

# MINUTES OF MEETING

Meeting Number 3

BRG	Airport Roundabout Business Reference Group				
Location:	Brisbane Airport Corporation Boardroom	Date:	1 March 2010	Time:	3:30pm

<b>Chaired By: Rebecca Lenan</b>	<b>Minuted by: Ruth Moody</b>	<b>Distribution Date: 04 March 2010</b>
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<p><b>Attendees:</b></p> <p>Ruth Moody – TJH (RM), Rebecca Lenan – TJH (RL), Jacinta Fuller – TJH (JF), Tim Cunningham – TJH (TC), Lauren Diamond – CNI (LD), Rick Carr – Muscular Dystrophy Association of Qld, Scott Shaw – Australian Customs and Borders, Lee Anning – Tadpoles Early Learning Centres, Nicole – Tadpoles Early Learning Centres, Blair O'Brien – Dogtainers.</p> <p><b>Apologies: NIL</b></p>
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<b>Distribution Method: Email</b>
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Item	Action	By Whom	By When
1.0	<p><b>Meeting opened:</b></p> <ul style="list-style-type: none"> <li>Welcome and introductions</li> </ul>	TC	
2.0	<p><b>Construction update:</b></p> <p>Bridge 002 – New Gateway Motorway Overpass</p> <ul style="list-style-type: none"> <li>Current activities include: <ul style="list-style-type: none"> <li>Concreting and other finishing work in preparation for traffic switch to bridge from early April 2010</li> <li>Focus on realignment of northern and southern approaches of Gateway Motorway to facilitate this switch</li> </ul> </li> <li>Upcoming work activities to May 2010: <ul style="list-style-type: none"> <li>Finishing activities including installation of lighting and signage, pavement work</li> <li>Demolition of existing overpass and its embankments following staged traffic realignment on to new overpass</li> </ul> </li> </ul> <p>Bridge 001 - East-West Arterial Flyover</p> <p>Current activities include:</p> <ul style="list-style-type: none"> <li>Balanced cantilever bridge</li> <li>750m long including approaches</li> <li>21m high</li> <li>4 lanes</li> <li>436 precast concrete bridge segments</li> <li>12 piers in total</li> <li>Currently 8 piers in various stages of construction</li> <li>Pier construction to commence on Airport Drive March 2010 <ul style="list-style-type: none"> <li>Piling</li> <li>Pile cap</li> <li>Pier blade</li> <li>Pier flare</li> <li>Pier table</li> <li>Segment installation</li> <li>Stitch pour</li> </ul> </li> <li>Bridge segment production <ul style="list-style-type: none"> <li>80+ produced to date at the Pinkenba Precast Factory</li> </ul> </li> <li>Bridge segment installation <ul style="list-style-type: none"> <li>Delivery of first segment to site – late Feb</li> </ul> </li> </ul>	TC	

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	<ul style="list-style-type: none"> <li>o Installation to commence early March</li> </ul> <p>Upcoming work activities to May 2010</p> <ul style="list-style-type: none"> <li>• West of roundabout:               <ul style="list-style-type: none"> <li>o Ongoing pier construction</li> <li>o Ongoing construction of western abutment</li> <li>o Segment installation</li> </ul> </li> <li>• Airport Drive median:               <ul style="list-style-type: none"> <li>o Removal of grass trees</li> <li>o Pier construction</li> <li>o Eastern abutment construction</li> </ul> </li> </ul> <p>East-West Arterial Road realignment</p> <ul style="list-style-type: none"> <li>• Current activities include:               <ul style="list-style-type: none"> <li>o Earthwork</li> <li>o Pavement construction</li> <li>o Culvert extension at</li> <li>o Hedley Ave</li> </ul> </li> </ul> <p>Airport Drive realignment</p> <ul style="list-style-type: none"> <li>• Eastbound lanes realigned to the north from early March 2010 (subject to approval)</li> </ul> <p>Realignment of Gateway Motorway approaches</p> <ul style="list-style-type: none"> <li>• Night work ongoing</li> <li>• Northbound and southbound traffic moved onto temporary road realignments during March</li> <li>• Construction of permanent road realignment for northern and southern approaches to overpass</li> <li>• Northbound traffic moved onto new overpass early April</li> <li>• Southbound traffic moved onto new overpass mid April</li> <li>• Night work on Gateway Motorway on/off ramps ongoing</li> </ul> <p>Nudgee Road spoil handling facility</p> <ul style="list-style-type: none"> <li>• Ongoing site establishment work at the Nudgee Road spoil handling facility               <ul style="list-style-type: none"> <li>o Storage of Tunnel Boring Machine (TBM) components</li> <li>o Shed construction</li> <li>o Construction of a haul road within the site compound</li> <li>o Erection of TBM spoil conveyor from Kalinga Park</li> <li>o Commissioning a signalised intersection on Nudgee Road to facilitate construction vehicle movements</li> </ul> </li> </ul> <p>Overland conveyor system</p> <ul style="list-style-type: none"> <li>• Transport 1.1 million tonnes of excavated material 2 kms from Kalinga Park to the Nudgee Road spoil handling facility</li> <li>• Fitted with a cover to minimise dust impacts</li> <li>• Operating 24 hours a day in conjunction with tunnelling operations</li> <li>• Approximately 2,600 tonnes of spoil will be transported to the Nudgee Road site every hour.</li> </ul>		
	<p><b>Questions:</b></p> <ul style="list-style-type: none"> <li>• BRG attendee commented that they have noticed a significant traffic</li> </ul>	SS	

