Construction and Environmental Management Plan
Hinchinbrook Creek Bridge, Link Road and Signalised Intersection adjoining the former Hoxton Park Airport – Cowpasture Road Hoxton Park

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Prepared on behalf of the Mirvac Projects Pty Limited

September 2010

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Document Control Sheet

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A	Preliminary Issue	September 10	PJ	HW
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APPENDICES

1.0 Preface

1.1 THE DEVELOPMENT

ADW Johnson have been engaged by Mirvac Projects Pty Limited to project manage the development of the link road, bridge and intersection from the industrial/residential estate to Cowpasture Road at Hoxton Park.

A new multi-span bridge is required to cross Hinchinbrook Creek for a proposed link road that will provide access to Cowpasture Road. As part of this project, a road embankment is required along with large culvert crossings and the construction of a signalised intersection to RTA requirements on Cowpasture Road. Cowpasture Road is currently being upgraded by the RTA with practical completion on the construction project anticipated at the end of 2010.

A copy of the preliminary design drawings of the various project components is attached in Appendix A.

1.2 PRELIMINARIES

This Construction & Environmental Management Plan (CEMP) has been developed by ADW Johnson on behalf of Mirvac Projects Pty Limited to address environmental and construction items that relate to the proposed development. In addition, the CEMP outlines the actions and staging of construction deemed necessary to ameliorate possible concerns of neighbouring occupants and tenants whilst maintaining a safe productive and efficient construction site.

Implementation of a CEMP is central to the successful completion of a project. The production of the CEMP is a positive commitment by Mirvac to ensure that all statutory obligations are fulfilled and that the project is delivered to the highest Mirvac quality, safety and environmental standards.

The responsibility for the management of this document and the actions contained therein lies with the construction team that will build the link road. The plan will be monitored throughout the project construction phase and amended from time to time to suit construction requirements.

Hours of Work

Consistent with Project approvals 10_0008, 10_0009 and 10_0010, approval is sought for the following work hours:

1. ***Between 7:00 am and 6:00 pm, Mondays to Fridays inclusive***
2. ***Between 7:00 am and 4:00 pm, Saturdays,***
3. ***No work on Sundays and public holidays.***

Note: Construction activities may be conducted outside these hours provided that the activities are not audible at any residence beyond the boundary of the site.

Contact Details of Site Manager

Contact details of the site manager will be advised on construction commencement.

2.0 Environmental Management Plan

2.1 ARCHAEOLOGICAL MANAGEMENT PLAN

Reference is made to the following documents:

(i) *Mary Dallas Consulting Archaeologists February 2010. "Aboriginal Archaeological Assessment and Management Plan. Proposed Industrial/Commercial Development, Former Hoxton Park Airport Site, Hoxton Park, NSW".*
(ii) *Mary Dallas Consulting Archaeologists correspondence of 16th August 2010 entitled "Amended Part 3A Application for Hinchinbrook Creek Road/Bridge. Former Hoxton Park Airport".*

As a guideline to the procedures required the following extracts have been taken from the abovementioned documents, however, should NOT be read in isolation from the full report. A fully qualified experienced archaeologist must be engaged to oversee the procedures.

- *"Mirvac Group undertake subsurface archaeological investigation in the form of test excavation of any portions of HPA PAD 1 proposed for impact, including the proposed M7-Cowpastures Road link road/bridge corridor and any possible future drainage works within the area of HPA PAD 1. These test excavations should precede any physical development works to the east of the current airstrip boundary fence. Dependent on the results of these test excavations, documented Aboriginal archaeological remains may be determined to require partial or total preservation or further partial or total salvage excavation."* See Figure B – extract from aforementioned reference.

- *"Any bushland regeneration or weed reduction program as may be proposed in the Vegetation Management Plan [VMP] and which cover the Hinchinbrook Creek corridor would need to take into account registered Aboriginal sites and areas of archaeological potential".*

- *"All proposed archaeological works, namely artefact collection, proposed monitoring of certain earthworks and archaeological test excavation and artefact archival storage, should be conducted according to the 'Strategy for Proposed Archaeological Investigations' contained in Appendix 1 (of previously mentioned report (see (i) and (ii)) and correspondence and as summarised below) of this report and be undertaken in partnership with the Registered Aboriginal Stakeholder groups".*

  Appendix 1 - Strategy for Proposed Archaeological Investigations – Summary of Major Issues

  Monitoring and Collection Strategy

  Any artefacts identified during collection of known surface sites or monitoring of initial earthworks will be subject to field recording (GPS location and photograph taken, and record of artefact type, raw material, size, cortex and platform type made) prior to collection.

These records will be submitted as part of a revised site recording to the DECCW AHIMS Registrar. This will also record the long-term storage location of the collected artefacts, as decided by the Aboriginal stakeholder groups. This will be decided upon completion of the archaeological test excavation program of ***HPA PAD 1*** *as discussed below.*

Test Excavation Strategy

HPA PAD 1 *is an area proposed for test excavation within the Hinchinbrook Creek corridor. Known proposed impacts relate to the construction of a road and bridge link across the corridor. Possible impacts may also arise from the construction of additional drainage works in the event current drainage channels are insufficient and additional tail outs need to be constructed.*

HPA PAD 1 *has the potential to contain buried archaeological deposit because it retains alluvial deposits which in part are relatively undisturbed. It is not known nor can it be accurately predicted on the current evidence that significant intact Aboriginal remains will be located in the designated PAD, however we can predict that any remains present are likely to be restricted to stone artefacts and other occupation material (e.g. charcoal, hearths).*

The program of excavation would be restricted to the areas proposed for road/bridge construction and to any future designated area of drainage works.

The archaeological investigation could be undertaken using mechanical excavation via a series of 1x5m trenches spaced on a 20m grid along the road alignment within the Hinchinbrook Creek corridor. Excavations within any future proposed tail outs areas would be designed to investigate the areas of possible impact of those particular works. It is likely these excavations would be less than 1.5m deep.

The investigation would be undertaken under the Research Design and Burial Protocol included below which recognises that there may be historical archaeological considerations and the remote possibility that human remains may be unearthed. In the event historical archaeological items are identified, such as surviving elements of the historic use of the wartime use of Hoxton Park Airport as may have been located within the Hinchinbrook Creek corridor, these would be assessed, analysed and managed in consultation with a suitably qualified Historical Archaeological consultant in tandem with the Aboriginal archaeological investigations.

Field Methodology

The following archaeological testing methodology is proposed. Archaeological investigations would utilise a combination of mechanical and manual testing methods. Manual testing and detailed recording would be specifically employed in the event of the discovery of archaeological features or buried former land surfaces, or significant historical archaeological features (in conjunction with an appropriately qualified Historical Archaeological consultant).

A mechanical excavator with batter bucket would be used to excavate a series of archaeologically monitored test trenches on a 20m grid across the area of PAD. These trenches would be approximately 0.5m in width and 1-2m in length. Maximum depth is anticipated to be significantly less than 1.5m but if greater (and therefore in excess of Occupational Health and Safety Act limits), stepped /benched trenches or shoring would be used.

The trenches would be excavated in 0.1m-0.2m spits through the alluvial deposits until any archaeological features (including burial cuts) or buried former land surfaces are located, or else until archaeological sterile horizons (clay subsoil) or bedrock are reached. Any archaeological features (excepting human remains – see below) would be recorded and potentially manually excavated using standard archaeological techniques and recording methods (e.g. where appropriate arbitrary 0.05m-0.1m spits or following stratigraphy).

A sample of twenty 10L buckets of deposit from each spit of each mechanically excavated trench would be wet-sieved onsite using nested 2.5 and 5mm sieves to retrieve any Aboriginal archaeological material. This would be sufficient to determine the presence/absence and general density of any Aboriginal archaeological remains within the areas tested

All cultural material and samples of matrix deposit will be bagged and labelled. Soil profiles will be recorded and pH tests will taken at intervals throughout the stratigraphic profile. Post excavation handling, analysis and storage of retrieved items, excluding human remains, would be undertaken according to methods and outcomes agreed upon between the registered Aboriginal stakeholder groups and the Mirvac Group. This may include reburial at an agreed upon place within the creek corridor which could be managed for preservation in the long term. At this time, similar discussions would be undertaken regarding artefacts collected during collection/monitoring works as described in ***Section 1 of the aforementioned reference****.*

This is considered sufficient to determine the presence/absence of any Aboriginal cultural remains and to characterise the nature and extent of any such remains if located as a basis for management decisions in relation to the current proposal (e.g. preservation of documented remains, partial/complete salvage, destruction).

- *"The Mirvac Group will manage the Aboriginal Heritage on the Part 3A lands of the former Hoxton Park Airport site according to best archaeological practice and in consultation with a fully qualified archaeologist and the Registered Aboriginal Stakeholders, the GLALC, DTAC, DCAC and DACHA. The Aboriginal Archaeological Management Plan described in the current MDCA February 2010 report [Section 5.5 of the aforementioned reference], will form the basis of the heritage management."*

Extract from the aforementioned report:

"Figure B. Proposed management of Aboriginal sites and area of archaeological potential within the Hoxton Part airport site. The area relating to the current Hinchinbrook Creek road/bridge proposal is outlined in blue. Management relating to HPA PAD1 (the green shaded area) is as attached in Appendix 1 of the MDCA 2010 report."

2.2 ECOLOGICAL AND VEGETATION MANAGEMENT PLAN

Reference is made to the following documents:

(i) *GHD report dated September 2010 entitled "Hoxton Park Airport Development – Ecological Impact Assessment for Proposed Access Road and Bridge".*
(ii) *GHD report dated September 2010 entitled "Hoxton Park Airport Development – Vegetation Management Plan for Proposed Access Road and Bridge".*

As a guideline to the procedures required the following extracts have been taken from the abovementioned documents, however, should NOT be read in isolation from the full report. A fully qualified experienced ecologist must be engaged to oversee the procedures.

Fauna Management

Mitigation measures for fauna are required as the proposed works involve the removal of habitat in native vegetation. Due care during clearing is recommended to reduce direct impacts to any fauna species which may be utilising the disturbance area. A pre-clearance survey by the site Environmental Management Representative (EMR) will be required prior to clearing of any native vegetation within the proposed construction area. This should involve:

- *Searches for birds, nests and roosts;*
- *Active searches for micro bats, including checking under exfoliating bark*
- *Identification and marking of habitat trees during pre-clearing surveys (habitat trees include: trees with a Diameter at Breast Height (DBH) > 70cm; trees with resident fauna or associated signs of occupation; and/or any trees with hollows).*
- *Habitat trees should be avoided as far as is practicable by postponing clearing through these areas as long as is practicable;*
- *Habitat trees should be monitored for fauna by the EMR during clearing operations and sensitive construction techniques used to minimise the risk of mortality of resident fauna; and*
- *During clearing operations, all habitat trees should be retained as intact as practicable and placed on the surface of nearby revegetation areas. Where it is practical to separate any leaves, branches and seeds from native species, these items should used for brush mulching in re-vegetation areas. The transfer of seeds from non-native species through contaminated soil and vegetative material to revegetation areas should be avoided.*

Appropriate actions should be documented according to type and conservation significance of the fauna in question. It would be necessary to notify DECCW if roosting threatened species are detected within the construction footprint and construction may have to be modified or delayed to further reduce the risk of injury.

Groundcover Clearance Protocol

Groundcover substrate, especially large woody debris, provides important habitat for native fauna, including threatened species. The following protocols apply:

- *The site EMR is to perform a pre-clearing survey for Cumberland Land Snails and if any individuals are found relocate them, along with relevant shelter substrate, to the nearest area of intact suitable habitat outside the disturbance footprint. Translocation of the species should only be performed subject after notifying DECCW and obtaining relevant approvals;*
- *As part of the pre-clearing survey, the site EMR will identify large woody debris with habitat value (excluding exotic weed material) that warrants relocation; and*
- *During construction, remove identified large woody debris using excavator grabs, where practicable and place within nearby areas of retained vegetation or revegetation areas.*

Weed and Pest Management

The following measures have been adopted to manage environmental weeds during construction:

- *Stockpiles of fill or vegetation should not be placed in areas of adjoining remnant vegetation but instead within existing cleared areas;*
- *To limit the spread of weeds into adjoining remnant vegetation the surface disturbance footprint, existing fencing around the Hinchinbrook Creek riparian corridor should be maintained and extended and construction activities completely excluded from this area;*
- *Incorporate control measures, such as appropriately placed silt fences in the design of the proposed works to limit the spread of weed propagules downstream of the site;*
- *Monitor and control Noxious Weed species in line with legislative obligations; and*
- *Perform ongoing monitoring of weed infestation on and adjoining the site as part of the management of the site.*

Revegetation and Habitat Enhancement

The overall development strategy for the broader study area includes provision for the retention of remnant vegetation and habitat resources within areas set aside for conservation. Areas specifically set aside as biodiversity offsets for the Proposal are described in the aforementioned references. The western portion of the Hinchinbrook Creek riparian corridor is set aside as an offset for development of other lands within the former Hoxton Park airport site (GHD, 2007b).

Habitat enhancement should include the placement of logs and tree trunks for ground fauna shelter sites in retained and regenerating vegetation. All hollow-bearing trees identified in the pre-clearing surveys and removed during construction are to be relocated into revegetation areas within the proposed offset sites to mitigate the loss of habitat resources. All significant woody debris identified during the pre-clearing survey is also to be relocated into the revegetation areas to provide further shelter habitats for ground fauna. Woody debris would provide potential habitat resources for the Cumberland Land Snail and other small native fauna.

Site Management

The following mitigation measures are recommended in order to minimise construction impacts of the site:

- *Set appropriate speed limits for construction traffic to limit dust generation and reduce the risk of fauna road fatalities;*
- *Applying water to internal haul roads during construction, where required to limit dust generation; and*
- *Restrict access into adjacent remnant vegetation during construction by appropriate marking and/or fencing of the surface disturbance footprint.*

3.0 Construction

3.1 TRAFFIC MANAGEMENT PLAN

3.1.1 Introduction

This Traffic Management Plan has been prepared to deal primarily with construction traffic and its effect on the surrounding environment.

3.1.2 Ingress & Egress of Vehicles to site

- Construction traffic will enter and exit the site areas under construction as follows:

From the Western side of Hinchinbrook Creek

- The Main Entrance to the site will be situated along the new access Road 1 currently under construction from Cowpasture Road. This will serve as the main truck / pedestrian access way.
- The new access road will be used as shared access way for both construction traffic for Big W and DSE and for traffic to the existing Lots 401, 402 and 403 fronting Aviator Avenue including the existing Blum warehouse.
- All traffic will enter the construction site via the main entry accessed from Cowpasture Road and proceed to the roundabout at the north eastern end of the site.
- Parking and site facilities are to be provided by the contractor for the duration of the works

From the Eastern side of Hinchinbrook Creek

- The proposed signalised intersection onto Cowpasture road at the end of the link road will be under construction under traffic and so will be under a TCP accepted by RTA.
- Access will be restricted to materials deliveries and worker vehicles associate with the construction of the intersection and link road.
- All traffic will enter the site compound and facilities under the RTA approved TCP and Road Occupancy License
- Relevant statutory signage shall be erected defining the vehicle entry and exit points at all stages of construction.
- Relevant signage will be displayed setting appropriate speed limits on site and during the road construction.
- Notice will be provided to all surrounding landowners, throughout the construction process as to any special circumstance that may arise.

3.1.3 Loading & Unloading of Materials

- The site will be bound by temporary chain wire fencing and will be maintained accordingly as required throughout the various stages.
- All deliveries and construction activity will be contained within the site boundaries.
- All loading and unloading operations are to comply with Work Cover and relevant authorities requirements.
- No materials will be stored on public footpaths, roads or shared access ways.
- Should any lane closures be required, a relevant traffic management plan will be issued along with any required permits and local resident warning.
- All entry and exiting of vehicles into and out of site shall be in a forward direction and at controlled speeds.
- No parking of vehicles or plant and equipment will be allowed along Road 1 or the new access road or Cowpasture Road.
- Restrictions of any truck queuing on the any access roads will apply to be enforced.

3.1.4 Truck and Vehicle Routes:

- All trucks and vehicles entering the site shall do so from Cowpasture Road into the main estate entrance whenever possible.
- A suitably RTA approved TMP will be required for access from Cowpasture Road at the eastern end of the link road in accordance with the current version of RTA "Traffic Control at Worksites" publication.
- Site entry signage will be installed to direct all deliveries to the correct areas.
- All vehicles prior to entry into the site must complete a truck driver's declaration or complete a site induction to ensure compliance with site rules.
- All vehicles will be required to enter and exit site in a forward direction
- A road occupancy license from the RTA will be required for works within the Classified Road corridor (Cowpasture Road) impacting upon traffic flows.

3.1.5 Traffic Flows

- Consideration will be made to the peak traffic times generally 7.30am-9.30am and 4.30pm-5.00pm.
- Non-critical deliveries will be scheduled outside peak traffic periods.
- Traffic management plans will be provided when local authority works are required, such as infrastructure connections & service reticulations.
- Traffic management plans will be produced when works are to be carried out along shared access ways.
- The majority of construction traffic will enter the site for loading and unloading. Truck movements will not be excessive as the import of materials will be minimal however import of road base and construction material inclusive of concrete and construction product will vary:
  - Import of road base estimated at 10-20 truck movements /day
  - Concrete trucks during concrete placement 10-20 trucks / day
  - Light vehicle traffic(i.e. cars/ small trucks in and out of site) 100 movements /day
  - Anticipated total movement would be 50 truck movements/day and 100 light car/truck movements/day over a 10hr cycle = 15 truck/car movements/hr which will not burden the Current flow of traffic along Cowpasture Road.

3.1.6 Pedestrian & Traffic Management

- Signage will be established at the site entry and exit points to alert pedestrians and other drivers to the movement of construction traffic. When required traffic control personnel will be utilised to control the movement of large vehicles to and from the site.
- Parking for site construction staff and construction workers including visitors will be provided within the site compound.
- Visitors to the site will be provided with a defined entry path from the entry point to the site office.
- Chain wire mesh fencing will be utilised around the site to prevent the free access of the public to the building site. The chain wire fencing will also restrict access into the adjacent natural habitats.
- All locations, signage, traffic flow and entry points are outlined by the following management plans.

Refer to Appendix B for Traffic Management Plan

3.2 NOISE MANAGEMENT PLAN

3.2.1 Introduction

Renzo Tonin & Associates have undertaken an Acoustic Assessment Report for the project entitled "Hoxton Park Warehouse Project – Access Road Acoustic Assessment" dated 30th July 2010.

This document presents a discussion on the process which will be followed in order to manage noise from the construction of the proposed Hoxton Park Industrial Development Site Link Road and the recognition of the requirement to minimise noise emissions from the site to surrounding residential premises.

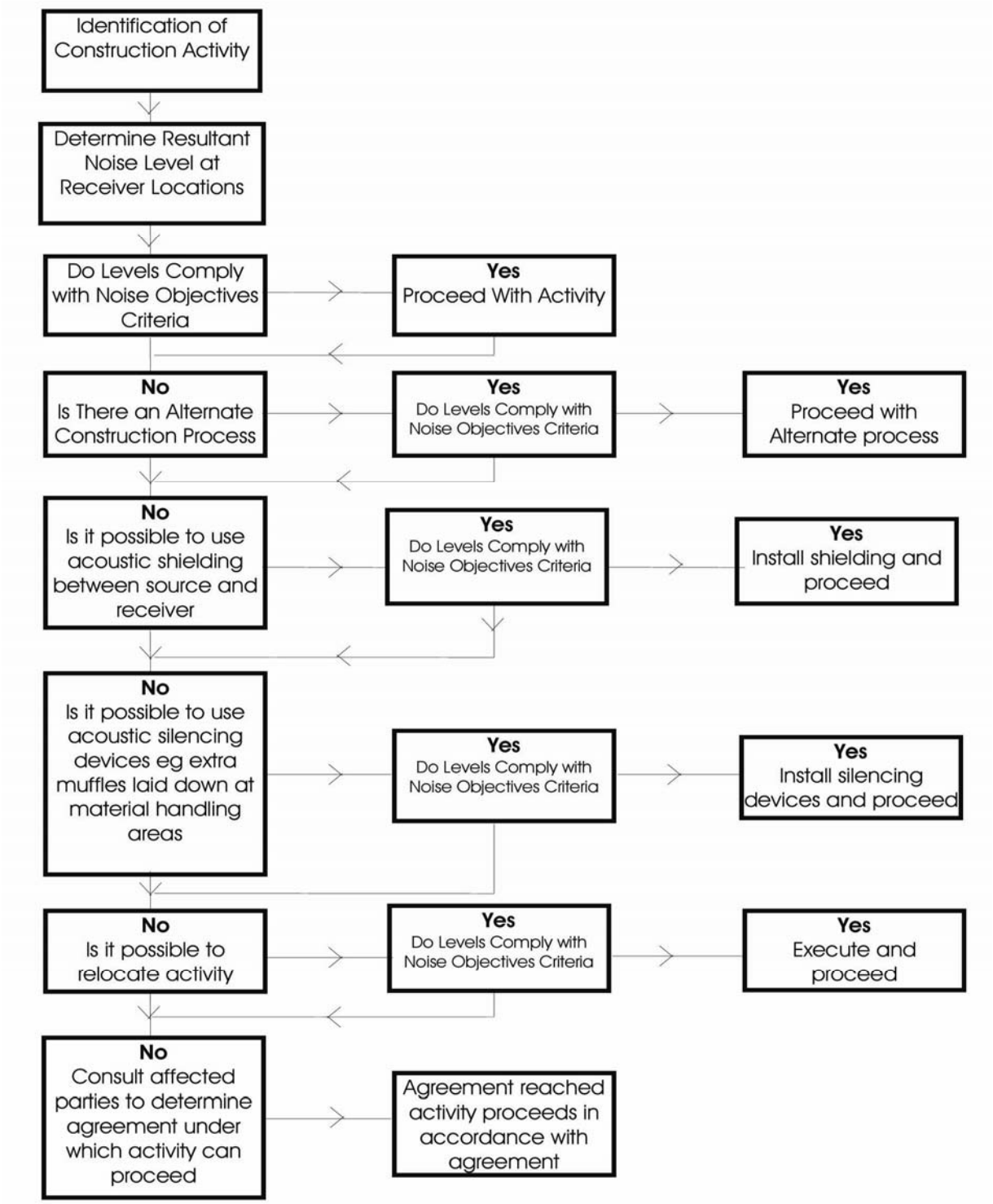
The principal objective of this study was to undertake an advanced evaluation of all work to be performed during the excavation and construction phase of the project and forecast the potential impact of noise. The noise forecasts are used to formulate and streamline effective regulation and mitigation measures. As a part of this process, on going testing will be used to evaluate the noise regulation strategies and ensure that they are effective.

