



Meeting Notes

Noise Liaison Group Meeting No. 16

4 October 2012, 10:00 to 13:00

Venue: FRC Project Office, Rosyth



Attendees:

David Climie	FRC Employer's Delivery Team (EDT) (Chair)
Steven Brown	FRC Employer's Delivery Team (EDT)
Andrew Mackay	FRC Employer's Delivery Team (EDT)
Martin Butterfield	FRC Employer's Delivery Team (EDT)
David Condie	FRC Employer's Delivery Team (EDT)
Andy Officer	FRC Employer's Delivery Team (EDT)
Dermot Connolly	City of Edinburgh Council (CEC)
David Redden	Fife Council (FC)
Tracy Wyllie	Fife Council (FC)
Brian Carmichael	West Lothian Council (WLC)
Thomas Nilsson	Forth Crossing Bridge Constructors (FCBC)
Colin Goodsir	Forth Crossing Bridge Constructors (FCBC)
Ruben Casanova	Forth Crossing Bridge Constructors (FCBC)
Martin Wilson	Forth Crossing Bridge Constructors (FCBC)
Micheal O'Connell	SRB Civil Engineering Ltd (SRB)
Rory McFadden	John Graham (Dromore) Ltd (JG)

Apologies for Absence:

Richard Greer	FRC Employer's Delivery Team (EDT)
Steven Williamson	City of Edinburgh Council (CEC)
David Brewster	West Lothian Council (WLC)
Niall Corbet	Scottish Natural Heritage (SNH)
Carolyn Clark	Scottish Natural Heritage (SNH)
Mike Bland	Marine Scotland (MS)
Colin Megginson	Marine Scotland (MS)
Neil Abraham	Forth Crossing Bridge Constructors (FCBC)
Roland Tarrant	SRB Civil Engineering Ltd (SRB)

Item	Subject	Description	Action
1	Introductions and Apologies	EDT welcomed all parties to the meeting. Apologies were received from those parties listed above.	
2	Safety Procedures	EDT advised regarding safety and evacuation procedures.	
3	Minutes and Actions from Previous Meeting	The minutes of Meeting No. 15 held on 6 September 2012 were agreed. Actions from the previous meeting are as noted in items 4(a) to 4(c) below.	
4(a)	Principal Contract	<u>Actions from Previous Meeting No. 15</u>	
	(i)	The EDT confirmed that FCBC provided an updated NVMP on 24/09/12.	

	(ii)	EDT confirmed that PCNV 20 covering marine foundation works had been approved.	
	(iii)	FCBC advised that PCNV 21 Rev 02 would be submitted within the next few weeks.	FCBC
	(iv)	FCBC advised that following an on-site noise assessment, night time milling would not be carried out at Pier S4.	
	(v)	FCBC confirmed that they were currently addressing comments provided by the Employer in relation to the vibration monitoring report covering the period from November 2011 to January 2012. FCBC advised that a revised report would be submitted once the comments had been addressed (refer also to monitoring section of these notes).	FCBC
	(vi)	FCBC confirmed that additional rubber matting had been installed on the split barge.	
	(vii)	FCBC confirmed that comments had been received from the NLG in relation to the underwater noise assessment report and that a revised report would be issued once the comments had been addressed (refer also to monitoring section of these notes).	FCBC
	(viii)	EDT/CEC requested an update on timescales for the submission of a PCNV covering the quayside strengthening works at the Port of Rosyth and including an assessment of underwater noise. FCBC to liaise with their construction team to confirm timescales.	FCBC
	(ix)	FCBC confirmed that picking would not be carried out at Pier S5 on Sundays.	
	(x)	FCBC advised that their marine team was considering rolling out marine mammal training for staff working near the estuary. FCBC confirmed that MMO logs had been provided to MS for information.	
	(xi)	FCBC confirmed that they had amended the frequency of their vibration monitoring in order to conform with the CoCP.	
	(xii)	EDT confirmed that FCBC had recently issued vibration reports covering the period up to and including July 2012 for review by the EDT (refer also to monitoring section of these notes).	
	(xiii)	NLG agreed that further targeted site visits would be beneficial and agreed that a visit to the earthworks bund construction at Pier S6 would be carried out. Date to be confirmed.	FCBC
	(xiv)	FCBC confirmed that the practice of drivers using vehicle horns to indicate to plant operators when wagons were full was necessary on some occasions. FCBC explained that this was in a minority of situations where the topography of the site was such that vehicles and plant were in close proximity and it was not practical from a health and safety perspective for a banksman to be in place.	
		<u>Noise and Vibration Management Plan</u>	
	(xv)	Refer to item (i) above.	
		<u>Plans for Control of Noise and Vibration</u>	
	(xvi)	FCBC provided a summary of submitted and upcoming PCNVs. In particular, PCNV 11 Modification 3, PCNV 20 and PCNV 22, were discussed covering the Pier S6 earthworks bund, Marine Works and	

