22 July 2021

Department of Planning, Industry and Environment
Locked Bag 5022
PARRAMATTA NSW 2150
Via Email: Stephen.ODonoghue@planning.nsw.gov.au

Dear Steve,

RE: NARRABRI UNDERGROUND MINE STAGE 3 EXTENSION PROJECT – TRANSPORT FOR NSW SUPPLEMENTARY SUBMISSION RESPONSES

As you are aware, the New South Wales (NSW) Department of Planning, Industry and Environment (DPIE) placed the Narrabri Underground Mine Stage 3 Extension Project (the Stage 3 Project) Environmental Impact Statement (EIS) on public exhibition in late 2020.

In response to submissions received during the exhibition period, Narrabri Coal Operations Pty Ltd (NCOPL) lodged its Submission Report on 31 May 2021.

Following this, Transport for NSW (TfNSW) has provided a supplementary submission requesting clarification on various matters. NCOPL has subsequently prepared responses to the various matters raised by TfNSW in the supplementary submission with assistance from The Transport Planning Partnership (TTPP) (Attachment 1). These responses are provided below.

TfNSW Comment

TfNSW stated:

- *The information provided in relation to the number of staff provided has not clarified the number of staff/contractors contributing to the traffic impacts on the road network. Please confirm the number of staff and contractors accessing the site that will be approved as part of this SSD application.*

Response

The workforce at the Narrabri Mine is currently up to approximately 520 full-time equivalent personnel. The Stage 3 Project would allow for the continued employment of up to approximately 520 full-time equivalent personnel at the Narrabri Mine with temporary increases of up to approximately 20 people for development activities (such as ventilation shaft development, longwall change outs and shutdowns). Therefore, NCOPL is seeking approval for up to 540 full-time equivalent personnel for the Stage 3 Project, (i.e. including temporary development activity periods).

As described in TTPP (2021), due to part-time workers, rostering arrangements, shift arrangements, annual leave and sick leave, the full-time equivalent workforce is neither the number of individual people who work at the site, nor the number of workers attending the mine an any particular day. That review found that approximately 80 per cent of the full-time equivalent workforce logged in to the site on an average weekday.

TfNSW Comment

- *The day shift start and end time has not been explicitly confirmed. Please confirm day shift start and end times for the main operational workforce, and the temporary construction and change-out workforce (20 FTE).*

Response

Refer Attachment 1.

TfNSW Comment

- *The response refers to a peak 15-minute traffic period between 6:00-6:15am (pg. 2) but later states the peak 15-min period is 5:45-6:00am (pg. 8) which had significantly fewer trips during survey. Please confirm the actual peak 15-min period used in SIDRA reflects the highest volume, and appropriate peak hourly construction (future additional) traffic has been added to this peak 15-min.*

Response

Refer Attachment 1.

TfNSW Comment

- *Primary evidence sources were requested by TfNSW but not provided. Copies are needed to allow statements in the SSD reports to be verified. If acceptable to the consent authority, files may be redacted by the applicant and transmitted confidentially directly to the TfNSW email address given at the end of this letter:*
    - *Personnel site access logs (weekdays 17 to 21 June 2019).*
    - *ARTC log of Level Crossing (LX) 534 Kurrajong Creek Rd active boom gate and lights closure durations (January to 1st week of February 2021) with Narrabri Underground Mine train movements highlighted.*
    - *Detailed SIDRA output reports. TfNSW accepts the TTPP probability analysis is expected to provide a simplified but reasonable basis for estimating traffic impacts. For convenience, TfNSW would accept SIDRA outputs for a few key and sensitivity-check scenarios including:*
        - *a) 2032 with project, 8 trains per day, average train delay, average (mean) traffic queues north and south (approx. 10 annual exceedances).*
        - *b) 2032 with project, 8 trains per day, average train delay, 95th percentile queues north and south (approx. 1 annual exceedance).*
        - *c) 2032 with project, 8 trains per day, 95th percentile train delay, 95th percentile traffic queues north and south (approx. 10% annual exceedance probability).*

Response

Refer Attachment 1.

TfNSW Comment

- *Please provide field data measurements of actual queue distances onsite for calibration or comparison with the SIDRA model outputs as evidence of the magnitude of queuing that typically occurs for westbound traffic during train crossings associated with the mine (i.e. observing a few events) in accordance with Austroads guide AGTM12 section C5.4.*

Response

Refer Attachment 1.