To further ensure compliance with appropriate standards on going monitoring will be instigated as an expansion of the existing moitoring.

The assigned contractor will be required to prepare a Noise Management Plan with the following issues to be addressed as a minimum.

(i) Development of a monitoring programme to measure and regulate noise to maintain compliance during "standard hours" of construction at all potentially affected locations.
(ii) Formulation of a strategy for construction to comply with the **"Interim Construction Noise Guideline issued by Depatment of Environment and Climate Change NSW"** outside standard construction hours & AS 2436-1981 Guide to noise control on construction, maintenance and demolition sites to ensure compliance with Mirvacs noise objective.

(iii) As a part of the noise management plan a detailed study will be undertaken to each of the proposed activities which will occur as a part of the excavation and construction works on this project. The execution of this work will facilitate the formulation of noise control strategies for this project. The flow chart which follows illustrates the process which will be followed in assessing construction activities.



3.2.2 Noise Control Methods

The determination of appropriate noise control measures will be dependant on the particular activities and construction appliances. This section provides an outline of available methods.

- **SUBSTITUTION BY ALTERNATIVE PROCESS**

  Where a particular activity or construction appliance is found to generate excessive noise levels, it may be possible to select an alternative process. For example; the use of electric motors in preference to diesel or petrol motors.

- **SCREENING**

  Installation of acoustic barriers such as earth mounds or temporary noise barriers to shield noise at the potential noise sensitive receivers. The fast tracking of permanent noise barriers or structures as early as possible in the construction process.

- **ENGINE SILENCING**

  Where construction process or appliances are noisy, the use of silencing devices may be possible. These may take the form of engine shrouding, or residential class mufflers fitted to exhausts.

- **EMISSION RESTRICTIONS**

  During the constuction process stringent noise emission limits will be established for specified plant and equipment. The implementation of a noise monitoring audit program to ensure equipment remains within the specified limits.

- **EQUIPMENT LOCATIONS**

  The location of equipment will be considererd during construction such that noisy plant & equipment will be located as far as possible from noise sensitative areas, optimising attenuation effects from topography, natural and purpose built barriers and material stockpiles.

- **EQUIPMENT MAINTENANCE**

  To determine the requirement for silencing devices on machinery it is proposed to undertake fortnightly noise checks. Noise levels of all machines on site will be measured and if they are found to be higher than nominated for that equipment type, items such as mufflers and engine shrouds will be examined to ensure they are in good working order.

- **NOISE MONITORING**

  Random noise monitoring will be undertaken throughout the construction phase. Noise monitoring will be undertaken to determine the effectiveness of measures which have been implemented. The results of monitoring can be used to devise further control measures.

  Should a noise complaint be received the sensitive receiver/monitoring location would be identified and monitoring would be undertaken in accordance with the Interim Construction Noise Guideline with results compared to limits in the project approval(s), if non-compliance detected appropriate controls would be implemented in accordance with Section 4.4 and 4.5 of the Noise Management Plan and/or AS 2436-1981.

- **COMBINATION OF METHODS**

  In some cases it may be necessary that two or more control measures be implemented to minimise noise.

  Further to this, hazard identifications for noisy equipment/work practices will be undertaken to ensure best practice and subsequent lower noise levels at residents.

3.2.3 Establishment of Direct Communication with any Affected Parties

In order for any construction noise management programme to work effectively, continual communication is required between all parties which may be potentially impacted upon, the builder and the regulatory authority. This establishes a dynamic response process which allows for the adjustment of control methods and criteria for the benefit of all parties.

The objective in undertaking a consultation processes is to:

- Inform and educate the groups about the project and the noise controls being implemented.
- Increase understanding of all acoustic issues related to the project and options available.
- Identify group concerns generated by the project, so that they can be addressed.
- Ensure that concerned individuals or groups are aware of and have access to the Complaints Register which will be used to address any construction noise related problems should they arise.

To ensure that this process is effective, regular scheduled meetings will be required for a finite period, until all issues have been addressed and the evidence of successful implementation is embraced by all parties.

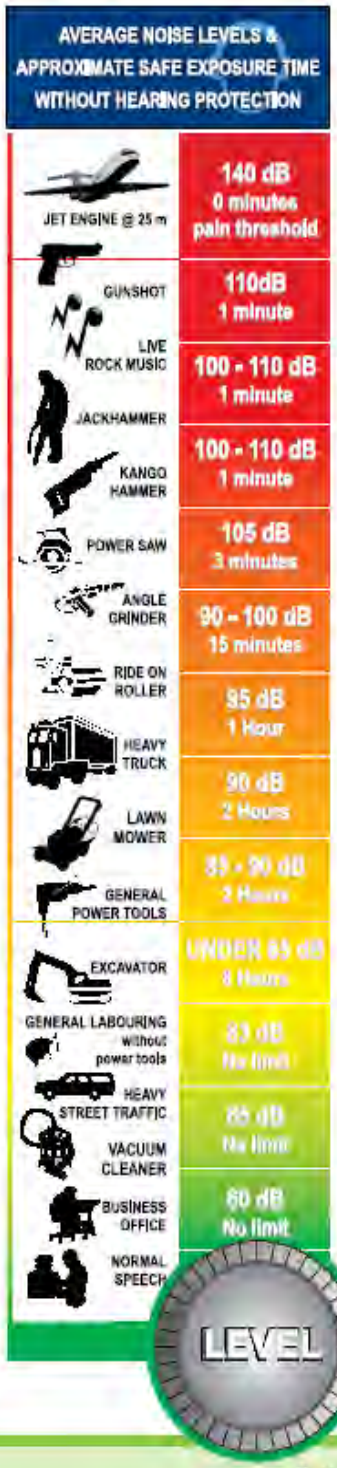
"Refer to the following Noise & Dust Impact Statements "
"Refer to the following Mirvac Noise Control Policy"

3.2.4 Excavation & Construction Noise & Dust Impact Statement

Stage	Plant type	Noise	Dust	Controls
Earthworks	Scrapers	engine	yes	Water cart for dust suppression, acoustic silencing for engine noise
Earthworks	Excavators	Engine	yes	Water cart for dust suppression, acoustic silencing for engine noise
Earthworks	Vibrating rollers 10 tonne sheep foot rollers	engine	N/a	Operator to use appropriate hearing protection and silencing for engine noise
Earthworks	Truck movements	engine	yes	Trucks to manoeuvred through site slowly to control dust, water cart to suppress dust and silencing for engine noise
Earthworks	Truck movements	Engine breaking	yes	Trucks to use low gear and reduce engine breaking and silencing for engine noise
Earthworks	Plate compactors	Engine noise and impact noise	Yes	Operator to wear appropriate hearing protection Water cart for dust suppression and strict compliance with approved hours of work
Earthworks	Backhoes/ bobcats	Engine/ impact	yes	Water cart for dust suppression silencing for engine noise
Earthworks	All plant	Reverse beepers	N/A	Safety requirement, reverse beepers and audible warning systems to be maintained and monitored strict compliance with approved hours of work
Earthworks	Plant floats	Early deliveries and late pick ups	N/A	All plant floated to site out of hours must take appropriate routes not to affect residential arteries. All plant to be floated wherever possible during work hours unless required outside these times by RTA.
Earthworks	Material importation	Truck movements engine	yes	Water cart for dust suppression Truck order management to maintain traffic flows and minimise noise silencing for engine noise

Building structure	Excavation of pads and footings	Engine noise from excavators	yes	Water cart for dust suppression Ensure plant has acoustic insulation to engine
Building structure	Placement of concrete	Concrete trucks entering site	yes	Water cart for dust suppression silencing for engine noise
Building structure	Placement of concrete	Concrete equipment vibrators and concrete pumps	yes	Noise generated from concrete vibration and finishing equipment ensure equipment is fitted with silencing for engine noise and comply with approved hours of work
Building structure Service trades Cladding trades	Structural steel erection	cranes	Minor dust	silencing for engine noise Ensure strict compliance with approved hours of work
Building structure Service trades Cladding trades	Access equipment Scissor lifts and knuckle booms	Engine noise and reverse beepers audible warning devices	Minor dust	Ensure equipment fitted equipment ensure equipment is fitted with silencing for engine noise
Internal and external concrete trades	Concrete pumps	Engine noise / piston noise	Minor dust	Water cart for dust suppression Ensure equipment is fitted with silencing for engine noise
Internal and external concrete trades	Concrete truck movements	Engine noise / engine breaking	yes	Water cart for dust suppression silencing for engine noise
Internal and external concrete trades	Concrete finishing equipment vibrators	Engine noise	N/A	Audible noise from concert vibrators whilst concrete placement. Ensure strict compliance with approved hours of work
Internal and external concrete trades	Concrete finishing equipment	Engine noise	N/A	Concrete ride on finishing equipment, usually 2-3 machines used to burnish concrete surface (double headed trowel machines) Ensure strict compliance with approved hours of work

Roadways and external areas	graders	Engine noise and audible warning devices (beepers)	yes	Ensure equipment fitted with silencing for engine noise Ensure strict compliance with approved hours of work
Roadways and external areas	Concrete saw cutting	High pitch of concrete saw cutting	N/A	Water used to control dust / operator to wear appropriate hearing protection Ensure strict compliance with approved hours of work
General (duration of construction)	Materials handling Forklift/ Manitou	Engine noise And audible reverse warning systems	yes	Ensure equipment fitted with silencing for engine noise
General	generators	Engine noise	N/A	Engine noise of generators used in remote locations of site where no temporary power is available acoustic enclosures to be used to minimise noise
General power tools	Jack hammers/ ratchet guns/ grinders etc…	Noise from general plant and equipment used on construction sites	Yes to all	All site plant and equipment to be inspected to conform with industry governing body requirements. ensure operators wear appropriate hearing protection compliance with approved working hours
General	Private vehicles entering and leaving site	Engine noise, loud music	yes	Vehicles entering site to be corralled into delegated car park areas. No parking on site. No radios on site



Noise Control Policy

As an Employer or Controller at workplaces Mirvac is committed to ensuring that noise and vibration levels, to which employees, contractors or visitors may be exposed, remain at levels that will not affect human health. This commitment includes the monitoring of noise exposure and peak noise levels at temporary, new or existing workplaces where noise is identified as a risk and the implementation of noise control measures where adverse levels are identified.

Noise can result in hearing loss based on either the intensity of the noise level, i.e. a peak of more than 140dB(lin); or noise levels which exceed an 8-hour noise level equivalent of 85dB(A). As an Employer or Controller at workplaces where these levels may be exceeded Mirvac recognises it Duty of Care to its workforce and will instigate a noise control program that includes:

- the identification of actual and potential exposure to noise in the workplace by conducting noise assessments or monitoring where identified as a risk;
- assessment of the risks to health and safety of potential or actual exposure to noise;
- the potential impact of noisy works on nearby neighbours or the surrounding community;
- strict adherence to any hours of operation imposed by local government or other conditions;
- outline of the responsibilities for noise control and information on the risk of noise exposure in workplace inductions;
- procurement of plant and equipment which does not adversely impact on noise levels;
- wherever practicable the implementation of controls such as encapsulation or isolation of noisy works or plant equipment to minimise reliance on personal protective equipment and the impact of noise on the surrounding workforce or others;
- use of personal protective equipment by employees, visitors or contractors who undertake or are situated close to noisy work;
- the identification of noisy areas or plant equipment with warning signage to alert personnel of the requirement for use of personal protective equipment; and
- where considered necessary employees or contractors exposed to potential risk areas or activities are monitored through audiometric testing.

Mirvac is committed to assisting industry sectors in which its divisions operate to reduce the instance of noise related hearing loss through ongoing funding and implementation of a noise control program at Mirvac workplaces. Implementation by Mirvac personnel of the intent of this policy and a noise control program is unconditional and the basis of the program will be reviewed whenever legislation, guidelines or industry innovation in noise abatement occurs.

Greg Paramor
Managing Director

1 November, 2006

Living Quality
Integrity • Diversity • Creating Connections • Sharing Success

3.3 WASTE MANAGEMENT PLAN

A Waste Management Plan has been developed and submitted by a Waste Management Contractor "Dial a Dump" for the removal of all waste from this project. Continual review of this waste management plan will be undertaken to ensure compliance with environmental regulations and standards.

Waste types likely to be generated on the site include the following:

- General Waste
- Putrescibles waste (lunch room waste from site personnel)
- Cardboard & White Paper, amended plans & drawings
- Bottles, Cans & Plastics
- Concrete / Bricks / Tiles / Timber & Gyprock
- All the above conform to Australian Standard AS 2601-2001

Dial Dump will supply builder's waste bins for the onsite collection and storage of general waste material. The material from this project at Hoxton Park will be transported to St Peters Recycling and landfill for sorting. The St Peters facility currently recycles 80% of the material bought to their recycling depot.

Upon arrival at the facility, the waste is emptied on the ground and sorted. Once the product has been sorted into its various commodities (as listed above). The facility then processes the individual recyclable waste streams into reusable products available for re-sale to the public as described below.

- Concrete is crushed, pulverized and sold as recycled aggregate
- Bricks are also crushed, pulverized and sold as recycled road base
- Timber is chipped and sold as mulch for garden beds and ground cover
- Steel is sent to either Metalcorp or Simsmetal for recycling
- Plasterboard is broken down to a gypsum product and sold to farmers as a soil additive
- Cardboard & White Paper Recycling to Amcor for recycling
- Bottles, Cans & Plastics Recycling to Visy for recycling

To ensure the correct product is placed into the appropriate bins, suitable signage will be displayed on all the bins.

Refer to Appendix C for the Waste Management Plan prepared by Dial a Dump.

3.4 AIR QUALITY

Air quality and visual monitoring is to be maintained through the various construction phases. Generally the dust created by construction related activities is more prominent in windy conditions and will be dealt generally with water suppression.

- Water carts will be used throughout the construction phases to maintain a damp surface to areas likely to create dust.
- The construction site will be maintained and kept clean with the use of mechanical sweepers, and covered waste bins to minimise air borne matter.
- In windy conditions the frequency of dust suppression such as watering would be increased appropriately.
- All materials transported to and from site in trucks will be appropriately covered to eliminate dust or airborne matter.
- Construction activities that result in dust being mobilised by winds will be avoided (if required) until such time as either winds subside or effective safeguards can arrest the airborne movement of dust.
- No burning of any material is allowed on site.
- Earthworks are to be controlled and areas capped as early as practically possible to minimise dusts.
- Appropriate speed limits have been set for all construction traffic to limit the generation of dust.
- Completed surfaces are to be kept clean and the use of road sweepers are to be implemented to maintain access roads and approaches to site.
- Controlled site access to be maintained with truck / vehicle wash down facilities available at all exit points to ensure no mud is carried out into public areas which may latter dry out and create dust.

Local residents immediately adjacent to the site potentially affected by air quality deterioration would be included in any community consultation programme. Any complaints in relation to dust generation from the works would be promptly addressed.

3.5 HAZARDOUS MATERIALS

The selected geotechnical engineer will carry out a site analysis following the completion of the archaeological studies (see Section 2.1). This analysis will include a site contamination assessment. Remedial action will be introduced if required.

Prior to construction the development of "Unexpected Finds Protocols" will be implemented to provide clear guidance to site workers for the management of unexpected findings during the site development process.

During construction the contractor will implement as part of the Work Risk Management Plans and audit procedures, a hazardous materials register which will include the following materials/ procedures:

Fuels required for running of plant and equipment, these fuels will include: unleaded petrol, diesel and gas. All fuel will be contained and bounded as required under EPA guidelines, Department of Environment Climate Change and Work Cover requirements.
Refuelling procedures and designated areas will be implemented and allocated to eliminate risks associated with spills and also identify procedures to contain spills.
Spill kits and adequate training will be provided to relevant construction staff and at locations identified as storage and refuelling.

Dangerous Goods

Dangerous goods to be stored on site will also include; oxyacetylene, epoxy paints, thinners etc and as per the fuels listed above, these will also be stored as required under EPA guidelines, Department of Environment Climate Change and Water, Work Cover requirements and Industry codes of practice.

Hazardous substances and dangerous goods will be stored in secure well ventilated areas. Mixed class gas cylinders, e.g. oxy and acetylene, will be separated from other hazardous substances or flammable goods by a minimum distance of 3 metres as detailed in AS4332 Storage and Handling of Gases in Cylinders. The exception to this requirement is minor storage situations (a total capacity of all cylinders in the store of less than 2,000 litres) where both oxygen and acetylene can be stored together.

Storage of dangerous goods that 'exceed' the amounts outlined in the Mirvac Group Dangerous Goods Storage Guidelines require the premises (workplace) to be licensed under dangerous goods legislation and associated regulations. To minimise workplace risk and eliminate the need for licensing, except in exceptional circumstances, it is a Mirvac Group requirement that maximum volumes of Dangerous Goods do not exceed those quantities outlined in the abovementioned guidelines.

The storage area for hazardous substances and dangerous goods shall be constructed with an impervious floor and bunded with a minimum capacity of 110% of the largest container in the store, e.g. a store consisting three 20 litre substance containers requires a bunding capacity of 22 litres.

A dangerous goods register will be kept and material safety data sheets for each product listed as well as having a procedure to deal with spills.

All relevant fire fighting equipment, first aid facilities and relevant authority contact details i.e. Fire EPA will be displayed at prominent locations and included at site inductions.

3.6 EROSION & SEDIMENT CONTROL

3.6.1 Introduction

This Erosion and Sediment Control Plan will be implemented during the construction of the project. The purpose of these procedures is to aim to ensure that there is no off site environmental impact caused by overland stormwater flows.

3.6.2 Scope

The work to be executed under this plan consists of the implementation of measures to control, minimise and trap erosion and sediment on the site. Construction works will be undertaken so as to avoid erosion and sedimentation of the site and the surrounding land.

3.6.3 General Principles

The attached Soil Erosion & Sediment Controls highlight the principals of soil erosion and sediment control for the site.

It is important to design and install measures that reduce the erosion hazard of any particular construction activity. Once this is achieved, run off water which carries the sediment must be controlled, in such a way as to reduce the amount of sediment leaving the site. Generally, this may be achieved by the following:

- Maintenance of the sediment control installed at base of stockpiles.
- limiting the amount of site disturbance on areas not being developed;
- Installation of sediment controls and water treatment within the site to control any water on site.
- Installation of temporary controlled overland flow paths to direct water to the on site temporary water basins.
- Ensuring water management systems adopted on site will not adversely affect water quality or quantity in the downstream water courses.

3.6.4 Soil and Water Management Plan - Details

DETAILS OF EROSION AND SEDIMENTATION CONTROLS:

All erosion and sediment controls are to be in accordance with Landcom's *"Managing Urban Stormwater: Soils and Construction"* guidelines.

The following general items will be incorporated into the construction management on the site:

1. Temporary sediment basins are to be constructed on the site depending on the exposed surface area of the site. Stormwater will be directed into the sediment basins.

2. The staging of earthworks will such that the clearing and exposing of soils are undertaken immediately prior to construction where possible. With the areas of disturbance minimised the volume of 'dirty' surface water runoff is also minimised.

3. All transports leaving the site will be checked to ensure all loads are covered and secure to prevent the possibility of material spilling onto the road and into the stormwater system. All

trucks are to be covered prior to leaving the site (where applicable). All roads and pedestrian footways surrounding the site will be swept to remove any debris associated with the works on the site.

4. Wash down of concrete trucks will not be permitted on the site where such wash down could enter Council gutters, pits or drains.

5. Appropriate stabilised site access and/or shaker grids will be installed onto the site for the cleaning of trucks.

6. Installation of temporary diversion drains and silt fences to divert flows to the temporary sedimentation basin(s)

   Install silt fencing to site fencing on the Eastern side of the Access Road (when practical):

   - Silt fences are designed to filter run-off (if any) leaving the site, trapping sediment and allowing filtered water to pass.

   - *Note – All hay bales used in the construction of silt fencing are to incorporate geo-fabric to enhance their effectiveness.*

   - Hay bales incorporating geo-fabric all to prevent sediment running off the site will surround all spoil material stored on the site where there is the chance of material washing into council stormwater systems.

   - The handling of soils will be minimised through direct replacement onto landscaped open space areas.

Refer to Appendix D for:

- ***Erosion & Sediment Control Plan by ADW Johnson***
- ***Erosion & Sediment Control Standard Details by ADW Johnson***

3.7 WORKPLACE RISK MANAGEMENT PLAN

3.7.1 Introduction

The Mirvac Group is fully committed to providing a healthy and safe working environment.

