

EPBC Act Referral to the Department of Environment and Energy by ACT Government on the Proposal for Canberra Brickworks Precinct (CBP) Access Road and Dudley Street Upgrade (Submission #2856) - Reference number 2017/8072

Public Comment by the Yarralumla Residents Association - 7 November 2017

Precinct Objective in ACT Government RFP & RFT for Canberra Brickworks Precinct (16 ha)
"2 (f). Plan development to minimise disturbance to the Precinct's current terrain, soil structure and hydrology, and to ensure protection of critically endangered Golden Sun Moth and temperate grasslands nearby."

CBP Access Road and Dudley Street Upgrade proposal of 5.58 ha will result in

- Golden Sun Moth Habitat Lost 3.15 ha - 43% of total area of 7.39 ha
- Natural Temperate Grassland Lost 0.13 ha - 17% of total area of 0.75 ha



Executive Summary

- The proposed Dudley Street Upgrade/Access Road does NOT meet the ACT Government's own stated Precinct Objective (2f) for the CBP development "*ensure protection of critically endangered Golden Sun Moth and temperate grasslands nearby*".
- CBP Access Road and Dudley Street Upgrade proposal of 5.58 ha will result in
 - Golden Sun Moth Habitat Lost 3.15 ha - 43% of total area of 7.39 ha
 - Natural Temperate Grassland Lost 0.13 ha - 17% of total area of 0.75 ha.
- The major loss of urban open space for external roadworks of 5.58 ha compared to the scale of the CBP development itself of 16 ha is disproportionate.
- The adjustment of the location of the Access Road to meet the CBP preferred tenderer's design has less impact than the initial design but it is still significant and other mitigation measures have not been explored.
- Offsets for the significant loss of Golden Sun Moth and Natural Temperate Grasslands are NOT appropriate as
 - Assessments undertaken for the ACT Government of the Golden Sun Moth (Umwelt 2014, 2017) and Natural Temperate Grassland (Hodkinson 2014) demonstrate that these habitats and communities have declined across the ACT since their critically endangered listing.
 - Hodgkinson (2014) advised the ACT Government that there should be no offsets for development as the ACT Natural Temperate Grasslands (encompasses Dudley Street) are now at sub-marginal levels.
 - The loss of these habitats and communities is in conflict with the ACT Government's Estate Development Code Criterion C1 (retention of significant vegetation and habitat areas including consideration of ecological connectivity) and Rule R41 (Development is not inconsistent with the relevant NES plan) (ACT Government 2013); and the National Capital Plan (Commonwealth) Policies and Standards for Environment.
- Reducing the exceedingly large footprint of the Dudley Street Upgrade/Access Road to minimise the environmental impacts has not been adequately considered.
- The proposed Upgrade of Dudley Street and the very large roundabout proposed at the junction with the Access Road are unnecessary and over engineered.
- The Upgrade of Dudley Street from 6m wide to 20m to 25m wide increases the carriageway by just 1m. The road is already carrying 9626 vehicles per day and AECOM 2016 states that the CPB generated traffic will not take it over capacity.
- The very large roundabout of 150m diameter at the junction of Dudley Street and the Access Road is not necessary, a signalised T intersection would suffice and has smaller footprint.
- The proposed Mint Interchange provides a far better approach reducing Dudley Street traffic by 60% (5776 vpd) by taking traffic directly from the Cotter Road to Deakin.
- The two roadworks compounds should be located at the alternative locations on the Cotter road to reduce the impact on the Golden Sun Moth and Natural Temperate Grassland.
- The impacts on Commonwealth land and Commonwealth Heritage have not been considered. The project area includes Section 127 which is EPA registered contaminated land and its shares a boundary with Block 2 Section 103 which is Commonwealth land with the Commonwealth heritage listed grove and avenue trees that line Dunrossil Drive.

Public Comment by the Yarralumla Residents Association 9 November 2017

The referral of the proposal for the Canberra Brickworks Precinct (CBP) Access Road and Dudley Street Upgrade is an action that requires approval under the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) as a “controlled action”.

The project footprint is 5.58 ha and the impacts are significant and require the assessment of matters of National Environmental Significance relating to critically endangered species and communities as the proposal will result in Golden Sun Moth Habitat loss of 3.15 ha (43% of the total area of 7.39 ha) and Natural Temperate Grassland loss of 0.13 ha (17% of total area of 0.75 ha); Commonwealth land; and Commonwealth heritage under Sections 18, 26, 27 and 27A of the EPBC Act.

