



29 November 2019

SF2018/064198; WST18/00028/02

The Manager
Resource Assessments
Department of Planning, Industry and Environment
GPO Box 39
SYDNEY NSW 2001

Attention: May Patterson

Dear Ms Patterson,

**SSD-9097: Lot 508 DP 750152; 950 Back Trundle Road, Parkes
Proposed Quorn Park 80 MW solar photovoltaic farm and 132 kV electricity transmission line**

Thank you for the above State Significant Development (SSD) application referral via the NSW Major Projects Planning Portal dated 30 October 2019 and requesting comment on the Environmental Impact Statement (EIS) from Roads and Maritime Services.

From review of the submitted documentation it is understood that:

- The proposal is for a solar photovoltaic farm with a peak instantaneous generation capacity of 80 megawatts, occupying a land area of approximately 400 hectares on Lot 508 DP 750152.
- The nominal design life of the facility is 30 years. However, the applicant is seeking that no time limit be imposed on the consent, so that at the end of the design life the facility operator has discretion to replace and renew assets within the approved footprint in order to continue operations without further development approval. Alternatively, the site would be rehabilitated for the purpose of extensive agriculture similar to the existing land use.
- A Traffic Impact Assessment (TIA) was prepared by Geolyse Pty Ltd dated October 2018 and included at Appendix G of the EIS. Construction of the solar farm is expected to take approximately 9 months, during the standard hours of 7am to 6pm Monday to Friday, and 8am to 1pm Saturday.
 - From 2017 traffic counts provided by Roads and Maritime, the TIA interpreted that Annual Average Daily Traffic (AADT) on Henry Parkes Way is approximately 1400 vehicles per day, or 137 and 156 vehicles per hour during the daily morning and evening peak hours respectively (total for both directions).

Roads and Maritime Services

- Based on the table of Estimated Construction Traffic Trips in the TIA, a peak construction workforce of approximately 130 workers (including contractors) would be required onsite for six months. During this time the TIA assumes two coaches would convey a minimum of 85 workers between accommodation and the site, with 28 additional light vehicles (LV) transporting the remaining 37 people, equating to a total of 60 commuter vehicle movements per day (30 movements during each AM and PM daily peak).
- During construction, a peak of up to 63 semi-trailer deliveries or 125 movements per day is expected. If larger heavy vehicles (HV) are used the number of daily movements would be less. These movements would be spread over a nominal 8-hour day and the applicant has assumed they would not coincide with the commuter peak hours.
- The total maximum peak hourly volume is therefore in the order of 30 vehicle movements, occurring daily during each of the AM and PM commuter peak periods.
- During the operational phase 1-2 personnel will be required onsite, with intermittent maintenance periods resulting in higher traffic peaks for short periods (days to weeks). During the decommissioning phase, the applicant submits that similar workforce and vehicle peaks as during the construction phase would occur, but for shorter durations.

Roads and Maritime do not object to the proposal, subject to the following requirements and advice to the consent authority to manage potential road and traffic impacts:

- The development will consume a significant volume of water during construction, estimated in the order of 3 megalitres. This volume would equate to 112 x 27 kL bulk water tanker movements over the 9-month construction period, or 3 loads (6 movements) per week. One proposed source for water is the Parkes brick pit reservoir (Lot 723 DP 823385). Similarly, the volume of required earth fill material and quality gravel or crusher dust for road base and foundations is significant and sources have not been identified. If not already authorised under separate development consent(s), the impacts of materials haulage should be detailed in the applicant's Response to Submissions, specifically addressing (but not limited to):
 - The designated haulage route(s) between the material source(s) and the State road network, and suitability of existing intersections with any classified roads.
 - Types and volumes of proposed haulage vehicles, including cumulative impacts with other approved and existing traffic, and
 - Potential impacts on sensitive receivers (e.g. residences) and proposed mitigation measures.
- The designated route for access between the site and the State road network for both light and heavy vehicles (HV) is to be limited to Henry Parkes Way (State classified road MR61) – McGrath Lane (local road) – Back Trundle Road (local road). The section of Henry Parkes Way between Bogan Street and Bushman Street in the Parkes township is not to be used by HV in connection with the development. Approved routes for HV between Bogan Street and Henry Parkes Way are via either Bushman Street or Hartigan Avenue – Westlime Road.
- The use of local roads for the purposes of heavy vehicle haulage will require consent from Parkes Shire Council. All routes specified by the proponent for these purposes are to comply with the NSW Combined Higher Mass Limits (HML) and Restricted Access Vehicle (RAV) map and or may be the subject of a Special Heavy Vehicle Permit via the National Heavy Vehicle Regulator (NHVR).

