# TfNSW RP2J - OoHW approval request form

No:	Notification date:	Approval date:	Project:
009	27/03/2020		MR82 Shared Path Bridge over Newcastle Road, Jesmond
A. Contact details	Name	Mobile number	Email
Contractor Environmental Site Representative			
Contractor Construction Manager			
Contractor Foreman			
Contractor Project Engineer			
B. Details of work: Include a map showing	Location (Cha	ainage):	Newcastle Rd
location of work extent and	NCA/c:		• CH 140 - 222
nearest sensitive receivers	NCA/s:		Works Location – <i>Refer Figure 1</i> • NCA 5
	Description o	faulca.	Concrete Kerb Installation;
			Installation of approximately 82m of concrete kerbing, including;  • Elsholz – 57m  • SA – 25m  The work sequence will be as follows;  • Establish traffic control  • Relocate existing concrete barriers from approx. CH 120 – 230,  • Acquire additional eastbound lane to complete works  • Mobilise concrete truck  • Install kerbing  • Re-instate concrete barriers  • De-mobilise traffic controls  This activity will be undertaken during OOHV period 1 (Evening) and OOHW period 2 (Night).

Out of hours work approval red	quest form	
Ma	achinery/ plant to be used	1 x 16T Excavator (Rubber tyred) 1 x Kerb machine 1 x Concrete truck 2 x Light vehicle 1 x Day maker
Tra	affic control measures required:	Newcastle Road - eastbound slow lane closure from approximately Hill St to Steel St, for the full duration of permissible ROL (7.30pm – 5:00am).  Coles St – Current traffic controls will be maintained.
		<b>Steel St</b> – 1 lane closure (Northbound lane Steel St), for one of the three nights proposed.
Lig	hting required:	1 x Day makers will be required for this activity.  Day makers will be mobile units and relocated during the works, to minimise the number required
Pro	oposed dates:	This OOHW activity is scheduled for the week commencing 20 <sup>th</sup> April 2020.  It is anticipated this activity will require 3 nights for completion, however an additional night has been scheduled as contingency – works to commence 20 <sup>th</sup> April and concluding 24 <sup>th</sup> .
Just ned con (at	stification - why does work ed to occur outside of standard nstruction hours?: tach support information as quired)	Start: 7:30pm Completion: 5.00am  There is insufficient clearance behind the existing concrete barriers on Newcastle road, to allow a concrete truck and kerb machine to complete the works.  Therefore, the closure of one eastbound lane is required, which can only be implemented during night hours, in accordance with the ROL conditions.
Out of hours work approval red	quest form	

C. Risk assessment	<ul> <li>Noise; A risk assessment has been undertaken using a noise modelling tool to predict the expected noise impact at individual receivers for this OOHW activity. The input data for noise modelling included, the location of work activity, the type and quantity of plant and equipment, and the duration of operation.</li> <li>The noise modelling data was assessed against the relevant NML's and sleep disturbance criteria to determine the risk factor in accordance with the OOHW protocol.</li> <li>Vibration; Plant required to undertake this OOHW activity will not encroach upon the minimum safe working distances.</li> <li>All plant are tyred equipment and will be restricted to existing roads, therefore predicted vibration levels are expected to be consistent with levels generated by existing traffic.</li> <li>Vibration levels are considered to be insignificant and are not expected to exceed the vibration criteria for 'Human Comfort' (BS528-2) or 'Structural Damage' (DIN 4150-3) of property.</li> </ul>
NML (refer Table 3-2 of OOHW protocol)	NCA 2:  Evening – 48  Night - 40  NCA 3:  Evening – 42  Night – 35  NCA 5:  Evening – 56  Night – 46  NCA 7:  Evening – 41  Night – 39
Is the work highly noise intensive? (above 75dB(A) LAeq (15 minute))	The noise modelling has determined that this activity will not generate high noise levels (>75dB)
Risk factor category (low or high):	Low ☐ High ☒  Comments In accordance with the risk factors nominated within OOHW protocol, this work activity is considered to be high risk due to the following;  • Works generating noise levels greater than 5dBA <sub>Leq(15minutes)</sub> above the Rating Background Level (RBL)

# D. Details of noise or vibration assessment completed:

Comments:

### Noise Modelling;

The noise modelling has been completed initially, by utilising the 'Noise Mitigation Tool' created by RCA (RCA Australia,) to predict sound levels at individual receivers and to allow the noise mitigation requirements to be determined in bulk. Upon further assessment of the predicted Noise levels generated by the RCA noise tool, a distance-based calculation has been applied to determine the distance of specific noise perception levels occurring at individual receivers and subsequently, to determine the mitigation measures to be implemented.

