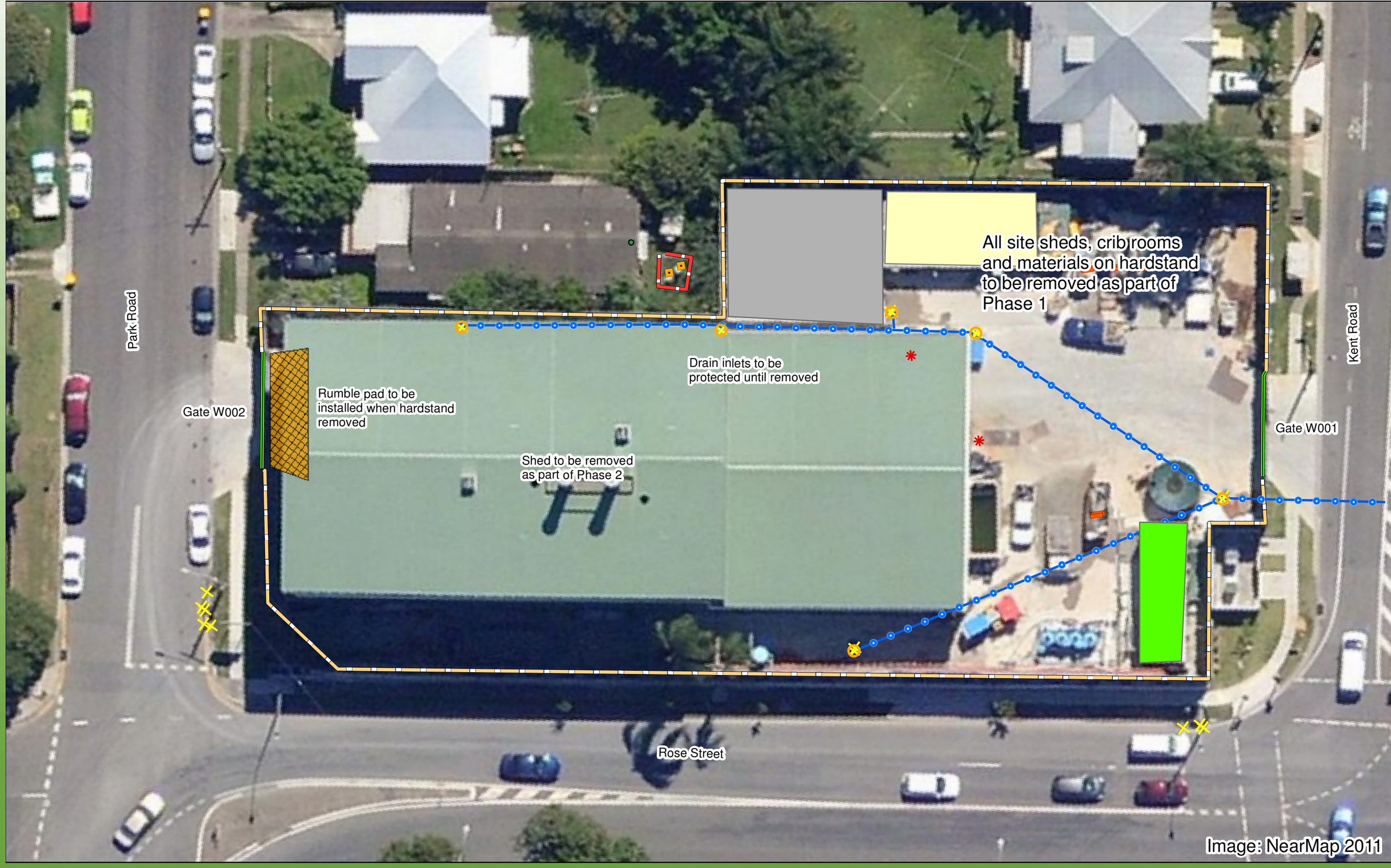
site environment plan



Rev	By	Date	Description
3-01	KF	13/09/11	FINAL

Designed By: KF | Checked By: KF
Drawn By: KF | Approved By: RP

Legend

- Air Quality Monitor
- Bin
- Noise Monitor
- Silt Sock
- Silt Sock with Geofab Protection
- Spill Kit
- Vibration Monitor
- Access Point
- Drain
- Fence - Security
- Noise Wall
- Rumble Pad

airportlink northernbusway windsor to kedron airport roundaboutupgrade

THIESS John Holland

5 2.5 0 5 Meters

Rose Street
Demobilisation and Rehabilitation Phase 1/2/3
Wooloowin

TJH-AM-SEP-EN-0007-03-01

Wooloowin Site Removal and Rehabilitation – Environmental Plan Notes

SEP Scope and Timeframe

This SEP covers the Site Operations for the duration of site removal and rehabilitation works at Wooloowin.