- No more than 30 vehicle movements in each direction at the intersection of Henry Parkes Way and McGrath Lane shall be permitted to occur during any hourly period. The consent holder shall operate coaches to convey the required number of workers between the site and towns or accommodation centres in order to comply with this condition, consistent with the applicant's commitments in the Environmental Impact Statement.
- A suitable location is to be negotiated with Council as to the provision of an adequate parking arrangement for the purposes of operating a coach service to transport employees to and from site.
- Prior to the commencement of any onsite construction work, a rural Basic Right turn treatment (BAR) in accordance with Figure A 28 of *Austroads Guide to Road Design Part 4* (copy enclosed) and relevant Roads and Maritime *Supplements to Austroads* is to be provided at the proposed intersection of Henry Parkes Way and McGrath Lane. The intersection is to be designed and constructed to a 100km/h speed limit and be able to accommodate Type 1 Road Trains and PBS 3a combinations up to 36.5m in length.
- Prior to the commencement of any onsite construction work, a rural Basic Left turn treatment (BAL) in accordance with Part 4A Figure 8.2 of *Austroads Guide to Road Design Part 4A* (copy enclosed) and relevant Roads and Maritime *Supplements to Austroads* is to be provided at the proposed intersection of Henry Parkes Way and McGrath Lane. The intersection is to be designed and constructed to a 100km/h speed limit and be able to accommodate Type 1 Road Trains and PBS 3a combinations up to 36.5m in length.
- As part of the intersection works, temporary installation of 'Advance truck warning signs' (W5-22 Size B) with distance plates (W8-5 Size B) under, 250m from the intersection on both approaches along Henry Parkes Way. These are to be removed once construction has been completed.
- Details of any ancillary works are to be provided including (but not limited to) line marking, T-intersection and road name signage, drainage transitions, batter slopes, vegetation removal, services relocation, and road reserve widening acquisition.
- McGrath Lane is to be bitumen sealed for at least a distance of 100m from Henry Parkes Way to improve skid resistance, suppress dust and debris, and protect the State road sealed shoulder.
- Safe Intersection Sight Distance (SISD) requirements as outlined in *Austroads Guide to Road Design Part 4A* and relevant Roads and Maritime *Supplements to Austroads* is to be provided and maintained in both directions at the intersection of Henry Parkes Way with McGrath Lane. The Environmental Impact Statement (EIS) has identified a minimum SISD of 351m for a 110 km/h operating speed at this location (100 km/h speed limit).
- Prior to commencing any works within a classified road, concurrence to the detailed design must be obtained from Roads and Maritime pursuant to Section 138(2) of the *Roads Act 1993*, by sending to development.western@rms.nsw.gov.au relevant drawings and supporting information. This includes work within the road reserve associated with the 132kV transmission line. Note that the consent of Parkes Shire Council as the roads authority is also required.
- The developer will be required to undertake private financing and construction of works on a State classified road in which Roads and Maritime has a statutory interest. This will include a requirement to enter into a Works Authorisation Deed (WAD) with Roads and Maritime for approval of and construction of the intersection of Henry Parkes Way (MR61).
- The intersection is to be designed and constructed to a 100km/h speed limit and be able to accommodate Type 1 Road Trains and PBS 3a combinations up to 36.5m in length.