Commonwealth Land and Commonwealth Heritage Listing

1. The proposal is likely to have a direct impact on adjoining Commonwealth land, namely Block 2 Section 103.

Section 127, which sits alongside Block 2 Section 103 is EPA registered Contaminated Land that will be disturbed, moved, and/or removed as part of construction of the CBP Access Road and Dudley Street Roundabout. This is likely to have a negative impact on the plants and communities in the environment of Block 2 Section 103, both in the short term and over time (cf. Proposal - Dudley Street Upgrade Environmental Constraints Plan).

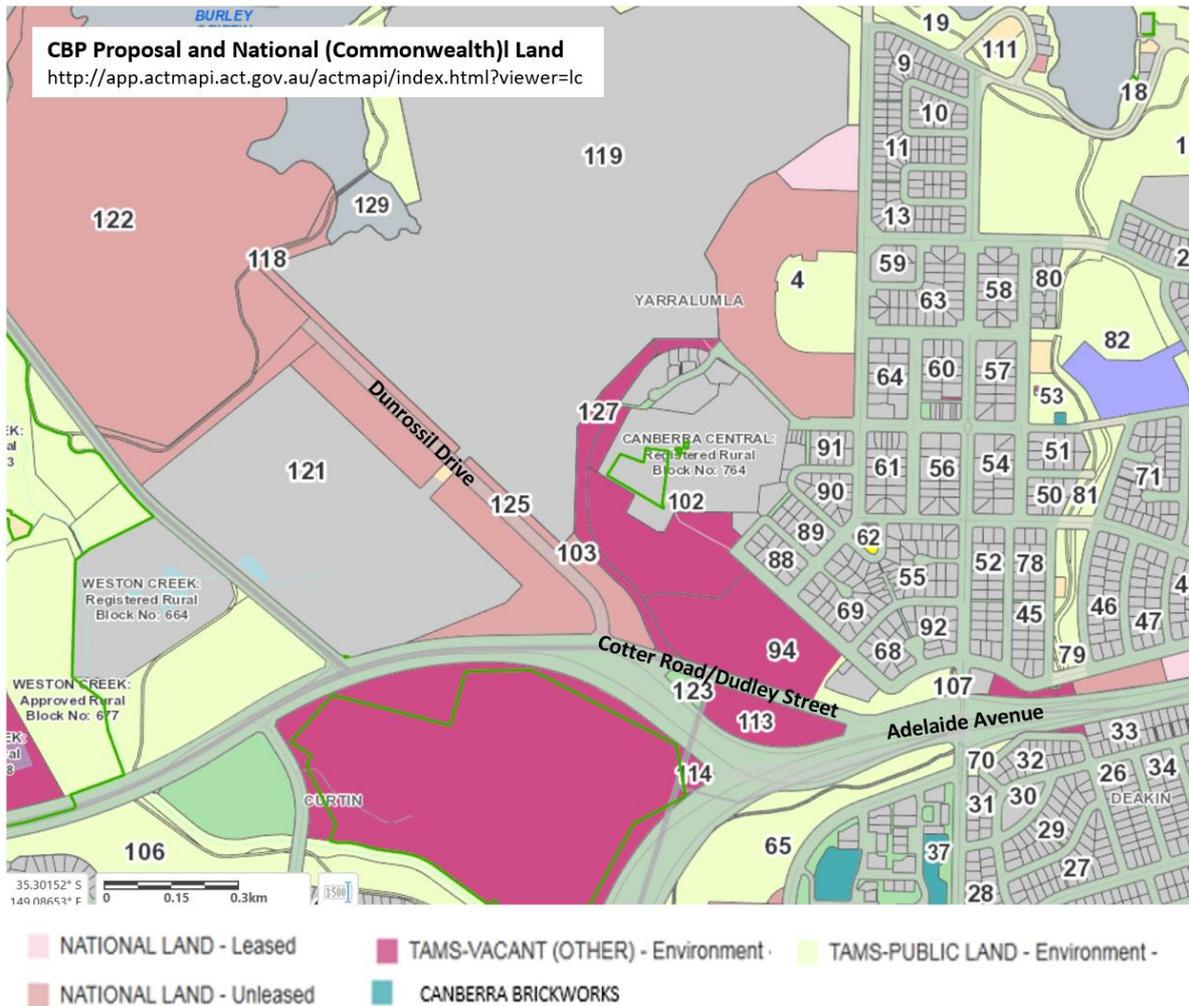
2. The Commonwealth land of Block 103 includes the entrance to Dunrossil Drive which is the processional route to Government House and is Commonwealth Heritage listed.

