

# RESOURCE CONSENT APPLICATION (Concerts)

## EDEN PARK PRECINCT Sandringham

### TRANSPORT ASSESSMENT

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February 2020  
Reference: 19240  
Issue F – Updated Final

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## Project Information:

<b>Client</b>	Eden Park Trust
<b>Job Number</b>	19240
<b>Title</b>	Resource Consent Application – Concerts - Eden Park Precinct - Kingsland
<b>Prepared By</b>	Todd Langwell
<b>Date</b>	February 2020

## Document History and Status

Revision	Date Issued	Reviewed By	Approved By	Date Approved	Status
A	02/10/2019		T Langwell	02/10/2019	Draft
B	05/11/2019		T Langwell	05/11/2019	Draft
C	30/11/2019		T Langwell	30/11/2019	Draft
D	02/12/2019		T Langwell	02/12/2019	Draft
E	11/12/2019		T Langwell	11/12/2019	Final
F	07/02/2020		T Langwell	07/02/2020	Updated Final

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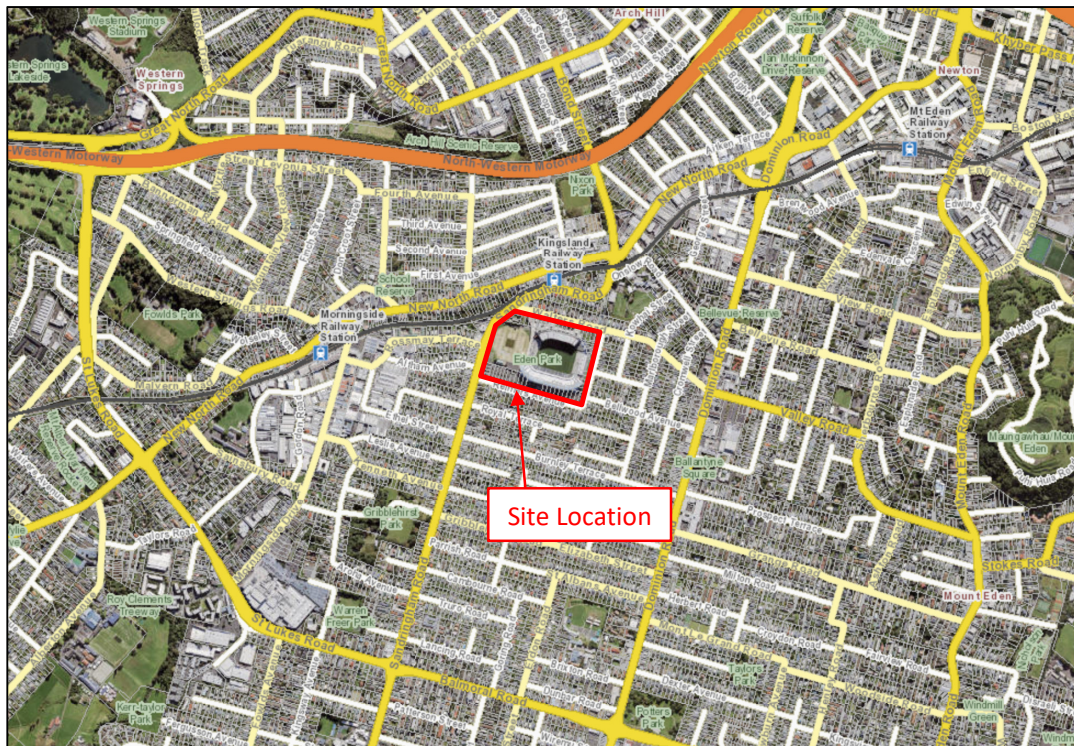
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## 1.0 INTRODUCTION

The purpose of this report is to provide a Transport Assessment of a proposal to seek consent to hold six concerts per year at Eden Park.

The site is currently zoned Special Purpose Facility – Major Recreational Facility under the Auckland Unitary Plan Operative in Part (AUP), and overlays with the Eden Park Precinct. The location of the overall precinct in relation to the surrounding road network is illustrated in **Figure 1**.

This report describes the location of the site in relation to the adjacent transport environment; describes the current mitigations that are in place to manage transport effects for events at the park, considers the likely impacts of holding concerts at the venue and assesses the proposal in terms of the relevant objectives and policies in the AUP.



**Figure 1: Site Location**

Source: GeoMaps

## 2.0 EXISTING TRANSPORT ENVIRONMENT

### 2.1 Surrounding Activities / Context

**Figure 1** illustrates the surrounding activities to the Eden Park precinct. The typical land use immediately surrounding Eden Park is residential in nature. Within a close walking distance are the Kingsland Town Centre, New North Road, Dominion Road, Kowhai Intermediate School and the Kingsland and Morningside Railway Stations.

### 2.2 The Eden Park Precinct (I310)

The purpose of the Eden Park Precinct is to provide specific planning controls for the use, development and redevelopment of Eden Park. Eden Park was established as the home of Auckland Cricket in 1910, with Auckland Rugby joining in 1925. Eden Park is a multi-purpose stadium and is one of New Zealand's premier sports facilities.

The Precinct Plan includes several standards for delivery of events. The relevant standards that relate to transport effects and concerts are as follows:

Under **Standard I310.6.4 - Traffic Management**, activities must meet at least one of the following traffic management standards:

- (1) *The activity and management of associated transport and traffic effects is undertaken in accordance with a Transport and Traffic Management Plan authorised by Auckland Transport.*
- (2) *Organised sports and recreation activities which generates a crowd of less than 5,000 people and does not require the closure of a public road; or*
- (3) *Any other activity undertaken at night-time which generates a crowd of less than 2,000 people and does not require the closure of a public road.*

**Standard I310.6.5** specifies a parking requirement for a minimum of 310 cars that must be retained within the precinct unless an authorised Transport and Traffic Management Plan is in effect.

**Standard I310.6.10.1** specifies that the number of non-sporting activities held on the Number 1 field within any 12-month period must not exceed the number listed in *Table I310.6.10.1 - Number of non-sporting activities* as follows:

Number of occurrences	Crowd capacity
Unlimited	Up to 2,000
No more than 30	2,001 to 10,000
No more than 20	10,001 to 25,000
No more than 6	25,001 to 50,000

**Standard I310.6.11** sets out several standards relating to organised sports and recreational events that can occur at night time on the Number 1 field. Although these are not relevant to non-

sporting events such as concerts, they provide good guidance on the start and finish times for events and the relative transport effects. The relevant standards are as follows:

- (3) *If scheduled between Monday and Friday (inclusive), these activities (excluding day/night cricket test matches) must commence after 7:30pm and be scheduled to finish no later than 9:30pm. Activities on public holidays are excluded from these time limits;*
- (5) *These activities must not be undertaken on a Sunday; and*
- (7) *The crowd attending any of these activities must not exceed 50,000 persons.*

### 2.3 Existing Site Traffic Environment

At present, apart from the main sporting event activities themselves, there are various other activities occurring at Eden Park on a day to day basis, including the following:

- administration (Eden Park Trust and other organisations occupying office space);
- conferences, product launches, receptions, dinners, parties etc utilising various stadium areas including hospitality spaces areas and including supporting catering activities;
- tourism activities and experiences including Stadium tours and Haka on the Park;
- non-sporting activities including community, charitable and cultural events;
- rugby and cricket training and education;
- event day staff training and education;
- stadium maintenance; and
- event preparation.

Several vehicle crossings access points are available on all road frontages to provide access for parking (approx. 310 spaces) and servicing on a day to day basis.

### 2.4 Surrounding Road Network

Eden Park is centrally located in the Auckland region approximately 4km south of the Auckland CBD and is readily accessible via all transport modes. It is well served by the arterial road network with both Sandringham Road and Dominion Road running in the north-south direction and New North Road and Balmoral Road running in an east-west direction. The wider road network surrounding the site is shown in **Figure 1**, while the roads in the immediate surround are shown in **Figure 2**.

Eden Park can be easily approached from many different directions with the north-western motorway being the closest strategic route. The range of route choices to/from Eden Park means that there is not a reliance on one main route and any distribution of traffic flows is likely to be spread over several roads.

Primary access to Eden Park on the immediate road network will be via Sandringham Road and to a lesser extent Walters Road and Reimers Avenue.