- A Road Occupancy Licence (ROL) is required prior to any works commencing within three (3) metres of the travel lanes of a State classified road, or work that has potential to impact traffic flow such as the use of traffic control devices or signage. Please contact 1300 656 371 for further information regarding a ROL. A Traffic Control Plan prepared by a Roads and Maritime accredited person is to be submitted as part of the ROL application.
- Prior to the commencement of construction works a Traffic Management Plan (TMP) including Driver Code of Conduct is to be submitted to and concurrence obtained from Roads and Maritime. The preparation of the TMP will require consultation with Roads and Maritime, Parkes Shire Council, principal contractor(s) and relevant stakeholders. The TMP and Driver Code of Conduct is to cover the matters referred to within the TMP Annexure (attached).
- The TMP is to have regard for cumulative impacts and traffic management arrangements required due to other significant projects in the area, potentially including (but not limited to) the Parkes Bypass, Parkes Solar Farm, Goonumbla Solar Farm, and Parkes Special Activation Precinct.
- The TMP is to be reviewed and updated in response to any changes in operating conditions. A copy of the current Driver Code of Conduct is to be provided to contractors and employees as a part of the site induction and a copy of the TMP is to be made available to Roads and Maritime with each major update.
- Recommended measures that would affect local roads only have not been discussed in this letter.

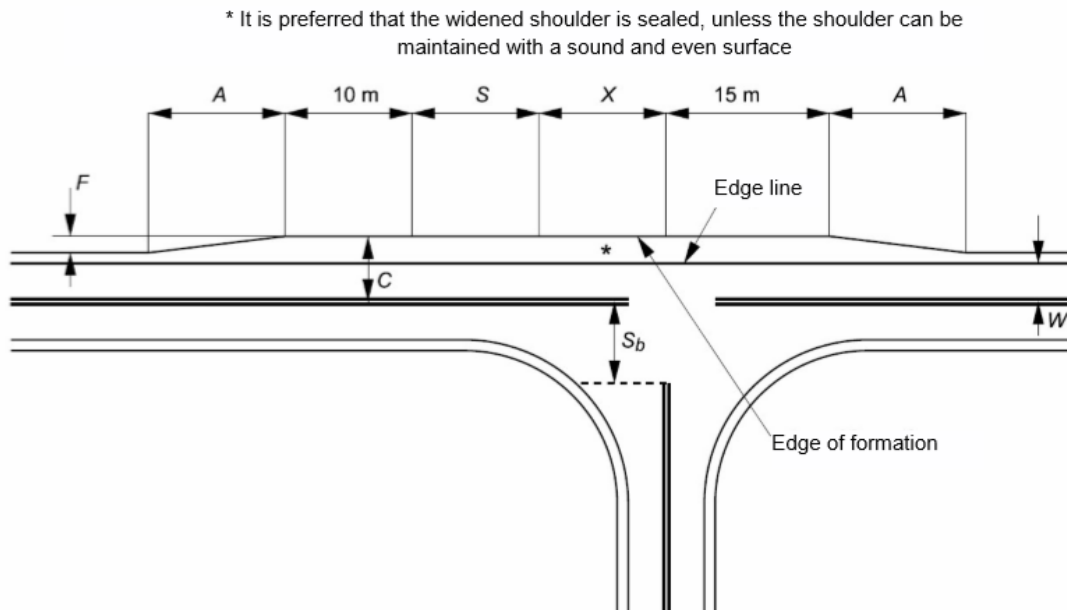
Please forward a copy of the Response to Submissions report to development.western@rms.nsw.gov.au for review when it is available. If you wish to discuss this matter further, please contact Bevan Crofts, Development Assessment Officer on (02) 6861 1449.

Yours faithfully



Holly Davies
A/Senior Customer Services Manager
Western Region

Figure A 28: Basic right (BAR) turn treatment on a two-lane rural road



Notes:

This treatment applies to the right turn from a major road to a minor road.

