

Transport Strategy

Snowy 2.0 Transgrid Connection

Prepared for Transgrid
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**make
everyday
better.**

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Acronyms and Abbreviations

Abbreviation	Description
AC	Access Track
BC Act	<i>Biodiversity Conservation Act 2016</i>
BDAR	Biodiversity Development Assessment Report
DPE	NSW Department of Planning and Environment
DPHI	NSW Department of Planning, Housing and Infrastructure
EIS	Environmental Impact Statement
EPBC Act	<i>Environmental Protection and Biodiversity Conservation Act 1999</i>
FCNSW	Forestry Corporation NSW
NPWS	NSW National Parks and Wildlife Service
OSOM	Oversize and/or Overmass
PCT	Plant Community Type
TfNSW	Transport for NSW
TMP	Traffic Management Plan
TTMP	Snowy 2.0 Transmission Connection Traffic and Transport Management Plan (HLW-HLJV-PRW-ENM-PLN-000021/3200-0645-PLN-022-TTMP)

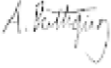
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1 Introduction

The Minister for the Department of Planning, Housing and Infrastructure (DPHI; previously Department of Planning and Environment [DPE]) granted Transgrid infrastructure approval (SSI 9717) dated 2 September 2022 (Approval) for the Snowy 2.0 Transmission Connection Project (Project) which will connect the Snowy 2.0 Hydro Project to the National Energy Market.

This report has been prepared to address Condition B27 of the Approval which requires Transgrid to prepare a Transport Strategy that addresses ecological, amenity, and heritage impacts associated with:

- The upgrade of an existing Forestry Corporation NSW (FCNSW) intersection into the Substation off Elliott Way (which forms part of Track 9).
- The construction of 8.3km of access tracks in Bago State Forest and Kosciuszko National Park.
- The upgrade of existing local government roads to facilitate construction of the Project.

The various requirements of Condition B27 and the section where each is addressed in this report is set out in Table 1-1. This Transport Strategy is separate to the Traffic and Transport Management Plan that has been prepared by Transgrid to satisfy Condition B32 of the Approval.

Condition C3 of the Approval allows for any strategy, plan or program required by the Approval to be prepared on a staged basis. Section 2.2 of this report describes the approved staging and the scope of works to which this Transport Strategy applies. Refer to a copy DPE staging approval provided in Attachment A.

Table 1-1: Condition B27 Requirements

Condition	Condition Requirements	Section Addressed
	TRANSPORT STRATEGY	
B 27	Prior to commencing construction in Project Area West, the Proponent must prepare a Transport Strategy, in consultation with the relevant roads authority/manager, to the satisfaction of the Planning Secretary, which: (a) identifies the location and type of any necessary road upgrades (including roads, intersections, crossing points, bridges and access points), including consideration of relevant amenity impacts;	Refer to the mapping in Attachment B. Visual amenity addressed at Section 3.1.
	(b) ensures that any road upgrades comply with the Austroads Guide to Road Design (as amended by TfNSW supplements), unless the relevant road authority agrees otherwise;	Addressed in Section 2.2.1
	(c) includes a detailed assessment of potential impacts of any necessary road upgrades (such as heritage and biodiversity impacts), including consideration of appropriate mitigation measures;	Addressed in Table 3-1, Table 3-2, and Section 4
	(d) identifies whether intersections, crossing points and access points would be permanent or temporary; and	Addressed in Table 3-2
	(e) includes measures or notifying, seeking feedback from and addressing the concerns of impacted residents along the route;	Addressed in Section 2.3.2.
B28	Prior to commencing construction in Project Area West, the proponent must implement the road upgrades and the mitigation measures identified in the Transport Strategy in condition B27, to the satisfaction of the relevant roads authority/manager	Once the Transport Strategy is approved by the Planning Secretary all road upgrades and mitigation measures

Condition	Condition Requirements	Section Addressed
		contained in this 'Transport Strategy' will be implemented to the satisfaction of NSW National Parks and Wildlife Service (NPWS) and FCNSW.

2 Background

2.1 Project Staging

In 2020 Snowy Hydro Limited obtained approval to expand the existing Snowy Mountains Hydro-electric Scheme by linking the existing Tantangara and Talbingo reservoirs through a series of underground tunnels and constructing a new underground hydro-electric power station (known as Snowy 2.0). Construction of Snowy 2.0 has commenced.

While the primary purpose of the Project is to connect Snowy 2.0 to the National Energy Market, an ancillary component of the Project will involve the construction of infrastructure related to Transgrid's HumeLink Project which would involve the construction of about 360 km of transmission lines connecting Wagga Wagga, Bannaby and Maragle. HumeLink received State and Commonwealth approval in 2024 and construction has commenced.

Key infrastructure associated with the Project includes:

- A new 330 kV and 500 kV substation in Bago State Forest
- Two 9 km 330 kV transmission lines from Snowy 2.0 power station and the new substation
- Approximately 8.3km of access tracks.

The 500 kV yard at the new substation, is not required for the Snowy 2.0 grid connection, but would provide the connection point for HumeLink. In readiness to support the connection of HumeLink, the 500 kV component of the substation was included in the scope of the Environmental Impact Statement (EIS) and is authorised by the Approval.

Transgrid intends to commence construction of the 330 kV aspect of the Project in 2023, however construction of the 500 kV component would not commence until HumeLink has received all its requisite approvals. To avoid delaying the commencement of construction activities related to the 330 kV component, Transgrid will deliver management plans and strategies required by the Conditions of Approval to the DPE over two stages.

The activities that apply to each of the approved stages can be summarised as follows:

- **Stage 1** – All activities associated with the construction and operation of infrastructure related to the 330 kV grid connection, including:
 - All civil works associated with constructing the new substation in Bago State Forest and the installation of plant and equipment associated with the 330 kV componentry of the substation
 - Two new 9 km long 330 kV double-circuit overhead transmission lines from the Snowy 2.0 cable yard in Lobs Hole, in Kosciuszko National Park to the new substation
 - 330 kV grid connection between the new substation and Transgrid's existing Transmission Line 64 (TL64)
 - Upgrading and widening of an existing access road off Elliott Way into the new substation within Bago State Forest and associated access within Maragle State Forest, and the construction of approximately 8.3km of new access tracks within Kosciuszko National Park
 - Ancillary construction activities, including the establishment of tensioning and pulling sites for conductor and earth wire stringing, crane pads, site compounds, equipment laydown areas, water extraction areas; and the transport and haulage of equipment and waste to and from the project area.
- **Stage 2** – All activities associated with the construction and operation of infrastructure related to the 500 kV component of the substation, including:

- The delivery and installation of oversize / overmass plant and equipment associated with the 500 kV components of the new substation in Bago State Forest (i.e. transformers, reactors, switchbays)
- The upgrade of existing roads and bridges to facilitate the transport of 500 kV plant and equipment to the substation
- Construction activities associated with ancillary sites, including crane pads, site compounds and equipment laydown areas associated with the installation of the 500kV plant and equipment; as well as the transport and haulage of temporary plant, equipment and waste to and from the project area.

As required by Condition C3 of the Approval, the Planning Secretary approved this staged approach in a letter dated 18 November 2022, provided in Attachment A.

2.2 Description of Road Upgrades and Construction of New Access Tracks

2.2.1 Stage 1

Stage 1 of the Project will involve the construction of a total of 12 access tracks of an approximate length of 8.3km and 9 intersections with existing roads. During the construction phase the new access tracks will facilitate transportation of plant, machinery, and equipment to the transmission tower work sites. Post construction the access tracks will be retained for monitoring and maintenance of the transmission towers and to facilitate emergency access. The access tracks will have a width of approximately 5m and will have a design speed of 30km/hour.

The access tracks will intersect with the following roads:

- Elliott Way which is managed by Snowy Valleys Council (Council) at one access point and NPWS at four access locations.
- East Bago Powerline Road at one access point which is managed by FCNSW.
- Lobs Hole Ravine Road and Mine Trail Road access roads, both of which were upgraded as part of the Snowy 2.0 Main Works project and therefore do not form part of this Project.

The upgrade to the intersection of East Bago Powerline Road and Elliott Way will occur to support the swept path of the Oversize and/or Overmass (OSOM) vehicles entering off Elliott Way. Widening of the existing access track will also be required. This upgrade is required to allow for the delivery of oversize plant to the substation site. This section of track forms part of Access Track 9 (Figure 2-1).



Figure 2-1: Aerial imagery of substation access road intersection with Elliott Way

All access tracks are designed to comply with the Project's technical specification rather than Austroads Design Guidelines given the access roads are not for public use, excluding the intersection of these access tracks with public roads.

FCNSW, NPWS and Council have been consulted about the engineering design of the access roads and associated intersections and the content of this Transport Strategy. In accordance with Condition B27 (b), the three entities have advised that design is acceptable notwithstanding that access track design does not strictly comply with Austroad Design Guidelines (Attachment C). Notable aspects of road design are as follows:

- Gates will be installed at intersections with Elliott Way to restrict unauthorised access. Gates will be set back off Elliott Way to ensure that maintenance vehicles can safely park off Elliott Way when opening the gates.
- The intersections with existing formed roads (i.e. Elliott Way) will not require a change to the function or operation of the of the intersection in terms of speed or lines of sight (etc.)
- The modification to the surface and drainage design will be keeping with the intersections existing design and will comply with the Austroads guidelines where required and to the satisfaction of NPWS.

Engineering design drawings of the access tracks and intersections with existing roads (i.e. Elliott Way) are provided in Attachment D. Works as executed drawings will be provided by Transgrid to NPWS post-construction for those access tracks intersecting with existing roads (i.e. Elliott Way).

2.2.2 Stage 2

A Transport Route Study (Rex J Andrews Engineered Transportation, 2021) prepared for the purpose of the EIS identified that some road and bridge upgrades may be required to facilitate the construction and movement of transmission infrastructure associated with Stage 2 of the Project. Specifically, the report refers to the potential modification of Albury Street and Bridge Street in Tumbarumba, which is expected to involve

the lowering of sections of the median strip on Albury Street and Bridge Street in Tumbarumba and signage to be made removable to allow OSOM vehicles to pass through the township.

EIS documentation also noted that bridges along the infrastructure transport route may require upgrades or reinforcement to facilitate OSOM movements. Road or bridge upgrades are more likely to be required for the movement of transmission infrastructure associated with the 500 kV component of the Project (Stage 2) and would not be required for the 330 kV component of the Project (Stage 1). This is due to the size and mass of the 500 kV transformers that are to be transported and installed at the new Maragle substation. Details of bridge suitability is included in the Transport for NSW (TfNSW) endorsed Traffic management Plans (TMPs) for high-risk OSOM movements to Maragle and included within the Traffic and Transport Management Plan (TTMP) (Rev 23, document reference HLW-HLJV-PRW-ENM-PLN-000021/3200-0645-PLN-022-TTMP).

Subsequent to the EIS requirements an engineering assessment of the route and potentially impacted infrastructure has been undertaken (refer to Attachment G) and includes the following recommendations based on a maximum axle load of 13.5 tonnes.

- The central abutment bearing at Paddys River is repositioned under the girder.
- Load to be transported along the centre of the bridges (within 1 metre of the centre).
- No other vehicles on the structures at the same time as the load.
- Speed of the load over the bridges not to exceed 15 km/hr.
- No sudden acceleration or braking while the load is on the structures.
- The bridges to be assessed again a maximum of 6 months prior to the movement of the loads.

All recommendations will be adhered to as part of the delivery by Transgrid of the OSOM for the Project.

All relevant OSOM loads will be transported in accordance with Transgrid's National Heavy Vehicle Regulator (NHVR) Permit as per the TfNSW endorsed high-risk OSOM TMPs to Maragle as included within the TTMP. Consultation e.g. s138 and ROLs, would continue to be undertaken with relevant road authorities, including TfNSW and SVC, and affected stakeholders, where required.

No additional access track or access point works have been identified for Stage 2 works.

2.3 Stakeholder Consultation

2.3.1 Government Departments and Forestry Corporation

FCNSW, NPWS and Council have been consulted about the access roads and intersections to be upgraded, within their respective jurisdictions and this is reflected in this Transport Strategy. Specific consultation with TfNSW regarding high-risk OSOM movements to Maragle have been undertake for each TMP, with endorsement received. Details of consultation and endorsement is included in the TTMP.

The matters discussed during consultation with the respective entities is summarised in Table 2-1.

Government Entity / State Owned Corporation	Matters discussed during consultation
NSW National Parks and Wildlife Service	After review of an initial draft of this report NPWS requested that this Strategy address all new access tracks (not just intersections with existing roads) and the Strategy was amended accordingly. NPWS was given an opportunity to comment on final design of the access tracks and their intersection with Elliott Way. In response to

Government Entity / State Owned Corporation	Matters discussed during consultation
	NPWS' feedback Transgrid made minor changes to Track 1 and Track 12 drainage structures. NPWS has approved the design of the access tracks in accordance with Condition B27(b).
Forestry Corporation NSW	FCNSW has approved the design of modifications that are to be made to the portion of AC 9 that falls within FCNSW jurisdiction in accordance with Condition B27(b). Transgrid will apply for and obtain an access permit from FCNSW before works associated with the upgrade of AC 9 commences. Transgrid will notify FCNSW immediately in writing once any activity is identified that is not in accordance with the conditions of consent approval and commitments made in the project EIS that may impact FCNSW operations, assets or infrastructure.
Snowy Valleys Council – Stage 1	In accordance with Condition B27(b), Council has approved the design of access tracks that intersect with the part of Elliott Way that falls within Council's jurisdiction. Transgrid will obtain a road works permit for all works within the Council road reserve.
Snowy Valleys Council – Stage 2	Changes associated with the inclusion of Stage 2 of works for the TTMP and the TMS were submitted to SVC for review and comment. SVC replied via email on the 5th November 2024 accepting the changes to the TTMP and the TMS. SVC have confirmed further consultation (and approvals) would be undertaken as required through the s138 and ROL application processes.
Transport for NSW	TfNSW were sent the TMS and TTMP on the 30th September 2024. Subsequent emails on the 8th October, 23rd and 30th October and 5th November 2024 and phone calls made on the 30th October and 4th November 2024. TfNSW responded on the 6th November 2024 indicating they would not comment on the documents unless issued via the Major Portals website. Specific consultation with TfNSW regarding high-risk OSOM movements to Maragle have been undertake for each TMP, with endorsement received from TfNSW. For details of consultation and endorsement of the TMPs refer to the TTMP (Rev 23).

Table 2-1 Summary of matters discussed during consultation

The location and potential effects associated with the respective intersections is set out in Table 3-2.

2.3.2 Residents

Transgrid has prepared a Community and Stakeholder Engagement Plan which provides the communication and complaint management regimes applicable across the Project.

There are no residents or sensitive receivers near the access roads. Accordingly, there is not expected to be any direct impacts for residents and there are no engagement activities proposed for the substation access road upgrade and or the construction of the access tracks.

3 Location and Potential Effects of Access Tracks

As discussed, Condition B27 of the Project Infrastructure Approval requires the preparation of a Transport Strategy before construction can commence.

To satisfy Condition B27, the information provided for in Table 3-1 addresses the requirements of this condition for each access track as it pertains to Stage 1 of the Project. Specifically, Table 3-1 details:

- The respective road manager for each of the access tracks
- Whether the access track will be temporary or permanent
- Potential biodiversity and heritage effects.

Table 3-2 includes the same detail, however, only applies to intersections with new access roads and existing Council and NPWS roads (i.e., Elliott Way).

Potential effects on visual amenity are addressed in Section 3.1.

The detailed mapping provided for in Attachment B illustrates:

- The proposed location of the access tracks and road upgrade
- The coordinates of each road intersection
- The location of each culvert and bridge.

Plant community mapping extracted from the revised Project Biodiversity Development Assessment Report (BDAR) (Jacobs, 2021) is provided in Attachment E.

Table 3-1: Location and potential effect of road upgrade and construction of access tracks

Access Track Number	Road Manager	Temporary or permanent	Road intersection and location	Potential Effects Heritage	Ecology
1	NPWS	Permanent	Elliott Way	Nil	The construction of Access Track (AC) 1 will result in the clearing of plant community PCT 300: Ribbon Gum – Narrow leaved (Robertson) Peppermint montane fern grass tall open forest. This plant community is not listed as threatened under the BC Act or the EPBC Act. The results of the BDAR indicate that the construction of AC 1 will result in the clearing of habitat for the following threatened species: • <i>Caladenia montana</i> (orchid) • Gang-gang Cockatoo • Eastern Pygmy-possum • Yellow-bellied Glider population on the Bago Plateau • Masked Owl
2	NPWS	Permanent	Elliott Way	Nil	The construction of AC 2 will result in the clearing of the following plant communities: • PCT 300: Ribbon Gum – Narrow leaved (Robertson) Peppermint montane fern grass tall open forest • PCT 729: Broad-leaved Peppermint Candlebark shrubby open forest. The results of the BDAR indicate that the construction of AC 2 will result in the clearing of habitat for the following threatened species: • <i>Caladenia montana</i> (orchid)

Access Track Number	Road Manager	Temporary or permanent	Road intersection and location	Potential Effects Heritage	Ecology
					• Gang-gang Cockatoo • Eastern Pygmy-possum • Booroolong Frog • Yellow-bellied Glider population on the Bago Plateau
4 & 5	NPWS	Permanent	AC 4 & 5 does not intersect Lobs Ravine Road. The intersection with Lobs Hole Ravine Road was constructed by the Snowy 2.0 Project.	<i>Non-indigenous heritage</i> A large excavation 4m deep, 20m across and 40m long of unknown function (R46) will be disturbed by the access track to the Snowy 2.0 Main Works site. The site is considered to be of limited heritage significance, however accidental discovery protocols will be followed should heritage items be uncovered during construction.	The construction of AC 4 & 5 will result in the clearing of the following plant communities: • PCT 300: Ribbon Gum – Narrow leaved (Robertson) Peppermint montane fern grass tall open forest • PCT 729: Broad-leaved Peppermint Candlebark shrubby open forest • PCT 296: Brittle Gum - peppermint open forest: • PCT 999: Norton's Box - Broad-leaved Peppermint open forest: • PCT 302: Riparian Blakely's Red Gum Broad-leaved Sally woodland - tea-tree - bottlebrush - wattle shrubland wetland These plant communities are not listed as threatened under the BC Act or the EPBC Act. The results of the BDAR indicate that the construction of AC 4 & 5 will result in the clearing of habitat for the following threatened species: • <i>Caladenia montana</i> (orchid) • Gang-gang Cockatoo • Eastern Pygmy-possum • Booroolong Frog

Access Track Number	Road Manager	Temporary or permanent	Road intersection and location	Potential Effects Heritage	Ecology
					Yellow-bellied Glider population on the Bago Plateau Individuals of the orchid species <i>Caladenia montana</i>, which is listed a vulnerable under the BC Act, were observed during biological surveys and the removal of individual of these species will be required to construct AC 4 & 5. AC 5 crosses Sheep Station Creek which provides potential habitat for the Booroolong Frog. It was initially proposed that a culvert be constructed to facilitate access across the watercourse, however it is now proposed that a clear span bridge will be constructed across the creek to minimise impacts on Booroolong Frog habitat, as required by Condition B31.
6	NPWS	Permanent	Lobs Hole Ravine Road	Nil	The construction of AC 6 will result in the clearing of the following plant communities: - PCT 999: Norton's Box - Broad-leaved Peppermint open forest - PCT 729: Broad-leaved Peppermint Candlebark shrubby open forest These plant communities are not listed as threatened under the BC Act or the EPBC Act. The results of the BDAR indicate that the construction of AC 6 will result in the clearing of habitat for the following threatened species: <i>Caladenia montana</i> (orchid)

Access Track Number	Road Manager	Temporary or permanent	Road intersection and location	Potential Effects Heritage	Ecology
					- Gang-gang Cockatoo - Eastern Pygmy Possum - Booroolong Frog - Yellow-bellied Glider population on the Bago Plateau
6a	NPWS	Permanent	Lobs Hole Ravine Road	<i>Indigenous heritage</i> A known site of indigenous artefacts is located AC 6a and some disturbance will be unavoidable. The recovery of these items has been approved based on the results of the ACHAR which involved consultation with relevant indigenous groups.	The construction of AC 6a will not impact Lobs Hole Ravine Road but will result in the clearing of the plant community PCT 999: Norton's Box - Broad-leaved Peppermint open forest. This plant community is not listed as threatened under the BC Act or the EPBC Act. The results of the BDAR indicate that the construction of AC 6a will result in the clearing of habitat for the following threatened species: <i>Caladenia montana</i> (orchid) - Gang-gang Cockatoo - Eastern Pygmy Possum
7	NPWS	Permanent	AC 7 does not intersect Mine Trail Road. The intersection with Mine Trail Road was constructed by the Snowy 2.0 Project.	<i>Indigenous heritage</i> A scatter of indigenous artefacts will be disrobed by the construction of AC 7. The recovery of these items was approved based on the results of the ACHAR which was developed in consultation with local indigenous groups. <i>Non-indigenous Heritage</i> A building platform with scattering of tin (R107) is located within the disturbance corridor of AC 7. This feature is considered	A section of AC 7, including the intersection, was constructed for the purpose of the Snowy 2.0 Hydro Project and therefore effects associated with those construction works are not considered. The construction of the remainder of AC 7 will result in the clearing of the following plant communities: - PCT 296: Brittle Gum - peppermint open forest: - PCT 729: Broad-leaved Peppermint Candlebark shrubby open forest