Each Safety policy requires that equipment; workplaces and practices comply with relevant regulations and standards. Regular and ongoing reviews of these standards will be conducted and where higher standards are practical and desirable, they will be adopted. In addition the company will:

- Provide adequate resources to satisfy this policy.

- Identify and reduce work-related hazards and risks that may produce injury, illness or asset damage.

- Identify, quantify and control to safe levels, those chemicals and physical agents in the workplace capable of causing ill health.

- Promote Occupational Health & Safety and the welfare of employees and sub contractors while respecting the privacy of individuals.

- Provide information, instruction and training for employees to increase their personal understanding of workplace hazards, promote safe working practices and ensure contractors are aware of and satisfy the Group Occupational Health & Safety expectations.

- Consult employees and contractors in Occupational Health & Safety to reduce workplace hazards and risks.

- Consult with clients, industry bodies and others in the development of appropriate standards, control strategies and monitoring techniques, which comply, with the requirements of statutory authorities.

- Set short and long term goals in Occupational Health & Safety management, and review performance against these goals.

Mirvac Management is responsible for raising the awareness of the duties of employees, subcontracts and all others on the premises or site managed by Mirvac and the role they play in achieving a safe and healthy workplace. Employees and all others on the premises or site managed by Mirvac are responsible for working towards achieving and maintaining a healthy and safe workplace. The intent of this policy is to foster a culture within Mirvac employees, which is health and safety conscious, and promote their active participation in the Occupational Health & Safety program.

3.7.2 Safety Plans and Safe Work Method Statements

A key tool in the management of the Project's Safety, will be the preparation, implementation and continued improvement of both Mirvac's Workplace Risk Management Plan and Job Safety Environmental Analysis (ongoing throughout the project). This plan will include the following:

- A description of the work to be undertaken;
- An identification of the hazards associated with the works; and
- A description of the hazard control measures to be used.

A detailed Site Specific Workplace Risk Management Plan shall be implemented prior to commencement of works and updated as required.

3.7.3 Accountability of Key Personnel

All site personnel have a role and are responsible for the environmental management of the project.
The key personnel accountable for the environmental management are as follows:

Site Manager roles relative to environmental management are as follows:

Manage all reported hazards and environmental impacts in an appropriate and timely manner.

Provide suitable supervision, instruction and facilitate training, to provide employees or service providers with the knowledge and skills required to undertake their work duties safely and in a manner which minimises risk to the environment.

Establish the development of a Workplace Risk Management Plan in accordance with Health Safety Environment Management Systems and the objectives of the Health Safety Environment Policy.

Facilitate the development of a workplace specific Induction and workplace rules in accordance with Health Safety Environment Management Systems.

Verify that health safety and environment conditions stipulated in the contract are formally evaluated in the award of tendered or high risk contracts.

Facilitate the review of Service Provider health safety and environment plans or procedures for specific work contracts including HSE Management Plan and Job Safety Environment Analysis or equivalent documentation using Service Provider Permit for Works to Proceed prior to the contractor commencing work at the workplace.

Isolate or exclude noisy plant and equipment from the workplace which exceed the at risk threshold of noise levels greater than 85dB over 8 hours.

Facilitate formal weekly workplace inspections by the foreman or other area supervisors using the Workplace Health Safety Environment Inspection and implement corrective action where deficiencies are identified.

Secure areas such as flora or fauna habitats identified for environment protection.

Record community contact by stakeholders affected by the project on Community Contact Register and instigate action within 48 hours including a response to the initiator of the contact.

Facilitate the resolution of any disputes which may arise over workplace health safety environment issues.

HSE Officer's roles relative to environmental management are as follows:

Undertake HSE duties as directed by the Workplace Manager consistent with the requirements of the Health Safety Environment Management System.

Identify work activities which have the potential for significant (material harm) impact on the environment and ensure they are planned and executed to minimise risk to the environment.

Ensure a Community Contact Register is maintained and that any contact is recorded and corrective action implemented with a response to the community member within 48 hrs.

Facilitate the dissemination of health safety environment information to all relevant personnel.

Assist the Workplace Manager in developing a written corrective action plan to eliminate any deficiencies identified from any workplace audit by an internal or external third party. The time frame for rectification of issues raised in any inspection, audit or other appraisal shall be determined by the Division/Regional HSE Manager but shall not exceed 30 days.

HSE Representative roles relative to environmental management are as follows:

Report on health safety environment performance.

Assist in the development of a workplace specific Induction and workplace rules in accordance with the Health Safety Environment Management System.

Foreman's roles relative to environmental management are as follows:

Develop appropriate and timely remedial action for reported hazards & environmental impacts.

Provide suitable supervision, instruction and facilitate training, to provide employees or service providers with the knowledge and skills required to undertake their work duties safely and in a manner which minimises risk to the environment.

3.7.4 Monitoring & Maintaining the Workplace (Program):

All management plans mentioned in this CEMP will be in place from construction commencement until construction completion.

This workplace shall be inspected at regular intervals to ensure all environmental controls are established and maintained as required. Records of all inspections will be kept and closed out to ensure any non compliances are rectified. The table below identifies the various tasks which relate to the Environment and the procedures or checklists in place to monitor & maintain ensuring compliance at all times.

Task	Frequency	Record
Site Setup	Initially or if modified or relocated	Site Establishment Checklist
General construction activities	Initially & then daily	Community Contact Register
All general work areas	Weekly	Environmental Protection Establishment Checklist
Delivery of Materials or Chemicals	As Required	Hazardous Substances Risk Assessment
General work area	Weekly	Products & Hazardous Substances Register
All Construction Activities	Daily	Noise Management Procedure
Earthworks & Civil Works	Daily	Workplace HSE Inspection (construction)
All general work areas Including plant & equipment	Weekly	Workplace HSE Inspection (construction)
General work area	Weekly	HSE Committee Minutes

3.8 SITE MANAGEMENT PLAN

3.8.1 Introduction

The following Site Management Plan has been developed to outline the proposed phases of the construction work on site, outline the order of works, the ecological control measures and assess the impact and interaction with the surrounding community.

3.8.2 Construction Phases

The works can be broadly divided into the following stages:

- Earthworks
- Bridge structure works
- Culvert structure works
- Pavement works to bridge & Cowpasture Road
- Construction of Traffic Control Signals
- Site rectification and disestablishment

3.8.3 Program of Works

The project is programmed to commence March 2011 with an estimated duration of 28 weeks.

3.8.4 Construction General

An Environmental Management Representative (EMR) will be responsible for undertaking the following roles during the construction process.

Fauna Management

To provide a pre-clearance survey prior to clearing of any native vegetation within the proposed extraction area, including for example

- Searches for birds, nests and roosts;
- Active searches for micro bats, including checking under exfoliating bark;
- Identification and marking of habitat trees during pre-clearing surveys and provision of recommendation reports.

The proposed construction would progress in stages. This approach would maintain vegetated corridors as long as possible, maximising opportunities for fauna to escape into remnant vegetation outside the site.

Groundcover Clearance Protocol – Refer to Section 2.2

To provide a pre-clearing survey addressing the following items:

- A survey for Cumberland Land Snails and if any individuals are found relocate them, along with relevant shelter substrate, to the nearest area of intact habitat outside the disturbance footprint;
- To identify large woody debris with habitat value (excluding exotic weed material) that warrants relocation

Weed and Pest Management

A number of measures will be considered to manage environmental weeds during construction for example:

- The location of stockpiles of fill or vegetation not to be placed in areas of adjoining remnant vegetation but instead within existing cleared areas.
- To limit the spread of weeds into adjoining remnant vegetation the surface disturbance footprint existing fencing around the Hinchinbrook Creek riparian corridor should be maintained and construction activities completely excluded from this area;
- Incorporate control measures in the design of the proposed works to limit the spread of weed propagules downstream of the site;
- Progressive rehabilitation of disturbed vegetation to limit the potential for colonisation by weeds;
- Perform ongoing monitoring of weed infestation on and adjoining the site.

Emergency Response and Evacuation

The Workplace Manager, or a nominated representative, in conjunction with other appointed personnel will develop emergency procedures for the workplace including an emergency contact list to be displayed on the workplace notice board and at other prominent locations. The Emergency Response Contact Information Table is completed by the Workplace Manager or a nominated representative (included in Appendix E.)

Each workplace has a stand-alone documented Emergency Response Plan (ERP) prepared n accordance with Emergency Response Procedures (contained in Appendix E) and tested regularly.

Where an Ambulance is called to attend a workplace injury, a Standby Person will be nominated and positioned at the main entry to the workplace to assist Ambulance Officers to locate and attend the injured person as required by the Mirvac Group Emergency Response Procedure. A completed Emergency Call procedure will be displayed in the workplace which provides a summary of information required when making an emergency call.

Non-Conformities and Corrective/Preventative Action

Non-conformities and corrective/preventative actions identified at this workplace are tracked to resolution by the Workplace Manager or a nominated representative. The time frame for rectification of issues raised in any audit shall be determined by the Division/Regional HSE Manager but shall not exceed 30 days.

3.9 INTERACTION WITH SURROUNDING COMMUNITY

The local community and relevant agencies will be kept informed about the operation and environmental performance of the project via the distribution of a neighbourhood fact sheet which will clearly outline any activities which may affect their amenity. A representative will be identified for all site enquires.

Contact with the community is a means by the builder can positively engage stakeholders, authorities or customers by demonstrating sound management practices in resolving any concerns raised in a timely manner. Community members which interface with the builder present the opportunity for feedback and a positive response. Any response shall be commensurate with Mirvac's high regard and sensitivity to social amenity and the lifestyle impacts of its business undertakings.

A Community Contact Procedure will be established which requires a "Community Contact Register" to be completed for all "formal" (oral or written) representations representative by a community member or on being directly informed of a concern by a third party and corrective (follow up) action undertaken within 48 hours of notification where required. A Copy of this register is included in Appendix E.

A 1.8 metre high chain wire fence will be installed which will surround the site to maintain security and to prevent access to the adjacent remanent vegetation.

Contact details for community information and contact in case of emergency will be clearly displayed at all times.

3.10 DISPUTE RESOLUTION

We acknowledge the potential for disruption as a result of the development and propose that the following measures be established:

- Complaint procedure / complaint register to be developed. Should a compliant or infringement occur, the following procedures are to be adopted:

- The register and any related complaint or infringement documentation is to be filled within the site office.

- All complaints and infringements are to be brought to the attention of the Mirvac Site Manager immediately upon receipt. The Mirvac Site Manager shall ensure appropriate action is taken to address the dispute.

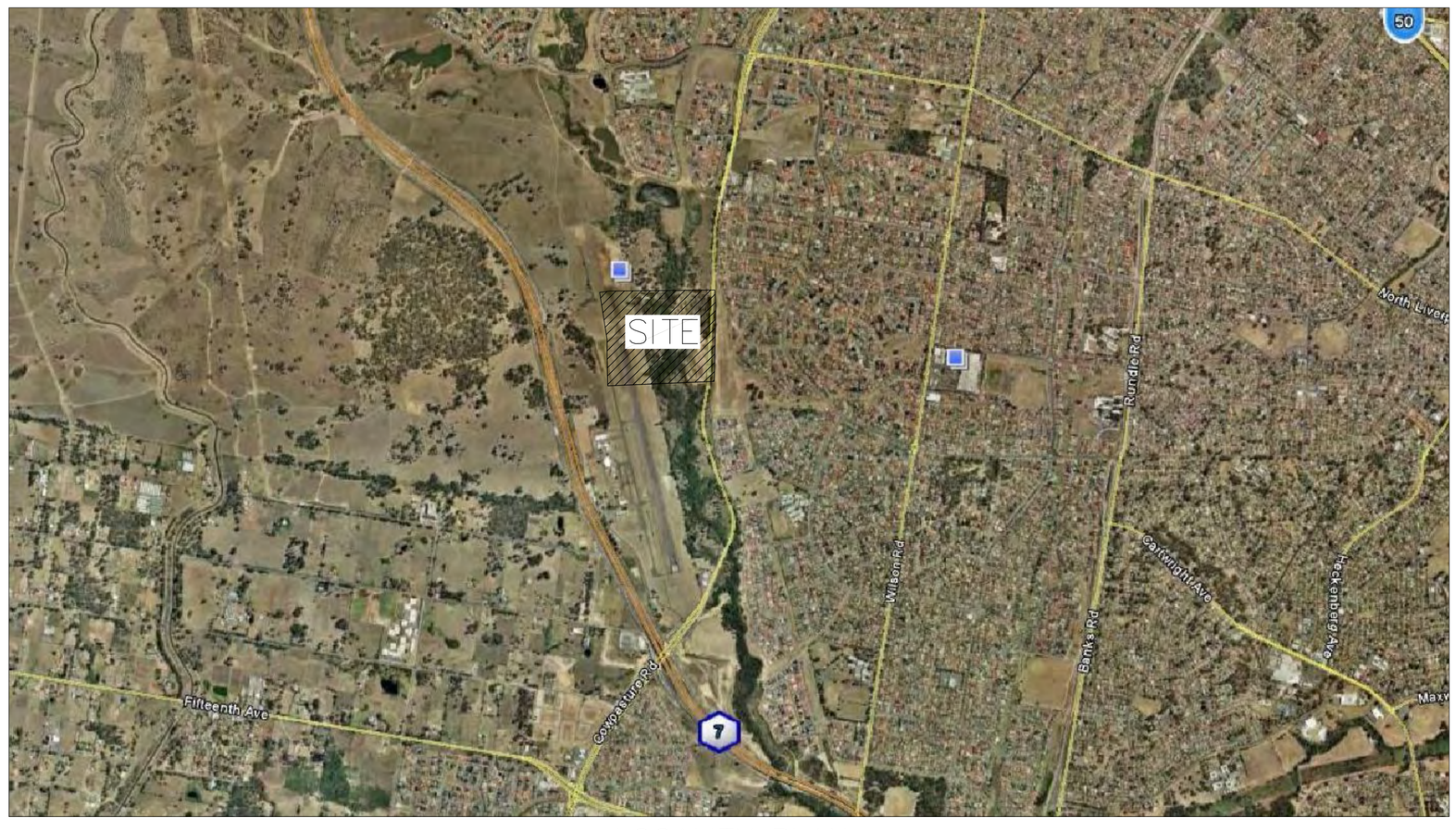
In the event that the Site Manager is unable to resolve the dispute, an appropriate third party may be used to mediate an outcome acceptable to both parties.

Appendix A

Preliminary Design

150133_DA_001[A]

PROPOSED HINCHINBROOK CREEK LINK ROAD "FORMER HOXTON PARK AIRPORT" LOT 101 D.P. 1130459, LOT 404 D.P. 1147551 AND LOT 4051, D.P.1152675 COWPASTURE ROAD, HOXTON PARK



LOCALITY PLAN
N.T.S.

M.G.A.

INDEX OF DRAWINGS

DRAWING	NAME
150133-DA-001	TITLE SHEET, LOCALITY PLAN AND INDEX OF DRAWINGS
150133-DA-002	OVERALL SITE PLAN.
150133-DA-100	DETAIL PLAN - SHEET 1
150133-DA-101	DETAIL PLAN - SHEET 2
150133-DA-102	DETAIL PLAN - SHEET 3
150133-DA-103	BRIDGE ROAD - PLAN AND LONGITUDINAL SECTION
150133-DA-104	BRIDGE AND ROAD - TYPICAL SECTIONS
150133-DA-105	INTERSECTION - VEHICLE SWEPT PATHS
150133-DA-200	EROSION AND SEDIMENT CONTROL PLAN

DIAL 1100 BEFORE YOU DIG

PRELIMINARY ISSUE
NOT FOR CONSTRUCTION

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
A	06/09/2010	Issued for 75W Application	W.M.	H.W.	M.A.	P.J.

SCALES

DESIGN FILE S:\150126 – Hoxton Park\Design\12D\OVERALL DESIGN

ALL DIMENSIONS ARE IN METRES. DO NOT SCALE

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www.adwjohnson.com.au
ABN 62 129 445 398

CLIENT

mirvac

PROPERTY DESCRIPTION
LOT 101 D.P. 1130459, LOT 404 D.P. 1147551
AND LOT 4051 D.P. 1152675
COW PASTURE ROAD
HOXTON PARK

SURVEYED N\A

DATUM A.H.D.

PROJECT HINCHINBROOK CREEK LINK ROAD

PLAN TITLE
TITLE SHEET, LOCALITY PLAN
AND INDEX OF DRAWINGS

PROJECT No. 150133 – DISCIPLINE DA – NUMBER 001 REV. A

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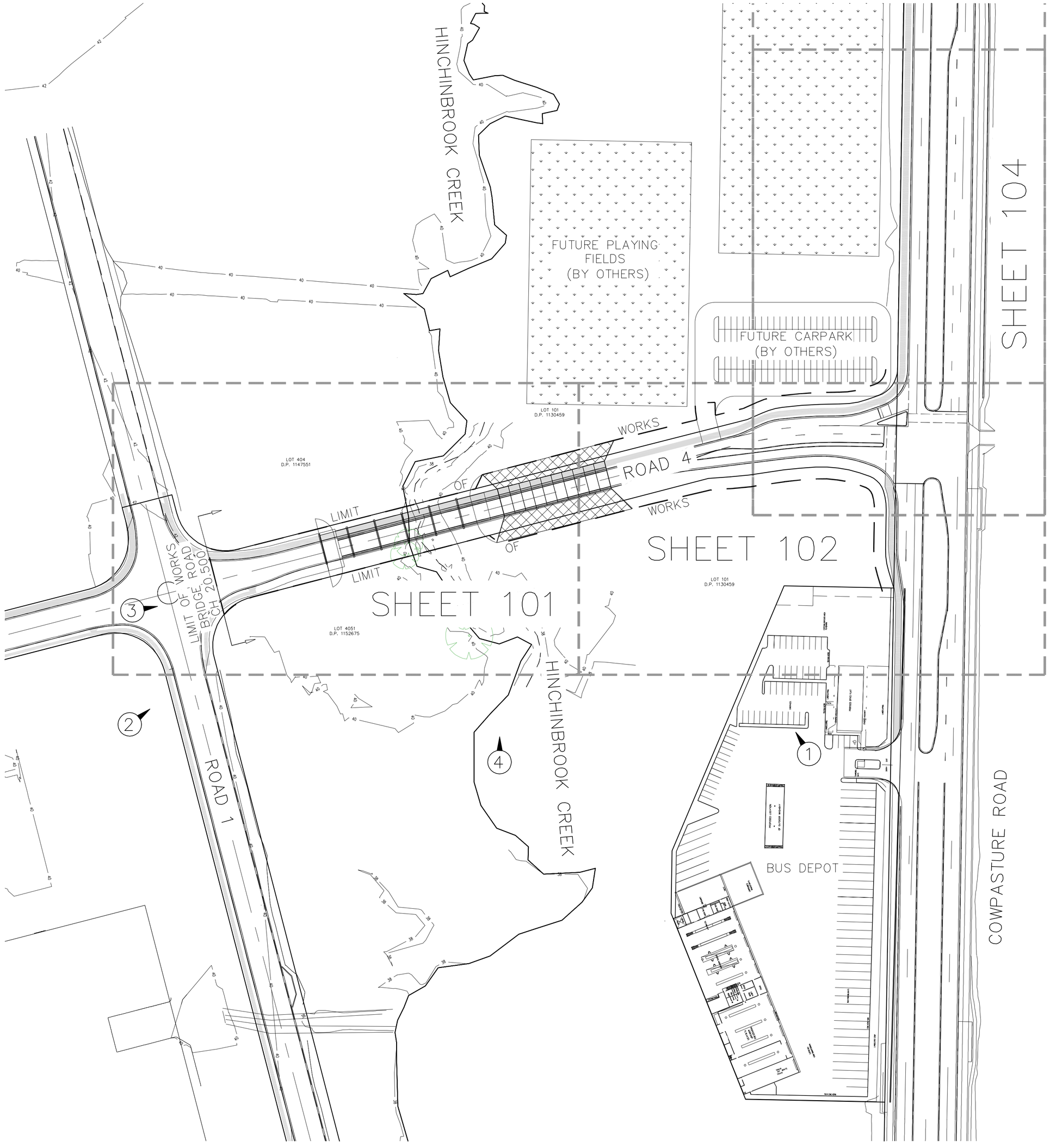
Plotted By: waynem Plot Date: 07/09/10 – 14:29 Cad File: S:\150133 – Hoxton Park Bridge Road\Drawings\ENG\150133_DA_001[A].dwg

150133_DA_002[A]



LEGEND

3 IMAGE DIRECTION

PLAN
SCALE 1:1000

IMAGE No. 1

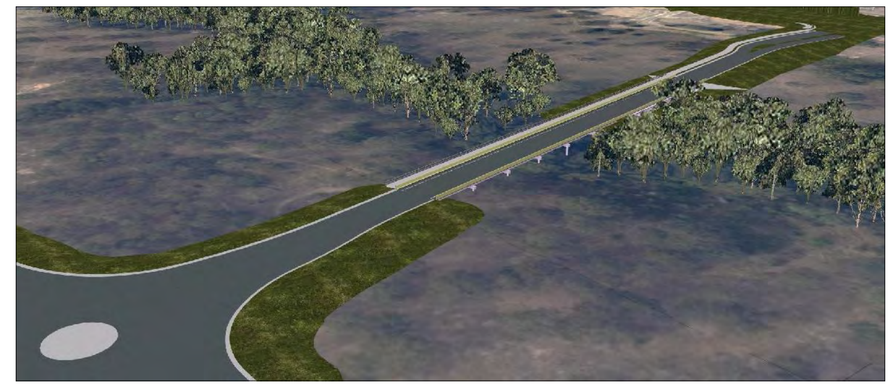


IMAGE No. 2

IMAGE No. 3

IMAGE No. 4

NOTES: –

1. ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE CONTRACT DOCUMENTATION, LIVERPOOL CITY COUNCILS ENGINEERING REQUIREMENTS FOR DEVELOPMENT.
2. EROSION AND SEDIMENT CONTROL DEVICES ARE TO BE INSTALLED PRIOR TO CONSTRUCTION COMMENCING, AND MAINTAINED DURING THE CONTRACT PERIOD AND UNTIL VEGETATIVE COVER ACHIEVED.
3. ALL EXISTING UNDERGROUND SERVICES (INCLUDING OPTIC FIBRE CABLE) MUST BE LOCATED AND EXPOSED PRIOR TO COMMENCING EARTHWORKS AND IT IS THE RESPONSIBILITY OF ANY PERSONS USING THIS PLAN TO CONFIRM BOTH POSITION AND LEVEL OF THESE UTILITIES IN CONJUCTION WITH THE APPROPRIATE AUTHORITY.
4. SUBSOIL DRAINS ARE TO BE PROVIDED IN ACCORDANCE WITH COUNCIL DRAWING D15 OR TO THE SATISFACTION OF THE SUPERINTENDENT.
5. VEHICULAR ACCESS AND ALL SERVICES ARE TO BE MAINTAINED AT ALL TIMES TO EXISTING TENANTS AFFECTED BY CONSTRUCTION WORKS.
6. ALL LEVELS MUST BE OBTAINED FROM ESTABLISHED BENCH MARKS AND/OR SURVEY CONTROL.
7. KERB RAMPS TO BE PLACED IN ACCORDANCE WITH COUNCIL STANDARD DRAWING R17 AND TO THE SATISFACTION OF THE SUPERINTENDENT.
8. ALL PIPELINES TO BE RUBBER RING JOINT CLASS 2 UNLESS OTHERWISE STATED. PIPES AND BACKFILL ARE TO BE DETERMINED ON THE BASIS OF THE C.P.A.A. PIPE SELECTION MANUAL IN ACCORDANCE WITH S.W.C. GUIDELINES.