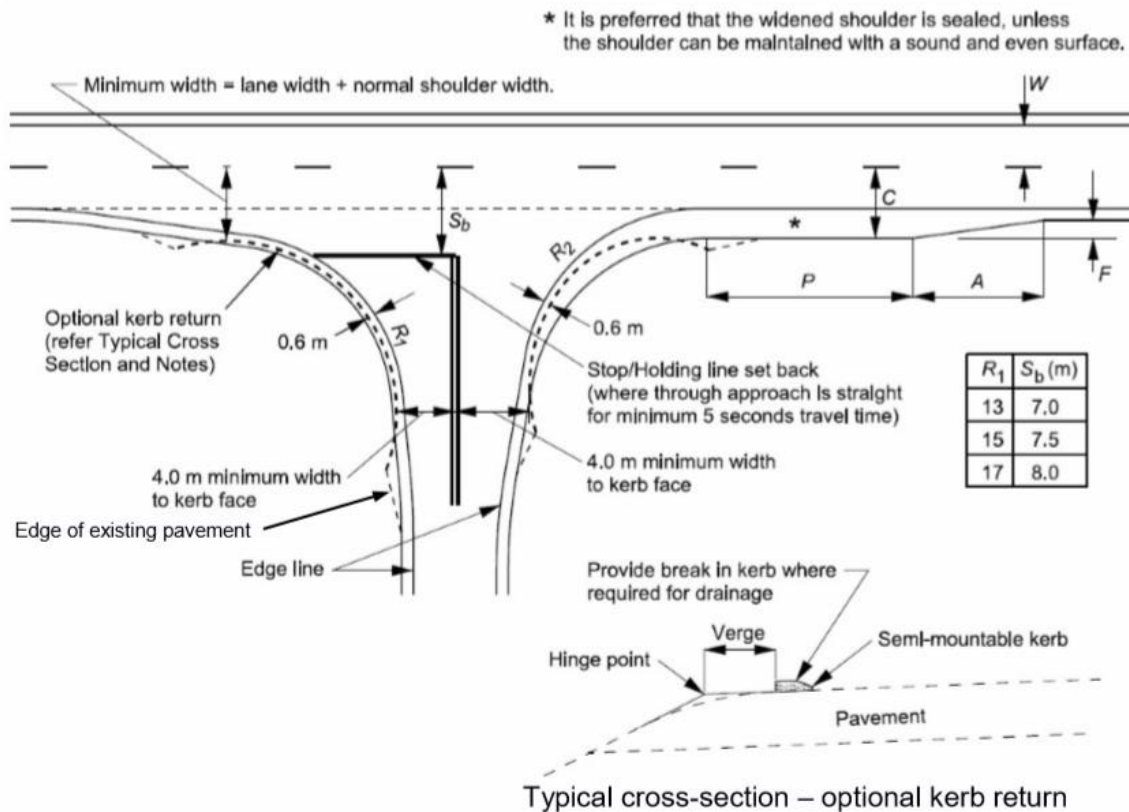
The dimensions of the treatment are:

- W = Nominal through lane width (m) (including widening for curves). Width to be continuous through the intersection.
- C = On straights – 6.5 m minimum
7.0 m minimum for Type 1 & Type 2 road trains
On curves – widths as above + curve widening (based on widening for the design turning vehicle plus widening for the design through vehicle)
- $A = \frac{0.5VF}{3.6}$
Increase length A on tighter curves (e.g. those with a side friction demand greater than the maximum desirable). Where the design through vehicle is larger than or equal to a 19 m semi-trailer the minimum speed used to calculate A is 80 km/h
- V = Design speed of major road approach (km/h)
- F = Formation/carriageway widening (m)
- S = Storage length to cater for one design turning vehicle (m) (minimum length 12.5 m)
- X = Distance based on design vehicle turning path, typically 10–15 m

Source: Department of Main Roads (2006)²⁵.

²⁵ Department of Main Roads (2006) has been superseded and Figure A 28 has not been carried forward into Queensland Department of Transport and Main Roads (2016).

