

Toowoomba Second Range Crossing **WHS Audit of Mobile Plant Incidents** Toowoomba, Queensland

Qld Department of Transport and Main Roads (TMR)

April 2018

Statement of Limitations

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Recommendations for Further Study

The industry recognised methods used in undertaking the works may dictate a staged approach to specific investigations. The findings therefore of this report may represent preliminary findings in accordance with these industry recognised methodologies. In accordance with these methodologies, recommendations contained in this report may include a need for further investigation or analytical analysis. The decision to accept these recommendations and incur additional costs in doing so will be at the sole discretion of Qld Department of Transport and Main Roads (TMR) and Prensa recognises that that Qld Department of Transport and Main Roads (TMR) will consider their specific needs and the business risks involved. Prensa does not accept any liability for losses incurred as a result of Qld Department of Transport and Main Roads (TMR) not accepting the recommendations made within this report.

Executive Summary

Background

1. Prensa Pty Ltd (**Prensa**) was commissioned to conduct an Independent Work Health and Safety Audit of vehicle rollover incidents that have occurred on the Toowoomba Second Range Crossing Project. The Audit process was initiated as a review into systems implemented to manage mobile plant (including investigations into such incidents) in accordance with the Terms of Reference document provide by TMR.
2. On 16 March 2018, Prensa delivered a preliminary Stage One Report (**Stage One Report**). The Stage One Report provided preliminary findings from inspections, interviews and document reviews that were undertaken between Monday 26th February and Thursday 8th March 2018.
3. The key themes / recommendations from the Stage One Report were:
 - a) ND and the PC should improve the quality, consistency and independence of investigations;
 - b) ND and the PC should conduct a review of (and enhance) subcontractor engagement and consultation arrangements (including engagement with HSRs);
 - c) ND and the PC should conduct a review of (and enhance) the adequacy and consistency of supervisory arrangements, verification of competency, effectiveness of controls implemented to address incidents and processes to identify and manage work activity deviations;
 - d) ND and the PC should confirm that HSRs are provided with required training, resources and time to undertake their role on the project.
4. Prensa has been engaged to:
 - a) Conduct a detailed review of the vehicle rollover incidents that occurred to assess effectiveness of controls recommended including conducting discussions with operators involved in the previous incidents where possible;
 - b) Assess effectiveness of consultation arrangements by speaking with HSRs, committee members and a diversity of plant operators on the site to understand whether consultation has occurred on the documents introduced subsequent to the incidents (it is noted that Prensa spoke to a number of operators (approx. 8) on the day of the first round of auditing but that these operators were not involved in the events or consultation on the documents produced);
 - c) Interrogate the training and competency of the existing HSRs, committee members and H&S team to understand suitability to perform their duties, including operational requirements on the project;
 - d) Further assess the Verification of Competency (VOC) process by interviewing/discussing systems implemented by the subcontractors involved in the rollover events, where possible (e.g. what has the VOC testing process included);
 - e) Interrogate processes for dealing with deviations from planned work activities to determine the effectiveness of these processes; and
 - f) Further assess supervision arrangements in place by observing activities across representative work area including understanding the pre-start process and observing the Signage and Delineation crew processes.

Summary of Findings and Recommendations

5. Overall it is considered that ND (and Ferrovial Agroman (Australia) Pty Ltd as the nominated Principal Contractor) has a number of comprehensive processes in place to plan and manage WHS risk associated with mobile plant, including task specific risk assessment and various permit to work requirements. These processes, as a whole, are considered appropriate given the scale and complexity of the project. In addition, various mechanisms are in place to engage and manage contractors on site using mobile plant, including risk assessment, SWMS, various permit to work requirements, pre-planning, site familiarisation and project specific communications protocols including rewarding good safety performance. The Project Work Health and Safety Management Plan summarises how the systems are to be implemented on the project.
6. A summary of findings and recommendations aligning to the three parts of the Terms of Reference are outlined below:
7. **Part 1 – The incident investigation approach implemented / used by the Contractor**

ND was found to have a detailed incident reporting and investigation procedure, which includes the requirement for competent and trained investigators to be involved in the investigation of Category 1 incidents, including dangerous incidents. Whilst investigations have been undertaken by ND typically using an ICAM investigator who is part of the ND project H&S Team, various areas for improvement were noted in relation to the establishment of an effective investigation team, the detail of the investigations, and the gathering of key contributory factors relating to the incidents, which will facilitate the definition and implementation of preventative actions. Specific training in high risk work can be further rolled out to enhance competency of key incident management/investigative personnel to ensure robust investigations are conducted.
8. **Part 2 – The systems of work implemented to manage mobile plant as they relate to rollovers**

Systems of work implemented by ND to manage the safe use of plant are generally consistent with industry expectations. Various procedures, registrations, risk assessments, certifications, maintenance documents, planning and toolbox communications, pre-start checks and logbook processes were observed to be in place. The review undertaken of the plant rollover incidents has indicated that a number of these were associated with deviations from the planned work and therefore SWMS controls. There has been a significant increase in focus on the systems of work to manage mobile plant and associated competencies since late 2017, and this needs to continue to focus on VOCs, the review/amendment of SWMS, Task Risk Assessments (TRA), pre-planning processes and deviations, including the use of signage/flagging and the establishment of restricted access and no-go zones. It is recommended that there be increased surveillance of mobile plant work activities through enhanced training and competency of the WHS Advisors, and the engagement of Health and Safety Representatives (HSRs) to assist in providing more mechanisms for inspection and feedback.
9. **Part 3 – The investigative actions undertaken by Project Co. and the Contractor**

The investigative actions undertaken by Project Co. and the Contractor to address incident investigation outcomes (specifically relating to mobile plant rollovers) has resulted in a range of additional risk controls being implemented to mitigate re-occurrence. This included the development and implementation of checklists (concrete pumping) and permits to work (batter access and pick and carry) to identify hazards prior to commencement of work, and for these higher risk activities to be reviewed and authorised by an experienced ND stakeholder (e.g. Engineer). Evidence of these processes being adopted was available during the audit, demonstrating that systems and process

change had occurred. However, the processes of VOC of ND worker and subcontractor plant operators requires enhancement. There was a lack of consistency in the review of VOC systems implemented by ND and major subcontractors, and the inclusion of site specific hazards (e.g. topography and terrain) in these assessments was ad hoc. VOC processes ranged from detailed competency review (theory and practice) by an independent party (not employed directly by ND or subcontractor) through to a letter of authorisation from an assessor within the same business. Key recommendations have been made to increase vigilance and robustness of the VOC processes to effectively and practically assess the competency of workers/subcontractors.

10. A number of positive steps have been taken towards the establishment of processes and tools to manage plant, however, there are many enhancements that can be made to existing systems to ensure that they are more robust. These are documented in more detail below within Appendix A of this report.

Conclusion

11. It is considered, given the scope of the Terms of Reference, the information sourced and observations made during the audit, that ND has many processes in place to address the risks associated with powered mobile plant. A number of plant rollovers continued to occur into 2017, with the major contributing factors to these being VOCs, the varying risk profile of the site, terrain and deviation from planned activities. The recommendations within this report provide the mechanisms to support NDs drive going forward to minimise exposure to plant rollover incidents.

Key Findings and Recommendations

Item No.	Findings	Stage 1 Recommendations	Stage 2 Recommendations
Theme 1 - ND and the PC should improve the quality, consistency and independence of investigations by implementing the following			
1.	<p>Review of section 12 of the WHSMP and the Procedure identified discrepancies in competency requirements for investigators where lead investigators for Serious Incidents (Category 2) must have an "External Incident Investigation Training" under the WHSMP but not under the Procedure.</p> <p>A detailed review was conducted of data available at the ND offices for the rollover events previously reported (as printed out from Complyflow). Discussions with ND stakeholders identified that Safety Advisers are required to input incident data into the Complyflow system and that the data in the system is not routinely audited.</p> <p>A review of the Incident Tracking Spreadsheet (TSRC-HS-FOR-1704) for all reported incidents/hazards (as printed out from Complyflow) identified the following additional findings:</p> <ul style="list-style-type: none"> Incident descriptions (short and long) were found to be lacking; Incident category classifications were inconsistent between similar incidents; Various Complyflow fields had not been populated; and Incidents appeared to have been closed out with little detail regarding controls implemented. 	<p>Rec 1a - ND and the PC should update the Incident Notification, Investigation and Reporting Procedure (TSRC-HS-PRO-17) to ensure consistency in competency requirements for investigations of Serious Incidents/Categories. This should include consistency in terminology (Category or Risk Level and include the definition of a Category 4 situation) and to ensure that plant rollover incidents are always considered Category 1 and therefore always investigated by an independent competent investigator and always include the operator involved in any incidents and any witnesses.</p>	<p>Rec 1.2.a - ND should implement a performance improvement process for the H&S Team that incorporates the following elements:</p> <ul style="list-style-type: none"> Training to improve the quality of incident data collected including the use and management of Complyflow, recording of incident descriptions, incident classification, incident controls and closeout; Assurance program to monitor incident data quality; and Analysis process to identify trends for reporting at management meetings.
1.	<p>The procedure for Incident Notification, Investigation and Reporting (Sec 6.2.1) defines the requirement for all Category 1 investigations to be undertaken by a person "Independent of the Project", however, this is inconsistent with the WHSMP (Sec 12.3) where the H&S Manager (or delegate) is to conduct "Serious" incident investigations.</p>	<p>Rec 1b - ND should update Section 12.3 of the WHSMP to be consistent with the Procedure and Plan whereby a person "Independent of the Project" is to conduct Category 1 investigations.</p> <p>Rec 1c - ND and PC should outsource incident investigations for all Category 1 incidents (including plant rollover events) to ensure independence in the outcomes of the investigation.</p>	<p>No additional recommendations.</p>
2.	<p>Competency requirements for lead investigators are listed in Table 4 of the WHSMP and Section 6.2.2 of the Procedure. There are no competency requirements listed in the documentation for external independent parties who may be required to conduct the investigation of Category 1 apart from having undertaken a formal training course in incident management. The WHSMP, Plan and Procedure do list examples of parties who should be involved in the investigation process.</p> <p>Review of the investigation data and Incident Tracking Spreadsheet found that two (2) different interrogation techniques/investigation methodologies were used for roll over events ('5 why's' and ICAM). ND H&S personnel indicated that this was due to the Category of incident selected, however even within the same incident category the two methodologies were used. This may lead to inconsistent investigation outcomes. Detailed review of the investigation data identified that of the 18 plant rollover investigations available on file:</p> <ul style="list-style-type: none"> Only 6 were classified as Category 1 Incidents, 4 as Category 2 Incidents and 5 as Category 3 Incidents. The remainder were classified as either Category 4 incidents or no information was available on file to determine category; Only 1 of the incident investigations was found to have been conducted by an independent investigator (No. 2884). Although more recent incidents have been undertaken by an external investigator under legal privilege; H&S Representatives did not appear to have been involved in any of the investigations; Information available indicated that written evidence from Operators was only obtained on 3 occasions; Root cause is weighted towards Operator error or procedural non-conformance; HSRs and Operators only appear to have been consulted on one of the investigation outcomes although data was limited to confirm this from documentation available. 	<p>Rec 1d - ND should update the WHSMP, Plan and Procedure to define minimum requirements for competency of external incident investigators (e.g. definitions within existing ND documents). This should also include guidance for outcomes of investigations and timelines dependent on severity.</p>	<p>Rec 1.2.b - ND should review the Workplace Health and Safety Procedure Incident, Notification, Investigation and Reporting (TSRC-HS-PRO-17) and determine minimum investigation requirements, including investigation methodology, for each incident category. Investigations should include parties involved in the incident and where possible HSR's consulted on investigation outcomes.</p>

Item No.	Findings	Stage 1 Recommendations	Stage 2 Recommendations
	<p>Actions arising from the investigation appeared to be significantly weighted towards administrative controls and did not adequately consider the hierarchy of controls. A number of incident investigations were supplied by contractors demonstrating their own investigation had been conducted, however there did not appear to be any formal process within ND to review the adequacy of the investigation process applied nor the outcomes.</p>		
2.	<p>The use of a recognized investigation methodology (as listed in the documents) infers that root cause analysis will be undertaken by identifying the factors that lead to the incident. The use of the ICAM methodology has been demonstrated through review of the seven investigation reports provided, although some of the root causes and technical data relating to the incident are not clear.</p>	<p>Rec 1e - ND and the PC should conduct a review of key plant rollover investigations to confirm that root causes have been identified. This should include review of where technical data is lacking and required as part of the process.</p>	<p>No additional recommendations.</p>
3.	<p>Incident reports, and corrective actions identified within incident investigations, are required to be uploaded into the Complyflow database such that actions can be tracked and notifications issued to responsible parties. There was evidence that actions had been closed on Complyflow with no documentation uploaded to confirm this was the case (Franna Crane Rollover 31/7/17 ICAM Actions). Documentation was available, however, not uploaded.</p>	<p>Rec 1f - ND should update the Complyflow system to insert required close out of incidents. This must include uploading records to demonstrate actions have been undertaken.</p>	<p>No additional recommendations.</p>
3.	<p>There did not appear to be a formal process established for the review of control measures implemented out of incident investigation processes.</p>	<p>Rec 1g - ND and the PC should formalise the review process for controls implemented as outcomes of investigation to confirm they are practical and are effective in eliminating, or minimizing risk.</p>	<p>No additional recommendations.</p>
4.	<p>Given there are still pending actions in the Complyflow system for incidents that occurred in July 2017, notification and tracking processes may not be adequate to ensure all actions are completed.</p>	<p>Rec 1h - ND, PC and Subcontractors should increase the vigilance around implementation of pending/outstanding actions from incident reports by including status updates in Senior Management Team meetings (e.g. and on Nexus Delivery Monthly Progress Reports). Provide guidance for outcomes of investigations and timelines dependent on severity.</p>	<p>No additional recommendations.</p>
5.	<p>As noted earlier the WHSMP refers to the requirement for Category 1 incidents to be investigated by a person independent of the project and for subcontractors to conduct their own investigations in a similar manner to that conducted by ND. It would appear, based on interviews with ND staff during the audit, that more recent Category 1 incidents have been investigated by an independent organization with findings legally privileged, however this does not appear to be the case going back earlier in the project.</p> <p>Further interrogation of competency requirements (during stage 2) associated with ND H&S team members leading or involved in ICAM investigations found that while ICAM training certificates were available, actual competency of H&S team members had not been established through a formal process. Discussions with a number of H&S Advisors also found opportunities to improve training or enhance experience in the roles they perform particularly with respect to high risk construction activities. Interviews identified that:</p> <ul style="list-style-type: none"> 1 H&S adviser was a recent graduate with limited WHS experience prior to the project; 1 H&S adviser was initially employed as a flagging and delineation labourer and was transitioned into the role of H&S adviser prior to starting on site; and 1 H&S adviser possessed a 5 day Workplace Health and Safety Officer training. <p>The competencies of the remaining H&S resources were not reviewed however it was reported by the newly appointed H&S Manager that a review of H&S resource competency was proposed but not yet initiated.</p> <p>The ND Project Health and Safety Training Matrix was further examined and whilst it did indicate a range of H&S related training (mostly ND internal and online training) had been conducted, it does not set the minimum level of WHS qualification required to competently perform the role as a H&S adviser/coordinator or H&S Manager. This may be recorded in individual role/position descriptions, however was not able to be verified.</p>	<p>Rec 1i - ND should retain copies of subcontractor incident investigations (upload to Complyflow following review) for all incidents that require investigation on site in a form that can be provided to stakeholders to action causation and corrective action.</p>	<p>Rec 1.2.c - ND should initiate an independent review of its H&S team to determine the suitability of existing qualification/training, skills and experience, relevant to the project, to competently;</p> <ul style="list-style-type: none"> perform the role as a H&S Adviser or Coordinator; supervise high risk activities; undertake incident investigations; and implement suitable control or improvement initiatives. <p>Rec 1.2.d - ND should implement appropriate actions to manage any competency gaps raised through the review.</p>

