

**POTENTIAL SHADING IMPACTS
ON YORK PARK
GOLDEN SUN MOTH
CONSTRUCTION ENVIRONMENT
MANAGEMENT PLAN (CEMP)**

Block 14 Section 22 Barton

Revision 8 – 10th May 2014

Plan prepared for
The Doma Group
(Development Managers appointed on
behalf of Section 22 Barton Pty Ltd)

By

DOMA Constructions PTY LTD



EPBC approval number EPBC 2012/6606 requires a CEMP to be prepared for the better protection of the golden sun moth at York Park. The below table identifies the required conditions along with the relevant sections of this CEMP that address the conditions

	Condition	Relevant CEMP Section
1 a)	Specified dates or seasonal markers for construction for the avoidance of the golden sun moth flying season	<ul style="list-style-type: none"> • The construction program at Appendix B outlines the construction sequence of the project showing no work adjacent to the York Park Conservation Area (YPCA) during flying season • Section 1.3 identifies that the initial access road work being undertaken in May 2014 and the final access road work in May 2015 outside of the flying season • The induction notes at the end of the CEMP educate all workers on the moth flying season. These notes will be used in addition to the induction procedures in Section 7 of the DOMA Constructions OHSEMS which is attached at Annexure I
1 b)	Measures to prevent run off water associated with the action from entering York Park	<ul style="list-style-type: none"> • The construction program at Appendix B shows that the sub base for the new access road will be constructed as part of the first stage of the works. • Section 1.3 confirms that the access road sub base will be graded to divert all water away from the YPCA. • The 'External Earthworks Site Management Plan C110' at Appendix A shows the surface flows from Block 3 Section 22 being diverted in to Block 14 Section 22 and away from the YPCA
1 c)	Measures to prevent dust deposition, sedimentation and erosion associated with the action from impacting on York Park	<ul style="list-style-type: none"> • A 3m buffer zone is shown on the 'External Earthworks Site Management Plan C110' at Appendix A • Silt fencing is shown on the 'External Earthworks Site Management Plan C110' at Appendix A to all areas of the site in the proximity of the YPCA. The specific details of the silt fencing is shown on the 'Site Establishment Details C102' in Appendix A • Section 1.6.5 confirms that dust mesh will be fitted to all site perimeter fences

1 d)	Erection of a temporary construction fence, that minimises perching sites for aerial predators, to confine construction to at least 3m from the boundary of York Park (with the exception of works associated with condition 1e)	<ul style="list-style-type: none"> • The construction program drawing at Appendix B, the 'Site Management Plan C101' at Appendix A and the 'External Earthworks Site Management Plan C110' at Appendix A all show the extent of site fencing for the project • Section 1.6.9 confirms that the fence adjacent to the YPCA will be fitted with bird proofing to prevent perching
1 e)	Rehabilitation / landscaping of all disturbed surfaces using vegetation and / or materials that are compatible with the golden sun moth habitat (including consideration of weed invasion and shading impact of large trees and large shrubs)	<ul style="list-style-type: none"> • The landscape drawings at Appendix D show the rehabilitation areas and the proposed Native Temperate Grasses to be used • The construction program at Appendix B shows the rehabilitation being performed in Stage E
1 f)	Site induction protocols for workers to emphasise the significance of the golden sun moth and York Park and the importance of protecting it during construction	<ul style="list-style-type: none"> • The site induction protocols are outlined in section 1.4 of this CEMP • The GSM specific induction notes are attached at Appendix F of this CEMP

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1.1 Overview

The land owner represented by its Development Manager, the DOMA Group, proposes to develop Block 14 Section 22 (14/22), Barton as a mixed use development in two stages. Stage 1 would include a carpark for 489 cars with retail frontage to Windsor Walk and a 120 room budget, luxury design hotel. The Developer Manager has appointed DOMA Constructions Pty Ltd (DOMA) as Construction Managers of the project. This CEMP has been prepared in conjunction with Robert Jessop PHD and his qualifications are attached at Appendix G. The location of the proposal and master plan within Barton is shown in Appendix C. The extent of Stage 1 is shown in relation to existing site features on the location plan in Appendix C which also shows the location of the access road previously approved under the *EPBC Act*.

The Stage 1 development is located on the south of 14/22 Barton on previously disturbed land and part of an existing carpark. This part of 14/22 Barton is adjacent to the York Park Conservation Area (YPCA) on parts of Blocks 3 and 15, Section 22, Barton. That area was set aside in the early 1990s for conservation of the golden sun moth (*Synemon plana*, GSM) in an urban setting.