Access Track Number	Road Manager	Temporary or permanent	Road intersection and location	Potential Effects	
				Heritage	Ecology
				to be of limited heritage significance, however test pits will be undertaken prior to construction. Should these test excavations indicate a site of moderate, high, or outstanding significance, methods of avoiding impact would be explored. If no methods can be identified, appropriate mitigation must be undertaken, including archaeological salvage of the site. Refer approved Heritage Management Plan for full detail on management of unexpected finds including further expert assessment, protection, potential recovery, reporting and other relevant processes.	The results of the BDAR indicate that the construction of AC 7 will result in the clearing of habitat for the following threatened species: • <i>Caladenia montana</i> (orchid) • Gang-gang Cockatoo • Eastern Pygmy Possum • Booroolong Frog • Yellow-bellied Glider population on the Bago Plateau
8	NPWS	Permanent	Mine Trail Road	Nil	The construction of AC 8 will result in the clearing of the following plant communities: • PCT 296: Brittle Gum - peppermint open forest: • PCT 302: Riparian Blakely's Red Gum Broad-leaved Sally woodland - tea-tree - bottlebrush - wattle shrubland wetland These plant communities are not listed as threatened under the BC Act or the EPBC Act. The results of the BDAR indicate that the construction of AC 8 will result in the clearing of habitat for the following threatened species: • <i>Caladenia montana</i> (orchid) • Gang-gang Cockatoo • Eastern Pygmy Possum

Access Track Number	Road Manager	Temporary or permanent	Road intersection and location	Potential Effects Heritage	Ecology
9	Intersection: Snowy Valleys Council Access Track: FCNSW	Permanent	Elliott Way	Nil	- Booroolong Frog The widening (first 800m) of existing East Bago Powerline Road which leads to the future substation, and the construction of AC 9, will result in the clearing of the following plant communities: - PCT 1196: Snow Gum - Mountain Gum shrubby open forest - PCT 300: Ribbon Gum – Narrow leaved (Robertson) Peppermint montane fern grass tall open forest - PCT 285: Broad-leaved Sally grass – sedge woodland These plant community are not listed as threatened under the BC Act or the EPBC Act. The results of the BDAR indicate that the construction of AC 9 will result in the clearing of habitat for the following threatened species: - Gang-gang Cockatoo - Eastern Pygmy-possum - Yellow-bellied Glider population on the Bago Plateau - Masked Owl
10	NPWS	Permanent	Elliott Way	Nil	The construction of AC 10 will result in the clearing of plant community PCT 300: Ribbon Gum – Narrow leaved (Robertson) Peppermint montane fern grass tall open forest. This plant community is not listed as

Access Track Number	Road Manager	Temporary or permanent	Road intersection and location	Potential Effects Heritage	Ecology
					threatened under the BC Act or the EPBC Act. The results of the BDAR indicate that the construction of AC 10 will result in the clearing of habitat for the following threatened species: • <i>Caladenia montana</i> (orchid) • Gang-gang Cockatoo • Eastern Pygmy-possum • Yellow-bellied Glider population on the Bago Plateau • Masked Owl
12	NPWS	Permanent	Elliott Way	Nil	The construction of AC 12 will result in the clearing of plant community PCT 300: Ribbon Gum – Narrow leaved (Robertson) Peppermint montane fern grass tall open forest. This plant community is not listed as threatened under the BC Act or the EPBC Act. The results of the BDAR indicate that the construction of AC 12 will result in the clearing of habitat for the following threatened species: • <i>Caladenia montana</i> (orchid) • Gang-gang Cockatoo • Eastern Pygmy-possum • Yellow-bellied Glider population on the Bago Plateau • Masked Owl

Table 3-2: Location and potential effects of access track intersections with existing roads

Access Track Number	Road that Access Track Intersects and Number	Road Manager	Temporary or Permanent	Potential Effects Heritage	Ecology
1	Elliott Way (4)	NPWS	Permanent	Nil	Minor vegetation clearing associated with the construction of the intersection of AC 1 and Elliott Way may result in the clearing of vegetation associated with the plant community PCT 300: Ribbon Gum - Narrow-leaved (Robertsons) Peppermint montane fern - grass tall open forest. This plant community is not listed as threatened under the BC Act or the EPBC Act. The BDAR states that PCT 300 can amount to habitat for the following species: • <i>Caladenia montana</i> (orchid) • Gang-gang Cockatoo • Eastern Pygmy-possum • Yellow-bellied Glider population on the Bago Plateau • Masked Owl
2	Elliott Way (5)	NPWS	Permanent	Nil	Minor vegetation clearing associated with the construction of the intersection of AC 2 and Elliott Way may result in the clearing of vegetation associated with the plant community PCT 729: Broad-leaved Peppermint - Candlebark shrubby open forest. This plant community is not listed as threatened under the BC Act or the EPBC Act. The BDAR states that PCT 729 can amount to habitat for the following species: • <i>Caladenia montana</i> (orchid) • Gang-gang Cockatoo

Access Track Number	Road that Access Track Intersects and Number	Road Manager	Temporary or Permanent	Potential Effects Heritage	Ecology
4 & 5	Lobs Hole Ravine Road (1)	NPWS	Permanent	Nil	AC 4 & 5 end at infrastructure associated with the Snowy 2.0 Project. From here a track created by the Snowy 2.0 Project travels west before it intersects with Lobs Hole Ravine Road. AC 4 & 5 access to Lobs Hole Ravine Road (i.e., the intersection with the road) was constructed as part of the Snowy 2.0 Project and therefore the Project has no impact on heritage or ecology at the intersection.
6	Lobs Hole Ravine Road (2)	NPWS	Permanent	Nil	Minor vegetation clearing associated with the construction of the intersection of AC 6 and Elliott Way may result in the clearing of vegetation associated with the plant community PCT 999: Norton's Box - Broad-leaved Peppermint open forest. This plant community is not listed as threatened under the BC Act or the EPBC Act. The BDAR states that PCT 999 can amount to habitat for the following species: • <i>Caladenia montana</i> (orchid) • Gang-gang Cockatoo • Eastern Pygmy-possum
6a	Lobs Hole Ravine Road (3)	NPWS	Permanent	Nil	Minor vegetation clearing associated with the construction of the intersection of AC 6a and Elliott Way may result in the clearing of vegetation associated with the plant community PCT 999: Norton's Box - Broad-leaved Peppermint open forest. This plant community is not listed as threatened under the BC Act or the EPBC Act.

Access Track Number	Road that Access Track Intersects and Number	Road Manager	Temporary or Permanent	Potential Effects Heritage	Ecology
					The BDAR states that PCT 999 can amount to habitat for the following species: • <i>Caladenia montana</i> (orchid) • Gang-gang Cockatoo • Eastern Pygmy-possum
7	Mine Trail (1)	NPWS	Permanent	Nil	A section of AC 7, including the intersection with Mine Trail, was constructed as part of the Snowy 2.0 Hydro Project and therefore the Project has no impact on heritage or ecology at the intersection.
8	Mine Trail (2)	NPWS	Permanent	Nil	Minor vegetation clearing associated with the construction of the intersection of AC 8 and Elliott Way may result in the clearing of vegetation associated with plant community PCT 302: Riparian Blakely's Red Gum Broad-leaved Sally woodland - tea-tree - bottlebrush - wattle shrubland wetland. This plant community is not listed as threatened under the BC Act or the EPBC Act. The BDAR states that PCT 302 can amount to habitat for the following species: • Gang-gang Cockatoo • Eastern Pygmy-possum • Booroolong Frog
Upgrade of existing forestry road (East Bago Powerline Road) which forms part of	Elliott Way (1)	Snowy Rivers Council	Permanent	Nil	The widening of the existing intersection of existing East Bago Powerline Road (FCNSW) would result in the minor clearing of vegetation associated with PCT 1196: Snow Gum - Mountain Gum shrubby open forest. This plant community is not listed as threatened under the BC Act or the EPBC Act.

Access Track Number	Road that Access Track Intersects and Number	Road Manager	Temporary or Permanent	Potential Effects Heritage	Ecology
Access Track 9.					The BDAR states that PCT 1196 can amount to habitat for the following species: • Gang-gang Cockatoo • Eastern Pygmy-possum • Yellow-bellied Glider population on the Bago Plateau • Masked Owl.
10	Elliott Way (3)	NPWS	Permanent	Nil	Minor vegetation clearing associated with the construction of the intersection of AC 10 and Elliott Way may result in the clearing of vegetation associated with the plant community PCT 300: Ribbon Gum - Narrow-leaved (Robertsons) Peppermint montane fern - grass tall open forest. This plant community is not listed as threatened under the BC Act or the EPBC Act. The BDAR states that PCT 300 can amount to habitat for the following species: • <i>Caladenia montana</i> (orchid) • Gang-gang Cockatoo • Eastern Pygmy-possum • Yellow-bellied Glider population on the Bago Plateau • Masked Owl
12	Elliott Way (2)	NPWS	Permanent	Nil	Minor vegetation clearing associated with the construction of the intersection of AC 12 and Elliott Way may result in the clearing of vegetation associated with the plant community PCT 300: Ribbon Gum - Narrow-leaved (Robertsons) Peppermint montane fern - grass tall open forest. This plant

Access Track Number	Road that Access Track Intersects and Number	Road Manager	Temporary or Permanent	Potential Effects Heritage	Ecology
					community is not listed as threatened under the BC Act or the EPBC Act. The BDAR states that PCT 300 can amount to habitat for the following species: • <i>Caladenia montana</i> (orchid) • Gang-gang Cockatoo • Eastern Pygmy-possum • Yellow-bellied Glider population on the Bago Plateau • Masked Owl

3.1 Visual Amenity

The location of the access tracks and intersections with existing roads is illustrated in Attachment B.

There will be some visibility of a section of the new access tracks and at locations where the tracks intersect with Elliott Way at five locations and Lobs Hole Ravine Road at two locations. Visual effects associated with these intersections are expected to be minor due to the narrow extent of the tracks and surrounding vegetation. Visually, these new access tracks would appear like the existing unsealed fire tracks and 4WD trails in the area. Gates restricting access to the tracks will be set back from the existing roads and expect to be barely visible to a passing car.

Of note, AC 5 intersection with Lobs Hole Ravine Road and AC 7 intersection with Mine Trail Road were constructed as part of the Snowy 2.0 Hydro Project and therefore fall outside the scope of this Transport Strategy.

4 Mitigation Measures

All works associated with the construction and operation of the access tracks and intersections will be undertaken in accordance with the Conditions of Approval and commitments made by the Project (specifically, revised commitments contained in the EIS Amendment Report (Transgrid, 2022)).

4.1 Ecology

All activities associated with the upgrade and construction of the access roads will take place in accordance with the Conditions of the Approval and relevant commitments made in the Project EIS (Transgrid, 2021) (relevant commitments are listed in Attachment F).

In accordance with Condition of Approval B18 and B19 and the Project Biodiversity Development Assessment Report (BDAR, Jacobs 2022) to ensure the security of the required biodiversity offsets and confirm the performance of the obligations in relation to biodiversity offsets, Snowy Hydro intends to provide and implement a Biodiversity Offset Package document that will:

- Detail the specific biodiversity offset measures to be implemented and delivered in accordance with the EIS;
- Identify the cost for each specific biodiversity offset measures, which would be required to be paid into the Biodiversity Conservation Fund if the relevant measures is not implemented and delivered (as calculated in accordance with Division 6 of the Biodiversity Conservation Act 2016 (NSW)) and the offset payment calculator that was established as of 9 August 2021;
- Describe the timing and responsibilities for the implementation and delivery of measures required in the Package; and
- Confirm that the biodiversity offset measures will have been implemented and delivered by no later than 1 September 2024.

Snowy Hydro shall also lodge a bank guarantee with a total value of \$24,869,236, in accordance with the Deed of Agreement with the Planning Secretary (executed on 1 September 2022). Additionally, Snowy Hydro will pay \$10,586,027 to the NPWS to offset the residual biodiversity impacts to Kosciuszko National Park.

Potential ecological effects associated with the construction and upgrade of access tracks will be mitigated by the following:

- Vegetation clearing will be undertaken in accordance with the BDAR prepared as part of the EIS and the Project Biodiversity Management Plan required by Condition B21. Vegetation clearing will be avoided wherever possible.
- All topsoil removal and excavation works will be undertaken in accordance with the Project Soil and Water Management Plan as required by Condition B8 and B16, respectively.
- Rehabilitation will be undertaken in accordance with the Project Rehabilitation Management Plan (RMP) required by Condition B48.
- In accordance with Condition B31, the bridge crossing at Sheep Station Creek (Access Track 5) will be designed and construction to comply with:
 - Relevant Austroads Standards (such as elevating them above the 1% AEP flood level)
 - Guidelines for Controlled Activities on Waterfront Land (NRAR, 2018)
 - Policy and Guidelines for Fish Habitat Conservation (NSW DPI, 2013) and Why do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (NSW DPI, 2003).

4.2 Heritage

All construction works will take place in accordance with the unexpected finds procedure detailed in the Heritage Management Plan as required by Condition B24.

5 Document Review, Notification and Reporting Requirements

Document review, notification and reporting will be undertaken in accordance with the Project Environmental Management Strategy (EMS, Ref: 3200-0645-PLN-038-EMS), Construction Environmental Management Plan (CEMP) and Conditions of Approval.

5.1 Document Review

In accordance with the EMS, CEMP and Condition C2, the VIMP will be revised and updated on a two year basis and approved to the satisfaction of the Planning Secretary, and within 3 months of the:

- (a) the submission of an incident report under condition C7;
- (b) the submission of an Independent Audit under condition C10;
- (c) the approval of any modification of the conditions of this approval; or
- (d) the issue of a direction of the Planning Secretary under condition A2 which requires a review.

5.2 Incident and Non-compliance notification

In accordance with the Project EMS, CEMP and Condition C7 of the Infrastructure Approval, the Planning Secretary and NPWS must be notified via the Major Projects website portal immediately after Transgrid becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident.

Non-compliances will be reported in accordance with Section 9 of the Project CEMP and Condition C8, C9 and C10

All written requirements of the Planning Secretary or relevant public authority, which may be given at any point in time, to address the cause or impact of an incident must be complied with, within any timeframe specified by the Planning Secretary or relevant public authority.

5.3 Access to Information

In accordance with the EMS and Condition C11, this plan will be made publicly available on the Project (Transgrid) website following Planning Secretary approval.

6 Conclusion

This Transport Strategy has been prepared in compliance with the relevant Conditions of Approval for SSI-9717, being Conditions B27 and B28.

The Planning Secretary has approved this Transport Strategy to be prepared over two stages. This version of the Strategy, which relates to both Stage 1 and Stage 2.

The following addresses Stage 1

- The upgrade of an existing FCNSW access track off Elliott Way (referred to as Access Track 9).
- The construction of 8.3km of access tracks in Bago State Forest and Kosciuszko National Park which will remain in place during operation of the infrastructure.

The following addresses Stage 2

- No additional access track or access point works have been identified for Stage 2 works

Road and bridge assessment

As required by Condition B27, this Strategy identifies the location of the access tracks (see maps in Attachment B) and identifies potential biodiversity and cultural heritage effects associated with the road upgrades and the construction of new tracks and identifies relevant Project mitigation measures.

This Transport Strategy has been prepared in consultation with FCNSW, NPWS, TfNSW and Snowy Valleys Council.

7 References

Jacobs, (2022) *Snowy 2.0 Transmission Connection Project Biodiversity Development Assessment Report* Rev 7 Prepared for Transgrid August 2022

New South Wales Department of Natural Resources Access Regulator (NRAR), (2018). *Guidelines for Controlled Activities on Waterfront Land*.

New South Wales Department of Primary Industries, (2013). *Policy and Guidelines for Fish Habitat Conservation*.

New South Wales Department of Primary Industries, Fisheries, (2003). *Why do Fish Need to Cross the Road? Requirements for Waterway Crossings*.

Rex J Andrews Engineered Transportation, (2021). *Newcastle Port to Margle Route Study*.

Transgrid, (2021), *Snowy 2.0 Transmission Connection Project Environmental Impact Statement*

Transgrid (2022), *Snowy 2.0 Transmission Connection Project Amendment Report*.

Attachment A – Letter from Planning Secretary

Oliver King
Project Director
The Trustee for the NSW Electrical Networks Operations
180 Thomas Street
Haymarket, NSW, 2000

18/11/2022

Subject: Staging Approval for Snowy 2.0 - Transmission Connection

Dear Mr. King

I refer to the Staging Approval Request Letter submitted in accordance with Schedule 2 Condition C3 of the Infrastructure Approval for the Snowy 2.0 - Transmission Connection (SSI-9717).

I note it is proposed that the delivery of the relevant plans and strategies be delivered in two stages and address the following activities:

- Stage 1 – All activities associated with the construction and operation of infrastructure related to the 330 kV grid connection, including:
 - All civil works associated with the new substation in Bago State Forest and the construction/installation of infrastructure associated with the 330 kV component of the substation.
 - Two new 9 km long 330 kV double-circuit overhead transmission lines from the Snowy 2.0 cable yard in Lobs Hole, National Park to a new substation.
 - 330 kV grid connection between the new substation and Transgrid's existing Line 64.
 - Upgrade and widening of an existing access road off Elliott Way to the substation.
 - Ancillary construction activities, including the establishment of tensioning and pulling sites for conductor and earth wire stringing, crane pads, site compounds and equipment laydown areas, water extraction and the transport and haulage of equipment and waste to and from the project area.
- Stage 2 – All activities associated with the construction and operation of infrastructure related to the 500 kV component of the substation, including:
 - The delivery of oversize/overmass (OSOM) components, construction/installation of infrastructure associated with the 500 kV component of the new substation in Bago State Forest (i.e. transformers, reactors, switchbays).

- The upgrade of roads and bridges to facilitate the transport of OSOM 500 kV componentry to the substation.

The Department has carefully reviewed the letter and is satisfied that it meets the requirements of the relevant conditions.

Accordingly, as nominee of the Planning Secretary, I approve the staged delivery of management plans.

However, the Department notes that the expectation is that the relevant management plan is updated to include the new stage as they are required rather than provision of separate management plans for each stage.

Please ensure you make this document publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Wayne Jones on (02) 6575 3406.