Figure 2: Road Network in the Vicinity of the Site

Source: Geomaps, Auckland Council

### 2.4.1 Sandringham Road

Sandringham Road is classified as an Arterial Road in the AUP functioning primarily to transport the traffic between areas of the city. In the vicinity of the site, Sandringham Road has a typical carriageway width of 15.0 metres. Sandringham Road has two traffic lanes in each direction separated by a painted flush median. During the peak commuter periods bus lanes operate northbound (AM peak) and southbound (PM peak).

Parking on Sandringham Road is available on the western side and to the north and south of the site on the eastern side of Sandringham Road (except when bus lanes are operating). Parking is prohibited at all times immediately along the site frontage between Walters Road and Reimers Avenue.

The most recent traffic counts on Sandringham Road (between Onslow Road and Walters Road) were carried out by Auckland Transport in November 2018. Details of the traffic count are summarised in **Table 1**.

Table 1: Traffic Counts on Sandringham Road

Direction	Weekday	Saturday	Sunday	Weekday		
				AM Peak	Midday Peak	PM Peak
Both	17,574	16,584	13,105	1,160	1,326	1,497

### 2.4.2 Dominion Road

Dominion Road is located approximately 500 metres east of Eden Park. It is classified as an Arterial Road in the AUP. It typically has a carriageway width of 15.0 metres to support two traffic lanes in each direction separated by a painted flush median. During the peak commuter periods bus lanes also operate northbound (AM peak) and southbound (PM peak).

The most recent traffic counts on Dominion Road (between Valley Road and Bellwood Avenue) were carried out by Auckland Transport in September 2018. Details of the traffic count are summarised in **Table 2**.

**Table 2: Traffic Counts on Dominion Road**

Direction	Weekday	Saturday	Sunday	Weekday		
				AM Peak	Midday Peak	PM Peak
Both	20,621	20,456	17,178	1,362	1,453	1,514

### 2.4.3 New North Road

New North Road connects Symonds Street in the east, and Blockhouse Bay Road in the west. It is the main route serving Kingsland, St Lukes, Mount Albert, and Avondale areas, and is classified as an Arterial Road in the AUP.

In this general location, New North Road has a kerb to kerb carriageway width of some 15.4 metres, which provides two traffic lanes in each direction separated by a painted flush median. Kerbside parking is permitted on both sides of the road, where some places have time or pay-and-display restrictions. During peak commute hours, clear way restriction applies on the road and kerbside lanes are available for the public.

The most recent traffic counts on New North Road (between Kingsland Avenue and Western Springs Road) were carried out by Auckland Transport in November 2018. Details of the traffic count are summarised in **Table 3**.

**Table 3: Traffic Counts on New North Road**

Direction	Weekday	Saturday	Sunday	Weekday		
				AM Peak	Midday Peak	PM Peak
Both	15,381	13,287	10,769	1,344	1,113	1,366

### 2.4.4 Surrounding Local Streets

Walters Road connects between Sandringham Road and Dominion Road along the northern edge of Eden Park. Uninterrupted two-way flow is possible in the street and parking available on both sides. Walters Road is one of the primary roads used by pedestrians to access Eden Park to attend events as it provides a connection between Kingsland Railway Station, Sandringham Road and the stadium. It is regularly used by vehicles to travel between Sandringham Road and the commercial areas on Dominion Road. Speed tables and traffic management measures are in place along its length recognising the important for low speeds for pedestrian protection during events.



Reimers Avenue and Cricket Avenue are designated as local roads and together with other local roads also connect Sandringham Road and Dominion Road. The primary function of both roads is access for residential properties as well as to the Eden Park precinct.

Walters Road and Reimers Avenue intersect with Sandringham Road and each side road is controlled by a stop sign.

## 2.5 Public Transport Accessibility

The surrounding area is well served by public transport, including Kingsland Station directly opposite the Stadium and Morningside Railway Station 800m away.

Several bus routes run along Sandringham Road, New North Road and Dominion Road, linking Auckland City Centre and wider area of Auckland Central as shown in **Figure 3**. The bus service on these roads operate every five to ten minutes during peak commute hours, and every fifteen to thirty minutes at other times. The nearest bus stops are located on Sandringham Road north of Altham Avenue, which is along the site frontage.

Kingsland Railway Station is located within 200 metres walking distance from Eden Park, and Morningside Station is approximately 800m walking distance. Both stations are serviced by the Western Line train service, which connects Britomart (Auckland City Centre) and Swanson via Mount Albert, New Lynn and Henderson. It operates every 10 to 20 minutes however with the completion of the Central Rail Link (CRL) project, frequencies of trains and capacity on the rail network will increase.

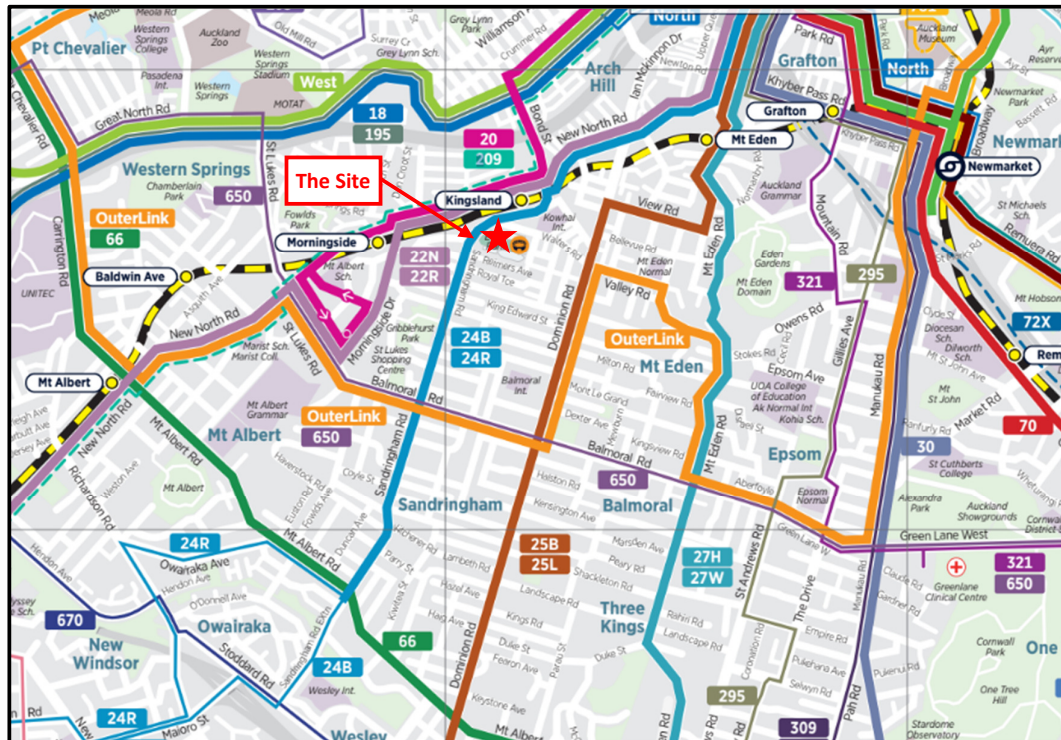


Figure 3: Local Public Transport Routes  
Source: [Central Guide, May 2019, Auckland Transport](#)

## 2.6 Pedestrian Accessibility

Footpath connections currently exist on most roads surrounding the site and across the railway line to New North Road and the Kingsland commercial centre. Several walkways also exist around the Eden Park site connecting the main stadium entrance to the footpath network.

**Figure 4** below illustrates the key pedestrian routes to and from Eden Park for pedestrians from the surrounding areas and transport hubs. There is a clear concentration of pedestrian movement to and from the Kingsland and Morningside rail stations, key bus transport routes and the Kingsland and Dominion Road commercial centres that provides opportunities for pre-event hospitality.

In 2010, pedestrian facilities along Sandringham Road and Walters Road were upgraded to provide better pedestrian access to public transport to and from Eden Park. Some of these improvements included a new signalised crossing across Sandringham Road directly to the Kingsland Train Station, a new pedestrian walkway between Sandringham Road and Walters Road and the installations of speed tables along Walters Road for traffic calming effects. Any temporary traffic management surrounding the stadium supports these key routes to ensure safe and efficient movement of pedestrians before and after an event. Together, these all provide a high level of accessibility for pedestrians during an event.