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	<p>improvement since the opening of the Northern Access Road but mentioned that Nudgee Road can become congested.</p> <ul style="list-style-type: none"> <li>○ TJH explained that the reason for the closure of left hand slip lane from Nudgee Road heading south/east is due to the construction of a bridge pier on the corner of Nudgee Road/East-West Arterial Road. TJH advised that the intersection was already a busy one and activities have probably exacerbated an existing issue.</li> <li>● BRG attendee commented that they have experienced some vibration from piling operations across from their business for a short period of time but things have improved now that the work has moved further away. <ul style="list-style-type: none"> <li>○ TJH advised there may be more vibration from earthworks in the coming months (including use of vibration roller).</li> </ul> </li> <li>● BRG attendee thanked TJH for installation of footpath from Hedley Avenue to East-West Arterial Road – has drastically improved access and safety for staff.</li> <li>● BRG attendee commented that he and his staff are regularly on the road and occasionally get caught up in traffic. <ul style="list-style-type: none"> <li>○ TJH explained to stakeholder about SMS updates available and recommended stakeholder and his staff sign up.</li> </ul> </li> </ul>	<p>TC</p> <p>RC</p> <p>TC</p> <p>RC</p> <p>BO</p> <p>RL</p>	
3.0	<p><b>Environment Update:</b> Key environmental issues</p> <ul style="list-style-type: none"> <li>● Dust</li> <li>● Noise</li> <li>● Vibration</li> <li>● Wildlife and vegetation</li> <li>● Contaminated soils</li> <li>● Acid sulphate soils</li> <li>● Erosion and sediment prevention</li> </ul> <p>Dust monitoring – goals and background</p> <ul style="list-style-type: none"> <li>● Dustfall (depositional dust): <ul style="list-style-type: none"> <li>○ Goal: 4µg/m2/month (2µg/m2/month typical)</li> </ul> </li> <li>● PM10 (respirable dust): <ul style="list-style-type: none"> <li>○ Goal: 50µg/m3 (24 hour average, 5 exceed/year)</li> <li>○ Goal: 150µg/m3 (24 hour maximum)</li> <li>○ 20-40µg/m3 typical in road-side locations</li> <li>○ Dust storm 23-24 Sept: 460µg/m3 (CBD, hr max)</li> </ul> </li> </ul> <p>Dust controls</p> <ul style="list-style-type: none"> <li>● Four water carts spraying recycled water &amp; street-sweeper</li> <li>● Sealed haul road &amp; site entrances</li> <li>● Sealing new section of road and landscaping at earliest opportunity</li> <li>● Use of street sweepers to pick up mud on the road</li> <li>● Ongoing monitoring</li> </ul> <p>Dust, noise and vibration results – see tables at end of minutes</p> <p>Noise and vibration controls</p> <ul style="list-style-type: none"> <li>● Eliminate noise - day work vs night work, working hours 6.30am to</li> </ul>	JF	