This Construction Environment Management Plan (CEMP) for the preservation of GSM at York Park has been prepared by DOMA to meet the requirements of the Commonwealth *Environment Protection Biodiversity Conservation Act (EPBC Act)* approval decision (EPBC 2012/6606) for development of a hotel and carpark at Block 14 Section 22 Barton (14/22 Barton). The CEMP has also been compiled in accordance with Works Approval WA18699 issued by the National Capital Authority (NCA). Block 14/22 Barton is planned to be subdivided with an address at 21 National Circuit (Stage 1) and also has a frontage to 2 Darling Street (future Stage 2). The proposed subdivision would be the subject of a separate works approval.

This CEMP will operate in conjunction with the existing DOMA Management Systems including the DOMA Occupational Health, Safety & Environmental Management System (OHSEMS) which is attached at Appendix I. This OHSEMS has been independently certified under AS4801 and ISO14001 and these certifications are also attached at Appendix J. These existing procedures within the DOMA OHSEMS will be used for;

- Consultation & toolbox talks;
- Risk management & work method statements;
- Incident and Accident reporting
- Corrective & preventative action;
- Emergency response

All work related to the new project on Block 14 Section 22 and the adjacent regrading on Block 3 Section 22 Barton will be completed in accordance with all applicable Australian Standards and current legislation.

The Works involve numerous interfaces with adjoining properties and DOMA Group has been through an extensive consultation process with all neighbouring property owners, including the Department of Finance as the National Land manager for Block 3 Section 22 Barton, Cromwell Property Group as owners of 19 National Circuit and the ACT Government. Evidence of consultation with the Department of Finance (DOFD) on the CEMP is demonstrated by the accompanying endorsement letter from DOFD.

The DOMA Project Manager (encumbant Damien Schmidt) is responsible for the implementation and monitoring of this CEMP on behalf of the land owner. The DOMA PM is the main point of contact for all adjoining property owners. Within 30 days of the project commencing the DOMA PM will establish a monthly meeting with adjoining landowners. At a minimum this meeting will address project

progress, neighbour complaints / concerns, establishment of communication protocols between DOMA & adjoining landowners, site establishment and temporary traffic arrangements.

This plan will be reviewed and audited for compliance and effectiveness by the DOMA PM and Doma Group every 3 months, following commencement of construction. If any of these audits determine that amendments are required to the CEMP, Doma will seek the consent of Department of Finance and Department of Environment on suggested changes and implement accordingly. Copies of all audit / reviews will be provided to Department of Finance and Department of Environment on completion.

1.2 Background

The proposed carpark and hotel would extend to an elevation of RL591 in keeping with the development conditions set by the National Capital Authority (NCA). The hotel component of the development would be located on the upper floors, with the multi-level carpark located underneath. A section of the proposed building is shown on A009 in Appendix C.

The landowner proposes to develop 14/22 Barton as a mixed use development. The Stage 1 hotel and carpark development is located on the southern part of 14/22 Barton on previously disturbed land, which includes a spoil dump and part of an existing carpark. This part of 14/22 Barton is adjacent to the YPCA on Blocks 3 and 15, Section 22, Barton (3/22 Barton and 15/22 Barton). The GSM is listed as critically endangered under the *EPBC Act*.

The proposed hotel and carpark development at 14/22 Barton was determined to be a controlled action by referral on 4 October 2013 (*EPBC 2012/6606*) due to potential adverse impacts on the York Park GSM population resulting from shading by the development. The proposed action was assessed by preliminary documentation and approval with conditions was granted on 4 October 2013 (Appendix E).

The north eastern corner of Block 14 adjacent to the York Park Conservation Site (a portion of which is a proposed stormwater easement) will be kept free of building development. There is also a small triangle of land on Block 15 (ACT Government Territory land), between the edge of Block 14 and the fenced area of the York Park Conservation Site, which would also remain free of any building development.