TfNSW Comment

- *The provided information relating to near misses at the rail crossing included trains arriving or leaving the mine site. The submission did not include any data for through train near misses at the rail crossing. Data relating to near misses of through trains at the crossing should be provided.*

Response

NCOPL reviewed existing safety data at the Kamilaroi Highway/Kurrajong Creek Road rail crossing and three incidents at the rail crossing have been recorded by NCOPL to date. The incidents related to vehicles crossing the rail line while boom gates were activated and occurred in October 2015, January 2016 and May 2019. The three incidents were classified by NCOPL as 'near misses'. Near misses are defined by Whitehaven as incidents that have the potential to cause damage to people, property or the environment. The three near miss incidents had no resulting damage to people, property or the environment.

In addition, a review of near miss data at the Kamilaroi Highway/Kurrajong Creek Road rail crossing provided by the relevant rail authority (Australian Rail Track Corporation [ARTC]) from 2016 onwards was undertaken which indicated that no near misses at the Kamilaroi Highway/Kurrajong Creek Road rail crossing were recorded.

TfNSW Comment

- *The applicant should provide an assessment and recommend improvements to existing arrangements to mitigate the risk of vehicle-train collision.*

Response

TTPP reviewed the existing Kamilaroi Highway/Kamilaroi Highway rail crossing and concluded that no improvements to existing arrangements to mitigate the risk of vehicle-train collisions at the Kamilaroi Highway/Kamilaroi Highway rail crossing are warranted.

TfNSW Comment

- *An assessment of the of the Kurrajong Creek Road Kamilaroi highway intersection is to be conducted to determine compliance with Austroads design requirements at the proposed traffic volumes.*

Response

Refer Attachment 1.

TfNSW Comment

- *Please confirm the design vehicle (largest vehicle) accessing the site and provide swept path drawings demonstrating the design vehicle can safely turn in all four directions at the intersection of Kurrajong Creek Road with the Kamilaroi Highway. If upgrades would be required to safely cater for movements, specify the maximum truck size(s) sought under this SSD application and/or the recommended extent of upgrade works.*

Response

Refer Attachment 1.

TfNSW Comment

- *Consideration should be the implementation of Traffic Management Plan to manage potential conflicts with staff and contractors accessing the site.*

Response

Refer Attachment 1.

TfNSW Comment

- *Whitehaven staff have approached TfNSW on separate occasions in the last few years to discuss traffic safety concerns due to trains causing mine staff to queue into the Kurrajong Creek Road / Kamilaroi Highway intersection, highlighting there is a perceived risk of a vehicle collision on the highway.*

Response

Comment noted. NCOPL staff have recently been in contact with TfNSW in relation to signage proposed to be installed on the Kamilaroi Highway, consistent with the recommendations of TTPP.

Please do not hesitate to contact the undersigned on 6794 4184, 0448 045 814 or DEllwood@whitehavencoal.com.au should you have any queries.

Yours sincerely,

David Ellwood
Project Director

ATTACHMENT 1

TTPP CLARIFICATIONS ON VARIOUS MATTERS RAISED IN THE TFNSW SUPPLEMENTARY SUBMISSION

Narrabri Coal Operations Pty Ltd ABN 15 129 850 139

10 Kurrajong Road, Baan Baa NSW 2390 | P 02 6794 4755 | F 02 6794 4753
Locked Bag 1002, Narrabri NSW 2390

WHITEHAVENCOAL.COM.AU

Our Ref: 17380

21 July 2021

Narrabri Coal Operations Pty Ltd
10 Kurrajong Creek Road
BAAN BAA NSW 2390

Attention: Mr Mark Vile – Environmental Coordinator – NCO Stage 3 Project

Dear Mark,

RE: NARRABRI UNDERGROUND STAGE 3 EXTENSION PROJECT
RESPONSE TO SUBMISSIONS – SUPPLEMENTARY SUBMISSION

As requested, please find herein The Transport Planning Partnership's (TTPP) input in response to the request for additional information by Transport for New South Wales (TfNSW) regarding the *Narrabri Underground Mine Stage 3 Extension Project Submissions Report*[1]. As you are aware, the requests were discussed at a meeting with representatives from TfNSW, Department of Planning, Industry and Environment, Whitehaven Coal and Resource Strategies held on 1 July 2021. Relevant issues have been reviewed and responses to those are provided or confirmed below.

- *The day shift start and end time has not been explicitly confirmed. Please confirm day shift start and end times for the main operational workforce, and the temporary construction and change-out workforce (20 FTE).*

The operational workforce shift times are presented in Table 2.1 of the Road Transport Assessment[2], which is reproduced below.