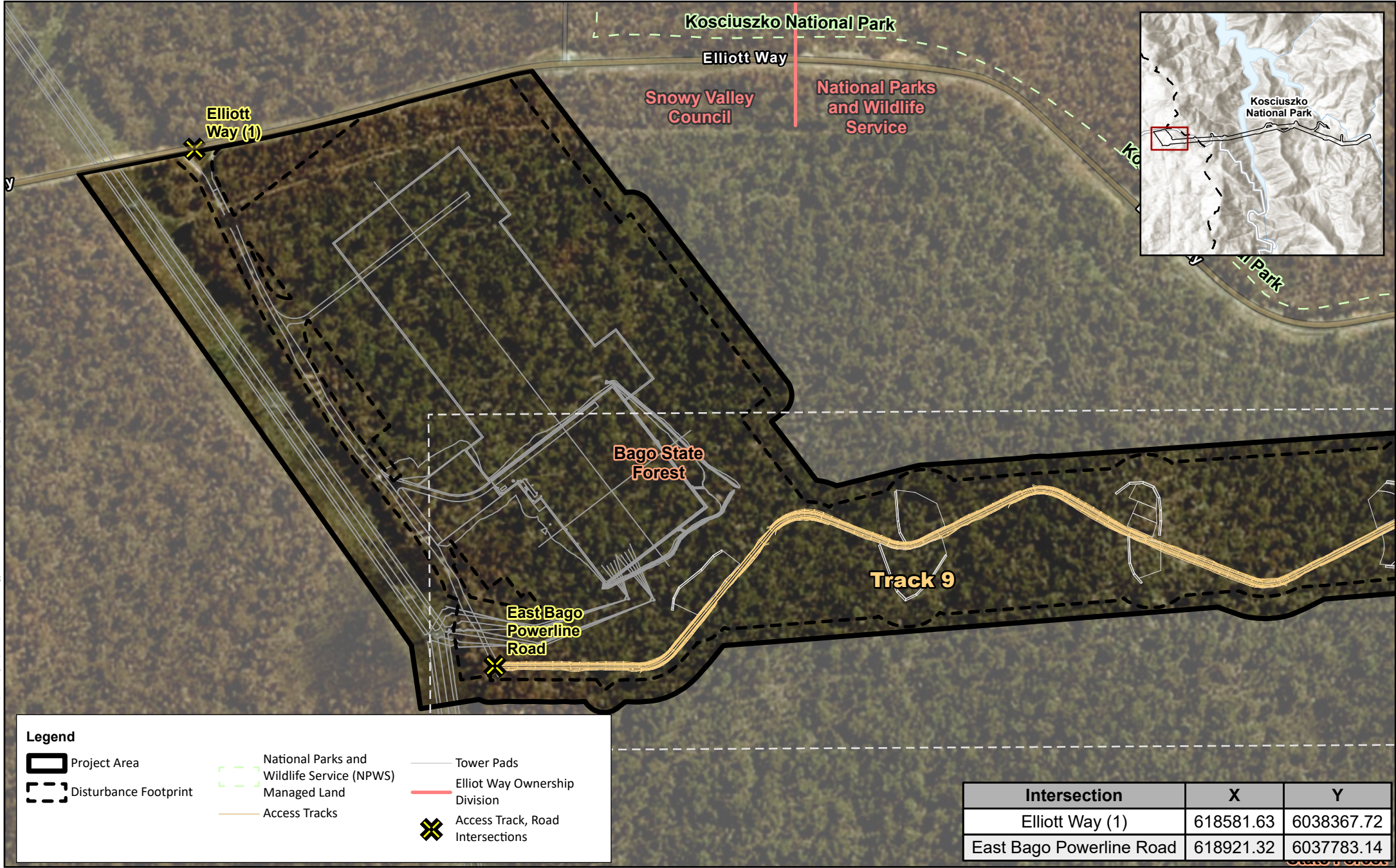
Yours sincerely



Nicole Brewer
Director
Energy Assessments
As nominee of the Planning Secretary

Attachment B – Access Track Mapping

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Map Scale @ A4: 1:5,500

0 25 50 75 100 Metres

Revision Status 2 Issued

Author BMM2

Verifier JHT

Date 09/02/2023

North Arrow

Access Tracks

Page 1 of 8

Project Snowy VIMP, Staging Letter and TS

Client Transgrid

Discipline GIS

Drawing Number GIS-2583951-01

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Intersection	X	Y
Elliott Way (2)	620309.01	6038043.28
Elliott Way (3)	620377.67	6037954.02
Elliott Way (4)	620965.09	6038221.03

Map Scale @ A4: 1:5,500

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Metres

N

Revision Status 2

Author BMM2

Verifier JHT

Date 09/02/2023

Access Tracks

Page 2 of 8

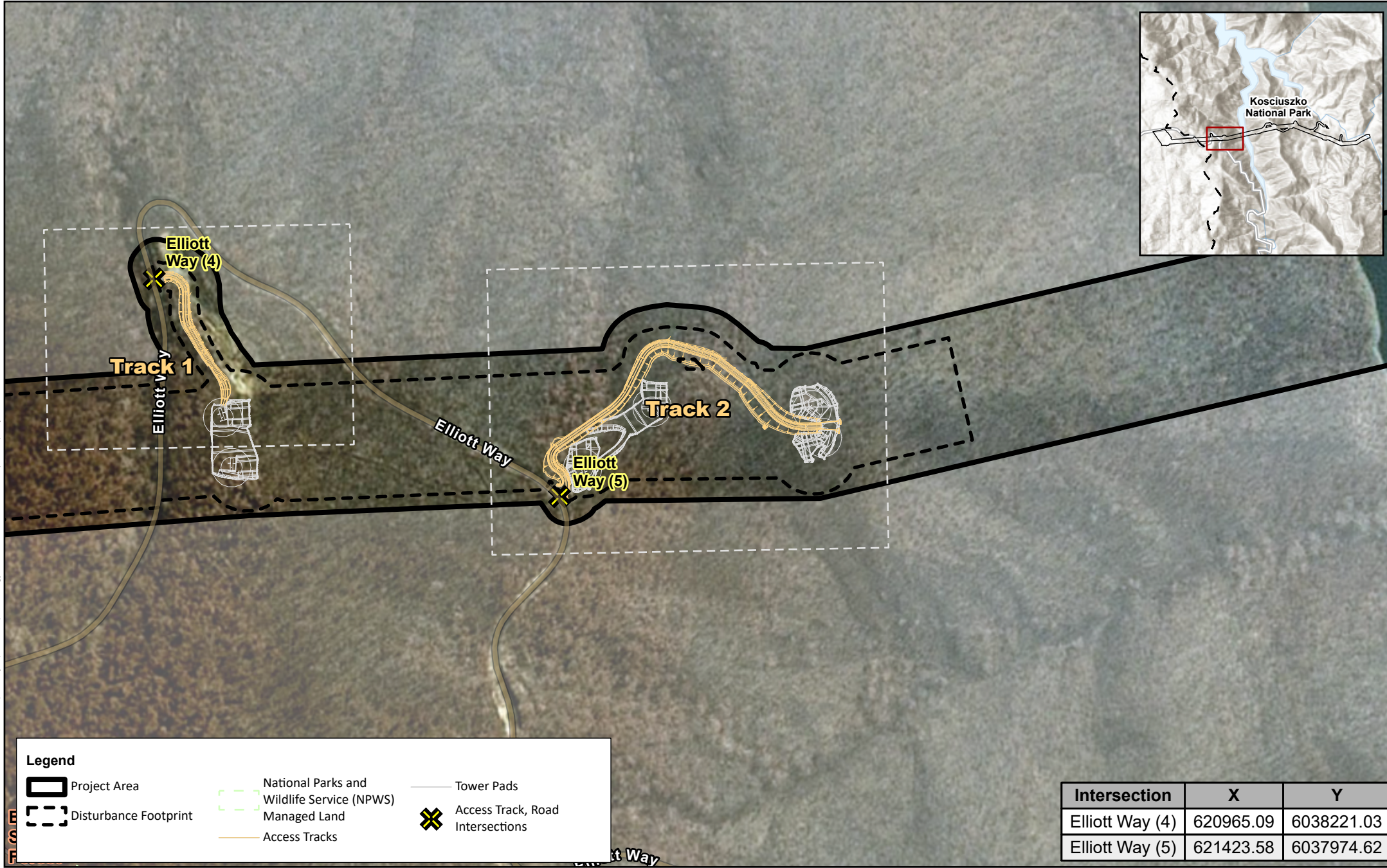
Project Snowy VIMP, Staging Letter and TS

Client Transgrid

Discipline GIS

Drawing Number GIS-2583951-01

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Project Area

Disturbance Footprint

National Parks and Wildlife Service (NPWS) Managed Land

Access Tracks

Tower Pads

Access Track, Road Intersections

Intersection	X	Y
Elliott Way (4)	620965.09	6038221.03
Elliott Way (5)	621423.58	6037974.62

Map Scale @ A4: 1:5,500

0255075100

Metres

N

Revision Status

Author

Verifier

Date

2

Issued

BMM2

JHT

09/02/2023

Access Tracks

Page 3 of 8

Beca

Project

Client

Discipline

Drawing Number

Snowy VIMP, Staging Letter and TS

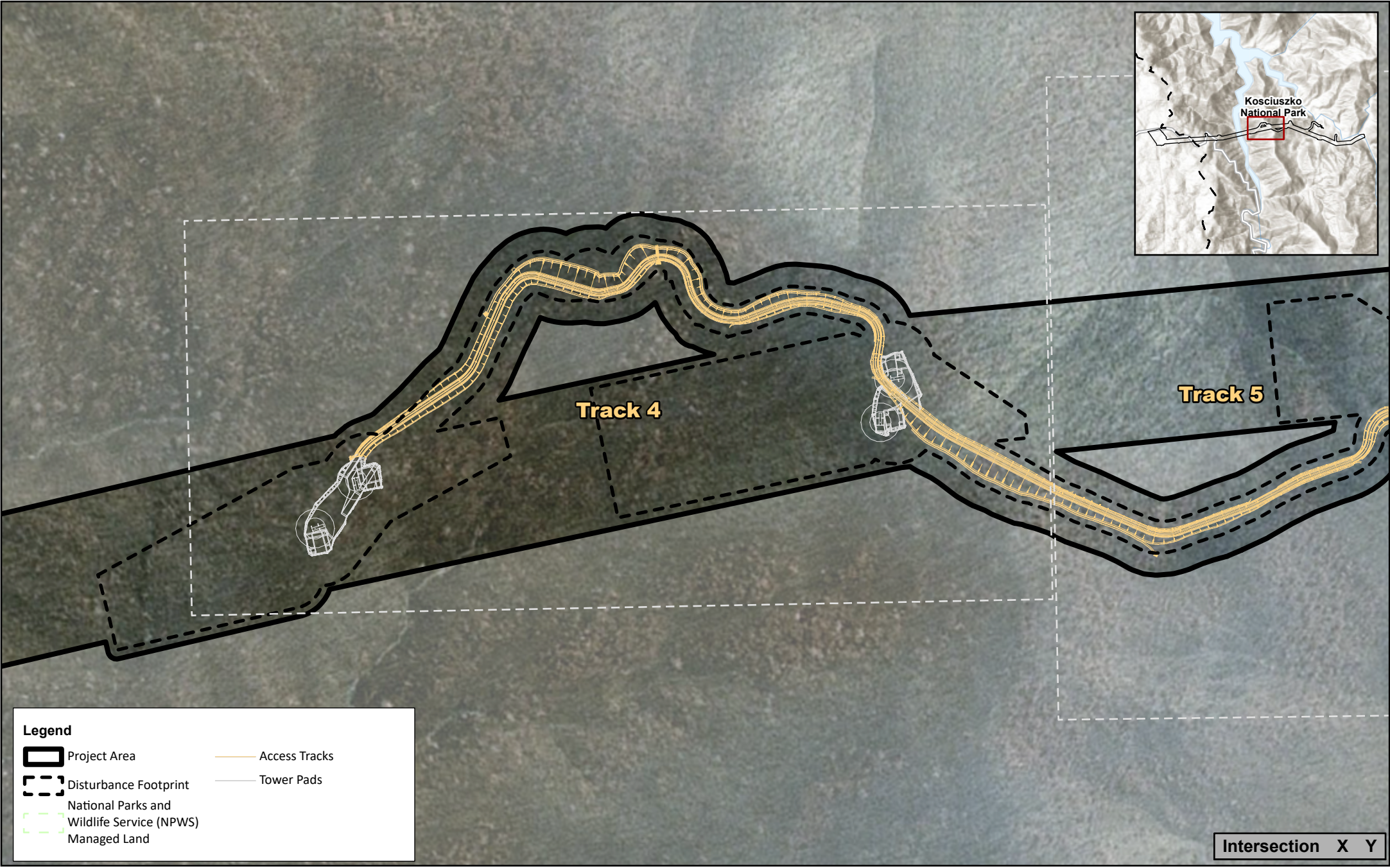
Transgrid

GIS

GIS-2583951-01

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Map Scale @ A4: 1:5,500

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Status
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Date

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09/02/2023

Access Tracks

Page 4 of 8

Beca

Project

Client

Discipline

Drawing Number

Snowy VIMP, Staging Letter and TS

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Legend

Project Area

Disturbance Footprint

National Parks and Wildlife Service (NPWS) Managed Land

Access Tracks

Tower Pads

Intersection	X	Y
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Map Scale @ A4: 1:5,500

0255075100

Metres

Revision Status 2 Issued

Author BMM2

Verifier JHT

Date 09/02/2023

Access Tracks

Page 5 of 8

Project Snowy VIMP, Staging Letter and TS

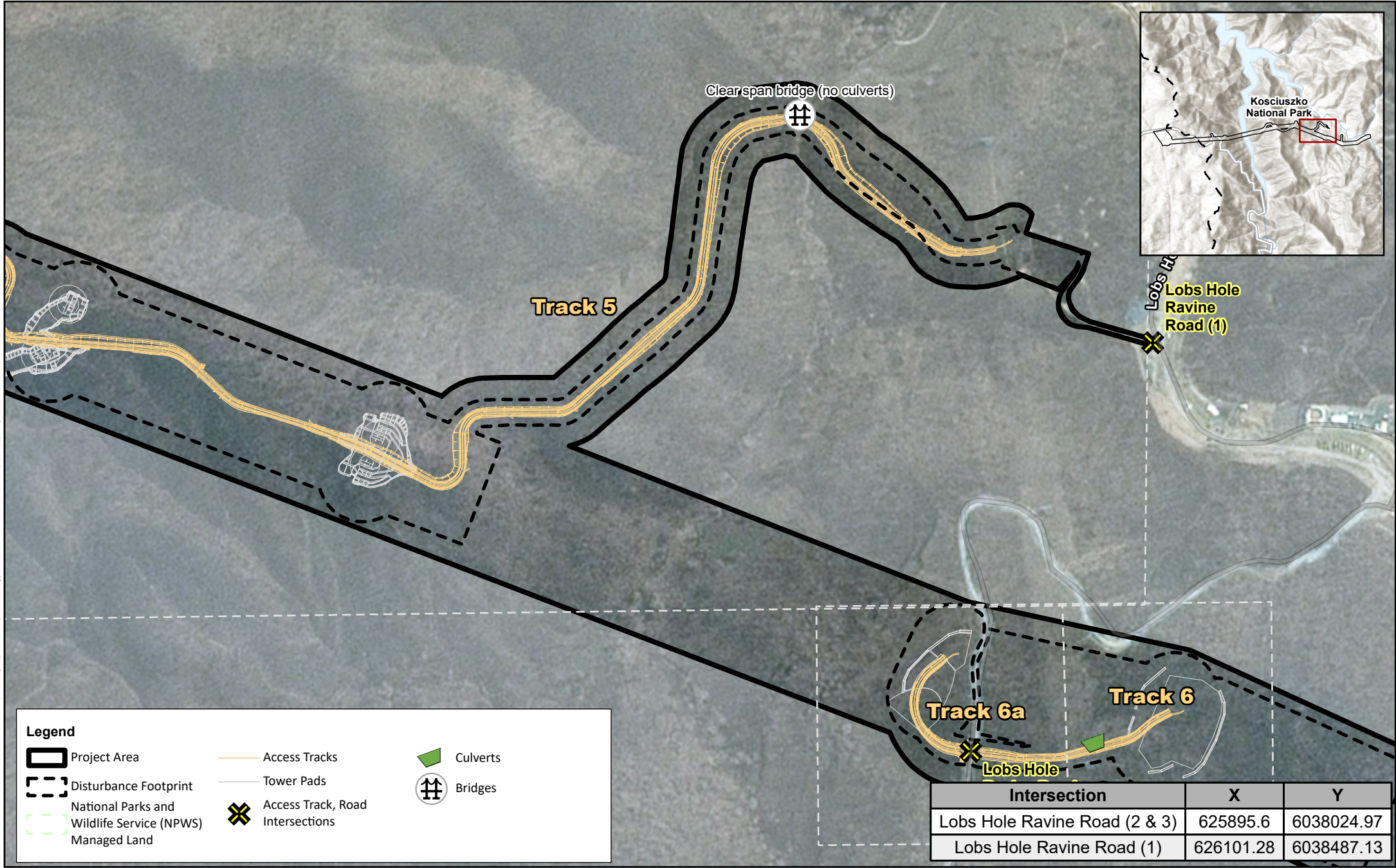
Client Transgrid

Discipline GIS

Drawing Number GIS-2583951-01

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Revision Status 2 Issued

Author BMM2

Verifier JHT

Date 09/02/2023

Access Tracks

Page 6 of 8

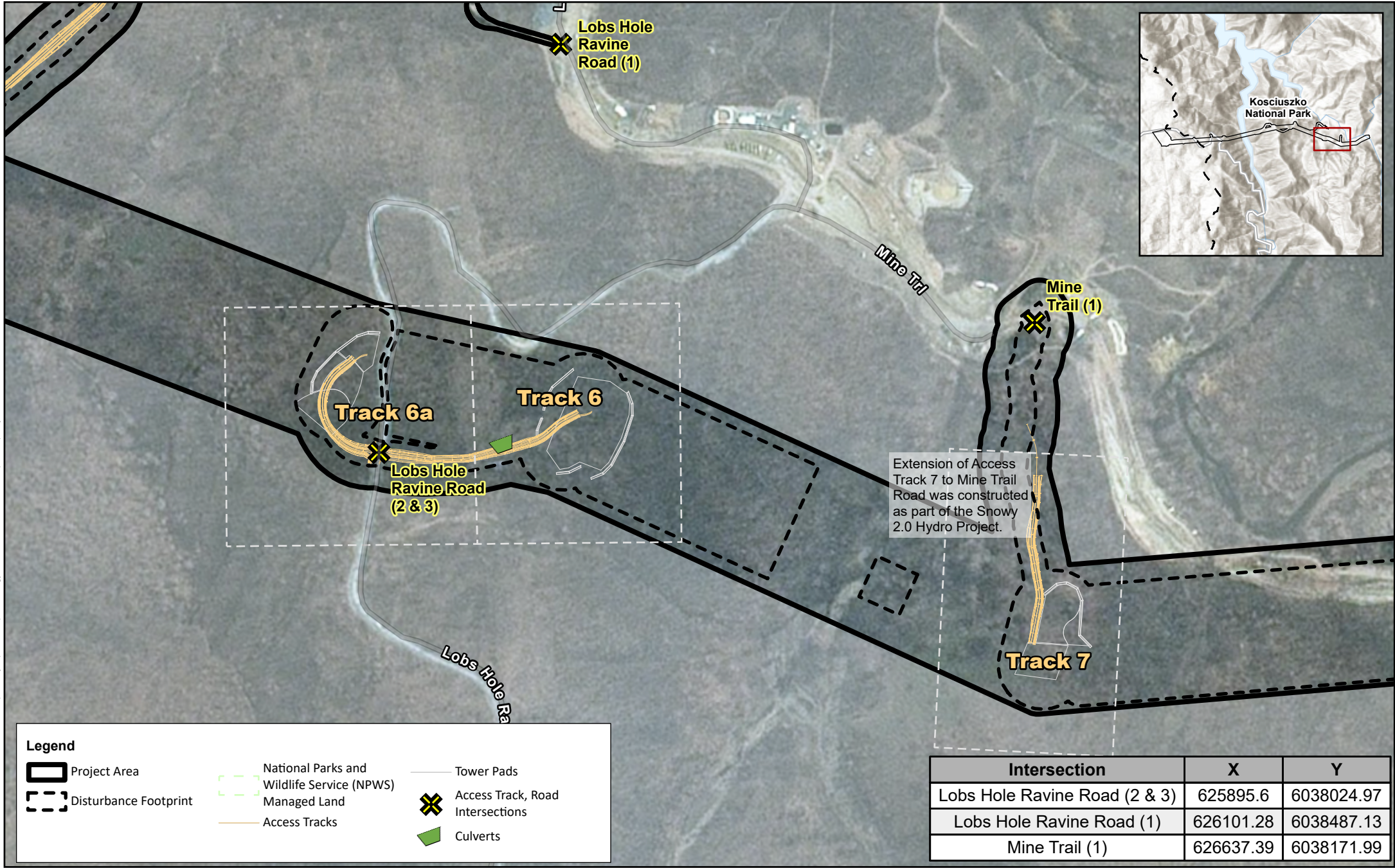
Project Snowy VIMP, Staging Letter and TS

Client Transgrid

Discipline GIS

Drawing Number GIS-2583951-01

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Metres

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Revision Status

Author JHT

Verifier

Date 09/02/2023

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09/02/2023

Access Tracks

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Project

Client

Discipline

Drawing Number

Snowy VIMP, Staging Letter and TS

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Legend

Project Area

Disturbance Footprint

National Parks and Wildlife Service (NPWS) Managed Land

Access Tracks

Access Track, Road Intersections

Tower Pads

Intersection	X	Y
Mine Trail (2)	627587.18	6038051.1

Map Scale @ A4: 1:5,500

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50

75

100

Metres

Revision Status 2 Issued

Author BMM2

Verifier JHT

Date 09/02/2023

Access Tracks

Page 8 of 8

Project Snowy VIMP, Staging Letter and TS

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Discipline GIS

Drawing Number GIS-2583951-01

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Attachment C – Written Approval of Access Track Design

[REDACTED]

From: [REDACTED]
Sent: Monday, 24 April 2023 7:53 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: NPWS comments on intersection with Elliott Way due to Snowy 2.0 Transmission Connection - Transport Strategy [Official]

H [REDACTED]

Comments noted below and actioned. NPWS comments will now be incorporated in the Transport Strategy and lodged with DPE for approval. Thank you for NPWS feedback and time.

Regards

[REDACTED]
Senior Project Manager | Delivery

Transgrid | Sydney West, NSW,
[REDACTED]
[REDACTED] w: www.transgrid.com.au



We acknowledge the Aboriginal and Torres Islander people as the Traditional Custodians of the land which we provide our services. We pay our respects to their Elders, past and present.



Data Classification: *Official*

From: [REDACTED]
Sent: Friday, 21 April 2023 5:13 PM
To: [REDACTED]
Cc: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
Subject: RE: NPWS comments on intersection with Elliott Way due to Snowy 2.0 Transmission Connection - Transport Strategy [Official]

G'day [REDACTED]

NPWS has reviewed and accepts the modified drawings with the following comments:

1. In relation to "Track One", I have attached a mark-up from NPWS Team Leader Roads [REDACTED] highlighting the issues of drainage impacting Elliott Way. Drainage solutions shall be implemented in a timely matter to the satisfaction of NPWS. There should also be a hold point prior to commencement of work as noted on this drawing.
2. Please also delete the reference to the satisfaction of Contractor in TL-903121-G.pdf

Regards,

[REDACTED]

[REDACTED]

Manager, Southern Ranges Services
Southern Ranges Branch
NSW National Parks and Wildlife Service

[REDACTED]

W nationalparks.nsw.gov.au

From: [REDACTED]

Sent: Thursday, 20 April 2023 7:42 AM

To: [REDACTED]

[REDACTED]

Cc: [REDACTED]

[REDACTED]

[REDACTED]

Subject: RE: NPWS comments on intersection with Elliott Way due to Snowy 2.0 Transmission Connection - Transport Strategy [Official]

[REDACTED]

See attached PDF copies of the modified drawings for access track 1 & 12 as promised reflecting what we discussed on the 14/4/23. Could you please review and confirm it address's your concerns. If there is no further comment on the Transport strategy could you please confirm in writing so I can have the plan updated with NPWS comments and submitted to DPE for approval. Appreciate your assistance.

