferred due to its reduced impact on loss of parking during the legacy stage (Ref: EPR T1 – "Childers Street" and T1 – "Provision of alternate parking where possible to replace lost parking from Childers Street" and T5 – "Develop and implement a plan to reinstate car parking on Childers Street").

Arden Station Precinct

5.1 Summary of Key Issues

Truck access to/from the MMRP's major construction site (at Arden Station) has the potential to adversely impact the amenity of local residential properties. I consider that truck movements must be confined to Arden and Laurens Street to travel between the site and the arterial road network (Ref: EPR T1 – "Potential routes for construction vehicles travelling to and from all Melbourne Metro construction work sites").

5.2 Issues

Given that up to 360 truck movements per day will access this site at peak times, I have concerns about the impacts on the residential amenity of the area, particularly from the 24-hour per day construction activities and truck movements. Trucks should be confined to Laurens and Arden Streets in order to access the site to minimise any impacts on local residents and businesses. In particular, truck travel is not supported on Queensberry Street, Anderson Street and Miller Street due to the mixed use of land uses on the streets (Ref: EPR T1 – "Potential routes for construction vehicles travelling to and from all Melbourne Metro construction work sites").

I support the preparation of a Construction Traffic Management Plan in consultation with relevant authorities and this plan should be approved by the City of Melbourne (Ref: EPR T1 – "Develop and implement a transport management plan").

The Moonee Ponds Creek should be developed to its full potential, including improving provisions for cyclists and pedestrians. This could be achieved by improved lighting, improved connections to Arden Street northbound and a more direct ramp connection to/from the Manningham Street Bridge (rather than the existing 'switch-back' arrangement) (Ref: EPR T7 – "Review the provision of safe and effective bicycle lanes in and around the Melbourne Metro station sites").

There is a need to improve pedestrian connections and pathways in the vicinity of the new station during the legacy stage of the project. This could include widened footpaths in Laurens Street and additional safe pedestrian crossings of Arden Street between Laurens Street and Langford Street. Consideration should also be given to providing a more direct pedestrian/cycling link between the expanding residential developments to the north of Macaulay Road and the station entrance. The City of Melbourne should also approve the detailed design plans for the ultimate road network (Ref: EPR T6 – "Optimise the design of Melbourne Metro Stations to ensure integration with existing and planned future uses").

Laurens Street should be restored to provide traffic lanes, bicycle lanes and parking lanes in both directions during the legacy stage. However, the parking bays should be removed at key pedestrian crossing locations in order to provide kerb extensions to minimise pedestrian crossing distances and increase pedestrian storage areas (Ref: EPR T5 – "Develop and implement a plan to reinstate car parking on... Laurens Street" and T7 – "Review the provision of safe and effective bicycle lanes in and around the Melbourne Metro station sites").

6. Parkville Station Precinct

6.1 Summary of Key Issues

The proposed closure of Grattan Street during construction has the potential to re-direct through traffic into the Parkville residential precinct, which includes streets such as Gatehouse Street, which the City of Melbourne has progressively downgraded and banned trucks from over the past 40 years. Due to the overall congestion levels in the area, many motorists still persevere with using Gatehouse Street despite the numerous traffic calming measures and delays experienced at signalised intersections. Encouraging more traffic in Gatehouse Street is not only opposed due to local amenity issues, but is also opposed on safety grounds due to the significant informal pedestrian crossings of Gatehouse Street which provide connections to Royal Park, the new Children's Playground and the Royal Children's Hospital (Ref: EPR T1 – "Develop and implement a transport management plan" and T4 – "Travel Demand Strategy"). No construction vehicles or public transport bus routes should be permitted to use Gatehouse Street due to the existing truck ban and physical traffic calming devices which are designed to discourage large vehicle usage (Ref: EPR T1 – "Potential routes for construction vehicles travelling to and from all Melbourne Metro construction work sites").

I believe that the impact of the proposed closure of Grattan Street on traffic congestion in the local precinct may have been underestimated by the EES, particularly when considering the proposed Western Distributor Project's Dynon Road connection into North Melbourne (Ref: EPR T1 – "Traffic management plan(s) must be developed recognising other projects operating concurrently, where relevant").

Subsequently, I consider that modifications may be required to upgrade the traffic capacity of alternative roadways, such as Queensberry Street (between Peel and Rathdowne Streets) and Haymarket Roundabout (no specific reference in EPR's to Queensberry Street or Haymarket Roundabout upgrades).

All changes to the road network for both the construction and legacy stages must include consultation with relevant stakeholders such as Universities, Hospitals, PTV and bus operators (Ref: EPR T5 – "Develop and implement a plan for the reinstatement of Grattan Street").

6.2 Issues

Functional road layout plans should be developed for Queensberry Street which provide improved traffic capacity during the construction phase to maintain local traffic access during the construction period, when Grattan Street (and possibly Franklin Street) is proposed to be closed **(no specific reference in EPR's to Queensberry Street)**. Design options should prioritise measures which maximise the retention of on-street parking, which is accessible 24 hours a day, on Queensberry Street and abutting side-streets to minimise impacts on local businesses and residents **(Ref: EPR T1 – "Provision of alternate parking where possible")**.

The proposed upgrade of Queensberry Street traffic capacity should only be implemented between Peel and Rathdowne Streets, as the existing downgrading of this street west of Peel Street (within North Melbourne) is a key element of the North and West Melbourne Local Area Traffic Management Plan (Ref: EPR T1 – "Develop and implement a transport management plan" and T4 – "Travel Demand Strategy").