The Commonwealth Heritage listing (Place ID 105381, Place File 8/01/000/0329, Legal Status listed Place 22/06/2004) includes Government House, Dunrossil Drive and the 1918 avenue planting of Elm Trees (*Ulmus carpinifolia*) and a grove of Oaks (53ha). The prominence of the Elms is important as Elm avenues are now quite rare, even on a world scale.

The excavation and movement of the adjacent contaminated land in Block 127 is likely to have a negative impact on the environment of Section 103 and the Commonwealth Heritage listed Elm avenue and Oak grove.

The construction of the Access Road and the new Roundabout at its junction with Dudley Street place these within 15m of Block 2 Section 103.

3. Dudley Street is also National land under the management of the National Capital Authority and the project area is Designated Land under the National Capital Plan (2017).



Cadastral Boundary Changes

4. The proposal includes changes to the cadastral boundaries of Section 127 (PR22 Restricted Access Open Space), Block 3, Section 94, and Section 113 and 123 (PR22 Restricted Access Open Space), Section 106, 107, (Urban Open Space), so that the land can be used for the construction and operation of the CBP Access Road, the new Roundabout at the junction of the Access Road and Dudley Street, and the realignment of Dudley Street including at the Novar Street intersection.

The outcome of these cadastral changes is that Block 3 Section 94 will share a boundary with Block 2 Section 103 which is Commonwealth Land. The Access Road, new Roundabout and Dudley Street realignment will be in close proximity to Block 2 Section 103.

Golden Sun Moth and Natural Temperate Grassland

5. The CBP is a development over 16 ha on the Canberra Brickworks site. The proposal for the Upgrade of Dudley Street to a 25m wide road; the 20m wide CPB Access Road; and the major roundabout of 150m diameter at the junction of Dudley Street and the Access Road will

eliminate a total of 5.58 ha of urban open space that lies totally outside the CBP development area.

The major loss of open space for external roadworks of 5.58 ha compared to the scale of the CBP development itself of 16 ha is disproportionate.

- This open space is habitat for the Golden Sun Moth (*Synemon plana*) which is listed as a critically endangered species and therefore a Matter of National Environmental Significance (MNES) under the EPBC Act.
- This open space comprises Natural Temperate Grassland of wallaby grass (*Austrodanthonia* spp.) and speargrass (*Austrostipa* spp.), and *Bothriochloa*, which is a listed protected ecological community under both EPBC Act and ACT legislation. There are also areas of grasslands with Chilean needle grass (*Nassella nessiana*). Both of these grasslands are habitat for the Golden Sun Moth.
- The direct loss of Golden Sun Moth habitat is 2.54 ha that is 34%, and the indirect loss is 0.65 ha, that is 9%. The total loss of Golden Sun Moth habitat is 3.15 ha, that is 43% of the total of 7.39 ha). This is a significant impact.
- The loss of Natural Temperate Grassland with a condition rating of high, is 0.13 ha that is 17% of the total of 0.75 ha and the proposal states that this is a significant impact.
- The Golden Sun Moth has a long and successful historical presence on this site. Surveys found them in considerable numbers in 2009 and again on survey in 2011 (Rowell 2013). Surveys in 2013 (Umwelt 2014) confirmed 1.5 ha of Natural Temperate Grassland and 5 ha of Golden Sun Moth in the area surveyed. The grassland and sun moth population are considered to be viable in the medium term.
- The natural temperate grassland is classified as a Complementary Conservation Site (Category 2) with a moderate Botanical Significance Rating (ACT Government 2005) and with viable populations of threatened species.
- The Golden Sun Moth is sensitive to development activities that result in loss of habitat due to its limited dispersal ability; specific floristic and structural habitat requirements; isolated and fragmented distribution; seasonal lifecycle (making it cryptic for many months of the year) and; short adult lifespan and limited mobility of the females.

Environmental Offsets

6. The proposal is that that the elimination of the natural temperate grassland and the Golden Sun Moth habitat be offset by the ACT Government securing a site that supports them both consistent with the requirements of the EPBC Act Environmental Offsets Policy. A potential offset area (the North Mitchell Grasslands - Block 4 Section 47 Franklin) has been identified. However, this site should already be managed to support Golden Sun Moth and Natural Temperate Grassland both of which are listed as critically endangered.