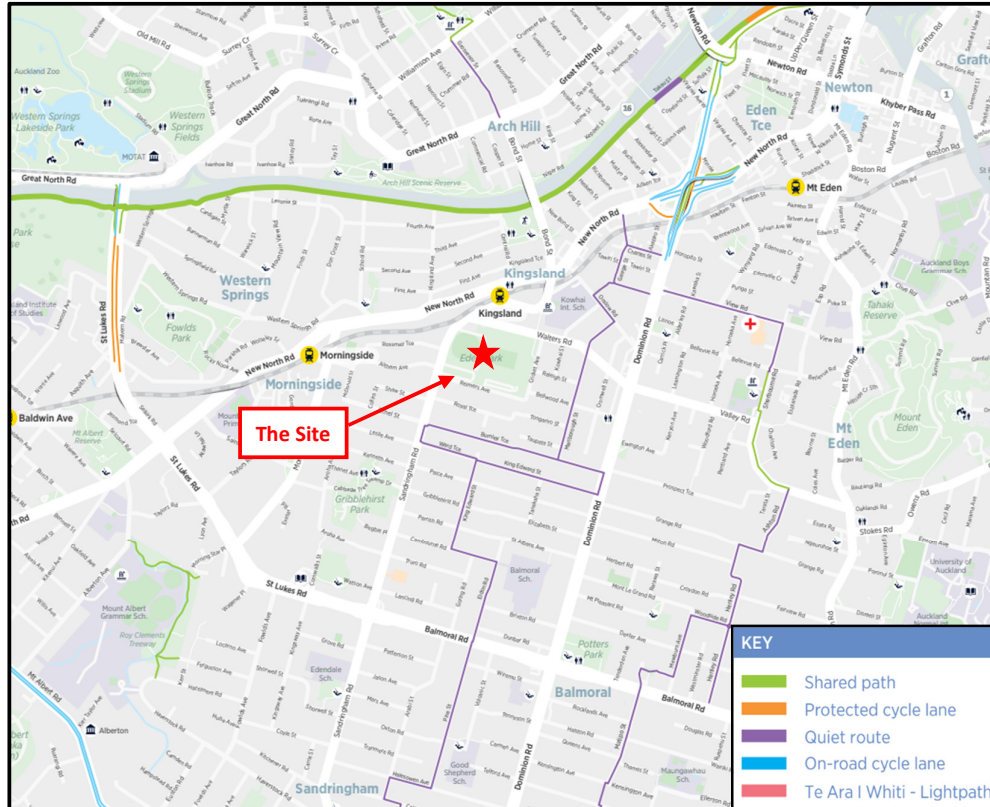


**Figure 4: Primary Pedestrian Routes to and from Eden Park**

## 2.7 Cycling & E-Scooter Accessibility

The Auckland Transport Central Cycle Map shown in **Figure 5** for the area indicates that no specific off-road or on-road cycle lanes currently exist in the area immediately around Eden Park. Nevertheless, some local roads surrounding the stadium are identified as quiet routes suitable for cyclists. Those routes also connect to the on-road cycling lanes on Dominion Road linking to the shared path along North-Western Motorway.

Patrons regularly use cycling and e-scooters to attend events at Eden Park. Drop off zones are provided around the venue for the storages of bikes and scooters in safe convenient places.



**Figure 5: Site Vicinity Cycling Provisions**

Source: [Cycle Map \(Central\), Auckland Transport](#)

## 2.8 Event Traffic Management

As an established major event venue, Eden Park regularly prepares and implements Event Traffic Management Plans (TMPs) to manage traffic and pedestrian movement associated with events which is consistent with Standard I310.6.4 of the Eden Park Precinct provisions.

There are a range of TMP responses depending on the crowd size and the type of event. For a full capacity event at Eden Park (crowds over 35,000 people) "TMP-5" is typically implemented. An example of this plan is included in **Attachment 1**.

The traffic management response around the Eden Park environs is designed to mitigate the effects of the event and ensure traffic flow and pedestrian safety is maintained while minimising the impact traffic management has on the surrounding neighbourhood.

Eden Park works closely with neighbours and with Auckland Transport to implement suitable TMPs. This typically includes a communication strategy and periodic roads closure and parking controls to manage effects immediately around the stadium.

Venue hirers and event organisers also work with Auckland Transport to provide additional bus and train services to accommodate the increased demand relating to an event and the potential for integrated ticketing making the use of public transport much easier for event goers.

Continuing assessment and improvement of these TMPs is undertaken regularly with all key stakeholders to ensure any issues that are raised are addressed for the next event. Regular meetings are held with the Community Liaison Group (CLG) to gather feedback and discuss many topics including the TMP's. Any changes to TMP's are approved by Auckland Transport prior to implementation at an event or events.

## 3.0 THE PROPOSAL

### 3.1 General Description

The details of the proposal are set out in the AEE, but basically, it involves the following key transport related outcomes:

- Allowing concerts to be held at Eden Park;
- No more than six concert days will be held within any 12-month period (not including pack in and pack out days);
- Concert days would be permitted any day Monday to Saturday and any Sunday preceding a public holiday (but likely to occur between Thursday and Saturday inclusive);
- On weekdays, scheduled start times will be no earlier than 6:30pm for any supporting acts and 7:30pm for any main acts;
- On weekends, scheduled start times could be earlier which is the same as any daytime or evening event as currently permitted;
- Scheduled finish times will be no later than 11:00pm on Fridays, Saturdays and any Sundays preceding a public holiday and 10:30pm on all other days; and
- Crowd sizes no more than 60,000 people on Saturdays and Sunday nights preceding a public holiday and 50,000 people on all other days.

The application has intended to remain consistent with the permitted maximum crowd size of 50,000 people for weekday events recognising the need to mitigate any transport effects during the evening commuter peak. However, given the spare network capacity available on weekends, a crowd size of up to 60,000 is sought as part of the application.

The typical timeframes necessary to hold a concert involve up to 7 days of preparations on-site to construct the necessary infrastructure including turf protection, security fencing, stage and production infrastructure. On the day of the concert, completion of the production continues, catering, venue security and customer services, transport management and ticket staff will arrive on site to prepare for the event.

Following the completion of the event or the final performance (if a series of concerts), the pack down of the production equipment begins immediately and is completed the following day. Over the next three days the stage, temporary structures and turf protection are deconstructed and removed from the site.

### 3.2 Stage Position / Crowd Size

There are three key options for a stage position within the stadium, each of which will have an impact on the crowd size and therefore related transport effects. Depending on the shape of the stage and whether the field is used for seating or standing general admission the following estimated crowd sizes can be expected.

Stage Position	Estimates Crowd Size
Eastern End	42,000 – 46,500
Western End	40,000 – 45,500
Central 360°	58,000 – 60,000

As with most stadiums, any stage position at one end will reduce the seating capacity as some seats will not have views of the stage or are required for backstage or production arrangements. These seats are typically replaced with general admission or seating on the field and as indicated above, will result in a crowd size of up to 50,000 people which is consistent with what is currently permitted. However, a central 360° stage has a potentially greater crowd capacity as it the full seating capacity plus on-field areas can be utilised (either standing general admission or seated).

The most likely stage position is at the eastern end of the field as it optimises the accessibility of the stadium and takes advantage of the outer oval to accommodate on-field patrons that arrive early within the stadium environs and provide them with food & beverage and facilities that are typically available within the grandstands. An example of an eastern stage position is illustrated in *Figure 6*.