Item No.	Findings	Stage 1 Recommendations	Stage 2 Recommendations
6.	Review of ICAM investigation reports found that the majority of reports had been signed off under Section 10 (Report Sign Off) by the Lead Investigator, ND Safety Manager, ND Superintendent and ND Project Manager / Director. This was generally undertaken after implementation of actions as documented in Section 9 (Action Plan) but as reported earlier, there was no sign off by subcontractors involved in the incidents.	Rec 1j - ND and the PC should establish a forum for subcontractors involved in Category 1 incidents and plant rollovers to be included in the investigation process as evidence of consultation.	No additional recommendations.
Theme 2 - ND and the PC should conduct a review of (and enhance) subcontractor engagement and consultation arrangements (including engagement with HSRs) by implementing the following			
1.	A review was undertaken of the completion of Supplier Questionnaires for Ostwald Bros (bulk earthworks), Meales (concrete pumping) and QLD Crane Hire and Rigging (Franna lifting). Required details were completed within the Ostwald Bros questionnaire including reference to appropriate company documents. The questionnaire was reviewed and approved by the former H&S Manager in November 2016. However, review of Section 7 of the Meales questionnaire found that limited information was provided in the document at the time of the tender (e.g. limited safety performance information, one year only provided for 2016).	Rec 2a - ND should conduct a retrospective assessment of H&S documentation collected for subcontractors undertaking high risk work on site to confirm their previous health and safety performance meets the requirements of the ND review system.	No additional recommendations.
1.	Review of the Subcontractor Health and Safety Information Pack identified that the document had not been updated to reflect controls introduced following the rollover incidents (e.g. concrete pumping checklist, batter assessment permit, pick and carry permit) and therefore newly engaged contractors may not be aware of these documents.	Rec 2b - ND should update the Subcontractor Health and Safety Information Pack (TSRC-HS-FOR-1104) in accordance with Document Control procedures to incorporate the permits/checklists developed following the plant rollover incidents (e.g. batter assessment permit) and the enhancement of the VOC processes discussed under Audit Part 3.	No additional recommendations.
1.	The WHSMP, Procedures and Plans have not been updated to incorporate the control measures identified and implemented subsequent to the plant rollover incidents.	Rec 2c - ND should update the WHSMP and ND Procedures applicable to the use of checklists/permits and enhanced VOC process to enforce the importance of their use for new and existing subcontractors.	No additional recommendations.
1.	Procurement processes have been detailed for the project within the Procurement Management Plan. The plan refers to procurement of subcontracted personnel to undertake "self-performing" work on behalf of ND (working to ND procedures/plans) or engagement of subcontractors to conduct work under their own systems. The use of the term "self-performing" is not defined in the documentation.	Rec 2d - ND should update the WHSMP to define what is meant by "Self-Performing" works including associated supervision and management requirements of these workers.	No additional recommendations.
2.	Evidence was available to demonstrate that a daily inspection checklist process was established for elected/nominated HSRs to complete in September 2017. This document does not appear to have been updated to incorporate permits and checklists developed/implemented since the rollover events occurred and does not nominate these permits as being required on the front page of the document where permit to work processes are denoted with an asterisk. It is also uncertain whether training has been provided to HSRs specific to the use of the checklist. Interviews held with HSR's during the stage 2 audit process identified that 27 worker representatives were aware of the HSR Checklist and found the checklist to be useful. Many of the representatives were only recently provided with a copy of the checklist (e.g. within the previous week / month) and reported being provided some basic information on how to complete the checklist. However, review of checklists on hand during the audit process found many were only using the documentation on an ad-hoc basis and did not have a full understanding of hazards/controls to look for during the inspections.	Rec 2e - ND and the PC should verify that the HSR Daily Safety Inspection Checklist (TSRC-HS-FOR-0807) has been implemented through retention and tracking of documentation. Rec 2f - ND and the PC update the HSR Daily Safety Inspection Checklist (TSRC-HS-FOR-0807) to incorporate permits and checklists introduced following rollover incidents and provide training to HSRs on the use of the updated inspection checklist.	Rec 2.2.a - ND should consult with HSRs to review and revise the HSR Daily Safety Inspection Checklist (TSRC-HS-FOR-0807) to ensure it is fit for the use intended and implemented.
3.	Stage 2 of the audit involved the interview of 33 worker HSR's and 4 management HSR's on the project. Anecdotal evidence from these interviews found a general consensus that the level of consultation and engagement with workers had markedly improved over the preceding 4-6 weeks. HSR's cited the following improvements as having occurred: <ul style="list-style-type: none">Contractors were/are encouraged to nominate HSR's;ND had made HSR training available to nominated/elected HSR's of which many had taken this training up;Participation on committee meetings had significantly improved; andRegular committee meetings were being held and a greater focus had been put on timely reporting of minutes.	No Recommendations	Rec 2.2.b - ND should update the Site Induction to incorporate the following: <ul style="list-style-type: none">Focus on plant safety and terrain issues on site;Reference for the need to complete the Concrete Pumping Checklist prior to pours;Requirement for VOC to be provided whether a license is needed to operate the plant or not;Reference to Consultation Arrangements including HSR's, Committee's, Pre-Starts, Toolbox Talks and where names of HSR's can be found.

Item No.	Findings	Stage 1 Recommendations	Stage 2 Recommendations
	<p>A review was undertaken of the ND Site Induction slides and an inspection was conducted of the worker/contractor induction room at the ND Central Office. The review identified the following key points:</p> <ul style="list-style-type: none"> The induction has been amended since the introduction of the permits for batter access and pick and carry activities; The induction <u>does not</u> refer to the requirement for the Concrete Pumping Checklist to be completed prior to pouring activities; The induction <u>does not focus</u> on plant rollover controls and refers to the requirement for plant operators to be "ticketed or VOC'd"; There is <u>no reference</u> to HSR consultation processes in the induction or photographs/names of these representatives in the induction room. 		
4.	Information reported by the HSR's interviewed identified a theme of a "perceived" lack of planning ahead for work to ensure that activities are undertaken in a programmed manner however this could not be confirmed at the time of the audit. This was not necessarily associated with just high risk construction work but rather activities that are contingent on one another.	No Recommendations	Rec 2.2.c - ND should undertake a review of planning activities to identify if there are any improvements that can be made in the identification and managing of high risk construction work (e.g. contingent works, changes to supervisory arrangements).
5.	<p>The WHSMP (Section 4.2.1) defines the requirement for "A competent manager to be on site at all times while any high risk construction work is being conducted to provide oversight of those activities and respond to emergencies."</p> <p>Interviews held with HSR's during stage 2 found a general consensus (>80%) that Supervision by ND and Subcontractors was adequate for the work being undertaken. However there was anecdotal information received from some HSR's that there were situations where ND Supervisors were not believed to be competent to supervise specific activities. One reported example by a HSR/Scaffolder related to a ND Earthworks Supervisor tasked with supervising working at height and scaffold activities and providing instructions inconsistent with the contractors SWMS. This was unable to be verified during the audit.</p>	Rec 2g - ND and the PC update the WHSMP section 4.2.1 to define what is meant by a "competent manager". This should include review of supervision, monitoring and assurance activities to establish minimum standards based on risk level of activities being undertaken.	Rec 2.2.d - Reference should be made to recommendation 2g made under Stage 1. The review process should also incorporate required qualifications/training, skills and experience, relevant to the project and particular types of work.
6.	The ND Project Health and Safety Training Matrix does not mandate the need for the H&S Team to be trained in high risk works.	Rec 2h - ND should update the Project Health and Safety Training Matrix for training in high risk construction work as either "Mandatory" or "Desirable" for H&S Coordinators/Advisors.	No additional recommendations.
8.	Stop work processes are not well defined for changes to work processes / hazards or where a HSR believes that this is necessary due to a high risk situation being present. Nonetheless, workers and subcontractors included in discussions on the day of the site inspection did indicate that changes to the work process should initiate the need for a review of the SWMS and conduct of a new TRA although this was reported to be an informal process. Review of incident reports for the plant rollover events found that a number of rollovers had occurred through deviations from the developed SWMS.	<p>Rec 2i - ND should develop and implement a procedure for review/amendment to SWMS/TRA by consulting on possible situations where increases in risk may occur at pre-start meetings (e.g. what could change and what triggers a review). This should also include an increase in supervision for high risk activities or activities that can undergo rapid change throughout the working day.</p> <p>Rec 2j - ND should update the WHSMP to include the powers of the HSR and when work may be stopped.</p>	No additional recommendations.
9.	<p>It appears from review of the H&S committee minutes that time is allocated for the meetings and that committee members are involved in inspections of the workplace where these are arranged (typically once per month). There were also entries in the minutes demonstrating discussion of major plant rollovers including the concrete pump and grader and lessons learned from these events. The lessons learned refer to operator competency, not following SWMS, etc. In saying this, timeframes and resources allocated to committee meetings, inspections and consultation with HSRs could be enhanced to allow for greater participation in changes to processes and systems.</p> <p>Discussions with HSR's during stage 2 of the audit confirmed a general consensus that consultation arrangements had increased significantly in the preceding 4-6 weeks. The majority of HSR's reported being afforded adequate time to allow for safety inspection activities, committee meetings and HSR training. HSR's also agreed in the majority of cases that they believed that the new committees established in the months prior to the audit were now effective, attendance had increased significantly and that they felt issues could be discussed in an open forum.</p>	<p>Rec 2k - ND and the PC should increase consultation processes through more regular committee meetings, greater involvement on committee meetings, providing adequate time and resources to conduct meetings, etc.</p> <p>Rec 2l - ND and the PC should update the WHSMP, Communication and Consultation Procedure and Committee Charter to define the greater degree of involvement the committee and HSRs have in the workplace as outlined above.</p> <p>Rec 2m - ND and the PC should discuss incident investigation outcomes at committee meetings to provide a consultation mechanism for feedback. These discussions must be recorded in the meeting minutes.</p>	Rec 2.2.e - ND and the PC should confirm that committee minute distribution lists are available and current for all new members to these committees.

Item No.	Findings	Stage 1 Recommendations	Stage 2 Recommendations
	Evidence was available to demonstrate that meeting minutes were being generated in a more timely manner and posted within offices in the Region where the committees were based. It was noted that around 33% of HSR's indicated that they were not provided with copies of committee meeting minutes after recent meetings, although they also reported that the minutes may have been available in the Crib Huts but they had not seen them.		
10.	Review of the H&S Committee Meeting minutes for the East found that training of representatives had been discussed and carried over from the July meeting 2017 into the August meeting. Email evidence from August 2017 indicated that the payment of training for HSRs was considered the responsibility of subcontractors that nominated persons into these roles. More recently, evidence was provided to demonstrate that requests to complete HSR training had been submitted by 20 representatives between 21st and 28th February 2018 with five of these being ND employees and the remainder being from subcontractors. Training was to be commenced through Ballistics Training Solutions for 14 of these representatives on 6th March 2018. Prior to this, it appears that another five persons were trained to be HSRs from 27th November to 1st December.	Rec 2n - ND and the PC should document the role of a HSR on the project such that newly elected representatives understand their role, consultation mechanisms available to them and how they can best make a positive impact on safety at committee meetings and in the workplace (including use of PIN notices). Rec 2o - ND and the PC should increase the emphasis on enhancing consultation mechanisms which can include review of the numbers of HSRs conducting inspections in the workplace (and following through with robust discussion at committee meetings).	No additional recommendations.
11.	H&S committees have recently been reinvigorated across the project, and there was consensus amongst the HSR's that this has improved the level of consultation and communication. Evidence was available of committee meeting minutes from each of the regions for the most recent meetings. The numbers of committee members was found to be much higher than on previous minutes and details contained within the minutes demonstrated a far more effective consultation process had occurred. This was found to be consistent with HSR interviews where the committees were reported to be largely effective. While the consultation arrangements being implemented at the time of the stage 2 audit appear to be much improved on previous arrangements, regular monitoring and feedback from workers involved in these processes should be obtained to ensure they remain relevant.	No Recommendations	Rec 2.2.f - ND should implement a process for periodic review of consultation arrangements and obtain anonymous feedback on the level of H&S implementation, communication and consultation across the project.
Theme 3 - ND and the PC should conduct a review of (and enhance) the adequacy and consistency of supervisory arrangements, verification of competency, effectiveness of controls implemented to address incidents and processes to identify and manage work activity deviations by implementing the following			
3.	Evidence was provided to indicate that the concrete pump checklist was discussed during the H&S committee meeting held on 29th August 2017 in the East portion. Review of the minutes indicated that this did not include a representative from Meales.	Rec 3a - ND and the PC should conduct a toolbox talk with concrete pumping staff about the benefit of the checklist and its use. Retain records of this toolbox. Rec 3b - ND and the PC should review other checklists and forms that have been introduced after the mobile plant incidents to confirm that effective consultation and communication has occurred on these. This may also require the presentation of further toolbox talks.	No additional recommendations.
4.	Monitoring activities being undertaken include daily and weekly H&S advisor/coordinator inspections (recorded in Complyflow), plant audit inspections (recorded in Complyflow), pre-start meetings to confirm checklist is being used and SWMS observations. Evidence was provided of these processes occurring including provision of a significant number of completed checklists and evidence of the use of the checklist provided during inspection of a pouring activity during the audit by Meales on embankment 16.	Rec 3c - ND should update the Complyflow system to allow for checklist confirmation to appear when conducting workplace inspections.	No additional recommendations.
7.	Apart from the authorization of SWMS that were revised post incident, there was no other supporting evidence provided at the time of the audit to confirm that the SWMS was further used.	Rec 3d - ND and the PC should verify that the revised SWMS and the newly established Pick and Carry Permit are available during cartage operations and reviewed prior to commencement of work during pre-start meetings.	No additional recommendations.
9.	The requirement for SWMS reviews to occur during pre-start meetings was discussed. There did not appear to be a formal process in place for the review of the changes made after the original incident occurred in July 2017 apart from emails submitted after the second incident occurred.	Rec 3e - ND and the PC should conduct a formal review of the SWMS updates and new Pick and Carry Permit with crane operators and associated workers to obtain feedback on these documents and to determine whether they will be effective moving forward.	No additional recommendations.
10.	During stage 2 of the audit a 25 Tonne Franna Crane was observed working on Bridge 10 of the site. Evidence was provided to demonstrate that an email had been issued by the Project Director confirming the requirement for Franna's to be banned from site unless specifically approved by the Project Director and only after special	No Recommendations	Rec 3.2.a - ND and the PC should amend the Pick and Carry Permit to incorporate sections that require review of the gradient of the ground surface and wind speed

Item No.	Findings	Stage 1 Recommendations	Stage 2 Recommendations
	<p>approval has been obtained through review of an activity specific risk assessment. Further to this, evidence was available to confirm that the use of a Franna crane had been approved for the installation of water pipe brackets on Bridge 10. Inspection of documentation available at the location of the works identified the following:</p> <ul style="list-style-type: none"> ▪ An activity specific risk assessment was available for the works; ▪ A completed Task Risk Assessment card was available for the works; ▪ A completed Job Hazard Analysis was available for the works; ▪ A completed "Pick and Carry Permit" was available for the works; ▪ The crane log book had been completed prior to start of works. <p>It was noted that a Supervisor for the subcontractor responsible for the works, who was also a HSR was present during the pick and carry operations. However, during a review of the documentation a number of anomalies were found as follows:</p> <ul style="list-style-type: none"> ▪ The risk assessment document requires the crane to operate on flat ground unless under a specific risk assessment. It was noted that the crane was being used to travel between a section of exposed soil and the relatively flat concrete bridge deck. However, there was a ground surface that the crane was required to traverse that was quite uneven and that had not been considered in either the TRA, JHA or Permit. However, it is noted that the crane was reported be operating with <10% of the crane load capacity. Further it was noted that the Pick and Carry Permit does refer to the "ground type" to identify makeup of material but does not consider gradient of the ground surface. ▪ The risk assessment document defines wind conditions that the crane cannot operate above (on two occasions). These wind conditions were not transcribed into the Pick and Carry Permit and the crane operator noted that there was no way to measure wind speed. <p>A review of the Pick and Carry Registers for East, Central and West identified many occasions since the introduction of the approval process whereby permits to undertake pick and carry work had been issued. A request was made on the day of the audit to obtain approvals, risk assessments and permits for any activities where a Franna was used (including a formal request made subsequent to the audit) but no documentation was available at the time of the audit. Considering some of the concerns raised above on the day of the audit, further interrogation of the robustness of this process is required.</p> <p>While not directly related to Franna use on site, a review was conducted of a number of Pick and Carry permits (E-PC006, E-PC007, E-PC008) for other plant used (Excavator). This identified sections of the permit that were not completed (sections 9 and 10).</p>		<p>(including processes to measure and assess these and communicate operating conditions to relevant workers).</p> <p>Rec 3.2.b - ND and the PC should delegate responsibility for the authorization and supervision of pick and carry activities to a small group of supervisors who have demonstrated competency in these operations including review of risk assessments, TRA's and permits to work. Evaluation of this competency should be a formal process.</p> <p>Rec 3.2.c - ND and the PC should deliver training to all permit authorisers to ensure they understand the importance of this process including the authorisation and consultation sections of the permit.</p> <p>Rec 3.2.d - ND should provide documented evidence of the approvals, risk assessments and permits to work for Franna use in order to allow for further interrogation of the robustness of the process that has been implemented.</p>
12.	Evidence was available to indicate that authorization had occurred of the SWMS and discussions indicated that the updated processes were discussed with operators, however, there was no evidence available of this at the time of the audit.	Rec 3f - ND and the PC should verify that the revised SWMS for rollers was issued to Operators and a record is retained on file.	No additional recommendations.
17.	A discussion with a roller operator in the West region indicated that he believed it was safe to roll edges parallel to the embankment which is not in accordance with the recommended procedure/toolbox training.	Rec 3g - ND and the PC should conduct a toolbox to confirm that all roller operators are aware of the requirements when rolling at edges using the presentation developed after the previous incidents.	No additional recommendations.
20. & 22.	Discussions with the H&S Team indicates that ARG Trees did consult with workers at the time of the SWMS update, however, evidence of this was not available at the time of the audit.	<p>Rec 3h - ND and PC should verify that consultation occurred with workers regarding the updated SWMS developed by ARG Trees through review of toolbox talk sign-off and pre-start meeting records;</p> <p>Rec 3i - ND and the PC should increase the SWMS observation process for excavators (and other plant) working on site to ensure that batter permits are being used and controls are understood and in place. Record this data in the Complyflow system.</p>	No additional recommendations.
28.	ND engaged an external consultant (Advanced Solutions) to review the VOC processes being used by ND and by major subcontractors. The report found that contractors had some form of approach to what is considered to be a VOC process but that many were not found to be robust enough. It was reported that some only had a practical component, no inclusion of a trainer/assessor to conduct a reliable review, etc. This audit found that there was a range of documentation in place to	<p>Rec 3j - ND and the PC should enhance the VOC review and approval process to ensure the robustness of the assessment and documentation submitted. This should include updates to procedures around this process.</p> <p>Rec 3k - ND should require subcontractors to undertake a review of their VOC processes and to enhance these to be consistent with ND expectations. This could</p>	No additional recommendations.