Offsets are not appropriate in this case for the following reasons

- The loss of these habitats and communities is in conflict with the ACT Government's Estate Development Code Criterion C1 (retention of significant vegetation and habitat areas

including consideration of ecological connectivity) and Rule R41 (Development is not inconsistent with the relevant NES plan) (ACT Government 2013).

- Such loss of biodiversity is inconsistent with the National Capital Plan (Commonwealth) Policies and Standards for Environment and the Canberra Spatial Plan (2004).
- The use of offsets for increased protection of the Golden Sun Moth would at best be highly doubtful. Umwelt (2014) in its report to the ACT Government notes that “the current management regime would not appear to be consistent with biodiversity conservation objectives for the Golden Sun Moth”. Ecological guidelines for Fuel and Fire Management Operations state that for the Golden Sun Moth “(PLAN25.1) Where possible, slashing in Golden Sun Moth habitat should be minimised between November and January to avoid the adult flying season” and “(OPS 25.2) Slashing in Golden Sun Moth habitat should not be undertaken below 10cm.” Umwelt reported that slashing occurred mid-way through the 2013 survey in November.
- The ACT Government Environmental Offsets Planning Department has advised that it is extremely difficult to find suitable offset sites within the ACT.
- The proposed offset site (North Mitchell Grasslands – Block 4 Section 47 Franklin) is a very poor Golden Sun Moth and Natural Temperate Grassland habitat (Rowell 2012). The North Mitchell Grasslands include an area with illegally dumped waste, which has not been tested for contamination. and the ACT Government Environmental Planning Department has already flagged the increased cost to the ACT Government to use this area for offset¹ and that they would most likely seek funding for the 2019/2020, which would be after the date on which the habitat is likely to be destroyed if the current plans proceed on schedule.
- Based on Umwelt (2014, 2017) data, it is possible that the Golden Sun Moth habitat has increased by 50% in 3 years (From 2.5 ha to 7.39 ha), suggesting this area should be looked at as a viable habitat for Golden Sun Moth and possible location to accept offset management from other parts of the ACT.
- In relation to the loss of Natural Temperate Grassland, Hodgkinson (2014), in the final report to the Commissioner for Sustainability and the Environment, ACT on the Natural Temperate Grasslands in urban Canberra, states
 - Natural Temperate Grassland is the most threatened natural plant community in Australia (Parsons 1994).
 - The once extensive the once extensive Natural Temperate Grassland now occupies less than 1% of the ACT and is highly fragmented. Natural Temperate Grassland is now confined to 38 small and isolated patches that range in size from <1 ha to 300 ha. In 1996 the Natural Temperate Grassland in the ACT was declared endangered and what remains is degraded and continually threatened by human activity and exotic plant species.
 - Current management of these sites will not ensure their survival with threatening processes that include excessive and untimely mowing regimes and by failure to eradicate weeds.

¹ http://epbcnotices.environment.gov.au/_entity/annotation/141a4ed2-a2ba-e711-b175-005056ba00a8/a71d58ad-4cba-48b6-8dab-f3091fc31cd5?t=1509921757656

Dudley Street Yarralumla

This small site of 2.2 ha, of which 1.5 ha is Natural Temperate Grassland and 0.7 ha is Exotic Pasture. The site is placed in Conservation Category 2 and provides habitat for a population of threatened Golden Sun Moth.

The Management Plan in place in 2009, specified a twice-a-year mowing regime with no recommended height. This should be amended to once-a-year mowing in autumn at a height of 10 cm or higher.

- These grasslands are now at sub-marginal levels in the ACT and there should be no offsets of this threatened community in land development.

Mitigation of Impacts

7. The proposal states that the environmental impact has been mitigated to the fullest extent possible through the relocation of the CPB Access Road further to the west.

The initial concept design and location of the CPB Access Road, Roundabout and Dudley Street Upgrade was undertaken by CARDNO for the Land Development Agency was published in October 2016. This report was prepared in the absence of detailed information concerning the future development of the CBP as it was prior to the assessment and selection of the short-listed proponents from the RFP for the CBP development which occurred in February 2017.

The preferred tenderer from the two that participated in the RFT (Request for Tender) process was announced in May 2017. Only at this stage could the location of the Access Road and Roundabout be aligned to details of the CBP design of the preferred tenderer. The adjusted location was made publicly available in October 2017.

The adjustment of the location of the Access Road to meet the CBP preferred tenderer's design has less impact than the initial design but it is still significant at 43% destruction of Golden Sun Moth Habitat of 7.38 ha total and 17% destruction of Natural Temperate Grassland of a total of 0.75 ha. This meets the parameters of a "significant impact" and a "controlled action" under the EPBC Act. Other mitigation measures have not been explored.