Noise modelling has been completed for OOHW period 1 and 2, then the distance-based calculation applied to provide a visual representation of the noise impact, and to assist with the distribution of notifications.

### Attenuation Applied to Modelling;

As the noise tool provides predicted levels assuming a direct line of sight to receivers, and therefore does not consider the effects of topography or attenuation provided by physical structures (retaining wall or residential properties), noise modelling was completed again with the inclusion of attenuation measures. This was undertaken to provide a more accurate representation of the impacts to receivers and predicted sound levels, and also to reduce the required number of notifications and/or mitigations measures.

The attenuation measures applied within the supplementary noise modelling included;

- Barrier height of 4m average height of residential property.
- Barrier height of 2 3m existing retaining wall and embankment located on Newcastle Road
- Distance of barrier (m) distance between the property closest to the noise source (at a selected location relevant to the specific work activity) and the adjacent property. This distance ranged from 10m – 40m.

The application of the above attenuation measures resulted in an average reduction of 7-10dB(A), by way of shielding from one residential property (acting as the barrier) to the next property.

### Noise Modelling Results;

- Noise modelling has determined that this OOHW activity will not generate 'high noise' levels, that being, noise levels above (>75dB(A)).
- Predicted sound levels (dB(A)) have determined multiple receivers will be impacted by noise levels in excess of 5dB above the RBL.
- The highest level of impact for the works is located 4A Coles St and 2B Coles St (62dB), which exceeds the NML for NCA 5 (46dB).

The following NCA's will receive noise levels above the RBL during OOHW period 2 (Night – assuming attenuation from existing property/retaining wall); NCA 5, NCA 3.

### OOHW Evening Period 1 - Assumes no Attenuation; Refer Figure 2

- Noise Perception Level is 'Noticeable' (5-10dB(A)) to a distance of 316m
- Noise Perception Level is 'Audible' (10-20dB(A) to a distance of 157m

### OOHW Night Period 2 - Assumes no Attenuation; Refer Figure 3

- Noise Perception Level is 'Noticeable' (5-10dB(A)) to a distance of 631m
- Noise Perception Level is 'Audible' (10-20dB(A)) to a distance of 389m

# Noise Perception Level is 'Moderately Intrusive' (20-30dB(A)) to a distance of 41m OOHW Night Period 2 – Attenuation Applied; Refer Figure 4 Noise Perception Level is 'Noticeable' (5-10dB(A)) to a distance of 525m Noise Perception Level is 'Audible' (10-20dB(A)) to a distance of 199m Noise Perception Level is 'Moderately Intrusive' (20-30dB(A)) to a distance of 41m Properties potentially impacted – 49

## E. Proposed Mitigation Measures

In an effort to reduce the impact upon sensitive receivers, the works will be staged to ensure any pre-works can be achieved during standard construction hours, limiting the amount and operation of plant and equipment required during the OOHW periods.

Works will be staged as follows;

### Pre-works:

- Preparation of work location
- Delivery of tools and equipment where possible
- Pre works will be completed within standard construction hours

### **During Works**;

This OOHW activity will be staged as follows;

- Establish Traffic control to be completed during evening period
- Relocate barriers to be completed during evening period
- Concrete trucks Limit of one concrete truck to be present onsite during OOHW periods

This activity will be undertaken during OOHW period 1 (Evening) and OOHW period 2 (Night). The following standard mitigation measures will be implemented during this period;