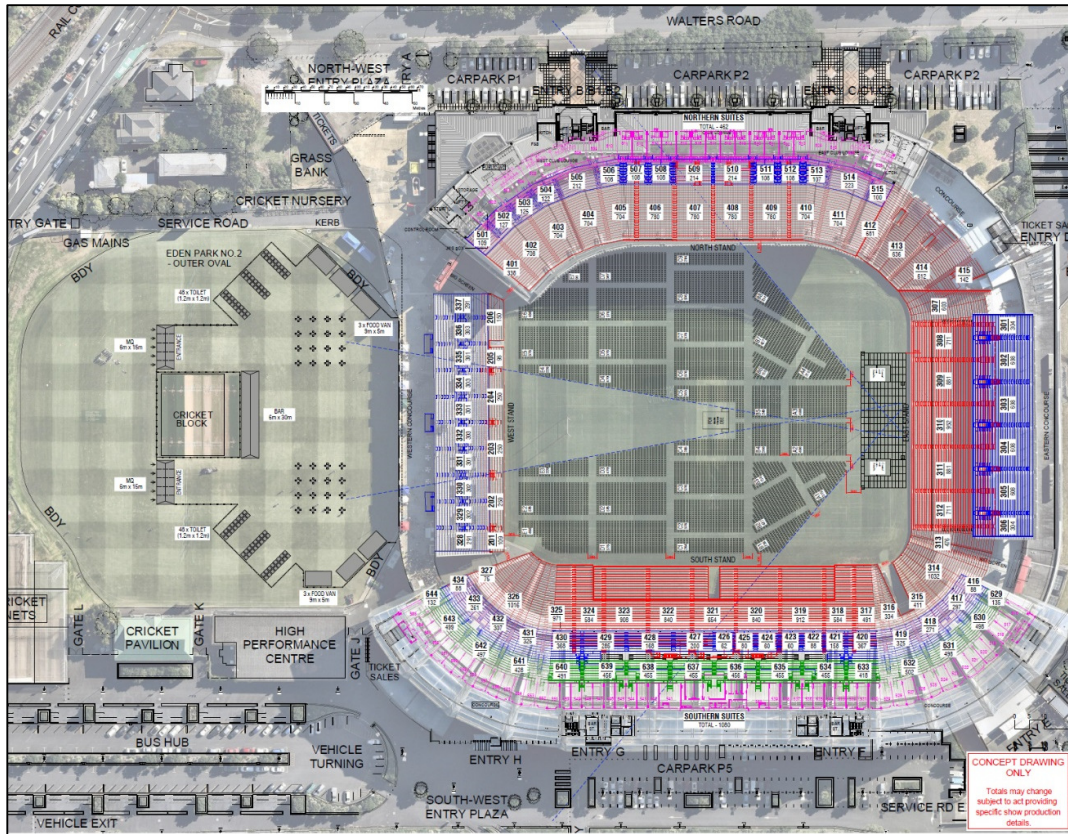


Figure 6: Example Stadium Layout (East Stage)

Source: Beca

### 3.3 Event Set Up / Pack Down

As set out above, up to 7 days is required to erect and up to 3 days to deconstruct the concert production before and after the event respectively. The number of staff on site during the pack in and pack out periods will vary for each day from 40 to around 200 people per day depending on the stage of preparation or disestablishment.

All this activity will occur well within the stadium itself except for the movement of trucks to and from Eden Park with the necessary equipment and materials. Information provided by an event promoter indicates that up to 50 container loads of equipment will be delivered to the site over the 7 days prior to the event and then removed again following the event. This represents a total of up to 200 truck movements, 100 occurring before the event and 100 occurring after the event.

Immediately following the completion of the event, containers will start to be loaded and removed from site. Trucks and containers will be stored on site prior to the concert beginning so that loading will begin at the completion of the event. Depending on the size of the event, up to 25 trucks will be loaded and leave the site within the first 5 hours or one every 15 minutes.

Trucks are proposed to approach the site from the North-Western Motorway via St Lukes Road and Sandringham Road before turning into the site either via the bus interchange or via Gate Q direct from Sandringham Road. The painted flush median on Sandringham Road provides suitable refuge for trucks to wait while turning right into the site and avoid any disruption of through movement on Sandringham Road.

Both access points link to the tunnel under the southern stand and a loading area under the western stand. This provides some flexibility when accessing the site and depending on stage positions. Also, all trucks will therefore be able to enter and leave in a forward direction. The route shown on Figure 7 can operate in either direction.

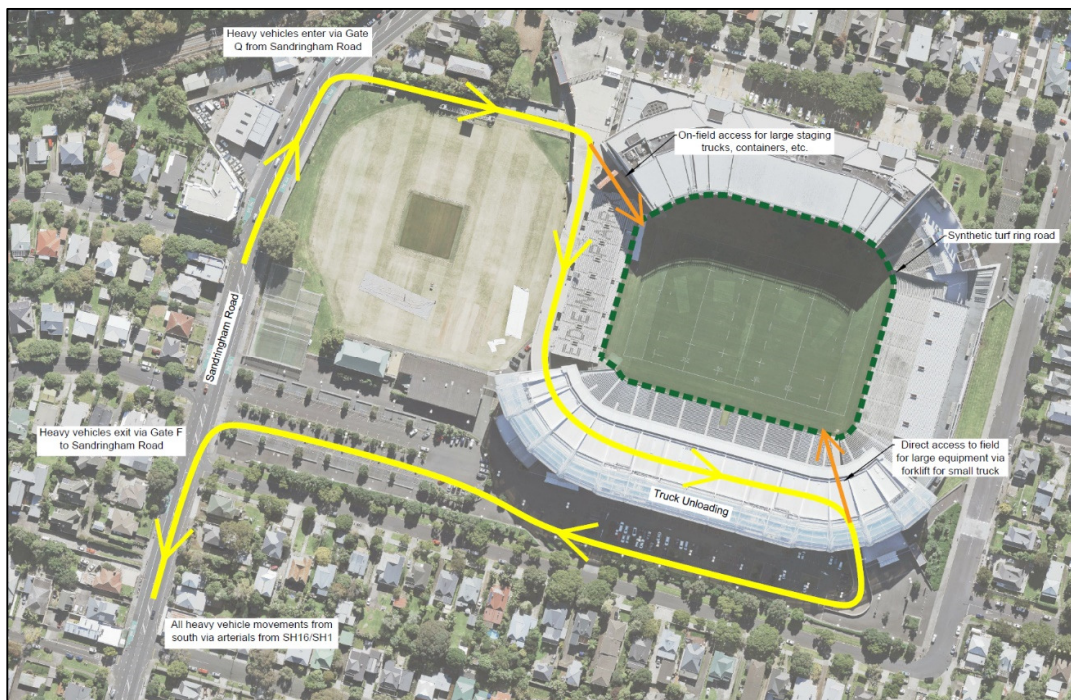


Figure 7: Truck Access to the Site

### 3.4 Event Day

On the day of the event, activities typically continue like any other event with traffic management infrastructure put in place, catering and supplies delivered to the stadium, catering and venue staff arriving and the final production set up for the stage.

The event itself is expected to follow a general schedule as follows and will inform the transport effects relating to crowd arrivals and departures.

Activity	Monday to Friday	Saturday	Sunday
Stadium Gates Open	5:00pm	Varies	Varies
Supporting Act Starts (if booked)	No earlier than 6:30pm	Varies	Varies
Main Act Starts	No earlier than 7:30pm	No later than 8:00pm	No later than 8:00pm
Scheduled Finish	10:30pm (11:00pm on Friday)	No later than 11:00pm	No later than 10:30pm

### 3.5 Trip Characteristics of Crowd

To assess the impact on the wider transportation network, including public transport, a predicted arrival profile for the event has been prepared for a weekday event as this is expected to have the greatest impact on the transport network given the other day to day demands on weekday evenings.

This profile has been developed based on information provided by the Eden Park Trust including the crowd size and the rate of arrival measured from two near capacity rugby test matches played at Eden Park in 2016, namely the:

- All Blacks vs Wales – 11<sup>th</sup> June 2016; and
- All Blacks vs Australia – 22<sup>nd</sup> October 2016

Although both these events occurred on weekends, there is no evidence to suggest that the arrival profile will be any different from a weekday to weekend event. There are several factors that influence arrival profiles and mode choice including the type of act, the demographic of the audience, the time gates open and the communication strategy around travel during the lead up to the event. The two rugby matches were utilised for the following reasons:

- The actual crowd attendance for each match were near capacity events with 39,000 and 43,000 respectively and was managed with the same local traffic management response (TMP – 5) as proposed for a full capacity concert event;
- The likely attendance and mode split are also expected to be similar for concerts with a mixture of about 50% Auckland based crowd with 50% of visitors from out of town or overseas;
- The public transport provisions and communications strategies are also expected to be similar;
- Gates will open at a similar time relative to the start of an event; and
- We are not aware of any constraints on the network at the time of the 2016 events that may influence route or mode choice by the respective audiences.



Notwithstanding that stadium gates are not expected to open until 90 minutes before any act is scheduled to begin on stage, concerts typically have a portion of the crowd arrive early in order to gain a good position within the standing general admission areas (where general admission areas are standing rather than seated). Catering for these people on the outer oval field will ensure that these people are kept clear of road reserve and within the site in a managed area. This is not too dissimilar to a major rugby match where some patrons arrive early in the afternoon and take advantage of the nearby hospitality in Kingsland and Dominion Road before walking to the stadium.

It is anticipated that 44% of a crowd will arrive before the start of any supporting act (before 6:30pm) and then growing to 80% by the end of supporting act (around 7:15pm). I considered this to be the most likely profile for most events and a reasonable basis for assessment. Nevertheless, should Council want to consider an earlier arrival profile, then the same profile could be used with timings adjusted to be 45 minute earlier. i.e. 80% of the crowd arriving before the beginning of the supporting act at 6:30pm. With an attendance of 50,000 people and the gates opening at 5:00pm, the arrival profile is set out in **Table 6**.