[1] Narrabri Coal Operations Pty Ltd (2021) *Narrabri Underground Mine Stage 3 Extension Project.*
[2] TTPP (2020), *Narrabri Underground Mine Stage 3 Extension Project Road Transport Assessment.*

Table 2.1: Workforce Shifts

Shift	Start Time	End Time
Underground Day	6:30 am	4:00 pm
Underground Afternoon	2:30 pm	12:00 am
Underground Night (NCOPL Staff)	10:30 pm	8:00 am
Underground Night (Contractors)	6:30 pm	6:30 am
Drillers (7 days)	6:00 am	6:00 pm
Weekend	6:30 am	6:30 pm

Source: TTPP (2020)

The change-out workforce shift attends 7:00 am to 6:00 pm, over a period of approximately six weeks, once per year (refer to "*Atypical Periods During Mine Operations*" in TTPP, 2021[3]).

The temporary construction workforce shift is 7:00 am to 6:00 pm (refer to Section 4.1 of TTPP, 2020).

- *The response refers to a peak 15-minute traffic period between 6:00-6:15am (pg. 2) but later states the peak 15-min period is 5:45-6:00am (pg. 8) which had significantly fewer trips during the survey. Please confirm the actual peak 15-min period used in SIDRA reflects the highest volumes, and appropriate peak hourly construction (future additional) has been added to this peak 15-min.*

The 15-minute peak between 6:00 am and 6:15 am referred to TTPP (2021) relates to people logging in to the site, not vehicular traffic. The 15-minute peak between 5:45 am and 6:00 am relates to vehicular traffic. The times do not align due to the lag between the time a vehicle was recorded entering the Mine Access Road, and the time its driver and any passengers logged in. The peak 15-minutes used in the SIDRA assessment is the vehicular peak between 5:45 am and 6:00 am.

- *Primary evidence sources were requested by TfNSW but not provided. Copies are needed to allow statements in the SSD reports to be verified. If acceptable to the consent authority, files may be redacted by the applicant and transmitted confidentially directly to… TfNSW…*
    - *Personnel site access logs (weekdays 17 to 21 June 2019).*

[3] TTPP (23 February 2021), *Narrabri Underground Stage 3 Extension Project Response to Submissions.*

- *ARTC log of Level Crossing (LX) 534 Kurrajong Creek Rd active boom gate and lights closure durations (January to 1st week of February 2021) with Narrabri Underground Mine train movements highlighted.*
- *Detailed SIDRA output reports. TfNSW accepts the TTPP probability analysis is expected to provide a simplified but reasonable basis for estimating traffic impacts. For convenience, TfNSW would accept SIDRA outputs for a few key and sensitivity-check scenarios including:*
  - *a) 2032 with project, 8 trains per day, average train delay, average (mean) traffic queues north and south (approx. 10 annual exceedances).*
  - *b) 2032 with project, 8 trains per day, average train delay, 95th percentile queues north and south (approx. 1 annual exceedance).*
  - *c) 2032 with project, 8 trains per day, 95th percentile train delay, 95th percentile traffic queues north and south (approx. 10% annual exceedance probability).*

The requested records will be provided to TfNSW by email in spreadsheet form.

A minor discrepancy was noted with the calculated average train duration, which was reported as 7 minutes and 41 seconds, while the review notes it should be 7 minutes and 50 seconds. The impacts of that discrepancy on queues are very minor, however for clarity, an updated version of Table 3 (TTPP, 2020b) is provided below.

Back of Queues on Kamilaroi Highway to 15 Minutes Peak Inbound Traffic (metres)

Train Delay Length	Average		70th Percentile		85th Percentile		95th Percentile	
	North	South	North	South	North	South	North	South
Existing								
Average	79.9	88.8	99.1	110.1	116.7	129.8	130.4	144.9
85th Percentile	93.0	103.5	115.4	128.3	**136.0**	**151.2**	**151.9**	**168.8**
95th Percentile	99.7	110.8	123.6	137.4	**145.6**	**161.9**	**162.7**	**180.8**
2032 with Project[A]								
Average	93.3	99.0	115.7	122.7	**136.4**	144.6	**152.3**	**161.5**
85th Percentile	108.4	114.9	**134.4**	142.5	**158.4**	**167.9**	**176.9**	**187.6**
95th Percentile	116.0	123.0	**143.8**	**152.5**	**169.4**	**179.7**	**189.2**	**200.7**

Back of queues in metres in the storage bays in Kamilaroi Highway, queues lengths assume SIDRA queue space defaults of 7m per light vehicle and 13m per heavy vehicle.
[A] assumes Project construction traffic arrives during the operational traffic inbound peak.