### Standard Mitigation Measures;

- Administrative controls, induction / tool box consultation
- Schedule noisier work to be carried out earlier in the period where feasible
- All plant and equipment will be turned off when not in use
- All plant and equipment will be serviced regularly and operated in accordance with the manufacture's specifications
- Use of non-tonal reversing alarms (squawkers) are used instead of reversing beepers
- Radios used for communication to prevent the need for yelling
- Provide supporting noise modelling to identify impacts to receivers and relevant mitigations in accordance to QA Specification G36.
- Designated vehicle parking away from sensitive receivers

### Additional Mitigation Measures;

**Refer to Table 1** – for specific mitigation measures for individual receivers impacted by this OOHW activity. Additional mitigation measures will include;

### **Notification (N)**;

Advanced warning of works and potential disruptions will assist in reducing the impact on the community. The notification will consist of a letterbox drop (or

### Out of hours work approval request form

equivalent) detailing work activities, time periods over which these will occur, impacts and mitigation measures. Notification will be a minimum of 5 working days prior to the start of works.

### Individual Briefings (IB);

Individual briefings will be used to inform stakeholders about the impacts of high noise activities and mitigation measures that will be implemented. Project representatives will visit identified stakeholders at least 48 hours ahead of potentially disturbing construction activities. Individual briefings provide affected stakeholders with personalised contact and tailored advice, with the opportunity to comment on the project. Where the resident cannot be met with individually then an alternative form of engagement should be used.

### Verifications (V);

Noise and/or vibration levels are checked by taking site measurements. This will be in response to a complaint or to confirm a safe vibration working distance.

It should be noted that there may be personal circumstances among the sensitive receivers where the above approach to specific additional mitigation measures is not best suited. The Community Liaison Relations Manager has the authority to amend the above approach taking into account due consideration of the personal circumstances that may apply.

# F. Community Consultation carried out including details of community feedback and how this has been addressed

Residents have been distributed a notification about the OOHW which included a schedule of upcoming night works and were invited to provide feedback. This was distributed on 30<sup>th</sup> of March 2020.

Given the current circumstances regarding Covid-19 and restrictions relating to social distancing, Daracon's Community Liaison Manager has not conducted 'door knocking' or 'individual briefings' of impacted receivers regarding this OOHW.

Alternatively, to ensure impacted residents are adequately consulted and provided the opportunity to provide feedback, consultation will be facilitated by;

- Text Messages; sent 27/03/2020
- Email Correspondence, sent 27/03/2020
- Phone Calls; to target specific receivers from 27/03/2020

Additionally, the community Liaison Manager has obtained the following community agreements in relation to OOHW;

- Community Agreements 34 agreements have been obtained.
  - 15 agreements obtained from residents identified in the noise modelling as being impacted by the works.
  - 19 agreements obtained whilst door knocking previously conducted OOHW, that were not identified in the noise modelling as requiring notification.

Out of hours work approva	l request form		
G. Respite framework – dates of previous respite periods, OOHW period 1 or 2, community agreements etc	Respite to impacted residents has a activity and 'Duration Respite' is comeasure for this activity.  To date, OoHW have not received a mitigation measures have been required knocking and written consultation. In noise sources and similar levels to period is not expected to have a significant to be completed within 3 in activity has been scheduled for expected to be completed within 3 in activity has been scheduled for expected to be completed within 3 in activity has been scheduled for expected to be completed within 3 in activity has been scheduled for expected to be completed within 3 in activity has been scheduled for expected to be completed within 3 in activity has been scheduled for expected to be completed within 3 in activity has been scheduled for expected to be completed within 3 in activity has been scheduled for expected to be completed within 3 in activity.	any specific complaint uested by the commu Due to the non tonal cambient at most receinificant impact to the r 4 consecutive nights	est appropriate mitigation as and no specific inity during ongoing door haracter of the proposed ivers, the nominted respite adjacent residents. as, however works are
H. Details of non- residential receivers (if any) and corresponding NMLs	The community liaison representati has advised that the church has be further notice.		
I. Are there any properties at risk of exceeding the screening criteria for cosmetic damage?	Plant required to undertake this OC safe working distances, therefore the cosmetic damage. Impacts for this impacts.	nere is no risk of exce	eding the criteria for
J. Review/ Endorsements			
Contractor Community	Community notified		Date: 27/03/2020
Liaison Representative	One complaint was received from a Coles Street. The complainant was noise, vibration and loss of amenity Manager and Daracon's CLR met v concerns. The elderly resident was meetings that she has no issues an blankets have been installed betwee additional mitigation.	complaining on her many associated with the position with the family member clear during the meet and is not bothered by the complete t	nother's behalf about project. TfNSW Project or to discuss their ing and subsequent he project. Noise
	Have the works been reviewed and	endorsed?	Yes / No
	Name:	Signature:	Date:
			27/03/20
	Comments: There is an overall understanding a construction work needs to be com		dents that some
Roads and Maritime Environmental Manager (or delegate)	Agreed mitigation measures:		
-	Have the works been reviewed and	endorsed?	Yes