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	<p>6.30pm</p> <ul style="list-style-type: none"> <li>Substitute - quieter equipment / construction methods (eg: piling), squawkers vs reversing beepers</li> <li>Reduce noise - maintain plant and equipment, use of two-way radios vs horns</li> </ul> <p>Other environmental improvements</p> <ul style="list-style-type: none"> <li>Clearance of Castor Oil &amp; Chinese Elm weeds</li> <li>Clearing up litter</li> <li>Treating and re-using acid sulphate soils in area</li> <li>Using recycled water</li> <li>Recycle wastes off-site</li> <li>Regular monitoring of Schulz Canal and other local waterways</li> <li>Inspection by DPI and TJH of Fire Ants in the construction area</li> </ul> <p><b>Questions:</b> Nil</p>		
4.0	<p><b>Community relations update</b> Key communication initiatives include:</p> <ul style="list-style-type: none"> <li>www.brisconnections.com.au</li> <li>24 hour community hotline (1800 721 783)</li> <li>contactus@tjh.com.au</li> <li>Business reference group</li> <li>Community notifications <ul style="list-style-type: none"> <li>Monthly construction updates and night work updates</li> </ul> </li> <li>Visitor information centre at Centro Lutwyche</li> <li>SMS updates</li> <li>Traffic changes, stoppages and detours</li> <li>Email updates <ul style="list-style-type: none"> <li>Traffic changes, notifications and construction report</li> </ul> </li> </ul> <p>Key issues raised –Dec to Feb:</p> <ul style="list-style-type: none"> <li>Dust</li> <li>Flooding concerns</li> <li>Noise and vibration</li> <li>Property impacts</li> <li>Business access</li> </ul> <p>Upcoming community relations activities:</p> <ul style="list-style-type: none"> <li>Ongoing meetings with businesses</li> <li>Notifications</li> <li>SMS / email alerts</li> <li>Project updates to business staff and tenants as required</li> <li>Information session for nearby residential estate</li> <li>Business reference group meeting – May</li> </ul> <p><b>Questions:</b> Nil</p>	RL	
6.0	<b>General business:</b>		

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	<ul style="list-style-type: none"> <li>• BRG attendee enquired about why the Hedley Avenue drain is sand bagged.               <ul style="list-style-type: none"> <li>○ TJH have only blocked off one culvert to enable work to occur in the drain – keeping the other culvert open for. The bund is always kept low enough so that in a large rain event the water will simply flow over the top.</li> </ul> </li> </ul>	RC JF	
6.0	<p><b>Next meeting:</b></p> <ul style="list-style-type: none"> <li>• Next meeting to be held in May/June. TJH to review frequency of meetings due to low turn-out rate.</li> </ul>	RL	

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**Airport Roundabout Upgrade**

## Airport Roundabout Upgrade

Business Reference Group Meeting 3

1 March 2010 smarter ways to move

**Airport Roundabout Upgrade**

## Agenda

- Welcome and introductions
- Construction update
- Environment update
- Community relations update
- General business

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**Airport Roundabout Upgrade**

## Construction update

Tim Cunningham

1 March 2010 smarter ways to move

**Airport Roundabout Upgrade**

Overview as at March 2010

Labels in image:

- Construction of western approach
- Pier construction for flyover
- Construction of spoil handling facility
- Widening East-West Arterial Rd
- Finishing work for overpass
- Tie-in northern approach
- Tie-in southern approach
- Realignment of Airport Dr

**Airport Roundabout Upgrade**

## Bridge 002

### New Gateway Motorway Overpass

**Airport Roundabout Upgrade**

## Bridge 002

Current activities include:

- Concreting and other finishing work in preparation for traffic switch to bridge from early April 2010
- Focus on realignment of northern and southern approaches of Gateway Motorway to facilitate this switch

Airport Roundabout Upgrade

Bridge 001  
East-West Arterial flyover



Airport Roundabout Upgrade

Bridge 001

- Balanced cantilever bridge
- 750m long including approaches
- 21m high
- 4 lanes
- 436 precast concrete bridge segments
- 12 piers in total
- Currently 8 piers in various stages of construction
- Pier construction to commence on Airport Drive March 2010

Airport Roundabout Upgrade

Pier construction



- Piling
- Pile cap
- Pier blade
- Pier flare
- Pier table
- Segment installation
- Stitch pour



Airport Roundabout Upgrade

Pier construction



Pier construction in the Serpentine Rd site



Airport Roundabout Upgrade

Bridge segment production



80+ produced to date at the Pinkenba Precast Factory

Airport Roundabout Upgrade

Bridge segment installation



- Delivery of first segment to site – late Feb
- Installation to commence early March