**Table 6 – Event Arrival Profile**

Time (PM)	% of Total Crowd	% of Total Crowd (cumulative)	No. of People	No. of People (Cumulative)
Before 4:45	2%	2%	1,000	1000
4:46 - 5:00	2%	4%	1,000	2,000
5:01 -5:15	2%	6%	1,000	3,000
5:01 -5:15	2%	8%	1,000	4,000
5:16 - 5:30	6%	14%	3,000	7,000
5:31 - 5:45	6%	20%	3,000	10,000
5:46 - 6:00	8%	28%	4,000	14,000
6:01 - 6:15	8%	36%	4,000	18,000
6:16 - 6:30	8%	44%	4,000	22,000
6:31 - 6:45	12%	56%	6,000	28,000
6:46 - 7:00	12%	68%	6,000	34,000
7:01 - 7:15	12%	80%	6,000	40,000
7:16 - 7:30	10%	90%	5,000	45,000
7:31 - 7:45	5%	95%	2,500	47,500
7:46 - 8:00	5%	100%	2,500	50,000

Information on the type of travel to Eden Park was also measured during the two rugby test matches in 2016 and shows the following percentages of crowd used various public transport options. The balance of the crowd either arrived in a car or taxi, walked or cycled to the event.

- Private Chartered Buses - 3%
- Regional Bus Services - 15%
- Trains - 40%
- Other - 42%

Transposing this split in travel choice to the arrival profile identified above, **Table 7** sets out the number of patrons expected to use each of the modes to travel to a weekday event.

**Table 7 – Travel Choice Split**

Time	No. of People Arriving	No. People Arriving by Mode			
		Charter Bus (3%)	Regional Buses (15%)	Train (40%)	Others (42%)
Before 4:45	1,000	30	150	400	420
4:46 - 5:00	1,000	30	150	400	420
5:01 -5:15	1,000	30	150	400	420
5:01 -5:15	1,000	30	150	400	420
5:16 - 5:30	3,000	90	450	1,200	1,260
5:31 - 5:45	3,000	90	450	1,200	1,260
5:46 - 6:00	4,000	120	600	1,600	1,680
6:01 - 6:15	4,000	120	600	1,600	1,680
6:16 - 6:30	4,000	120	600	1,600	1,680
6:31 - 6:45	6,000	180	900	2,400	2,520
6:46 - 7:00	6,000	180	900	2,400	2,520
7:01 - 7:15	6,000	180	900	2,400	2,520
7:16 - 7:30	5,000	150	750	2,000	2,100
7:31 - 7:45	2,500	75	375	1,000	1,050
7:46 – 8:00	2,500	75	375	1,000	1,050

Consideration has been given to obtaining information of other venues and their arrival profile and mode share for concerts. However, every venue will be different due to its location and accessibility to the various modes. For example, Mt Smart Stadium has a limited access to rail and no hospitality precinct nearby and Western Springs has no access to rail or any nearby hospitality.

This means any results on mode share and arrival profile would be significantly different to an event at Eden Park where all modes have a high level of accessibility and audiences have a choice to travel early and be entertained either in Kingsland, Dominion Road or on site.

What this does highlight, is that in terms of transport effects, Eden Park and its surrounding environment has the greatest potential to manage effects and to adapt to different audience types and any transport issues that might arise.

## 4.0 TRANSPORT ASSESSMENT

As explained in the application, a concert is a discretionary activity under the Eden Park Precinct provisions. There are no standards for discretionary activities. However, the Precinct standards, which control the effects of permitted, controlled and restricted discretionary activities, provide an anticipated effects envelope.

Under the Eden Park Precinct standards (I310) of the Auckland Unitary Plan, there are various key standards that have transport considerations that require consideration to allow an event to occur as proposed:

- **I310.6.4 – Traffic Management** – which sets out the traffic management requirements for each event.
- **1310.6.5 – Parking** – specifies the parking requirement for the precinct when a TMP is not in effect.
- **1310.6.11 - Organised sports events and recreational activities undertaken at night time on the Number 1 field** – which sets out the permitted, days of the week and times at which they can occur.

### 4.1 I310.6.4 – Traffic Management

The Precinct standards for Traffic Management (I310.6.4.) state that activities must meet at least one of the following traffic management standards:

- (1) *The activity and management of associated transport and traffic effects is undertaken in accordance with a Transport and Traffic Management Plan authorised by Auckland Transport.*
- (2) *Organised sports and recreation activities which generates a crowd of less than 5,000 people and does not require the closure of a public road; or*
- (3) *Any other activity undertaken at night time which generates a crowd of less than 2,000 people and does not require the closure of a public road.*

From a transport perspective, provided one of the above standards can be met, a concert event has no real difference in effect compared to typical sporting event of a similar size under this standard. The arrival and departure of patrons and the transport needs of neighbours is anticipated to be the same as any other large event and therefore no special requirements are necessary for a concert compared to any major sporting event.

The likely TMP to be used for concert event (TMP-5) is provided in **Attachment 1**. TMP-5 is used to manage pedestrian and vehicle movements for the largest crowd sizes that can occur at Eden Park (>35,000). It has been used regularly over the past few years and it has been an effective tool to manage effects of large events at Eden Park.

TMP-5 has a focus on road closures close to the Eden Park environs where pedestrian demands are at the highest and their safety is paramount.

A second layer of controlled access is then provided to limit the amount of vehicle activity close to Eden Park and to minimise non-resident parking close to the stadium. The controlled access still allows residents access to their properties with the necessary permits.

The final layer sets aside on-street parking outside of the road closures for special event vehicles such as buses, taxis and mobility parking for patrons and then for residents that have lost their on-street parking due to the road closures.

As stated above the TMP's are continually monitored and refined with every event to ensure they are as effective as possible. If stakeholders have specific concerns with the use of TMP for an event, they can contact EPT to raise their concerns either on the day via the Eden Park hotline or by email following the event. This is an important part of the communication plan around an event and is the current practice with all Eden Park events. Residents can also raise these matters through the Community Liaison Group (CLG) that has been specifically set up to provide resident groups and stakeholders with the opportunity to raise concerns with events and the TMP's and to request modifications.

As set out in Section 2.8, any large events at Eden Park include a Traffic Management Plan that is approved by and implemented in conjunction with Auckland Transport. Standard I310.6.4 (1) will therefore be satisfied for any proposed concert event.

#### **4.2 I310.6.5 – Parking**

The standard states the following:

- (1) *Parking for a minimum of 310 cars must be retained within the precinct unless an authorised Transport and Traffic Management Plan is in effect.*

As a Traffic Management Plan will be in place during the day of any concert, this standard would not apply. However, during the pack in and pack out days a minimum of 310 parking spaces will need to be maintained on site to meet the needs of other activities.

According, the proposal intends to meet this standard for each event except for on concert day. All of the main parking areas can continue to be available for parking before and following a concert day.

#### **4.3 I310.6.11 – Organised Sports and Recreational Events Undertaken at Night**

As set out above, this standard relates specifically to organised sports and recreational events undertaken at night and not non-sporting activities such as the proposal.

However, some of the standards provide good guidance as to the permitted transport effects envelope for an event. Particularly with regards to the timing of an event and the day of the week that it occurs. As stated above, the transport characteristics of a concert on the day of an event is no different to a large sporting event such as a rugby or cricket match. It is therefore appropriate, when considering effects, to assess the proposal against some of these standards.

The proposal has been considered against I310.6.11 and triggers an assessment with the following standards:

Reference	Standard	Proposal
1310.6.11 (3)	<i>If scheduled between Monday and Friday (inclusive), these activities (excluding day/night cricket test matches) must commence after 7:30pm and be scheduled to finish no later than 9:30pm. Activities on public holidays are excluded from these time limits</i>	The proposal has a scheduled start of 6:30pm on weekdays if there is a supporting act and scheduled finish at 10:30pm on weekdays.
1310.6.11 (5)	<i>These activities must not be undertaken on a Sunday</i>	The proposal would allow concerts to occur on a Sunday if it is preceding a public holiday.
1310.6.11 (7)	<i>The crowd attending any of these activities must not exceed 50,000 persons</i>	The proposal would allow crowd sizes up to 60,000 on weekend nights.