Out of hours work approva	I request form		
	Name:	Signature:	Date:
		5/11	1/4/20
	Comments: Nil	,	
Roads and Maritime	Have the works been reviewed and	endorsed?	Yes / No
Project Manager	Name:	Signature:	Date:
			30/03/2020
	Comments: All reasonable measur to residents, while still		provide individual briefings distancing re□uirements.
ER approval (low risk	Are the works approved?		Yes / No
activities)	Name:	Signature:	Date:
	Comments:		
Planning Secretary	Are the works approved?	,	Yes / No
approval (high risk activities)	Name:	Signature:	Date:
,	1	-	
	Comments:		

Figure 1: Works Location

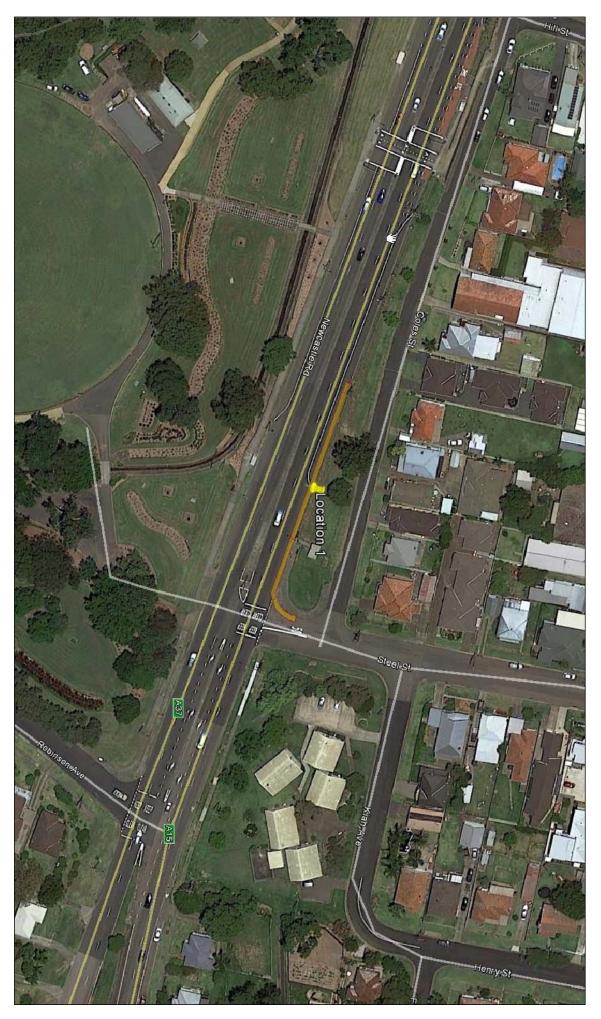
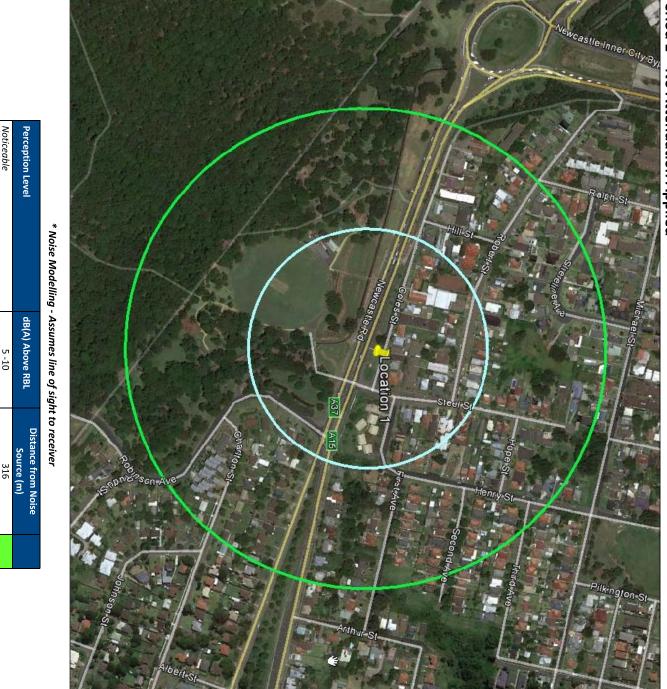
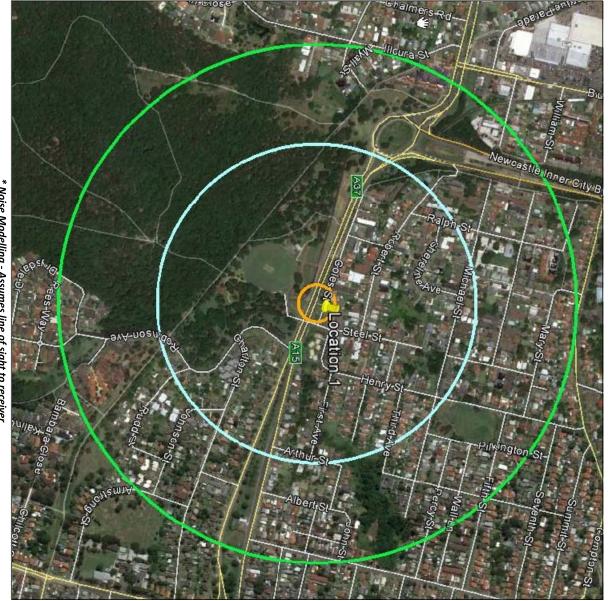