DIAL 1100 BEFORE YOU DIG

PRELIMINARY ISSUE
NOT FOR CONSTRUCTION

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
A	06/09/2010	Issued for 75W Application	W.M.	H.W.	M.A.	P.J.

DESIGN FILE S:\150126 – Hoxton Park\Design\12D\OVERALL DESIGN

SCALES 0 10 20 30 40 A1 / A3 1:1000 / 1:2000

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CLIENT mirvac

PROPERTY DESCRIPTION
LOT 101 D.P. 1130459, LOT 404 D.P. 1147551
AND LOT 4051 D.P. 1152675
COW PASTURE ROAD
HOXTON PARK

PROJECT HINCHINBROOK CREEK LINK ROAD

PLAN TITLE
OVERALL SITE PLAN

SURVEYED	DATUM	PROJECT No.	DISCIPLINE	NUMBER	REV.
N\A	A.H.D.	150133	DA	002	A

Plotted By: waynem Plot Date: 07/09/10 – 14:29 Cad File: S:\150133 – Hoxton Park Bridge Road\Drawings\ENG\150133_DA_002[A].dwg

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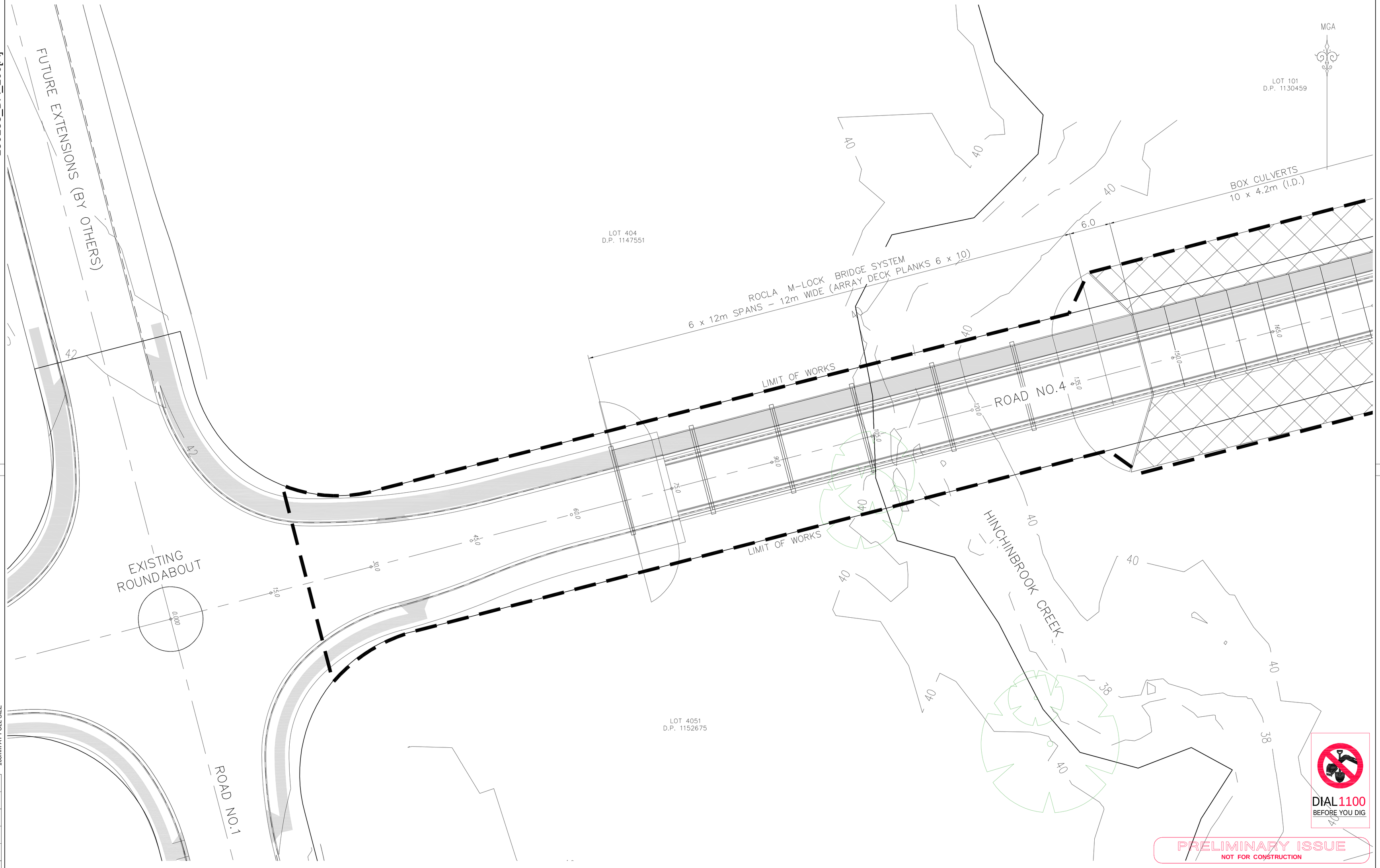

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
A	06/09/2010	Issued for 75W Application	W.M.	H.W.	M.A.	P.J.

DESIGN FILE S:\150126 – Hoxton Park\Design\12D\OVERALL DESIGN

SCALES 0 5 10 A1 / A3 1:250 / 1:500

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CLIENT mirvac

PROPERTY DESCRIPTION
LOT 101 D.P. 1130459, LOT 404 D.P. 1147551
AND LOT 4051 D.P. 1152675
COW PASTURE ROAD
HOXTON PARK

SURVEYED N\A

DATUM A.H.D.

PROJECT HINCHINBROOK CREEK LINK ROAD

PLAN TITLE
DETAIL PLAN
SHEET 1

PROJECT No.	DISCIPLINE	NUMBER	REV.
150133	DA	100	A

Plotted By: waynem Plot Date: 07/09/10 – 14:29 Cad File: S:\150133 – Hoxton Park Bridge Road\Drawings\ENG\150133_DA_100[A].dwg

100mm AT FULL SIZE

150133_DA_101[A]

RAMP TO FUTURE CARPARK AND PLAYING FIELDS. (BULK EARTHWORKS ONLY)

R2-14B ONLY

R2-6B NO RIGHT TURN

LOT 101 D.P. 1130459

BOX CULVERT 10 x 4.2m (I.D.)

LIMIT OF WORKS

CYCLEWAY 2.5m WIDE

LEFT TURN SLIP LANE 50m LONG PLUS TAPER

RIGHT TURN STORAGE 50m LONG PLUS TAPER

3.5m 3.5m 3.5m 1.8m 3.5m

R 175.000 270.0 261.446 255.0 TC245.117 240.0 225.0 285.0 CT292.691 300.0 307.137 312.880 315.0

ROAD No.4 195.0 180.0 165.0

LIMIT OF WORKS

DEMOLISH EXISTING KERB AND CONSTRUCT INTERSECTION

DEMOLISH EXISTING MEDIAN ISLAND AND CONSTRUCT TURNING LANES

NOTE:

INTERSECTION TO BE SIGNALISED TO RTA REQUIREMENTS

DEMOLISH EXISTING KERB AND CONSTRUCT LEFT TURN BAY 30m LONG PLUS TAPER

DEMOLISH EXISTING CYCLEWAY AND REALIGN

5.2m 3.5m

EXISTING KERB LINE

EXISTING KERB LINE

COWPASTURE ROAD

MGA

LOT 101 D.P. 1130459

PROPERTY BOUNDARY

PROPERTY BOUNDARY

EXISTING BUS DEPOT

CYCLEWAY 2.5m WIDE

EXISTING THROUGH LANES

EXISTING KERB LINE

40 40 38 40 38

DIAL 1100 BEFORE YOU DIG

PRELIMINARY ISSUE NOT FOR CONSTRUCTION

100mm AT FULL SIZE

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
A	06/09/2010	Issued for 75W Application	W.M.	H.W.	M.A.	P.J.

SCALES 0 5 10 A1 / A3 1:250 / 1:500

DESIGN FILE S:\150126 – Hoxton Park\Design\12D\OVERALL DESIGN

ALL DIMENSIONS ARE IN METRES. DO NOT SCALE

adw johnson
Central Coast
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Fax: (02) 4305 4399
email: coast@adwjohnson.com.au
www.adwjohnson.com.au
ABN 62 129 445 398

CLIENT mirvac

PROPERTY DESCRIPTION

LOT 101 D.P. 1130459, LOT 404 D.P. 1147551 AND LOT 4051 D.P. 1152675
COW PASTURE ROAD
HOXTON PARK

SURVEYED N\A

DATUM A.H.D.

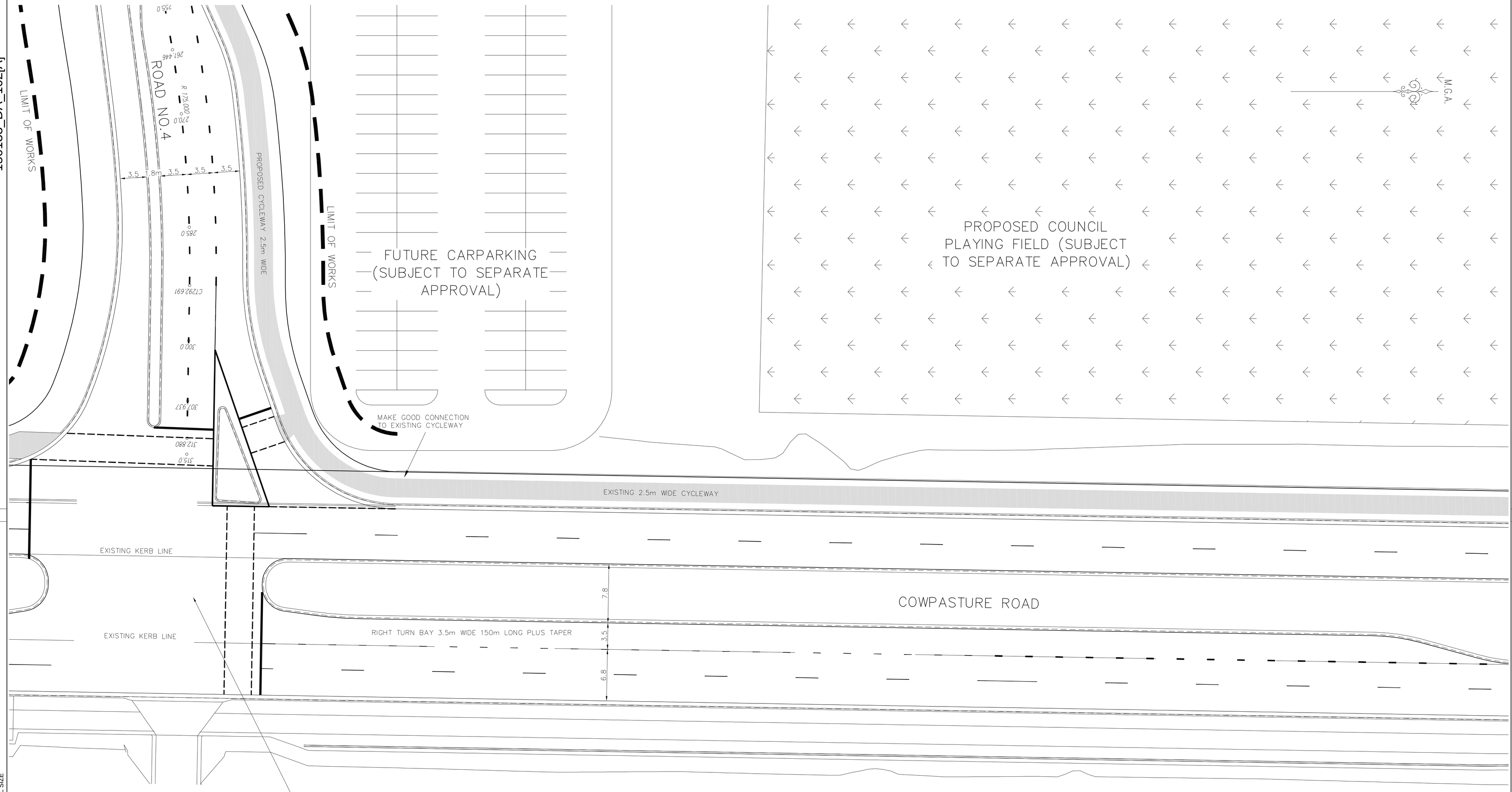
PROJECT HINCHINBROOK CREEK LINK ROAD

PLAN TITLE DETAIL PLAN SHEET 2

PROJECT No.	DISCIPLINE	NUMBER	REV.
150133	DA	101	A

Plotted By: waynem Plot Date: 07/09/10 – 14:29 Cad File: S:\150133 – Hoxton Park Bridge Road\Drawings\ENG\150133_DA_101[A].dwg

150133_DA_102[A]



NOTE:

INTERSECTION TO BE SIGNALISED TO RTA REQUIREMENTS

DIAL 1100
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PRELIMINARY ISSUE
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100mm AT FULL SIZE

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
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SCALES: 0 5 10 — A1 / A3 1:250 / 1:500

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ABN 62 129 445 398

CLIENT: mirvac

PROPERTY DESCRIPTION: LOT 101 D.P. 1130459, LOT 404 D.P. 1147551 AND LOT 4051 D.P. 1152675 COW PASTURE ROAD HOXTON PARK

SURVEYED: N\A

DATUM: A.H.D.

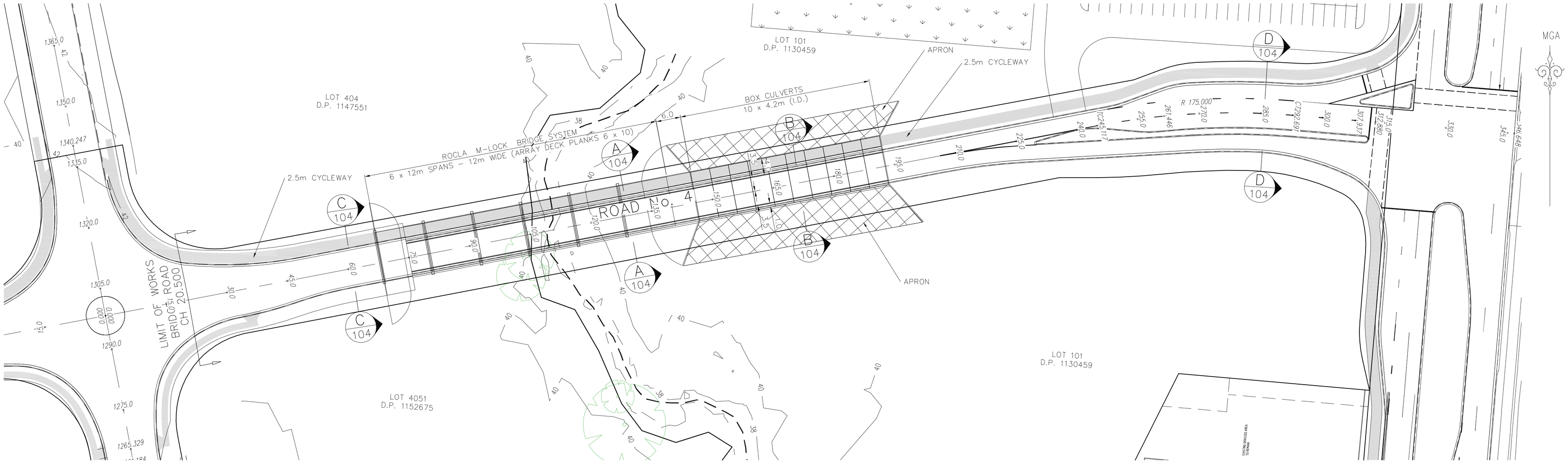
PROJECT: HINCHINBROOK CREEK LINK ROAD

PLAN TITLE: DETAIL PLAN SHEET 3

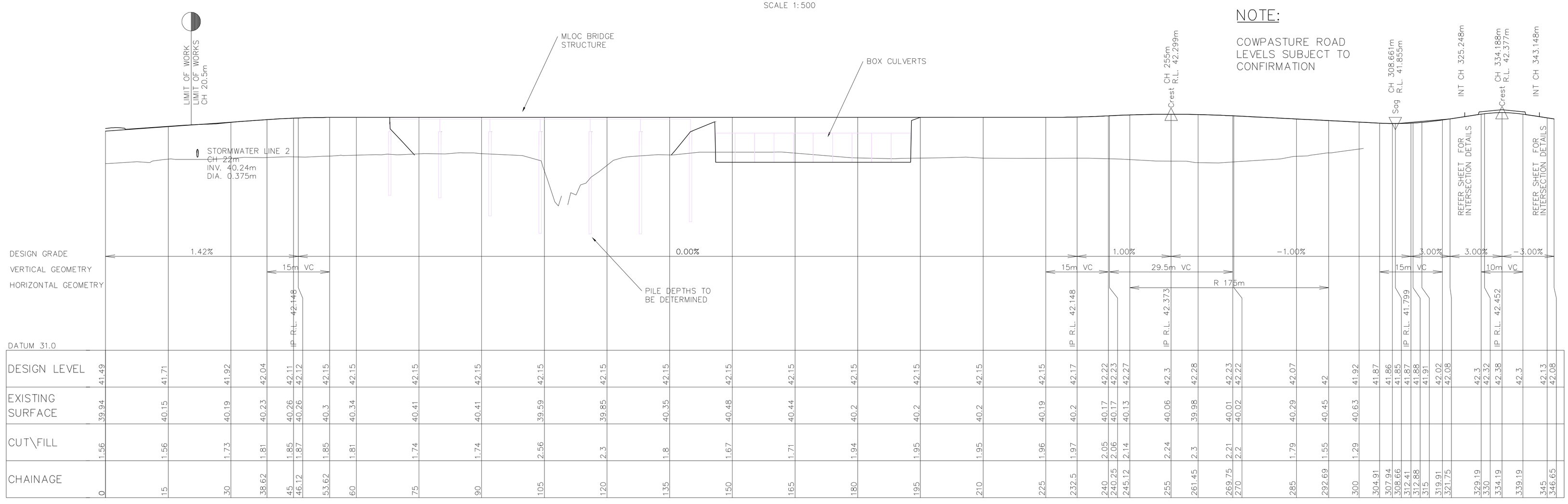
PROJECT No.	DISCIPLINE	NUMBER	REV.
150133	DA	102	A

Plotted By: waynem Plot Date: 07/09/10 – 14:29 Cad File: S:\150133 – Hoxton Park Bridge Road\Drawings\ENG\150133_DA_102[A].dwg

150133_DA_103[A]



PLAN
SCALE 1:500



CHAINAGE	DESIGN LEVEL	EXISTING SURFACE	CUT\FILL
0	41.49	39.94	1.56
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30	41.92	40.19	1.73
38.62	42.04	40.23	1.81
45	42.11	40.26	1.85
46.12	42.12	40.26	1.87
53.62	42.15	40.3	1.85
60	42.15	40.34	1.81
75	42.15	40.41	1.74
90	42.15	40.41	1.74
105	42.15	39.59	2.56
120	42.15	39.85	2.3
135	42.15	40.35	1.8
150	42.15	40.48	1.67
165	42.15	40.44	1.71
180	42.15	40.2	1.94
195	42.15	40.2	1.95
210	42.15	40.2	1.95
225	42.15	40.19	1.96
232.5	42.17	40.2	1.97
240	42.22	40.17	2.05
240.25	42.23	40.17	2.06
245.12	42.27	40.13	2.14
255	42.3	40.06	2.24
261.45	42.28	39.98	2.3
269.75	42.23	40.01	2.21
270	42.22	40.02	2.2
285	42.07	40.29	1.79
292.69	42	40.45	1.55
300	41.92	40.63	1.29
304.91	41.87		
307.94	41.86		
308.66	41.85		
312.41	41.87		
312.88	41.88		
315	41.91		
319.91	42.02		
321.75	42.08		
329.19	42.3		
330	42.32		
334.19	42.38		
339.19	42.3		
345	42.13		
346.65	42.08		

LONGITUDINAL SECTION BRIDGE ROAD
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

NOTE:

COWPASTURE ROAD LEVELS SUBJECT TO CONFIRMATION

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SCALES
A1 / A3 1:500 / 1:1000
A1 / A3 1:100 / 1:200

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ABN 62 129 445 398

CLIENT
mirvac

PROPERTY DESCRIPTION
LOT 101 D.P. 1130459, LOT 404 D.P. 1147551
AND LOT 4051 D.P. 1152675
COW PASTURE ROAD
HOXTON PARK

SURVEYED N\A
DATUM A.H.D.