Consideration should also be given to re-modelling the Haymarket Roundabout to further assist in mitigating the traffic congestion impacts associated with a proposed closure of Grattan Street during the construction period could be further investigated (no specific reference in EPR's to Haymarket Roundabout). This should also provide significant enhancements to bicycle and pedestrian connections and safety.

The development of a Royal Parade Master Plan should be undertaken in collaboration with relevant authorities and stakeholders (Ref: EPR T1 – "Royal Parade"). This master plan should prioritise safety and connectivity improvements for cyclists and pedestrians, as well as trams. The proposed centre of road tram platform stop in Royal Parade, north of Grattan Street, must provide wide pedestrian crossings to both the hospital and university sides of Royal Parade and minimise signal delays currently experienced by pedestrians (Ref: EPR T6 – "Optimise the design of Melbourne Metro stations... provide connections between the new Parkville Station and the new tram stop on Royal Parade").

During the construction phase, when Grattan Street is closed to through traffic, the project needs to include careful management of the road and footpath network to ensure access is maintained to all of the medical facilities in the area (Ref: EPR T3 – "Develop and implement transport management measures in consultation with relevant authorities for cyclists and pedestrians to maintain connectivity... to Grattan Street" and T1 – "Develop and implement a transport management plan").

Bus operations along Grattan Street must also be carefully considered. Existing bus services on Grattan Street include the heavily utilised 401 service which connects North Melbourne Station and the Parkville Precinct. PTV should undertake a review of the 401 service during the legacy stage of the project, as demands may be reduced as a result of the new Metro Train services (Ref: EPR T2 – "Develop and implement measures to minimise the disruption to the tram and bus networks... including options to divert the 401 bus services" and T6 – "Review, with PTV, bus services... including a review of the route 401 bus frequency").

The proposed roadway configuration of one traffic lane in each direction on Grattan Street, between Flemington Road and Leicester Street, as summarised in the EES, needs to be carefully managed, as this proposal would require bus services and vehicles accessing the hospitals to share a single traffic lane with general traffic movements which could lead to increased delays for heavily patronised bus services and emergency vehicle and private vehicle access to hospitals (Ref: EPR T5 – "Develop and implement a plan for the reinstatement of Grattan Street"). The design of the legacy onstreet parking restrictions between Flemington Road and Royal Parade need to be developed in consultation with the hospitals and the on-street parking east of Royal Parade should be discussed with the University of Melbourne and any other abutting properties.

I have concerns with the proposed temporary occupation of the entire northern portion of University Square, due to the impact on pedestrian access and connections between the main University campus and facilities located south of Grattan Street and surrounding University Square. A revised plan should be developed illustrating how and where pedestrian connections through the Square will be maintained during construction (Ref: EPR T1 – "Barry Street" and T3 – "Develop and implement transport management measures in consultation with relevant authorities for cyclists and pedestrians).

An additional station entrance within the Barry Street roadway (south of Grattan Street) should be considered, as entrances on both sides of Grattan Street in the location will reduce the need for passengers to cross the street to connect to/from land uses south of Grattan Street (Ref: EPR T1 –

"Barry Street" and T6 – "Optimise the design of Melbourne Metro Stations to ensure integration with existing and planned future uses"). It is also considered that a 40km/h speed limit should be implemented along Grattan Street.

I consider that the effects of the closure or downgrade of Grattan Street (during construction and legacy stages) may have been underestimated and should also include consideration of the impact of the proposed closure of Franklin Street (Ref: EPR T1 – "Grattan Street").

Modifications to the operation of La Trobe Street as a means of accommodating displaced east/west traffic movements resulting from the combined closures of Grattan and Franklin Street should also be discussed with and approved by the City of Melbourne. This is discussed in greater detail in the CBD North Station section of this report (no specific reference to La Trobe Street in EPR's).

The use of the northern section of Swanston Street, by displaced traffic from the Parkville Station road closures, is not supported due to the high pedestrian, bicycle and tram movements which currently use this street, which is located adjacent to the University of Melbourne (Ref: EPR T1 – "Grattan Street").

No consideration should be given to removing the existing bike lanes provided on Elizabeth Street as a means of increasing the traffic carrying capacity of the roundabout in the vicinity of the Parkville Station (Ref: EPR T3 – "Develop and implement transport management measures in consultation with relevant authorities for cyclists and pedestrians to maintain connectivity").

There is a need to ensure that any increased traffic capacity in Royal Parade, following construction of the central tram platform at Grattan Street and the reduced traffic capacity of Grattan Street itself, does not result in additional through traffic using the local Parkville east/west or north/south street network (no reference in EPR's to minimising intrusion of traffic into surrounding local streets).

It is unclear whether the existing on-street parking in Grattan Street, between Royal Parade and Flemington Road will be impacted during construction. However, any possible loss of on-street parking along this section of Grattan Street (adjacent to the hospitals) would create difficulties for patients to be dropped off close to the main entrances to their destinations and could result in illegal double parking which will create pedestrian road safety and traffic congestion issues. The proposed loss of parking in Grattan Street adjacent to University of Melbourne should not present as significant a problem, as many of the spaces are metered parking and primarily service medium term visitors of the University. Nevertheless, some businesses located on the south side of Grattan Street, between Barry and Elizabeth Streets, may be affected by the minimal loss of adjacent loading zone parking facilities and should be consulted on alternative parking arrangements in side-streets (Ref: EPR T1 – "Provision of alternate parking where possible to replace parking lost from... Grattan Street").