Figure 2: OOHW Evening Period 1 – No Attenuation Applied



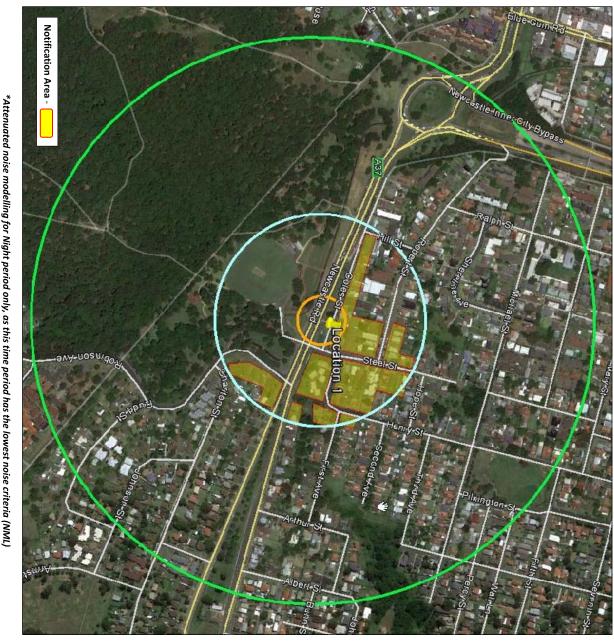
Perception Level	dB(A) Above RBL	Distance from Noise Source (m)	
Noticeable	5 -10	316	
Audible	10 - 20	157	



\* Noise Modelling - Assumes line of sight to receiver

Perception Level	dB(A) Above RBL	Distance from Noise Source (m)	
Noticeable	5 -10	631	
Audible	10 - 20	389	
Moderately Intrusive	20 - 30	41	ĺ

Figure 4: OOHW Night Period 2 – Attenuation Applied



\*Attenuated noise modelling for Night period only, as this time period has the lowest noise criteria (NML)

\* Noise Modelling - Assumes an average reduction of 7-10dB(A), from shielding of existing property

,		9 - 7	,
Perception Level	dB(A) Above RBL	Distance from Noise	
Noticeable	5 - 10	525	
Audible	10-20	199	
Maderately Intrusive	20 – 30	41	