	<p>Pier S6 Cofferdam respectively.</p> <p><u>PCNV 11 Modification 1 and PCNV 22</u></p> <p>FCBC advised that tidal working would be required involving periodic night time working to allow an earth bund to be constructed around the location of Pier S6. It was noted that this was the viaduct pier immediately north of Port Edgar Barracks. FCBC advised that a combination of vibratory rollers and dead weight rollers would be necessary to compact the earth bund and confirmed that at times, vibratory rollers would need to be used at night. FCBC confirmed that the creation of the bund would bring the rollers in close proximity to the bunker at the south shore and advised that an increase in PPV limits from those outlined in the CoCP would be required.</p> <p>WLC asked how close a roller would be permitted to get the bunker under the increased thresholds. FCB advised that the vibratory roller could get within approximately 5 metres of the bunker and that the final section would be completed using a dead weight roller. FCBC advised that the dead weight roller would require more time consuming working methods, using thinner layers and more passes of the roller and would not achieve as efficient a compaction of the bund which was an important aspect of safe working in the Pier S6 area. FCBC advised that they would be carrying out a trial to determine the closest proximity to the bunker that the vibratory roller could be used without exceeding practical vibration limits.</p> <p>EDT asked that when carrying out the works, FCBC consider whether use of the vibratory roller at night was essential as this may have the potential to cause some disturbance to adjacent residents. This is to be considered in the working method and evaluated on site.</p> <p>FCBC set out their proposed monitoring approach for the works as follows:</p> <ul style="list-style-type: none"> • Trial measurements of vibration levels exhibited by roller to be used at various distances for both vibration and dead weight modes • Vibration monitoring at bunker • Daily vibration monitoring of all activities <p>FCBC referred to BS5228 and BS7385 regarding vibration and explained that structures below ground are known to sustain higher levels of vibration and are very resistant to damage unless in a very poor condition. FCBC requested an increase in the PPV threshold for continuous vibration from 5 mm/s to 12 mm/s, and an increase for intermittent vibration from 10 mm/s to 24 mm/s. The NLG advised that they were content, in principle, with the proposed increases given FCBC's proposed approach to vibration monitoring, but would comment formally once the PCNV had been received for review. FCBC to consider all comments made in finalising the draft PCNV.</p> <p>EDT asked what material would be used to construct the bund and advised that tipping material may cause a noise disturbance to local residents at night. FCBC advised that the bund would be made up of a combination of clay, small rocks and larger rocks (up to 750mm in diameter) and advised that as many noise activities as possible would be carried out during the day or earlier in the evening in order to reduce the risk of night time disturbance. EDT asked that FCBC consider whether material can be brought to the area and stockpiled during the day to reduce the number of vehicle movements and tipping</p>	<p>FCBC</p> <p>FCBC</p>
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		<p>activities necessary at night.</p> <p>CEC asked what the proposed timescales were for the creation of the bund. FCBC advised that the works were programmed to commence by the end of October, with the bund taking approximately 3 weeks to construct under normal tidal conditions and the sheet piling operation taking an additional 3 to 4 weeks to complete. FCBC confirmed that the sheet piling works would be daytime working.</p> <p>FCBC added that an appropriate amount of respite would be provided. The EDT requested that the NLG be kept up to date with progress in the weekly marine conference call.</p> <p><u>PCNV 20</u></p> <p>FCBC provided an overview of the forthcoming programme of marine works and indicated the updated programme would be set out in a modification to PCNV0020. FCBC advised that PCNV 20 Revision 8 covering Marine Works would be submitted to the Employer for review week commencing 08/10/12. FCBC advised that the majority of the works covered by the PCNV would be carried out during the daytime period (80-90%), with the 24 hour working continuing at the caissons.</p>	FCBC
		<u>Monitoring</u>	
	(xvii)	<p>FCBC provided an update on the monitoring that had been carried out during September.</p> <p>FCBC presented a list detailing all construction related noise threshold exceedances that occurred between 03/09/12 and 20/09/12. FCBC advised main sources of exceedances were marine works and the movement of construction plant at Echline Field with maximum noise level threshold exceedances recorded. The monitoring results were discussed and noted by the NLG.</p>	
	(xviii)	<p>FCBC advised that attending monitoring was carried out in the vicinity of Pier S8 on 18/09/12. Attending monitoring was carried out in order to assess the noise levels associated with a concrete pour overrun at Echline Field. FCBC advised that no noise level exceedances were recorded during the attending monitoring, however an exceedance was recorded at the fixed monitor at Linn Mill resulting from plant movements after the concrete pour.</p>	
	(xix)	<p>FCBC set out the monitoring approach for the Linn Mill area. This included regular, periodic attended monitoring of forthcoming night time works and attended monitoring of all new activities in the area. FCBC to review need for alternative permanent monitoring solution prior to next NLG meeting.</p>	FCBC
	(xx)	<p>FCBC advised that they had received feedback from SNH in relation to the underwater noise report. FCBC advised that SNH were generally content with the underwater noise levels recorded but that the report required to be amended to include more detail and to address SNH's comments. FCBC advised that the amended report would be circulated to SNH and the Employer for review by 12/10/2012.</p>	FCBC
	(xxi)	<p>FCBC provided an overview of the vibration monitoring carried out between November 2011 and July 2012. EDT confirmed that they had provided comments to FCBC in relation to the November 2011 to January 2012 vibration monitoring report and that the reports covering the period from February 2012 to July 2012 were currently under</p>	