Demobilisation will consist of 3 Phases.
1. Removal of temporary offices and site amenities, Filling in of access shaft and removal of hardstand outside of shed
2. Removal of site shed
3. Removal of remaining hardstand, Temporary services, noise walls and landscaping

Note: Specifically for this SEP, CoG; CoG Report; CoG Conditions refers only to 'Wooloowin Worksite Modification' Wooloowin Project Change Coordinators Generals Report.

Hours of Work

Demobilisation Activities
- 7:30am to 5:30pm Monday to Friday and 7:30am to 1:00pm Saturday for all activities, including haulage

Other
- Worker shuttle bus for dropping off and picking up workers at any time
- Limited occurrences of oversized vehicle movements to and from site to deliver and remove plant and equipment may occur between 5:30pm and 7:30am Monday to Friday

Erosion and Sediment Control (Surface)

Control Activities	Responsibility
• Works must be undertaken in accordance with Erosion and Sediment Control Guidelines published by Institute of Engineers Australia, Qld Div. • Appropriate controls are to be installed and maintained to ensure that sediment laden water does not leave site. • Until removal, hardstand and spoil truck thoroughfare should be regularly cleaned to remove any deposited material from truck movements as required. • After hardstand removal, all vehicles leaving site will pass through appropriate controls to ensure material tracked onto public roads is minimised. • Any accidental tracking of material out onto public roads from the load out shall be cleaned up in the quickest / safest possible timeframe. • All stormwater inlets within the site will be protected until removal with gravel bags (or similar). Controls are to be regularly inspected to ensure that they are maintained to an acceptable standard.	Site Supervisor / Project Engineer

Surface and Groundwater Management (Surface & U/G)

Control Activities	Responsibility
• Where hardstand remains, surface water captured onto the hardstand shall be directed to installed stormwater drains. As hardstand is removed, stormwater will be directed through appropriate controls before leaving site through existing stormwater inlets. • Captured rainwater from the roofs of structures (while they exist) shall be reused where possible, or otherwise discharged to the stormwater system until site shed is removed. • Any pooled or trapped surface water that does not meet discharge requirements, with regards to water quality parameters, will be removed by means of sucker truck (or similar).	Site Supervisor / Project Engineer

Air Quality and Dust (Surface & U/G)

Control Activities	Responsibility
• Monitoring of atmospheric dust and dust fallout will be undertaken at the following locations: ▪ 71 Park Rd (Atmospheric) ▪ 68 Park Rd (Dust fallout)	Environment Team
• Monitoring for atmospheric dust and dust fallout will be undertaken against the following guidelines:	Environment Team

Pollutant	Obj	Unit	Avg Period
PM_{10} *	50	ug/m^3	24 hrs
$PM_{2.5}$	25	ug/m^3	24 hrs
	8	ug/m^3	1 yr
TSP	90	ug/m^3	1 yr
Dust Fall	4	gm/m^2	1 Mth

*No more than 5 exceedences per year

• Dust suppression measures must be devised and implemented to ensure CoG goals are met during the removal and rehabilitation of the Wooloowin worksite. • Water will be available for dust suppression at all times and will be utilised as necessary • All trucks carrying spoil or other loose material are to be covered and if necessary, treated (e.g. mist sprays) prior to leaving the construction site.	Site Supervisor / Project Engineer Site Supervisor Site Supervisor / Project Engineer

Noise Management (Surface & U/G)