The preparation of a Construction Environment Management Plan (CEMP) and its subsequent implementation is a Condition of the *EPBC Act* approval. In accordance with the *EPBC Act* approval, requirements for *EPBC 2012/6606* are as follows:

Conditions attached to the approval

For the better protection of golden sun moth at York Park, the person taking the action must prepare a Construction Environment Management Plan (CEMP), in consultation with a suitable qualified expert, to manage construction impacts of the action. The CEMP must include, but not necessarily be limited to:

- a) *Specified dates or seasonal markers for construction for the avoidance of the golden sun moth flying season;*
- b) *Measures to prevent runoff water associated with the action from entering York Park;*
- c) *Measures to prevent dust deposition, sedimentation and erosion associated with the action from impacting on York Park;*
- d) *Erection of a temporary construction fence, that minimises perching sites for aerial predators, to confine construction to at least 3 metres from the boundary of York Park (with the exception of works associated with Condition 1e));*

- e) *Rehabilitation / landscaping of all disturbed surfaces using vegetation and / or materials that are compatible with golden sun moth habitat (including consideration of weed invasion and shading impacts of trees and large shrubs); and*
- f) *Site induction protocols for worker to emphasise the significance of the golden sun moth and York Park and the importance of protecting it during construction.*

The CEMP must be submitted to the Environment Minister for approval prior to commencement of the action, and once approved, must be implemented. The action must not commence until the CEMP has been approved.

Access to the hotel and carpark would be via the proposed access road from 21 National Circuit as approved under the EPBC 2010/5548 referral decision. Construction access for Stage 1 would be from both 21 National Circuit and 2 Darling Street with the majority of construction vehicles expected to use Darling Street for access. Heavy vehicles will not access the site from National Circuit during earthworks (refer Appendix B construction program).

In accordance with EPBC2010/5548 referral decision, a temporary fence with bird proofing to the top rail would be erected no more than 1 metre from the proposed footpath along the future access road from National Circuit during the construction period to prevent access of construction workers, vehicles and equipment onto the York Park Conservation Site. Following construction, that fence would be replaced with a permanent 1.5 metre galvanised post and rail fence with webbing and bird proofing to the top rail immediately adjacent to the proposed road. This fence would be designed to prevent human activities from entering the adjacent grassland, while allowing maximum access of sunlight and air movement. The road will be designed and constructed to prevent runoff water from entering the grassland. Neither the temporary fence nor the permanent fence impact the action approved under the Referral Decision 2009/4871. The fence is constructed along the boundary of Block 15 Section 22 Barton whilst the Action in decision 2009/4871 is wholly located within Block 3 Section 22 Barton.

The permanent fence would extend in a similar style along the remaining section of access road and around the boundary of Block 14 until it met the southern boundary. The extent of the fence is shown on landscape drawing L02 in Appendix D.

The Stage 1 site is largely occupied by a soil stockpile remaining from previous building construction in 1995 on a nearby site. All of the stockpile within the site would be removed and the end of the stockpile outside the site, within Block 3 Section 22 Barton, would be regraded as shown on drawings C108, C109, C110 in Appendix A. Block 3 Section 22 Barton is Commonwealth land, and stabilising and regrading of the remaining stockpile would be undertaken as offsite works within this area. The development of Block 3 Section 22 Barton as office buildings has already been determined not to be a controlled action provided it is undertaken in a particular manner (EPBC 2009/4871).

As the proposed building would be constructed to the block boundary on the south-western and north-western sides, a 3 metre construction zone outside the block is proposed (see C101 in Appendix A). This would be rehabilitated on completion of the works in accordance with the Landscape Plan at Appendix D.

1.3 Potential Impacts of the Development

Stage 1 Building on Block 14

The construction of the Stage 1 building on Block 14 would result in the total clearing of the site and of a construction access strip 3 m wide to the south-west and north-west, including the removal of the existing stockpile within the site. There would be some additional disturbance within Block 3 Section

22 to regrade the end of the remaining stockpile to an acceptable gradient but this disturbance would be outside the required buffer zone adjacent to the YPCA. Drawing C108 depicting this work is shown in Appendix A.

All existing groundcover, including several planted casuarina trees would be removed from Block 14.. The removal of the groundcover, however, would not have any direct adverse impact on the GSM, as it is unlikely to provide suitable habitat for that species.

Proposed new Access Road (21 National Circuit)

The construction of the access road impact on the YPCA is as described in the *EPBC Act* referral, EPBC 2010/5548. That referral estimated the development footprint of the access road as approximately 0.04 ha out of a total site area of 0.55 ha. The impacted area includes a 1 metre wide construction zone, which would be rehabilitated in accordance with the landscape drawing L02 attached at Appendix D. This rehabilitation would occur in April 2015 once the concrete pavement had been installed on the access road and the permanent fence was installed. Three months after planting the NTG in the rehabilitation zone any dead grasses will be replaced by Doma and this process will continue quarterly until 90% of the planted grasses in the rehabilitation zone are established.