PROJECT HINCHINBROOK CREEK LINK ROAD

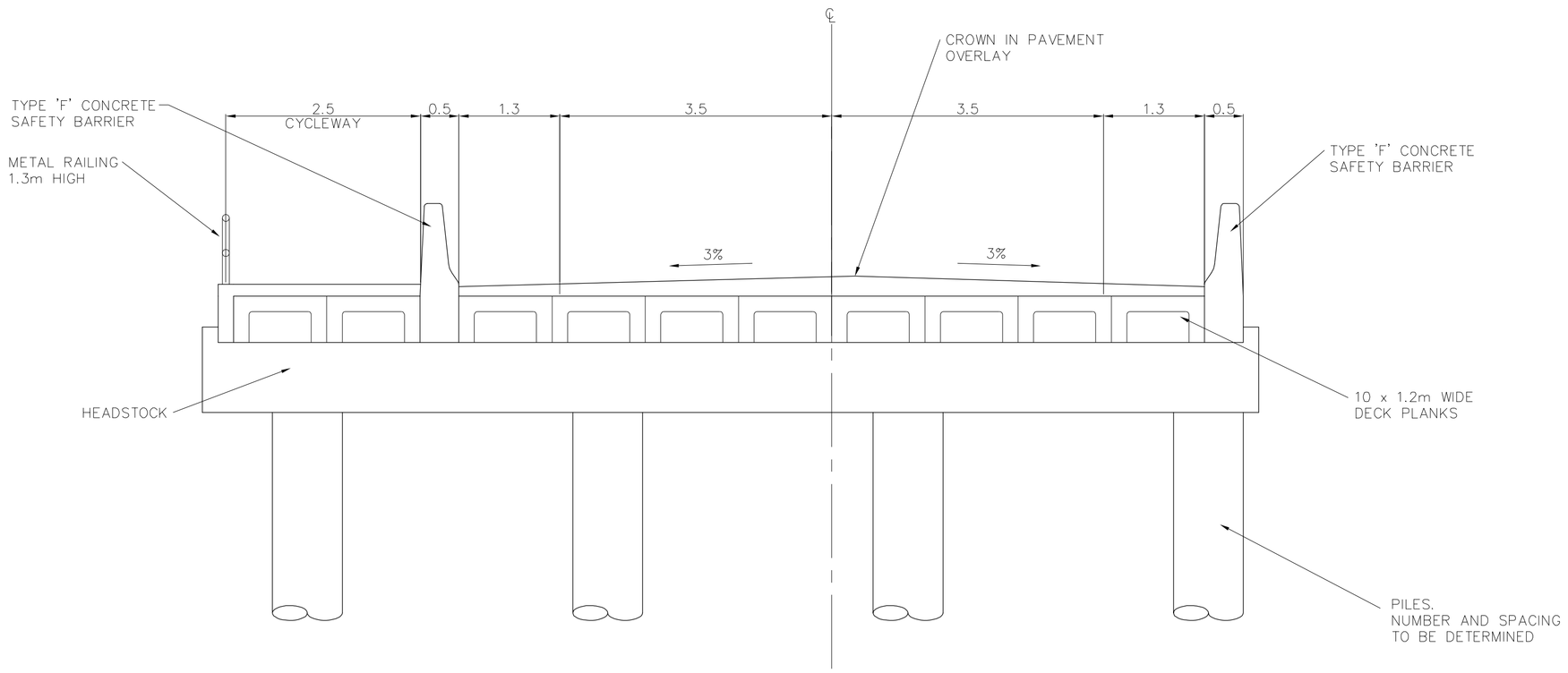
PLAN TITLE
BRIDGE ROAD
PLAN AND
LONGITUDINAL SECTION

PROJECT No.	DISCIPLINE	NUMBER	REV.
150133	DA	103	B

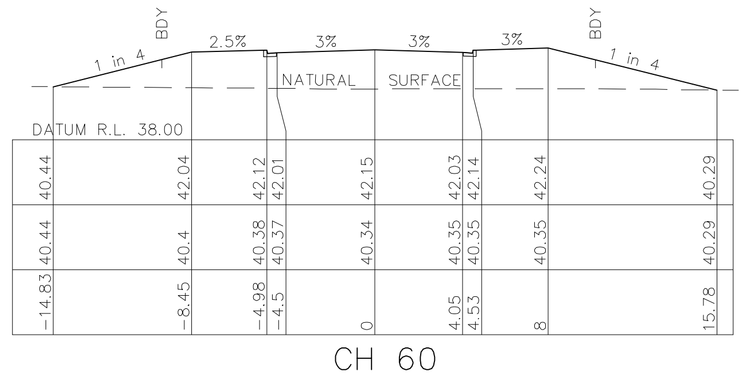
Plotted By: waynem Plot Date: 07/09/10 - 14:30 Cad File: S:\150133 - Hoxton Park Bridge Road\Drawings\ENG\150133_DA_103[A].dwg

100mm AT FULL SIZE

150133_DA_104[A]



SECTION A
SCALE 1:50 103

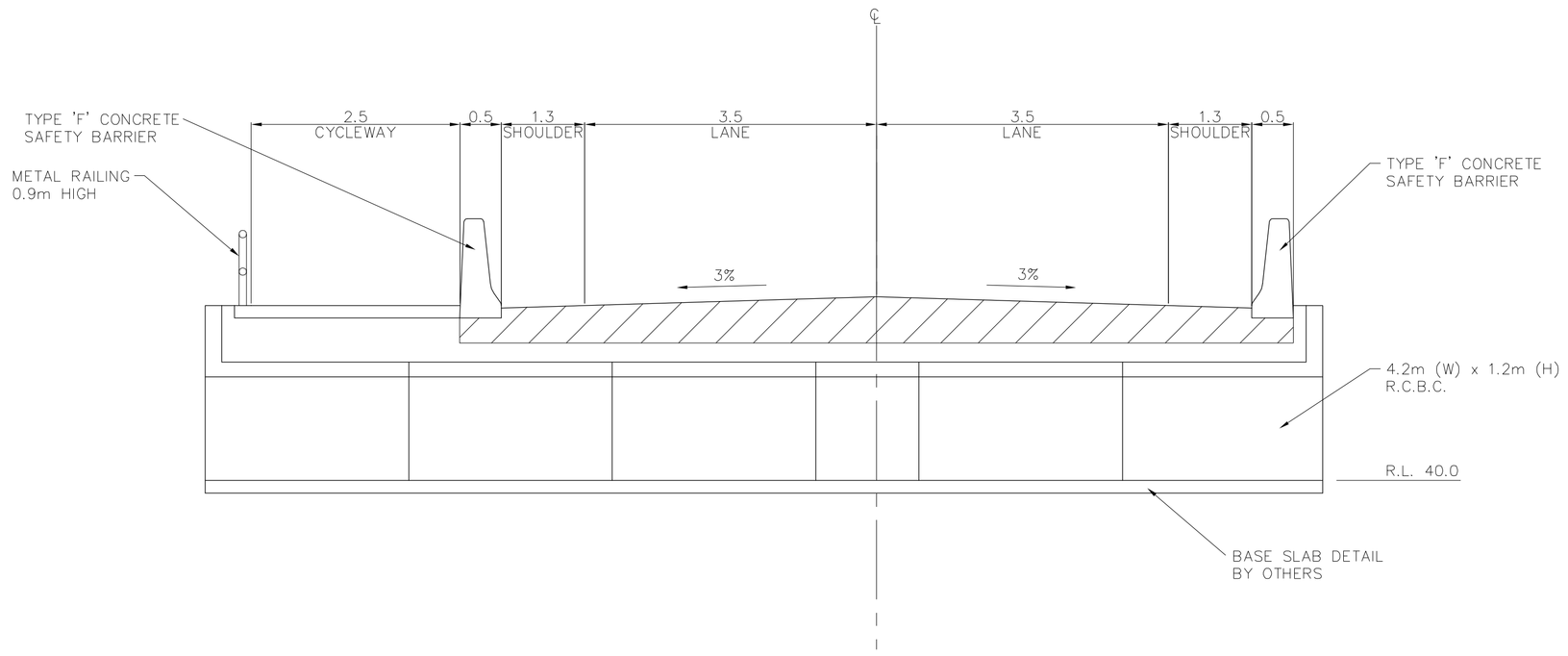


CH 60

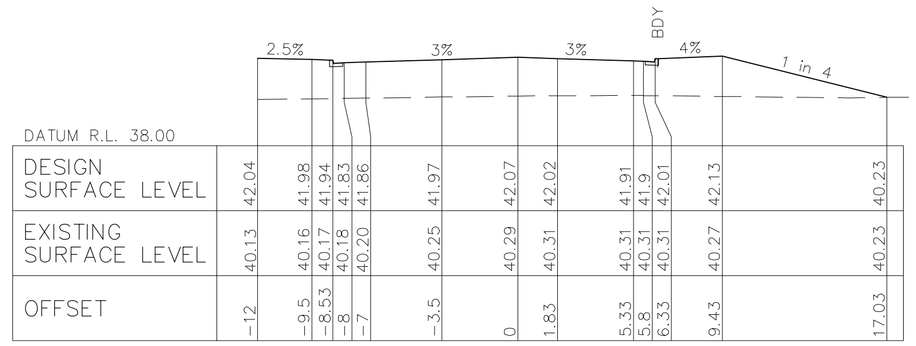
SECTION C
SCALE 1:200 103

LEGEND

PAVEMENT TYPE TO BE DETERMINED



SECTION B
SCALE 1:50 103



CH 285

SECTION D
SCALE 1:200 103

DIAL 1100 BEFORE YOU DIG

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REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
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SCALES: 0 1 2 A1 / A3 1:50 / 1:100

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ABN 62 129 445 398

CLIENT: mirvac

PROPERTY DESCRIPTION
LOT 101 D.P. 1130459, LOT 404 D.P. 1147551
AND LOT 4051 D.P. 1152675
COW PASTURE ROAD
HOXTON PARK

SURVEYED N\A | DATUM A.H.D.

PROJECT HINCHINBROOK CREEK LINK ROAD

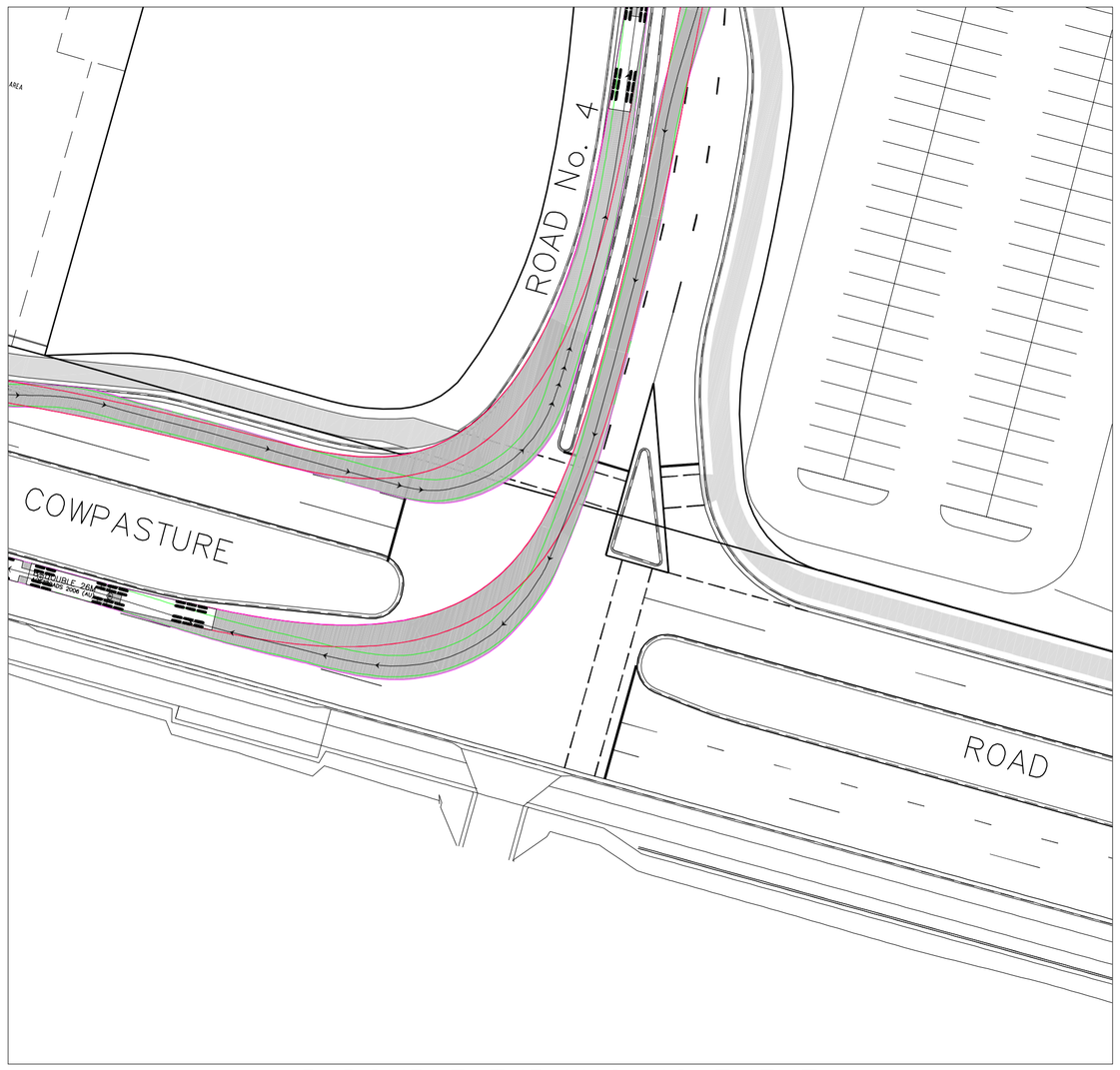
PLAN TITLE
BRIDGE AND ROAD
TYPICAL SECTIONS

PROJECT No.	DISCIPLINE	NUMBER	REV.
150133	DA	104	A

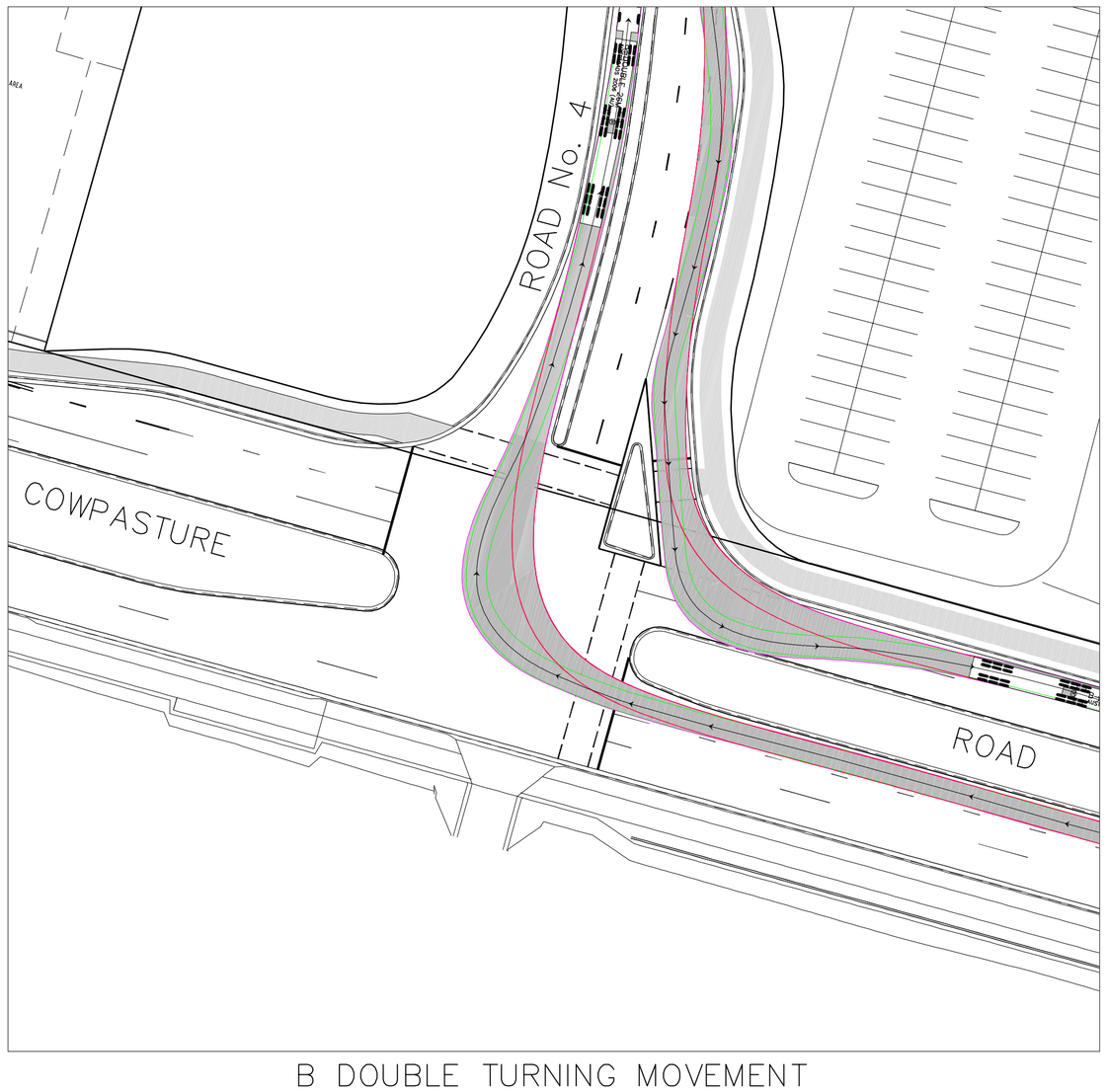
Plotted By: waynem Plot Date: 07/09/10 - 14:30 Cad File: S:\150133 - Hoxton Park Bridge Road\Drawings\ENG\150133_DA_104[A].dwg

100mm AT FULL SIZE

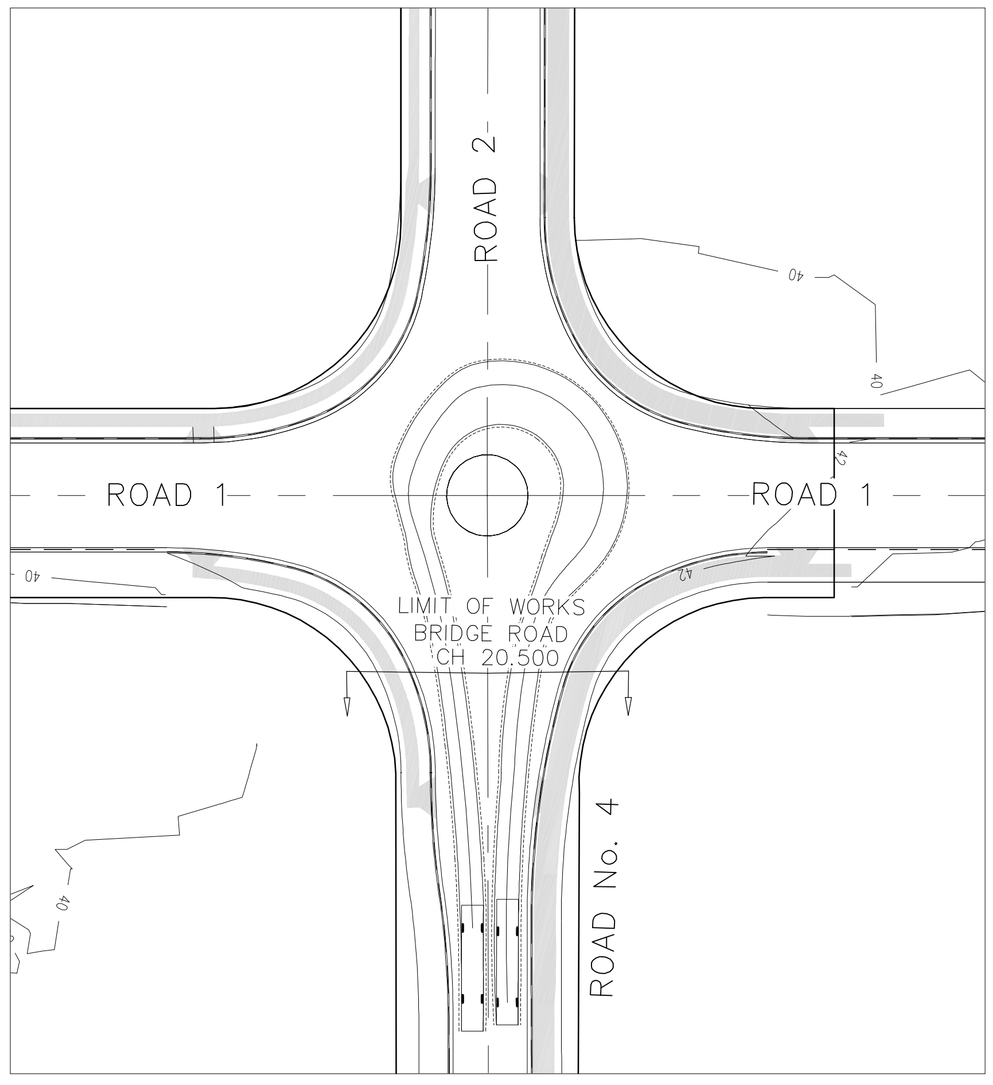
150133_DA_105[A]



B DOUBLE TURNING MOVEMENT

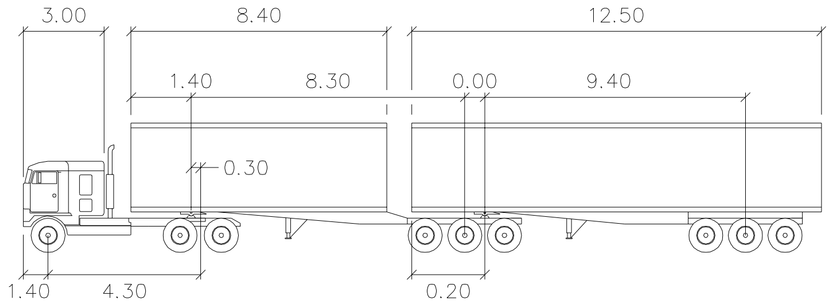


B DOUBLE TURNING MOVEMENT



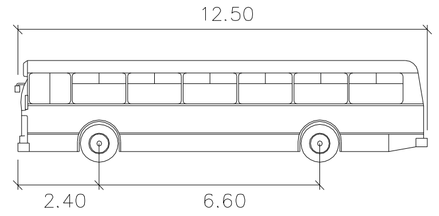
BUS 'U' TURN

M.G.A.