Control Activities	Responsibility
• Predictive modelling (refer Rose Street – Noise and Air Quality Assessment (Revised) April 2010) has identified the following controls to be implemented: • 5m noise wall around the perimeter of the site • Acoustically lined shed • Ventilation fans on the acoustic shed fitted with silencers (while existing) • Plant and Equipment installed and maintained to ensure efficiency • Mufflers and broadband reversing alarms fitted to mobile plant • Generators, non-mobile plant and filtration equipment contained in acoustic enclosures • Reasonable and practicable consultation and mitigation to receptors for whom construction goals are likely to be exceeded as indicated in the model	Site Supervisor / Project Engineer
• Predictive modelling for demobilisation/rehabilitation works is being undertaken. Where any revised predictive modelling or monitoring identifies exceedences to properties which may potentially exceed the noise goals, the following shall occur: • Consultation with potentially effected premises • Reasonable and practicable individual mitigation strategies will be applied (note: these are confidential as they are on a case by case basis) • Routine monitoring to review mitigation measure effectiveness	Project Engineer / Community Relations
• Other Items to be implemented to minimise noise impacts include: • Plant and equipment not in use for extended periods shall be switched off • Construction vehicles required to queue or stand stationary on entering the worksite shall not idle outside the acoustic shed for more than 3 minutes • Where construction vehicle queuing is required this must only occur in commercial or industrial areas • While the shed exists, shed doors must be kept closed between 5:30pm – 7:30am other than to allow access and egress to the shed and for deliveries as approved. • If the number of vehicles per hour exceeds 6 the doors may remain open. Due to compliance with air quality and noise goals the shed doors will remain open between 7:30am – 5: 30pm to allow ventilation. • Haul fleet shall be regularly audited to ensure compliance with ADR 28/01 • All haulage of spoil, fill, plant and equipment on Class 4[4] or above vehicles to and from the Wooloowin worksite must occur on designated construction and spoil haulage routes as outlined in the Traffic Management Plan. This includes: • Rose St, Junction Rd, Sandgate Rd, Rode Rd, Gympie Rd, Kedron Park Rd, Park Rd and Kent Rd • Motorways and arterial roads between the designated construction traffic route and spoil placement sites. • Spoil haulage may only occur east bound along Rose St, Junction Rd, left onto Sandgate Road with the return route being via Rode Rd, Rose St and Kent Rd. • No fill to be brought into the worksite outside the nominated hours of work • The transport and movement of heavy plant, machinery or other equipment must not occur on minor roads except where in accordance with relevant local laws or approved by BCC or relevant authorities and in consultation with residents. • Workforce must be transported between the Kedron worksite and the Wooloowin worksite by a dedicated shuttle bus service with workforce drop-off and pick-up occurring within the Wooloowin worksite. • The following items have been identified and should be pursued where possible to assist in minimising impacts: • Programming of activities (ie hours of works) • Operational techniques to avoid and minimise impacts (ie construction methodologies) • Early consultation measures with potentially affected receptors • A portable noise monitoring unit will be available for spot monitoring. Monitoring may occur at 71 Park Road and other locations (subject to access permissions): • Monthly monitoring at representative locations during: • 6:30am-6:30pm • 6:30pm-10:30pm • 10:30pm-6:30am So as to compare the measured noise levels with the predictive noise levels from the model. • Monitoring shall also take place to: • To assess the effectiveness or relevance of individual mitigation solutions.	Site Supervisor / Project Engineer Traffic Team All Traffic Team / Site Supervisor Project Engineer / Site Supervisor / Community Relations Environment Officer

Vibration Management (Surface & U/G)

Control Activities	Responsibility
• In the demobilisation and rehabilitation phase, the following activities have been identified as potential sources of vibration: • Hydraulic Hammering • Where predictive modelling predicts the goals will be exceeded,(refer CoG Sch 3 Pt 9 (k)) early and ongoing consultation with potentially effected premises, such consultation must: • Be consistent with procedures established in accordance with the CoG Conditions • Precede rock hammering and other works • Vibration monitoring will be locations where modelling predicts impacts on sensitive building contents or risk of cosmetic damage • Regenerative noise monitoring will be undertaken in response to complaints and recorded in accordance with AS1055. Monitoring locations will represent occupied buildings where the highest levels of regenerated noise is expected • All monitoring results shall be reported in the Construction Compliance Report.	Community Relations / Project Engineer Community Relations Environment Officer Project Engineer / Site Supervisor

Hazardous Substances Management (Surface & U/G)