#### 4.3.1 1310.6.11 (3) – Scheduled Start Time Before 7:30pm on a Weekday

There is no restriction for an event, and in the case of a concert, the main act, starting after 7:30pm. Therefore, the only matter for assessment is the early scheduled start time of 6:30pm on a weekday night for a supporting act.

The key transport effect of starting an event earlier is the overlap of patrons arriving at the stadium with the evening commuter peak. The ability for the network to accommodate the additional demand is an important element of ensuring effects can be suitably managed, particularly with the added demands on the public transport network.

Notwithstanding the earlier start time, it is anticipated that the general transport effects for this event can be suitably mitigated. The following points are noted in this regard:

- (a) Analysis of the arrival numbers in Tables 6 above suggest that the period between 5:45pm and 7:15pm is when the intensity will be at its highest with 30,000 people arriving at the stadium. This is like a typical rugby match that would begin at 7:35pm and which is permitted. The effects of which are therefore considered to be no different to a permitted event.
- (b) With a concert, crowd arrival is also spread across a longer period with the ability for patrons to arrive earlier than the evening peak and take advantage of hospitality nearby and on site. This is slightly different to a conventional build up to rugby matches where general admission gates open 2.5 hours prior to kick off at the earliest. Some rugby matches also have pre-match hospitality, but these are typically limited to large occasions such as test matches.
- (c) Over 70% of the crowd is anticipated to arrive after 6:00pm and therefore towards the end of the evening commuter peaks and the full capacity not anticipated until 8:00pm, which is a later start time than a permitted rugby match.
- (d) With the completion of the CRL project. Increase frequency of train services and therefore capacity on the rail network to accommodate a greater demand for passengers.

- (e) The event is held under an operational traffic management plan approved by Auckland Transport to manage traffic and pedestrian movement associated with the event. This can include the provision of additional bus and train services to accommodate the increased demand. A communications strategy covering the event and travel planning of patrons, local residents and the wider community is also included all aimed at minimising transport effects.
- (f) The traffic management response around the Eden Park environs can be designed to mitigate the effects of the event and ensure traffic flow and pedestrian safety is maintained while minimising the impact traffic management has on the surrounding neighbourhood.

#### **4.3.2 I310.6.11 (3) – Scheduled finished Time After 9:30pm on a Weekday**

At the end of the event, the departure of people will follow a similar profile as any capacity event with similar transport effects to an event with a scheduled finish time of 9:30pm or 10:00pm (in the case of T20 and ODI cricket).

It is also no different to concerts that are held at Western Springs or Mt Smart Stadium finishing later than 9:30pm or 10:00pm, which is a regular occurrence. We are not aware that any other venues are subject to the same expectations around early finish times, or days of the week for reasons of transport effects.

Eden Park Trust, venue hirers and event organisers work closely with Auckland Transport and agree (under contractual agreements) as to the provision of traffic management and additional public transport services and when they would be provided. Transport plans put in place at previous events have proven to work and there is no evidence to suggest this is not the case with this event.

Furthermore, it is important to remember that public transport is not the only option for travel to and from Eden Park. A significant proportion of patrons travel by other means. The implementation of the appropriate level TMP is a proven method to minimise any related effects on the network and neighbours regardless of the level of public transport provision utilised by patrons.

#### **4.3.3 I310.6.11 (5) – Concerts on a Sunday Preceding a Public Holiday**

It is not anticipated that the general transport effects from allowing a concert to occur on a Sunday would be any different than if it took place on a Saturday. The following points are noted in this regard:

- (a) Standard I310.6.4 'Traffic Management' of the Eden Park Precinct requires that the activity and management of associated transport effects be undertaken in accordance with a Transport and Traffic Management Plan authorised by Auckland Transport.
- (b) The traffic management response around the Eden Park environs is designed to mitigate the effects of traffic and ensure pedestrian safety while minimising the impact traffic management has on the residential amenity.

- (c) Special train and bus services can be put in place for large events and provided these are available there is no material difference in effect.
- (d) With any event occurring on a Sunday before a public holiday (i.e. Auckland Anniversary), a reduced demand for public transport and its drivers will be required the following day. This will assist in ensuring a high level of additional public transport can be provided for the event without impacting on public transport requirements on the Monday. This is a conventional method of managing travel demands of patrons associated with major events and is a regular occurrence where events at Eden Park.
- (e) Traffic flows on the surrounding road network on a Sunday are typically lower than on a Saturday suggesting that the overall effects will be less as there is additional capacity in the network to accommodate vehicle activity associated with an event. For example, vehicle flows measured by Auckland Transport on Dominion Road show that daily flows on a Sunday are 12% less than those recorded on a Saturday.

#### **4.3.4 1310.6.11 (7) – Crowd Size Exceeding 50,000**

As set out in Section 3.2, various crowd sizes can be expected depending on the orientation of the stage and the seating arrangement on the field. In all instances, the predicted crowd sizes will be below 50,000 except in one instance when a 360° stage is used. Under this scenario, a concert has the potential crowd size up to 60,000.

Eden Park has successfully held events of this size during the 2011 Rugby World Cup where crowds of 60,000 people attended. At the time, the traffic management response around Eden Park environs was similar in nature the current TMP-5.

In order to mitigate the effects of a larger crowd size, it is intended to limit concerts of this size to Saturdays and Sundays preceding a public holiday for the following reasons:

- (a) Traffic flows on the surrounding road network on a Saturday and Sunday evening are much lower than on a weekday suggesting that the overall effects will be less as there is additional capacity in the network to accommodate any additional vehicle activity associated with an event.
- (b) There is a greater opportunity to provide additional train and bus services to accommodate the increase in demand as there is a lower demand for regular services on weekends compared to the weekday evenings.

#### **4.4 Effects of the Set Up and Pack Down**

As set out above, up to 7 days is required to erect and up to 3 days to deconstruct the infrastructure around a concert before and after the event respectively. All this activity will occur well within the stadium itself except for the movement of trucks to and from Eden Park with equipment.

Based on information provided by an event promoter it is anticipated that about 50 container loads of equipment will be delivered to the site over the 7 days prior to the event and then removed again following the event. This represented a total of 200 truck movements, 100 occurring before the event and 100 occurring after the event.

Trucks are proposed to approach the site from the North-Western Motorway via St Lukes Road and Sandringham Road before turning into the site via Gate Q to access the tunnel to the ground for unloading and loading and departing via the bus interchange. All trucks will therefore be able to enter and leave in a forward direction and avoid the residential local streets of Walters Road, Reimers Avenue and Cricket Avenue.

This level of truck activity on an arterial road network is negligible and well within any daily variations in flows, such that no mitigation will be required.



## 5.0 CONCLUSIONS

The following conclusions can be made in respect of the proposal to enable 6 concerts in any 12-month period to be held at Eden Park:

- The likely transport effects on the day of a concert event are no worse than any other sporting or recreational event;
- The traffic management response around the Eden Park environs can be designed to mitigate the effects of the event and ensure traffic flow and pedestrian safety is maintained while minimising the impact traffic management has on the surrounding neighbourhood; and
- The proposed methodology for transportation required for the set up and disestablishment of a concert stage and related infrastructure will ensure that any effects on the surrounding environment will be limited to truck movements to and from site. The intensity of truck movements can be accommodated on the surrounding network with minimal adverse effect such that no further mitigation is required.

The impacts on the wider transport network can be adequately mitigated in the following ways:

- (a) Implementation of tailored traffic management plans around Eden Park appropriate to the size of each event;
- (b) Providing additional train services and carriages on the Western Line;
- (c) Providing special event bus services from regional centres as a direct service to Eden Park; and
- (d) Contributing to a communications strategy covering the event and travel planning of patrons and the wider community.

Overall, it is considered that the transport effects of a concert can be accommodated without compromising its function, capacity, or safety.