	Event probability 95th to ≤ 97th percentile
	Event probability 97th to ≤ 99th percentile
	Event probability >99th percentile

- *Please provide field data measurements of actual queue distances onsite for calibration or comparison with the SIDRA model outputs as evidence of the magnitude of queuing that typically occurs for westbound traffic during train crossings associated with the mine (i.e. observing for a few events) in accordance with Austroads guide AGTM12 section C5.4.*

As discussed, data was collected during the 2019 traffic surveys, recording the number of vehicles delayed by each passing train. That information was collected via video recording of the level crossing over an 18-hour period, and the findings are presented in Table 3.6 of the Road Transport Assessment, which is reproduced below.

Table 3.6: Railway Level Crossing Road Closures 2 am to 8 pm 25 June 2019

Start Time	End Time	Total Closure Time	Notes
3:49:36	3:50:50	0:01:14	Northbound freight train No vehicles delayed
9:30:25	9:32:25	0:02:00	Southbound passenger train No vehicles delayed
13:25:35	13:26:55	0:01:20	Southbound freight train Two eastbound vehicles delayed
14:21:11	14:22:19	0:01:08	Southbound single locomotive One eastbound vehicle delayed
16:25:50	16:27:30	0:01:40	Northbound passenger train One westbound and two eastbound vehicles delayed
17:59:19	18:09:00	0:09:41	Northbound coal train Four westbound and 12 eastbound vehicles delayed

Source: TTPP (2020)

As discussed on 1 July 2021, the collection of additional field data is challenging due to the uncertainties of the timing of coal train movements (and whether these movements coincide with peak vehicle movements), and TfNSW advised that it is satisfied with the queuing assessments undertaken, with no additional data collection required.

- *An assessment of the Kurrajong Creek Road Kamilaroi Highway intersection is to be conducted to determine compliance with Austroads design requirements at the proposed traffic volumes.*

TfNSW clarified specific aspects to be reviewed, which are each addressed below. For the purpose of this review, the eastern leg of the intersection has not been considered.

Sight Distances

As described in Section 3.2 of the Road Transport Assessment, sight distances between drivers in Kurrajong Creek Road and Kamilaroi Highway exceed the minimum requirements set out in Austroads. It is noted that the assessment made reference to the requirements outlined in the

2017 version of the Austroads *Guide to Road Design Part 4A: Unsignalised and Signalised Intersections* which has now been superseded by the 2021 version, *Guide to Road Design Part 4A: Unsignalised and Signalised Intersections: General*, however the requirements remain unchanged.

TfNSW requested that additional consideration be given to the impacts of queued vehicles on Kamilaroi Highway on the available sight distance for eastbound vehicles exiting Kurrajong Creek Road. This request relates to those occasions when queues form in the storage bays on Kamilaroi Highway during closure of the level crossing. Upon opening of the level crossing gates, eastbound vehicles on Kurrajong Creek Road travel to the Kamilaroi Highway intersection before the queues of vehicles in the storage bays on Kamilaroi Highway (waiting to enter Kurrajong Creek Road) have dissipated. Those queues impact the sight distance available for the eastbound drivers to see vehicles approaching on Kamilaroi Highway.

Eastbound vehicles on Kurrajong Creek Road are on the minor road of the intersection, and are faced with a give way sign and give way line. In accordance with the *Road Rules 2014*, a driver at an intersection with a give way sign or give line "must give way to a vehicle in, entering or approaching the intersection". Giving way requires that the driver must slow down, and if necessary, stop to avoid a collision. If the driver is stopped, they must remain stationary until it is safe to proceed. This means that the eastbound drivers must give way to all vehicles on Kamilaroi Highway, which includes any vehicles in the dissipating storage bay queues, and that it is the responsibility of the eastbound drivers to ensure it is safe to proceed before they enter the intersection.

Under the priority rules applicable at the intersection, any vehicles in the northbound (left turn) storage bay have priority over those in the southbound (right turn) storage bay, hence upon opening of the level crossing, the northbound (left turn) storage bay queue dissipates first, followed by the southbound (right turn) storage queue. It is noted that the eastbound lane on Kurrajong Creek Road is splayed on its approach to Kamilaroi Highway, consistent with a minor road basic left turn treatment, which allows turning movements from a single lane with a shoulder that is too narrow to be used by left-turning vehicles. This design prevents drivers from standing two abreast at the holding line, as under those conditions, each vehicle blocks visibility for the driver of the other vehicle.