Item No.	Findings	Stage 1 Recommendations	Stage 2 Recommendations
	demonstrate competency had been assessed. This included operator assessment and competency documentation produced by ND (and assessed by a ND trainer/assessor) for self-performing works through to competency letters provided by subcontractors for their workers. A review of the VOC assessment and submission process is required to be conducted in order to ensure it is robust whether conducted internally by ND or through a subcontractor. Any VOC process should include hazards that are likely to be found on the project such as steep terrain.	include using ND competency assessment tools or using an independent third party trainer/assessor who can demonstrate that a robust system has been applied. Rec 3I - ND and the PC should enhance systems for the review/amendment of SWMS, TRAs, pre-planning processes and deviations, improvement to the use of	
Theme 4 - ND and the PC should confirm that HSRs are provided with required training, resources and time to undertake their role on the project by implementing the following			
1.	At the time of writing this report, there were approximately 33 committee members, both management and workers, across the three project areas (Central, West and East/Viaduct). Review of the H&S Committee Meeting minutes for the East found that training of representatives had been discussed and carried over from the July meeting 2017 for a number of months. Email evidence from August 2017 indicated that the payment of training for HSRs was considered the responsibility of subcontractors that nominated persons into these roles. More recently, evidence was provided to demonstrate that requests to complete HSR training had been submitted by 20 representatives between 21st and 28th February 2018 with five of these being ND employees and the remainder being from subcontractors (Castleross, Niepe, Unispan, Geovert, Coates, Qbirt, Davitt, Shults, Dowells, etc.). This training was to take place in March and April 2018.	Rec 4a - ND and the PC should verify that employees/subcontractors that have been nominated/elected by their peers to be HSRs have in fact been provided access to HSR training.	No additional recommendations.

Abbreviations/Acronyms/Definitions

12. Below is a list of abbreviations, acronyms and definitions used within this report.

Abbreviation/ Acronym	Definition
AIA	Acciona Infrastructure Australia Pty Ltd
AS/NZS	Australian Standard/New Zealand Standard
FAA	Ferrovial Agroman (Australia) Pty Ltd (also referred to as the PC)
H&S	Health and Safety
HSR	Health and Safety Representative
ICAM	Incident Cause Analysis Method
NAT	National OHS Self Insurer Audit Tool
ND	Nexus Delivery JV (joint venture between FAA and AIA)
NI	Nexus Infrastructure Pty Ltd (also known as Project Co)
OFSC	Office of the Federal Safety Commissioner
PC	Principal Contractor (FAA)
PCBU	Person Conducting a Business or Undertaking
PPP	Public Private Partnership
Prensa	Prensa Pty Ltd
Project Co	Nexus Infrastructure Pty Ltd
SWMS	Safe Work Method Statement
TMR	Queensland Department of Transport and Main Roads
TOR	Terms of Reference
TRA	Task Risk Assessment
TSRC	Toowoomba Second Range Crossing
WHS	Work Health and Safety
WHSMP	Work Health and Safety Management Plan
WHS Act	Worth Health and Safety Act 2011 (QLD)
WHS Regulations	Worth Health and Safety Regulations 2011 (QLD)
Deviation	A deviation is defined as the process of departing from an established course (e.g. a change in work activity which would require a review of the SWMs and controls to manage the risk.)
Rollover	The term “rollover” has been used in this report to define events where plant has rolled onto one side only (the word tipped has been used by ND previously) and onto more than one side.
VOC	Verification of Competency (VOC) is a method of documented evaluation of the skill level of a person against defined competency standards in order to evaluate the person's ability to carry out the relevant activity or works.

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1 Introduction

13. Prensa Pty Ltd (Prensa) was commissioned by the Queensland Department of Transport and Main Roads (TMR on behalf of the State of Queensland) to conduct an Independent Work Health and Safety Audit of vehicle rollover incidents that have occurred on the Toowoomba Second Range Crossing project (TSRC). The audit process was initiated to review systems implemented to manage mobile plant (including investigations into such incidents) in accordance with the Terms of Reference (TOR) provided by TMR.
14. Formal engagement occurred on Thursday 22nd February 2018 and site auditing work was conducted over two stages as follows:
 - Stage 1 – Initial document review, interviews and site inspection – Monday 26th to Wednesday 28th February 2018; and
 - Stage 2 – Detailed document review, interviews and site inspections – Monday 19th to Friday 23rd of March 2018.
15. The TOR was used as the basis of the auditing project.
16. This report provides findings from inspections, interviews and document reviews that were undertaken during both stages of the audit and should be read in conjunction with findings detailed in the preliminary report issued on 16th March 2018 that was titled 57939 TSRC Prelim WHS Audit Report V2.

2 Background

17. The following is a summary of the background to the project as described in the TOR issued by TMR on Thursday 22nd February 2018.
18. The TSRC is a State and Commonwealth funded infrastructure project delivering 42 kilometres of road connection from Helidon Spa to the Gore Highway West of Toowoomba. TMR is the party which has commissioned the construction work (for the purposes of section 294 of the Work Health and Safety Regulations 2011 (QLD) (WHS Regulations)) and a construction project (for the purposes of section 293 and 296 of the WHS Regulations).
19. The project is being delivered as an availability Public Private Partnership (PPP). Most importantly, the counter-party to the Project Deed for the TSRC is Nexus Infrastructure Pty Ltd (Project Co). Project Co has engaged Nexus Delivery JV (ND) (a joint venture between Acciona Infrastructure Australia Pty Ltd and Ferrovial Agroman (Australia) Pty Ltd) (Contractor) as the Contractor with principal responsibility to construct the project.
20. This project has experienced issues with Work Health and Safety (WHS) in particular with plant and vehicle rollovers. The Regulator, Workplace Health and Safety Queensland (WHSQ), has expressed a view that there are critical safety concerns on the project, indicated by the roll overs, and that these concerns may impact on whether:
 - The Contractor has sufficient skills, expertise or resources to carry out aspects of the work safely;
 - The Contractor has in place adequate safe systems of work and effective health and safety and management systems for particular types of work;
 - There is adequate monitoring to ensure such systems are effective;
 - The Contractor has systems that provide for adequate consultation and cooperation in relation to work health and safety matters.
21. TMR obviously takes the health and safety of workers on site extremely seriously and the health and wellbeing of workers on all State funded Projects is a priority. Therefore, in its capacity as a Person Conducting a Business or Undertaking (PCBU) and the proponent of the Project, TMR seeks to ensure

that, the implementation of management steps by the Contractor is reviewed to ensure that, to the extent reasonably practicable, health and safety is ensured.

3 Objective

22. The primary objective of the project was to critically analyse the processes implemented by Nexus Infrastructure (Project Co) as delivered by ND and the PC to manage the safe use of mobile plant and equipment with a focus on the investigation process (and subsequent learnings) from a number of plant rollover incidents. It should be noted that this report does not include audit findings from a review of the Project Co systems.

4 Audit Limitations

4.1 Project Timeframes

23. Prensa has undertaken to audit and review the systems of work being implemented by ND and the PC regarding safe use of mobile plant on the TSRC within the timeframes available to meet the needs of the Terms of Reference document. The results of this report are related to the systems implemented by ND and the PC and do not report on systems of work or assurance programs implemented by Project Co.

4.2 Access Limitations

24. Prensa has undertaken to collect and analyse as much data as possible and as accessible to the Contractor (Nexus Delivery) on the days of the audit. It is possible that other evidence exists to demonstrate the application of systems on the project site and the findings need to be considered in this context.

5 Terms of Reference

25. The TOR was provided by TMR defining the scope of the audit project. The TOR involved the review of three (3) key areas as follows:
- Part 1 – The incident investigation approach implemented / used by the Contractor;
 - Part 2 – The systems of work implemented to manage mobile plant as they relate to rollovers;
 - Part 3 – The investigative actions undertaken by Project Co. and the Contractor.
26. It should be noted that Prensa was requested to include a fourth key output associated with health and safety representatives training subsequent to the issue of the TMR. This is defined as:
- Part 4 – The training provided to Health and Safety Representatives.
27. Sections 5.1-5.3 below provide further definition of the aims of each part of the TOR. There were no written TOR for Part 4, however, Prensa has provided a summary under section 5.4 of aims of this part as established through discussions with TMR.

5.1 Part 1 – Incident Investigation Approach

28. Part 1 of the Audit was to examine the incident investigation approach undertaken by the Contractor following plant rollover events. This involved review of historical incidents with the Audit focus being on improvements for future investigations and systems to protect workers.
29. TMR note that ND and the PC may have implemented other measures not mentioned in the reports which enhance worker safety. Those additional measures were identified where appropriate.

5.2 Part 2 – Systems of Work for Mobile Plant and Rollovers

30. Part 2 of the audit was to be a review of key systems of work adopted by the Contractor on site with a particular focus on how they have been applied to manage high risk construction work activities involving plant and vehicles. The audit was to focus on, but not be limited to, the following:
- Management of subcontractors;
 - Supervision of high risk work activities involving plant and vehicles; and
 - General consultation, cooperation and coordination.

5.3 Part 3 – Investigative Actions Undertaken by Project Co. and the Contractor

31. Part 3 of the audit was to be a review of the implementation by the Contractor of the results of previous investigations as they relate to plant and vehicle operation on the site. The audit was to focus on the issues identified in the TOR with a view to testing the Contractor's application of their own system and the identification of opportunities for improvements on site.
32. TMR note that ND and the PC may have implemented other measures not specifically mentioned in the reports which enhance worker safety. Those additional measures were identified where appropriate.

5.4 Part 4 – Health and Safety Representatives Training

33. Part 4 of the audit was to be a review of the systems implemented to assess the competency of nominated/elected HSRs and training undertaken in order to be effective in these roles. This part of the audit was requested by TMR subsequent to meetings held on Friday 23rd February between project HSRs and Ministers of the State who attended the Project Office in Toowoomba.

6 Audit Methodology

34. The audit methodology adopted involved the following.

6.1 Audit Tools/Standards

35. The following key standards/tools have been used as a guide in the development of the audit methodology:
- AS/NZS 4801:2001 *Occupational Health and Safety Management Systems*;
 - National OHS Self Insurer Audit Tool (NAT);
 - OFSC Audit Criteria Guidelines Version 1.3 (22/01/2018); and
 - ISO 31000:2018 *Risk Management – Guidelines*.

Where a specific legislative duty is defined under the WHS Act and Regulation 2011, the intent of the duty has been incorporated into the criteria.

6.2 Interviews

36. A number of interviews and discussions were held with key stakeholders of the project over both stages 1 and 2. These included stakeholders from:
- TMR;
 - ND; and
 - Various subcontractors to ND.
37. ND representatives included, but are not limited to, the following:
- Project Director;
 - Safety Culture Improvement Advisor;
 - Procurement Manager;

- Superintendents;
 - Supervisors;
 - Leading Hands;
 - Foreman;
 - H&S Manager;
 - H&S Coordinator – Central & West;
 - H&S Coordinator – East;
 - H&S Advisors – Various Regions;
 - H&S Compliance Advisor - Systems;
 - H&S Compliance Advisor – Admin & Reporting, among others.
38. Worker representatives (33 HSR's) including personnel from the following subcontracting businesses:
- Toowoomba Formwork;
 - Lavally;
 - Trimlyon;
 - BH Mining and Civil;
 - BK Hire;
 - QBirt;
 - Geover;
 - Dowells;
 - Schultz Earthmoving;
 - Castleross;
 - Niepe;
 - Unispan, etc.
39. Various operators including one operator who was involved in a plant rollover incident from early 2017; and
40. Discussions were also held with subcontractors engaged to conduct ND "self-performing" works (e.g. operators treated as direct employees of ND and work under ND procedures and SWMS) and subcontractors engaged to operate as true subcontractors (e.g. working under their own procedures/SWMS).

6.3 Document Review

41. A request was made for a range of documents to be provided as evidence of the systems of work on the project. ND provided the following document as the overarching policy and construction safety plan for the project:
- *Health and Safety Policy*
 - Revision A – Approved 26/05/2016 (Document No. TSRC-HS-POL-01);
 - *Work Health and Safety Management Plan (WHSMP)*
 - Revision C – Approved 20/02/2018 (Document No. TSRC-HS-HSMP-PLA);
 - *Plant Management Plan*
 - Revision A – Approval Date Unknown (Document No. TSRC-HS-PLMP-PLA);
 - *Incident Management Plan*
 - Revision C – Approved 26/06/2017 (Document No. TSRC-HS-IMP-PLA).
42. Detailed procedures, SWMS and forms to manage a myriad of hazards on the project are contained in the Team Binder (online data repository) system and are listed in TSRC-HS-PRO-0901 *Listing of Current Documentation*. The above documentation links with the *Nexus Delivery WHS Risk Opportunity Register – TSRC Project* (TSRC-WHS-REG-0001).

43. Further to the provision of safety management system documentation, evidence was collected to demonstrate adherence with the systems including use of permits to work, SWMS compliance, etc. This included review of documentation associated with the various plant rollover events and documentation being retained / used by a random selection of plant operators during the site inspection.

6.4 Site Inspection

44. Representative inspections were undertaken of the project work environment (and mobile plant) between both stage 1 and stage 2 site visits. Locations included:
- Entry onto alignment from Warrego Highway;
 - Cut 10, 11;
 - Embankment 16, 24;
 - Abutment A, B;
 - Viaduct;
 - Bridge 10, 11, 12, 22;
 - Fill 18, 29;
 - Cut 38, etc.
45. Light vehicles were also observed operating in various parts of the project, on either side of the alignment and around depot and office areas.

7 Findings / Recommendations by Audit Part

46. Detailed findings including evidence and observations are provided in Appendix A of this report. Where Prensa identified an area for improvement, a recommendation has been made. A summary of recommendations by audit part and section are provided in the Executive Summary.

Appendix A: Stage 1 and 2 Audit Findings

Audit Part 1 – Incident Investigation Systems and Implementation

Item No.	Criteria	Evidence	Findings	Recommendations
Process / Procedure and Documentation				
1.	There is a documented process to ensure incidents, non-compliance issues and other system failures impacting on health and safety are reported, recorded, and investigated.	<ul style="list-style-type: none"> Section 12 of WHSMP (TSRC-HS-HSMP-PLA) Incident Management Plan (TSRC-HS-IMP-PLA) Workplace Health and Safety Procedure Incident, Notification, Investigation and Reporting (TSRC-HS-PRO-17) Incident Investigation Form (TSRC-HS-FOR-1701) Complyflow Incident Reports (#1300, #1444, #1672, #1743, #1873, #1886, #1894, #2476, #2779, #2884, #2885, #2954, ICAM Incident Reports (TSRC-HS-FOR-1709) x 7 Incident Tracking Spreadsheet (TSRC-HS-FOR-1704) 	<p>STAGE 1 FINDINGS</p> <p>The Contractor has established procedures for the reporting and investigation of incidents on the TSRC project. Procedures are summarized in section 12 of the WHSMP and further detailed within the project Incident Management Plan and WHS Procedure Incident, Notification, Investigation and Reporting. These procedures nominate four categories of incident based on severity (Category 1 Very High Severity to Category 4 Low Severity), requirements for investigation and competency of persons who can undertake these. The WHSMP, Plan and Procedure define the requirement for use of a recognized root cause methodology such as ICAM or Taproot for formal investigations. It was noted that Category 4 situations are not explained further within either the WHSMP or Procedure.</p> <p>Review of section 12 of the WHSMP and the Procedure identified discrepancies in competency requirements for investigators where lead investigators for Serious Incident Investigations (Category 2) must have an "External Incident Investigation Training" under the WHSMP but not under the Procedure.</p> <p>Incident details are required to be entered into the Complyflow system and generate a report number.</p> <p>The procedure for Incident Notification, Investigation and Reporting (Sec 6.2.1) defines the requirement for all Category 1 investigations to be undertaken by a person "Independent of the Project", however, this is inconsistent with the WHSMP (Sec 12.3) where the H&S Manager (or delegate) is to conduct "Serious" incident investigations. The WHSMP considers "Serious" incidents to be notifiable to WHS Queensland and therefore by the "Incident Classification Categories" in Appendix E of the Plan, are considered Category 1 incidents. Given that notifiable incidents are considered Category 1 incidents, these must be investigated by someone independent of the project. It should be noted that Category 3 incidents do not have a mandatory requirement for investigation to occur even though a number of the rollover incidents that have occurred are considered Category 3 (non licensable plant rollover). Investigations have been undertaken on these nonetheless.</p> <p>The WHSMP (Sec 12.3) and Procedure require Category 1 – Category 3 level incidents to be investigated by subcontractors using a similar recognized approach to that of ND.</p> <p>The use of external independent parties to conduct plant rollover investigations would be considered good practice.</p> <p>STAGE 2 FINDINGS</p> <p>A detailed review was conducted of data available at the ND offices for the rollover events previously reported (as printed out from Complyflow). Discussions with ND stakeholders identified that Safety Advisers are required to input incident data into the Complyflow system and that the data in the system is not routinely audited.</p> <p>A review of the Incident Tracking Spreadsheet (TSRC-HS-FOR-1704) for all reported incidents/hazards (as printed out from Complyflow) identified the following additional findings:</p> <ul style="list-style-type: none"> Incident descriptions (short and long) were found to be lacking; Incident category classifications were inconsistent between similar incidents; Various Complyflow fields had not been populated; and Incidents appeared to have been closed out with little detail regarding controls implemented. 	<p>STAGE 1 RECOMMENDATIONS</p> <p>1a. ND and the PC should update the Incident Notification, Investigation and Reporting Procedure (TSRC-HS-PRO-17) to ensure consistency in competency requirements for Serious Incidents / Categories. This should include consistency in terminology (Category or Risk Level and include the definition of a Category 4 situation) and to ensure that plant rollover incidents are always considered Category 1 and therefore always investigated by an independent competent investigator and always include the operator involved in any incidents and any witnesses..</p> <p>1b. ND should update Section 12.3 of the WHSMP to be consistent with the Procedure and Plan whereby a person "Independent of the Project" is to conduct Category 1 investigations.</p> <p>1c. ND and PC should outsource incident investigations for all Category 1 incidents (and plant rollover events) to ensure independence in the outcomes of the investigation.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>1.2.a. ND should implement a performance improvement process for the H&S Team that incorporates the following elements:</p> <ul style="list-style-type: none"> Training to improve the quality of incident data collected including the use and management of Complyflow, recording of incident descriptions, incident classification, incident controls and closeout; Assurance program to monitor incident data quality; and Analysis process to identify trends for reporting at management meetings.