B–DOUBLE 26M meters

Tractor Width	: 2.50	Lock to Lock Time	: 6.00
Trailer Width	: 2.50	Steering Angle	: 22.20
Tractor Track	: 2.50	Articulating Angle	: 70.00
Trailer Track	: 2.50		



BUS1
meters

Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 35.2

DIAL 1100
BEFORE YOU DIG

PRELIMINARY ISSUE
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REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
A	06/09/2010	Issued for 75W Application	W.M.	H.W.	M.A.	P.J.

SCALES: 0 10 20 — A1 / A3 1:500 / 1:1000

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CLIENT: mirvac

PROPERTY DESCRIPTION
LOT 101 D.P. 1130459, LOT 404 D.P. 1147551
AND LOT 4051 D.P. 1152675
COW PASTURE ROAD
HOXTON PARK

SURVEYED: N\A

DATUM: A.H.D.

PROJECT: HINCHINBROOK CREEK LINK ROAD

PLAN TITLE: INTERSECTION VEHICLE SWEPT PATHS

PROJECT No.	DISCIPLINE	NUMBER	REV.
150133	DA	105	A

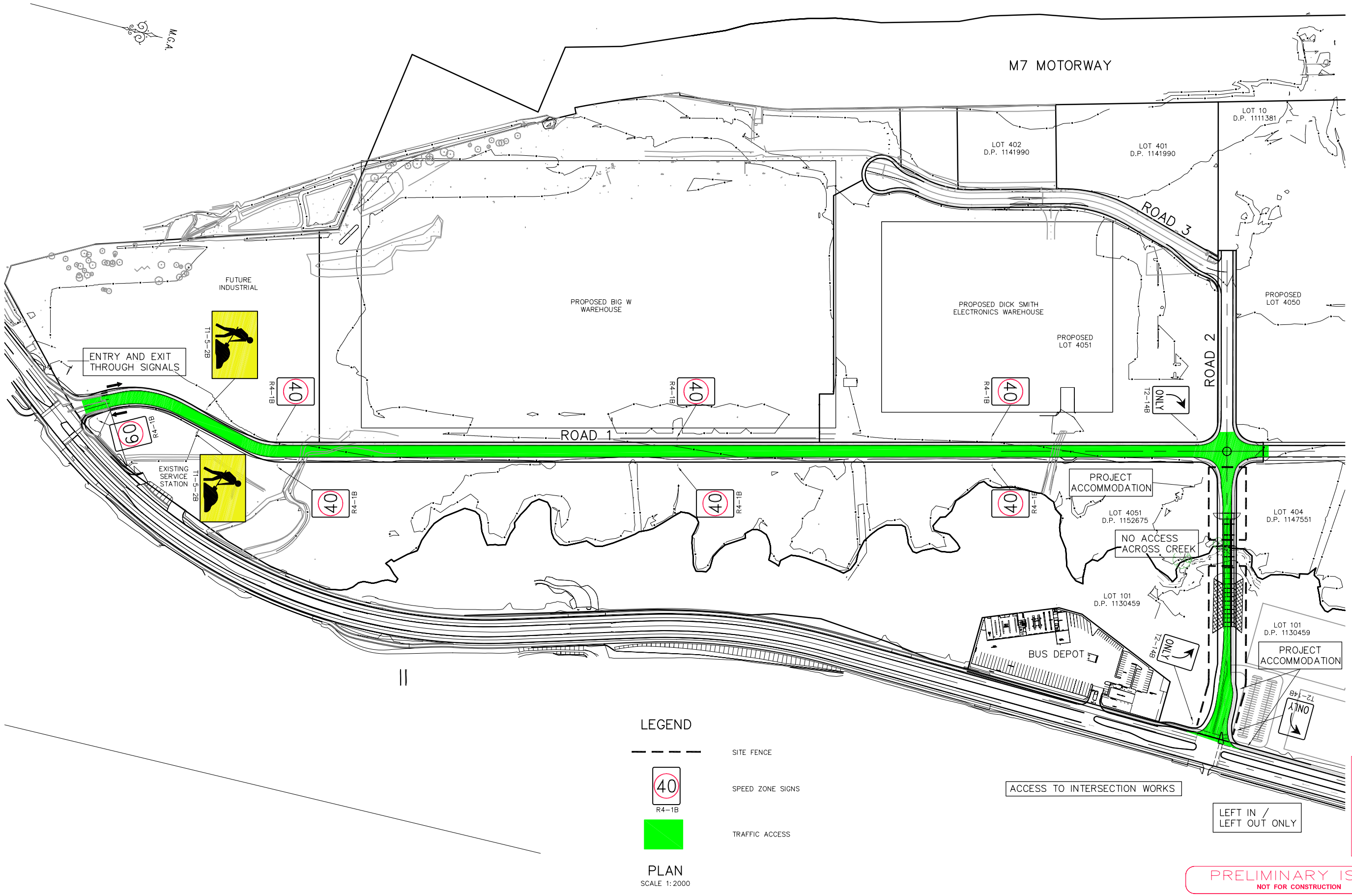
Plotted By: waynem Plot Date: 07/09/10 – 14:30 Cad File: S:\150133 – Hoxton Park Bridge Road\Drawings\ENG\150133_DA_105[A].dwg

100mm AT FULL SIZE

Appendix B

Traffic Management Plan

150133-SK-017[B]



LEGEND

SITE FENCE

SPEED ZONE SIGNS

TRAFFIC ACCESS

PLAN
SCALE 1:2000

DIAL 1100
BEFORE YOU DIG

PRELIMINARY ISSUE
NOT FOR CONSTRUCTION

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
A	06/09/2010	Issued for Information	W.M.	H.W.	M.A.	P.J.
B	16/09/2010	Minor Drafting amendment	H.W.	H.W.	H.W.	P.J.

SCALES: 0 50 100 A1 / A3 1:2000 / 1:4000

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COW PASTURE ROAD
HOXTON PARK

SURVEYED N\A

DATUM A.H.D.

PROJECT HINCHINBROOK CREEK LINK ROAD

PLAN TITLE
TRAFFIC MANAGEMENT PLAN

PROJECT No.	DISCIPLINE	NUMBER	REV.
150133	SK	017	B

Plotted By: hughw Plot Date: 16/09/10 – 12:54 Cad File: S:\150133 – Hoxton Park Bridge Road\Drawings\ENG\150133-SK-017[B].dwg

100mm AT FULL SIZE

Appendix C

Waste Management Plan

DIAL A DUMP INDUSTRIES
THE SKY'S THE LIMIT
ABN 75 131 565 583

4/01/2010

CONFIDENTIAL

WASTE MANAGEMENT PLAN

Created for : **Mirvac**

Site Address: Hoxton Park

Recycling is a vital means whereby Australia's natural resources are conserved and efficiently utilised.

Dial A Dump's aim is to work together with **Mirvac** to develop a waste management system centred around resource recovery and recycling.

Option 1. On Site Recycling

The efficiency of on-site recycling depends on the anticipated waste stream types and quantity along with space being available (and suitable) to house the bins required.

The on-site separation of scrap metals such as aluminium, copper pipe and wire, lead and steel is viable provided on-site security is adequate. A Colour Coding system is currently used on sites to aid in the separation of materials. Separation on site is accredited separately to each site. By working together with your company personnel to reduce waste coming to site also, a vast amount of waste can be reduced.

Site conditions permitting separate on-site bins for cardboard and paper are also possible, and **Dial A Dump** have committed to providing a Paper Bin for use on site for this purpose.

Dial A Dump feel that off site recycling is the more viable option for all other wastes.

Option 2. **Off Site Recycling**

Off site recycling is the most appropriate course of action for mixed waste streams and sites with minimum room or access difficulties.

At our Recycling and Landfill Facility in St Peters, **Dial A Dump** is able to sort and recycle wastes coming from your sites.

This sorting and recycling includes the recovery and production of the following materials:

Paper/Cardboard
Glass
Steel - OSI and Black Iron
Non-Ferrous metals such as:
- Lead
- copper
- electrical cable
- brass and aluminium;

All which are sorted and sent to the appropriate processing plants.

Timber such as:
- Formwork
- pallets
- hardwood
- oregon and alike;

are sorted for reuse, with the rest being processed to make woodchip.

Plasterboard and Gyprock are transformed into soil conditioners

Green Waste is transformed into mulch.

Problem wastes such as:
- Carpet
- mattresses
- tree stumps
- plastic and tyres;

are all processed at **Dial A Dump** facilities to avoid the potential problems that wastes such as these cause at landfills.

All hardcore materials; Bricks
- mortar
- concrete
- dirt
- soil
- sand
- tiles
- marble and stone;

are either stacked for reuse, or re-processed into high quality raw materials such as:

* Roadbase
* Aggregates for drainage
* Fill sand
* Soil
* Turf underlay

ENVIRONMENTAL MANAGEMENT & COMPLIANCE

Dial A Dumps' core business is providing a Waste Management service in accord with the Protection of the Environment Operations Act, 1997 and the Waste Minimisation and Management Act, 1995.

The operations of the Company are fully licensed by the Environment Protection Authority of NSW.

Clients of **Dial A Dump** are secure in the knowledge that their wastes are being disposed of according to environmental protection legislation and the principles of Ecologically Sustainable Development. **Dial A Dump** has in place, as a major part of its business, a materials recovery and recycling program that exceeds the objectives of the Waste Minimisation and Management legislation.

LEGISLATION AND DUE DILIGENCE

Legislation

The disposal of wastes in New South Wales is under the control of the Environment Protection Authority. The Environment Protection Authority administers the Protection of the Environment Operations Act and associated legislation and regulations.

Due Diligence

Companies and individuals are required to act with due diligence in respect to the disposal of the wastes they generate. Companies and individuals are exercising due diligence by engaging **Dial A Dump** to dispose of their wastes as **Dial A Dump** are specialists in waste management services.

Due diligence may be considered to be the legal opposite of negligence. If due diligence is not exercised then negligence may be considered to have occurred. Due diligence applies to both a requirement to act and to a failure to act, thus commission and omission of actions. Due diligence applies to companies, company directors and employees. Due diligence means that companies and individuals have taken all reasonable means to ensure that legal obligations have been met.

For waste management, due diligence requires both the waste producer and the waste collector to mutually exercise a) duty of care and b) duty of disclosure, that is each to inform the other of any and all matters which affect the undertaking of the waste management operations.

Dial A Dump is licensed by the EPA to transport, store, recycle, reprocess and dispose of wastes. Accordingly, all waste is collected and transported by **Dial A Dump** then returned to our Recycling/Landfill facility in St Peters.
From here, only a small percentage is taken off site for disposal (industrial wastes) or committed to landfill. It is in both **Dial A Dump** and our customers' interest to ensure as much waste as possible is committed to re-use and we welcome customers who may wish to view our St Peters facility for themselves.

DEFINITIONS OF WASTES

Wastes

Wastes are described by many different names and come in many different types; industrial, commercial, building and demolition, clinical, solid, domestic, putrescible, non-putrescible, hazardous, household, inert, municipal, and trade waste. They are defined for regulatory purposes in the Protection of the Environment Operations Act.

For practical purposes New South Wales has adopted a waste management hierarchy that prioritises ecological sustainable waste solutions. The hierarchy consists of

1 Avoiding waste,
2 Re-using materials,
3 Recycling and reprocessing materials
4 Waste disposal.

Waste Reduction

The NSW State Government set a goal of a 60% reduction of wastes being disposed of in NSW by the year 2000. **Dial A Dump** by means of innovative resource recovery and processing is achieving in excess of this waste reduction goal**.** It is **Dial A Dump's** aim to achieve an 80% reduction in waste being disposed of. The clients of **Dial A Dump's** waste management service can justly claim that they are achieving the Government's goal in waste minimisation.

Waste Management

Wastes need to be managed in order to comply with every aspect of the legislation covering wastes. The waste management service provided by **Dial A Dump** is a total waste management service. By engaging **Dial A Dump** to manage wastes, a waste generator has exercised complete due diligence. **Dial A Dump** assumes the responsibility and requirements for the correct collection, transport, storage and disposal of wastes.

The waste management service of **Dial A Dump** covers all aspects of all wastes, a complete and thorough service to assist industry, a significant service that is *Keeping Australia Clean.*

ECOLOGICALLY SUSTAINABLE DEVELOPMENT

Ecologically Sustainable Development as the fundamental tenant of Australian business stems from the *Inter-governmental Agreement on the Environment* between Australian Commonwealth, State, Territory and local governments on ecologically sustainable development made in May 1992. **Dial A Dump** fully endorse and is committed to the four principles which constitute Ecologically Sustainable Development.

Principle 1 The Precautionary Principal

For general hard wastes, there is a great deal of scientific certainty concerning their treatment, storage, transport and disposal. Such materials, in general, have been used by society for millennia. For special wastes **Dial A Dump** applies the measures and procedures for handling and disposal required by NSW legislation. These measures and procedures are designed to ensure the known and suspected effects of such materials are controlled.

Principle 2 Inter-generational Equity

Resource recovery and recycling as carried out by **Dial A Dump** together with corresponding savings in fossil fuel energy and more efficient use of landfill sites are direct, positive and practical measures to provide for inter-generational (future generations) and intra-generational (present generation) equity.

Principle 3 Conservation of Biological Diversity & Ecological Integrity

Disposal of waste by **Dial A Dump** is at our licensed landfill site. This site has detailed rehabilitation plans to ensure the biological diversity and ecological integrity of the site and its environs. The recovery and recycling of resources conserves resources and consequently minimises the impact of the initial production of resources on the biological diversity and ecological integrity of land.

Principle 4 Improved Valuation & Pricing of Environmental Resources

Dial A Dump applies control measures in the treatment, storage, transport and disposal of waste materials to minimise air, water and noise pollution. These control measures are the means whereby the valuation of the environmental resources of air quality, water quality and area amenity is enhanced.

Disclaimer

Information herein dealing with New South Wales Legislation is derived from a reasonable and logical interpretation of that legislation. The Environment Protection Authority has a number of publications dealing with wastes and waste management that provide specific information and details that may be of value to waste generators.

RECYCLING

Recycling is a vital means whereby Australia's natural resources are conserved and efficiently utilised. Our 'Waste Management' system is centred around *resource recovery and recycling* and through innovative approaches **Dial A Dump** consistently achieves recycling figures in excess of the objectives of the Waste Minimisation and Management legislation and the Waste Wise agreement.

Dial A Dump encourages Customers to utilise our St Peters facility for off-site recycling, with an on-site option also being available.

The efficiency of on-site recycling is dependent on a number of factors including:

- Anticipated waste streams
- Adequate space available for bins to be labelled for specific waste streams (**Dial A Dump** currently utilises a colour coding system for this option)
- Adequate security for valuable materials including scrap metals (aluminium, copper pipe and wire, lead and steel)
- Quality on-site staff training to ensure waste streams stay 'clean'

Off-site recycling is an efficient and cost effective option for **Dial A Dump's** customers**.** Upon returning to **Dial A Dump's** recycling and landfill facility, the general loads collected are sorted and recycled directly on site. Materials currently recycled and reused at our recycling facility include:

Metals	Resold to appropriate processing plants
Timber	Recycled to make Woodchip
Green Waste	Recycled into Mulch
Hardcore	Recycled into products including Roadbase, Sand, Fill and Aggregate

Dial A Dump customers can feel secure in the knowledge that their waste is being disposed of and recycled according to environmental protection legislation and the principles of ecologically sustainable development.

Recycling Reports are a key feature of **Dial A Dump's** waste management services, and can be provided to Customers at the end of each month indicating the Recycling results achieved by individual sites. This allows our Customers the confidence of knowing they are achieving Government standards and meeting all reporting requirements.

Dial A Dump can also assist in the recycling and re-use of products on site with Screens and Crushers available to transform bricks, concrete, and similar hardcore materials into recycled and re-usable aggregates, roadbases and fill materials. Our accredited Plant Operators are trained to perform recycling work with efficiency and time effectively, while our Recycling Sales staff are familiar with the necessary specifications on products to ensure they comply with specific requirements (primarily RTA specifications).

A.B.N 74 003 755 673
PO BOX 1040 Mascot NSW 1460
9519 9999
Fax: 9516 5559

Recycling and Waste Minimisation Report

EMAIL TRANSMISSION

Date:	Sample only	**Email:**	
Company:	ABC Pty LTD		
Site Address:	1 Sample St Sample Ville		
Post Address:			
Attention:	Fred	**Phone:**	

Client:	**ABC Pty Ltd**	
Site:	**1 Sample St Sample Ville**	
Job Stage:	**Structure**	
Month:	**JANUARY 2007**	
Total Volume:	**20 M3**	
Landfill:	20%	
Recycling & Waste Minimisation:		**80%**
Recycling & Waste Minimisation comprising as below:		
Hardcore:		40%
Softcore:		30%
Steel: Ferrous / Non Ferrous:		20%
Paper / Cardboard:		8%
Miscellaneous:		2%

Appendix D

Erosion and Sediment Control Plan and Standard Details

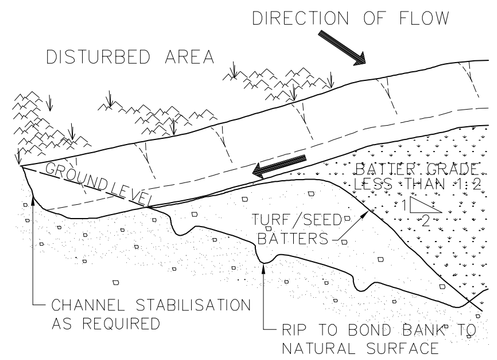
150133_DA_200[A]

EROSION & SEDIMENT CONTROL NOTES:

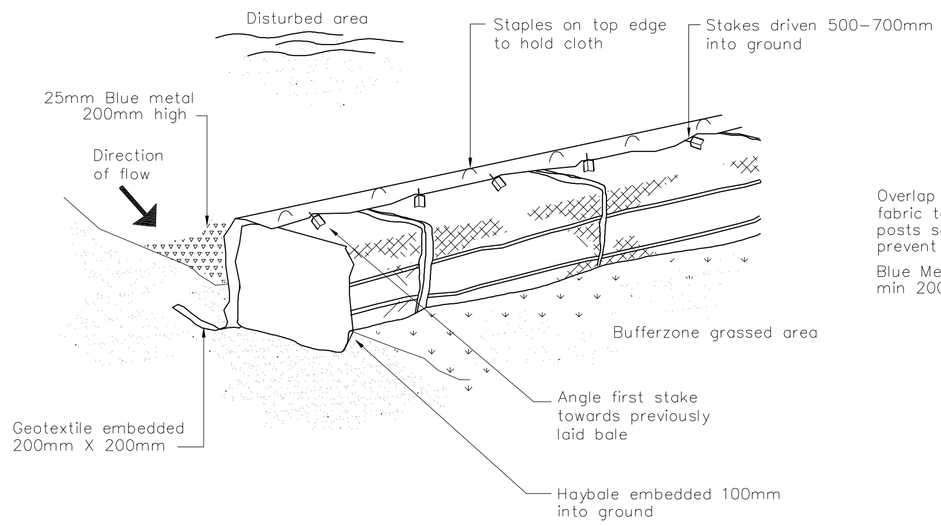
1. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSISTENT WITH THE APPROVED MASTERPLAN DOCUMENTS AND THE "MANAGING URBAN STORMWATER" – 3RD EDITION (1998) PREPARED BY THE NSW DEPARTMENT OF HOUSING.
2. DISTURBED AREAS TO BE KEPT TO A MINIMUM. NO MORE THAN 2.5HA OF THE SITE SHALL BE EXPOSED TO EROSION AT ANY ONE TIME.
3. CONTROL CLEAN WATER FROM ABOVE THE SITE, THROUGH THE SITE.
4. KEEP CLEAN WATER SEPARATE FROM DIRTY WATER.
5. CONSERVE ALL TOPSOIL, STOCKPILE AND PROTECT FOR REUSE ON SITE.
6. PROTECT ALL DISTURBED AREAS FROM EROSION.
7. MINIMISE SEDIMENTATION.
8. MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL COMPLETE REHABILITATION IS ACHIEVED.
9. CONSTRUCT STABILISED EARTH BERMS TO DIRECT CLEAN RUNOFF FROM ENTERING THE DISTURBED SITE.
10. CONSTRUCT STABILISED DIVERSION BANKS TO COLLECT RUNOFF FROM DISTURBED AREAS AND DIRECT IT TO A SEDIMENT CONTROL PIT.
11. PLACE SEDIMENT INLET TRAPS AROUND ALL PITS WITHIN AND DOWNSTREAM OF THE DEVELOPMENT.
12. PLACE GRAVEL BAG GROYNES IN GUTTERS AT 20 – 25m INTERVALS.
13. PLACE HAYBALES IN SWALES AT 40 – 50m INTERVALS.
14. PLACE HAYBALES ACROSS OVERLAND FLOW PATH PRIOR TO THE RUNOFF ENTERING DRAINAGE SYSTEM.
15. STOCKPILES OF MATERIAL TO BE PLACED AWAY FROM DRAINAGE FLOW PATHS AND HEAVILY TRAFFICABLE AREAS AND TO BE SURROUNDED BY SILT FENCING AT ALL TIMES.
16. CONSTRUCT AN ALL WEATHER CONSTRUCTION ACCESS TO THE SITE.
17. ALL DISTURBED AREAS ARE TO BE REVEGETATED OR OTHERWISE PROTECTED AS SOON AS PRACTICAL.
19. ERECT AND MAINTAIN SILT FENCES AT THE DOWNSLOPE SIDE OF DISTURBED AREA DURING CONSTRUCTION.
20. THE CONTRACTOR SHALL SUPPLY AND ERECT COUNCIL'S STANDARD EROSION AND SEDIMENTATION CONTROL SIGN AS DETAILED IN STANDARD DRAWING No. 3403/1. THE SIGN SHALL BE ERECTED IN A PROMINENT LOCATION NEAR THE ENTRANCE TO THE DEVELOPMENT AREA PRIOR TO COMMENCEMENT OF CONSTRUCTION.
21. AREAS OUTSIDE THE BOUNDARIES OF THE PROPOSED DEVELOPMENT WILL BE FENCED WITH NO GO FENCING TO KEEP THE AREAS FREE FROM DISTURBANCE OF MACHINERY, PARKED VEHICLES AND WASTE MATERIAL.
22. TREES TO BE RETAINED WITHIN THE CONSTRUCTION AREAS ARE TO BE PROTECTED BY TREE PROTECTION FENCING IN ACCORDANCE WITH THE APPROVED CMP.
23. ESTABLISH A RESTRICTION BOUNDARY AROUND HABITAT TREE WITH PARAWEB FENCING. TEMPORARILY RELOCATE FENCE TO ALLOW CONSTRUCTION OF REQUIRED WORKS AND RE-ESTABLISH PROTECTION ZONE AFTER WORKS COMPLETES.