Eastbound drivers in Kurrajong Creek Road who wish to turn right on to Kamilaroi Highway must give way to both northbound and southbound traffic approaching on Kamilaroi Highway, including through traffic in either direction and any vehicles in both the northbound (left turn) and southbound (right turn) dissipating queues. These drivers therefore must by reason of the intersection priority rules wait until the northbound (left turn) queue has dissipated, then the southbound (right turn) storage bay queue has dissipated before proceeding into the intersection. Any queues in the storage bays therefore do not impact the right-turning eastbound driver's ability to observe vehicles approaching in either direction on Kamilaroi Highway at the time at which the driver is free to select a gap to enter the intersection via a right turn.

Eastbound drivers on Kurrajong Creek Road who wish to turn left on to Kamilaroi Highway do not conflict with vehicles travelling southbound or turning right into Kurrajong Creek Road. They do not need to wait for any southbound (right turn) queue to dissipate before entering the intersection, nor do they need to be able to observe southbound vehicles on Kamilaroi Highway. Any queue in the southbound (right turn) storage bay therefore does not impact the left-turning eastbound driver's sight distance.

Eastbound drivers on Kurrajong Creek Road who wish to turn left on to Kamilaroi Highway must give way to all northbound traffic approaching on Kamilaroi Highway, which includes both the northbound through vehicles and any vehicles in the northbound left turn lane. Under free-flow conditions, some left-turning drivers are likely to select a gap in the northbound through traffic while there is a vehicle travelling in the left-turn storage bay, as the two left-turning movements will not conflict, and adequate sight distance past the moving vehicle may be available to select a gap. Under queuing conditions, a driver in Kurrajong Creek Road is not free to select an appropriate gap to enter Kamilaroi Highway until the northbound (left turn) queue completely or partly dissipates to a point that the northbound through traffic on Kamilaroi Highway can be observed. The responsibility however remains on the eastbound driver to ensure it is safe to proceed before turning left on to Kamilaroi Highway. Considering that there is a single stand-up lane in Kurrajong Creek Road, these conditions only occur if the first eastbound driver through the level crossing wishes to turn left on to Kamilaroi Highway. If the first driver wishes to turn right, the eastbound movement will be delayed until both queues have dissipated as described above.

In summary, while the dissipating queues on Kamilaroi Highway temporarily reduce the sight distance available for eastbound drivers on Kurrajong Creek Road, under the road rules, the implications are minimal due to the single stand-up lane in Kurrajong Creek Road and the intersection priority rules which require those drivers in Kurrajong Creek Road to give way to all vehicles in, entering or approaching the intersection. If required, this responsibility may be appropriately reinforced via the proposed Traffic Management Plan for Narrabri Coal Operations Pty Ltd (NCOPL) traffic which makes up the majority of traffic at the intersection.

Intersection Treatments

The existing intersection turn treatments in Kamilaroi Highway include:

- an auxiliary left turn (AUL) deceleration lane approximately 150 m long with a taper zone of approximately 25 m (total 175 m); and
- a channelised right turn (short) (CHR(S)) lane approximately 125 m long with a taper zone approximately 20 m long (total 145 m), noting the length is constrained by the presence of a culvert crossing the creek north of the intersection.

The Austroads[4] guidelines for the level of treatment in the major road at rural road intersections, and apply to Kamilaroi Highway at its intersection with Kurrajong Creek Road. The forecast morning and evening peak hourly turning movements at the intersection of Kamilaroi Highway with Kurrajong Creek Road have been compared with the warrants for the high-speed environment (≥ 100 km/h) as determined by Arndt and Troutbeck[5] and presented graphically in Figure 3.25a of the aforementioned Austroads guide. The resulting requirements for 2032 with the Project-generated traffic and the existing treatments are tabulated below.

Kamilaroi Highway and Kurrajong Creek Road Intersection Treatments in 2032

	2032 AM Peak Hour Warrant	2032 PM Peak Hour Warrant	Existing Treatment
Left Turn	Q_L = 66 Q_M = 41 BAL	Q_L = 7 Q_M = 77 BAL	AUL
Right Turn	Q_R = 104 Q_M = 153 CHR(S)	Q_R = 10 Q_M = 147 BAR	CHR(S)

The existing left and right turn treatments in Kamilaroi Highway therefore meet or exceed those required by the Austroads warrants during the future AM and PM peak hours.