Figure 8.2: Rural basic left-turn treatment (BAL)



Notes:

- R_1 and R_2 are determined by the swept path of the design vehicle.
- The dimensions of the treatment are defined thus:
 - W = Nominal through lane width (m) (including widening for curves).
 - C = On straights – 6.0 m minimum.
On curves – 6.0 m plus curve widening (based on widening for the design turning vehicle plus widening for the design through vehicle).
 - A = $\frac{0.5VF}{3.6}$
 - V = Design speed of major road approach (km/h).
 - F = Formation/carriageway widening (m).
 - P = Minimum length of parallel widened shoulder (Table 8.1).
 - S_b = Setback distance between the centre of the major road and the give way or stop line in the minor road.

Source: Department of Main Roads (2006)³⁵.

35 Department of Main Roads (2006) has been superseded and Figure 8.2 has not been carried forward into Queensland Department of Transport and Main Roads (2016).

TMP Annexure: Traffic Management Plan and Driver Code of Conduct

The Traffic Management Plan (TMP) and Driver Code of Conduct is to outline measures to manage traffic related issues associated with all phases of the development (e.g. deliveries, construction, operation, maintenance, decommissioning), any construction or excavated materials, machinery and personnel involved. The TMP is to detail the potential impacts associated with the development, the measures to be implemented, and the procedures to monitor and ensure compliance. The TMP is to address (but not be limited to):

- a) Specific commitments for the provision and use of buses and car-pooling during construction to limit peak hourly traffic in accordance with the approved Environmental Impact Statement (EIS) and conditions of consent. Plans and measures to manage the impacts of personal vehicle parking at pickup points (e.g. in towns) are to be detailed.
- ~~b) An enforceable policy for staff and contractors to use the designated commuter route in preference to back roads, where the journey is not unreasonably lengthened, as detailed in the approved EIS.~~
- c) Details of origin, destination, quantity, size and frequency of vehicle movements associated with the development including those accessing and egressing the site.
- d) Timings and staging of construction and operation of the development.
- e) Existing background traffic, peak hour volumes and types and their interaction with projected development related traffic.
- f) Over Size Over Mass (OSOM) truck loads associated with the development and any special measures required accommodating these.
- g) Loads, weights and lengths of haulage and construction related vehicles including OSOM loads and the number of movements of such vehicles.
- h) The management and coordination of construction and staff vehicle movements to the site and measures to limit disruption to other motorists.
- i) Scheduling of haulage vehicle movements to occur outside of daily commuter peak periods, local special event times, school bus (both in rural and town areas) and school zone operating hours.
- j) Scheduling of heavy vehicle movements to minimise convoy or platoon lengths.
- k) Consideration to minimise the route length for road transport, particularly for OSOM loads.
- l) Any OSOM will be the subject of separate permits through the National Heavy Vehicle Regulator (NHVR).
- m) Mitigation of local climate conditions that may affect road safety for vehicles used during construction, operation and decommissioning of the facility (e.g. scheduling during daylight hours, or outside of fog, wet weather, ice or snow).
- n) Transport of hazardous materials in accordance with the relevant transport codes.
- o) Specific mitigation measures along the approved transport routes. Road and intersection improvement works are to be completed prior to the commencement of on-site construction unless specifically approved otherwise in the conditions of consent.

- p) Consultation and engagement with affected stakeholders, including regulatory authorities, landowners, businesses, bus operators and so forth.
- q) Policies and procedures for addressing concerns raised by the community on project related matters.
- r) Dust suppression and mitigation measures on public roads and within the site boundaries.
- s) Toolbox meetings to facilitate continuous improvement initiatives and incident awareness.
- t) Truckloads are to be covered at all times when being transported, to minimise dust and loss of material onto roads which may form a traffic hazard.
- u) Measures to ensure responsible fatigue management and discourage driving under the influence of alcohol and/or drugs, dangers of mobile phone use and driving to the conditions, and adherence to posted speed limits.

(End of TMP Annexure)