Airport Roundabout Upgrade

### East-West Arterial Road realignment

Current activities include:

- Earthwork
- Pavement construction
- Culvert extension at Hedley Ave

CTB placement at East-West Arterial Rd south

Airport Roundabout Upgrade

### Airport Drive realignment

Eastbound lanes realigned to the north from early March 2010 (subject to approval)

Airport Roundabout Upgrade

### Realignment of Gateway Motorway approaches

- Night work ongoing
- Northbound and southbound traffic moved onto temporary road realignments during March
- Construction of permanent road realignment for northern and southern approaches to overpass
- Northbound traffic moved onto new overpass early April
- Southbound traffic moved onto new overpass mid April
- Night work on Gateway Motorway on/off ramps ongoing

Airport Roundabout Upgrade

### Nudgee Road spoil handling facility

Ongoing site establishment work at the Nudgee Road spoil handling facility

- Storage of Tunnel Boring Machine (TBM) components
- Shed construction
- Construction of a haul road within the site compound
- Erection of TBM spoil conveyor from Kalinga Park
- Commissioning a signalised intersection on Nudgee Road to facilitate construction vehicle movements

**Airport Roundabout Upgrade**

### Tunnel Boring Machine assembly – Kalinga Park



**Airport Roundabout Upgrade**

### Overland conveyor system



- Transport 1.1 million tonnes of excavated material 2 kms from Kalinga Park to the Nudgee Road spoil handling facility
- Fitted with a cover to minimise dust impacts
- Operating 24 hours a day in conjunction with tunnelling operations
- Approximately 2,600 tonnes of spoil will be transported to the Nudgee Road site every hour.

**Airport Roundabout Upgrade**

### Upcoming work activities – to May 2010

#### Bridge 002 – Gateway Motorway overpass

- Finishing activities including installation of lighting and signage, pavement work
- Demolition of existing overpass and its embankments following staged traffic realignment on to new overpass

**Airport Roundabout Upgrade**

### Upcoming work activities – to May 2010

#### Bridge 001 – East-West Arterial flyover

West of roundabout:

- Ongoing pier construction
- Ongoing construction of western abutment
- Segment installation

Airport Drive median:

- Removal of grass trees
- Pier construction
- Eastern abutment construction






**Airport Roundabout Upgrade**

## Environment Update

Jacinta Fuller

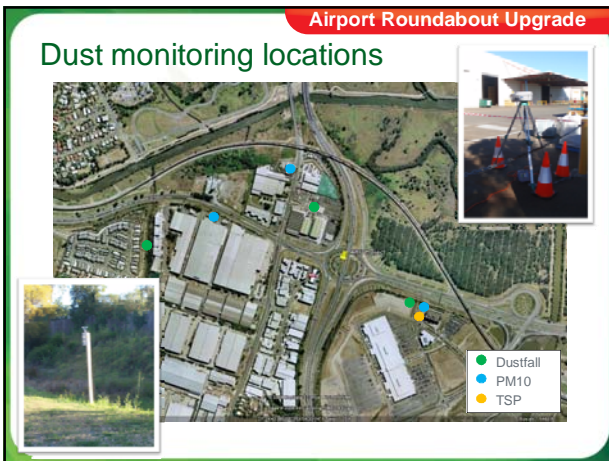
1 March 2010

**smarter ways to move**

**Airport Roundabout Upgrade**

### Key environmental issues

- Dust
- Noise
- Vibration
- Wildlife and vegetation
- Contaminated soils
- Acid sulphate soils
- Erosion and sediment prevention