The access road drainage has been designed to capture and divert stormwater away from the YPCA to avoid changes to the grassland soil water regime, a cross section of the access road is shown on C302 in Appendix H. One of the first activities on the project will be the construction of the access road to a subbase level providing a hardstand that diverts water run off away from the YPCA. A temporary fence along the access road would prevent vehicle or pedestrian access from the road into the YPCA and this fence will have dust mesh installed to 1200mm high to prevent dust entering the YPCA and bird proofing installed to the top rail. In addition to the dust mesh the access road construction area will be wetted down twice daily during the excavation and subbase stage to further mitigate dust creation. Once the subbase is complete (June 2014) the dust mesh will be removed from the fencing adjacent to the YPCA as the completed subbase will prevent dust generation.

The initial construction of the access road including excavation and laying of subbase would occur in May 2014 as shown on Stage A on the construction program at Appendix B. The completion of the road including installation of the final concrete pavement & permanent 1.5m galvanised post & rail fence with webbing & bird proofing will occur in May 2015 as shown on Stage E on the construction program at Appendix B. This is consistent with the approval condition from EPBC 2010/5548 that no construction on the access road occur during moth flying season.

1.4 Proposed Construction Timeline

Anticipated Staging and Programming

The expected time for construction of the building from initial site mobilisation / demolition to full handover of the fully functional and operational building is from May 2014 to the end of December 2015. Notwithstanding any changes to this program no work will occur on the construction of the access road during the GSM flying season.

The various construction stages are described as follows:

A – Site Establishment – May - June 2014

1. Construct carpark extension & rework lighting
2. Establish site fences, sediment erosion control protection

3. Site establishment
4. Soil testing of existing fill on Block 3 & Block 14 Section 22
5. Construct access road to subbase level (sub base and seal road to EPBC 20105548)

B – Earthworks – June 2014 – September 2014 (No access from National Circuit during this phase)

6. Regrade earthworks (both cut & fill) and re grass on Block 3 Section 22
7. Construct stormwater sumps on Block 3 Section 22
8. Remove soil stockpile & regrass on Block 3 Section 22 Barton
9. Construct basement piling and shotcrete perimeter wall
10. Excavate two level basement
11. Relocate fence on Block 3 to 3m from the Block 14 Boundary

C – Structure – September 2014 – May 2015

12. Construct concrete structure from basement to roof
13. Erect scaffold for cladding on Block 3 Section 22

D – Cladding – January 2015 – June 2015

14. Install cladding to perimeter
15. Complete services infrastructure and permanent power connection
16. Complete basement and ground level car park
17. Remove scaffold from Block 3 Section 22

E – Early Car park completion – May 2015

18. Complete access road to 21 National Circuit including final concrete pavement
19. Install access road fence to EPBC 2010/5548
20. Re grass access road construction site as per Landscape Plan at Appendix D
21. Remove site fence to access road
22. Open basement and ground level car park for occupancy

F – Project Completion – June 2015 – December 2015

23. Complete upper level car park and hotel
24. Construct forecourt paving
25. Remove site establishment, fencing and make good
26. Remove Darling Street site access and complete on grade car park
27. Open upper car park and hotel for occupancy

1.5 Site Induction Protocols

DOMA will induct all workers in to the site as outlined in Section 7 of the DOMA OHSEMS attached at Appendix I. Amongst other things this induction covers legislation, hazardous substances, stop work procedures (for Indigenous artefacts or ACM) carparking & site movements, EPA regulations & noise, consultation & emergency procedures.

As part of the EPBC approval conditions, DOMA will amend the existing DOMA induction protocols to include an induction to workers on the importance of the GSM and the importance of maintaining strict controls to protect their habitat during construction. A copy of the information sheet / induction is attached in Appendix F. Copies of this information will also be placed in all messing sheds and hoists as a reminder to all workers.

1.6 Proposed Activities and Control Measures During Construction

1.6.1 Site Possession

Throughout all stages of construction the 3m access zone on Block 3/22 will be used exclusively for scaffold and personnel access. There will be no material storage and no construction activity in this zone at any time.