Lane Designs

The existing lane lengths at the intersection have been compared with the Austroads[6] deceleration length requirements for a design speed of 100 km/h on Kamilaroi Highway.

Where short length deceleration lanes are used, Austroads (2021) indicates that the design speed may be decreased to the value used at the start of the taper, such that a channelised right-turn (short lane) turn treatment is based on a 20% reduction in through road speed at the start of the taper. Under these conditions, and with a right-turning vehicle needing to decelerate to a stop, a right turn deceleration lane length (including taper) of 100 m is required on a level grade for comfortable deceleration (or 70 m at maximum deceleration rate). The grade of Kamilaroi Highway is estimated to be sufficiently low (based on Google Earth Pro elevation data) that no adjustment to the deceleration lane length would be required on the basis of grade. The SIDRA assessments presented in the Road Transport Assessment indicate that the storage length requirement outside of closures of the level crossing are for less than one vehicle, thus the available 145 m exceeds the Austroads requirements for a CHR(S) treatment with storage for at least one vehicle.

The existing AUL treatment in Kamilaroi Highway has been assessed against the requirements for an AUL and an AUL(S) treatment, noting that the forecast volumes require only a BAL

[4] Austroads (2020), *Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings Management.*
[5] Arndt and Troutbeck (2006), *New warrants for unsignalised intersection turn treatments", ARRB 22nd conference, Canberra ACT, ARRB Group, Vermont South, Vic.*
[6] Austroads (2021) *Guide to Road Design Part 4A: Unsignalised and Signalised Intersections.*

treatment. Assuming a left-turning vehicle would need to slow to 20 km/h to negotiate the turn, a deceleration lane length (including taper) of 150 m would be needed, or a 70 m lane for an AUL(S) treatment. The grade of Kamilaroi Highway is estimated to be sufficiently low (based on Google Earth Pro elevation data) that no adjustment to the deceleration lane length would be required on the basis of grade. The existing length of approximately 175 m for deceleration and taper therefore meets or exceeds the requirements of Austroads (2021).

The existing deceleration lane designs at the intersection of Kamilaroi Highway and Kurrajong Creek Road therefore meet or exceed the Austroads requirements.

- *Please confirm the design vehicle (largest vehicle) accessing the site and provide swept path drawings demonstrating the design vehicle can safely turn in all four directions at the intersection of Kurrajong Creek Road with the Kamilaroi Highway. If upgrades would be required to safely cater for movements, specify the maximum truck size(s) sought under this SSD application and/or the recommended extent of upgrade works.*

The Project would not change the largest type of vehicle accessing the site, hence TTPP has referred to the automatic tube count data collected on the Mine Access Road in 2019. The data indicate that the largest vehicles on the road were Class 10 vehicles under the Austroads Vehicle Classification System, with an average of 4.3 trips per day over the surveyed week, i.e. approximately two Class 10 vehicles travel in and out each day. Class 10 vehicles may be rigid truck and trailer combinations or B-doubles with four axle groups and more than six axles.

The swept paths of B-doubles turning both left and right into and out of Kurrajong Creek Road at Kamilaroi Highway have been checked and are presented in Attachment One. This demonstrates that B-doubles can safely turn in all four directions at the intersection under its existing layout, while maintaining lane discipline. B-doubles turning left in to Kurrajong Creek Road are able to do so from the left lane of Kamilaroi Highway, noting that vehicles exceeding 7.5 m in length and displaying a "DO NOT OVERTAKE TURNING VEHICLE" sign are permitted to turn from the marked lane next to the left lane. No upgrades to the intersection would be required to accommodate B-doubles, which would be the largest truck to access the site.

- *Consideration should be the implementation of Traffic Management Plan to manage potential conflicts with staff and contractors accessing the site.*

NCOPL proposes to develop and implement a Traffic Management Plan, which may be appropriately required as a condition of approval.