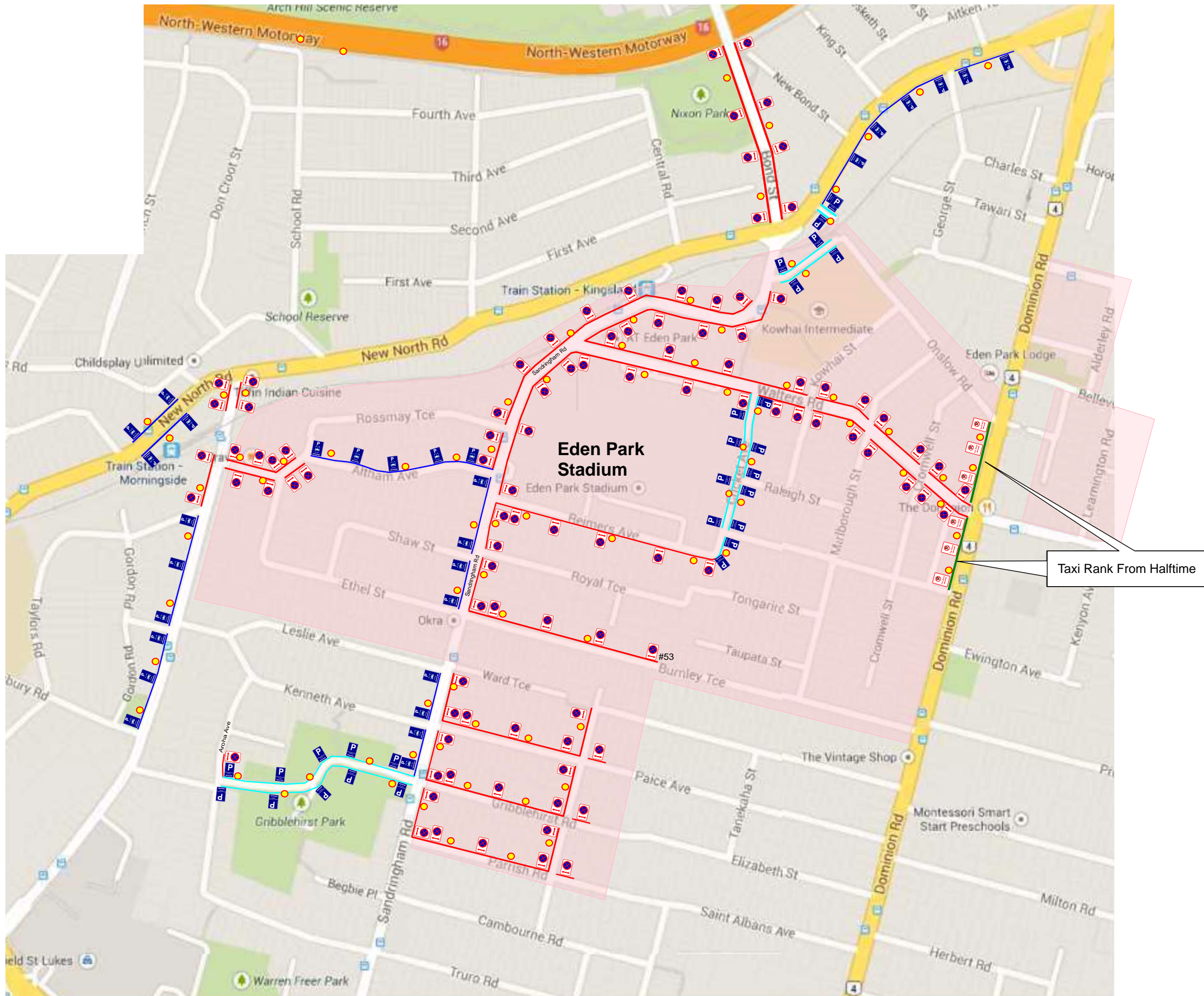
Prepared by,



Todd Langwell

# ATTACHMENT 1

Eden Park  
TMP-5



Taxi Rank From Halftime

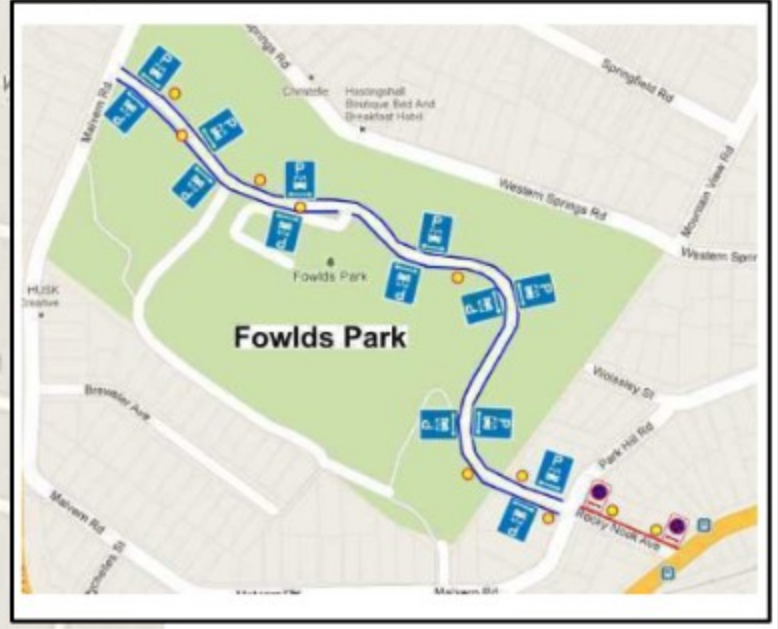
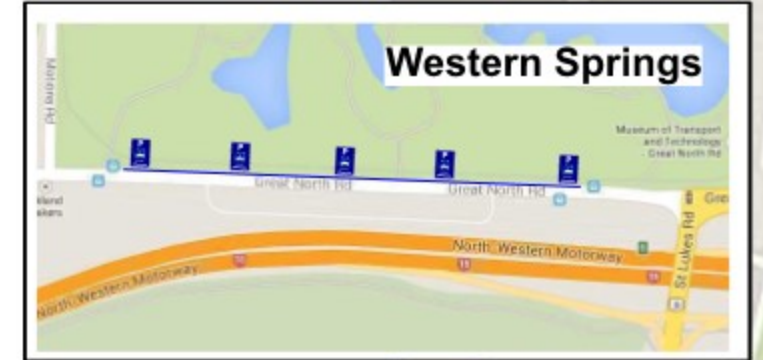
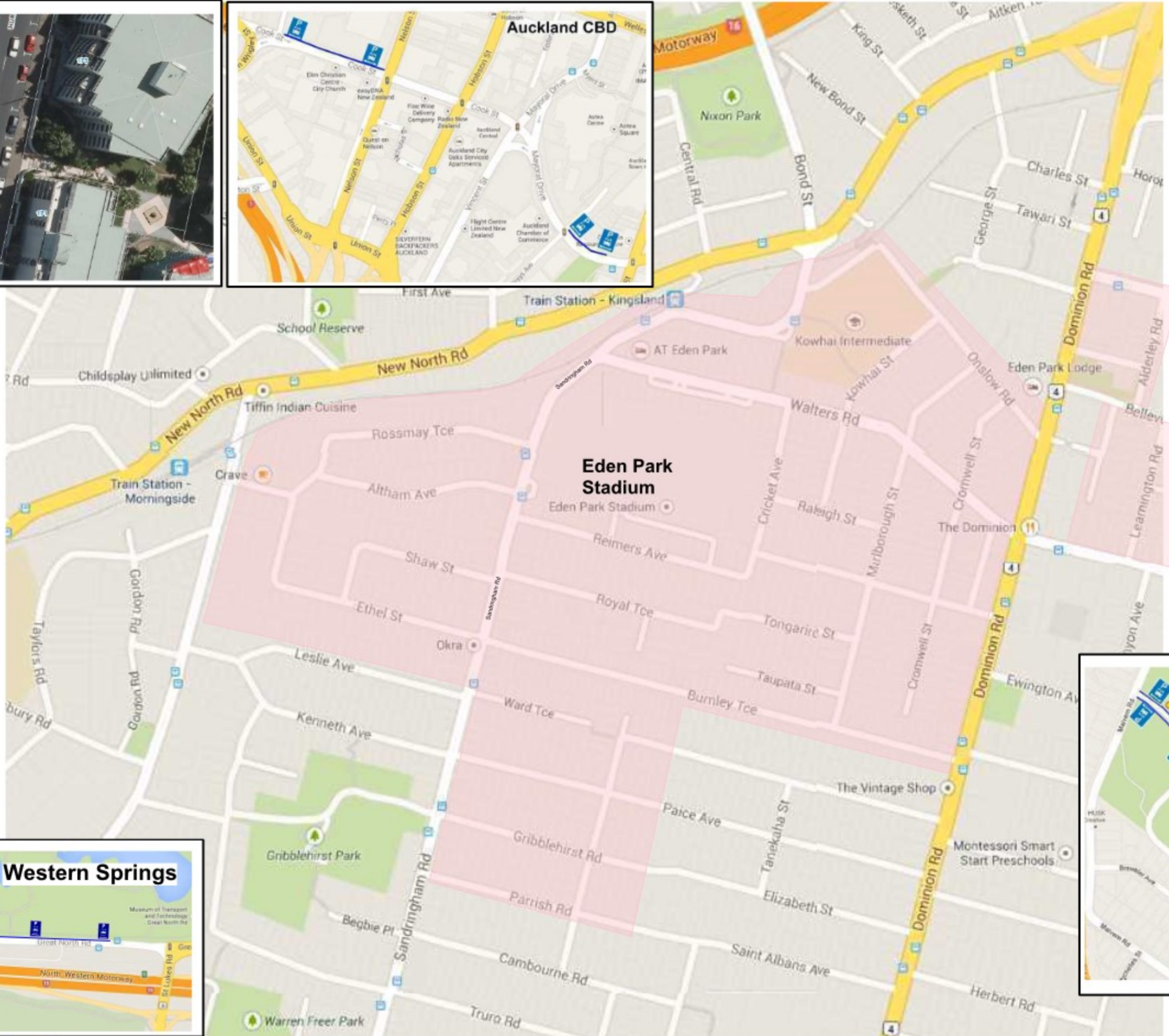
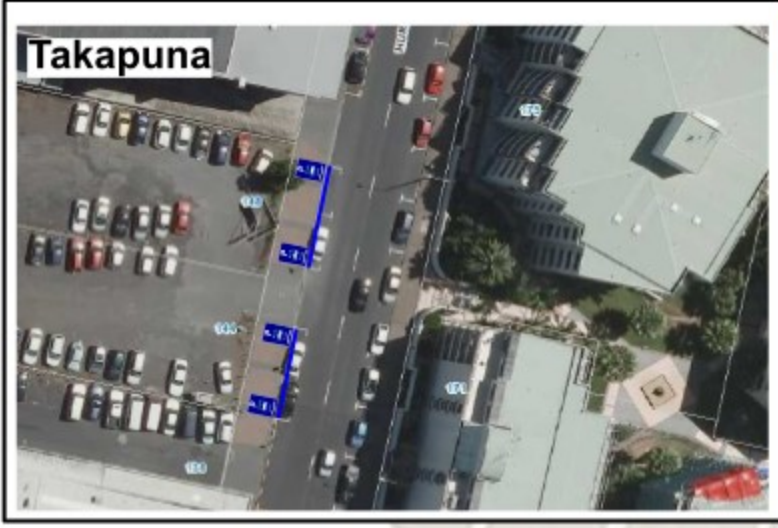
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<b>NAME:</b> Jordan Masters	
<b>STMS:</b> LEVEL 2/3 P	
<b>ID:</b> 50342	
<b>EXP:</b>	