### Airport Roundabout Upgrade

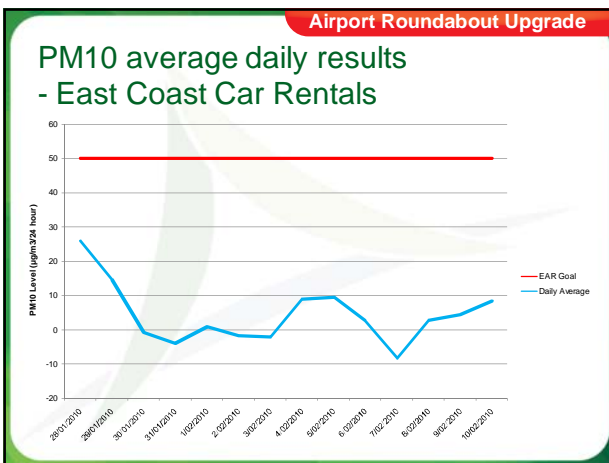
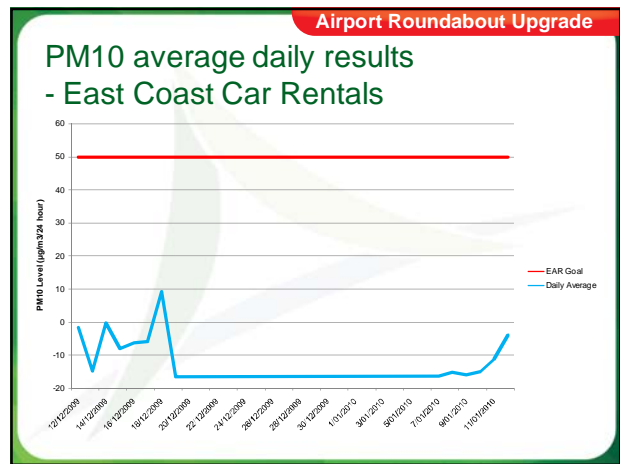
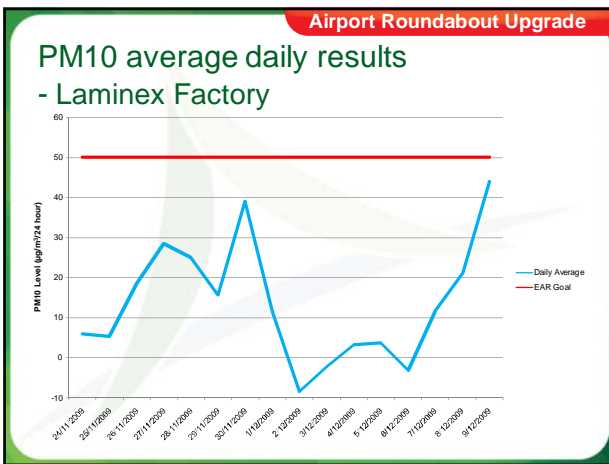
## Dust monitoring – goals and background

Dustfall (depositional dust):

- Goal:  $4\mu\text{g}/\text{m}^2/\text{month}$  ( $2\mu\text{g}/\text{m}^2/\text{month}$  typical)

PM10 (respirable dust):

- Goal:  $50\mu\text{g}/\text{m}^3$  (24 hour average, 5 exceed/year)
- Goal:  $150\mu\text{g}/\text{m}^3$  (24 hour maximum)
  - $20\text{--}40\mu\text{g}/\text{m}^3$  typical in road-side locations
  - Dust storm 23-24 Sept:  $460\mu\text{g}/\text{m}^3$  (CBD, hr max)



### Airport Roundabout Upgrade

## Dustfall monthly results

Location	Dust Fallout Goal (g/m²/mth)	Dust Fallout (g/m²/mth)
		Ash Content
CASA Building 01/11/09 – 02/12/09	4	1.5
Budget Airport Parking 09/11/09 – 11/12/09	4	1.9
Millbrook Estate 09/11/09 – 11/12/09	4	3.5
CASA Building 02/12/09 – 06/01/10	4	1.6
Budget Airport Parking 11/12/09 – 12/01/10	4	1.2
Millbrook Estate 11/12/09 – 12/01/10	4	1.6

**Airport Roundabout Upgrade**

### TSP & PM10 monthly results – CASA Building

Start date	Finish date	TSP Actual (µg/m3)	TSP Goal (µg/m3)	PM10 Actual (µg/m3)	PM10 Goal (µg/m3)
30/10/09 13:45hr	16/11/09 9:53hr	27.7	90	17.9	50
16/11/09 23:59hr	17/11/09 23:59hr	65.1	90	31.1	50
1/12/09 23:59hr	2/12/09 14:17hr	29.5	90	18.8	50
16/12/09 23:59hr	17/12/09 23:59hr	34.1	90	-	50