Item No.	Criteria	Evidence	Findings	Recommendations
2.	<p>There is a documented process to ensure Investigations:</p> <ul style="list-style-type: none"> are conducted in accordance with an approved methodology (i.e. ICAM, Tap Root etc.) are undertaken by a competent person(s); identify the factor(s) that led to the hazard, injury, illness, incident or other system failure; recommend appropriate corrective actions to be taken; involve site/senior management as appropriate; and Prompt a review of company processes/procedures and work instructions/SWMS where required. 	<p>Section 12 of WHSMP (TSRC-HS-HSMP-PLA)</p> <p>Incident Management Plan (TSRC-HS-IMP-PLA)</p> <p>Workplace Health and Safety Procedure Incident, Notification, Investigation and Reporting (TSRC-HS-PRO-17)</p> <p>Incident Investigation Form (TSRC-HS-FOR-1701)</p> <p>Complyflow Incident Reports (#1300, #1444, #1672, #1743, #1873, #1886, #1894, #2476, #2779, #2884, #2885, #2954, ICAM Incident Reports (TSRC-HS-FOR-1709) x 7</p> <p>ICAM Training Records</p> <p>Incident Tracking Spreadsheet (TSRC-HS-FOR-1704)</p> <p>20180223_Incident Summary</p>	<p>STAGE 1 FINDINGS</p> <p>The WHSMP, Plan and Procedure discuss the requirement for formal investigations to be conducted for certain Category or Risk levels (refer to OFI above). These documents refer to the use of a recognized root cause methodology of either ICAM or Taproot.</p> <p>Competency requirements for lead investigators are listed in Table 4 of the WHSMP and Section 6.2.2 of the Procedure. There are no competency requirements listed in the documentation for external independent parties who may be required to conduct the investigation of Category 1 apart from having undertaken a formal training course in incident management. The WHSMP, Plan and Procedure do list examples of parties who should be involved in the investigation process.</p> <p>The use of a recognized investigation methodology (as listed in the documents) infers that root cause analysis will be undertaken by identifying the factors that lead to the incident. The use of the ICAM methodology has been demonstrated through review of the 7 investigation reports provided, although some of the root causes and technical data relating to the incident are not clear.</p> <p>The WHSMP (Sec 12.3.1, 12.3.2, 12.3.3) define the requirement to “ensure that remedial and corrective actions are appropriate, thoroughly implemented, registered, responsibilities assigned, and close-out followed-up and verified.” This also includes the communication of investigative outcomes under section 12.5.</p> <p>The WHSMP and Procedure define the requirement for the Health and Safety Manager to be involved in Serious incidents and to include one Senior Supervisor / Manager from the site who is experienced in the type of work relevant to the incident. There is a requirement for all Category 1 incidents to be reviewed by the ND Project Director with evidence of this provided (see below). Section 12.5 (Communication of Investigation Outcomes) of the WHSMP defines the requirement for the Health and Safety Manager to “assess whether opportunities exist to improve the Project health and safety systems, resources and procedures and whether other workplaces may benefit from the learnings arising from the investigation.” This is reiterated in Section 6.4 of the Procedure.</p> <p>STAGE 2 FINDINGS</p> <p>Review of the investigation data and Incident Tracking Spreadsheet found that two (2) different interrogation techniques/investigation methodologies were used for roll over events ('5 why's' and ICAM). ND H&S personnel indicated that this was due to the Category of incident selected, however even within the same incident category the two methodologies were used. This may lead to inconsistent investigation outcomes. Detailed review of the investigation data identified that of the 18 plant rollover investigations available on file:</p> <ul style="list-style-type: none"> Only 6 were classified as Category 1 Incidents, 4 as Category 2 Incidents and 5 as Category 3 Incidents. The remainder were classified as either Category 4 incidents or no information was available on file to determine category; Only 1 of the incident investigations was found to have been conducted by an independent investigator (No. 2884). Although more recent incidents have been undertaken by an external investigator under legal privilege; H&S Representatives did not appear to have been involved in any of the investigations; Information available indicated that written evidence from Operators was only obtained on 3 occasions; Root cause is weighted towards Operator error or procedural non-conformance; HSRs and Operators only appear to have been consulted on one of the investigation outcomes although data was limited to confirm this from documentation available. <p>Actions arising from the investigation appeared to be significantly weighted towards administrative controls and did not adequately consider the hierarchy of controls. A number of incident investigations were supplied by contractors demonstrating their own investigation had been conducted, however there did not appear to be any formal process within ND to review the adequacy of the investigation process applied nor the outcomes.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>1d. ND should update the WHSMP, Plan and Procedure to define minimum requirements for competency of external incident investigators (e.g. definitions within existing ND documents). This should also include guidance for outcomes of investigations and timelines dependent on severity.</p> <p>1e. ND and the PC should conduct a review of key plant rollover investigations to confirm that root causes have been identified. This should include review of where technical data is lacking and required as part of the process.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>1.2.b. ND should review the Workplace Health and Safety Procedure Incident, Notification, Investigation and Reporting (TSRC-HS-PRO-17) and determine minimum investigation requirements, including investigation methodology, for each incident category. Investigations should include evidence from parties involved in the incident and where possible HSR's consulted on investigation outcomes.</p>

Item No.	Criteria	Evidence	Findings	Recommendations
3.	There is a documented process to record and monitor corrective actions resulting from inspections, incident investigations, hazard reports, internal audits or other processes. The corrective action process sets target completion dates and assigns responsibility for implementing and reviewing the effectiveness of corrective actions.	<ul style="list-style-type: none"> Section 12 of WHSMP (TSRC-HS-HSMP-PLA) Incident Management Plan (TSRC-HS-IMP-PLA) Workplace Health and Safety Procedure Incident, Notification, Investigation and Reporting (TSRC-HS-PRO-17) Incident Investigation Form (TSRC-HS-FOR-1701) Complyflow Incident Reports (#1300, #1444, #1672, #1743, #1873, #1886, #1894, #2476, #2779, #2884, #2885, #2954, ICAM Incident Reports (TSRC-HS-FOR-1709) x 7 Incident Tracking Spreadsheet (TSRC-HS-FOR-1704) Daily Inspection Action Summaries (26/3/18 & 19/2/2018) Safety Improvement Notices (SIN) Card Register Safety Improvement Notices x 2 (TSRC-HS-FOR-3907) 	<p>STAGE 1 FINDINGS</p> <p>Incident reports, and corrective actions identified within incident investigations, are required to be uploaded into the Complyflow database such that actions can be tracked and notifications issued to responsible parties. There was evidence that actions had been closed on Complyflow with no documentation uploaded to confirm this was the case (Franna Crane Rollover 31/7/17 ICAM Actions). Documentation was available, however, not uploaded.</p> <p>Lead performance indicator targets are documented in Section 15.1.1 of the WHSMP and include a range of indicators from Site Inspections by Senior Leadership, Foreman and Safety Advisors to Internal Audits by the H&S Team and SWMS Safety Observations.</p> <p>Open actions from inspection processes are printed out on a fortnightly basis such that responsible parties are held accountable to complete actions.</p> <p>Safety improvement notices are issued to ND workers and subcontractors where observations result in non-compliance with ND procedures or subcontractor SWMS. Evidence of completion of SIN's for mobile plant non-compliance issues (crane operator at Fill 22 / dogman at Bridge 4) was available on site.</p> <p>There did not appear to be a formal process established for the review of control measures implemented out of incident investigation processes.</p> <p>STAGE 2 FINDINGS</p> <p>A detailed review of information contained within the Complyflow system reconfirmed findings from Stage 1 whereby investigation actions remain outstanding or were not inputted into the system at all. In some cases incidents have been closed out without the requisite evidence being uploaded to confirm actions have been completed.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>1f. ND should update the Complyflow system to insert required close out of incidents. This must include uploading records to demonstrate actions have been undertaken.</p> <p>1g. ND and the PC should normalize the review process for controls implemented as outcomes of investigation to confirm they are practical and are effective in eliminating, or minimizing risk.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>

Process / Procedure Implementation

4.	There is evidence that the Contractors incident reporting and investigation process was followed for the mobile plant rollover incidents	<ul style="list-style-type: none"> Section 12 of WHSMP (TSRC-HS-HSMP-PLA) Incident Management Plan (TSRC-HS-IMP-PLA) Workplace Health and Safety Procedure Incident, Notification, Investigation and Reporting (TSRC-HS-PRO-17) Incident Investigation Form (TSRC-HS-FOR-1701) Complyflow Incident Reports (#1300, #1444, #1672, #1743, #1873, #1886, #1894, #2476, #2779, #2884, #2885, #2954, ND ICAM Incident Reports (TSRC-HS-FOR-1709) x 7 Ostwald ICAM Report for Smooth Drum Roller (CSP602_12) Incident Tracking Spreadsheet (TSRC-HS-FOR-1704) 	<p>STAGE 1 FINDINGS</p> <p>An assessment of the data provided for the incident reports and investigations undertaken for seven (7) plant rollover incidents identified the process applied to be largely in accordance with the WHSMP, Plan and Procedure. The following notes are provided with respect to the review:</p> <p>Complyflow</p> <p>The incident details were recorded in the Complyflow system, however, printed versions of the incident identified gaps in data entered including:</p> <ul style="list-style-type: none"> Signoff staff, time, comment not available on printed forms; Status of corrective actions completed not up to date (#2885 evidence demonstrated actions completed, Complyflow system indicates pending); Notifiable incident section incomplete for concrete pump incident (#2954); Compliance section incomplete for concrete pump incident (#2954), etc. <p>Given there are still pending actions in the Complyflow system for incidents that occurred in July 2017, notification and tracking processes may not be adequate to ensure all actions are completed.</p> <p>ICAM Investigations</p> <p>A review of the ICAM investigations identified that:</p> <ul style="list-style-type: none"> Investigations were available for 7 out of the 12 plant rollover incidents provided; Investigations were conducted for Category 1 through to Category 3 incidents; Investigations were led by ICAM trained investigators (WHS Coordinators) and included key management staff and operators in the majority of investigations reviewed; Statements were recorded on TSRC-HS-FOR-1702 for a number of the incidents investigated; 	<p>STAGE 1 RECOMMENDATIONS</p> <p>1h. ND, PC and Subcontractors should increase the vigilance around implementation of pending / outstanding actions from incident reports by including status updates in Senior Management Team meetings (e.g. on Nexus Delivery Monthly Progress Reports). Provide guidance for outcomes of investigations and timelines dependent on severity.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
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Item No.	Criteria	Evidence	Findings	Recommendations
5.	<p>There are adequate resources available to provide for:</p> <ul style="list-style-type: none"> Opportunity to gather quality information at the incident scene Suitable timeframes to complete the investigation Experienced and specialist resources (e.g. investigation lead) Correct decision making around need for investigation. 	<p>Section 12 of WHSMP (TSRC-HS-HSMP-PLA)</p> <p>Incident Management Plan (TSRC-HS-IMP-PLA)</p> <p>Workplace Health and Safety Procedure Incident, Notification, Investigation and Reporting (TSRC-HS-PRO-17)</p> <p>Incident Investigation Form (TSRC-HS-FOR-1701)</p> <p>Complyflow Incident Reports (#1300, #1444, #1672, #1743, #1873, #1886, #1894, #2476, #2779, #2884, #2885, #2954,</p> <p>ICAM Incident Reports (TSRC-HS-FOR-1709) x 7</p> <p>Ostwald ICAM Report for Smooth Drum Roller (CSP602_12)</p> <p>Statement of Attainment for H&S Coordinator (SWS ICAM Lead Investigator Course 2015)</p> <p>Project Organizational Charts</p> <p>Online Training ND</p>	<ul style="list-style-type: none"> Only one subcontractor ICAM investigation was available on file for the incidents reviewed; Only one investigation report sign off page was completed by the Subcontractor (e.g. contractor review and comment). <p>Evidence was available to demonstrate that actions had been implemented following the ICAM investigations including updates to SWMS, communication of outcomes through toolbox talks and daily pre-start briefings (TSRC-HS-FOR-0303), communication of outcomes through committee meetings, communication of outcomes through the Daily Safety Message (TSRC-HS-FOR-0312), etc.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p> <p>STAGE 1 FINDINGS</p> <p>Based on a review of the ICAM investigations, photographs of the plant and equipment involved in the rollover events and detailed white board markup, it would appear that adequate time was available at the incident scene and during the subsequent investigation to collect meaningful data (although some actions are low end Administrative controls). Discussions with WHS Coordinators and Advisors indicated that there is an expectation that time is spent collecting the correct data and that these processes are not rushed. Evidence was provided to demonstrate that following two of the incidents (Concrete Pump incident and Franna Crane), that the project was stopped for a period of 4 hours each time to provide ND staff and subcontractors, with information regarding the events and the need to follow processes and remain vigilant (termed a Safety Reset). One of these such events was held during Safe Work Week 2017 and included up to 1,500 staff and subcontractors demonstrating the importance of safety to the Project.</p> <p>Evidence was available to demonstrate that H&S Coordinators involved in the ICAM investigations have conducted accredited ICAM Lead Investigator training.</p> <p>The WHSMP and Procedure define the requirement for a detailed ICAM investigation to be conducted for Category 1 incidents (e.g. concrete pump) and for Category 3 incidents to be "Optional". Evidence is available to demonstrate that ICAM investigations have been conducted for Category 3 investigations that have involved the rollover of plant and therefore decision making around the need to undertake a detailed investigations, even when these are considered "optional" within the procedures appears sound.</p> <p>As noted under Criteria 1, the WHSMP refers to the requirement for Category 1 incidents to be investigated by a person independent of the project and for subcontractors to conduct their own investigations in a similar manner to that conducted by ND. It would appear, based on interviews with ND staff during the audit, that more recent Category 1 incidents have been investigated by an independent organization with findings legally privileged, however this does not appear to be the case going back earlier in the project. Findings from these more recent independent investigations must be operationalized and findings incorporated back into ND systems.</p> <p>STAGE 2 FINDINGS</p> <p>Further interrogation of competency requirements (during stage 2) associated with ND H&S team members leading or involved in ICAM investigations found that while ICAM training certificates were available, actual competency of H&S team members had not been established through a formal process. Discussions with a number of H&S Advisors also found opportunities to improve training or enhance experience in the roles they perform particularly with respect to high risk construction activities. Interviews identified that:</p> <ul style="list-style-type: none"> 1 H&S adviser was a recent graduate with limited WHS experience prior to the project; 1 H&S adviser was initially employed as a flagging and delineation labourer and was transitioned into the role of H&S adviser prior to starting on site; and 	<p>STAGE 1 RECOMMENDATIONS</p> <p>1i. ND should retain copies of subcontractor incident investigations (upload to Complyflow following review) for all incidents that require investigation on site that includes clear causation, effects and correction actions.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>1.2.c. ND should initiate an independent review of its H&S team to determine the suitability of existing qualifications/training, skills and experience, relevant to the project, to competently;</p> <ul style="list-style-type: none"> perform the role as a H&S Adviser or Coordinator; supervise high risk construction activities; undertake incident investigations; and implement suitable control or improvement initiatives. <p>1.2.d. ND should implement appropriate actions to manage any competency gaps raised through the review.</p>

Item No.	Criteria	Evidence	Findings	Recommendations
			<ul style="list-style-type: none"> 1 H&S adviser possessed a 5 day Workplace Health and Safety Officer training. <p>The competencies of the remaining H&S resources were not reviewed however It was reported by the newly appointed H&S Manager that a review of H&S resource competency was proposed but not yet initiated.</p> <p>The ND Project Health and Safety Training Matrix was further examined and whilst it did indicate a range of H&S related training (mostly ND internal and online training) had been conducted, it does not set the minimum level of WHS qualification required to competently perform the role as a H&S adviser/coordinator or H&S Manager. This may be recorded in individual role/position descriptions, however was not able to be verified.</p>	

Investigation Review and Approval

6.	<p>There was an adequate review and approval process implemented for mobile plant rollover events including:</p> <ul style="list-style-type: none"> Independence in the review of actions recommended Adequate review and approval by Senior Management Recording, tracking, implementation and review of actions. 	<ul style="list-style-type: none"> Section 12 of WHSMP (TSRC-HS-HSMP-PLA) Incident Management Plan (TSRC-HS-IMP-PLA) Workplace Health and Safety Procedure Incident, Notification, Investigation and Reporting (TSRC-HS-PRO-17) Incident Investigation Form (TSRC-HS-FOR-1701) Complyflow Incident Reports (#1300, #1444, #1672, #1743, #1873, #1886, #1894, #2476, #2779, #2884, #2885, #2954, ICAM Incident Reports (TSRC-HS-FOR-1709) x 7 Incident Tracking Spreadsheet (TSRC-HS-FOR-1704) Daily Inspection Action Summaries (26/3/18 & 19/2/2018) Safety Improvement Notices (SIN) Card Register Safety Improvement Notices x 2 (TSRC-HS-FOR-3907) 	<p>STAGE 1 FINDINGS</p> <p>As noted in Item 1, ICAM incident investigations have been largely undertaken internally and led by a trained ICAM H&S Coordinator. This appears to have changed in recent times with external investigation companies used. This approach is recommended to continue into the future to ensure the independence of the process which will also ensure compliance with the ND Procedure.</p> <p>As noted in Item 3, incident reports and corrective actions identified within incident investigations, are required to be uploaded into the Complyflow database such that actions can be tracked and notifications issued to responsible parties. There was information that actions had been closed on Complyflow with no documentation uploaded to confirm this was the case (Franna Crane Rollover 31/7/17 ICAM Actions). However, this documentation was available for review.</p> <p>Review of ICAM investigation reports found that the majority of reports had been signed off under Section 10 (Report Sign Off) by the Lead Investigator, ND Safety Manager, ND Superintendent and ND Project Manager / Director. This was generally undertaken after implementation of actions as documented in Section 9 (Action Plan) but as reported earlier, there was no sign off by subcontractors involved in the incidents. Actions documented within Section 9 of the ICAM reports appear to be largely Administrative and while there appears to be many processes in place for the review of implemented actions (e.g. inspections, pre-start meetings), a formal process for review (including involvement by subcontractors involved in incidents) has not been undertaken. A recommendation has been made under Item 3 to record this process.</p> <p>STAGE 2 FINDINGS</p> <p>Further interrogation of ICAM investigation documentation reconfirmed findings from Stage 1 in that while there was sufficient evidence to confirm that ICAM investigations had been reviewed and signed off by management, it was evident that this process lacked sufficient rigor to identify and resolve quality in investigation findings, incident classification, suitability of corrective actions/controls and closeout.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>1j. ND and the PC should establish a forum for subcontractors involved in Category 1 incidents and plant rollovers to be included in the investigation process as evidence of consultation.</p> <p>Refer to recommendations 1f and 1g made under item 3.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
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Audit Part 2 – Safe Systems of Work Associated with Plant and Equipment – Specific to Incidents