Regards

[REDACTED]

Senior Project Manager | Delivery

Transgrid | Sydney West, NSW,

[REDACTED]

[REDACTED] W: www.transgrid.com.au



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Data Classification: *Official*

From: [REDACTED]
Sent: Friday, 14 April 2023 4:43 PM

To: [REDACTED]
Cc: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Subject: RE: NPWS comments on intersection with Elliott Way due to Snowy 2.0 Transmission Connection - Transport Strategy [Official]

Hi [REDACTED]

We had a meeting between UGL [REDACTED] and [REDACTED] today which was productive, there are two amendments UGL are going to make to the access track designs one to access track twelve and another to access track one. Once these are completed I will send them through for final comment.

Regards

[REDACTED]
Senior Project Manager | Delivery

Transgrid | Sydney West, NSW,
[REDACTED]
[REDACTED] w: www.transgrid.com.au



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Data Classification: *Official*

From: [REDACTED]
Sent: Wednesday, 12 April 2023 3:18 PM

To: [REDACTED]
Cc: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Subject: RE: NPWS comments on intersection with Elliott Way due to Snowy 2.0 Transmission Connection - Transport Strategy [Official]

[REDACTED]

Our team has reviewed the design and are requesting more information on where surface drainage from the access tracks drains onto Elliott Way.

Regards



[REDACTED]
Senior Project Officer
NPWS Snowy 2.0 Team
Southern Ranges Branch
NSW National Parks and Wildlife
Service

7a Adelong Road, Tumut NSW 2720

W nationalparks.nsw.gov.au

From: [REDACTED]

Sent: Wednesday, 12 April 2023 2:00 PM

To: [REDACTED]

Cc: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Subject: RE: NPWS comments on intersection with Elliott Way due to Snowy 2.0 Transmission Connection - Transport Strategy [Official]

Hi [REDACTED]

Hope you had a good easter.

Are you able to provide any update on the below? If you require an online meeting happy to organise or for myself to assist in any way please let me know. We would like to submit the Transport Strategy asap with only NPWS comments remaining.

Regards

[REDACTED]
Senior Project Manager | Delivery

Transgrid | Sydney West, NSW,

[REDACTED] : www.transgrid.com.au



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Data Classification: *Official*

From: [REDACTED]

Sent: Monday, 27 March 2023 12:52 PM

To: [REDACTED]

Cc: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Subject: RE: NPWS comments on intersection with Elliott Way due to Snowy 2.0 Transmission Connection - Transport Strategy [Official]

[REDACTED]

I will seek input from our team as to your question and get back to you.

Regards



[REDACTED]
Senior Project Officer
NPWS Snowy 2.0 Team
Southern Ranges Branch
NSW National Parks and Wildlife
Service

7a Adelong Road, Tumut NSW 2720

W nationalparks.nsw.gov.au

From: [REDACTED]

Sent: Monday, 27 March 2023 11:45 AM

To: [REDACTED]

Cc: [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

Subject: RE: NPWS comments on intersection with Elliott Way due to Snowy 2.0 Transmission Connection - Transport Strategy [Official]

Hi [REDACTED]

Thanks for getting back to me.

To your question below "if the intersections will be to the Austroads Guide to Road Design. This will enable NPWS to understand if there is compliance with CoA B27(b)." is that it does not comply with Ausroads Guide to Road Designs.

I have spoken with our contractor and their design manager in regards to this topic and he has stated that AusRoads is a guide. It does not address urban local access roads or low speed/low traffic environment. I have included a snap shot of the "Application of the Guide to Road Design" and the way it is understood is the guide does not cover our situation therefore what would we be designing to. The contractor has also confirmed we are not touching Elliot way itself.

1.3 Application of the Guide to Road Design

The GRD is aimed primarily at practitioners with responsibilities for the design of roads. The guide deals with the geometric elements of the road, together with relevant drainage and roadside considerations. The documentation is presented in the form of a number of parts covering specific aspects of the design process, with each part providing guidelines underpinned by commentaries and resource materials.

It is expected that, for the experienced engineer or practitioner, the guide will provide the necessary key information and provide direction where deviations from the guidelines are required.

The guide addresses design practices across the range of road categories, from major roads to local roads, but does not address urban local access roads or low speed/low traffic environments. It also recognises that the design of roads should be based on the capabilities and behaviour of all road users, including pedestrians and cyclists, and on the performance and characteristics of vehicles. The different traffic mix and volumes, access requirements, functions and abutting developments that are typical of local roads create a different set of challenges that must be addressed in their own right. Additional guidance on the specific requirements of low trafficked roads is available in the American Association of State Highway and Transportation Officials (AASHTO) guidelines (2001) and in Giummarra (2001).

Austroads 2021 | page 1

As indicated in B27 it has to comply with Ausroads guide to Road Design unless the relevant road authority, in this case Parks agrees otherwise. Could you confirm if Parks agree with the design or do Parks want the design to comply with Ausroads guideline if it needs to comply with Ausroads Guide I am unsure how we would achieve this outcome.

Transport Strategy

- B27. Prior to commencing construction in Project Area West, the Proponent must prepare a Transport Strategy consultation with the relevant roads authority/manager, to the satisfaction of the Planning Secretary,
- (a) identifies the location and type of any necessary road upgrades (including roads, intersection crossing points, bridges and access points), including consideration of relevant amenity impacts;
 - (b) ensures that any road upgrades comply with the *Austroads Guide to Road Design* (as amended by TfNSW supplements), unless the relevant road authority agrees otherwise;
 - (c) includes a detailed assessment of potential impacts of any necessary road upgrades (such as noise and biodiversity impacts), including consideration of appropriate mitigation measures;
 - (d) identifies whether intersections, crossing points and access points would be permanent or temporary and
 - (e) includes measures or notifying, seeking feedback from and addressing the concerns of impacted residents along the route;

Happy to discuss.

Regards

██████████
Senior Project Manager | Delivery

Transgrid | Sydney West, NSW,
██████████



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Data Classification: *Official*

From: [REDACTED]

Sent: Friday, 24 March 2023 2:45 PM

To: [REDACTED]

Co: [REDACTED]
[REDACTED]
[REDACTED]

Subject: NPWS comments on intersection with Elliott Way due to Snowy 2.0 Transmission Connection - Transport Strategy

[REDACTED]

NPWS have reviewed the intersection design for the access tracks coming off the section of Elliott Way managed by NPWS.

Can you please confirm if the intersections will be to the Austroads Guide to Road Design. This will enable NPWS to understand if there is compliance with CoA B27(b).

NPWS note that Transgrid retains responsibility for the entirety of the development for any impacts to the roadway surface, pavement base layers and formation caused by the construction and ongoing existence of the proposed transmission tower access tracks. With this in mind it is essential that the independent dilapidation surveys for Elliott Way as per CoA B29 are carried out and the survey information is provided to NPWS when produced.

NPWS advise that the Elliott Way formation was constructed as a temporary construction access for the Tumut 2 tailrace construction site. It is constructed on a steep hillside on the western side of the Tumut river valley. The roadway descends at an average gradient of over 8% with maximum gradients of 13% occurring at 6 different locations. The formation is a classic side slope cut/fill embankment with the downslope 'fill' side dropping sharply to the natural (1.5 to 1) slope, being 36 degrees on average. The formation is inherently unstable and prone to slips, slumps and collapsed sections.

Any proposed earthworks for the purpose of transmission tower access tracks must not impact or create a circumstance wherein the existing formation is subject to any activity, or arrangement, that may induce instability in the existing embankment or adjacent hillside. Any proposed earthworks plan must be supported by evidence of considered geotechnical impacts to the existing formation and adjacent terrain.

If you have any questions please call.

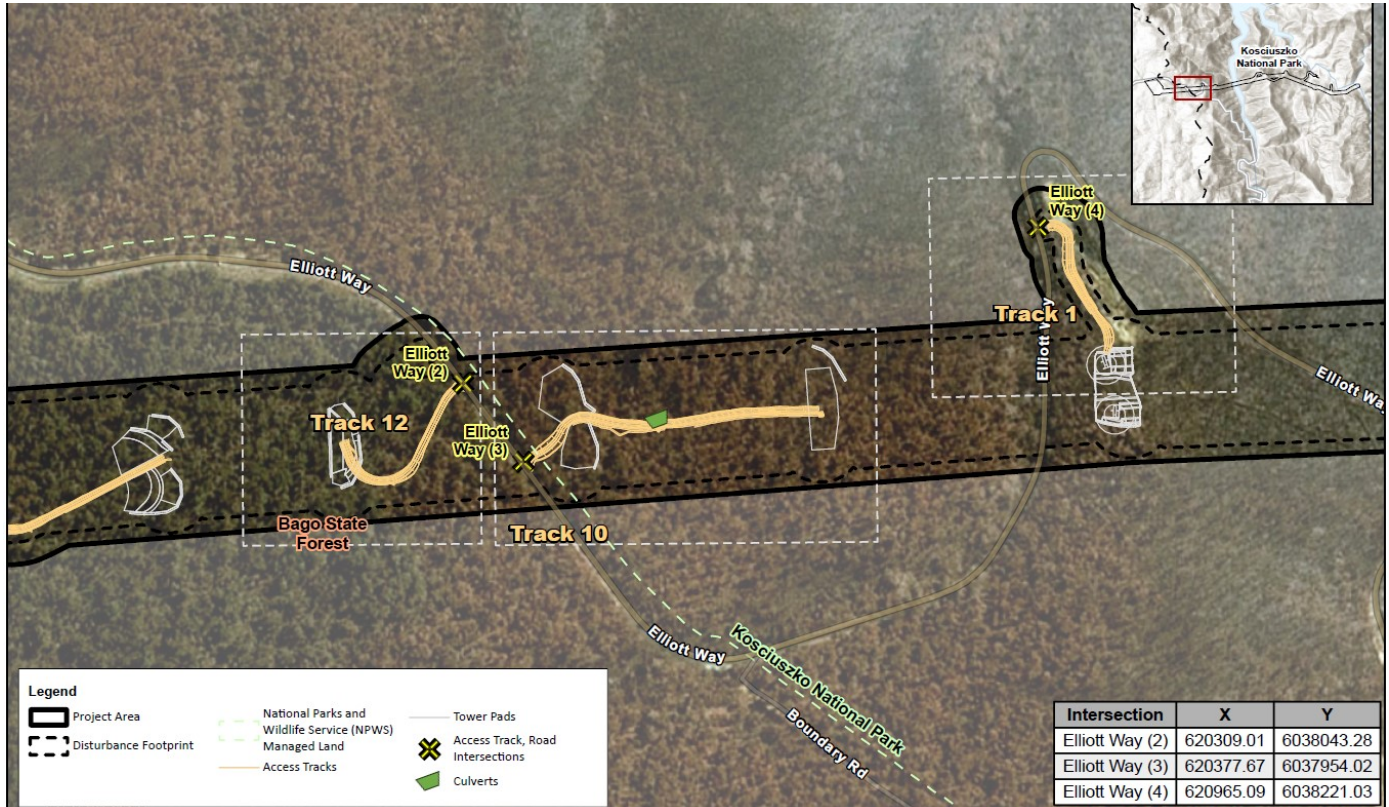
Regards



Senior Project Officer
NPWS Snowy 2.0 Team
Southern Ranges Branch
NSW National Parks and Wildlife
Service

7a Adelong Road, Tumut NSW 2720

W nationalparks.nsw.gov.au





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[REDACTED]

From: [REDACTED]
Sent: Monday, 20 March 2023 1:27 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Elliot Way intersection - SVC approval of design
Attachments: MRG-200101-A.pdf; MRG-200102-A.pdf; RE: Maragle (TransGrid) switchyard/
substation on Elliott Way Ch21.125km;
Engineering+Construction+Certificate+Application+Form.pdf

G'day [REDACTED]

I have previously advised [REDACTED] from UGL that the attached intersection design is acceptable (see attached email). Works on the Elliot Way require approval under S138 of the Roads Act.
Please complete the attached application form and I can issue the approval. The current fee is \$321.

Regards,
[REDACTED]

[REDACTED]
Coordinator Survey & Design



76 Capper Street, Tumut, NSW 2720

W: www.snowyvalleys.nsw.gov.au

Leading, engaging and supporting strong and vibrant communities



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From: [REDACTED]
Sent: Friday, 17 March 2023 4:17 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: Elliot Way intersection - SVC approval of design

Hi [REDACTED]

My name is [REDACTED] Transgrid (TG)'s senior project engineer working on the Snowy 2.0 Generation connection project. The aim of the project is to connect Snowy 2.0 power station to TG's transmission network by building a new 330 KV substation off Elliot Way – Maragle and two 330 KV double circuit transmission lines.

TG has engaged UGL to design and build the 330KV Substation and Transmission lines. The project allows access to the 330KV substation from Elliott Way through an engineered intersection which UGL is responsible for. TG is under the impression that the Snowy Valley Council (SVC) has approved UGL's design of the proposed Elliot way intersection.

TG needs to show written evidence to relevant stakeholders that SVC was consulted by UGL and approved the design of the Elliot Way intersection. Could you please provide written evidence of the consultation that took place and the approval provided by SVC to UGL?

Thank you in advance for your time and support.

Regards,

[REDACTED]
Senior Project Engineer | Delivery

Transgrid | 180 Thomas St Sydney, NSW, 2000

[REDACTED]
[REDACTED] W: www.transgrid.com.au



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[REDACTED]

From: [REDACTED]
Sent: Tuesday, 4 April 2023 4:51 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Snowy 2.0 Tx Cn project - FCNSW comments sought [Official]

Hi [REDACTED]

We have confirmed (as far as possible) that the intersection with Elliot Road is a Council Road, so no issues there.

With regard to the balance of the road, our team are comfortable with the information provided, and the only comment is that Transgrid will need to apply for and receive an access permit prior to establishing the road (as this is separate to the installation of transmission lines in the proposed easement area).

Regards

[REDACTED]

From: [REDACTED]
Sent: Friday, March 10, 2023 1:32 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Snowy 2.0 Tx Cn project - FCNSW comments sought [Official]

Hi Troy,

Any progress on comments from your Ecologist / Civils Team on our Access Track 9 design within your Maragle State Forest?

Kind regards,

[REDACTED]
Senior Environmental Advisor | Delivery

Transgrid | 200 Old Wallgrove Road Sydney West, NSW, 2766
[REDACTED]
[REDACTED] **W:** www.transgrid.com.au



Data Classification: *Official*

From: [REDACTED]
Sent: Tuesday, 28 February 2023 4:10 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Snowy 2.0 Tx Cn project - FCNSW comments sought [Official]

Understood. 😊

[REDACTED]
Senior Environmental Advisor | Delivery

Transgrid | 200 Old Wallgrove Road Sydney West, NSW, 2766
[REDACTED] **W:** www.transgrid.com.au



Data Classification: *Official*

From: [REDACTED]
Sent: Tuesday, 28 February 2023 4:08 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Snowy 2.0 Tx Cn project - FCNSW comments sought [Official]

Thanks [REDACTED]

One of our major concerns when looking at track construction / upgrade / maintenance in our forests is the environmental impact of such works, especially drainage etc. The plans will be reviewed by a number of team members, including our ecologist.

Regards
[REDACTED]

From: [REDACTED]
Sent: Tuesday, February 28, 2023 4:01 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Snowy 2.0 Tx Cn project - FCNSW comments sought [Official]

Thanks [REDACTED]

Our project Conditions of Approval require us to either comply with the Austroads Road Design Guidelines for all our access tracks, or to obtain agreement from the relevant road agency/land manager for what road upgrade is proposed in their area. We've already approach NPWS for the roads/intersections in their area. I think they've referred it to their Roads Section.

So, it may be someone with more a civil background (roads), than ecology; who may be able to say whether it is acceptable or not to FCNSW.

Is that OK?

[Redacted]

Senior Environmental Advisor | Delivery

Transgrid | 200 Old Wallgrove Road Sydney West, NSW, 2766

[Redacted]

W: www.transgrid.com.au



Data Classification: *Official*

From: [Redacted]
Sent: Tuesday, 28 February 2023 3:35 PM
To: [Redacted]
Subject: RE: Snowy 2.0 Tx Cn project - FCNSW comments sought [Official]

Thanks [Redacted] I have shared this within FCNSW. Unfortunately the responsible ecologist is currently working remotely, so may not be able to review in detail until next week.

I have also sought confirmation on responsibility for Elliot Way, as my understanding was it was an RMS road.

Regards

[Redacted]

From: [Redacted]
Sent: Tuesday, February 28, 2023 3:04 PM
To: [Redacted]
Co: [Redacted]
Subject: Snowy 2.0 Tx Cn project - FCNSW comments sought [Official]

Hi [Redacted]

We'd like to give FCNSW the opportunity to comment on the Access track proposed to be constructed in your area.

Attached please find a copy of detailed drawings of two of our Tracks within the Maragle / Bago State Forest. I believe the intersection of Track 12 is on Elliott Way which is NPWS' domain but correct me if I'm wrong.



Map Scale @ A4: 1:5,500

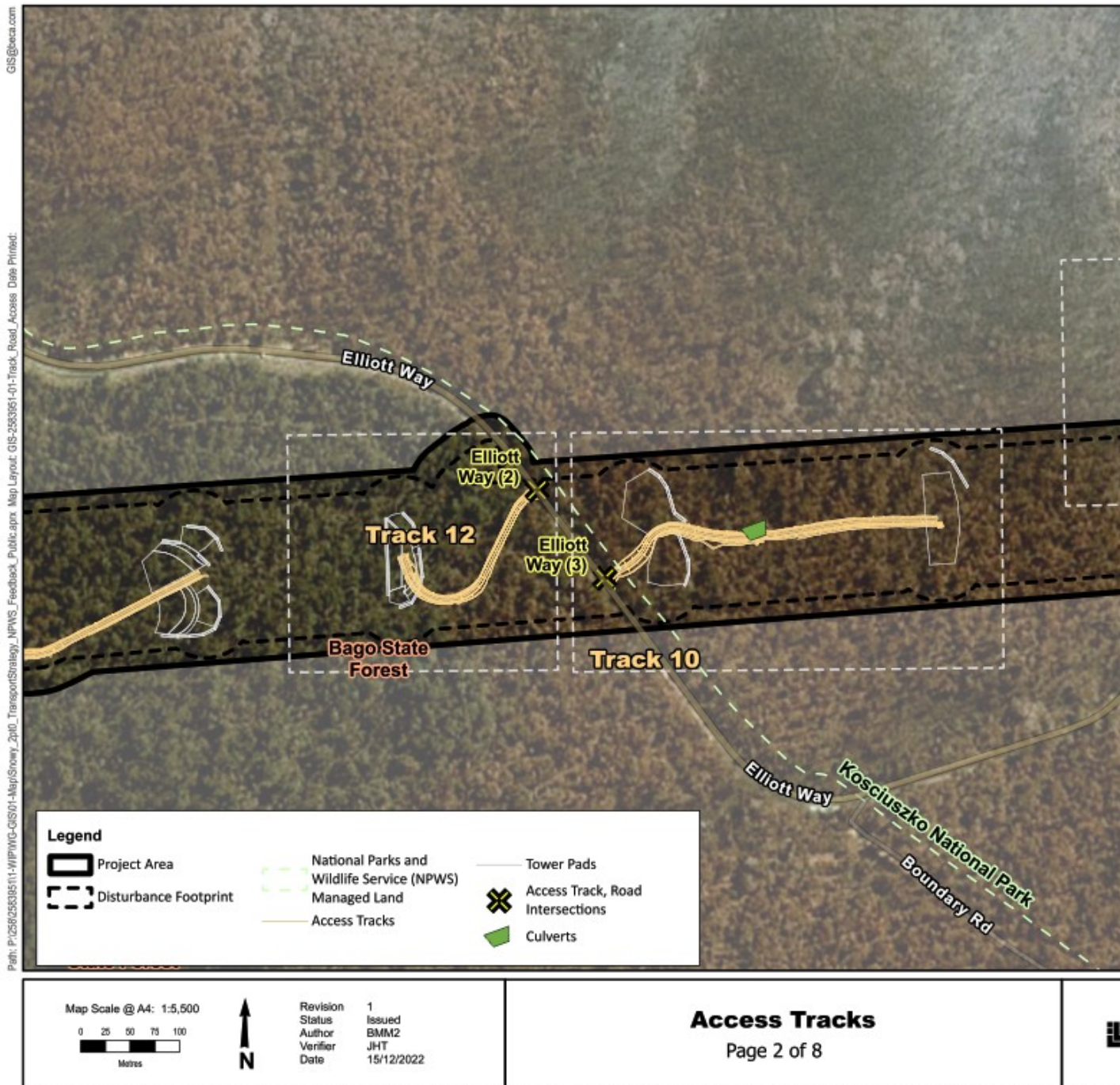


Revision	1
Status	Issued
Author	BMM2
Verifier	JHT
Date	15/12/2022

Access Tracks

Page 1 of 8

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Please let us know FCNSW thoughts on the proposed designs as soon as possible.

I'll call you in the next day or so, to see whether you need anything further if I don't hear from you.