That the previous October 2016 concept design location made in the absence of a specific design for the CBP would have had a greater impact is not relevant to mitigation.

The Canberra Brickworks Precinct Objectives released by the ACT Government (Land Development Agency) as part of the RFP (Request for Proposal) and RFT (Request for Tender) stated the following

"2 (f). Plan development to minimise disturbance to the Precinct's current terrain, soil structure and hydrology, and to ensure protection of critically endangered Golden Sunmoth and temperate grasslands nearby."

The scale of the destruction of Golden Sun Moth habitat and Natural Temperate Grassland and its fragmentation is such that the ecological communities will not be viable.

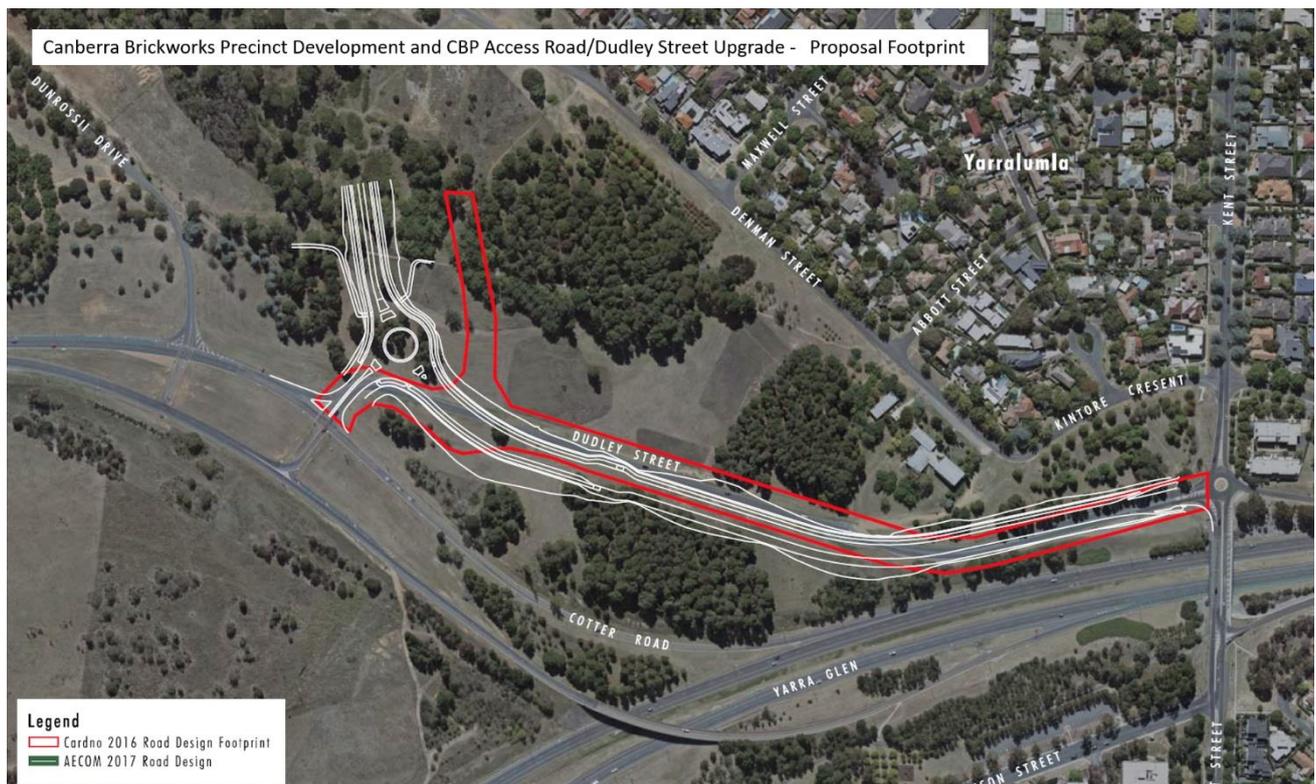
The two proposed roadworks compounds should be located at the alternative locations on the Cotter road to reduce the impact on the Golden Sun Moth and Natural Temperate Grassland.

Reducing Footprint

8. The project area is 5.58 ha and the proposal states in relation to the Golden Sun Moth and Natural Temperate Grassland that

“all possible avoidance and mitigation measures have been implemented”

The total loss of Golden Sun Moth habitat is 3.15 ha, that is 43% of total area of 7.39 ha, and of Natural Temperate Grassland with a condition rating of high is 0.13 ha that is 17% of a total area of 0.75 ha. The proposal states that both of these are a significant impact.