LEGEND

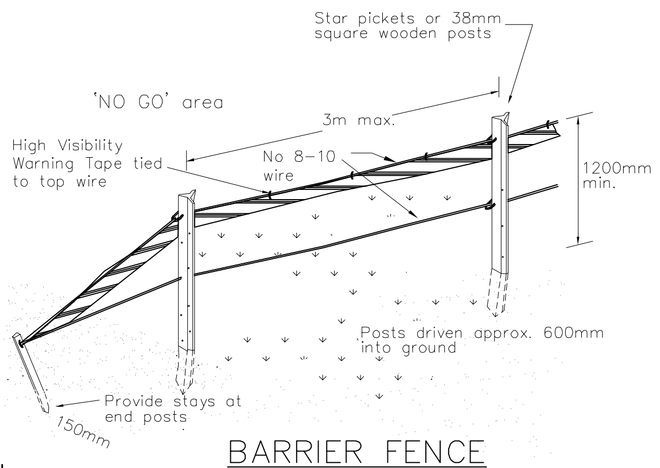
- EXISTING LOT BOUNDARY
- PROPOSED LOT BOUNDARY
- EXISTING ROAD
- PROPOSED ROAD
- DESIGN CONTOUR
- PROPOSED STORMWATER
- PROPOSED SW PIT
- SILT FENCE
- DIVERSION DRAIN
- NO GO FENCING
- PIT INLET CONTROLS
- HAYBALES
- SANDBAG KERB INLET TRAP



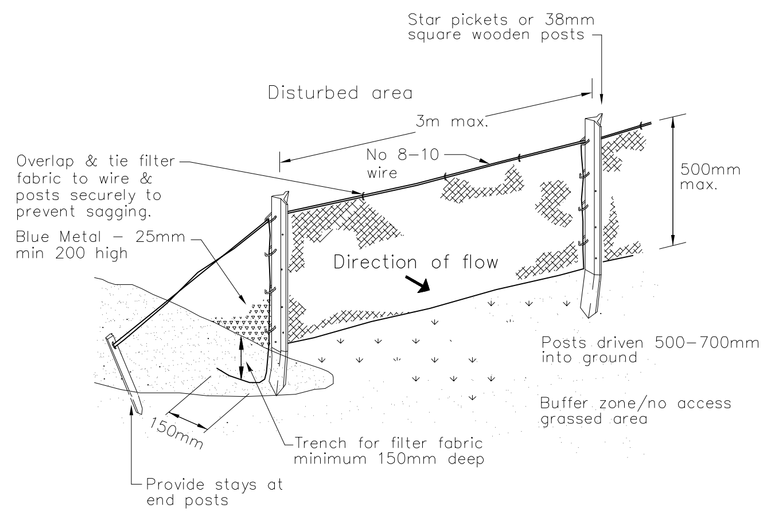
DIVERSION DRAIN



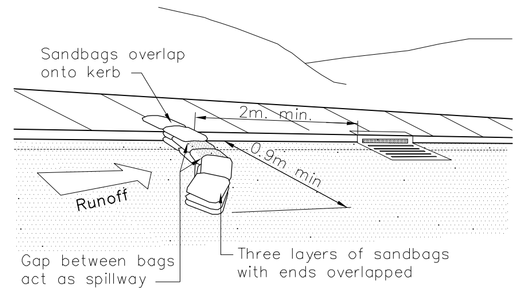
HAYBALE & GEOTEXTILE FENCE



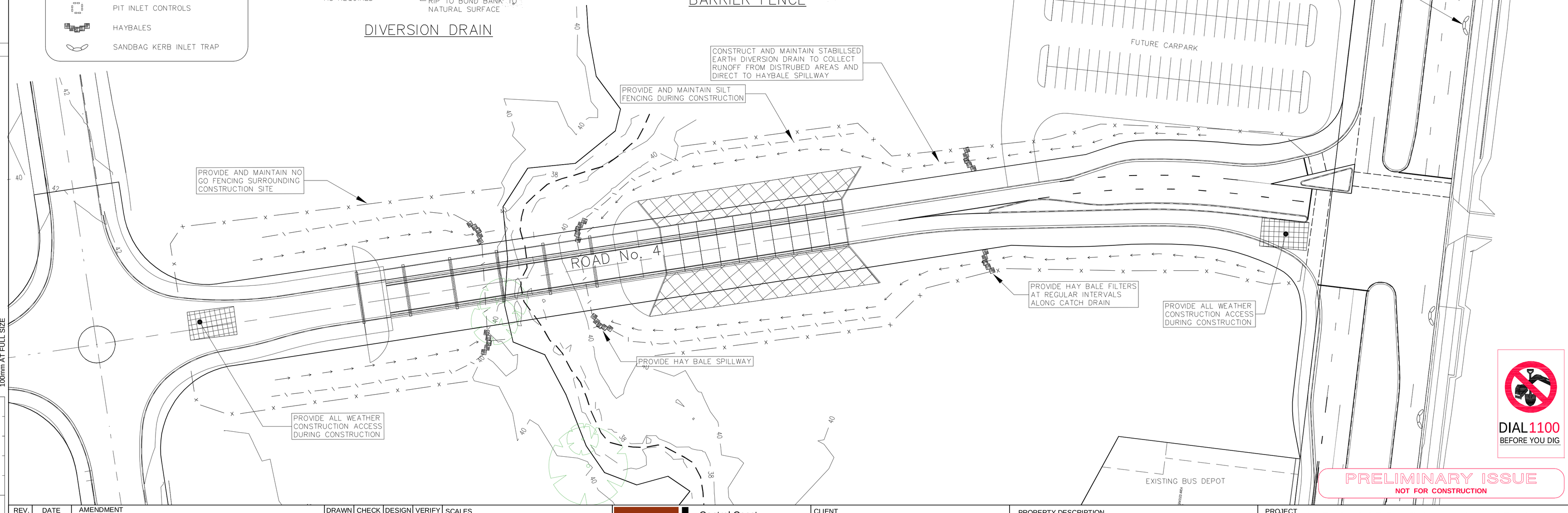
BARRIER FENCE



SILT FENCE 1



SANDBAG KERB INLET SEDIMENT TRAP



DIAL 1100 BEFORE YOU DIG

PRELIMINARY ISSUE
NOT FOR CONSTRUCTION

REV.	DATE	AMENDMENT	DRAWN	CHECK	DESIGN	VERIFY
A	06/09/2010	Issued for 75W Application	W.M.	H.W.	M.A.	P.J.

SCALES: 0 10 20 — A1 / A3 1:500 / 1:1000

DESIGN FILE S:\150126 – Hoxton Park\Design\12D\OVERALL DESIGN

ALL DIMENSIONS ARE IN METRES. DO NOT SCALE

adw johnson
Central Coast
2 Bounty Close,
P.O. Box 3717,
Tuggerah N.S.W. 2259
Phone: (02) 4305 4300
Fax: (02) 4305 4399
email: coast@adwjohnson.com.au
www.adwjohnson.com.au
ABN 62 129 445 398

CLIENT: mirvac

PROPERTY DESCRIPTION: LOT 101 D.P. 1130459, LOT 404 D.P. 1147551 AND LOT 4051 D.P. 1152675 COW PASTURE ROAD HOXTON PARK

SURVEYED: N\A

DATUM: A.H.D.

PROJECT: HINCHINBROOK CREEK LINK ROAD

PLAN TITLE: EROSION AND SEDIMENT CONTROL PLAN

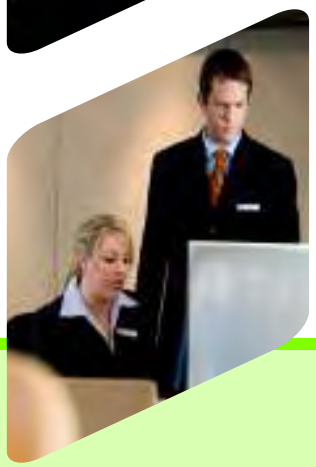
PROJECT No.	DISCIPLINE	NUMBER	REV.
150133	DA	200	A

100mm AT FULL SIZE

Plotted By: waynem Plot Date: 07/09/10 – 14:30 Cad File: S:\150133 – Hoxton Park Bridge Road\Drawings\ENG\150133_DA_200[A].dwg

Appendix E

Mirvac's Policies



Anti-Harassment Policy

Mirvac is committed to providing workplaces that are free from discrimination and harassment. No one has the right to harass or bully others at work or in any situation related to work. Mirvac does not tolerate such behaviour and is committed to providing a work environment which is pleasant, safe and enjoyable where all employees and service providers are treated with dignity, courtesy and respect.

Some examples of discriminatory or harassing behaviour include:

- bullying or mocking a work colleague through teasing or pranks
- threatening or abusing another person
- sexual advances or sexual jokes
- publicly humiliating another person – especially if it is an abuse of position
- excluding a less popular team member from activities,
- disrupting an individual's work, work space, equipment or interfering with their personal property

Legal Considerations

Harassment is a form of unlawful discrimination. Mirvac has a Duty of Care to provide and maintain a safe working environment for its employees, service providers or others working on its behalf or visiting its workplaces. This duty includes eliminating or reducing the risk of discrimination and harassment.

Employees also have a Duty of Care to ensure they work in a safe manner without risk to fellow workers or others in the workplace. Bullying, harassment or assaults on other workers or workplace visitors may constitute a breach of the law. Incidents of harassment including those that involve physical assault, indecent exposure, stalking, sexual assault and obscene communication are considered criminal acts.

Implications of Harassing Behaviour

Acting in a harassing manner is in breach of the Mirvac Code of Conduct/Ethical Business Behaviour and is deemed to be serious misconduct. Anyone that experiences or witnesses harassment should report it as soon as possible to their immediate supervisor or the designated Mirvac Anti-Harassment Officer in their workplace. When harassment is reported, it is investigated quickly in accordance with the Mirvac Group Anti-Harassment Procedure outlined on the Mirvac Intranet. Where necessary a formal investigation is undertaken.

Employees, or others undertaking work on behalf of Mirvac, found to have breached the Mirvac Group Anti-Harassment Procedure, may face disciplinary action. Depending on the circumstances, such disciplinary action could include: education or training, counselling, a formal warning, demotion, suspension, exclusion from a workplace and even dismissal. Disciplinary action may also be undertaken where persons intentionally make false allegations of harassment or those in a position of authority knowingly tolerate harassment.

Commitment

Mirvac is committed to providing a work environment that is pleasant, safe and enjoyable and free from discrimination and harassment.

The appointed Anti-Harassment Officer(s) for this workplace is/are:

_____

Contact: _____

Nicholas Collishaw
Managing Director

September 2008

Drugs & Alcohol Policy

Mirvac is committed to providing safe, healthy and productive workplaces. While social drinking may be identified as part of Australia's cultural identity, it is well recognised that drugs and/or alcohol affect a person's health and their ability to perform tasks safely and productively. As an Employer of Choice, Mirvac shares community concern over the harmful physical, behavioural and social effects of drugs and/or alcohol and the overall human and economic cost of dependence or abuse.

Drug or alcohol abuse causes short and long term impairment to a person's work performance, can impact on their safety and health, and may even impact on the safety of others at a workplace. To eliminate risks associated with drugs and alcohol abuse and achieve Mirvac's commitment to a safe, healthy and productive workplace, the following is prohibited at Mirvac workplaces:

» Undertaking high risk work duties or work at high risk workplaces under the influence of drugs or alcohol

» Driving a motor vehicle under the influence of drugs or with a blood alcohol level over the legal limit while at work or travelling to and from work

» Illegal drug use or drug use that impairs an employee's capacity to perform their duties, including their responsibility to work safely

» Operating plant and equipment while under the influence of drugs or alcohol

» The provision of alcohol to a person(s) under the legal age limit

Objectives

In enforcing the prohibitions above, Mirvac manages the risks associated with the use of drugs and/or alcohol in the workplace in a way that is consistent and fair to all employees. More specifically, Mirvac's objectives include:

» Provision and maintenance of a safe, healthy and productive workplace

» Preclusion from employment of individuals applying for high risk work who test positive to the Mirvac Group Pre-Employment Medical Assessment drug screen component

» Management of work related social or entertainment events in a responsible manner by adhering to the Mirvac Group Drugs & Alcohol Procedure and its codes of behaviour that support this policy

» Promoting awareness of the risks associated with drugs or alcohol abuse

» Ensuring that consultation remains confidential between management and employees in the ongoing prevention, education, counselling and rehabilitation of employees affected by drug or alcohol use

To ensure Mirvac's commitment to a safe, healthy and productive workplace, all managers shall promote and administer compliance with this Policy and the Mirvac Group Drugs & Alcohol Procedure which includes mandatory codes of behaviour. All employees, service providers or other visitors to Mirvac workplaces shall abide by the provisions of this Policy as a condition of employment or contract.

Nicholas Collishaw
Managing Director

September 2008

Injury Management & Return to Work Policy

Mirvac recognises the benefits of sound injury management principles and practices and is committed to implementing such practices in all of its workplaces. In conjunction with this commitment Mirvac acknowledges all legislative frameworks which govern and support injury management activities across all divisions and regions of operation by the Mirvac Group.

Experience has demonstrated that early intervention and management of workplace injury through sound injury management practices greatly assists the healing and recovery process and helps restore workers to normal duties much sooner. Workplace injury management includes early provision of timely and adequate services, including a suitable duties program, and aims to:

» maintain injured or ill workers at work or

» ensure the employees earliest possible return to work or

» maximise the worker's independent functioning and

» provide for durable employment

This policy constitutes a joint workforce-management agreement to which Mirvac commits to:

» Provide a safe and healthy work environment, but in the event of injury or illness, make sure workplace injury management is commenced as early as possible in accordance with medical opinion

» Make suitable duties available to injured or ill workers to facilitate their safe and early return to work. These duties will be consistent with current medical opinion and be time limited

» Maintain confidentiality over medical and injury management information including verbal or written confidentiality

» Make workers aware that in the event of injury or illness they will be consulted in the development of a structured and safe return to work program that will not disadvantage their employment position

» Comply with legislative obligations with regard to the nature and standard of injury management at the workplace

» Adopt a multidisciplinary approach to injury management as required to achieve the best possible outcomes for early return to work

» Regularly review this policy and associated programs to ensure Mirvac's commitment continues to meet legislative requirements and the needs of all parties

I commit Mirvac to the implementation of this Policy and its supporting framework of workplace injury management procedures, which outline key terms, roles and responsibilities and stages in the return to work process.

Nicholas Collishaw
Managing Director

September 2008

HSE Consultation Statement

Mirvac is committed to ensuring the health, safety and welfare of all employees, service providers and visitors at its workplaces. Mirvac will consult with its employees and service providers on their work tasks and the procedures and practices to be implemented to manage the health, safety and welfare of people engaged in those tasks. Mirvac believes that the involvement of workplace personnel in discussion at all levels is essential in achieving good health safety environment outcomes for our workforce.

At this workplace, agreed consultative arrangements for Health Safety Environment involve:

- ☐ Committee
- ☐ Representative(s)
- ☐ Consultation Group
- ☐ Designated Workgroup(s)
- ☐ Workplace Meetings
- ☐ Safety Walk

The roles and responsibilities or functions of the above consultative arrangements shall include:

HSE Committee or Consultation Group

Where established an HSE Committee consists of a minimum of four employee/service provider members and at least one Mirvac management representative. The HSE Committee assists with the development and monitoring of safe work practices and systems, and identifies for discussion those issues that have the potential to affect the health, safety and welfare of personnel or the environment at Mirvac workplaces. Mirvac responds to requests and recommendations by the HSE Committee in a timely manner. The current minutes of HSE Committee meeting are displayed in a prominent location(s) at the workplace including membership of the Committee. In the absence of a fully qualified HSE Committee, agreed consultation arrangements may include a HSE Consultation Group, which can function in a similar fashion to a Committee as outlined above.

HSE Representative

Where an HSE representative(s) is elected at the workplace, that person is democratically elected in accordance with relevant legislation for a maximum period of 2 years, or 3 years in Victoria. Employees or service providers are encouraged to raise specific HSE issues directly with their supervisor or the elected HSE Representative. Where the immediate supervisor or HSE representative cannot resolve an HSE issue it shall be referred to the HSE Committee/Consultation Group. The HSE Representative(s) shall be identified and posted in a prominent location(s) at the workplace.

Designated Workgroup

Where requested, Mirvac will establish a Designated Work Group(s) within 14 days. When an HSE issue(s) is raised either by Mirvac, an employee, service provider or the HSE Committee/Consultation Group, the HSE Representative will consult members of the workgroup and their supervisor(s) to resolve Health Safety Environment concerns in a timely manner.

Workplace Meetings

Some workplaces may consist of a small number of personnel and an HSE Representative or Committee is not requested or not required by legislation. For these workplaces Mirvac will consult with its workforce and agree on a Consultation Group and workplace meetings at intervals to be determined by the type of workplace and its risk profile. Health Safety Environment issues are a formal agenda item at all such meetings and the minutes and attendees of the meetings are posted in a prominent location(s) at the workplace.

Workplace Health & Safety Officer

Where 30 or more workers are employed for 24 hours or more at a Queensland workplace, including a construction site where Mirvac is the Principal Contractor, a Workplace Health and Safety Officer (WHSO) is elected and a notice identifying the WHSO displayed within 5 days of appointment. The WHSO performs the role of HSE representative at the workplace and assists the HSE Committee.

Agreed Method of Consultation

The Workplace Manager retains a record to demonstrate that employees, service providers or others were consulted on the agreed method of consultation established at the workplace.

Review of Consultation Arrangements

Mirvac, in agreement with its workforce, commits to the ongoing review and monitoring of these arrangements with employees to ensure consultation is effective and HSE issues are resolved. Further information is provided in the Mirvac Group Consultation Procedure.

Nicholas Collishaw
Managing Director

September 2008

Health Safety Environment Policy

Health Safety Environment is central to Mirvac's core business values. Our vision is simple – to provide workplaces free from harm and supported by a culture which ensures that the safety of people and protection of the environment remains an absolute priority. Mirvac believes the best business solution for management of Health Safety Environment is also the best business solution for all Stakeholders across the Mirvac Group.