Senior Environmental Advisor | Delivery

Transgrid | 200 Old Wallgrove Road Sydney West, NSW, 2766

W: www.transgrid.com.au



Data Classification: *Official*

From: [REDACTED]
Sent: Tuesday, 28 February 2023 12:42 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: Access Track 12 - Design Drawings [Official]

Hi [REDACTED]

Please find the attached access track 12 dwgs to be shared with Forestry.

Let me know if you need anything else.

Regards,

[REDACTED]
Senior Project Engineer | Delivery

Transgrid | 180 Thomas St Sydney, NSW, 2000

[REDACTED] W: www.transgrid.com.au



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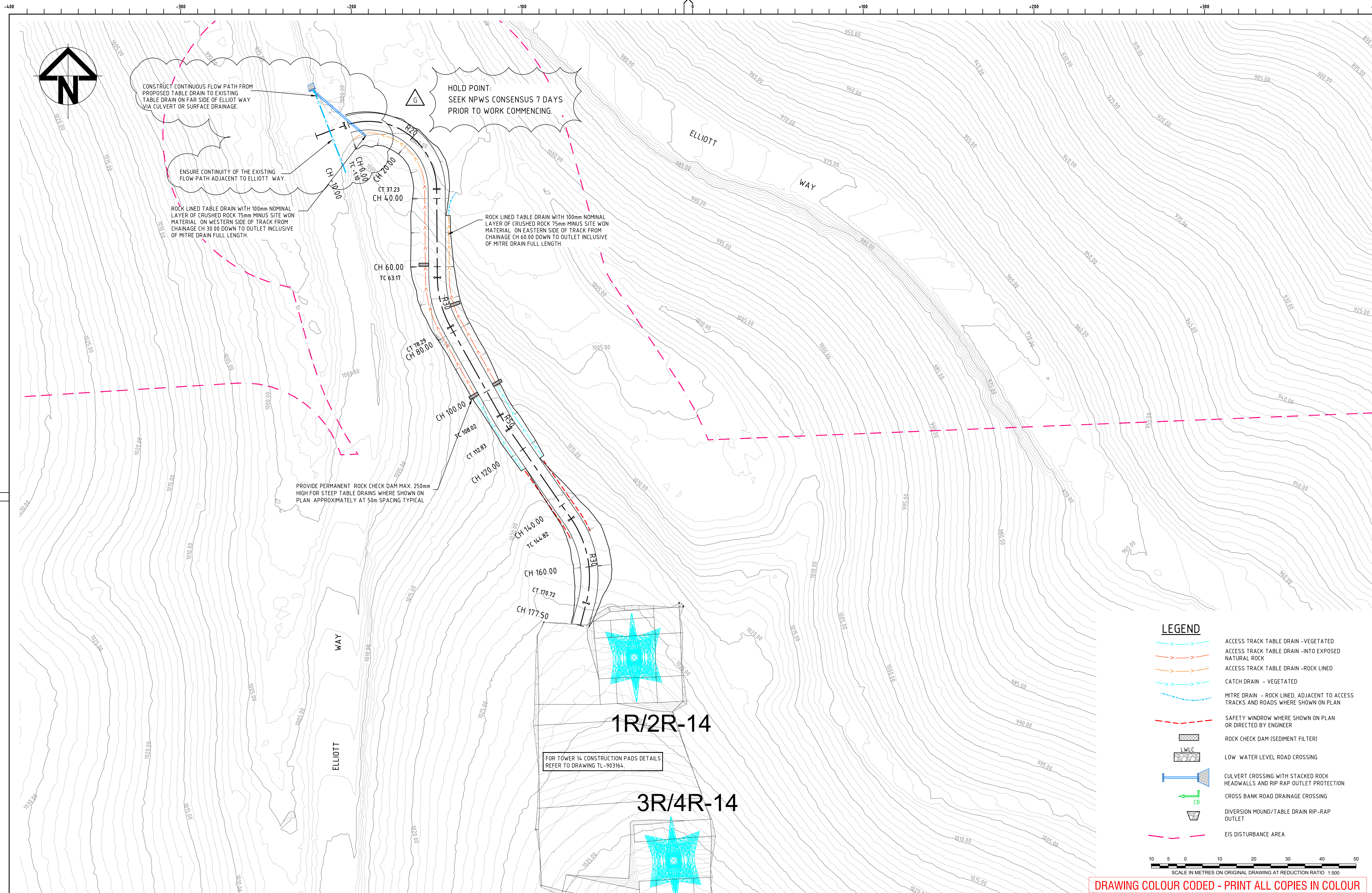
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Attachment D – Access Track Engineering Design Drawings

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LEGEND

ACCESS TRACK TABLE DRAIN -VEGETATED

ACCESS TRACK TABLE DRAIN -INTO EXPOSED NATURAL ROCK

ACCESS TRACK TABLE DRAIN -ROCK LINED

CATCH DRAIN - VEGETATED

MITRE DRAIN - ROCK LINED, ADJACENT TO ACCESS TRACKS AND ROADS WHERE SHOWN ON PLAN

SAFETY WINDROW WHERE SHOWN ON PLAN OR DIRECTED BY ENGINEER

ROCK CHECK DAM (SEDIMENT FILTER)

LOW WATER LEVEL ROAD CROSSING

CULVERT CROSSING WITH STACKED ROCK HEADWALLS AND RIP RAP OUTLET PROTECTION

CROSS BANK ROAD DRAINAGE CROSSING

DIVERSION MOUND/TABLE DRAIN RIP-RAP OUTLET

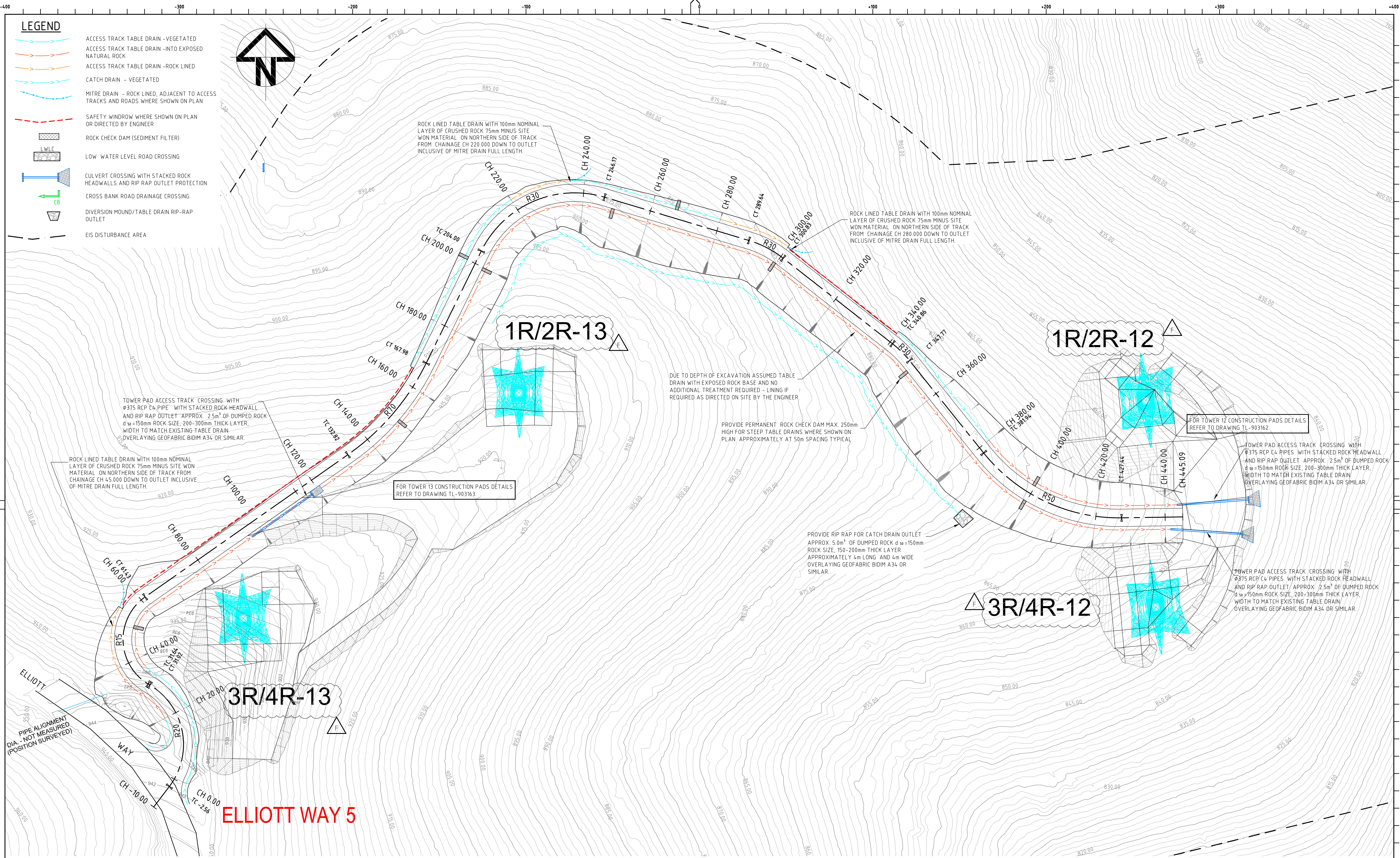
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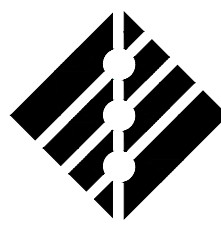


AMENDMENT:

UGL
28 OCT 2022
APPROVED FOR
CONSTRUCTION

F	CIRCUIT RENAMING	DH	PL	DK	AS	TS	28/10/2022
E	ISSUED FOR CONSTRUCTION	DH	PL	YT	AS	TS	29/07/2022
D	ISSUED FOR REVIEW	DH	PL	YT	AS	TS	25/07/2022
C	ISSUED FOR REVIEW	DH	PL	YT	AS	TS	15/10/2021
B	ISSUED FOR REVIEW	DH	PL	YT	WW	TS	09/07/2021
A	ISSUED FOR REVIEW	DH	PL	YT	WW	TS	15/04/2021
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APPROVAL STATUS
SCALE

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TRANSMISSION LINES
CONSTRUCTION - ACCESS - CLEARING
330kV MARAGLE TRANSMISSION LINES - 1R/2R, 3R/4R
ACCESS TRACKS - TRACK 2
PLAN

A1

TL-903124

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INDEX CLASS'N

02-02

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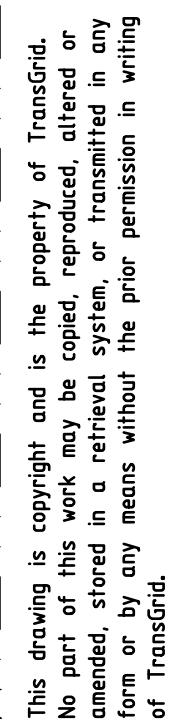
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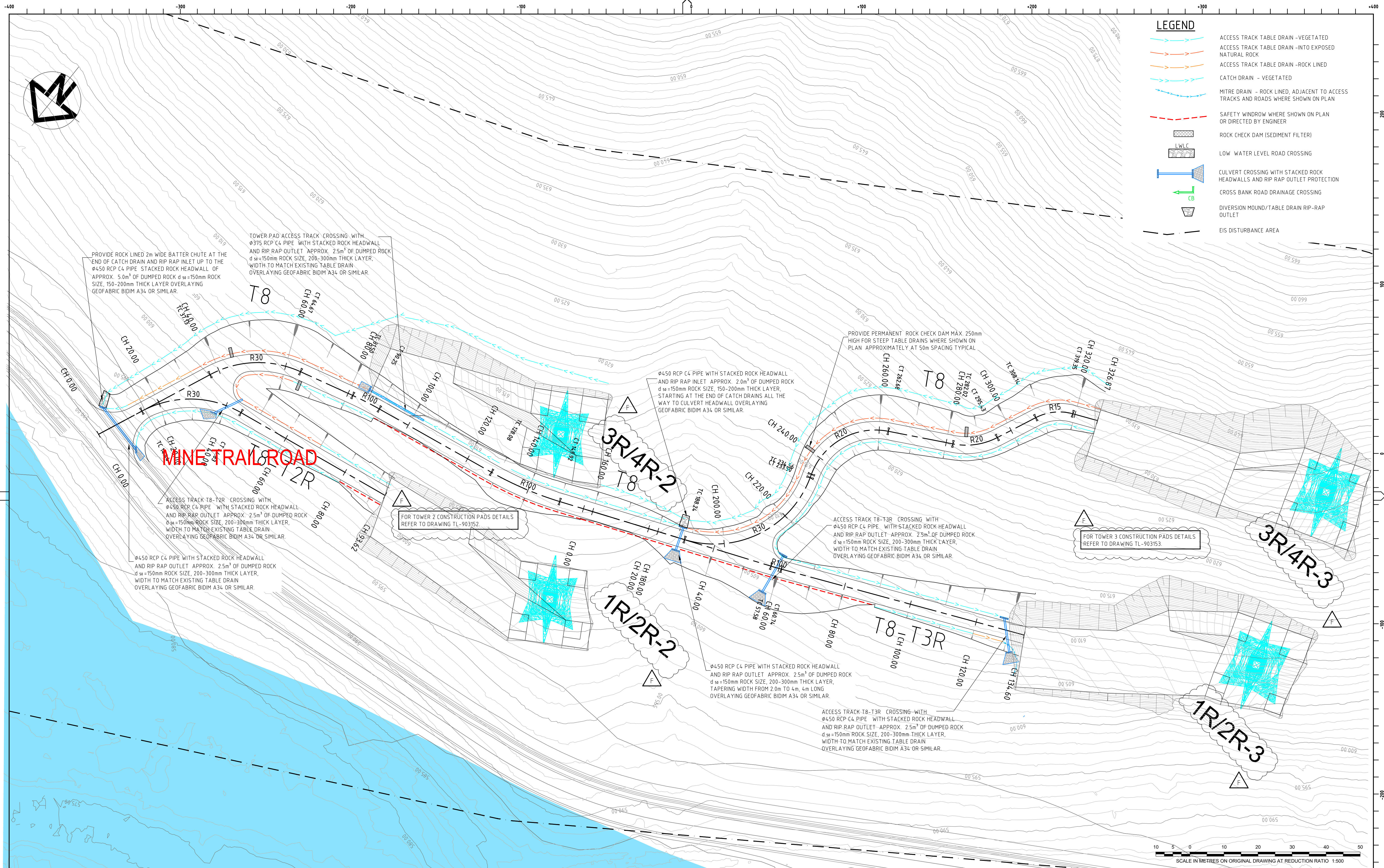
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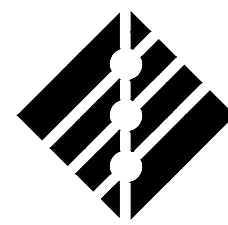


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C	ISSUED FOR REVIEW	DH	PL	YT	AS	TS	15/10/2021
B	ISSUED FOR REVIEW	DH	PL	YT	WW	TS	09/07/2021
A	ISSUED FOR REVIEW	DH	PL	YT	WW	TS	15/04/2021
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APPROVAL STATUS		
SCALE		

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TRANSMISSION LINES
CONSTRUCTION - ACCESS - CLEARING
330kV MARAGLE TRANSMISSION LINES - 1R/2R, 3R/4R
ACCESS TRACKS - TRACK 8, TRACK T8-T2R AND TRACK T8-T3R
PLAN

A1

TL-903139

F

PREFIX NUMBER SHEET

AMDT

INDEX CLASS'N

02-02

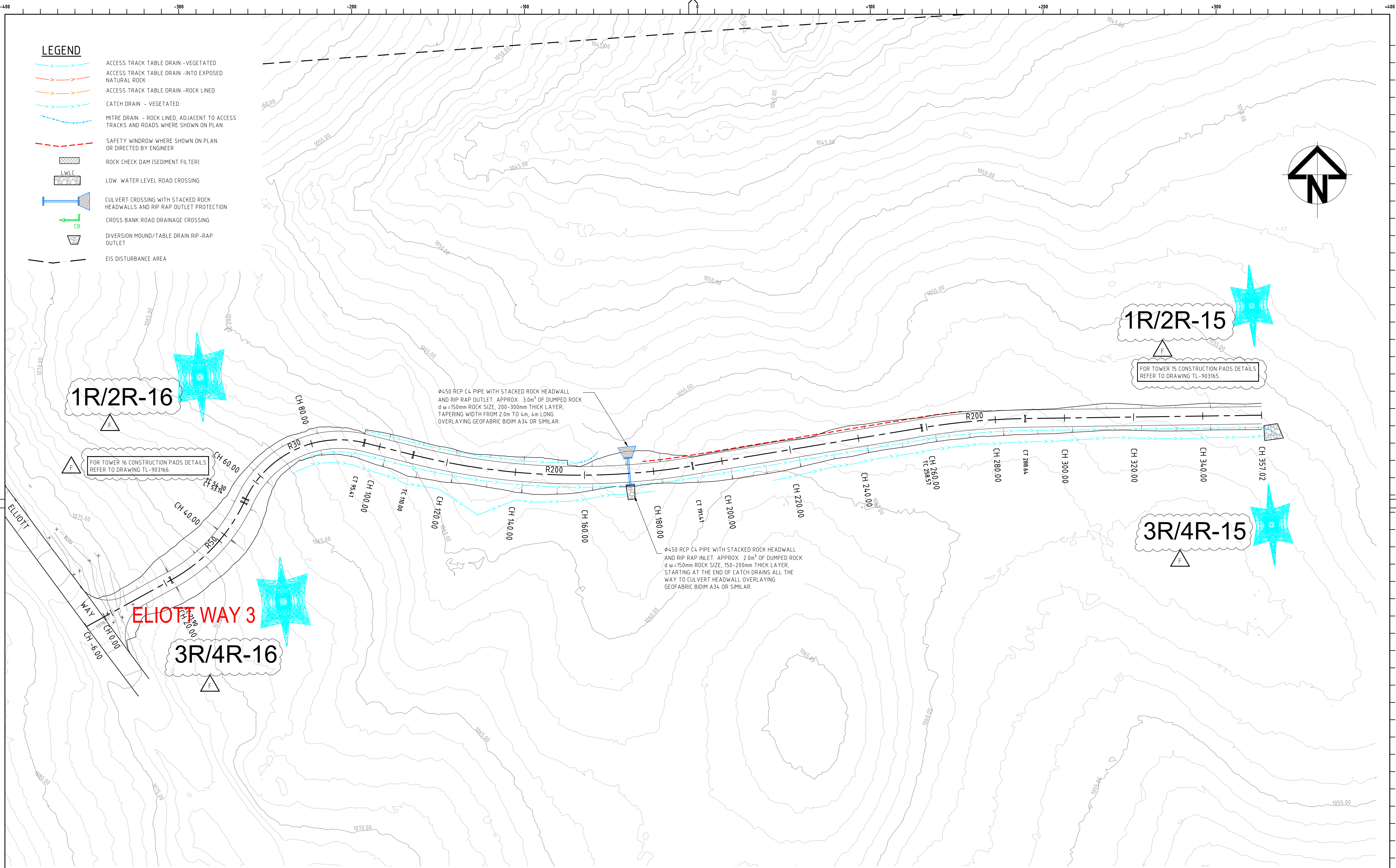
566x801mm SOURCE DESIGN FILE\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$DGN\$SPEC\$

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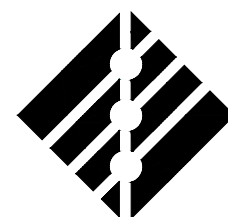


AMENDMENT:

UGL
28 OCT 2022
APPROVED FOR
CONSTRUCTION

F	CIRCUIT RENAMING	DH	PL	DK	AS	TS	28/10/2022
E	ISSUED FOR CONSTRUCTION	DH	PL	YT	AS	TS	29/07/2022
D	ISSUED FOR REVIEW	DH	PL	YT	AS	TS	25/01/2022
C	ISSUED FOR REVIEW	DH	PL	YT	AS	TS	15/10/2021
B	ISSUED FOR REVIEW	DH	PL	YT	WW	TS	09/07/2021
A	ISSUED FOR REVIEW	DH	PL	YT	WW	TS	15/04/2021
AMDT	AMENDMENT DETAILS	DESIGN	CHK'D	DRAWN	CHK'D	APP'D	DATE

PLOT ISSUE DATE \$\$\$\$\$\$TIME\$\$\$\$\$\$PLOT_TIME\$\$



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APPROVAL STATUS		
SCALE		

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TRANSMISSION LINES CONSTRUCTION - ACCESS - CLEARING 330kV MARAGLE TRANSMISSION LINES - 1R/2R, 3R/4R ACCESS TRACKS - TRACK 10 PLAN		
A1	TL-903145	F
PREFIX	NUMBER	SHEET
INDEX	CLASS'N	AMDT