Increased pedestrian volumes and passengers accessing public transport facilities in Grattan Street and Royal Parade should result in a review of the existing speed limits along these streets (Ref: EPR T5 – "Design all road works and shared path works to relevant standards to maintain safety of movement in consultation with the relevant road management authorities").

Construction works along Grattan Street should be staged in such a manner that maintains two-way pedestrian and bicycle access along at least one side of the street at all times (Ref: EPR T3 – "Develop and implement transport management measures in consultation with relevant authorities for cyclists and pedestrians to maintain connectivity... including Grattan Street").

7. CBD North Station Precinct

7.1 Summary of Key Issues

The retention of vehicle access along Franklin Street and improvements to pedestrian storage and crossings at the intersection of La Trobe Street / Swanston Street are key considerations in maintaining vehicle access to the city and mitigating a growing pedestrian congestion problem (Ref: EPR T1 – "Franklin Street" and T6 – "Optimise the design of Melbourne Metro stations to ensure integration with existing and planned land uses").

The construction works and proposed truck routes should minimise impacts on cyclists riding along La Trobe Street and Swanston Street, which form two of the most important cycling corridors within the inner city (Ref: EPR T3 – "Implement active controls at construction work site access points to maintain safety by avoiding potential conflicts between trucks, pedestrians and cyclists").

7.2 Issues

The permanent closure of Franklin Street is not supported and alternative design options should be explored (Ref: EPR T5 – "Develop and implement a plan for the future use of the Franklin Street road reserve"). I would also prefer that Franklin Street remain partially open to vehicular traffic and cyclists during construction as the combined closures of Franklin and Grattan Streets during construction will place significantly increased pressure on alternate east-west routes (Ref: EPR T1 – "Franklin Street").

Franklin Street forms an important vehicle access route to the northern section of the city and therefore the proposed station entrance in the centre of Franklin Street should be relocated to the south side of Franklin Street to enable one mid-block traffic lane and bike lanes to be provided in each direction of this section of Franklin Street during the legacy stage of the project, and also preferably during the construction phase (Ref: EPR T5 – "Develop and implement a plan for the future use of the Franklin Street road reserve" and T1 – "Franklin Street").

As part of the Queen Market Precinct Renewal Master Plan, the western end of Franklin Street is proposed to be re-aligned to provide a direct connection to Dudley Street. Subsequently, the maintenance of traffic flow along Franklin Street is critical to providing both local and through traffic access and may also facilitate proposals to improve pedestrian conditions on Victoria Street and Peel Street (Ref: EPR T5 – "Develop and implement a plan for the future use of the Franklin Street road reserve". In fact, recent observations undertaken when Franklin Street was closed for early MMRP works indicated significant traffic congestion along La Trobe and Victoria Streets. Observations also indicated increased traffic congestion at the Swanston Street / Victoria Street intersection which disrupted tram services along Swanston Street (Ref: EPR T2 – "Develop and implement measures to minimise disruption to the tram and bus networks"). Consequently, the on-going monitoring of the impact of the proposed Franklin Street closure is essential in ensuring that all road authorities and PTV are able to respond to any significant congestion and road safety issues (Ref: EPR T1 – "Monitoring of travel behaviour changes caused by construction works, including pre-construction baseline data").

Franklin Street also provides an important east/west bicycle connection and will directly connect existing bike lanes (which are to be upgraded) on Cardigan Street to existing Central City bike routes on Swanston Street and William Street. This also emphasises the importance of minimising any

closures of Franklin Street during construction (Ref: EPR T3 – "Develop and implement transport management measures in consultation with relevant authorities for cyclists and pedestrians to maintain connectivity... including Franklin Street").

The proposed narrowing of the Franklin Street carriageway (west of Swanston Street) will also create significant access / parking problems for the various car rental companies that are serviced by articulated car carrying vehicles (Ref: EPR T1 – "Franklin Street").

I understand that A'Beckett Street is currently proposed to be closed to vehicle traffic between Stewart Street and Swanston Street to provide an emergency access shaft and ventilation structure. It is assumed that this closure is currently proposed during construction and legacy stages of the project (Ref: EPR T1 – "A'Beckett Street"). This closure is not supported because it prevents opportunities to widen the Swanston Street footpaths on the north side of La Trobe Street where pedestrian congestion levels are already high and will increase following the opening of the new station entrance (Ref: EPR T1 – "Franklin Street" and T6 – "Optimise the design of Melbourne Metro stations to ensure integration with existing and planned land uses").

However, an alternative proposal to close Swanston Street to vehicular traffic between La Trobe Street and Little La Trobe Street (to enable footpath widening) requires local traffic movements servicing properties in Little La Trobe Street and Swanston Street to circulate in an anti-clockwise direction which would in turn require:

- The reversal of the existing one-way (east-to-west) traffic flow in Little La Trobe Street; and
- A variation to the existing proposal to close A'Beckett Street, and instead allow a one-way (east-to-west) traffic flow in A'Beckett Street to enable vehicles to turn left into A'Beckett Street from Swanston Street.

Either design option would also enable increased traffic signal phase time to be provided to pedestrian crossings at the intersection of Swanston Street / La Trobe Street, due to the removal of the vehicle exit traffic signal phase from the north leg of Swanston Street. However, the alternate design option also provides increased pedestrian storage area on the north-west corner of the intersection and further reduces pedestrian crossing times which may in turn enable either shorter signal cycle times or additional signal time to be provided to pedestrians or north/south tram movements. All measures which could reduce crossing distances, increase pedestrian storage areas and reduce delays for pedestrian crossings should be explored (Ref: EPR T1 – "Franklin Street" and T6 – "Optimise the design of Melbourne Metro stations to ensure integration with existing and planned land uses").