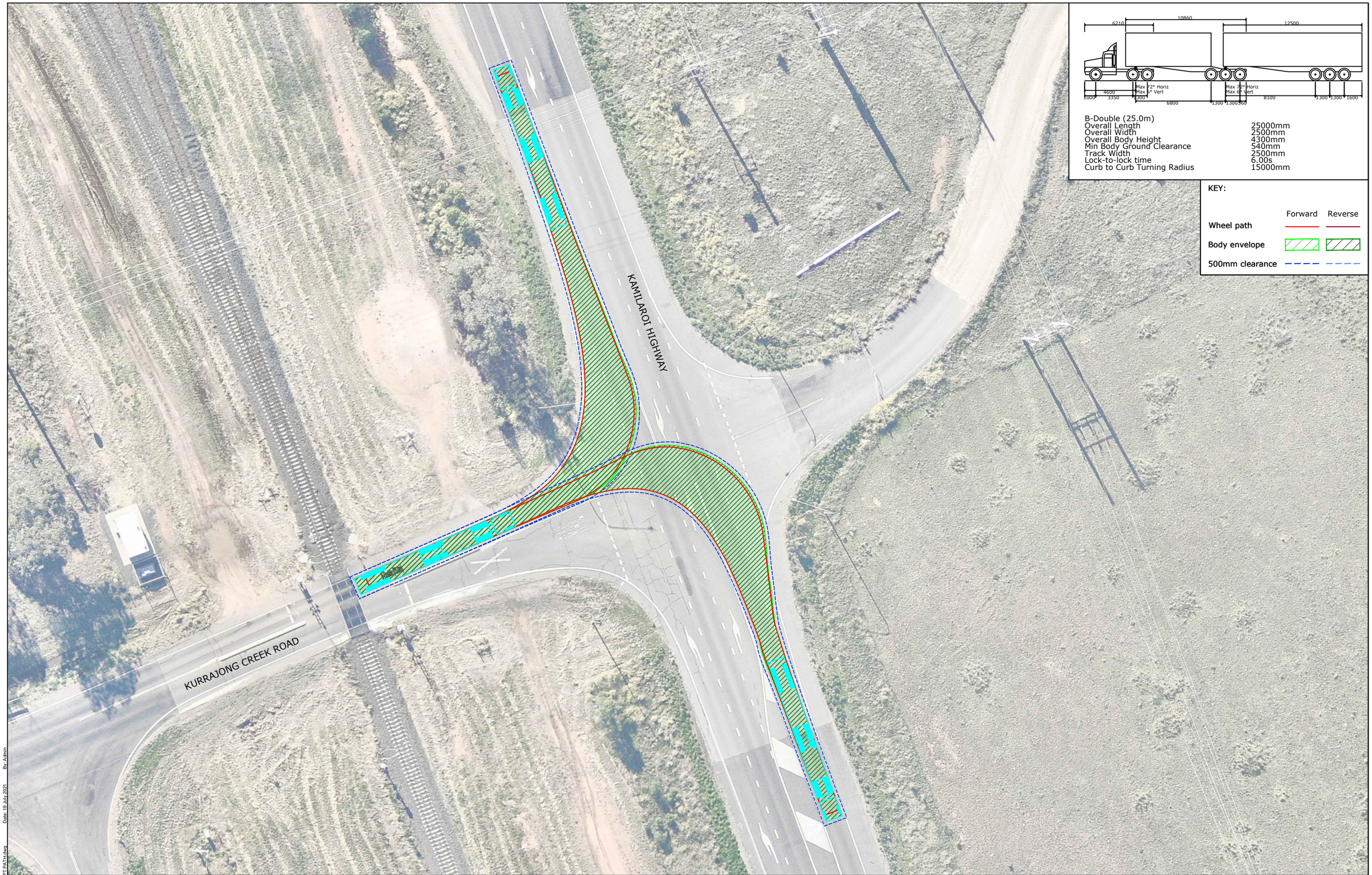
We trust the above is to your satisfaction. Should you have any queries regarding the above or require further information, please do not hesitate to contact the undersigned on 8437 7800.

Yours sincerely,

Penny Dalton
Associate Director

Attachment One

Swept Paths



B-Double (25.0m)

Overall Length	25000mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	540mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	15000mm