		<p>review. EDT noted that there had been a delay in FCBC issuing the reports compared to the timescales indicated at the last NLG meeting and that this was delaying review and finalisation of the reports and publication of the reports on the web site. EDT expressed significant concern regarding the completion of the vibration reporting by FCBC, particularly as it was an ongoing issue that had been discussed at previous NLG meetings. EDT insisted that the monitoring reporting was brought up to date before the next NLG meeting.</p> <p>FCBC explained that there were a number of short gaps in the vibration monitoring data as a result of monitoring equipment being relocated, power cuts and emergency maintenance of the equipment.</p> <p>FCBC advised that due to the number of local interferences (i.e. non-construction related vibration) all permanent vibration monitors were currently be revisited in order to assess whether they can be relocated to a more suitable locations.</p> <p>FCBC advised that future vibration monitoring reports would be provided to the Employer for review in a timely manner.</p>	<p>FCBC</p> <p>FCBC</p>
		<u>Community Engagement</u>	
	(xxii)	<p>FCBC advised that no formal complaints or enquiries had been received in relation to noise and vibration during September. FCBC advised that this was most likely to be due to a drop in the extent of marine works being carried during the month and also partly due to the additional mitigation measures that had been implemented (such as additional rubber mats being installed on the spilt barge used in dredging works).</p> <p>EDT advised that an informal enquiry had been made by a resident of Queensferry in relation to works at Echline Field. FCBC confirmed that this had been responded to.</p>	
		<u>Forward Programme</u>	
	(xxiii)	FCBC provided an overview of their forward programme and indicated that marine operations continued to be their main priority.	
4(b)	M9 Junction 1a	<u>Actions from Previous Meeting No. 15</u>	
	(i)	SRB advised that they had investigated the potential use of a mobile temporary acoustic barrier as noise mitigation for the forthcoming night time pavement works. However, it was determined that the use of such a barrier was not feasible due to restricted working space on the carriageway. SRB also advised that any noise mitigation benefit adjacent to the existing environmental barrier would be minimal.	
	(ii)	SRB advised that they were still working with their sub-contractor to assess whether non-tonal alarms can be provided and that an update would be provided to the NLG when the issue had been resolved. (see item viii below)	SRB
	(iii)	NLG confirmed that amended pavement plans and a more detailed programme were received in advance of the NLG meeting.	
	(iv)	EDT advised the July construction noise monitoring report had been uploaded to the project website.	
	(v)	SRB advised that toolbox talks provided to their pavement and gantry teams covered minimising night time noise and disturbance to residents.	