Anticipated site possession is May 2014. Prior to this date, the following activities will be completed:

- NCA Works Approval WA18699 and Works Approval Amendment Application;
- NCA operational works approval, including DOMA Construction Methodology, and the requirements outlined in WA18699;
- TAMS design acceptance certificate for stormwater network arrangements;
- Dilapidation survey of the adjacent buildings & surroundings;
- Adjacent land owners legal agreements – licence deeds;
- Environment Minister approval of the DOMA Construction Environment Management Plan;
- Two week notice to Department of Communications (currently parking on site) that numbers are reducing from 133 to 74 spaces to allow site establishment;
- Implementation of the DOMA OHSEMS Soil survey, borelog report and Geotechnical report including testing of fill material on Block 14 & Block 3 for the NEPM suite & asbestos;
- Provide results of contamination testing of fill on Block 3 to Department of Finance prior to the regrading or movement of soil on Block 3.
- DOMA approval of the Demolition and Bulk Earthwork Subcontractor's documentation and Safety Plan; and
- ACT ESDD lease administration matters.

1.6.2 Weed Management

To prevent possible weed introduction into the YPCA:

- No temporary or permanent construction activities would take place in the YPCA, and construction vehicles and personnel would be prohibited from entering the YPCA. The YPCA shall be fenced off to prevent access. Signage and induction information to this effect would also be developed. This excludes the temporary ~1 m wide construction zone adjacent to the proposed footpath along the future access road from National Circuit. While works will take place in this zone, the rest of the YPCA would be fenced off. [refer to Section 1.2]
- No fill material or topsoil would be imported from outside sources. All cut and fill requirements, and topsoil for rehabilitation would reuse existing on-site material.
- Rye corn would be used for short term soil stabilisation of the regraded areas on finance land. Annual rye corn is a non-invasive annual that would not adversely affect the YPCA.
- All machinery used in the regrading of Block 3 Section 22 would be washed down prior to arriving on site. This cleaning would be done with a high pressure hose and would remove all soil & plant material from the machinery.

Vegetation, including weed establishment, in the YPCA would be monitored through the Golden Sun Moth Monitoring Plan^[1] and the Natural Temperate Grassland Maintenance Plan^[2] (NTGM). If weed management actions, in addition to those already undertaken under the NTGM, are necessary, they would be conducted in accordance with the NTGM.

[1] Robert Jessop Pty Ltd, 2013 (*In prep*). *Potential shading impacts on York Park. Golden sun moth monitoring plan.* Report prepared for Section 22 Barton Pty Ltd. Robert Jessop Pty Ltd, Canberra, ACT.

[2] Parsons Brinckerhoff, 2008. *Natural Temperate Grassland Maintenance Plan, Block 3 Section 22 Barton, ACT.* Parsons Brinckerhoff, Report to Department of Finance and Deregulation.

1.6.3 Hazardous Substances

All dangerous goods & hazardous substances required for the works will be used, handled & stored in accordance with the Section 6 of the DOMA OHSEMS attached at Annexure I.. No hazardous chemicals, including dangerous goods will be used or stored in the 3m construction access zone.

1.6.4 Fire Control Measures

During construction the following fire control measures will be taken;

- When the building reaches 12m in height there will be a fully operational hydrant system serving all levels of the building
- Every permanent & temporary electrical distribution boards will have a CO2 fire extinguisher attached to them
- All hot works trolleys will have a CO2 fire extinguisher attached to them
- There will be a temporary water service with hose cocks to the perimeter of the site

The risks of any grass fire starting within the vacant Block 3 or the YPCA will be reduced by ensuring that no construction machinery operates within the 3m construction access zone and that machinery operating on Block 14 is properly maintained. Further, Block 3, Section 22 is regularly mowed under the requirements of Finance's Natural Temperate Grassland Maintenance Plan to maintain a low level of grass cover. Site personnel will report and respond to any grass fires starting on Block 3 as per the requirements of Section 9 of the DOMA OHSEMS at Appendix I.

1.6.5 Initial Site Set Up and Demolition

At the start of the demolition stage (which primarily involves removal of minor elements including some of the surface carpark) there will be a requirement to partially close the current surface carpark and reduce the numbers to allow some early civil works facing Darling Street and adjust the surface carpark lighting.

Temporary fence, dust mesh to 1200mm & 1800mm, bird proofing & sediment control will be erected around the full perimeter of the site (as shown on C101 & C102 in Appendix A) prior to any construction activity occurring, so as to ensure public safety at all times and prevent workers entering the YPCA. The temporary fence will initially be extended beyond the main construction zone to include the area to be re-graded on Block 3.

Any site visitors will not be able to access the site without firstly reporting to the site office and receiving the appropriate site inductions. The site induction will include information about the GSM (refer to Appendix F for details).

1.6.6 Regrading of Block 3 Section 22 Barton

Prior to excavation works commencing on Block 14/22 the re-grading of Block 3/22 will be completed in accordance with the drawings shown in Appendix A. The regrading profile has been designed so that no additional material is required to be introduced on to Block 3/22 and as such there is no risk of contamination being introduced to the block.