<b>KEY:</b>	ROP:	ADVISORY SIGNAGE:
	CLOSURE AREA:	MANAGED ACCESS:
	AUTHORISED PARKING:	TAXI RANK:
	NO STOPPING:	P/T BUSES:
	MOBILITY PARKING:	COACHES:

**\*BASE PLAN TMP**



<b>Base Plan TMP 5</b>
<b>Parking Restrictions</b>
DRAWING NO: OVERVIEW
SCALE: NOT TO SCALE
DATE: 18/12/2015



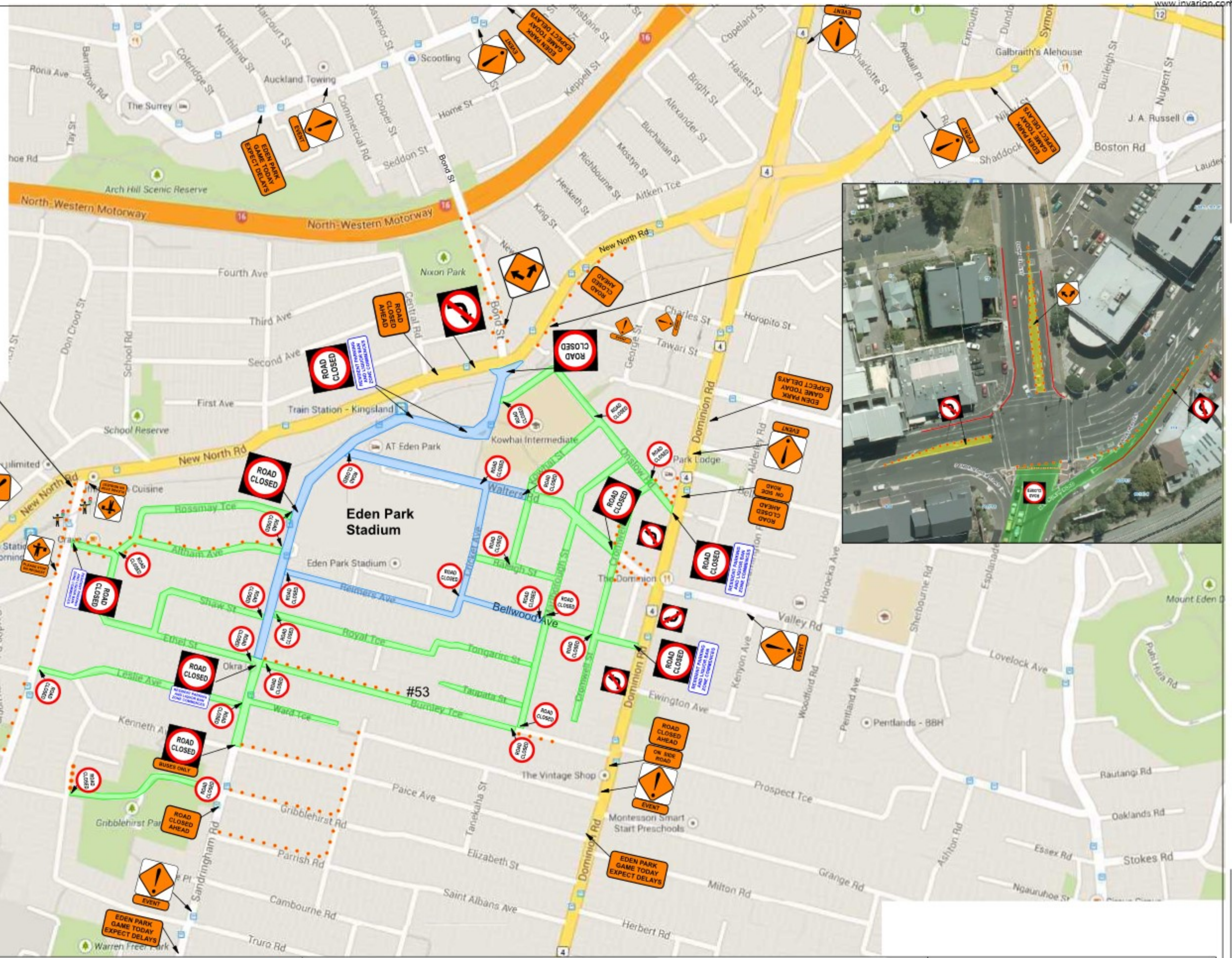
<b>PREPARED BY:</b>	Jordan Masters
<b>NAME:</b>	Jordan Masters
<b>STMS:</b>	LEVEL 2/3 P
<b>ID:</b>	50342
<b>EXP:</b>	

<b>KEY:</b>	ROP:	ADVISORY SIGNAGE:
CLOSURE AREA:	MANAGED ACCESS:	
AUTHORISED PARKING:	TAXI RANK:	
NO STOPPING:	P/T BUSES:	
MOBILITY PARKING:	COACHES:	

**\*BASE PLAN TMP**

**Auckland Transport  
Parking Overlay**

<b>Base Plan TMP 5</b>
<b>Public Transport Restriction</b>
<b>DRAWING NO:</b> OVERVIEW
<b>SCALE:</b> NOT TO SCALE
<b>DATE:</b> 30/09/2015



<b>PREPARED BY:</b>	
<b>NAME:</b>	JORDAN MASTERS
<b>STMS:</b>	LEVEL 2/3 NP
<b>ID:</b>	
<b>EXP:</b>	

<b>KEY:</b>	ROP: <span style="color: red;">■</span>	CONES: <span style="color: orange;">●</span>
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	Steel Barriers <span style="color: red;">—</span>	

**\*BASE PLAN TMP**



<b>Base Plan TMP 5 -Pre TMP</b>
<b>35,000 + PEOPLE ATTENDING</b>
<b>DRAWING NO: OVERVIEW</b>
<b>SCALE: NOT TO SCALE</b>
<b>DATE: 30/09/2015</b>