Dudley Street Upgrade

The proposal states that the Dudley Street Upgrade is required for the road to safely operate with existing traffic volumes; to meet the ACT’s road design requirements for a ‘major collector road’; to operate satisfactorily at over 8000 vehicles per day (vpd) with the additional traffic expected to be generated by the CBP. The Traffic Analysis Report CARDNO 2016 is cited in support.

However, this is not the case (AECOM 202, AECOM 2016, CARDNO 2016, SMEC 2014) as follows.

Dudley Street is already classified by the ACT as a ‘major collector road’ (CARDNO 2016 p8 and AECOM 2016 p6 Fig 3) and this classification will not change with the proposed upgrade.

Dudley Street has been carrying over 8000 vpd for over a decade. The ACT Government’s traffic count figures for Dudley Street were 8150 vpd in 2012 and 9626 vpd in 2015.

Intersection analysis (AECOM 2016 p 10) shows that the Dudley Street/Novar Street/Kent Street /Adelaide Avenue intersection operating at 'Level of Service B' (LOS B), a delay 15 to 28 seconds/vehicle), and Dudley Street/Cotter Road intersection is at LOS A, a delay of less than 14 seconds per vehicle, with some queueing at AM and PM peak.

Based on SIDRA analysis CARDNO (2016) p22 found that for the Dudley Street/Novar Street/Kent Street /Adelaide Avenue intersection *"the addition of the CBP generated traffic will not result in the intersection becoming over capacity"*

In summary Dudley Street is currently operating at 9626 vpd with a carriageway of 6m wide and no other road reserve components and it can accommodate the future CBP generated traffic.

The proposed upgrade will take the total road width of Dudley Street to a total 25m, that includes a 7m carriageway; shared paths 5.2m and on road bike paths 5m. This is a fivefold increase in the road footprint but will only increase the width of the carriageway by 1m (0.5m in each direction). Pedal Power have advised the ACT Government that on road cycling is not necessary on Dudley Street as it would not form part of a network – thus without this component there is still a fourfold increase in the road's footprint.

The proposed upgrade to Dudley Street is unnecessary and if removed would significantly reduce the footprint and hence environmental impacts.

CBP Access Road/Dudley Street Junction Roundabout

The Access Road will be classified as 'minor collector' however the only difference to the proposed Dudley Street upgrade is that there is on road cycle lanes so the overall road width is 20m again with a 7m wide carriageway.

The proposed intersection of the Access Road and Dudley Street is a large roundabout of approximately 150m in diameter with an extra dedicated 3.5m wide westbound lane on Dudley Street. This creates an excessively large, unnecessary junction footprint see example below.



For comparison there is an equivalent intersection at the junction of the first stage of the Equinox Business Park with Kent Street in West Deakin in 2011, has just a small splitter roundabout. Kent Street carries some 12267 vpd (2014) and the Equinox is a large Business Park, which became fully operational in 2015/14, has a Gross Floor Area of commercial space of 25,000 sq m and underground paid parking for 512 vehicles.

A 'signalised T intersection, which would have the smallest footprint, was also modelled (CARDNO 2016 p20) but not adopted as it had somewhat longer wait times at AM and PM peak.

The issue here is that this intersection is being modelled without any consideration of the impact of the proposed Mint Interchange (SMEC 2013, 2014, 2015) which will take traffic from the Cotter Road directly to and from West Deakin and Adelaide Avenue. This will remove over 60% of the traffic, that is 5776 vpd, from Dudley Street (based on AECOM 2016 intersection counts) as it is currently the major route for vehicles from north and west Canberra to gain access from the Cotter Road to West Deakin. The Mint Interchange is a requirement that follows the completion of Stage 2 of the duplication of the Cotter Road and the construction of the new suburbs at Molonglo that will have 55,000 new homes when completed.

Given that the CBP development will be complete at the earliest in 2022; and that Dudley Street can handle the additional CBP generated traffic; the proposed upgrade of Dudley Street and the Access Road Junction Roundabout, with its exceedingly large footprint, will be immediately redundant with the Mint Interchange.

The option of a 'signalised T intersection' should be adopted, the footprint and environmental impact reduced and the funds saved from the total project costs of \$7.5m (CARDNO 2016) directed towards real solution of the Mint Interchange rather than the proposed overengineering.

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