However, to address the possible risk of disturbing and redistributing any existing contaminated soils on Block 3/22, the soil sampling program that will be undertaken on Block 14 to facilitate the

development will be expanded to include the area to be re-graded on Block 3 and the results provided to Finance. No re-grading will occur until the soil sampling has been completed and the results provided to Finance.

Once the land is shaped to the final profile, it will be initially replanted with rye corn to stabilise the area and prevent dust. In September 2014 the area will be permanently rehabilitated with standard Canberra native grass mix to allow the disturbed material to be capped and covered by grass. If within 3 months of planting the Canberra native grass mix 80% ground cover has not been achieved the area will be re-seeded.

All works on Block 3 will be completed prior to excavation of any form commencing on Block 14.

1.6.7 Block 3 Overland Stormwater Collection

A lease condition of the development of Block 14 is that overland flow stormwater is collected from Block 3. Block 3 currently has 2 primary catchments; one discharging to the north east adjacent York Park, and another discharging to the north west adjacent Windsor Walk. Each catchment requires drainage provision to replace the drainage within Block 14 currently servicing them. The proposed drainage solution comprises of:

- Construction of a new 375 dia SW main through Block 14 along its eastern boundary to service Block 3. To drain surface flows from the eastern catchment of Block 3, 2 sumps will be constructed:
 - A plantation sump within Block 14 to drain the northern most flows from Block 3 – a minor catchment
 - A surcharge structure (adopted for its high inlet capacity and less susceptibility to maintenance issues) located at the head of the line within Block 3.

This drainage configuration has been sized to service the 100ARI storm discharge from Block 3 without surcharge flows across York Park.

- Construction of a plantation sump with 375 dia SW service connecting to trunk SW drainage in Windsor Walk to drain the western catchment of Block 3.
- Minor earthworks grading along the northern boundary of Block 3 to ensure free draining of Block 3 to the proposed drainage structures.

This strategy is shown on drawings SK000 to SK006 in Appendix K. This stormwater work will be undertaken immediately following the regrading of Block 3.

1.6.8 Bulk Excavation, Piling and Basement Retention Systems

After the regrading of Block 3 & construction of the stormwater sumps is complete the temporary construction fence will then be moved back to the edge of the 3 metre construction zone located parallel to Block 3 to allow piling to the shoring walls to commence. The use of a piling rig has been envisaged supported by small cranes and concrete pouring equipment. During this phase access for all deliveries (concrete, reo etc), will be via the Darling Street access and loading zone. Once the perimeter retention piling is in place, the excavation of the basement levels will commence with rock anchoring and shotcreting being carried out periodically as the excavation progresses.

Additional items to consider within the bulk excavation package are:

a. Personnel Access

It is envisaged that during these initial bulk excavation stages that scaffold stair access will be installed progressively from the ground level to the base of the excavation to provide access and egress for workers.

b. Deliveries

All deliveries to the site will be via the Darling Street loading zone during the earthworks phase to prevent dust entering the YPCA Pedestrian access will be maintained via Darling Street initially until the new 21 National Circuit Road is built.

c. Indigenous Artifacts

If during excavation any places or objects are identified that may be indigenous artefacts; works will cease immediately. Within 24 hours the Project Manager (Damien Schmidt) will report the discovery in writing to the ACT Heritage Unit within the ACT Government's Environment & Sustainable Development Directorate. The Project Manager will then work in conjunction with the Heritage Unit & any appointed Registered Aboriginal Authority to determine how to proceed.

d. Asbestos

If during excavation, material that may be Asbestos Containing Material (ACM) is identified works will cease immediately. The Project Manager (Damien Schmidt) will engage a suitably licenced person to remove all ACM prior to continuing with the excavation.

e. Dust

As noted in 1.6.5 above the perimeter site fence for the project will be fitted with dust mesh to contain low level dust within the site. During the excavation phase of the project, exposed dirt faces & areas will be 'wetted down' on a daily basis to minimise dust creation. Other specific dust mitigation measures are specified on drawings C101 & C102 in Appendix A.

1.6.9 Basement and Podium Concrete Structure

During the basement and podium structural phase of works, it is envisaged that the main delivery point will be the Darling Street works zone. Concrete for the basements and ground level will be pumped from street level using the Darling Street works zone as a concrete delivery point. All necessary signage and traffic controllers will be in place during these times, so as to minimise any public disruption and ensure safety at all times.