Objectives for achieving our vision involve:

» Complying with applicable statutory requirements, codes of practice, standards and guidelines

» Establishing measurable objectives and targets aimed at the elimination of work related incidents or impacts from our activities, products and services

» Defining roles, responsibilities and levels of accountability for Health Safety Environment

Strategies will include:

» Integration of risk management principles in all core planning activities

» Regular review of objectives and targets to promote improved performance outcomes across all business divisions

» A commitment to measurable and continuous improvement in Health Safety Environment performance across the Mirvac Group through strategic planning

» Working with government and industry to improve performance outcomes for the benefit of our stakeholders and wider industry goals

» Establishment and ongoing expansion of Health Safety Environment learning and development initiatives

» Regular consultation with our workforce and other stakeholders to improve decision-making on Health Safety Environment matters

» Ensuring incidents are investigated and lessons learnt are distributed across all business divisions within the Group

» Distributing Health Safety Environment information, including this policy, across the Group to all employees and interested parties

» Providing timely and effective injury management and environmental remediation strategy

» Regular review of Health Safety Environment policies and procedures to ensure compliance with legislation and ongoing relevance across the Mirvac Group

» The provision of sufficient resources to ensure Health Safety Environment remains central to core business values

» Prequalification of Service Providers (contractors and suppliers)

» Adopting sustainable business principles and practices that meet the needs of stakeholders without compromising future resource needs

» Recognising and rewarding excellence in Heath Safety Environment performance

I commit Mirvac to the implementation of this policy and task all divisions and personnel across Mirvac with the responsibility for achieving our vision.

Nicholas Collishaw
Managing Director

September 2008

SmokeFree Policy

Mirvac is committed to protecting the health and wellbeing of its employees and visitors by creating a work environment which is free of tobacco smoke. To achieve this commitment, smoking is prohibited within:

- 'Enclosed' workplaces, e.g. buildings or structures. Enclosed means any space having a ceiling or roof; and except for doors and passageways is completely or substantially enclosed by walls or windows
- 'Semi-enclosed' workplaces, e.g. amenities, lunchrooms, and areas where meals are consumed. Semi-enclosed means any area mainly located outside the permanent external walls of a building and has a ceiling or roof and at least two sides that include fixed walls, operable windows, doors or retractable coverings
- 5 metres of any access points to an enclosed/semi-enclosed Mirvac workplace including a building doorway entry or exit, operable window or louvre, and air conditioning vent or duct
- Lifts, hoists, and undercover car parks
- 6m of any area that is classified as a confined space
- Mirvac vehicles and plant and equipment if another person(s) is present
- 10 metres of any designated flammable or combustible goods store
- Other areas designated as no smoking by signs

Smoking breaks for employees during work hours are not permitted. Where employees experience difficulty with the absence of such breaks, or seek to quit smoking, assistance is provided through the Mirvac Employee Assistance Program.

To enable Mirvac to foster an environment that promotes health and wellbeing at work and at the same time meets legislative obligations under smoke free, health, and occupational health and safety legislation all managers promote and administer compliance with this Policy. All employees, service providers or other visitors to Mirvac workplaces shall abide by the provisions of this Policy.

Littered cigarette butts have environmental impacts on waterways, soils and habitats. Mirvac supports a cigarette butt free environment and asks all smokers to please 'butt it and bin it' to protect the environment.

Nicholas Collishaw
Managing Director

September 2008

UV Radiation/Sunlight Policy

At Mirvac the provision of a safe working environment is central to core business values. Mirvac recognises the risk of skin cancer to outdoor workers exposed to Ultra Violet (UV) radiation through everyday sunlight. Where outdoor work is to be performed at Mirvac workplaces, UV radiation exposure is considered in all planning activities.

Initiatives to eliminate or minimise the risk of UV radiation exposure to outdoor workers and raise awareness include:

- a purchasing arrangement for Mirvac employee work clothing consisting of the requirements for close-weave fabric with a minimum UPF 50+, long sleeves and a collar
- identification of the potential for UV radiation exposure in risk and opportunity planning
- consultation and awareness training for employees or service providers through workplace induction which emphasises the dangers of UV radiation exposure and skin cancer
- the provision of sheltered amenity areas not exposed to direct sunlight
- display of the Mirvac Group UV Exposure Poster at all workplaces where outdoor work and UV radiation is identified in risk and opportunity planning

Identification of potential UV radiation risks for outdoor job tasks is a Mirvac Group risk and opportunity planning requirement. Control measures as a minimum include:

- nomination of UV as a risk in all safe work procedures or equivalent prepared for outdoor work
- availability of a broad brimmed (min. 8-10cm) hat, or brim and neck flap for safety helmets, to all employees engaged in outdoor work
- availability of sunglasses complying with AS/NZS1067 to all employees engaged in outdoor work
- availability of sunscreen min. SPF 30+ at prominent locations at the workplace
- wearing a shirt at all times when undertaking outdoor work

Where UV radiation is identified as a risk to health and safety, Mirvac monitors the implementation and effectiveness of control measures through regular workplace appraisals.

Nicholas Collishaw
Managing Director

September 2008

Young Worker Policy

Young workers and those new to the workforce often lack the experience to be cautious about workplace safety. In the past decade, injury and fatality research demonstrates that young workers aged between 15 and 24 years are over-represented in workplace injury statistics across many industry sectors. The high risk nature of some Mirvac workplaces, such as construction sites, or specific task-related risks at other Mirvac workplaces (such as manual handling, operation of plant and equipment, chemical handling or work at a height over 2 metres) means that the risk of injury to young workers is significant and affords special consideration by Mirvac.

The Mirvac Group Young Worker 'Look Out' Safety Program has been developed to guide and mentor young workers to reduce their risk of injury or illness. The Program applies to new workers, trainees or apprentices under 25 years with less than 2 years experience and is a requirement at 'all' Mirvac construction workplaces and 'all' other Mirvac business locations where risk and opportunity planning identifies young workers tasked with work routines assessed as having a medium or greater injury potential. In addition, the Program includes students undertaking work experience for which the Mirvac Group Student Placement Procedure is completed.

Launched on 31st August 2006, the objectives of the Program are to:

» increase awareness of young worker safety

» mentor and build confidence and experience through learning and development

» supervise or limit risky work routines or activities

» readily identify young workers at Mirvac workplaces so that assistance and mentoring remains ongoing

Implementation of the Mirvac Group Young Worker 'Look Out' Safety Program requires the completion of the Mirvac Group Young Worker Policy Commitment relevant to the specific Mirvac division and display of the relevant Mirvac Group Look Out Poster(s) at the workplace.

The Mirvac Group Young Worker 'Look Out' Safety Program has demonstrated a strong capacity to return safer work routines and fewer injuries to young workers who are recognised as the future of Mirvac's skill base. Please join me in supporting and implementing this important initiative.

Nicholas Collishaw
Managing Director

September 2008

Community Contact Register

SUMMARY

Contact with the community is a means by which Mirvac can positively engage stakeholders and potential clients or customers by demonstrating sound management practices in resolving any concerns raised in a timely manner. Community members which interface with Mirvac business undertakings present the opportunity for feedback and a positive response by Mirvac. Any response shall be commensurate with Mirvac's high regard and sensitivity to social amenity and the lifestyle impacts of its business undertakings.

The details outlined below must be completed for all 'formal' (oral or written) representations to any Mirvac representative by a community member or on being directly informed of a concern by a third party and corrective (follow up) action undertaken within 48 hours of notification where required.

CONTACT DETAIL

(1) How was the contact made:

Telephone: ☐ Personal Contact: ☐ Written Letter: ☐ Email: ☐ Fax: ☐
Other [specify]: _____

(2) Date of contact: _____ Time of contact: _____ am ☐ or pm ☐

(3) Contact made by: [who made the contact]

Name	Address	Tel/Contact Details

(4) Outline concerns/issues raised:

_____

(5) Contact details recorded by:

Name	Mirvac Division	Time recorded	Tel/Contact Details

(6) Has the contact been referred to another person? Yes ☐ No ☐

(7) If 'yes' list the name and contact details of the person:

List Name	Mirvac Division	Time Referred	Tel/Contact Details

(8) Has the contact been 'formally' acknowledged to the complainant? Yes ☐ No ☐
[Note: mandatory within 48 hours of contact]

(9) How was the contact formally acknowledged? Telephone: ☐ Personal Contact: ☐
Other: [specify] _____

(10) Is follow-up action required? Yes ☐ No ☐

Community Contact Register

(11) Outline follow-up action undertaken: **[Note: mandatory within 48 hours of contact]**

_____

(12) Date of follow-up action: _____ Time of action _____ am ☐ or pm ☐

(13) Date complainant was advised of the outcome/action undertaken as a result of the contact: Date _____ Time of action _____ am ☐ or pm ☐

[Note: mandatory within 48 hours of first contact]

(14) Completion:

Person completing this report:

Name: _____ Signature: _____ Date: _____

Manager of person completing this report:

Name: _____ Signature: Date: _____

WRMP APPENDIX 6
EMERGENCY RESPONSE PLAN

THE FOLLOWING INFORMATION IS TO BE DEVELOPED, INCLUDED IN INDUCTIONS AND POSTED ON NOTICE BOARDS AND OTHER PROMINENT LOCATIONS.

Emergency Contact Information Table

Emergency Contact Information	Name	Telephone	Address
First aid officer(s)	[Insert Name]	[Insert Number]	At the workplace.
Nominated HSE person	[Insert Name]	[Insert Number]	[Insert]
Emergency phone numbers		000	Police, fire and ambulance.
Nearest hospital / emergency centre	[Insert Name]	[Insert Number]	[Insert]
Nearest medical centre	[Insert Name]	[Insert Number]	[Insert]
Project phone number		[Insert Number]	[Insert]
WorkCover or equivalent Regulatory Authority	[Insert Name]	[Insert Number]	[Insert]
Environment protection authority or local council environment officer	[Insert Name]	[Insert Number]	[Insert]
Emergency after hours telephone number visible from outside the security fence/gates	[Insert Name of Responsible Peson]	[Insert Number]	
Location of Spill Kit	[Insert specific location (s)]		

Develop a Drawing of the Workplace showing locations of:

First Aid Facilities,

Muster Points,

Include any other relevant information i.e. Nurse Call Button Locations etc.

The MCD Emergency Response Guideline HSEG3.301 can be used as a template to develop a workplace specific Emergency Response Plan.

Mirvac Group Emergency Response Procedure

1.0 Purpose

The purpose of this procedure is to outline the Mirvac Group requirements for emergency response plans at Mirvac workplaces, including first aid.

2.0 Scope

The procedure relates to all Mirvac workplaces, which must develop and maintain a current workplace emergency response plan (ERP).

3.0 Emergency Response Plans

The Workplace Manager or appointed representative develops a workplace emergency response plan in accordance with the requirements of AS3745 – Emergency Control Organisation and Procedures for Buildings, Structures and Workplaces and this procedure. The Plan is reviewed and its effectiveness tested at maximum 12 months intervals or as outlined in Part 3.4 of this procedure.

All Mirvac workplace managers, or a nominated representative, develop and maintain a current ERP, which includes as a minimum:

- a map of evacuation routes and emergency assembly/marshalling/muster point(s);
- the location and type of fire equipment, first aid equipment, trained first aiders and spill response equipment at the workplace;
- identification of the types of potential emergencies at the workplace in consideration of the business activities undertaken and the related hazards present (e.g. flammable liquids, compressed gases, work at height, work over or near water, confined spaces or other);
- procedures to be followed when responding to emergency situations;
- emergency response team members, their responsibilities and communication processes;
- the current identity and contact details for internal and external parties who are part of the emergency response team, or are to be notified or requested to respond (e.g. fire wardens, fire department, spill clean up services, regulatory authority or other);
- the method of activation of an emergency,
- the above method of activation of an emergency includes the provision of an emergency telephone at hotel swimming pools where they are unattended by a lifeguard;
- the method of termination of an emergency;
- the requirements if any for notification to external authorities and the method;
- the training requirements for all personnel involved in emergency response; and
- the frequency of periodic drills for emergency response procedures.

3.1 Types of Emergency Situations

All applicable emergency situations at a Mirvac workplace are outlined in the ERP and include as a minimum (where relevant):

- bomb threat;

- failure of temporary containment structures (e.g. erosion and sediment control structures);
- externally triggered events (such as terrorist activity);
- fall arrest/suspension in a safety harness – emergency retrieval plan; (Refer - Emergency Rescue – Suspension Trauma Victim HSEP4.305).
- fire or explosion;
- flooding;
- immersion of a person(s) in water or drowning in a swimming pool or waterbody;
- gas leak or toxic emission (from workplace or an adjoining property);
- medical emergencies;
- major equipment failure, (e.g. power failure to whole building);
- natural disasters (e.g. cyclone, flooding, tsunami, earthquake);
- pollution or incidents involving the potential for pollution;
- leaks or spills;
- storage of dangerous goods and hazardous substances;
- stretcher access/egress;
- structural collapse;
- vehicular/plant collision (public or project); and
- any other risk situation that is applicable to the workplace with the potential to require emergency response.

3.2 Emergency Response and Periodic Drills

Emergency response plans prepared for each workplace outline the roles and responsibilities of appointed personnel when an emergency situation occurs. The roles and responsibilities and appointed personnel are current and pertinent to the specific situations and responses relevant to the workplace and its business activities. Workplace emergency response plans include a pictorial diagram of emergency egress routes and the assembly/marshalling/muster point(s) to simplify and increase the understanding of requirements. The diagram is displayed in a prominent location(s) at the workplace. For Mirvac Hotels and Resorts this will also include display of the emergency evacuation route and emergency evacuation assembly point in all conference/meeting rooms and on the rear of the entry door to all guest rooms.

To ensure familiarity and timely response to emergencies the effectiveness of the Plan is assessed (emergency response drill) at intervals outlined in Part 3.4 (this procedure) and detailed by AS3745 Emergency Control Organisation Procedures for Buildings, Structure and Workplaces and AS1851 Maintenance of Fire Protections Systems & Equipment. More frequent assessment of the effectiveness of emergency response is at the discretion of the Workplace Manager.

The effectiveness of emergency response drills is assessed to identify deficiencies and opportunities for improvement. Assessments are recorded and required action (if any) initiated by the Workplace Manager to rectify and improve response effectiveness.

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3.3 Emergency Response Equipment

Emergency response equipment, exit signs and alarm systems are inspected, tested and maintained at regular intervals. Fire equipment is inspected, tested, serviced and tagged in accordance with AS1851 – Maintenance of Fire Protection Systems and Equipment.

A competent person assesses the suitability, location and accessibility of emergency equipment.

3.4 Emergency Response Testing

Item	Action required & pass/fail requirement	Frequency					Record
		Weekly	Monthly	6 monthly	Yearly	5 yearly	
Emergency Response Plan	Check content & continued relevance to facility including assessment of assembly area				☒		Review as part of maximum yearly review of the Workplace Risk Management Plan.
Evacuation equipment	Fire extinguishers, hose reel or other.			☒			Attached compliance tags and record of inspection and servicing.
Evacuation equipment	Fire extinguishers, hose reel or other.	☒					Workplace HSE Inspection. HSE Committee Minutes.
Evacuation equipment	Emergency lighting		☒	☒	☒		Logbook
Evacuation equipment	Emergency Warning and Intercommunication System (EWIS)		☒	☒	☒	☒	Logbook
Evacuation exercise	Compliance with the emergency response plan.				☒		Noted in the HSE Committee Minutes, Workplace Manager Diary or other including an assessment of the effectiveness of the evacuation exercise.

3.5 Emergency Call

When the decision is made to call for emergency services, the primary emergency service telephone call numbers are as follows:

Australia	**Dial 000** (Triple Zero)
International	**Dial 112 (Digital Mobile Telephones Only)**
New Zealand	**Dial 111** (Triple One)
United Kingdom	**Dial 999** (Triple Nine)
United States of America	**Dial 911** (Nine One One)
Vanautu	**Ambulance: Dial 22 100** (or call ProMedical on 25566) **Police: Dial 22 222**

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Fire and Rescue: 22 333

The above service telephone call numbers should be used to request emergency assistance from all telephones (landline, mobile phones and payphones) in the first instance. **112** is the international standard emergency number which can only be dialed on a digital mobile phone). Regional areas should check and ensure the correct number is prominently displayed.

Where an Ambulance is called to attend a workplace injury, a Standby Person will be nominated and positioned at the main entry to the workplace to assist Ambulance Officers to locate and attend the injured person and is included as a requirement in any workplace specific ERP. The completed Mirvac Group form Emergency Call - Ambulance HSEF2.56 displayed in the workplace provides a summary of information required when making an emergency call.

3.6 Accounting for Personnel and Visitors in Emergency Evacuations

Dedicated Fire Wardens, or other nominated personnel, account for personnel at the emergency assembly/marshalling/muster point(s) with the assistance of workplace/ department/floor/area managers, or their representatives.

Those meeting with visitors at the time of any emergency evacuation escort their visitors from the premises/workplace to the assembly/marshalling/muster point(s) to assist in accounting for all personnel. For Mirvac high risk workplaces (construction sites) or other workplaces as nominated visitors sign the Mirvac Group Workplace Visitors Register on entry and/or departure from the workplace as determined by the Workplace Manager. This includes Mirvac visitors to the construction workplace.

Under no circumsrtances do Mirvac personnel deviate away from the assembly/marshalling /muster point(s) or return to the workplace until such time as the Head/Chief Fire Warden, or other nominated person, has declared the emergency over and that personnel can return to their workplace.

3.7 Related Mirvac Group (mandatory) Procedures [Hyperlink]

- Incident Reporting Procedure HSEP4.22
- Mirvac Group Spill Management Procedure HSE4.12
- Mirvac Group Extreme Incident Response Procedure HSEP4.28
- Emergency Call - Ambulance HSEF2.56
- Emergency Response Plan Templates

3.8 Related Standards

- AS3745 Emergency Control Organisation Procedures for Buildings, Structure and Workplaces
- AS1851 Maintenance of Fire Protections Systems & Equipment

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4.0 First Aid Requirements

First aid equipment and personnel are provided in accordance with the tables below. An appropriately qualified first aid person(s) is appointed in charge of first aid at each Mirvac workplace with the exception of workplaces (other than construction sites) where there are 25 people or less. The first aid person(s) is readily available to render first aid attention when necessary.

Workplace *(EXCLUDING CONSTRUCTION)*		**Type of Kit Required**			**Type of Certificate Required**		
No. of Persons at the worplace	**First Aid Room**	**Kit A**	**Kit B**	**Kit C**	**First Aid Certificate**	**Occupational First Aid Certificate**	**None**
Greater than 200	☒	☒				☒	
100 or more		☒			☒		
11-99			☒		☒		
10 or less				☒			☒

Workplaces *(CONSTRUCTION ONLY)*		**Type of Kit Required**			**Type of Certificate Required**		
No. of Persons at the workplace	**First Aid Room**	**Kit A**	**Kit B**	**Kit C**	**Senior First Aid Certificate**	**Occupational First Aid Certificate**	**Oxy viva**
100 or more	☒	☒				☒	☒
25-99		☒			☒		
24 or less			☒		☒		

The contents of each type of first aid kit specified above is listed below

Item	**Kit Type**		
	A	**B**	**C**
Adhesive plastic dressing strips, sterile, packets of 50	2	1	1
Adhesive dressing tape, 2.5cm x 5m	1	1	-
Bags, plastic, for amputated parts: small	2	1	1
medium	2	1	1
large	2	1	-
Dressings, non-adherent, sterile, 7.5cm x 7.5cm	5	2	-
Eye pads, sterile	5	3	-
Gauze bandages: 5cm	3	1	1
10cm	3	1	-
Gloves, disposable, single	10	6	2
Rescue blanket, silver space	1	1	-
Safety pins, packets	1	1	-
Scissors, blunt/short nosed, minimum length 12.5cm	1	1	-
Splinter forceps, stainless steel	1	1	-
Sterile eyewash solution, 10ml single use ampules or sachets	12	6	-
Swabs, prepacked, antisceptic, packs of 10	2	2	-
Triangular bandages, minimum 90cm	8	6	1
Wound dressings, sterile, non-medicated, large	10	4	1
St John's Ambulance Book – First Aid (Volume 1) or Australian Red Cross Society Manual	1	1	1

4.1 Identification of First Aid Personnel

The identity and contact details of first aid personnel is included in the workplace specific induction and other consultative forums. All Mirvac workplaces provide ready access to the identity and contact details of first aid personnel in the event of injuries requiring first aid.

For high risk workplaces like construction sites this includes the display of first aid personnel information (including photograph and contact details) at a prominent location(s), e.g. site amenities notice board and first aid kit or room together with the use of green coloured safety helmets for first aid personnel only. For low risk workplaces such as offices or other locations and where employees have ongoing access to the Intranet, the identity and contact details of first aid personnel may be identifed via Intranet services and this information is supplemented with signage at workstations where the personnel are located. Alternatively, offices or other low risk workplaces elect to display photographs and the contact details of first aid personnel in a prominent location(s).

4.2 References for First Aid Requirements

ACT	Code of Practice First Aid in the Workplace.
NSW	OHS Regulation 2001 (R20).
NT	A Guide to First Aid in the Workplace.
NZ	Guidance Notes on Providing First Aid Equipment Facilities and Training.
QLD	Advisory Standard for First Aid 1999.
SA	Code of Practice for Occupational Health and First Aid in the Workplace.
TAS	A Guide to First Aid in the Workplace (GB119).
UK	Health and Safety (First-Aid) Regulations 1981.
VIC	Code of Practice (No. 18) First Aid in the Workplace.
WA	Code of Practice First Aid, Workplace Amenities and Personal Protective Equipment

4.3 Related Mirvac Group Forms [Hyperlink]

- Emergency Call – Ambulance HSEF2.56
- Emergency Response Plan Templates
- Extreme Incident Response Procedure HSEP4.28
- Incident Investigation Report Part A HSEF2.01 or Part B HSEF2.02
- Incident Reporting Procedure HSEP4.22
- Register of Injuries HSEP2.00
- Spill Management Procedure HSE4.12
- Visitors Register [Development] HSEF2.11
- Visitors Register [Offices] HSEF2.11.1