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	PD	PD	19/07/21

ttpp transport planning

PROJECT: NARRABRI COAL MINE STAGE 3

TITLE: 25m B-DOUBLE

DWG No. 17380CAD001 FIGURE 1

DATE STAMP 19 JULY 2021

PROJECT No.	SCALE	REV.
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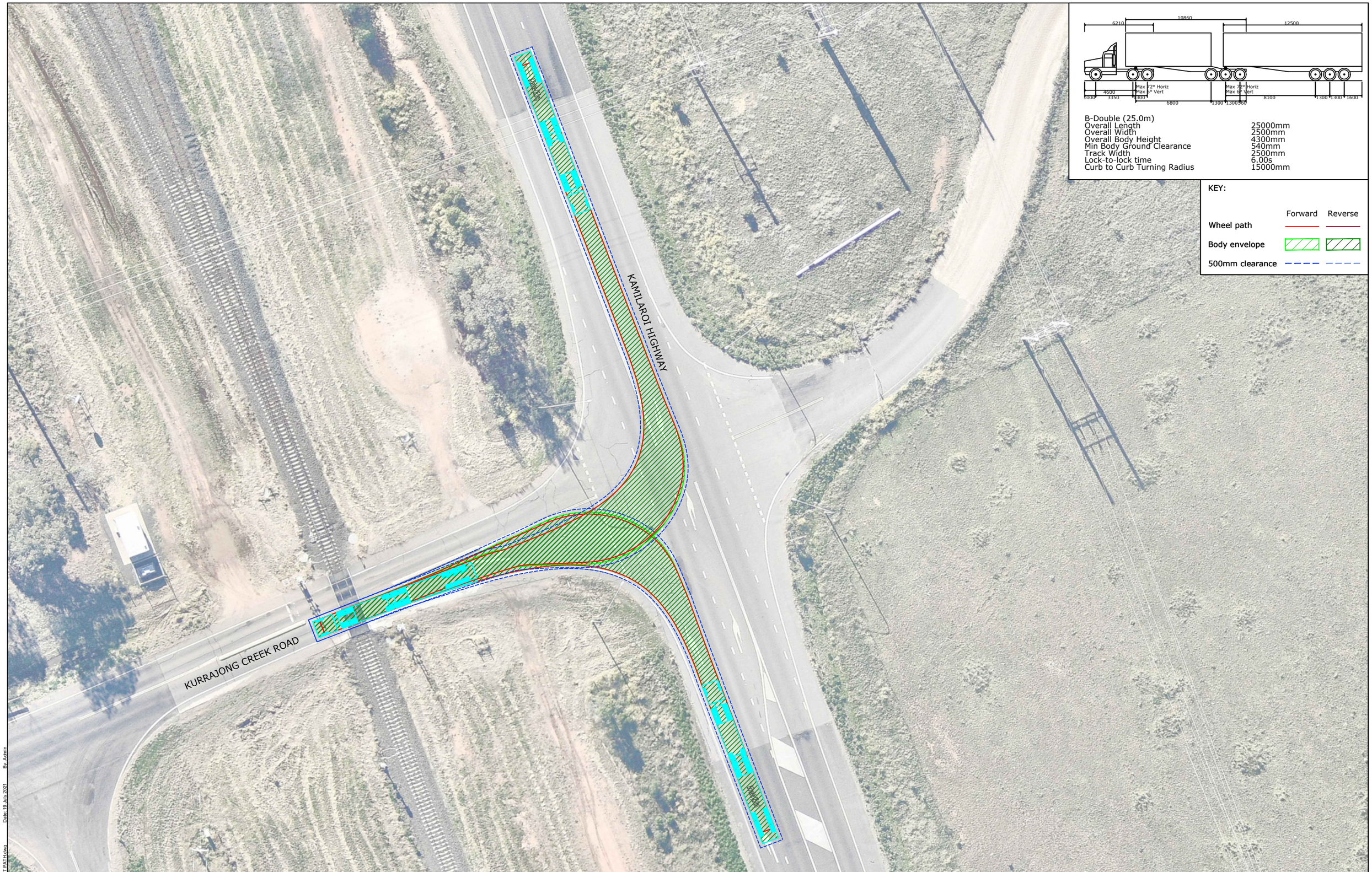
Filename: 17380CAD001-210719-SWEPT PATH.dwg Date: 19 July 2021 By: A.Amin



B-Double (25.0m)

Overall Length	25000mm
Overall Width	2500mm
Overall Body Height	4300mm
Min Body Ground Clearance	540mm
Track Width	2500mm
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	15000mm

KEY:

	Forward	Reverse
Wheel path		
Body envelope		
500mm clearance		

REV.	DESCRIPTION	DRAWN	CHECK	APP'D	DATE
A	ISSUE FOR DISCUSSION	KM	PD	PD	19/07/21

ttpp transport planning

PROJECT: NARRABRI COAL MINE STAGE 3

TITLE: 25m B-DOUBLE

DWG No. 17380CAD001 FIGURE 2

DATE STAMP: 19 JULY 2021

PROJECT No. 17380 | SCALE 1:500 @A3 | REV. A

Filename: 17380CAD001-210719-SWEPT PATH.dwg Date: 19 July 2021 By: Admin