Item No.	Criteria	Evidence	Findings	Recommendations
Subcontractor Management				
1.	The Contractor has a process in place for sourcing and selecting subcontractors that have adequate WHS systems and proven past performance.	<ul style="list-style-type: none"> ☞ Procurement Management Plan (TSRC-CA-PMP-PLA) ☞ Section 6 of WHSMP (TSRC-HS-HSMP-PLA) ☞ Health and Safety in Procurement Procedure (TSRC-HS-PRO-11) ☞ Control of Subcontracted Work Procedure (TSRC-HS-PRO-12) ☞ Section 7 of Schedule 3 – Supplier Questionnaire (TSRC-PR-SCH-003) ☞ Subcontractor Health and Safety Information Pack (TSRC-HS-FOR-1104) ☞ Subcontractor Safety Management Plan Review and Checklist (TSRC-HS-FOR-0311) ☞ Safe Work Method Statement Conformance Checklist (TSRC-HS-FOR-0302) ☞ Plant Certification Letter (TSRC-HS-FOR-1102) ☞ Completed Supplier Questionnaire for Ostwald Bros (12/09/2016) ☞ Completed Supplier Questionnaire for Meales Concrete Pumping (14/07/2017) ☞ Completed Supplier Questionnaire for Queensland Crane Hire and Rigging Pty Ltd (06/04/2016) 	<p>STAGE 1 FINDINGS</p> <p>Procurement processes have been detailed for the project within the Procurement Management Plan. The plan refers to procurement of subcontracted personnel to undertake “self-performing” work on behalf of ND (working to ND procedures/plans) or engagement of subcontractors to conduct work under their own systems. Section 5.6 of the Procurement Management Plan describes the request for tender process and outlines the documents that are to be issued to subcontractors through the online document issue system (Team Binder). These documents include the following:</p> <ul style="list-style-type: none"> ▪ Supplier Questionnaire (Section 7 – Health and Safety); ▪ Subcontractor Health and Safety Information Pack; ▪ A list of WHS procedures / forms as applicable to the works. <p>Section 7 of the supplier questionnaire requests safety performance data from the previous 7 years (LTI, MTI, Notices, Prosecutions) and requests a range of information for their safety management system including consultation arrangements, training needs analysis, risk assessment process, fitness for work and safe plant transport, pre-commencement checks, operation and maintenance processes, among others.</p> <p>Review of the Subcontractor Health and Safety Information Pack identified that the document had not been updated to reflect controls introduced following the rollover incidents (e.g. concrete pumping checklist, batter assessment permit, pick and carry permit) and therefore newly engaged contractors may not be aware of these documents.</p> <p>A review was undertaken of the completion of Supplier Questionnaires for Ostwald Bros (bulk earthworks), Meales (concrete pumping) and QLD Crane Hire and Rigging (Franna lifting). Required details were completed within the Ostwald Bros questionnaire including reference to appropriate company documents. The questionnaire was reviewed and approved by the former H&S Manager in November 2016. However, review of Section 7 of the Meales questionnaire found that limited information was provided in the document at the time of the tender (e.g. limited safety performance information, 1 year only provided for 2016). Review of the QLD Crane Hire and Rigging questionnaire found that the subcontractor indicated that they had “zero reportable incidents” and therefore did not complete any safety performance data from the previous 6 years. The subcontractor also indicated that they did not have a WHS management system compliant with international standards and that an audit would be required to be conducted by ND.</p> <p>Documentation was not available at the time of writing this preliminary report to provide a detailed assessment of whether the requirements of the process were met, however, the supplier questionnaire was reviewed and approved by the H&S Manager on 26/07/2017 for Meales while the approval section of the questionnaire for QLD Crane Hire and Rigging was not completed.</p> <p>In addition to the above documents, ND has established a procedure titled Control of Subcontracted Work (TSRC-HS-PRO-12) that further defines the responsibility for subcontractors to:</p> <ul style="list-style-type: none"> ▪ Provide a Health and Safety Plan for their works prior to commencement; ▪ Attend pre-start health and safety briefing; ▪ Undertake the ND Site Induction; ▪ Conduct a risk assessment of high risk work activities with controls to be documented in a SWMS (to be reviewed 1 week prior to commencement); and ▪ Complete Plant Certification Letters for any plant proposed to be brought onto the site. <p>The above subcontractor requirements are reiterated in Section 6 of the project WHSMP.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>2a. ND should conduct a retrospective assessment of H&S documentation collected for subcontractors undertaking high risk work on site to confirm their previous health and safety performance meets the requirements of the ND review system.</p> <p>2b. ND should update the Subcontractor Health and Safety Information Pack (TSRC-HS-FOR-1104) in accordance with Document Control procedures to incorporate the permits/checklists developed following the plant rollover incidents (e.g. batter assessment permit) and the enhancement of the VOC processes discussed under Audit Part 3.</p> <p>2c. ND should update the WHSMP and ND Procedures applicable to the use of checklists/permits and enhanced VOC process to enforce the importance of their use for new and existing subcontractors.</p> <p>2d. ND should update the WHSMP to define what is meant by “Self-Performing” works including associated supervision and management requirements of these workers.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>

Item No.	Criteria	Evidence	Findings	Recommendations
			<p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	
2.	The Contractor has a process in place for monitoring subcontractor performance on the project, including high risk work.	<p>Section 6 of WHSMP (TSRC-HS-HSMP-PLA)</p> <p>Control of Subcontracted Work Procedure (TSRC-HS-PRO-12)</p> <p>Subcontractor Safety Management Plan Review and Checklist (TSRC-HS-FOR-0311)</p> <p>Safe Work Method Statement Conformance Checklist (TSRC-HS-FOR-0302)</p> <p>Daily Inspection Action Summaries (26/3/18 & 19/2/2018)</p> <p>Safety Improvement Notices (SIN) Card Register</p> <p>Safety Improvement Notices x 2 (TSRC-HS-FOR-3907)</p> <p>HSR Daily Safety Inspection Checklist (TSRC-HS-FOR-0807)</p> <p>Corrective Actions Register</p> <p>Task Risk Assessment Cards</p> <p>Worker HSR Interview Questionnaires x 33</p> <p>Management HSR Interview Questionnaires x 4</p>	<p>STAGE 1 FINDINGS</p> <p>Section 6.3.5 of the WHSMP provides for the following subcontractor monitoring activities on the project (Undertaken by H&S Manager):</p> <ul style="list-style-type: none"> Routine H&S reports nominated in subcontractor H&S plan; Incident investigation reports; Incident and corrective action registers; H&S compliance audits and inspection reports. <p>Evidence was available to demonstrate that there is a range of workplace inspection processes undertaken daily, weekly and monthly by the ND H&S team. The frequency of these monitoring processes are listed in table 15.1.1 of the WHSMP (Lead KPI's). Inspections are completed using the Complyflow system in order to allow for tracking of action close out. Open actions are summarized on a 2 weekly basis in a spreadsheet that is issued to ND H&S and management teams. Review of these documents identified that subcontractor activities (including plant operator VOC) were assessed during the inspections.</p> <p>Subcontractor adherence to SWMS is reviewed on a monthly basis by the H&S Advisors and Coordinators. Where non-conformances are identified, the subcontractor is requested to cease work pending updates to the SWMS and Safety Improvement Notices issued and registered. Evidence was available to demonstrate that this process has included stopping work where subcontractors have not completed Task Risk Assessments prior to starting work, leaving crane cabin while crane was rigged to a load and allowing worker to use plant without qualifications or VOC. Where serious nonconformance is identified, evidence was provided that warnings are issued to subcontractors and in at least one case evidence was provided to demonstrate the removal of a contractor from the site (work was taken back in-house as self-performance works).</p> <p>Evidence was available to demonstrate that a daily inspection checklist process was established for elected/nominated HSRs to complete in September 2017. This includes wording such as:</p> <ul style="list-style-type: none"> Plant operator competence; Excavations planned and controlled; Cranes and lifting equipment controlled / maintained, etc. <p>This document does not appear to have been updated to incorporate permits and checklists developed / implemented since the rollover events occurred and does not nominate these permits as being required on the front page of the document where permit to work processes are denoted with an asterisk. It is also uncertain whether training has been provided to HSRs specific to the use of the checklist.</p> <p>STAGE 2 FINDINGS</p> <p>Interviews held with HSR's during the stage 2 audit process identified that 27 worker representatives were aware of the HSR Checklist and found the checklist to be useful. Many of the representatives were only recently provided with a copy of the checklist (e.g. within the previous week / month) and reported being provided some basic information on how to complete the checklist. However, review of checklists on hand during the audit process found many were only using the documentation on an ad-hoc basis and did not have a full understanding of hazards/controls to look for during the inspections.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>2e. ND and the PC should verify that the HSR Daily Safety Inspection Checklist (TSRC-HS-FOR-0807) has been implemented through retention and tracking of documentation.</p> <p>2f. ND and the PC should update the HSR Daily Safety Inspection Checklist (TSRC-HS-FOR-0807) to incorporate permits and checklists introduced following rollover incidents and provide training to HSRs on the use of the updated inspection checklist.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>2.2.a. ND should consult with HSRs to review and revise the HSR Daily Safety Inspection Checklist (TSRC-HS-FOR-0807) to ensure it is fit for the use intended and implemented.</p>

Item No.	Criteria	Evidence	Findings	Recommendations
3.	The Contractor has a process in place for sharing information about hazards and risks on the project and ensuring consultation, cooperation and coordination with subcontractors to manage critical risks	<ul style="list-style-type: none"> Section 13 of WHSMP (TSRC-HS-HSMP-PLA) Control of Subcontracted Work Procedure (TSRC-HS-PRO-12) Workplace Health and Safety Procedure Communication and Consultation (TSRC-HS-PRO-08) Toolbox Talk Form (TSRC-HS-FOR-0803) Toolbox Talk Record (TSRC-HS-FOR-0804) Job Hazard Analysis (TSRC-HS-FOR-0315) Subcontractor Pre-Start Briefings (TSRC-HS-FOR-1202) Daily Pre-Start Briefing Form (TSRC-HS-FOR-0303) Complyflow Induction Records and Induction Cards (various) Task Risk Assessment Cards Daily Safety Message (TSRC-HS-FOR-0312) H&S Committee Charter (TSRC-HS-FOR-0802) Various Committee Meeting Minutes Uncontrolled Plant Movement and Plant Rollover presentation (toolbox talk) Worker HSR Interview Questionnaires x 33 Management HSR Interview Questionnaires x 4 Committee Meeting Minutes Central Office – 1/3/2018 Committee Meeting Minutes East Office – 26/2/2018 Committee Meeting Minutes West Office – 15/3/2018 Committee Meeting Minutes Viaduct – 27/2/2018 ND Site Induction 	<p>STAGE 1 FINDINGS</p> <p>There are myriad of processes in place for the sharing of information about hazards and risks to workers and subcontractors. These include:</p> <ul style="list-style-type: none"> ▪ Issue of the WHSMP after updates using the Team Binder system; ▪ Provision of online and face to face inductions with workers and subcontractors prior to commencement of work on site; ▪ Subcontractor pre-start briefings; ▪ Daily pre-start meetings which include the reporting of hazards in the TRA card; ▪ Toolbox talks; ▪ Daily safety message; ▪ H&S committee meetings; ▪ H&S daily / weekly inspections; ▪ Monthly meetings / BBQ; ▪ Safety awards process, etc. <p>Evidence was provided to demonstrate that the above processes have been undertaken for a representative number of subcontractors observed. Evidence was also available to demonstrate that changes that had occurred to SWMS after the concrete pump incident and Franna crane incidents had been communicated through completed toolbox talk records to the subcontractor's workers involved in these activities. Discussions with the H&S Team, Superintendents and a number of plant operators working on the project during the audit indicated that the ND Engineer and Superintendents developed the permits and checklists with the assistance of workers involved in activities where the forms would be required to be used. Further, operators who were interviewed on the day of the audit indicated that they are consulted during the completion of the permits / checklists to ensure they are aware of the controls to be implemented. Evidence was provided to demonstrate that ND had developed a training presentation titled "Uncontrolled Plant Movement and Plant Rollovers" and trained subcontractors on the requirements in early 2017. Reference should be made to Item 9 for further information regarding Committees and HSRs. It is noted that a request was made for an increase in the number of HSRs for the East region in late February 2018 to ensure that adequate representation was available. This was to replace a number of representatives who moved on from the project at the end of 2017.</p> <p>STAGE 2 FINDINGS</p> <p>Stage 2 of the audit involved the interview of 33 worker HSR's and 4 management HSR's on the project. Anecdotal evidence from these interviews found a general consensus that the level of consultation and engagement with workers had markedly improved over the preceding 4-6 weeks. HSR's cited the following improvements as having occurred:</p> <ul style="list-style-type: none"> ▪ Contractors were/are encouraged to nominate HSR's; ▪ ND had made HSR training available to nominated/elected HSR's of which many had taken this training up; ▪ Participation on committee meetings had significantly improved; and ▪ Regular committee meetings were being held and a greater focus had been put on timely reporting of minutes. <p>A review was undertaken of the ND Site Induction slides and an inspection was conducted of the worker/contractor induction room at the ND Central Office. The review identified the following key points:</p> <ul style="list-style-type: none"> ▪ The induction has been amended since the introduction of the permits for batter access and pick and carry activities; ▪ The induction <u>does not</u> refer to the requirement for the Concrete Pumping Checklist to be completed prior to pouring activities; ▪ The induction <u>does not</u> focus on plant rollover controls and refers to the requirement for plant operators to be "ticketed or VOC'd"; ▪ There is <u>no reference</u> to HSR consultation processes in the induction or photographs/names of these representatives in the induction room. 	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>2.2.b. ND should update the Site Induction to incorporate the following:</p> <ul style="list-style-type: none"> ▪ Focus on plant safety and terrain issues on site; ▪ Reference for the need to complete the Concrete Pumping Checklist prior to pours; ▪ Requirement for VOC to be provided whether a license is needed to operate the plant or not; ▪ Reference to Consultation Arrangements including HSR's, Committee's, Pre-Starts, Toolbox Talks and where names of HSR's can be found.