1.6.10 21 National Circuit Driveway Construction

It is noted that NO WORK will be done to create this new road during the GSM flying season which is typically November and December but may extend in to January. DOMA will consult with Robert Jessop (See CV at Appendix G) in January 2015 to confirm the flying season has ended.

In accordance with the EPBC 2010/5548 referral decision, a temporary fence would be erected no more than 1 metre from the proposed footpath along the future access road from National Circuit during the construction period to prevent access of construction workers, vehicles and equipment onto the grassland conservation site. This fence will include bird proofing to the top rail to prevent perching. The fence will have dust mesh installed to 1200mm high as part of the strategy to prevent dust entering the YPCA. The dust mesh will be removed from this fence once the subbase on the road is complete as the subbase will prevent dust generation.

It is envisaged that the majority of the road will be constructed during May and June 2014 excluding the final surface (to prevent damage during construction). The final pavement surface will be installed in May 2015

Once the final road pavement is installed in May 2015 the temporary fence will be replaced with a permanent 1.5 metre galvanised post and rail fence with webbing & bird proofing to the top rail immediately adjacent to the proposed road. This fence would be designed to prevent human activities from entering the adjacent grassland, while allowing maximum access of sunlight and air movement. The road will be designed and constructed to prevent stormwater runoff entering the grassland. In a 1 in 100 year rain event the overflow path from the road is through Block 14 and out on to Darling Street.

The permanent fence would extend in a similar style along the remaining section of access road and around the boundary of Block 14 until it meets the southern boundary as shown on L02 in Appendix D.

Drawing A001_1 showing the traffic flow & pedestrian areas of the road is attached in Appendix H.

1.6.11 Structure Construction:

Scaffold will be required on all sides of the structure as it is being built. All scaffold will be fully meshed with additional shade cloth protection to ensure there is no escape of debris during construction. The scaffold will be 1.5m wide around the perimeter of the approved building envelope and will be erected to the full height of the new building (approximately 22m). The duration from the first piece of scaffold being erected to the final piece being removed is 32 weeks. It is intended that this scaffold be placed along the side of the building facing Block 3 within the 3 meter construction zone.

a. Access & Logistics

During the upper level structure phase of the works, the main material deliveries and crane pick up point will be from the Darling Street loading area, with limited delivery access available via the 21 National Circuit access.

A dedicated materials handling coordinator will be employed to manage the delivery of materials to site in a safe and timely manner.

b. Adjoining Owners

The client is responsible for getting the neighbour agreements to facilitate the construction of the building. These agreements (deeds) will cover such items as access to re grade the stockpile, a 3 m construction zone and dilapidation reports.

c. Traffic Management Plan and Traffic Control

DOMA's Traffic Management Plan will detail such items as works zone loading times, lane and footpath closure procedures, traffic controller duties, traffic warning sign locations etc.

When applicable it shall be the traffic controller's duty to ensure that no construction vehicles hinder access to adjacent buildings.

Drawing C101 has been included as a Site Management Plan (in Appendix A) and includes some details on how traffic will be managed to avoid construction related traffic impacting on the YPCA. The Temporary Traffic Management Plan has been attached at Appendix L for information.

e. Road and Footpath Closures and Works and Loading Zone

It is not anticipated that any permanent road closures along National Circuit or Darling street will be required. Specific Temporary Traffic Management Plans will be developed for occasional closures

however these closures will not impinge on the ability of the adjacent Block 3 contractors to access and conduct weed control works on the site.

It is not anticipated that the footpath along Windsor Walk, Darling Street or National Circuit will be affected.

f. Shading

DOMA will use mobile crange to service the site. The crange will not require access to the YPCA or Windsor Walk. All crange can be accessed via the 21 National Circuit new road from within the site compound. The crane boom will be in a stationary position for no more than 15 minutes at a time and as such will have no significant shading impact on the YPCA. No other construction activities would create any shading of the YPCA at any time.

g. Access to Adjacent Properties

No access is required to the adjacent buildings or the YPCA.

h. Signage

Workplace Health & Safety statutory signage will be located as required and DOMA signage will be located as agreed and subject to NCA signage legislation. Additional "Keep out" signage will be erected on the perimeter fence adjacent to the York Park Conservation Site to remind workers of the importance of not entering this area under ANY CIRCUMSTANCES.