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SCALE IN METRES ON ORIGINAL DRAWING AT REDUCTION RATIO 1:500

566x801mm SOURCE DESIGN FILE\$\$\$\$\$\$\$\$\$DGN\$SPEC\$\$\$\$\$\$\$\$\$

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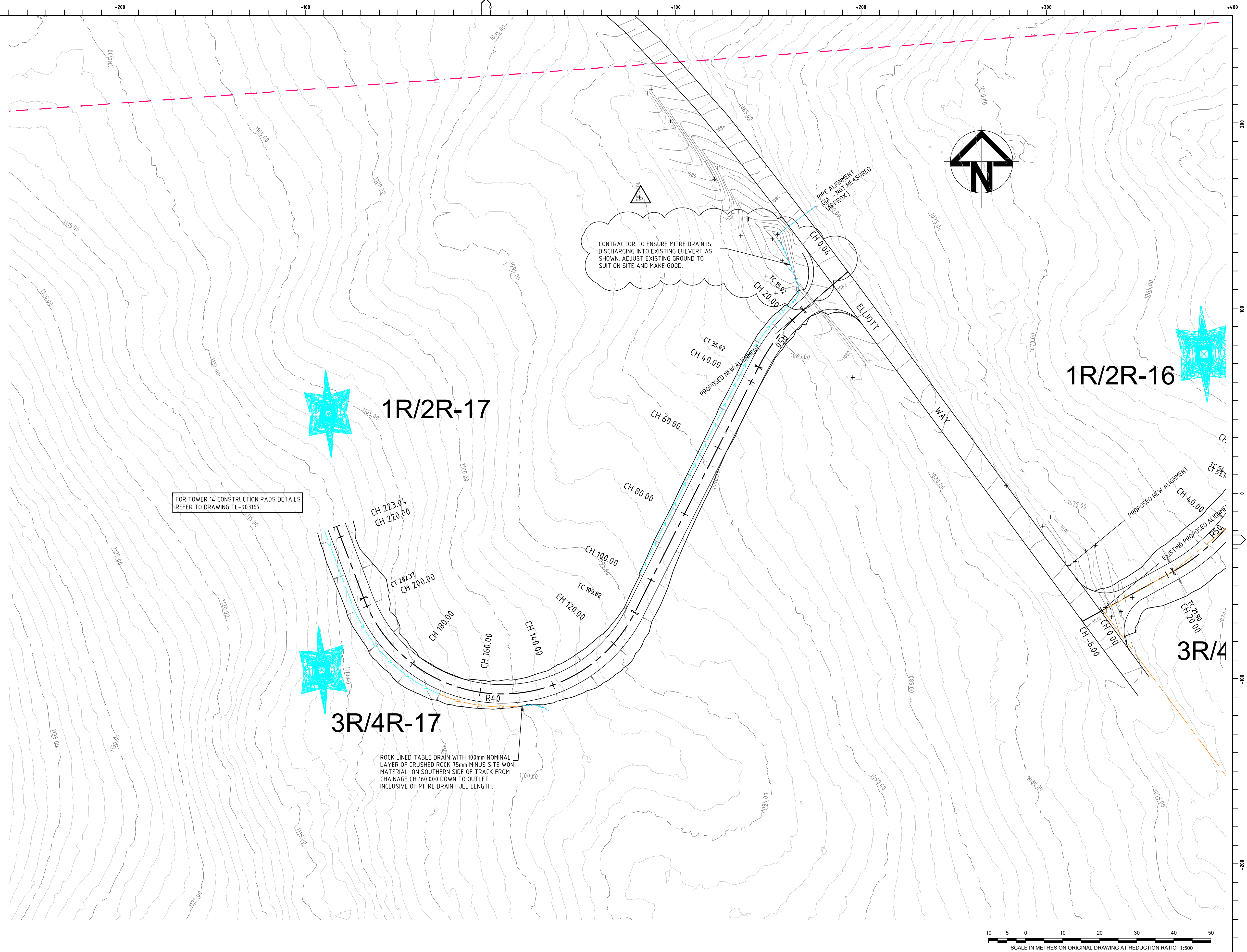
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02-02

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LEGEND

- ACCESS TRACK TABLE DRAIN -VEGETATED
- ACCESS TRACK TABLE DRAIN -INTO EXPOSED NATURAL ROCK
- ACCESS TRACK TABLE DRAIN -ROCK LINED
- CATCH DRAIN - VEGETATED
- MITRE DRAIN - ROCK LINED, ADJACENT TO ACCESS TRACKS AND ROADS WHERE SHOWN ON PLAN
- SAFETY WINDROW WHERE SHOWN ON PLAN OR DIRECTED BY ENGINEER
- ROCK CHECK DAM (SEDIMENT FILTER)
- LOW WATER LEVEL ROAD CROSSING
- CULVERT CROSSING WITH STACKED ROCK HEADWALLS AND RIP RAP OUTLET PROTECTION
- CROSS BANK ROAD DRAINAGE CROSSING
- DIVERSION MOUND/TABLE DRAIN RIP-RAP OUTLET
- EIS DISTURBANCE AREA



FOR TOWER 14 CONSTRUCTION PADS DETAILS REFER TO DRAWING TL-903167.

CONTRACTOR TO ENSURE MITRE DRAIN IS DISCHARGING INTO EXISTING CULVERT AS SHOWN. ADJUST EXISTING GROUND TO SUIT ON SITE AND MAKE GOOD.

ROCK LINED TABLE DRAIN WITH 100mm NOMINAL LAYER OF CRUSHED ROCK 75mm MINUS SITE WON MATERIAL ON SOUTHERN SIDE OF TRACK FROM CHAINAGE CH 160.000 DOWN TO OUTLET INCLUSIVE OF MITRE DRAIN FULL LENGTH.

SCALE IN METRES ON ORIGINAL DRAWING AT REDUCTION RATIO 1:500

DRAWING COLOUR CODED - PRINT ALL COPIES IN COLOUR

AMENDMENT:

UGL
19 APRIL 2023
APPROVED FOR
CONSTRUCTION

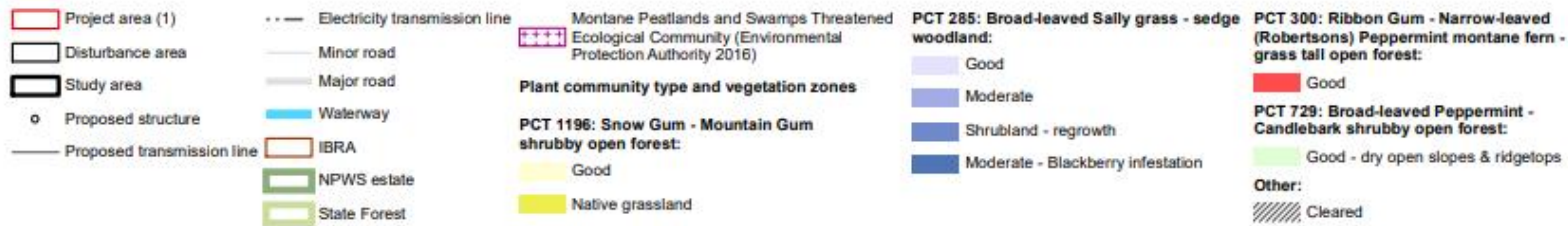
AMDT	AMENDMENT DETAILS	DESIGN	CHK'D	DRAWN	CHK'D	APP'D	DATE
G	NOTE ADDED	DH	PL	DK	AS	TS	19/04/2023
F	CIRCUIT RENAMING	DH	PL	DK	AS	TS	28/10/2022
E	ISSUED FOR CONSTRUCTION	DH	PL	YT	AS	TS	29/07/2022
D	ISSUED FOR REVIEW	DH	PL	YT	AS	TS	25/01/2022
C	ISSUED FOR REVIEW	DH	PL	YT	AS	TS	15/10/2021
B	ISSUED FOR REVIEW	DH	PL	YT	WW	TS	09/07/2021
A	ISSUED FOR REVIEW	DH	PL	YT	WW	TS	15/04/2021



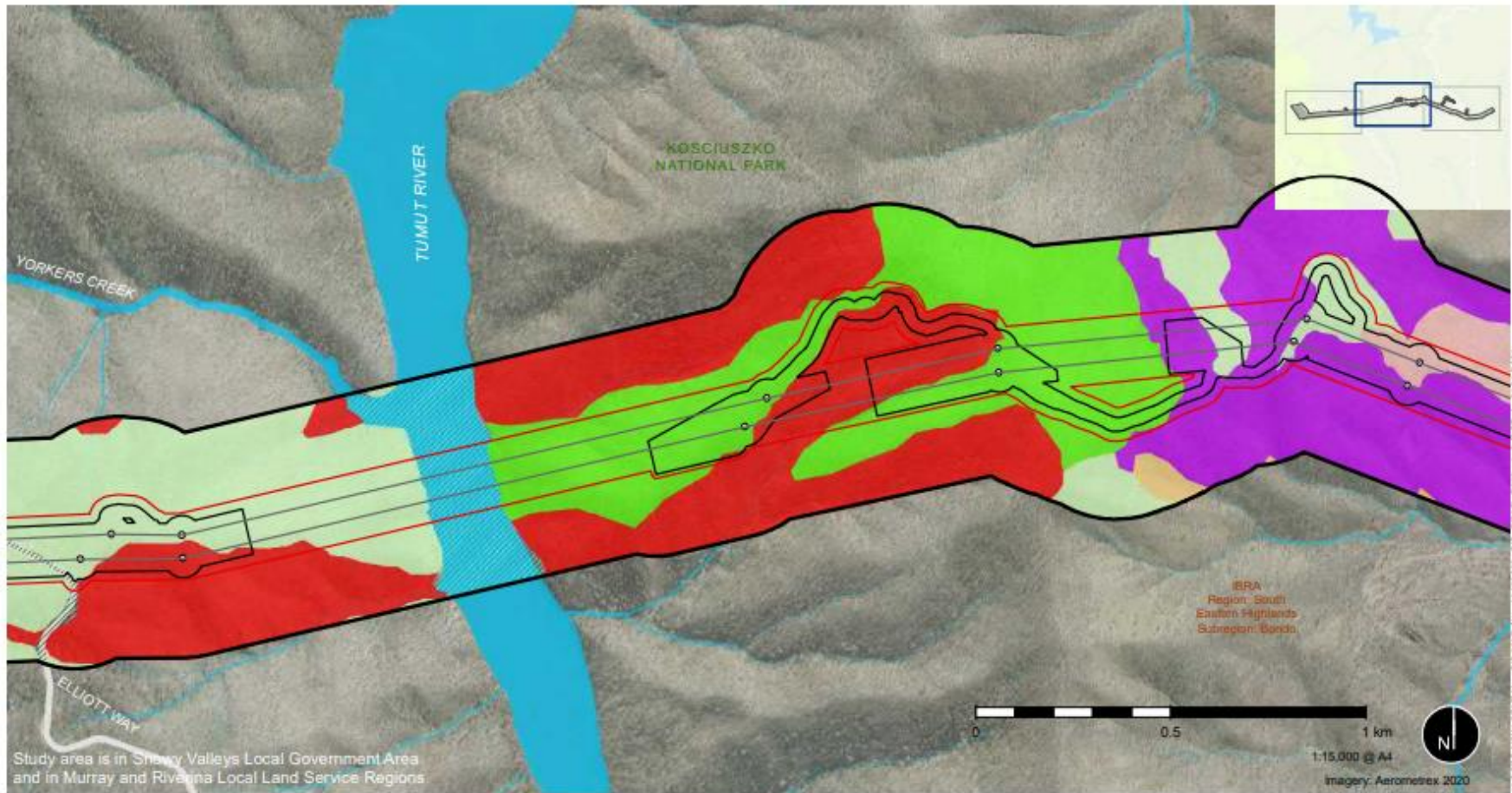
DRAWN		
REVIEWED		
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APPROVED		
APPROVAL STATUS		
SCALE		

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TRANSMISSION LINES CONSTRUCTION - ACCESS - CLEARING 330kV MARAGLE TRANSMISSION LINES - 1R/2R, 3R/4R ACCESS TRACKS - TRACK 12 PLAN		
A1	TL-903148	G
PREFIX	NUMBER	SHEET
INDEX CLASS'N		02-02

Attachment E – Plant Community Mapping (Source: Jacobs, 2021)



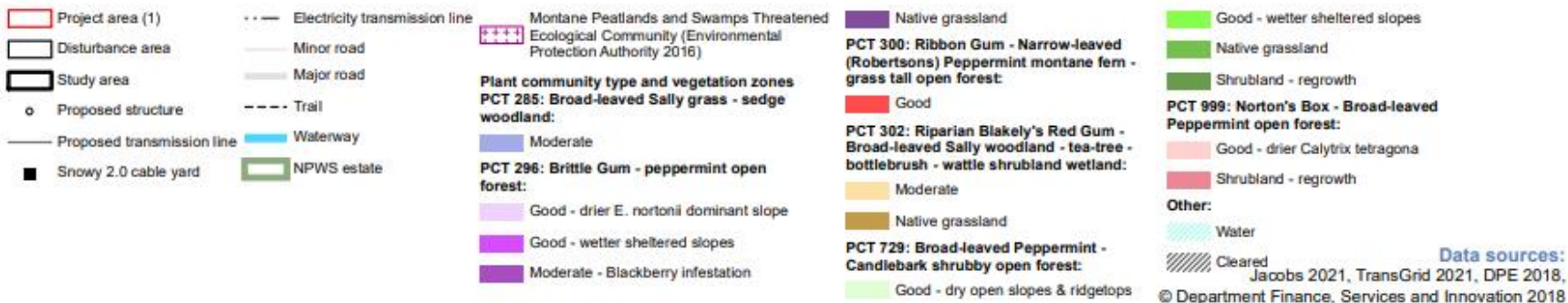
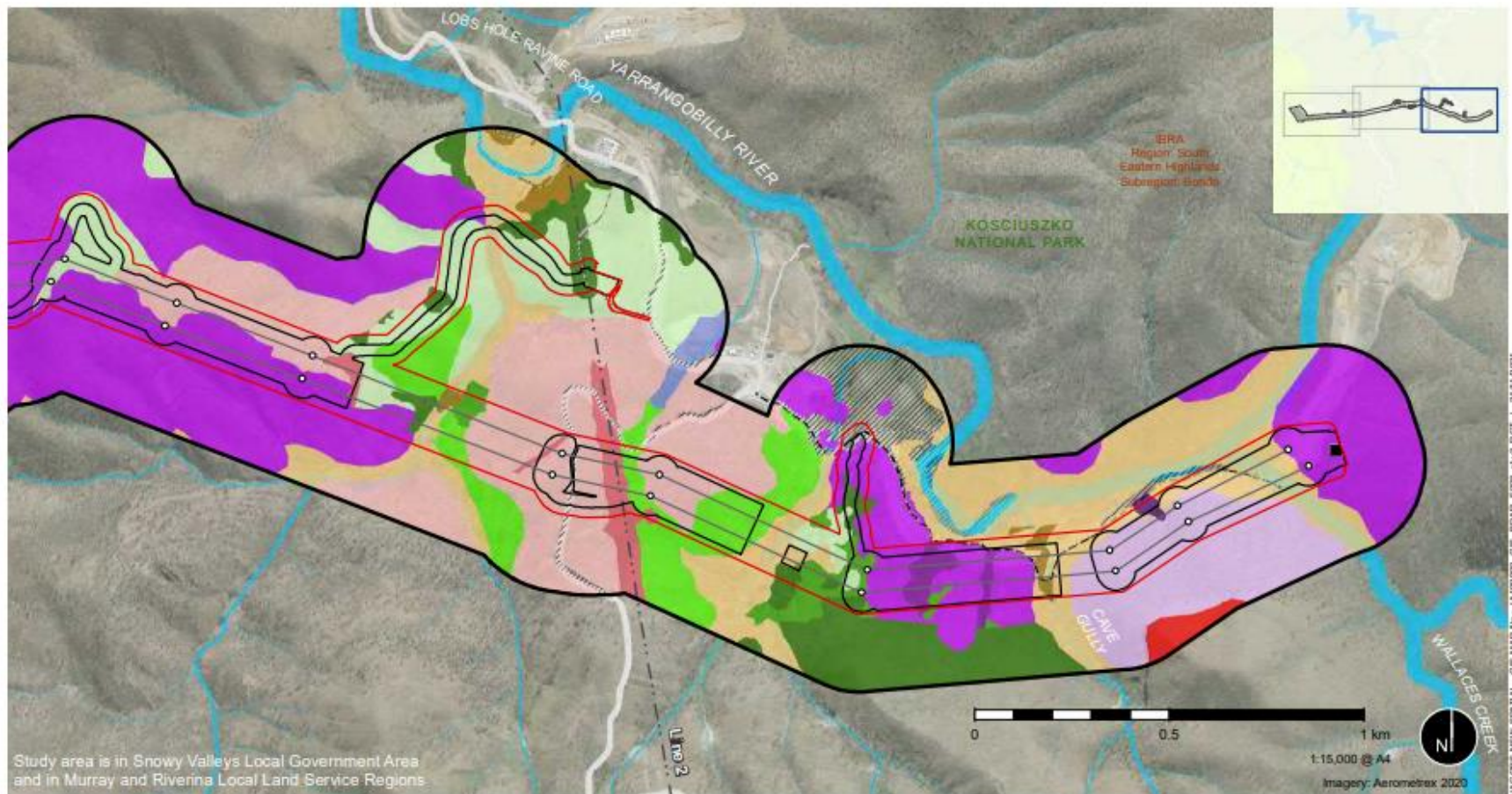
Snowy 2.0 Transgrid Connection | 2583951-961539403-31 | 6/01/2026 | 32



- | | | | | |
|--|--|---|--|---|
| <ul style="list-style-type: none"> Project area (1) Disturbance area Study area Proposed structure Proposed transmission line | <ul style="list-style-type: none"> Electricity transmission line Major road Waterway NPWS estate | <ul style="list-style-type: none"> Montane Peatlands and Swamps Threatened Ecological Community (Environmental Protection Authority 2016) Plant community type and vegetation zones PCT 296: Brittle Gum - peppermint open forest: Good - wetter sheltered slopes | <ul style="list-style-type: none"> PCT 300: Ribbon Gum - Narrow-leaved (Robertsons) Peppermint montane fern - grass tall open forest: Good PCT 302: Riparian Blakely's Red Gum - Broad-leaved Sally woodland - tea-tree - bottlebrush - wattle shrubland wetland: Moderate | <ul style="list-style-type: none"> PCT 729: Broad-leaved Peppermint - Candlebark shrubby open forest: Good - dry open slopes & ridgetops Good - wetter sheltered slopes PCT 999: Norton's Box - Broad-leaved Peppermint open forest: Good - drier Calytrix tetragona Other: Water Cleared |
|--|--|---|--|---|

Data sources:

Jacobs 2021, TransGrid 2021, DPE 2018,
© Department Finance, Services and Innovation 2018



Attachment F – Relevant Project Mitigation Measure Commitments (Source: Transgrid, 2022)

Identifier	Mitigation Measures
Biodiversity	
B1	Detailed design of the project will focus on the retention of managed shrub and groundcover vegetation zones, within the Easement Clearing Zone (ECZ), Hand Clearing Zone (HCZ) and Hazard Tree Zone (HTZ) to avoid and minimise the loss of vegetation and habitat and movements of fauna across the landscape and to minimise the impact of predation on displaced fauna. Final design for permanent creek crossing structures on access roads will implement a design option to ensure stream flow is unaffected (e.g., single span to minimise stream disturbance and flow). Design and micro-siting of access tracks will avoid and minimise impacts to rock outcrops, large boulders, piled rock, and rock features that provide potential sheltering and breeding habitat for fauna including threatened species and avoid mapped habitat trees. Access track corridors will be established with consideration to terrain (e.g., utilisation of the ridgelines to navigate to the higher elevations) to minimise cut/fill and vegetation clearing.
B2	A Biodiversity Management Plan (BMP) will be prepared and approved prior to construction. The BMP will be prepared by a qualified ecologist in consultation with Biodiversity, Conservation and Science within DPE (BCS) and NPWS, and include a plan for implementing, evaluating and reporting on the effectiveness of all mitigation measures outlined in the revised BDAR, but not be limited to these measures. The BMP will be based on SMART principals (Specific, Measurable, Achievable, Realistic, Timebound) and will focus on monitoring the performance of proposed measures and informing an adaptive management approach based on performance triggers for remedial action or additional offsets where further impacts are identified. The BMP will include a program to monitor, evaluate and publicly report on the outcomes of a biodiversity monitoring program (refer Section 11.2 of the revised BDAR). The BMP must stipulate objectives for monitoring, and how baseline data will be captured and represented.
B3	A Rehabilitation Plan will be prepared and approved prior to construction in consultation with BCS, NPWS and FCNSW. The Rehabilitation Plan will inform the implementation of rehabilitation within the lease/licence area. Such areas will be identified in the final detailed design and will also include areas disturbed during construction that are not required to be maintained or cleared for the operation of the project. • The plan will focus on the implementation of soil erosion prevention, re-establishment of local endemic plant species suitable to the vegetation formation and habitat and outline the details of rehabilitation objectives and how their outcomes for success will be measured, locations, target landforms and plant community types • Restoration of riparian vegetation (i.e. weed control) will be implemented to protect and improve key habitat areas of the Booroolong Frog • The plan will include a program for adaptive monitoring of specific success measures and reporting and include a Trigger Action Response Plan (TARP). The TARP will include notification to NPWS and BCS that remedial actions have been triggered and agreement about the response • Revegetation of slopes will be undertaken in accordance with the rehabilitation plan • Landscaping of pervious surfaces using native indigenous species only • Soil loss will be prevented by immediate stabilisation of exposed surfaces (e.g. use of Jute mesh and/or soil binder)

Identifier	Mitigation Measures
	- Ongoing maintenance of the rehabilitation work will be required, including management of weeds and pathogens - Topsoil and subsoil generated during construction will be stockpiled separately on-site to be used for rehabilitation. Stockpiles will be managed according to best management practices (Managing Urban Stormwater: Soils and Construction).
B4	Pre-clearing Process: the pre-clearing process will include two stages. Stage 1 will include survey and translocation of any fauna from the disturbance area into areas of retained vegetation prior to the development of the project. This may include detailed markup of threatened species locations and their translocation such as <i>Caladenia montana</i>. All work must be carried out by qualified ecologist. The next pre-clearing stage will include final inspections of the disturbance area immediately before the construction activity commences to check and physically mark any important habitat features that need to be considered when identifying exclusion zones and conducting the staged habitat removal process within the total and partial clearing zones. Document, mark and record the location of: - Large stick nests - Any rock features - Habitat/hollow-bearing trees - Threatened flora The outcomes of the pre-clearing inspections will be reported to BCS/NPWS prior to the commencement of vegetation clearing. The report will include any fauna relocated or euthanised, including name of qualified/licensed handler, species, location notes, and release location and method.
B5	The boundary of the clearing limits for each disturbance zone will be clearly marked on site by a surveyor before vegetation clearing commences. - Exclusion zones, or 'No-Go' zones, will be clearly marked at the edge of the total clearing zones and ECZ to protect the vegetation to be retained outside the project from inadvertent direct impacts - Exclusion zones and the edge of the clearing boundary will be marked with high visibility fencing and signage - Booroolong Frog: A 50 metre exclusion zones will be marked and clearly delineated from other survey markers with signage place around the tributaries that flow downhill into the Yarrangobilly Creek, this includes the limits of clearing on the lower end of Sheep Station Creek, Cave Gully, Lick Hole Gully and Wallace Creek that are crossed by the project to protect the downstream habitat of Booroolong Frog - Booroolong Frog: The 50 metre exclusion zone adopted for the Main Works project on Yarrangobilly Creek, will be retained for construction of the transmission line Hazard trees identified from the LiDAR assessment are to be flagged for removal, and any other adjacent and important habitat trees and features, also identified for retention and to avoid disturbance during the felling activity should also be clearly marked and included in maps within the Construction Environmental Management Plan (CEMP).
B6	A vegetation clearing methodology has been developed (provided as Appendix K of the revised BDAR), the methods described focus on the removal of vegetation in total and partial clearing zones. These methods will be incorporated as a vegetation clearing plan within the BMP designed to document the methods of vegetation and habitat clearing within each zone, including soil protection measures, mechanical and non-mechanical approaches, removal of habitat, protection of retained vegetation, and appropriate storage and re-use of mulch and timber to avoid disturbance of retained vegetation.