An underground pedestrian connection is proposed to be provided beneath La Trobe Street to provide a pedestrian connection between the new CBD North Station and the existing Melbourne Central Station. It is suggested that consideration be given to providing an additional pedestrian access point on the south side of La Trobe Street (in the vicinity of the footpath network). As well as improving pedestrian connections between the two train stations, every opportunity should also be given to encourage underground pedestrian connections for passengers connecting from one of these stations to land uses on the opposite side of La Trobe Street (Ref: EPR T1 –T6 – "Optimise the design of Melbourne Metro stations to... provide connections for interchange between the new CBD North station and the existing tram services along La Trobe Street and Swanston Street" and T7 - "Provide way-finding information to enhance connectivity for pedestrians and public transport users... between Melbourne Central station and the new CBD North station").

The possible installation of tram platform stops in La Trobe Street will need to be carefully located to minimise the impact on vehicle and bicycle movements (Ref: EPR T1 –T6 – "Review, with PTV and Yarra Trams, the bus and tram services in the area").

The proposed introduction of peak period Clearways along La Trobe Street, as stated in the EES, in order to increase traffic capacity is not considered the most efficient means of increasing traffic capacity along La Trobe Street. In order for the proposed Clearway to provide two suitably wide traffic lanes, it would be necessary to replace the existing 1.0 metre wide separator islands (between the parking lane and kerbside bike lane) with a 300mm separator kerb. This could create a potential trip hazard for pedestrians as well as not providing a safe location for pedestrians to stand between parked cars and the kerbside bike lane when either crossing the road or boarding or alighting their vehicle. This would be particularly problematic for delivery drivers moving bulky goods across the bike lane (no specific reference to La Trobe Street in EPR's).

It is considered that an alternative strategy involving the strategic removal of on-street parking from the approach and departure side of specific signalised intersections could be investigated in order to increase the length of roadway that two lanes can form and specifically target increased capacity and storage at sites which currently experience congestion and subsequently create 'squeeze points' which impacts traffic flow along the La Trobe Street. The full-time removal of selected parking spaces near key intersection would also enable the safe introduction of 300mm separator kerbs (to enable the creation of two suitably wide traffic lanes) as already established in sections of La Trobe Street which provide no on-street parking (no specific reference to La Trobe Street in EPR's).

Peak hour use of La Trobe Street by construction vehicles associated with MMRP should be avoided due to relatively narrow traffic lane widths, existing congestion levels and the proposed strategy to promote La Trobe Street as an alternative route to compensate for closures, during the construction phase, in Grattan and/or Franklin Streets. The narrow traffic lane widths could also result in large trucks delaying La Trobe Street tram movements when overhanging the tram reserve (Ref: EPR T1 – "Potential Routes for Construction Vehicles travelling to and from all Melbourne Metro Constriction Works Sites").

8. CBD South Station Precinct

8.1 Summary of Key Issues

Opportunities to minimise the growth of existing pedestrian congestion at intersections along Swanston Street should be investigated in order to avoid future instances of pedestrians being forced onto the roadway when waiting at pedestrian crossings or preventing pedestrian walking along the footpaths being forced onto the roadway in order to pass stationary pedestrians (Ref: EPR T6 – "Optimise the design of Melbourne Metro stations to ensure integration with existing and planned land uses").

This should include consideration of station entrances on both sides of Swanston Street, Collins Street and Flinders Street in order to spread the load of pedestrians exiting stations and reduce the need for pedestrian crossings at intersections. As discussed in the Executive Summary, I do not want to see a replication of the existing pedestrian overcrowding situations which occur on the footpaths at signalised intersections adjacent to Southern Cross and Parliament Stations (Ref: EPR T6 – "Optimise the design of Melbourne Metro stations to ensure integration with existing and planned land uses").

I support the use of Swanston Street by construction vehicles departing the site as it allows the shortest and most direct exit out of the CBD in order to connect to Princes Bridge and avoid using Collins Street between Swanston and Queen Streets (Ref: EPR T1 –"Potential Routes for Construction Vehicles travelling to and from all Melbourne Metro Constriction Works Sites"). Conflicts with bike and pedestrian movements during peak times will need to be further assessed and construction methods and vehicle access to the City Square and Federation Square construction site must maintain safe conditions for cyclists and pedestrians (Ref: EPR T3 – "Implement active controls at construction work site access points to maintain safety by avoiding potential conflicts between trucks, pedestrians and cyclists").

The construction works and proposed truck routes should minimise impacts on cyclists riding along Swanston Street, which forms one of the most important cycling corridors within the inner city (Ref: EPR T3 – "Implement active controls at construction work site access points to maintain safety by avoiding potential conflicts between trucks, pedestrians and cyclists").

8.2 Issues

As summarised in the City of Melbourne's submission, the proposal currently includes three station entrances, as summarised below:

- City Square;
- Federation Square; and
- Port Phillip Arcade (near the north-west corner of the intersection of Swanston Street / Flinders Street).

The submission also discusses consideration for a possible additional entrance on west side of Swanston Street, opposite City Square.