**Airport Roundabout Upgrade**

### TSP & PM10 monthly results – CASA Building

Start date	Finish date	TSP Actual (µg/m3)	TSP Goal (µg/m3)	PM10 Actual (µg/m3)	PM10 Goal (µg/m3)
18/12/09 23:59pm	19/12/09 23:59hr	9.29	90	15.2	50
24/12/09 23:59 pm	25/12/09 23:59 pm	-	90	5.28	50
31/12/09 23:59 pm	01/01/10 23:59 pm	-	90	-	50
25/12/09 23:59 pm	26/12/09 23:59 pm	17.25	90	-	50
01/01/10 23:59 pm	02/01/10 23:59 pm	-	90	-	50

**Airport Roundabout Upgrade**



### TSP & PM10 monthly results – CASA Building

Start date	Finish date	TSP Actual (µg/m3)	TSP Goal (µg/m3)	PM10 Actual (µg/m3)	PM10 Goal (µg/m3)
06/01/10 00:00	07/01/10 00:00	23.1	90	13.8	50
12/01/10 00:00	13/01/10 00:00	22.0	90	-	-
18/01/10 00:00	19/01/10 00:00	8.1	90	28.3	50
24/01/10 00:00	25/01/10 00:00	7.2	90	15.5	50

**Airport Roundabout Upgrade**

### Dust controls

- Four water carts spraying recycled water & street-sweeper
- Sealed haul road & site entrances
- Sealing new section of road and landscaping at earliest opportunity
- Use of street sweepers to pick up mud on the road
- Ongoing monitoring

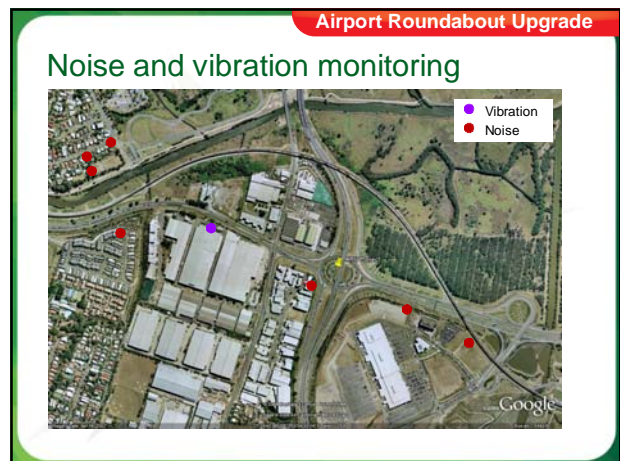
**Airport Roundabout Upgrade**

### Noise levels and goals

Source of Sound	Sound Pressure (decibels)
Jet engine at 30 m	150
Jack hammer at 1 m	About 100
Major road at 10 m	80-90
Passenger car at 10 m	60-80
Normal talking at 1 m	40-60
Very calm room	20-30
Leaves rustling, calm breathing	10

Goals	Sound Pressure (decibels)
Daytime hotels (external)	82.6 L <sub>A10</sub> 73.2 L <sub>Aeq</sub>
Daytime residential (internal)	55 L <sub>A10</sub> 45 L <sub>Aeq</sub>
Daytime residential (external)	65 L <sub>A10</sub> 55 L <sub>Aeq</sub>
Night-time hotel (external)	75.45 L <sub>Amax</sub> 63.2 L <sub>Aeq</sub>
Night-time residential (internal)	50 L <sub>Amax</sub> 40 L <sub>Aeq</sub>
Night-time residential (external)	69.6 L <sub>Amax</sub> 61.9 L <sub>Aeq</sub>



**Airport Roundabout Upgrade**

**Noise monitoring – Formule 1 Hotel**

Location	Monitoring Period	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Comments
Formule 1 Hotel (External)	Pre-construction monitoring	68		70				
Formule 1 Hotel (External)	Thurs 17/12/09 5:55 – 6:11 am	70.8	EAR Goal 40 (63.2) <sup>a</sup>	71.5	N/A	84.2	EAR Goal 50 (75.5) <sup>a</sup>	T.J.H activities included use of a concrete pump (both the engine and horn) and concrete trucks during a pour.
Formule 1 Hotel (External)	Friday 18/12/09 8:24 – 8:40 pm	68.1	EAR Goal 40 (63.2) <sup>a</sup>	69.2	N/A	87.9	EAR Goal 50 (75.5) <sup>a</sup>	T.J.H activities included laying asphalt, with noises attributed to engine noise and the reversing beepers on delivery trucks.
Formule 1 Hotel (External)	Monday 21/12/09 10:27 – 10:43 pm	65.1	EAR Goal 40 (63.2) <sup>a</sup>	65.9	N/A	77.7	EAR Goal 50 (75.5) <sup>a</sup>	T.J.H activities included a concrete pour using excavators, cranes, concrete trucks and a concrete pump.
Formule 1 Hotel (External)	Monday 21/12/09 10:49 – 11:05 pm	64.3	EAR Goal 40 (63.2) <sup>a</sup>	65.0	N/A	75.3	EAR Goal 50 (75.5) <sup>a</sup>	T.J.H activities included a concrete pour using excavators, cranes, concrete trucks and a concrete pump.