Control Activities	Responsibility
• A 240L hydrocarbon spill kit must be present when fuel powered or hydraulic equipment/plant is onsite and kept in close proximity to work location • All spills are to be contained and reported to the Environmental Officer • Hazardous substances are to be stored in designated bunded areas • Bulk storage of chemicals and fuels will be minimised • Chemicals are to be stored in accordance with conditions specified under these approvals and the relevant Australian Standard i.e. AS1940-2004, AS3780-2008 • A hazardous materials inventory shall be maintained onsite for chemicals stored and used in activities • Drain protectors (i.e. rubber mats for covering stormwater drains) shall be kept at the water treatment plant and chem. and fuel storage areas and are to be used to prevent chemical spills from entering stormwater drains • Individual chemical bunds shall be protected from rainfall events • The fuel store shall be protected from the weather to protect the dispensing area	Site Supervisor

Waste Management

Control Activities	Responsibility
Use the waste hierarchy: • Reduce • Reuse • Recycle • Appropriate receptacles will be provided to allow segregation of waste for recycling • All waste to be transported from the site will be disposed of by a licensed contractor • The required documentation for regulated/ trackable waste will be kept onsite • All waste removed from site will be recorded in the Waste Register, including transportation and destination details • Waste Streams quantities and management as follows:	Project Engineer / Site Supervisor

Material	Detail	Action
General Waste	Crib Hut etc	Landfill
Concrete	Shotcrete	Recycle
Oil	Servicing Plant	Recycle
Oily Waste Water	Housekeeping	Licensed Facility
Spill Treatment Wastes	Spill Cleanup	Licensed Facility
Tyres	Servicing Plant	Recycle
Drums / Cans	Servicing Plant	Recycle
Cardboard / Paper	Office / Packaging	Recycle
Sanitary Waste	Sewage	Licensed Facility or Sewer
Ferrous Metal	Waste from product usage	Recycle
Non-Ferrous Metal	Waste from product usage	Recycle

• Where waste material is released to the environment, the incident must be reported to the relevant authorities (as authorised and handled by the EAM) and corrective or remedial actions taken as required to render the area safe and to avoid environmental harm.	Environment Officer

Contaminated Land Management (Surface & U/G)

Control Activities	Responsibility
• Tunnel excavations are not within known contaminated areas • If an area suspected of being contaminated is uncovered during the works the Environmental Officer must be notified. • Any contaminated material will be handled and disposed of in accordance with relevant legislation/ guidelines.	Environment Officer / Site Supervisor

Acid Sulphate Soils Management

Control Activities	Responsibility
• Tunnelling operations will not occur within known areas of ASS • If an area suspected of being ASS is uncovered during the works the Environmental Officer must be notified and the material handled and managed in accordance with SPP2/02	Environment Officer / Site Supervisor / Project Engineer

Indigenous Cultural Heritage

Control Activities	Responsibility
• These works are not within known areas of indigenous cultural heritage Work will cease if an artefact or artefacts of potential cultural heritage significance are discovered and the EC shall be notified immediately	All Personnel

Non-Indigenous Cultural Heritage

Control Activities	Responsibility
• These works are not within known areas of non-indigenous cultural heritage • Work will cease if an artefact or artefacts of potential cultural heritage significance are discovered and the EC shall be notified immediately	All Personnel

Flora Management (Surface)

Control Activities	Responsibility
• No clearing of vegetation protected under BCC NALL is anticipated during these works • Trees to be retained in this area, may where possible be marked and barricaded	Environment Officer / Site Supervisor / Project Engineer

Fauna Management (Surface)	
Control Activities	**Responsibility**
• Any finds of fauna onsite shall be reported to the EC/EO	Site Supervisor

General	
Control Activities	**Responsibility**
• A Plant Movement Form will be completed when plant arrives on site	Project Engineer
• All construction traffic movements must take place in accordance with the Traffic Management Plan	
• Limited parking on site to be controlled by site management. No parking of workforce or subcontractor vehicles in residential areas. All personnel will use shuttle bus to/from Kedron	Site Supervisor / Traffic Team
• The visual amenity of the Wooloowin worksite must be maintained. Measures to be undertaken include, but are not limited to: • Removing graffiti within 24 hours	Project Engineer Site Supervisor

TJH Contacts		
Area Manager	Gavin Bradford	
Project Manager	Matthew Lennon	
Environmental Coordinator	Kenneth Fyfe	
Community Relations Coordinator	Anthea Craig	
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