The lack of a proposed station entrance on the north side of Collins Street could lead to significant additional volumes of pedestrian being required to cross at the intersection of Collins Street / Swanston Street. This intersection already caters for extremely high volumes of pedestrian movements and every opportunity to diffuse future pedestrian concentrations at this intersection should be examined. This reduction in pedestrian concentrations could be assisted by the provision of an additional station entrance on the north side of Collins Street. Ideally, this entrance should be provided east of Swanston Street to ensure no impact to the existing tram platforms located west of Swanston Street. The provision of this entrance could also reduce the incentive for pedestrians to cross Collins Street between Russell and Swanston Streets in order to avoid the congestion at the intersection (Ref: EPR T6 – "Optimise the design of Melbourne Metro stations to ensure integration with existing and planned land uses").

I do not support the proposal to provide three ventilation structures along the western edge of City Square due to the significant impact on pedestrian flows along this east side of Swanston Street (Ref: EPR T6 – "Optimise the design of Melbourne Metro stations to ensure integration with existing and planned land uses").

In order to maximise pedestrian flows and storages areas in the vicinity of the new station entrances, and in particular the intersection of Swanston Street / Collins Street, I support consideration of the relocation of street furniture and other physical obstructions (Ref: EPR T6 – "Optimise the design of Melbourne Metro stations to ensure integration with existing and planned land uses"). I also recommend investigating measures to increase pedestrian storage areas and reduce pedestrian crossing distances at the intersection of Swanston Street / Collins Street, such as traffic signal phasing modifications, to reduce delays for pedestrians at this intersection. Any proposed changes should be made in consultation with Yarra Trams.

Further consideration should be given to the provision of an additional station entrance on the west side of Swanston Street, opposite City Square (Ref: EPR T6 – "Optimise the design of Melbourne Metro stations to ensure integration with existing and planned land uses"). While this footpath carries very high volumes of pedestrian movements, particularly in peak periods, observations have indicated that the existing footpath may still have the capacity to provide a station entrance and accommodate increased pedestrian volumes generated by this new entrance. While a station entrance in this location may lead to increased congestion of pedestrians walking along this side of Swanston Street, it will reduce congestion levels for pedestrians storing at the signalised intersections around the station which is more likely to present road safety issues. In fact, the station entrance could be located in the 'shadow' of the existing tree plots, just north of Flinders Lane, where tram passengers do not use the footpath as a storage area to board or alight Swanston Street tram services.

Nevertheless, I do not support any options to provide the pedestrian access to such an additional station entrance from Monaghan Lane, as this laneway provides a crucial loading and servicing facility for local businesses. This is primarily due to the fact that minimal on-street parking is provided in other streets in the vicinity of Monahan Lane (Ref: EPR T6 – "Optimise the design of Melbourne Metro stations to ensure integration with existing and planned land uses").

Effective lighting, way-finding, well cared for amenity and elements of engagement should be investigated to mitigate the potential social impacts and perceptions of safety associated with this construction site (Ref: EPR T2 – "Provide suitable routes for pedestrians to maintain connectivity... for users of Flinders Street station").

The location of construction vehicle standby areas within the Central City is not supported due to the impact they would have on parking availability, traffic movements and sustainable transport options (Ref: EPR T1 – "Special arrangements for the delivery or removal of large loads").

Any construction works in Federation Square needs to be carefully managed to ensure that adequate pedestrian pathways and storage areas are provided along both Flinders and Swanston Street frontages and around the construction site and in the vicinity of signalised crossings (Ref: EPR T3 – "Develop and implement transport management measures in consultation with relevant authorities for cyclists and pedestrians to maintain connectivity").

Domain Precinct

9.1 Summary of Key Issues

The MMRA has developed a design for the section of St Kilda Road, between Domain and Toorak Roads during both construction and legacy stages (Ref: EPR T1 – "St Kilda Road" and T5 – "Optimise the design of the reinstated St Kilda Road").

The City of Melbourne is also currently working with VicRoads, TAC and City of Port Phillip to develop a suitable roadway design for the full length of St Kilda Road that addresses pedestrian and cyclist road safety concerns (Ref: EPR T7 - "Review the provision of safe and effective bicycle lanes in and around the Melbourne Metro station sites"). This design, which is currently only at conceptual stage, will need to tie in with the proposed MMRP design during all stages of the project, particularly on the approaches to this section of St Kilda Road (Ref: EPR T1 - "St Kilda Road" and T5 -"Optimise the design of the reinstated St Kilda Road"). This should include consideration of strategies to encourage traffic to divert to Kings Way and Punt Road as alternative options to St Kilda Road. Additionally, measures to improve capacity along the length of Kings Way and Punt Road should be investigated, including turn bans and channelisation works which limit friction caused by through traffic accessing Kings Way from local streets and service carriageways (Ref: EPR T1 -"Provision of complementary improvements to Kings Way, Canterbury Road and other roads to accommodate additional traffic that may use these roads and to assist traffic flow in St Kilda Road for the duration of the works"). This strategy should reduce traffic congestion on St Kilda Road and thereby reduce the incentive for through traffic to use local South Yarra streets. The legacy design of St Kilda Road, between Domain Road and Toorak Road, should maximise opportunities to provide kerbside parking, similar to the conceptual design currently being considered for the remainder of St Kilda Road (Ref: EPR T5 - "Optimise the design of the reinstated St Kilda Road to... determine the optimal parking provision in the area and replace any lost parking where possible").

9.2 Issues

The current proposal includes three station entrances, as summarised below:

- · Centre of the road at the Domain Interchange;
- The north-east corner of St Kilda Road / Domain Road (within the Shrine Reserve); and
- Within the Albert Road Reserve (City of Port Phillip).

The current proposal will also result in Domain Road being closed during construction, the No 8 tram being re-routed to Toorak Road, and St Kilda Road being reduced to one traffic lane in each direction during construction.