**Airport Roundabout Upgrade**

**Noise monitoring – 64 The Promenade**

Location	Monitoring Period	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Comments
64 The Promenade	Pre-Construction	54						
64 The Promenade (External)	Sunday 22/11/09 10:00 – 10:25 pm	54.8	EAR Goal 40 (61.9) <sup>a</sup>	54.4	N/A	68.2	EAR Goal 50 (69.6) <sup>a</sup>	T.J.H activities included installation of asphalt pavement (noises included squawker reversing alarms, reversing beepers, tracking cranes).
64 The Promenade (External)	Tuesday 22/12/09 8:10 – 8:30 pm	55.7	EAR Goal 40 (61.9) <sup>a</sup>	55.0	N/A	67.8	EAR Goal 50 (69.6) <sup>a</sup>	T.J.H activities included spraying hydromulch on the road side (soaph). Other predominant noise sources included general traffic and wildlife, eg. frogs.

**Airport Roundabout Upgrade**

**Noise monitoring – Northern Residents**

Location	Monitoring Period	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Comments
Franklin St. Toombul	Pre-Construction	46				54		
Corner of Walkers Way and Hedley Avenue (External)	Sunday 22/11/09 10:45 – 11:01 pm	44.2	EAR Goal 40 (50) <sup>a</sup>	45.2	N/A	51.0	EAR Goal 50 (60) <sup>a</sup>	T.J.H activities included installation of asphalt pavement (noises included squawker reversing alarms, reversing beepers, tracking cranes).
5 Watte St (External)	Sunday 22/11/09 11:00 – 11:25 pm	43.5	EAR Goal 35 (45) <sup>a</sup>	44.4	N/A	53.3	EAR Goal 45 (55) <sup>a</sup>	T.J.H activities included installation of asphalt pavement (noises included squawker reversing alarms, reversing beepers, tracking cranes).
Albert Bishop Place – Nudge Road Intersection (External)	Friday 18/12/09 10:45 – 11:00 pm	50.9	EAR Goal 40 (50) <sup>a</sup>	49.9	N/A	71.3	EAR Goal 50 (60) <sup>a</sup>	T.J.H activities could not be heard during this monitoring session. Noise sources included general traffic on Nudge Road and the Gateway Motorway.

**Airport Roundabout Upgrade**

**Noise monitoring – Australian Quarantine**

Location	Monitoring Period	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Comments
Australian Quarantine Building (External)	Tuesday 24/11/09 8:45 am – 3:30 pm	67.5	N/A	69.7	A/EPJR Goal 75	87.1	N/A	Pre-construction monitoring
Australian Quarantine Building (External)	Wednesday 25/11/09 9:30 am – Thursday 26/11/09 2:00 pm	66.7	N/A	68.0	A/EPJR Goal 75	95.9	N/A	Pre-construction monitoring
Australian Quarantine Building (External)	Thursday 26/11/09 2:30 pm – Friday 27/11/09 3:45 pm	66.3	N/A	67.8	A/EPJR Goal 75	91.3	N/A	Pre-construction monitoring

**Airport Roundabout Upgrade**

**Noise monitoring – Novotel Hotel**

Location	Monitoring Period	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Comments
Novotel Hotel	Thurs 28/01/10 11:08am – 11:24am	37.4	EAR Goal 50	38.4	EAR Goal 75	39.7	N/A	Internal with AC No T.J.H construction activities.
Novotel Hotel	Thurs 28/01/10 11:08am – 11:24am	37.8	EAR Goal 50	38.7	A/EPJR Goal 75	48.9	N/A	Internal with AC No T.J.H construction activities. Concrete cutting - not a T.J.H activity.
Novotel Hotel	Thurs 28/01/10 11:08am – 11:24am	36.5	EAR Goal 50	37.5	A/EPJR Goal 75	47.8	N/A	Internal with AC No T.J.H construction activities.
Novotel Hotel	Thurs 28/01/10 11:35am – 11:51am	27.01	EAR Goal 50	27.96	A/EPJR Goal 75	31.94	N/A	Internal without AC No T.J.H construction activities.