Item No.	Criteria	Evidence	Findings	Recommendations
4.	The Contractor has a process in place for planning of high risk work activities.	<ul style="list-style-type: none"> TSRC-HS-HSMP-PLA) Section 4.2.1 of WHSMP TSRC-HS-PRO-12) Control of Subcontracted Work Procedure TSRC-HS-PRO-03) Planning and Control of High Risk Construction Activities TSRC-HS-FOR-0302) Safe Work Method Statement Conformance Checklist TSRC-HS-FOR-0302) Various ND Safe Work Method Statements for High Risk Construction Work TSRC-HS-FOR-031S) Job Hazard Analysis TSRC-HS-FOR-0303) Daily Pre-Start Briefing Form TSRC-HS-FOR-0303) Task Risk Assessment Cards TSRC-HS-FOR-0303) Permits to Work TSRC-HS-FOR-0303) Worker HSR Interview Questionnaires x 33 TSRC-HS-FOR-0303) Management HSR Interview Questionnaires x 4 	<p>STAGE 1 FINDINGS</p> <p>Section 4.2.1 of the WHSMP defines the requirement for all “High” and “Medium” risk construction activities to have a safe work method statement developed and approved prior to the work commencing. The SWMS is to be submitted to the ND Site Superintendent, Project H&S Manager and Foreman for review and approval using the SWMS Conformance Checklist. The SWMS is also then to be discussed during pre-start meetings and approved by the Operator and other workers prior to commencement of works. Evidence of this process occurring was provide for many different plant operation scenarios (excavator, roller, concrete pump, crane).</p> <p>The Planning and Control of High Risk Construction Activities defines the requirement for a risk assessment workshop to be undertaken prior to the development of a SWMS for self-performing works. At the time of writing the preliminary report, examples of the risk assessment being conducted prior to SWMS development was not able to be confirmed.</p> <p>High risk construction work is discussed under section 3 (Main Risks Next 3 Months) of the Safety Leadership Team meetings (e.g. look ahead).</p> <p>Prior to commencement of the high risk construction work (e.g. pre-start meeting), workers/subcontractors are required to sign onto the SWMS, to discuss the control measures proposed, to complete a TRA and finally to obtain any approvals for permits to work.</p> <p>STAGE 2 FINDINGS</p> <p>Information reported by the HSR’s interviewed identified a theme of a “perceived” lack of planning ahead for work to ensure that activities are undertaken in a programmed manner however this could not be confirmed at the time of the audit. This was not necessarily associated with just high risk construction work but rather activities that are contingent on one another.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>2.2.c. ND should undertake a review of planning activities to identify if there are any improvements that can be made in the identification and managing of high risk construction work (e.g. contingent works, changes to supervisory arrangements).</p>
5.	The Contractor has a process in place for Supervising subcontractor activities.	<ul style="list-style-type: none"> TSRC-HS-HSMP-PLA) Section 4.2.1 of WHSMP TSRC-HS-PRO-12) Control of Subcontracted Work Procedure TSRC-HS-PRO-03) Planning and Control of High Risk Construction Activities TSRC-HS-PRO-03) Daily Inspection Action Summaries (26/3/18 & 19/2/2018) TSRC-HS-FOR-3907) Safety Improvement Notices (SIN) Card Register TSRC-HS-FOR-3907) Safety Improvement Notices x 2 TSRC-HS-FOR-0807) HSR Daily Safety Inspection Checklist TSRC-HS-FOR-0807) Worker HSR Interview Questionnaires x 33 TSRC-HS-FOR-0807) Management HSR Interview Questionnaires x 4 	<p>STAGE 1 FINDINGS</p> <p>The WHSMP (Section 4.2.1) defines the requirement for “A competent manager to be on site at all times while any high risk construction work is being conducted to provide oversight of those activities and respond to emergencies.” At the time of writing this preliminary report, it was uncertain whether this high level of supervision could be demonstrated for all high risk work. Further clarification is also required to establish the definition of a competent manager. This is important in determination of what is adequate from a supervision and monitoring viewpoint.</p> <p>Subcontractor adherence to SWMS is reviewed on a monthly basis by the H&S Advisors and Coordinators. Where nonconformance is identified, the subcontractor is required to cease work pending updates to the SWMS and Safety Improvement Notices issued and registered. Evidence was available to demonstrate that this process has included stopping work where subcontractors have not completed Task Risk Assessments prior to starting work, leaving crane cabin while crane was rigged to a load and allowing worker to use plant without qualifications or VOC. Where serious nonconformance is identified, evidence was provided that warnings are issued to subcontractors and in at least one case evidence was provided to demonstrate the removal of a contractor from the site (work was taken back in-house as self-performing works).</p> <p>STAGE 2 FINDINGS</p> <p>Interviews held with HSR’s during stage 2 found a general consensus (>80%) that Supervision by ND and Subcontractors was adequate for the work being undertaken. However there was anecdotal information received from some HSR’s that there were situations where ND Supervisors were not believed to be competent to supervise specific activities. One reported example by a HSR/Scaffolder related to a ND Earthworks Supervisor tasked with supervising working at height and scaffold activities and providing</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>2g. ND and the PC should update the WHSMP section 4.2.1 to define what is meant by a “competent manager”. This should include review of supervision, monitoring and assurance activities to establish minimum standards based on risk level of activities being undertaken.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>2.2.d. Reference should be made to recommendation 2g made under Stage 1. The review process should also incorporate required qualifications/training, skills and experience, relevant to the project and particular types of work.</p>

Item No.	Criteria	Evidence	Findings	Recommendations
			instructions inconsistent with the contractors SWMS. This was unable to be <u>verified</u> during the audit.	
Supervision of High Risk Work Activities Involving Plant and Vehicles				
6.	Is there a documented process to supervise and monitor high risk work activities involving plant and vehicles?	<p>Section 4.2.1 of WHSMP (TSRC-HS-HSMP-PLA)</p> <p>Control of Subcontracted Work Procedure (TSRC-HS-PRO-12)</p> <p>Planning and Control of High Risk Construction Activities (TSRC-HS-PRO-03)</p> <p>Daily Inspection Action Summaries (26/3/18 & 19/2/2018)</p> <p>Safety Improvement Notices (SIN) Card Register</p> <p>Safety Improvement Notices x 2 (TSRC-HS-FOR-3907)</p> <p>HSR Daily Safety Inspection Checklist (TSRC-HS-FOR-0807)</p> <p>ND Project Health and Safety Training Matrix</p>	<p>STAGE 1 FINDINGS</p> <p>As noted in Item 5 above, there is a requirement for “a competent manager to be on site <u>at all times</u> while any high risk construction work is being conducted to provide oversight of those activities and respond to emergencies.”</p> <p>There is a requirement for subcontractors who have more than 50 workers on the project to have a full time H&S Advisor on site at all times and available to assist in supervision of works. Evidence of advisors being available to assist in supervision was provided on the day of the audit.</p> <p>Supervision is undertaken on an ad-hoc basis daily by ND H&S Advisors and Coordinators. However, given the distance of the project works, the process of supervision and allocation of resources should be reviewed.</p> <p>Review of the ND Project Health and Safety Training Matrix found that training in high risk construction work was neither “mandatory” nor “desirable” for H&S Coordinators or Advisors.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>2h. ND should update the Project Health and Safety Training Matrix for training in high risk construction work as either “Mandatory” or “Desirable” for H&S Coordinators/Advisors.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
7.	Is there a documented and implemented process for consulting, cooperating and coordinating with subcontractors in advance of high risk work activities being undertaken?	<p>Section 4.2.1 of WHSMP (TSRC-HS-HSMP-PLA)</p> <p>Control of Subcontracted Work Procedure (TSRC-HS-PRO-12)</p> <p>Planning and Control of High Risk Construction Activities (TSRC-HS-PRO-03)</p> <p>Safe Work Method Statement Conformance Checklist (TSRC-HS-FOR-0302)</p> <p>Various ND Safe Work Method Statements for High Risk Construction Work</p> <p>Job Hazard Analysis (TSRC-HS-FOR-0315)</p> <p>Daily Pre-Start Briefing Form (TSRC-HS-FOR-0303)</p> <p>Task Risk Assessment Cards</p> <p>Permits to Work</p>	<p>STAGE 1 FINDINGS</p> <p>Section 4.2.1 of the WHSMP defines the requirement for all “High” and “Medium” risk construction activities to have a safe work method statement developed and approved prior to the work commencing. The SWMS is to be submitted to the ND Site Superintendent, Project H&S Manager and Foreman for review and approval using the SWMS Conformance Checklist. The SWMS is also then to be discussed during pre-start meetings and approved by the Operator and other workers prior to commencement of works. Evidence of this process occurring was provide for many different plant operation scenarios (excavator, roller, concrete pump, crane).</p> <p>Prior to commencement of the high risk construction work (e.g. pre-start meeting), workers/subcontractors are required to sign onto the SWMS, to discuss the control measures proposed, to complete a TRA and finally to obtain any approvals for permits to work.</p> <p>Discussions with plant operators on the day of the site inspection found that consultation had occurred between the ND Engineer, Foreman and Operator prior to work commencing at the following locations:</p> <ul style="list-style-type: none"> Embankment 16 (evidence included concrete pump checklist, SWMS review and TRAs); Fill 18 (evidence included batter assessment permits, ground disturbance permits, SWMS review and TRAs – excavator use); Fill 29 (evidence included SWMS review, TRA, Toolbox Talk using Daily Safety Message - Pad Foot Roller & Skid Steer Loader use). <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendation.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>

Item No.	Criteria	Evidence	Findings	Recommendations
8.	<p>Is there a documented and implemented process to stop work:</p> <ul style="list-style-type: none"> Where work conditions change; Where uncontrolled hazards have been identified; and Following an incident. 	<p>Section 4.2.1 of WHSMP (TSRC-HS-HSMP-PLA)</p> <p>Workplace Health and Safety Procedure Communication and Consultation (TSRC-HS-PRO-08)</p> <p>Various ND Safe Work Method Statements for High Risk Construction Work</p> <p>Complyflow Incident Reports (#1300, #1444, #1672, #1743, #1873, #1886, #1894, #2476, #2779, #2884, #2885, #2954,</p> <p>ICAM Incident Reports (TSRC-HS-FOR-1709) x 7</p> <p>Daily Pre-Start Briefing Form (TSRC-HS-FOR-0303)</p> <p>Task Risk Assessment Cards</p>	<p>STAGE 1 FINDINGS</p> <p>Discussions with ND audit participants indicated that work had ceased each time major incidents had occurred (e.g. plant rollover). Two “safety reset” events had occurred over the previous 12 months whereby the site was closed down in order to allow further training to be undertaken of workers and contractors.</p> <p>Stop work processes are not well defined for changes to work processes / hazards or where a HSR believes that this is necessary due to a high risk situation being present. There is no definition of HSR roles in the WHSMP. Nonetheless, workers and subcontractors included in discussions on the day of the site inspection did indicate that changes to the work process should initiate the need for a review of the SWMS and conduct of a new TRA although this was reported to be an informal process. Review of incident reports for the plant rollover events found that a number had occurred through deviations from the developed SWMS.</p> <p>There is a procedure titled “Site Shutdown” (TSRC-HS-PRO-45) that may confirm the process to implement a full site shutdown (similar to the safety reset process described above), however at the time of writing this preliminary report, this document was not available for review.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>2i. ND should develop and implement a procedure for review/amendment to SWMS/TRA by consulting on possible situations where increases in risk may occur at pre-start meetings (e.g. what could change and what triggers a review). This should also include an increase in supervision for high risk activities or activities that can undergo rapid change through the working day.</p> <p>2j. ND should update the WHSMP to include the powers of the HSR and when work may be stopped.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>

General WHS Consultation, Cooperation and Coordination

9.	<p>Is there a documented and implemented process in place for the established of a WHS Committee?</p> <p>Does this include:</p> <ul style="list-style-type: none"> Provision of adequate time for meetings to occur; Evidence that the meetings provide a forum for consultation on WHS matters; Provision of minutes of meetings; Process to notify workers/subcontractors on the project of meeting outcomes? 	<p>Section 13 of WHSMP (TSRC-HS-HSMP-PLA)</p> <p>Workplace Health and Safety Procedure Communication and Consultation (TSRC-HS-PRO-08)</p> <p>H&S Committee Charter (TSRC-HS-FOR-0802)</p> <p>Various Committee Meeting Minutes x 7 – East and Viaduct</p> <p>Daily Safety Message (TSRC-HS-FOR-0312)</p> <p>Worker HSR Interview Questionnaires x 33</p> <p>Management HSR Interview Questionnaires x 4</p> <p>Committee Meeting Minutes Central Office – 1/3/2018</p> <p>Committee Meeting Minutes East Office – 26/2/2018</p> <p>Committee Meeting Minutes West Office – 15/3/2018</p> <p>Committee Meeting Minutes Viaduct – 27/2/2018</p>	<p>STAGE 1 FINDINGS</p> <p>Whilst there have been various forums available for the discussion of WHS issues in the past, a formal health and safety committee was established for the project in early 2017 with the first meeting understood to have occurred on 16th February. This meeting included the authorization of the charter by management and worker representatives. The charter was authorized by 8 worker representatives and 3 management representatives. The charter was signed by new representatives on 29th August 2017. It is noted that the charter is a template document that did not have all sections completed correctly (e.g. insert preferred meeting frequency).</p> <p>The charter was authorized by new representatives to the East committee between 22/1/18 and 26/2/18 following a request made by the H&S Coordinators for nominations from major subcontractors on site.</p> <p>Meetings were noted to be announced to workers/subcontractors through the Daily Safety Message with evidence of this provided in the 14/02/2018 message.</p> <p>Meeting minutes were reviewed for 7 meetings in the East project region demonstrating that meetings were being held on a monthly basis following a similar agenda as follows:</p> <ul style="list-style-type: none"> Previous business; Significant incident review; Lessons learned and corrective actions suggested; Monthly toolbox talks; Workforce issues; Pending items and issues for elevation; and Next meeting date. <p>Evidence was available to demonstrate that minutes are distributed to committee members, ND management and posted in the workplace.</p> <p>It appears from review of the minutes that time is allocated for the meetings and that committee members are involved in inspections of the workplace where these are arranged (typically once per month). There were also entries in the minutes demonstrating discussion of major plant rollovers including the concrete pump and grader</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>2k. ND and the PC should increase consultation processes through more regular committee meetings, greater involvement on committee meetings, providing adequate time and resources to conduct meetings, etc.</p> <p>2l. ND and the PC should update the WHSMP, Communication and Consultation Procedure and Committee Charter to define the greater degree of involvement of the committee and HSRs in the workplace as outlined above.</p> <p>2m. ND and the PC should discuss incident investigation outcomes at committee meetings to provide a consultation mechanism for feedback. These discussions must be recorded in the meeting minutes.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>2.2.e. ND and the PC should confirm that committee minute distribution lists are available and current for all new members to these committees.</p>
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Item No.	Criteria	Evidence	Findings	Recommendations
13.	<p>Is there a documented and implemented process in place for the election of HSRs and does this include:</p> <ul style="list-style-type: none"> A process for identifying work groups and nomination? A process for election? Appropriate training as a HSR as required by the legislation? Being provided time and resources to effectively undertake their role; and Being provided the opportunity to review hazards and work processes in their work group? 	<p>Section 13 of WHSMP (TSRC-HS-HSMP-PLA)</p> <p>Workplace Health and Safety Procedure</p> <p>H&S Committee Charter (TSRC-HS-FOR-0802)</p> <p>Various Committee Meeting Minutes x 7 – East and Viaduct</p> <p>HSR Nomination Form (TSRC-HS-FOR-0806)</p> <p>Daily Safety Message (TSRC-HS-FOR-0312)</p> <p>H&S Committee Members Notice with Photographs</p> <p>HSR Training Receipt (Ballistic Training Solutions – 22nd Nov 17)</p> <p>HSR Training Email from Senior HR & Training Advisor (28/02/18)</p>	<p>and lessons learned from these events. However, the lessons learned largely focus on administrative issues and may not get to the actual root cause (e.g. engineering). Timeframes and resources allocated to committee meetings, inspections and consultation with HSRs could be enhanced to allow for greater participation in changes to processes and systems. It is noted that HSR Training was recorded as being discussed in July 2017 and for some months after this.</p> <p>STAGE 2 FINDINGS</p> <p>Discussions with HSR's during stage 2 of the audit confirmed a general consensus that consultation arrangements had increased significantly in the preceding 4-6 weeks. The majority of HSR's reported being afforded adequate time to allow for safety inspection activities, committee meetings and HSR training. HSR's also agreed in the majority of cases that they believed that the new committees established in the months prior to the audit were now effective, attendance had increased significantly and that they felt issues could be discussed in an open forum.</p> <p>Evidence was available to demonstrate that meeting minutes were being generated in a more timely manner and posted within offices in the Region where the committees were based. It was noted that around 33% of HSR's indicated that they were not provided with copies of committee meeting minutes after recent meetings, although they also reported that the minutes may have been available in the Crib Huts but they had not seen them.</p> <p>STAGE 1 FINDINGS</p> <p>Section 13 of the WHSMP indicates that "all subcontractors are encouraged to have a worker representative on the health and safety committee". Evidence was provided to demonstrate that requests for representation on the project committee was called in early 2017 and that nominations were called again in the East on 13th February 2018 to increase representation in the East project area. There also appeared to be a number of new committee members joined in mid-2017 with the H&S Committee Charter authorized by another 9 persons on 29th August 2017 although the process of nomination and election was not available to review. At the time of writing this preliminary report, there were approximately 33 committee members, both management and workers, across the three project areas (Central, West and East/Viaduct). Due to the size of the project emphasis should be put on enhancing consultation mechanisms which can include review of the numbers of HSRs conducting inspections in the workplace (and following through with robust discussion at committee meetings).</p> <p>Evidence was provided of the HSR Nomination Form being completed for Multifix Constructions on 27/02/2018 for the West Safety Committee, however, this was the only information of such nomination/election process provided at the time of the audit.</p> <p>Review of the H&S Committee Meeting minutes for the East found that training of representatives had been discussed and carried over from the July meeting 2017 into the August meeting. Email evidence from August 2017 indicated that the payment of training for HSRs was considered the responsibility of subcontractors that nominated persons into these roles.</p> <p>Review of information available at the time of the audit found limited evidence of the formal nomination/election process across the subcontractors. Confirmation could not be provided that HSRs have been provided with adequate time, resources and opportunity to review hazards and work processes as it is uncertain who was considered a HSR and who was considered a committee representative only.</p> <p>Reference should be made to Audit Part 4 for further information on HSR training.</p> <p>STAGE 2 FINDINGS</p> <p>Refer to findings made earlier in this Part whereby HSR's have been nominated / elected by their employers in recent months, provided access to HSR training by ND, provided opportunities to undertake regular inspections and to attend committee meetings.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>2n. ND and the PC should document the role of a HSR on the project such that newly elected representatives understand their role, consultation mechanisms available to them and how they can best make a positive impact on safety at committee meetings and in the workplace (including use of PIN notices).</p> <p>2o. ND and the PC should increase the emphasis on enhancing consultation mechanisms which can include review of the numbers of HSRs conducting inspections in the workplace (and following through with robust discussion at committee meetings).</p> <p>Refer to recommendations made in Audit Part 4, Item 1 RE Training of HSRs.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>