Identifier	Mitigation Measures
	Hollows logs and limbs encountered during clearing will be retained for placement within adjacent vegetation or on the maintained easement within shrub retention areas. The plan will include a requirement to prepare a post clearing report that records the final clearing extent using GPS to demonstrate whether clearing is within the approved disturbance area, and if exceeded, recalculate additional offset obligations.
B7	The vegetation clearing procedures will include provisions that any felled timber within Bago State Forest that FCNSW determine can be repurposed will be removed off-site by FCNSW.
B8	A staged habitat removal process will be required for removal of habitat (hollow-bearing trees, habitat trees, and bushrock) Staged habitat removal minimises direct impacts on fauna by providing them with an opportunity to vacate hollows and relocate naturally. The process includes: • If possible, avoid clearing during times when hollow-dependent fauna are breeding • Contact vets and wildlife carers before works commence • Ensure that licensed wildlife carers and/or ecologists are on site during habitat removal • Adopt two staged removal clearing non-habitat first (e.g. shrubs, regrowth, ground cover and nonhabitat trees). Allow at least 24 hours for fauna to vacate habitat before removing habitat trees • Ensure wildlife carers and/or ecologists are present during removal of habitat trees, and that habitat trees are felled carefully, using equipment that allows habitat trees to be lowered to the ground with minimal impact • A procedure for the ethical handling of injured or displaced fauna is to be documented in the BMP • Record the effort and outcomes of the habitat removal process • Save and reuse cleared material for rehab and habitat • Preparation of an 'Unexpected threatened species finds procedure' to be implemented during construction and operation. Applies to all activities that have potential to impact upon threatened flora and fauna species which have not already been assessed and approved. Any threatened entities found in a location previously unknown during construction or operation must be immediately notified to NPWS • Preparation of a Fauna handling and rescue procedure to be implemented during construction and operation
B9	Clearance of construction areas prior to commencement of daily construction to ensure there is no wildlife present. This will involve drive through sweep of areas planned for construction, by the contractors environmental representatives. If an animal is located within the construction area during works, the Delivery Manager and Project Management Site Representative are to be notified immediately. All work must immediately cease within the immediate area of the find and a local wildlife rescue or an ecologist will be required for assistance where necessary.
B10	An operational Vegetation Management Plan (VMP) will be prepared by an experienced ecologist prior to commencement of project operation. The plan will focus on vegetation management within the ECZ and HTZ with the aim of maintaining long-term Vegetation Integrity targets. The VMP will interpret the vegetation integrity scores into feasible actions to maintain vegetation condition, and outline project specific ongoing vegetation clearing requirements and methodology. The VMP will include a strategy for maintaining the expected vegetation outcomes for all partial impact zones assessed in the revised BDAR. The strategy will:

Identifier	Mitigation Measures
	• Translate the vegetation integrity (VI) scores into management actions to be applied during construction and operation of the project • Include triggers for corrective actions • Include details for review and reporting by a qualified ecologist in consultation with NPWS and BCS • The VMP will be guided by Transgrid's vegetation risk model and operational vegetation clearance requirements, in addition to the principles for Integrated Vegetation Management (IVM) which will aim to preserve future Vegetation Integrity scores within the ECZ Long-term monitoring will be conducted to measure the effectiveness of the VMP. The methods and timing of the monitoring will be documented in the VMP and will include a responsibility to report the results to BCS and NPWS • The VMP will detail methods for vegetation maintenance in the ECZ with a focus on retaining plant species diversity and cover of low understorey and groundcover plants <200mm, while tree and shrub regrowth will be suppressed for long-term easement management • The VMP will detail methods of maintenance in the HTZ with a focus on retaining all non-hazard trees, as well as shrubs, grasses, and forbs. Ongoing inspection (using Lidar, and follow-up on foot or drone) of hazard trees will occur and document the method of removal for each tree to ensure that non-hazard trees are not impacted during tree felling. Where threatened orchids are mapped (<i>Caladenia montana</i>), hazard trees will be sensitively removed to avoid impacting on the ground layer. This will include removing trees from the top down and cutting into small sections, transferring into the ECZ and mulching • The VMP will address measures required to minimise fire risk during operation of the project.
B11	A Soil and Water Management Plan (SWMP) will be prepared and implemented as part of the CEMP. The plan will include stringent controls to mitigate impacts of runoff and sediment transfer from the project area during construction and operation. Control measures will remain in situ until site stabilisation completion criteria are met. The plan will ensure protection of aquatic habitat in the tributaries crossed by the project, and particularly aimed at protecting the habitat for the Booroolong Frog associated with Yarrangobilly Creek. An assessment of the current sediment basin design for the Main Works project will occur, to determine if the design specifications are suitable for the additional sediment load expected during construction of the easement. Where modification or augmentation is required, sediment basins will be increased in size to cope with any additional expected sediment load. Sedimentation will be managed through implementation of effective sediment control management plans will be implemented to ensure that sediment does not enter the waterways and result in changes to the habitat structure of riparian areas or areas downstream of the project area. Effective control measures will include: • Erosion and sediment control plans for all stages of construction • The implementation of sediment control measures across the project area - sediment control ponds and sediment basins, coir logs and sediment fencing to control sediment run-off, catch drains and perimeter bunds and diversion drains • A schedule will be included for cleaning sediment basins with intervals to be informed from the outcomes of monitoring basins from Snowy 2 Main Works

Identifier	Mitigation Measures
	construction and catchment modelling. The schedule will include additional checks after rainfall events of >50 mm in 24 hours • Additional or supplementary control measures (i.e. sediment fencing, diversions, and detention ponds) will be implemented at high risk areas such as the bridge crossings at Sheep Station Creek, Cave Gully and Wallaces Creek and at structures sites and access roads on the slopes around Yarrangobilly Creek and associated tributaries • Additional water quality monitoring points will be installed and monitored in locations to be agreed with NPWS and BCS, which are downhill of the construction footprint and upstream of Booroolong Frog habitat. An adaptive monitoring plan will be developed to trigger a rapid response if sediment loads detrimental to Booroolong frog are detected • Runoff from spoil piles will be managed through the above listed control measures to ensure that there is no contamination or sediment entering waterways or adjacent areas • Accidental spills will be reported to the contractor's environmental representative as soon as the incident is observed so that the site can be remediated rapidly • Implementation of tannin leachate management controls may be required as determined by the monitoring program • Sediment traps or filters (targeting removal of coarse sediment) will be maintained at all discharge locations and will be monitored and maintained as per the scheduled requirements • Other source controls, such as mulching, matting and sediment fences may be used in consultation with BCS and NPWS and need to be approved in the CEMP and any deviation from measures by DPE will need to be sought. Similarly, natural erosion controls incorporating organic materials, micro water capture and contour shaping will need to be approved in the CEMP where appropriate • Disturbed areas will be stabilised and rehabilitated to reduce erosion potential (i.e. exposure period of bare earth). This will be particularly important for revegetation of slopes as soon as possible, in accordance with the rehabilitation plan. Landscaping of pervious surfaces using native indigenous species only. Soil loss will be prevented by immediate stabilisation of exposed surfaces (e.g. use of Jute mesh and/or soil binder) • Any imported fill will be certified at source locations to ensure it is pathogen and weed free Excavated Natural Material or Virgin Excavated Natural Material) • An induction protocol will be mandatory for all personnel involved in construction and operation works • There needs to be acknowledgement of imported material e.g. road base being washed off tracks etc in the surrounding environment and how that will be dealt with.
B12	To prevent an increase in weeds and disease pathogens in adjacent vegetation the flowing will be carried out: • A Weed control and monitoring programs will be developed and documented in the BMP in consultation with BCS and NPWS and any deviation from measures approved by DPE are to be raised and approved. The program will include adaptive management strategies for priority weed species during construction, and early operational phase. The details of the monitoring program will be determined during the preparation of the BMP and follow the principles outlined in Section 11.2 of the revised BDAR

Identifier	Mitigation Measures
	- Identify all weed species in Kosciuszko National Park in consultation with NPWS. Priority weeds species in Bago State Forest are consistent with high threat weeds - Identify, map, and remove all weeds before clearing for construction, and record location of weed and sprayed area for use in ongoing weed monitoring and management programs. - Prepare a vehicle and machinery hygiene strategy and implement during construction and operation. The strategy will include specific locations, timing and methods for removing soil and plant matter from vehicles and machinery. Ensure vehicle and machinery hygiene measures in the strategy are applied during construction and operation - During the clearing works, weeds will be disposed and managed appropriately to stop the spread of weed species - Wash down stations will be constructed at suitable locations to wash down vehicles and employee shoes to stop the spread of weeds, pathogens (including amphibian chytrid fungus, <i>Phytophthora cinnamomi</i> and exotic rust fungi) and the introduction of new species - During construction, any biosecurity issues identified are to be reported to FCNSW and NPWS immediately.
B13	To prevent an increase in predatory and pest species the following will be carried out: - Personal waste / refuse generated during construction will be stored appropriately in inaccessible bins and disposed at appropriate waste disposal facilities off-site. Any personal waste generated during operation will be removed from the site (including substation) and disposed in an appropriate waste facility. - A feral animal monitoring program will be developed and implemented as described in Section 11.2 of the revised BDAR. - Based on performance triggers for adaptive management. It will be important to share data with NPWs and State Forests. Increased predator activity will trigger the need for predator control based on performance measures to be outlined in the BMP. Control will be done in consultation with NPWS and DPE - State Forests.
B14	The extensive survey data for this project, and the Main Works EIS will be utilised to identify specific bird and bat populations that are at risk of collision and electrocution. E.g. For higher risk species deploy species specific bird divertors, with day/night reflectors within approved buffer distance, along key sections of transmission line. This will be appropriate for diurnal and nocturnal birds The BMP to include adaptive management for high risk bird and bat species as outlined below with intervals and strategies to be determined in consultation with NPWS: - Regular monitoring within the transmission line easements for evidence of bird / bat collision with transmission lines (intervals to be determined in consultation with NPWS) - Monitoring of taller structures for evidence of raptor nest building - Develop target trigger for number of high risk species incidents - Deploy species specific bird / bat divertors / reflectors in areas where a defined number of incidents have occurred.
B15	To reduce light impacts the following will be implemented: Directional lighting will be used for any permanent lighting required (i.e. substation) to minimise light spill

Identifier	Mitigation Measures
	Artificial lighting required during construction in the early morning and late afternoon in winter will be limited to within approved construction hours.
B16	The barbed wire/razor wire fencing installed around the substation switchyard will have improved visibility measures installed, such as adding visible objects to the fence, for example tape, plastic flags, and metal tags.
B17	The ECZ will be maintained as per the VMP, with the preservation of low ground cover vegetation to provide cover for small ground-dwelling fauna and birds to cross the easement
B18	Vehicle movements on newly formed access tracks will be limited to 20km/h speed limit implemented to reduce the risk of vehicle strike to fauna.
B19	All tree pruning operations will be carried out in accordance with the Australian Standard AS4373-2007 Pruning of Amenity Trees.
Aboriginal Heritage	
AH1	Where possible, impacts to identified Aboriginal sites will be avoided.
AH2	A Cultural Heritage Management Plan (CHMP) and accompanying unexpected finds procedure will be prepared, to guard against inadvertent impacts to Aboriginal objects during construction. The CHMP will specify that project works will be restricted to the disturbance area. It will include provisions to ensure workers are made aware of cultural heritage places and their value, for example through project inductions. The CHMP will include provisions to guard against indirect impact to AHIMS# 56-6-0477 and provide a method to manage potential heritage constraints and unexpected finds during construction. The long-term storage of any recovered Aboriginal objects will be developed during the completion of the CHMP, in consultation with the RAPs, but is likely to include (in preferential order): - Re-burial on site, in an appropriate location in the vicinity of the project - Lodged with a RAP under a Care and Control Agreement - Deposition with the Australian Museum.
AH3	NA
AH4	In the event that a site or artefact (as defined by the NPW Act or Heritage Act) is identified during construction works, works will cease at the location and no further harm to the object will occur. The find will be immediately reported to Transgrid, and the regulator in accordance with legislation. No work will commence in the vicinity of the find until any required approvals have been given by the regulator. In the event that skeletal remains are encountered during the activity, works must stop immediately, the area secured to prevent unauthorised access and Transgrid, NSW Police and HNSW contacted
AH5	If changes are made to the project to include impacts outside the disturbance area, further archaeological investigation will must be conducted.
Non-Aboriginal Heritage	
NH1	During detailed design, if the disturbance area changes but is still within the project area, a consistency assessment will be prepared to confirm if impacts are consistent with the EIS.
NH2	A historic and natural heritage management plan will be prepared for the project, which clearly outlines the extent of impact to each recorded historic heritage item within the disturbance area and potential impacts to those sites located within the broader project area. The plan should clearly outline measures for their protection (where applicable)

Identifier	Mitigation Measures
	and details of further investigation and archaeological archival recording where appropriate.
NH3	If archaeological excavations are required: • Transgrid will nominate a suitably qualified and experienced historical archaeologist to manage the historical archaeological program. This person must fulfil the Heritage Council's Excavation Director Criteria 2019 for the excavation of locally significant archaeological sites • Archaeological Research Design and Excavation Methodology will be prepared to guide the archaeological program. It will be prepared according to Heritage Council of NSW guidelines. The methodology will be submitted for comments to the Heritage Council of NSW (or its delegate) and approval by DPE prior to the commencement of archaeological excavation • A final archaeological excavation report will be prepared within 12 months of the completion of archaeological excavation. It will include details of any significant artefacts recovered, where they are located and details of their ongoing conservation and protection in perpetuity by the land owner. Copies of the final excavation report will be provided to DPE, the Heritage Council of NSW and to the local Council's local studies unit.
NH4	All heritage items within the disturbance area that are to be impacted by the project will be subject to archival recording and archaeological excavations prior to the commencement of works. If these sites have been entirely destroyed by the Snowy 2.0, then the mitigation measures relating to archival recording and archaeological excavations will not apply.
NH5	If the construction of the project will destroy or directly impact the R45 (Lobs Hole Copper Mine Water Race), archival recording and archaeological excavation must occur prior to the commencement of construction.
NH6	In the event that a site or artefact (as defined by the NPW Act or Heritage Act) is identified during construction works, works will cease at the location and no further harm to the object will occur. The find will be immediately reported to Transgrid, and the regulator in accordance with legislation. No work will commence in the vicinity of the find until any required approvals have been given by the regulator. In the event that skeletal remains are encountered during the activity, works must stop immediately, the area secured to prevent unauthorised access and Transgrid, NSW Police and DPE contacted.

Attachment G – Bridge Assessment Report



Tasman Associates Pty Ltd

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Transport of TransGrid Reactor Loads for Maragle Substation Over Burra Creek and Paddys River near Tumbarumba, NSW. Assessment of Bridges for Hitachi Energy Australia Pty Ltd





Tasman Associates Pty Ltd

Transport of TransGrid Reactor Loads for Maragle Substation Over Burra Creek and Paddys River near Tumbarumba, NSW. Assessment of Bridges

for

Hitachi Energy Australia Pty Ltd

Summary:

This report covers the assessment of 2 bridges near Tumbarumba in southern New South Wales along the proposed route of the movement of Reactor loads for HumeLink. The bridges are located on the Tooma Road. Photographs of each structure are included in the following report.

Date:	27 th November 2023
Report Number:	628/2311 Rev A
Copies:	Hitachi Energy Australia Pty Ltd
	Tasman Associates Pty Ltd
Report Author:	B Judd, K Littlefair
Technical Approval:	B Judd
Authorised for External Distribution:	M Littlefair

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PLEASE NOTE:

This report has been prepared for Hitachi Energy Australia Pty Ltd and must not be used for any loads and load configurations other than those shown in the attached and under the auspices of Hitachi Energy Australia Pty Ltd. The recommendations contained in this report for travel over the bridge are applicable up to 31st October 2024. These structures must be inspected a maximum of 6 months prior to the load movements to ensure that there has been no change from the comments in this report.



1. INTRODUCTION

1.1 Background

Hitachi Energy Australia Pty Ltd have been contracted to provide Reactor(s) for the HumeLink project which will traverse a route including the Tooma Road (near Tumbarumba in southern New South Wales) to the final location. The actual transport organisation has not been established at the time of this report, and as such, no specific comments can be made on the load configuration to be used other than on the information attached.

The subject of this report are the bridges located over Burra Creek and Paddys River on the Tooma Road in the south of New South Wales.

Tasman Associates Pty Ltd were commissioned to assess the bridge as noted above prior to the movement of the loads in order to report on the suitability of the structures for the loads and provide commentary on any specific requirements.

1.2 Scope

In order to transport these loads, Hitachi Energy Australia Pty Ltd need to determine the adequacy of the structures and to provide comment on any requirement.

2. FIELD OBSERVATIONS

2.1 General

The inspection was undertaken on 24th October 2023. Weather on this day was fine and cool with temperatures consistently around 15°C. It was noted that there was considerable water running under the structures in the creek proper. It was also noted several semi-trailers and trucks with quad axle trailers crossed the structures at road speed.

It should be noted that no physical testing was undertaken or considered necessary by *Tasman Associates* during these inspections, nor has it been reported in the format of the Department for Transport NSW.

As stated above, no load configurations have been provided to *Tasman* for this study other than previous proposals. The load cases previously considered were a Heavy Load Platform beam set of 2 x 10 and 8 wheels per axle line with an axle load of 15 tonnes per line or a Platform of 14 axles with 8 wheels per axle



line with an axle load of 15 tonnes per line and a Platform of 16 axles with 8 wheels per axle line with an axle load of 15 tonnes per line. As shown in Clause 2.1.3 below, the 15 tonnes axle load overloads the piers and only the 13.5 tonne axle load is acceptable.

From the Transport for NSW website, it has been noted that Tooma Road allows for the movement of B Double vehicles. See Attachment C where green designates the approved B Double routes.

2.1 Burra Creek (GPS -35.82822, 148.06066)

The structure inspected is described below, together with several comments.

Tasman Associates' personnel have inspected the bridge and find it to be in reasonable condition as expected from a structure of its age.

2.1.1 General Notes

The bridge, constructed approximately 1937, is located several kilometres south east of Tumbarumba. At the time of inspection, water was flowing along the creek.

The structure is of three spans with two 455 mm x 455 mm concrete columns at each of the piers with concrete headstocks supporting a cast in-situ concrete deck. End spans are 4.72 metres in length, while the internal span is 5.79 metres in length. Overall width of the structure is 6.6 metres and width between kerbs is 6.1 metres, while the total length is 15.9 metres. The width of the bridge allows for two traffic lanes. The concrete deck has been constructed with kerbs on both sides of the structure.

The bridge is a fully continuous framed structure. Accordingly, there are no bearings in the structure.