**Airport Roundabout Upgrade**

**Noise monitoring – Novotel Hotel**

Location	Monitoring Period	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Average $L_{Aeq}(15\text{min})$ (dBA)	EAR Goal $L_{Aeq}(15\text{min})$ (dBA)	Comments
Novotel Hotel	Thurs 28/01/10 11:52am – 12:30pm	26.45	EAR Goal 50	27.38	A/EPJR Goal 75	29.96	N/A	Internal without AC T.J.H construction during this period included earthwork activities with excavators and dump trucks.
Novotel Hotel	Thurs 28/01/10 18:31pm – 22:00pm	25.43	EAR Goal 40	26.17	N/A	27.65	N/A	Internal without AC Pre-construction monitoring session
Novotel Hotel	Thurs 28/01/10 22:01pm – 6:30am	24.41	EAR Goal 40	24.94	N/A	25.98	N/A	Internal without AC Pre-construction monitoring session
Novotel Hotel	Friday 29/01/10 6:31am – 15:03pm	26.90	EAR Goal 50	28.01	A/EPJR Goal 75	30.27	N/A	Internal without AC T.J.H construction during this period included earthwork activities with excavators and dump trucks.

**Airport Roundabout Upgrade**

## Noise and vibration controls

Eliminate noise

- Day work vs night work
- Maintain plant and equipment
- Working hours 6.30am to 6.30pm

Substitute

- Less noisier equipment / construction methods (eg: piling)
- Squarkers vs reversing beepers

Reduce Noise

- Maintain plant and equipment
- Use of two-way radios vs horns

**Airport Roundabout Upgrade**

## Vibration levels and goals

Vibration Level	Degree of Perception
0.10 mm/s	Not felt
0.15 mm/s	Threshold of perception
0.35 mm/s	Barely noticeable
1 mm/s	Noticeable
2.2 mm/s	Easily noticeable
6 mm/s	Strongly noticeable
14 mm/s	Very strongly noticeable

Location	Goal
Human comfort	0.5 mm/s
Industrial buildings	10 mm/s
Residential buildings	5 mm/s

**Airport Roundabout Upgrade**

## Vibration monitoring – Kmart

Date / Time Range	99 <sup>th</sup> Percentile Peak Particle Velocity (mm/s)	Peak Particle Velocity EAR Goal (Human Comfort) (mm/s) <sup>2</sup>	Peak Particle Velocity EAR Goal (Building Structures) (mm/s) <sup>2</sup>	Comments
Kmart Distribution Centre Fri 20/11/2009 4:50 pm to Wed 25/11/2009 7:45 am	3.49	0.8	15	Piling north of the monitor for pier 1 and 2 and abutment A of Bridge 1.
Kmart Distribution Centre Fri 27/11/2009 4:12 pm to Mon 30/11/2009 2:57 pm	1.75	0.8	15	Piling north of the monitor for pier 1 and 2 and abutment A of Bridge 1.

**Airport Roundabout Upgrade**

## Other environmental improvements

- Clearance of Castor Oil
- Clearing up litter including cigarette butt campaign
- Treating and re-using acid sulphate soils in area
- Using recycled water
- Recycle wastes off-site
- Regular monitoring of Schulz Canal and other local waterways
- Inspection by DPI and TJH of Fire Ants in the construction area



**Airport Roundabout Upgrade**



## Community relations update

Rebecca Lenan

1 March 2010

smarter ways to move

**Airport Roundabout Upgrade**

## Stakeholder engagement

Key communication initiatives include:

- www.brisconnections.com.au
- 24 hour community hotline (1800 721 783)
- contactus@tjh.com.au
- Business reference group
- Community notifications
  - Monthly construction updates and night work updates
- Visitor information centre at Centro Lutwyche
- Contribution to BAC monthly traffic update
- SMS updates
  - Traffic changes, stoppages and detours
- Email updates
  - Traffic changes, notifications and construction report