Item No.	Criteria	Evidence	Findings	Recommendations
11.	Is there evidence that the WHS committee and representative structures are effective in consultation / communication on the project?	<p>Section 13 of WHSMP (TSRC-HS-HSMP-PLA)</p> <p>Workplace Health and Safety Procedure Communication and Consultation (TSRC-HS-PRO-08)</p> <p>H&S Committee Charter (TSRC-HS-FOR-0802)</p> <p>Various Committee Meeting Minutes x 7 – East and Viaduct</p> <p>Daily Safety Message (TSRC-HS-FOR-0312)</p> <p>Worker HSR Interview Questionnaires x 33</p> <p>Management HSR Interview Questionnaires x 4</p> <p>Committee Meeting Minutes Central Office – 1/3/2018</p> <p>Committee Meeting Minutes East Office – 26/2/2018</p> <p>Committee Meeting Minutes West Office – 15/3/2018</p> <p>Committee Meeting Minutes Viaduct – 27/2/2018</p>	<p>STAGE 1 FINDINGS</p> <p>As noted in Item 10 and 11, the WHS committee has been in operation for more than 12 months originally operating as a single committee that was separated into work zones late in 2017.</p> <p>Review of meeting minutes provided for 2017/18 found limited information recorded, however, they did appear to be well attended and so would still be considered a good forum for communication and consultation. This included committee members undertaking workplace inspections as a team. It is important to note that records provided on the day of the audit were largely for the East committee and Viaduct committee. Limited information was provided for the West and Central committees.</p> <p>Without proper training of nominated/elected HSRs it is unlikely that these representatives would have a complete understanding of the role.</p> <p>STAGE 2 FINDINGS</p> <p>H&S committees have recently been reinvigorated across the project, and there was consensus amongst the HSR's that this has improved the level of consultation and communication. Evidence was available of committee meeting minutes from each of the regions for the most recent meetings. The numbers of committee members was found to be much higher than on previous minutes and details contained within the minutes demonstrated a far more effective consultation process had occurred. This was found to be consistent with HSR interviews where the committees were reported to be largely effective. While the consultation arrangements being implemented at the time of the stage 2 audit appear to be much improved on previous arrangements, regular monitoring and feedback from workers involved in these processes should be obtained to ensure they remain relevant.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>Refer to recommendations made in items 9 and 10 above.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>2.2.f. ND should implement a process for periodic review of consultation arrangements and obtain anonymous feedback on the level of H&S implementation, communication and consultation across the project.</p>








Audit Part 3 – Investigation Actions Undertaken for Incidents

Item No.	Criteria	Evidence	Findings	Recommendation
Safe Use of Concrete Pump Trucks				
1.	Was a checklist developed that addresses the areas of concern raised by the incident investigation for the uncontrolled movement of the concrete boom on 15 th August 2017?	Concrete Pumping Checklist (TSRC-HS-FOR-0316)	<p>STAGE 1 FINDINGS</p> <p>A concrete pumping checklist was developed following the uncontrolled movement of the concrete boom that occurred on 15th August 2017. The checklist includes the following sections:</p> <ul style="list-style-type: none"> Contractor and plant details (including location of work); Safety documentation (site approval, boom inspection certificate, pre-start checks); Location sketch (orientation, boom orientation, outrigger position, checks against manufacturers manual, etc.); Ground details; Pump setup and operation details; and Site Engineer and Pump Operator details. <p>Review of the iCAM investigation for the concrete pump indicated that the plant was set up on sloping ground and dunnage used to raise the outriggers to get the level within the manufacturers' specification. The checklist developed after the incident does consider the ground surface (compaction and slope), reach within manufacturers manuals and sole plates / timbers within manufacturers set charts.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
2.	Is there evidence that the checklist developed from the iCAM investigation has been used for concrete pumping activities since the incident occurred?	Completed Concrete Pumping Checklists for 38 separate pours	<p>STAGE 1 FINDINGS</p> <p>The total number of concrete pours that have occurred since the uncontrolled movement of the concrete pump could not be determined during the audit. However, a request was made to provide evidence of the use of the concrete pumping checklist and 38 examples of the use of the checklist were provided. A completed concrete pumping checklist was also documented for the Meales contractor conducting pouring activities at embankment 16 on the day of the audit and demonstrated level dunnage and sole plates with a section of windrow cut flat to accommodate one outrigger.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
3.	Is there evidence to confirm that consultation has occurred with relevant subcontractors and workers around the use and benefit of the checklist?	H&S Committee Minutes for East Portion 29/08/2017	<p>STAGE 1 FINDINGS</p> <p>Discussions held with a Meales operator on the day of the audit indicated that he had not personally been consulted prior to the issue of the checklist. Evidence was available to confirm that the Site Engineer had consulted on the setup of the pump on the day of the audit and that requirements of the checklist had been discussed in the pre-start meeting. It was reported that toolbox talks were held subsequent to the establishment and implementation of the checklist and adjustment to SWMS for Meales pouring activities, however there was no written evidence provided at the time of the audit to confirm this. Evidence was provided to indicate that the concrete pump checklist was discussed during the H&S committee meeting held on 29/8/2017 in the East portion. Review of the minutes indicated that this did not include a representative from Meales.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>3a. ND and the PC should conduct a toolbox talk with concrete pumping staff about the benefit of the checklist and its use. Retain records of this toolbox.</p> <p>3b. ND and the PC should review other checklists and forms that have been introduced after the mobile plant incidents to confirm that effective consultation and communication has occurred on these. This may also require the presentation of further toolbox talks.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
4.	Have monitoring activities been implemented to ensure checklists are being completed, they effectively address site	Completed Concrete Pumping Checklists for 38 separate pours	<p>STAGE 1 FINDINGS</p> <p>Monitoring activities being undertaken include daily and weekly H&S advisor/coordinator inspections (recorded in Complyflow), plant audit inspections (recorded in Complyflow), pre-start meetings to confirm checklist is being used and SWMS observations. Evidence</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>3c. ND should update Complyflow system to allow for checklist confirmation to appear when conducting workplace inspections.</p>

Item No.	Criteria	Evidence	Findings	Recommendation
	specific risks, and are understood by relevant workers?	<p>☐ Daily Inspection Action Summaries (26/3/18 & 19/2/2018)</p> <p>☐ SWMS observation checklists (various plant)</p>	<p>was provided of these processes occurring including provision of a significant number of completed checklists and evidence of the use of the checklist provided during inspection of a pouring activity during the audit by Meales on embankment 16.</p> <p>Discussions with the pump operator for the pour occurring on embankment 16 on the day of the audit confirmed he understood the need to complete the checklist and indicated that he was also aware of the need for cutting of soil to occur to allow dunnage and sole plates to be level prior to setup of the outriggers.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made. Further evidence of the use of the checklist was available during inspections of various locations on the alignment.</p>	<p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>

Safe Use of Pick and Carry Cranes

5.	Was an updated safe work method statement produced that addressed the areas raised by the incident investigation for the Franna crane rollover that occurred on 31 st July 2017?	<p>☐ ICAM Investigation Report for Franna Crane Rollover 31/07/2017 (TSRC-HS-FOR-1709)</p> <p>☐ Crane Safety Toolbox Talk (TSRC-HS-FOR-0804) – 03/08/2017</p> <p>☐ Newlands Civil Construction Revised SWMS (SA-FM-003-040) dated 3/8/17</p> <p>☐ SWMS Conformance Checklist – Newlands Civil Construction (TSRC-HS-FOR-0302)</p> <p>☐ Multifix Constructions Revised SWMS (No. 5) dated 03/08/2017</p> <p>☐ Laughlin Crane Hire Revised SWMS (no. 1162 Rev 4) dated 03/08/2017</p> <p>☐ SWMS Conformance Checklist – Laughlin Crane Hire (TSRC-HS-FOR-0302)</p> <p>☐ Queensland Crane Hire Revised SWMS (no. QCH-TV-0562.2) dated 02/08/2017</p> <p>☐ Nexus Delivery Revised SWMS (no 0023-C) dated 03/08/2017</p> <p>☐ SWMS Conformance Checklist – ND (TSRC-HS-FOR-0302)</p> <p>☐ Toolbox Talk Record dated 3/8/2017</p> <p>☐ SWMS review request email 18/11/17</p>	<p>STAGE 1 FINDINGS</p> <p>Subsequent to the crane incident that occurred in July (and as listed in Section 8 - Action Plan in the ICAM investigation) a toolbox talk was developed by the Project H&S Manager that was rolled out on 3/8/17 and included at least 38 workers conducting crane work. The toolbox requested all Crane Operators and Doggers to update their SWMS to address the causes of the incident as reported in the ICAM investigation (e.g. load capacity, working on stable ground, not mobiling loads if not required).</p> <p>Evidence was available to demonstrate that Newlands Civil Construction reviewed and revised their SWMS for "Use / Working with a Mobile Crane" to include additional information under section 9 (for chain/sling hazard) and section 11 (for stability and load limit hazards). This SWMS was signed off by Newlands personnel working on site following approval of the updated SWMS by ND using the SWMS Conformance Checklist.</p> <p>Evidence was available to demonstrate that Multifix Constructions revised their SWMS No. 5 (General Cranage) on 03/08/2017 to include additional information under section 5.</p> <p>Evidence was available to demonstrate that Laughlin Crane Hire revised their SWMS for "General Site Work Using Franna Cranes" on 3/8/2017 to include additional information on safe use.</p> <p>Evidence was available to demonstrate that Queensland Crane Hire (company involved in incident) reviewed their SWMS No. QCH-TV-0526.2 (Crane Works) on 2/8/2017 to include updates to section 6.3 (for chain/sling hazard) and section 8.2 (for stability and load limit hazards).</p> <p>Evidence was available to demonstrate that ND updated their SWMS no 0023-C (General Cranage Activities) on 3/08/2017 to include additional information in the Crane Operations section and Lifting and Controlling Loads section.</p> <p>Toolbox talks were held for crane operators and associated subcontractors on 3/8/2017 by the H&S Coordinator for East. The record of the talk indicates that 29 persons attended.</p> <p>Evidence was available to demonstrate that the H&S Manager requested all key management staff of ND to review SWMS prior to pick and carry works in November 2017. This was undertaken to ensure that the documents considers ground conditions, need for loads to be transported on a crane (e.g. transport on flat top and unload at location) and load capacity reduction by reducing jib length. This was in response to a second incident that had occurred</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
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Item No.	Criteria	Evidence	Findings	Recommendation
6.	Was a process of consultation initiated around the updated SWMS that included impacted workers or their representatives?	 Crane Safety Toolbox Talk (TSRC-HS-FOR-0804) – 03/08/2017  Toolbox Talk Record dated 3/8/2017	<p>STAGE 1 FINDINGS</p> <p>As noted in item 5 above, various toolbox talks were held with ND stakeholders and subcontractors undertaking crane operations on 3/8/17. Evidence was available to demonstrate that the SWMS was discussed with workers and approved prior to commencing work using pick and carry cranes.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
7.	Is there evidence to indicate that there are instances where the safe work method statement has been used to guide / inform / manage work activities?	 Various Signed Revised SWMS (e.g. Newlands)  ND Meeting to Prevent Plant Rollovers dated 30/1/18	<p>STAGE 1 FINDINGS</p> <p>Apart from the authorization of SWMS that were revised post the incident, there was no other supporting evidence provided at the time of the audit to confirm that the SWMS was further used.</p> <p>A review of meeting minutes from H&S Coordinator/Advisors in the East region indicated that there was "confusion over the review timeframe for SWMS – monthly/3 monthly." The minutes go on to confirm that SWMS content is to be raised at pre-starts.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>3d. ND and the PC should verify that the revised SWMS and the newly established Pick and Carry Permit are available during cartage operations and reviewed prior to commencement of work during pre-start meetings.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
8.	Is there evidence that workers were trained in and understood the contents of the safe work method statement?	 Crane Safety Toolbox Talk (TSRC-HS-FOR-0804) – 03/08/2017  Various Signed Revised SWMS (e.g. Newlands)	<p>STAGE 1 FINDINGS</p> <p>Evidence was available to indicate that a Crane Safety Toolbox Talk was developed subsequent to the Crane incident and issued on 3rd August 2017. This document outlines what crane operators and doggers are required to include in their updated SWMS. The document refers to the following:</p> <ul style="list-style-type: none"> Working within manufacturers specifications; Load to remain 300mm off the ground when moving (mobiling) the load; If there is a requirement to mobile a load to a platform this must be done on solid, firm and level ground; The risk of the working load limit being reduced if carried over uneven ground; Stopping work if any of these issues occur. <p>This toolbox went on to discuss updating SWMS to ensure dogger/rigger are moved to a safe area after attaching the chains/slugs to the lifting hook (e.g. before the chains/slugs are lifted by the operator). This toolbox talk included sign off by 38 workers on the site.</p> <p>Evidence was available to indicate that revised SWMS were reviewed/authorized by workers prior to commencement of work subsequent to the reissue.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
9.	Was the use of the safe work method statement monitored for effectiveness on the project?	 Complyflow SWMS Observation Checklists	<p>STAGE 1 FINDINGS</p> <p>Adherence to SWMS is required to be assessed by the Superintendent, Supervisor, Leading Hands and H&S Advisors on a daily basis, however, this does not appear to be a formal process. As reported in item 7, the requirement for SWMS reviews to occur during pre-start meetings was discussed. There did not appear to be a formal process in place for the review of the changes made after the original incident occurred in July 17 apart from emails submitted after the second incident occurred.</p> <p>A SWMS observation process is implemented on the project and many examples of this process occurring were available for review.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>3e. ND and the PC should conduct a formal review of the SWMS updates and new Pick and Carry Permit with crane operators and associated workers to obtain feedback on these documents and to determine whether these control measures will be effective moving forward.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>

Item No.	Criteria	Evidence	Findings	Recommendation
10.	Were there instances of pick and carry crane lifts being conducted to confirm compliance with the safe work method statement?	<p>Technical Memo – Request for Special Approval – Franna Use for New England Highway Watermain Cutover</p> <p>Various approval emails for use of Franna</p> <p>Pick and Carry Registers (Central, East, West)</p> <p>Risk Assessment – Franna Use for Completing Water Main Pipe Saddle Installation</p> <p>Pick and Carry Permit C-PC0010</p> <p>TRA - Franna Use</p> <p>JHA – Lifting Pipe Clamps with Franna</p>	<p>STAGE 1 FINDINGS</p> <p>There were no pick and carry cranes present on site on the day of the audit and no activities could be observed.</p> <p>STAGE 2 FINDINGS</p> <p>During stage 2 of the audit a 25 Tonne Franna Crane was observed working on Bridge 10 of the site. Evidence was provided to demonstrate that an email had been issued by the Project Director confirming the requirement for Franna's to be banned from site unless specifically approved by the Project Director and only after special approval has been obtained through review of an activity specific risk assessment. Further to this, evidence was available to confirm that the use of a Franna crane had been approved for the installation of water pipe brackets on Bridge 10. Inspection of documentation available at the location of the works identified the following:</p> <ul style="list-style-type: none"> An activity specific risk assessment was available for the works; A completed Task Risk Assessment card was available for the works; A completed Job Hazard Analysis was available for the works; A completed "Pick and Carry Permit" was available for the works; The crane log book had been completed prior to start of works. <p>It was noted that a Supervisor for the subcontractor responsible for the works, who was also a HSR was present during the pick and carry operations. However, during a review of the documentation a number of anomalies were found as follows:</p> <ul style="list-style-type: none"> The risk assessment document requires the crane to operate on flat ground unless under a specific risk assessment. It was noted that the crane was being used to travel between a section of exposed soil and the relatively flat concrete bridge deck. However, there was a ground surface that the crane was required to traverse that was quite uneven and that had not been considered in either the TRA, JHA or Permit. However, it is noted that the crane was reported be operating with <10% of the crane load capacity. Further it was noted that the Pick and Carry Permit does refer to the "ground type" to identify makeup of material but does not consider gradient of the ground surface. The risk assessment document defines wind conditions that the crane cannot operate above (on two occasions). These wind conditions were not transcribed into the Pick and Carry Permit and the crane operator noted that there was no way to measure wind speed. <p>A review of the Pick and Carry Registers for East, Central and West identified many occasions since the introduction of the approval process whereby permits to undertake pick and carry work had been issued. A request was made on the day of the audit to obtain approvals, risk assessments and permits for any activities where a Franna was used (including a formal request made subsequent to the audit) but no documentation was available at the time of the audit. Considering some of the concerns raised above on the day of the audit, further interrogation of the robustness of this process is required.</p> <p>While not directly related to Franna use on site, a review was conducted of a number of Pick and Carry permits (E-PC006, E-PC007, E-PC008) for other plant used (Excavator). This identified sections of the permit that were not completed (sections 9 and 10).</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>3.2.a. ND and the PC should amend the Pick and Carry Permit to incorporate sections that require review of the gradient of the ground surface and wind speed (including processes to measure and assess these and communicate operating conditions to relevant workers).</p> <p>3.2.b. ND and the PC should delegate responsibility for the authorization and supervision of pick and carry activities to a small group of supervisors who have demonstrated competency in these operations including review of risk assessments, TRA's and permits to work. Evaluation of this competency should be a formal process.</p> <p>3.2.c. ND and the PC should deliver training to all permit authorisers to ensure they understand the importance of this process including the authorisation and consultation sections of the permit.</p> <p>3.2.d. ND should provide documented evidence of the approvals, risk assessments and permits to work for Franna use in order to allow for further interrogation of the robustness of the process that has been implemented.</p>