i. Rubbish Chute and Skips Removal

Two 15m³ bins will be located on the ground level accessible from Darling Street. Loading of these bins are to be either manually or from the upper decks with crane assistance. All rubbish and debris from these bins are to be carefully disposed of and covered at the end of every work day. During high wind days these bins will be covered, to avoid debris blowing into the YPCA.

j. Protection and Maintenance of Existing Services

All existing street and footpath services shall be identified on survey drawings prior to commencement on site. Additionally the street footpath works shall require the use of "dial before you dig" services and survey identification. The connection of the utilities into the site shall be carried out by the applicable service provider to the boundary of the site which will also limit the possibility of any disruption to the existing services.

k. Working Hours

The approved working hours, as set by the EPA in Barton, are:

- Monday to Saturday inclusive between the hours of 6.30am and 6.30pm
- Sunday work would require authorisation by the EPA and any other relevant authority
- Any other work hours would require authorisation by the EPA and any other relevant authority

l. Other Site Environmental Controls

Noise

Management of noise generated from the construction will be controlled by ensuring that all works are carried out during the approved working hours.

Any diesel powered machinery and equipment will be suitably fitted with appropriate mufflers and maintained as per the manufacturer's specification.

Site rules that are part of the site induction process system address the making of unnecessary noise on the site and if any person is found to making any unnecessary noise, and subject to warnings being provided, they can be removed from site in the extreme case.

m. Lunch Sheds, Amenities and Contractor Offices

All these are located within the contractor area in accordance with C101 – Site Management Plan included in appendix A..

Appendix A – Management Plans

- Drawing Title: Site Management Plan, Drawing No. C101, Issue: Q 12/5/14
- Drawing Title: E&S Details and Construction Notes, Drawing No. C102, Issue: I:2/5/14
- Drawing Title: External Earthworks Block 3, Drawing No. C108, Issue: N : 12/5/14
- Drawing Title: External Earthworks Cross Sections, Drawing No. C109, Issue: G : 17.3.14
- Drawing Title: External Earthworks Site Management Plan, Drawing No. C110, Issue: I : 12/5/14

Appendix B – Construction Program

- Construction Program dated 05/05/14

Appendix C – Masterplan, Location Plan & Section

- Location Plan: 21 National Circuit dated 21.11.13
- Drawing no. 009.1, Sections A & B, Rev B
- Master Plan : 21 National Circuit, 001 dated 21.11.13

Appendix D – Landscape Plan

- Landscape Plan – 0959 – L01 Landscape Plan Sheet 1 Revision E
- Landscape Plan – 0959 – L02 Landscape Plan Sheet 2 Revision I 15/5/14

Appendix E – EPBC Approvals

- Approval – Hotel and carpark development, Block 14 Section 22, Barton, ACT – Stage 1 (EPBC 2012/6606)
- Notification of Referral Decision – not controlled action if undertaken in a particular manner, Car-park Access Road, Block 12, Section 22, Barton, ACT (EPBC 2010/5548)
- Notification of Referral Decision – not controlled action if undertaken in a particular manner, Construction of a new office building, 23 National Circuit, Barton, ACT (2009/4871)

Appendix F – GSM Induction Notes

- York Park Conservation Site Induction Notes to all Construction Workers

Appendix G – Robert Jessop Qualifications

Appendix H – Driveway Plans

- Drawing Title: Site Plan, Drawing No. A001_1, Revision C 27/2/14
- Drawing Title: Civil Details Plan 1, Drawing No, C302, Issue: G 25/3/14

Appendix I – DOMA OHSEMS

- OHS and Environmental Management System Contents, Version 13 dated 1/5/2013

Appendix J – DOMA Certifications

- Doma Constructions PTY Ltd, AS/NZS 4801:2001 Occupational Health & Safety Management Systems – Requirements with guidance for use
- Doma Constructions PTY Ltd, ISO 14001:2004 Environmental Management Systems – Requirements with guidance for use
- Doma Constructions PTY Ltd, ISO 9001:2008 Quality Management Systems – Requirements

Appendix K – Stormwater Plans

- Drawing Title: External Stormwater Management Plan, Drawing No:SK000, Issue: B: 17.03.14
- Drawing Title: Option B Sketch Plan, Drawing No:SK004, Issue: C: 17.03.14
- Drawing Title: Option B Section 1, E Drawing No:SK005, Issue: C: 17.03.14
- Drawing Title: Option B Section 2, Drawing No:SK006, Issue: B: 17.03.14

Appendix L – Temporary Traffic Management Plan

- Drawing Title: Temporary Traffic Management Plan , Drawing No:C103, Issue: H: 25.03.14