The road closures and reduction of capacity along St Kilda Road during construction is likely to result in additional pressure on the local road network and create significant increases in local South Yarra Streets, particularly as a result of traffic seeking to access Birdwood Avenue / Linlithgow Avenue/ Dallas Brooks Drive. The use of Birdwood Avenue by construction vehicles should be restricted during day-time hours to limit the impact on visitors to the Shrine of Remembrance and other nearby tourist attractions (Ref: EPR T1 – "St Kilda Road, Domain Road and Linlithgow Avenue")

The proposed closure of Domain Road, at St Kilda Road, will create access difficulties for local residents, visitors of the Domain Road Shops, Melbourne Grammar School and the Royce Hotel. Subsequently, options for traffic management plans to modify the existing road network in this area must be developed by the MMRA, which should involve community consultation including the City of Melbourne (Ref: EPR T1 – "St Kilda Road and Domain Road").

A Travel Demand Strategy should be developed, which should include a parking plan for MMRP construction workers. No on-street car parking spaces will be reserved for MMRP workers due to the competing demands for this finite resource. Workers should be encouraged to commute via sustainable transport modes, which could include special bus shuttles from outlying areas, or use off-street parking supplies (Ref: EPR T4 – "Travel Demand Strategy" and T1 – "Provision of car parking for construction workers where possible").

The re-routing of the No. 8 tram service to Toorak Road should include opportunities to improve the supply of short term and resident parking spaces along Domain Road and Park Street, as well as improving pedestrian and bicycle facilities for local businesses, residents and schools (Ref: EPR T2 – "Develop and implement measures to minimise disruption to the tram and bus networks" and T3 – "Develop and implement transport management measures in consultation with relevant authorities for cyclists and pedestrians to maintain connectivity").

No new tram stop should be introduced in Toorak Road, to the east of Leopold Street, due to the impact that this would have on the operation of the proposed Christ Church Grammar School's pick-up and set-down requirements (Ref: EPR T2 – "Develop and implement measures to minimise disruption to the tram and bus networks... including tram operations on Toorak Road and the diversion of the No. 8 tram route").

The proposed removal of the existing Domain Tram Interchange on St Kilda Road should not result in the blanket removal of pedestrian crossings at this site. In fact, the existing crossings should be enhanced with plantations / traffic islands to reduce the distances that pedestrians are exposed to traffic and tram movements (Ref: EPR T3 – "Develop and implement transport management measures in consultation with relevant authorities for cyclists and pedestrians to maintain connectivity").

The new St Kilda Road tram stop should provide excellent pedestrian connections to the Domain Train Station, as well as connections between platforms for passengers changing tram services at this interchange. Wide pedestrian crossings with minimal signal delays should also be provided for pedestrians to access the street network from the tram stop (Ref: EPR T6 – "Optimise the design of Melbourne Metro stations to... provide connections between the new Domain station and the new island platform tram stops in the centre of St Kilda Road").

The proposed removal of approximately 150 local on-street parking spaces in the vicinity of the Domain Station during construction will have a significant impact on the strip shopping centres in St Kilda Road and Toorak Road. A parking management plan which considers the installation of paid parking restrictions and shorter time limits for the remaining on-street parking spaces should therefore be developed to ensure improved parking turnover rates, which will allow the reduced supply of parking to better accommodate shoppers and short-term visitors, rather than long term commuters or visitors (Ref: EPR T1 – "St Kilda Road" and T1 – "Provision of alternate parking where possible to replace parking lost").

Construction vehicles should also be required to load, unload and store within the construction site on St Kilda Road to minimise any further impact on loss of parking or vehicle/bicycle movements (Ref: EPR T1 – "Special arrangements for the delivery or removal of large loads").		

10. Declaration

I have made all the inquiries that I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the Inquiry and Advisory Committee.



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28 July 2016

Haig Poulson Principal Engineer Traffic Engineering c/- City of Melbourne 90-120 Swanston Street Melbourne VIC 3000 Our ref: TXR1/NXS Matter no: 9613710

By email: Haig.Poulson@melbourne.vic.gov.au

Dear Mr Poulson

Melbourne Metro Rail Project Environment Effects Statement Inquiry Instructions for expert evidence

We are assisting the City of Melbourne (**CoM**) finalise its submission to the Inquiry on the Environment Effects Statement (**EES**) and the Advisory Committee for the Planning Scheme Amendment (**PSA**), both in respect of the Melbourne Metro Rail Project.

Thank you for agreeing to prepare and present expert evidence at the joint Inquiry and Advisory Committee for CoM.

What is your evidence about?

CoM requires that you prepare and present expert evidence in relation to consideration of transport impacts associated with:

- proposed road and public transport closures or changes (before during and after development);
- loss and changes to car parking and replacement car parking arrangements;
- · changes to road network and public transport after construction;
- · pedestrian capacity on street network;
- · proposed stations, emergency access shafts and portals;
- · impacts of construction;
- · emergency vehicle accessibility; and
- · road use and safety caused by new infrastructure.

Timeline

The public hearing of the Inquiry will commence on 22 August 2016, running for approximately six weeks. You will be advised of the venue and the time that you will be required to attend the hearing in order to present your evidence, as soon as CoM receive the indicative timetable.

Any expert evidence to be presented at the Inquiry requires the submission of a detailed written report by 12 August 2016.