Item No.	Criteria	Evidence	Findings	Recommendation
Safe Use of Rollers for Compaction of Embankment Edges				
11.	Was an updated safe work method statement produced that addresses the areas raised by the incident investigation for the pad foot roller incident (24 th January 2017) and smooth drum roller incident (31 st July 2017)?	<p>Nexus Delivery Revised SWMS (no 003-E) dated 13/2/2018</p> <p>Nexus Delivery Revised SWMS (0086/1) dated 2/11/2017</p> <p>Nexus Delivery Batter Assessment Permit (TSRC-HS-FOR-2603)</p>	<p>STAGE 1 FINDINGS</p> <p>Evidence was available to indicate that the Roller SWMS was updated to include a section regarding the use of correct rolling patterns and not operating too close to the edge of road shoulder. This SWMS was further updated in September 2017. The Working With or Near Mobile Plant SWMS includes requirements to prevent equipment rollover (Page 10 and 11) including protection by berms or flagging, rolling at a distance from embankment edge, etc.</p> <p>Following the events of plant rollover on batters, ND developed a Batter Assessment Permit. This document identifies the types of plant to be used on the batter, activities to be undertaken, persons undertaking the work and uses a colour coded table to define when rollers (and other plant) are prohibited from working on the batter, when an assessment and permit is required to be issued and when general access can be gained. Evidence of the use of this permit system was provided during the audit.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
12.	Was a process of consultation initiated around the updated SWMS that included impacted workers or their representatives?	<p>Nexus Delivery Revised SWMS (no 0086-1) dated 03/11/2017</p>	<p>STAGE 1 FINDINGS</p> <p>Evidence was available to indicate that authorization had occurred of the SWMS and discussions indicated that the updated processes were discussed with operators, however, there was no evidence available of this at the time of the audit.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>3f. ND and the PC should verify that the revised SWMS for rollers was issued to Operators and a record is retained on file.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
13.	Is there evidence to indicate that there are instances where the safe work method statement has been used to guide / inform / manage work activities?	<p>Pre-Start Meeting Minutes 28/02/2018</p> <p>Daily Safety Message (TSRC-HS-FOR-0312)</p>	<p>STAGE 1 FINDINGS</p> <p>Discussions with the Pad Foot Roller operator working in Zone 2, Cut 31 on the day of the audit (28/02/2018) found that the operator was aware of the requirements of the SWMS and was able to produce a copy of the document. Notification was provided that the SWMS are reviewed as part of the pre-start process which also includes the completion of the TRA card, inspection of the work area and discussion of the information contained in the Daily Safety Message document.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
14.	Is there evidence that workers were trained in and understood the contents of the safe work method statement?	<p>Toolbox Talk – Uncontrolled Plant Movement and Plant Rollovers - dated 23/02/2017</p> <p>Newlands Toolbox Talk Meeting Record 24/02/2017</p> <p>Ostwald Toolbox Talk Register 23/02/2017</p>	<p>STAGE 1 FINDINGS</p> <p>The ND H&S team developed a toolbox presentation titled “Uncontrolled Plant Movement and Plant Rollovers” that was presented to operators across the project on 23rd February 2017. This included a range of safety requirements associated with the operation of rollers such as padfoot, static steel drum, combination, etc. This presentation discussed ND requirements for “Planning and Preparation” to include delineating the pavement or use of a rill/windrow, stability of surface to be assessed prior to commencement, rolling forward for edges and at 45 degrees where possible. This toolbox was signed off by 36 workers and subcontractors. In addition to this Newlands conducted a toolbox talk using the same presentation on 24th February 2017 and Ostwald conducted a similar session with workers on the 23rd February 2017.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>

Item No.	Criteria	Evidence	Findings	Recommendation
15.	Was the use of the safe work method statement monitored for effectiveness on the project?	Complyflow SWMS Observation Checklists	<p>STAGE 1 FINDINGS</p> <p>Adherence to SWMS is required to be assessed by the Superintendent, Supervisor, Leading Hands and H&S Advisors on a daily basis, however, this does not appear to be a formal process. As reported in item 13, the requirement for SWMS reviews to occur during pre-start meetings was discussed. A SWMS observation process is implemented on the project and many examples of this process occurring were available for review.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
16.	Were there instances of embankment edge compaction by rollers being conducted to confirm compliance with the safe work method statement, in particular around direction of travel and the use of berms?	NA	<p>STAGE 1 FINDINGS</p> <p>There was no embankment edge compaction works occurring on the day of the audit. Rollers were inspected working in the Central region and the West region, however batters on either side of the alignment were shallow and windrows available along edges.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made. There were no activities of compaction on embankment edges being undertaken at the time of the audit to confirm this. Discussions were held with two roller operators during the audit and both reported hazards associated with soil movement at edges of embankments and the need to roll on an angle to prevent rollover.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
17.	Has there been a reduction in incidents involving rollers compacting embankment edges?	NA	<p>STAGE 1 FINDINGS</p> <p>Discussions with the H&S Team, Superintendents and others on the day of the audit indicated that there has not been ongoing issues with rollers compacting at embankment edges, however this could not be confirmed through documentation. A discussion with a roller operator in the West region indicated that he believed it was safe to roll edges parallel to the embankment which is not in accordance with the recommended procedure / toolbox training.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>3g. ND and the PC should conduct a toolbox to confirm that all roller operators are aware of the requirements when rolling at edges using the presentation developed after the previous incidents.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
18.	Have there been other instances where rollers have been reported to be operating in reverse in close proximity to batter edges?	NA	<p>STAGE 1 FINDINGS</p> <p>Discussions with the H&S Team, Superintendents and operators on the day of the audit indicated that they were not aware of any instances where rollers have been operating in reverse in close proximity to batter edges, however, this could not be confirmed.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>Refer to Recommendation in Item 18 above.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>

Item No.	Criteria	Evidence	Findings	Recommendation
Safe Use of Excavators on Sloping Ground				
19.	Was an updated safe work method statement produced that addresses the areas raised by the incident investigation for the uncontrolled movement of an excavator on 19 th August 2016?	<ul style="list-style-type: none"> ARG Trees SWMS – Clearing and Grubbing 0 to 17800 dated 24/08/2016 SWMS Conformance Checklist (TSRC-HS-FOR-0302) dated 24/08/2016 Nexus Delivery Batter Assessment Permit (TSRC-HS-FOR-2603) 	<p>STAGE 1 FINDINGS</p> <p>ARG Trees conducted a review and update of the SWMS for Clearing and Grubbing on 24/08/2016. This included updates to the hazard “Plant Becoming Unstable / Steep Slopes” and incorporated the requirement for inspection to occur of the work area on foot prior to work. This goes on to require:</p> <ul style="list-style-type: none"> Use of a bench if one is in place; Assessing slopes prior to tracking onto the slope; Requesting an extra bench if the work cannot be conducted safely; Operators must not operate on a slope where a bench is required, etc. <p>Following the events of plant rollover on batters, ND developed a Batter Assessment Permit. This document identifies the types of plant to be used on the batter, activities to be undertaken, persons undertaking the work and uses a colour coded table to define when excavators (and other plant) are prohibited from working on the batter, when an assessment and permit is required to be issued and when general access can be gained. Evidence of the use of this permit system was provided during the audit.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
20.	Was a process of consultation initiated around the updated SWMS that included impacted workers or their representatives?	NA	<p>STAGE 1 FINDINGS</p> <p>Discussions with the H&S Team indicates that ARG did consult with workers at the time of the SWMS update, however, evidence of this was not available at the time of the audit</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>3h. ND and PC to verify that consultation occurred with workers regarding the updated SWMS developed by ARG Trees through review of toolbox talk sign-off and pre-start meeting records.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
21.	Is there evidence that the safe work method has been used to guide / inform / manage work activities.	<ul style="list-style-type: none"> Nexus Delivery SWMS for General Earthworks Project Wide (TSRC-HS-SWMS-0018) Nexus Delivery Batter Assessment Permit (TSRC-HS-FOR-2603) 	<p>STAGE 1 FINDINGS</p> <p>No evidence of this was available at the time of the audit. However, since the event, a Batter Assessment Permit process has been established to manage the risk while working on batters that excavators are able to work on. Evidence of the use of this permit was available for excavators working in the Fill 18 area on the day of the audit. A copy of the General Earthworks Project Wide SWMS was available in the cabin of both excavators at the Fill 18 location, was signed off and the operators were aware of the hazards associated with rollover.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
22.	Is there evidence that workers were trained in and understood the contents of the safe work method statement?	Nexus Delivery SWMS for General Earthworks Project Wide (TSRC-HS-SWMS-0018)	<p>STAGE 1 FINDINGS</p> <p>Discussions with the excavator operators working at Fill 18 on the day of the audit found that both were familiar with the use of the Batter Assessment Permit and reported that the Site Engineer was involved in review and authorization of the permit. The operators were also aware of key points within the SWMS to prevent rollover and were operating on level surfaces at the time of the audit. While the operators indicated they were not involved in the amendment of the SWMS they did understand the risks within the document. Pre-start meetings were also held the morning of the audit and included review of the SWMS.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>3i. ND and the PC should increase the SWMS observation process for excavators (and other plant) working on site to ensure that batter permits are being used and controls are understood and in place. Record this data in the Complyflow system.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>

Item No.	Criteria	Evidence	Findings	Recommendation
23.	Was the use of the safe work method statement monitored for effectiveness on the project?	 Complyflow SWMS Observation Checklists	<p>STAGE 1 FINDINGS</p> <p>Adherence to SWMS is required to be assessed by the Superintendent, Supervisor, Leading Hands and H&S Advisors on a daily basis, however, this does not appear to be a formal process. As reported in item 22, the requirement for SWMS reviews to occur during pre-start meetings was discussed. A SWMS observation process is implemented on the project and many examples of this process occurring were available for review.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
24.	Were there instances of excavators being operated on slopes to confirm compliance with the safe work method statement, in particular around the use and access to benching?	NA	<p>STAGE 1 FINDINGS</p> <p>There were no excavators operating on slopes on the day of the audit. Two excavator operators were working at Fill 18, however they were operating on level surfaces. Batter Assessment Permits were in place for these operations.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
25.	Has there been a reduction in incidents involving excavators?	NA	<p>STAGE 1 FINDINGS</p> <p>Discussions with the H&S Team, Superintendents and others on the day of the audit indicated that there had not been any ongoing issues with excavator's slips / rollover, however this could not be confirmed through documentation.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>No recommendations.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>

Verification of Competency (VOC) Process Review

26.	Have mobile plant operators that have worked on the site since 19 August 2016 been VOC assessed?	 Various VOC documents from subcontractors including ND Internal, Major Training Group, BK Hire, Holt Lifting Service, Sugdens Crane Hire, etc.  Completed Approval to Operate Plant and Equipment – Various (TSRC-HS-FOR-3401)	<p>STAGE 1 FINDINGS</p> <p>A cross section of plant operators working on the project was reviewed by obtaining VOC documentation from the Complyflow system. This included operators involved in the plant rollover events from 2017 and a number of representative operators working for ND conducting self-performing works and subcontractors. A total of 20 operator VOCs were inspected during the audit representing:</p> <ul style="list-style-type: none"> ▪ Crane operators – Franna; ▪ Concrete pump operators; ▪ Roller operators; and ▪ Excavator operators. <p>Every request for an operator VOC was available in the Complyflow system, however there was a range of VOC documentation available. ND has developed their own internal VOC documentation for Roller Operators (and other plant items) that included theory and practical demonstrations. Evidence of this documentation being used by an internal trainer and assessor was available for contracted operators conducting self-performing works. Prior to this, ND was using an external independent provider. VOC documentation submitted by subcontractors ranged from assessments conducted by external independent groups to internal letters indicating that subcontractor staff were competent. Documentation was reviewed and approved using the ND Approval to Operate Plant and Equipment form.</p> <p>Refer to section 28 below RE veracity of this information.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>Refer to recommendation made in Item 28</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
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Item No.	Criteria	Evidence	Findings	Recommendation
27.	Have unique site characteristics been included in the VOC process for Plant operators?	<p>Verification of Competency (TSRC-HS-VOC-001) for Plant / Equipment: Roller</p> <p>Verification of Competency (TSRC-HS-VOC-010) for Plant / Equipment: Dogman / Operator</p>	<p>STAGE 1 FINDINGS</p> <p>Review of VOC documentation developed and used by ND on the project includes discussion around Hazards that should be assessed prior to commencing work. A number of completed VOC documents were reviewed and hazards such as open trenches, underground services and uneven ground had been identified. Review of the Practical Assessment for the operation of cranes found that information around planning of work discussed setup on suitable firm and level surfaces.</p> <p>As discussed in Item 28, VOC undertaken by subcontractors and external independent training and assessment groups may not incorporate the specific hazards associated with the project such as steep terrain.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>Refer to recommendation made in Item 28</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>
28.	Has the VOC process been reviewed and amended to incorporate outcomes from risk assessments and incident investigations?	<p>Advanced Solutions – Final Consolidated Report RE the VoC Process Review dated 19/01/2017</p> <p>ND Senior Training, Assessment and Compliance Office –Seek Job Advert</p>	<p>STAGE 1 FINDINGS</p> <p>ND engaged an external consultant (Advanced Solutions) to review the VOC processes being used at both ND and major subcontractors as follows:</p> <ul style="list-style-type: none"> ▪ BK Hire; ▪ Perfect Earth; ▪ Colas; ▪ QBirt; ▪ ALE; ▪ Salmons; ▪ HTQ; ▪ Newlands; ▪ Alexanderson Earthmoving (AE) Group; ▪ Lauchlin Cranes; ▪ Joe Wagner Group; and ▪ Geovert. <p>The Advanced Solutions report found that contractors had some form of approach to what is considered to be a VOC process but that many were not found to be robust enough. It was reported that some only had a practical component, no inclusion of a trainer/assessor to conduct a reliable review, etc. The report recommends that the "Nexus tools are to be improved and made available for all contractors to utilize across the operation, with this supported by the Contractor Training/Assessors oriented to the tools, the processes and Complyflow."</p> <p>Consistent with what was identified above there was a range of documentation in place to demonstrate VOC had been completed. This included operator assessment and competency documentation produced by ND (and assessed by a ND trainer/assessor) for self-performing works through to competency letters provided by subcontractors for their workers. A review of the VOC assessment and submission process is required to be conducted in order to ensure it is robust whether conducted internally by ND or through a subcontractor. Any VOC process should include hazards that are likely to be found on the project such as steep terrain.</p> <p>STAGE 2 FINDINGS</p> <p>Findings from Stage 2 were commensurate with findings from Stage 1 and therefore no additional recommendations have been made. However, it was noted that evidence was provided to demonstrate that ND have advertised for a Senior Training, Assessment and Compliance Officer through Seek. This job advertisement describes the role as being responsible for review and determination of VOC for "all personnel commencing on the TSRC project." The newly appointed H&S Manager indicated that if ND was unsuccessful in placing a suitable candidate, that consideration would be given to engaging an external training and assessment agency.</p>	<p>STAGE 1 RECOMMENDATIONS</p> <p>3j. ND and the PC should enhance the VOC review and approval process to ensure the robustness of the assessment and documentation submitted. This should include updates to procedures around this process.</p> <p>3k. ND should require subcontractors to ND undertake a review of their VOC processes and to enhance these to be consistent with ND expectations. This could include using ND competency assessment tools or using an independent third party trainer/assessor who can demonstrate that a robust system has been applied.</p> <p>3l. ND and the PC should enhance systems for the review/amendment of SWMS, TRAs, pre-planning processes and deviations, improvement to the use of signage/flagging and the establishment of restricted access and no-go zones by ND and the PC.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>

Audit Part 4 – WHS Representative Training

Item No.	Criteria	Evidence	Findings	Recommendations
1.	Training has been provided for Health and Safety Representatives/WHS Committee Members to enable them to perform their role.	<p>Section 13 of WHSMP (TSRC-HS-HSMP-PLA)</p> <p>Workplace Health and Safety Procedure Communication and Consultation (TSRC-HS-PRO-08)</p> <p>H&S Committee Charter (TSRC-HS-FOR-0802)</p> <p>Various Committee Meeting Minutes x 7 – East and Viaduct</p> <p>HSR Nomination Form (TSRC-HS-FOR-0806)</p> <p>Daily Safety Message (TSRC-HS-FOR-0312)</p> <p>H&S Committee Members Notice with Photographs</p> <p>HSR Training Receipt (Ballistic Training Solutions – 22nd Nov 17)</p> <p>HSR Training Email from Senior HR & Training Advisor (28/02/18)</p> <p>Worker HSR Interview Questionnaires x 33</p> <p>Management HSR Interview Questionnaires x 4</p>	<p>STAGE 1 FINDINGS</p> <p>As documented in Audit Part 2 - General WHS Consultation, Cooperation and Coordination, evidence was provided to demonstrate that requests for representation on the project committee was called in early 2017 and that nominations were called again in the East on 13th February 2018 to increase representation in the East project area. There also appeared to be a number of new committee members joined in mid-2017 with the H&S Committee Charter authorized by another 9 persons on 29th August 2017 although the process of nomination and election was not available to review. At the time of writing this preliminary report, there were approximately 37 committee members, both management and workers, across the three project areas (Central, West and East/Viaduct).</p> <p>Review of the H&S Committee Meeting minutes for the East found that training of representatives had been discussed and carried over from the July meeting 2017 into the August meeting. Email evidence from August 2017 indicated that the payment of training for HSRs was considered the responsibility of subcontractors that nominated persons into these roles. More recently, evidence was provided to demonstrate that requests to complete HSR training had been submitted by 20 representatives between 21st and 28th February 2018 with 5 of these being ND employees and the remainder being from subcontractors (Castleross, Niepe, Unispan, Geovet, Coates, Qbirt, Davitt, Shults, Dowells, etc.). Training was to be commenced through Ballistics Training Solutions for 14 of these representatives on 6th March. Prior to this, it appears that another 5 persons were trained to be HSRs from 27th November to 1st December.</p> <p>Review of information available at the time of the audit found limited evidence of the formal nomination/election process across the subcontractors. It is understood that HSRs nominated/elected by subcontractors in 2017 had requested training, however there was uncertainty about who was to fund such training. This situation appears to have been resolved with the provision of training of a proposed 20 HSRs in March and April 2018.</p> <p>STAGE 2 FINDINGS</p> <p>Stage 2 of the audit involved the interview of 33 worker HSR's and 4 management HSR's on the project. Anecdotal evidence from these interviews found a general consensus that the level of consultation and engagement with workers had markedly improved over the preceding 4-6 weeks. Of these HSR interviewed:</p> <ul style="list-style-type: none"> More than 80% of the appointed HSR's had not requested specific training to be HSR's previously; Nearly all of the HSR's reported that they had been offered training in the HSR role during recent months. A large number of these had already completed day 2 of the course at the time of the audit; Of the remaining HSR's who reported requesting training previously these representatives have been afforded access to this training and were in the process of conducting the training at the time of the audit. 	<p>STAGE 1 RECOMMENDATIONS</p> <p>4a. ND and the PC should verify that employees/subcontractors that have been nominated/elected by their peers to be HSRs have in fact been provided access to HSR training.</p> <p>STAGE 2 RECOMMENDATIONS</p> <p>No additional recommendations.</p>