		<u>Plans for Control of Noise and Vibration</u>	
	(vi)	SRB issued a revised PCNV schedule which was reviewed. SRB advised that a revised PCNV covering the up to date plans for the pavement works had been submitted to the Employer for approval.	EDT
	(vii)	<p>SRB tabled pavement works plans and programme covering the forthcoming pavement works. SRB advised that pavement would be laid during daylight hours, however, planing operation would need to be carried out at night due to programme constraints and construction sequencing.</p> <p>CEC asked if any respite would be provided during the 6 week construction programme. SRB advised that no pavement works would take place in the 3rd weekend of the 6 week programme thus providing a period of respite.</p> <p>SRB agreed to keep CEC up to date with any changes to the 6 week programme.</p> <p>SRB advised that an additional letter drop to local residents would be carried out following the respite weekend, informing them that works would be starting back up again until completion.</p> <p>SRB advised that during the week it was likely that the planing operation would be complete by midnight. However, at weekend this activity was likely to continue into the early hours of the morning.</p>	<p>SRB</p> <p>SRB</p>
	(viii)	EDT requested an update on the reversing alarms to be fitted to construction plant during the pavement works. SRB advised that Tarmac's own plant would be fitted with broadband reversing alarms, however, their sub-contractor's plant may not be fitted with tonal alarms.	
	(ix)	CEC asked where the excavated material from the planing operation would be transported to off site. SRB to advise CEC.	SRB
	(x)	SRB confirmed that attended monitoring would be carried out each weekend of the forthcoming pavement works. SRB agreed to prepare a noise report covering the 1 st weekend of works and issue to the NLG for review in advance of the 2 nd weekend. The report will include noise levels together with on-site observation and details of any complaints.	SRB
		<u>Monitoring</u>	
	(xi)	SRB advised that they had submitted a cumulative noise assessment to the Employer for review on 04/10/12. EDT to review.	EDT
	(xii)	SRB advised that the overall construction works on the M9J1a project were programmed to be 90% complete by the end of November 2011. SRB queried how long monitoring activities would be required to continue on site. EDT advised that noise and vibration monitoring would need to continue as long as works were being carried out on site.	
		<u>Community Engagement</u>	
	(xiii)	SRB advised that no complaints were received in relation to noise and vibration during September 2012.	
	(xiv)	SRB advised that 2 letter drops were carried out in advance of the	

		gantry erection works and in advance of the pavement works which started on 01/10/12.	
	(xv)	SRB to provide CEC with a copy of the letter to be issued to members of the public in the next letter drop.	SRB
		<u>Forward Programme</u>	
	(xvi)	SRB provided the following information regarding planned works for October: <ul style="list-style-type: none"> • Complete riprap at Swine Burn • Install mammal ledge at Niddry Burn Culvert • Complete topsoiling and seeding in remaining areas • Continue attenuation pond finishes • Erection of safety barrier • Median works to be completed • M905E snagging works ongoing • M908E complete parapets and backfilling • M912 Installation and retrofit Niddry Burn Culvert mammal ledge • Erection of gantry no. 10, 11, 12 and 6 	
4(c)	Fife ITS	<u>Actions from Previous Meeting No. 15</u>	
	(i)	JG provided an updated gantry erection programme to the NLG.	
		<u>Plans for Control of Noise and Vibration</u>	
	(ii)	JG advised that PCNV 0007 had been modified in the period to cover night time earthworks at G08 and noted it had been approved.	
	(iii)	JG advised that they do not currently intend to submit any further PCNVs or modifications.	
		<u>Monitoring</u>	
	(iv)	JG advised that some exceedances of the night time LA _{max} and LA _{eq} threshold levels had occurred during the period. JG explained that these exceedances were limited to a one hour period and were due to occasional hammering which was necessary during the fitting of the secondary steelwork. However, JG advised that in order to mitigate against the aforementioned exceedances, all secondary steelwork was now being trial erected in the site compound prior to transport to the road network. JG hope that this approach will be successful for all future gantries. JG advised that a construction noise monitoring report covering the recent gantry erection works would be submitted to the Employer for review week commencing 08/10/12.	JG
	(v)	JG advised that site supervision by a Graham appointed noise consultant was currently ongoing to ensure that gantry installation works are being carried out in accordance with the PCNV.	
	(vi)	JG advised that no non-conformance reports were raised in relation to noise and vibration during the period.	
		<u>Community Engagement</u>	
	(vii)	JG advised that no complaints or enquiries were received in relation to noise and vibration during the period.	
	(viii)	JG advised that a letter drop had been carried out in advance of the	

		night time earthworks at G08. The letter drop was followed up with telephone calls and specific visits for the most sensitive receptors.	
		<u>Forward Programme</u>	
	(iv)	JG tabled the gantry installation programme and advised when each of the remaining gantries were programmed to be erected. JG advised that under the current programme all gantries would be erected by the end of October 2012. JG advised that gantry signage at G01, G04, G07 and G08 would be erected by 05/10/12.	JG JG
5	Next Meeting	The next meeting (No. 17) will be held on 1 November 2012, 10am, Ferrytoll site office.	
6	Any Other Business	Nothing to report	