CoM currently expects to be call approximately 12 experts in 10 different fields (with 9 CoM employees giving evidence). With the tight timeframes for preparation and submission of the evidence, this process requires considerable internal coordination to ensure that the legal team 236039956v2NXB

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has sufficient time to review and comment on all evidence reports before finalisation and submission

To assist in this process of finalising the evidence reports, we ask you to have your draft evidence report ready for review by **5pm 10 August 2016** and to be available in the following days to finalise your report. Smaller reports are required to be ready first as the larger reports will require more time to prepare.

Your draft report should be emailed in Word format to Karen Snyders <u>Karen.Snyders@melbourne.vic.gov.au</u> and Nick Sissons <u>nsissons@huntvic.com.au</u> as soon as it is ready for review.

Please be assured that you have the support from the CoM Directors and Managers for you to dedicate your time to this process without delay so that a unified approach is presented from the CoM by having all expert evidence reports ready on time.

What is required?

We understand that this may be first time that you are being required to present expert evidence to an Inquiry or Advisory Committee. To assist you in preparing your evidence report we suggest that you review the Planning Panel Victoria's Guide to Expert Evidence (http://www.dtpli.vic.gov.au/ data/assets/word doc/0017/231263/G2-Guide-to-Expert-Evidence-April-2015.DOCX). This guide provides useful information to assist in preparing evidence reports. Other useful guides from Planning Panels Victoria about the general process are also available online (http://www.dtpli.vic.gov.au/planning/panels-and-committees/planning-panel-guides).

Please note that whilst you are employed by the CoM, you are being asked to present expert evidence as a professional with suitable experience and qualifications in your field. This means that you must present your professional opinion on the matters that have been advanced by the CoM in its submission on the EES and PSA. You must also ensure that you comment only on matters that are within your field of expertise and matters that are within the EES and PSA. You can reference any existing publicly available material, reports, studies or policy as support or justification for your opinions but you must not reference any confidential information of the CoM.

The joint Inquiry and Advisory Committee requires that CoM provide it with copies of any referenced materials in any expert evidence statements. Accordingly, please provide a copy or external web link to any reports, studies or policy that you have referenced so that we can compile a complete list of reference materials for submission to the joint Inquiry and Advisory Committee.

We also understand that you may have been involved in other aspects of this project whilst performing your role at CoM and you may have previously worked directly with the 'CoM and Melbourne Metro Rail Authority' working group. As part of your evidence that you are being asked to prepare, you are not required to comment on any information, designs or other discussions that are not specifically included within the EES or PSA and CoM submission. Of course, when discussing alternative options or deficiencies, it may be a matter of professional opinion if you believe that the EES or PSA has left out other relevant considerations that should be raised for consideration.

Generally, you have a duty to the joint Inquiry and Advisory Committee to ensure that your report complies with the content and form requirements of Planning Panel Victoria's Guide to Expert Evidence

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Consistency of format for CoM staff expert evidence reports

You should have regard to the CoM submission on the EES and PSA. We ask that you structure your expert evidence in a manner that uses or aligns with the following precincts or subject areas where possible:

- 1. Fawkner Park and the Domain.
- 2. Tunnel Alignment and Emergency Access.
- 3. Western Portal (Kensington).
- 4. Arden Station Precinct.
- 5. Parkville Station Precinct.
- 6. CBD North Station Precinct.
- 7. CBD South Station Precinct.
- 8. Domain Station Precinct.
- 9. Noise and Vibration.
- 10. Planning Scheme Amendment.

Within any given precinct, we ask you to provide an opinion on any relevant options, issues or deficiencies that have been raised in the CoM submission. If you intend to stray from the substance of the CoM submission, please only do so after confirming this with Karen or myself.

There may also be an obligation on witnesses to attend a conclave of like-minded experts in order to help draft a statement setting out where the respective witnesses agree and disagree. We will provide you with further information about this as it comes to hand.

This approach will ensure consistency in the CoM evidence and enable Council's legal advocates to focus on a precinct by precinct basis in presentation of the CoM submissions during the Inquiry. It will also assist Council's legal advisors determining if aspects of your evidence has been addressed by other submitters.

We have provided you with an example word template document that can be used to assist you in drafting your expert evidence if you require. However, this is not intended as a one size fits all and you should structure your statement in any manner that assists in providing a clear and concise opinion on the points raised in the CoM Submission.

Presentation to joint Inquiry and Advisory Committee

Generally it should be assumed that the joint Inquiry and Advisory Committee members and all other participants have read your statement.

CoM will be strictly limited in its time allocated to present its submission to the joint Inquiry and Advisory Committee.

Accordingly, we ask that you prepare a short 20 minute presentation of the key issues in your statement. If you believe that you need more than this time please see us as soon possible so that we can discuss requirements with you directly. You may wish to use an example to highlight

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any particular concerns. You will also be asked questions, so please keep your presentation short and concise.

If you intend to use PowerPoint to present your key points at the hearing, please discuss this with us. Any PowerPoint presentation you wish to use must be finalised at the same time as your draft statement of evidence as it will need to be submitted with your statement of evidence.

You should attend the hearing with your statement and all copies of any reference material that you have referenced. All documents will need to be tendered electronically in advance of the hearing.

Further information

You will find links to the documents of the EES and PSA as follows:

EES - http://metrotunnel.vic.gov.au/ees

PSA - http://metrotunnel.vic.gov.au/ees/planning-scheme-amendment

Please do not hesitate to contact Karen Snyders Karen.Snyders@melbourne.vic.gov.au or Nick Sissons nsissons@huntvic.com.au if you require any further information about this process.

Yours faithfully **Hunt & Hunt**

Nick Sissons Associate

Contact: Nick Sissons D +61 3 8602 9357 E nsissons@huntvic.com.au

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Our ref: TXR1/NXS Matter no: 9613710

3 August 2016

Haig Poulson Principal Engineer Traffic Engineering City of Melbourne

By email: Haig.Poulson@melbourne.vic.gov.au

Dear Mr Poulson

Melbourne Metro Rail Project **Environment Effects Statement Inquiry** Expert Evidence - Supplementary Instructions

We confirm our request for you to provide expert evidence to the forthcoming Inquiry and Advisory Committee (IAC) in relation to the matters addressed in the City of Melbourne Submission to the Environment Effects Statement (Submission, EES).

Scope of your evidence

In the preparation of your evidence, please carefully consider the Terms of Reference for the IAC www.dtpli.vic.gov.au/ data/assets/pdf_file/0008/297107/Melb-Metro-ToR.pdf)

Your expert evidence should also have regard to the Environmental Performance Requirements (EPRs). The EPRs are located within each section of the EES (http://metrotunnel.vic.gov.au/ees/documents). Your expertise may relate to one or more of the sections of the EES and any number of EPRs. Please consider whether any of the matters addressed in the Submission will be adequately dealt with by the proposed EPRs, making recommendations for changes, where appropriate.

Please note that the MMRA has also started to provide "Technical Documents" to the IAC (http://www.dtpli.vic.gov.au/planning/panels-and-committees/current-panels-and-committees/curren committees/melbourne-metropolitan-rail-inquiry). These might be said to vary the EES so it is important you read them carefully and comment on them as appropriate.

However, as the status of these Technical Documents is unclear, please do not assume that matters addressed in the Technical Documents necessarily resolve matters raised in the Submission.

Circulation of Evidence

We have now been advised that we must print and deliver 20 printed copies of your statement to Planning Panels Victoria Office by 10:00am on 12 August 2016, we will not be able to extend timeframes for circulation of your evidence. This means that we will need your completed report by COB on 8 August to enable us sufficient time for review, print and circulate your report.

Please provide your statement in Microsoft Word format for us to convert PDF format for circulation, including an electronic signature.

Hearing dates

The City of Melbourne has been allocated the following dates to present its case:

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- 1. 5 September 2016 (10:15 am 1:00pm and 2:00pm 4:30pm);
- 2. 6 September 2016 (10:15 am 1:00pm and 2:00pm 4:30pm); and
- 3. 22 September 2016 (10:15am 12:30pm).

We will provide you with further information as to when you may be required to attend the hearing to present evidence, but to the extent that is possible to do so, please keep these dates clear in your diary. If you have any constraints please contact us immediately.

The hearing will be conducted in the conference room at the Mercure Treasury Gardens, 13 Spring Street, Melbourne.

Expert conclaves

You may also be required to attend a conclave of experts, to be held sometime between 15 August 2016 and before 22 August 2016.

At a conclave, you may be asked to prepare a statement of matters where you agree or disagree with other expert witnesses. Such statements must be tabled at the hearing on the earlier of: 22 August 2016; or one clear business day prior a relevant witness being called.

Please indicate your availability to attend such a meeting in the week commencing 15 August 2016.

These meetings should be arranged by MMRA's experts, however, we will confirm with you if we are advised of any proposed meeting date and time.

Directions relating to expert reports

The Chair of the IAC has directed that expert witness reports should not refer to individual submitters by name, but by submission number. Please follow this direction if you are making reference to any submitter other than the City of Melbourne.

Please note that expert reports will be available to the public via publication on the Melbourne Metro Rail Project website.

Please do not hesitate to contact Karen Snyders Karen. Snyders@melbourne.vic.gov.au or Nick Sissons nsissons@huntvic.com.au if you require any further information.

Yours faithfully **Hunt & Hunt**

Nick Sissons

Associate

Contact: Nick Sissons D +61 3 8602 9357 E nsissons@huntvic.com.au

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11 August 2016

City of Melbourne Expert Witnesses for Inquiry and Advisory Committee on Melbourne Metro Rail Project Our ref: TXR1/NXS Matter no: 9613710

By email:

Dear Sir/Madam

Melbourne Metro Rail Project - Environment Effects Statement Inquiry Expert Evidence – Second Supplementary Instructions – Request to include an Environmental Performance Requirement (EPR) Summary Table in your evidence

Thank you for providing your draft expert evidence report to the forthcoming Inquiry and Advisory Committee (IAC) in relation to the matters addressed in the City of Melbourne Submission to the Environment Effects Statement (Submission, EES) on the Melbourne Metro Rail Project.

All reports have been of a consistently high standard. We appreciate the immense effort that has been dedicated to ensuring that these reports were prepared within a very tight timeframe.

To assist the City of Melbourne present a clear and concise summary of its Submission to the IAC and to assist you in delivering a concise summary when called to give evidence to the IAC, we would appreciate if you could please incorporate a brief summary table of your recommendations relating to the EPRs at end of the executive summary of your report.

We have provided the **attached** template table (in a word document) as a suggested format to use for the tables.

This table is really only intended to be a brief and concise summary of the recommendations that you have already made in the body of your report.

Where you have recommended that an entirely new EPR is necessary, please try to have a go at formulating a draft EPR (to the best of your ability) or simply state what the new EPR should try to achieve. If you are experiencing difficultly drafting proposed EPR wording, we are available today to help you edit your recommendations for new EPRs.

Please do not hesitate to contact Nick Sissons nsissons@huntvic.com.au if you require any further information.

Yours faithfully Hunt & Hunt

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