The abutments are of concrete construction with small wingwalls fitted to both sides. From the drawing 1325b provided to *Tasman* the piers are founded on spread footings of 1.2 metres x 1.2 metres, while the abutments are founded on a spread footing of 760mm in width. Settlement was not evident, however, none of the footings were visible.

Bridge railing consists of vertical concrete posts and rails. The approach guardrails are of corrugated metal and are in good condition. There is no batter protection visible at the abutments, despite being shown on drawing 282B502/1. Bridge approaches are elevated above the surrounding land and have been surfaced with sprayed seal.

Since the previous inspection by *Tasman* personnel in August 2022, a walkway of composite mesh has been installed under the Tumbarumba abutment to allow pedestrian access along the walking track.



2.1.2 Condition Notes

This section of notes does not purport to be a Level 2 bridge inspection.

a) Approaches

The approach roadway is of sprayed seal surfacing. At the eastern end, some deformation of the surfacing was noted adjacent to the bridge deck on the northern side, forming small pot holes which have been previously noted by *Tasman* in the report 606/2217 of 5th September 2022.

This could be addressed as maintenance issue for the Council but will not affect the transport of the load.

b) Abutments

Both concrete abutments are in good condition, however, on the eastern end, northern side, some erosion of the embankment was noted beside the abutment.

This again could be addressed as a Council maintenance issue but will not affect the transport of the load.

c) Bridge Deck

a) Columns and Headstocks. The concrete of both appeared to be in good condition.

b) Cast in situ deck appeared to be in good condition, however, resurfacing the deck with a sprayed seal would improve durability

These are again addressed as a Council maintenance issue and will not affect the transport of the load

2.1.3 Load Capacity

The structural effects of the previously proposed 15.0 tonnes per axle Heavy Load Platform (HLP) has been compared with two design T44 truck configurations. Applying the relevant load impact factors and load reduction factors for concurrent T44 loading, the structural effects slightly exceeded the pier design load. Limiting the HLP platform to 13.5 tonnes per axle satisfies T44 loading for pier reactions, deck bending moments and individual wheel load shear effects. It is to be noted that an axle load of 15 tonnes per axle line is not acceptable for this structure.

As noted above, the bridge is in sound condition. *Tasman Associates* recommends that a twin 10 x 8 HLP with an axle load of 13.5 tonnes per axle line may be transported along this roadway in the



centre of the roadway. Providing the HLP load is limited to 13.5 tonnes per axle at a spacing of 1.8 metres, other configurations of axle numbers are acceptable.

2.2 Paddys River (GPS -35.85154 148.13993)

The structure inspected is described below, together with several comments.

Tasman Associates' personnel have inspected the bridge and find it to be in reasonable condition as expected from a structure of its age.

2.2.1 General Notes

The bridge, constructed approximately 1930, is located several kilometres south east of Burra Creek and Tumbarumba. At the time of inspection, water was flowing along the creek.

The structure is of three spans with three 600 mm x 600 mm concrete columns at each of the piers with concrete headstocks supporting three reinforced concrete beams with a cast in-situ concrete deck over. The three beams are 355mm wide with the depth varying from 635mm to 976mm. End spans are 6.25 metres in length, while the internal span is 9.14 metres in length. Overall width of the 2 lane structure is 6.96 metres and width between kerbs is 6.1 metres, while the total length is 21.7 metres. The concrete deck has been constructed with kerbs on both sides of the structure.

The deck and the piers are continuous, however, the abutments have the three girders seated on sliding plate bearings at the Tumbarumba end, while the Tooma abutment has been shown as the Fixed abutment.

The abutments are of concrete construction with wingwalls fitted to both sides. From the drawing 0282 435BC0101/2 provided to *Tasman*, the abutments are founded on a footing 1.52 metres width and the piers are founded 455mm into sound rock with bars of 28mm x 760mm embedded into rock. None of the foundations were visible.

Bridge railing consists of vertical steel posts and rails. The approach guardrails are of corrugated metal and are in good condition. Bridge approaches are elevated above the surrounding land and have been surfaced with sprayed seal.

2.2.2 Condition Notes

This section of notes does not purport to be a Level 2 bridge inspection.



a) Approaches

The approach roadway is of sprayed seal surfacing. At the eastern end, some deformation of the surfacing was noted adjacent to the bridge deck on the northern side.

This could be addressed as maintenance issue for the Council but will not affect the transport of the load.

b) Abutments

Both concrete abutments are in good condition, however, some cracking was noted in the wingwalls at both ends of the structure. Some minor erosion was noted in the waterway at the Tumbarumba abutment and which can be easily repaired by the placement of rocks and/or slurry concrete.

This again could be addressed as a Council maintenance issue and will not affect the transport of the load.

c) Bridge Deck

- a) Columns and Headstocks. The concrete of both appeared to be in good condition.
- b) Concrete beams. The beams all appear to be in good condition with no obvious cracks or spalls noted.
- c) Cast in situ deck. The deck appears to have been repaired at some point in the past, by placing a strip of concrete on either side of a central placement which appears to date from original construction. This is evidenced by the two longitudinal joints and different appearance of the deck and which are not shown on the Works As Executed drawings.

The central portion of the deck exhibits cracking along the length of the bridge (see attached photos) and to enable continued durability of the structure, a waterproofing layer should be applied followed by a wearing course. The wearing course could be dense grade asphalt.

- d) Bearings. The plate bearings at the Tooma end show corrosion but appear to be fit for purpose, however, at the Tumbarumba abutment, the centre bearing has moved to the extent that it appears to be “walking out” and may dislodge from under the beam as noted in *Tasman's* previous report. This requires attention as soon as possible for durability of the structure, and only requires a simple treatment of driving the plates back under the beam. A ladder will be required to access the bearing.



2.2.3 Load Capacity

The structural effects of the previously proposed 15.0 tonnes per axle Heavy Load Platform (HLP) has been compared with two design T44 truck configurations. Applying the relevant load impact factors and load reduction factors for concurrent T44 loading, the structural effects slightly exceeded the pier design load. Limiting the HLP platform to 13.5 tonnes per axle satisfies T44 loading for pier reactions, deck bending moments and individual wheel load shear effects. It is to be noted that an axle load of 15 tonnes per axle line is not acceptable for this structure.

As noted above, the bridge is in sound condition. *Tasman Associates* recommends that a twin 10 x 8 HLP with an axle load of 13.5 tonnes per axle line may be transported along this roadway in the centre of the roadway. Providing the HLP load is limited to 13.5 tonnes per axle at a spacing of 1.8 metres, other configurations of axle numbers are acceptable.

Considering the bridge was open to traffic on 1930, it is in reasonable condition and *Tasman Associates* recommends that the twin 10 x 8 HLP with an axle load of 13.5 tonnes per axle line may be transported along this roadway in the centre of the roadway. The number of axles per HLP may vary providing the axle load is limited to 13.5 tonnes and the spacing is a minimum of 1.8 metres.

3. RECOMMENDATIONS

Currently the condition of the bridges inspected by *Tasman Associates Pty Ltd* is as would be expected for structures of its age and as shown in 2 above.

Tasman has noted that the axle loads of 15.0 tonnes per line are not acceptable given the age and condition of the structures. *Tasman* proposes that a maximum axle load of 13.5 tonnes be used to cross the structures.

With that restriction, the movement of the 13.5 tonnes per axle line HLP is to satisfy the following restrictions;

- The central abutment bearing at Paddys River is repositioned under the girder.
- Load to be transported along the centre of the bridges (within 1 metre of the centre).
- No other vehicles on the structures at the same time as the load.
- Speed of the load over the bridges not to exceed 15 km/hr.
- No sudden acceleration or braking while the load is on the structures.
- The bridges to be assessed again a maximum of 6 months prior to the movement of the loads.



Appendix A Photographs



Burra Creek Bridge



Photo 1. View from north side, west end. Note path under abutment nearest camera.



Photo 2. View of bridge from west end.



Photo 3. Underside of deck with pier columns and headstock. West span.



Photo 4. Minor damage to bridge rail post with some cracking.



Photo 5. Minor damage to bridge rail post.



Photo 6. Pot hole at end of deck in road surfacing east end, north side.



Photo 7. Track of composite mesh material under Tumbarumba abutment.



Photo 8. Date plaque on east end, north side.

Paddys River Bridge



Photo 9. South side view of bridge.



Photo 10. View along deck from west end.



Photo 11. Underside of bridge. Note flood debris at pier.



Photo 12. Typical crack in wingwall/abutment



Photo 13. Tooma abutment (east end) bearing. Note on WAE drawings as a “fixed” abutment.



Photo 14. Tumbarumba (west) abutment. Centre beam bearing dislodged.



Photo 15. Longitudinal crack in centre portion of deck.
(arrowed)



Photo 16. Transverse crack (arrowed) and longitudinal construction joint in deck



Photo 17. Transverse cracks in centre portion of deck. Note longitudinal construction joints (arrowed)



Photo 18. Transverse cracks in deck near east abutment.



Photo 19. West span showing slight exposed footing under abutment.



Photo 20. West abutment with slight erosion.



Photo 21. Side of bridge showing fixing arrangement for bridge railing.

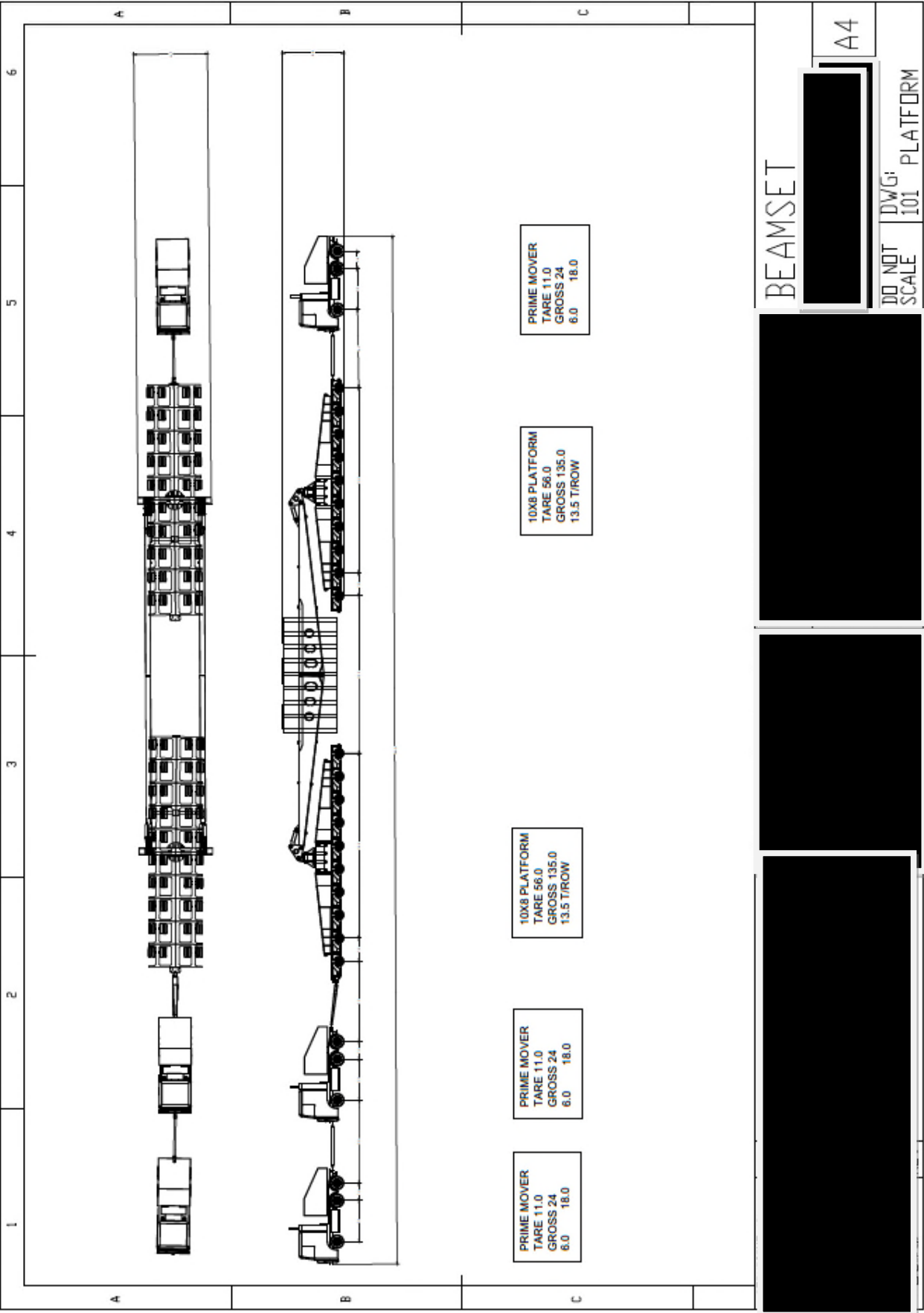


Photo 22. Date plaque on bridge showing construction date of 1930.

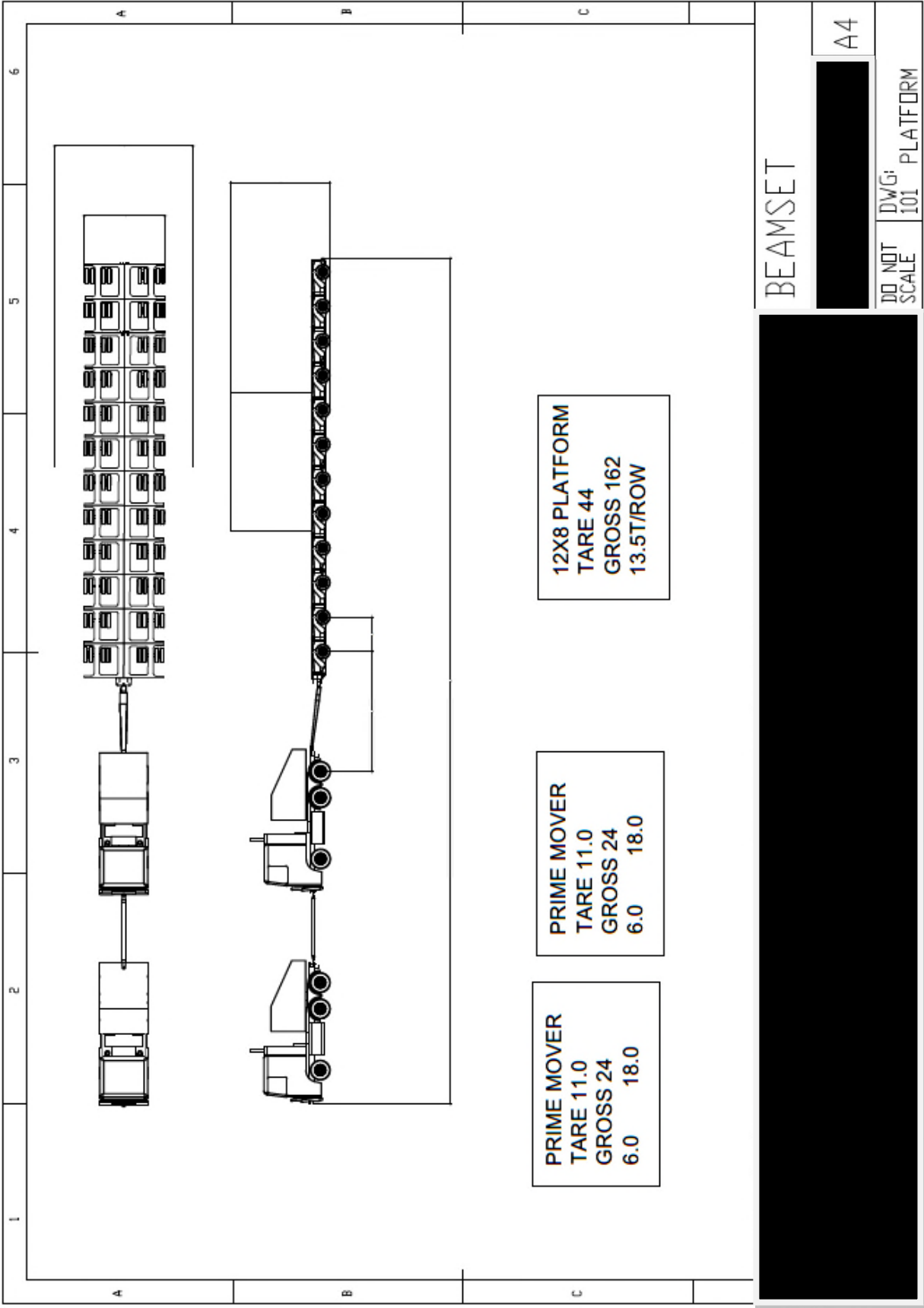


Appendix B

Acceptable Load Configurations



10 x 8 Beamset with 13.5 tonnes per axle line.





Appendix C

Road Access Map



NSW Combined Higher Mass Limits (HML) and Restricted Access Vehicle (RAV) Map

Transport
for NSW

Map last updated: 05/08/2022



Legend

GML and CML networks

- | | | |
|---|--|---|
| 25/25m B-double Routes | Approved Routes With Travel Conditions | Exception Routes (not approved) |
| Approved Areas | Approved Areas with Travel Conditions | Restricted Structures - Bridges |
| Restricted Structures with Conditional Access - Bridges | Restricted Structures - Intersections | Restricted Structures - Intersections with Conditional Access |
| Low Clearance Bridge (< 4.3m) - Through Traffic on Bridge | Low Clearance Bridge (< 4.3m) - Through Traffic under Bridge | |

Network Disclaimer

The networks are available for short combinations (up to 18 metres long) and B-doubles that comply with the requirements contained in the Heavy Vehicle National Law (HVNL), the [National Class 2 Heavy Vehicle B-double Authorisation \(Notice\)](#) and the [adjoining NSW Schedule](#) and for Higher Mass Limits (HML) the [New South Wales Higher Mass Limits Declaration 2015](#). These networks are based on a maximum vehicle width of 2.5 metres and are subject to sign-posted restrictions.

Provide feedback

[Contact Roads and Maritime Services](#) | Phone: 131 782

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Appendix D

Additional Load Configurations



COMMENT FOR REVISION A OF THIS REPORT.

Following submission of the original of this report on 6th November 2023, additional load configuration details were provided by BLIS Logistics through Hitachi Energy Australia Pty Ltd. Two load conditions have been detailed – 140.5 tonne transformer and 153.5 tonne transformer. Any increase in these load weights on completion of manufacturing of the units must be immediately advised for consideration prior to any movement along this road.

The configurations provided by BLIS indicate that the load platforms are approximately equal to or exceed the overall length of the bridges on this road.

It is noted that the arrangement shown on drawing 2762/D3/102 Rev A shows an axle load of 14.46 tonnes. This is in excess of the 13.5 tonnes per axle calculated by Tasman Associates Pty Ltd and as set out in the original of this report. As a result, this arrangement is not approved for this route.

The configurations shown on drawings 2762/D3/101 Rev A (13.37 tonnes per axle), 2762/D3/111 Rev A (13.34 tonnes per axle), 2762/D3/112 Rev A (12.84 tonnes per axle) and 2762/D3/113 Rev A (13.09 tonnes per axle) are approved for this route with the condition that the load is equally distributed to all axles in the assembly.

As a summary, the movement of the proposed loads are approved with the following conditions:

- Axle loads on the Platforms are not to exceed 13.5 tonnes per axle.
- Total transformer weights as shown above are to be adhered to.
- The central abutment bearing at Paddys River is repositioned under the girder.
- Load to be transported along the centre of the bridges (within 1 metre of the centre).
- No other vehicles on the structures at the same time as the load.
- Speed of the load over the bridges not to exceed 15 km/hr.
- No sudden acceleration or braking while the load is on the structures.
- The platforms utilised for these movements must share the load is equally distributed to all axles in the assembly. This must be checked prior to load movement.
- The bridges to be assessed again a maximum of 6 months prior to the movement of the loads.
- The configurations shown attached (with the exception of drawing 2762/D3/102A Rev A) are the only approved load configurations to be moved under the auspices of B.L.I.S.

REFERENCE DRAWINGS	
NOTES	
1) IT IS ASSUMED THAT THE HAUL WILL BE UNDERTAKEN WITH COMPETENT AND EXPERIENCED HAIL SUPERVISORS/ PILOTS/ASSISTANTS AS APPROPRIATE FOR THE TYPE OF HAUL OPERATING UNDER THE ROAD/HAULAGE WITHIN ITS DESIGN CAPABILITIES, AND TAKING INTO ACCOUNT THE ROAD/TRAFFIC WEATHER CONDITIONS AT THE TIME. IT IS ASSUMED THAT ANY LOAD BEING TRANSPORTED WILL HAVE BEEN DESIGNED TO BE ABLE TO BE TRANSPORTED IN THE MANNER OF SECURING THE LOAD IS CAPABLE OF WITHSTANDING THE FORCES GENERATED DURING TRANSPORTATION. BE & A TALBOT SERVICES LTD. CANNOT BE HELD RESPONSIBLE FOR ANY DAMAGE OR ERROR, INCLUDING ALL THE ABOVE, ESPECIALLY BUT NOT LIMITED TO, EXCESSIVE SPEED FOR THE CONDITIONS AT THAT POINT IN TIME.	
A	ISSUED FOR COMMENT LT 07/08/23
REV No.	BY DATES
1	DESIGN - BLAY AUG 22
2	DRAWN - LD.T AUG 22
3	CHECK - -- --
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Hitachi Energy	
B.L.I.S. Telephone: +61 (0)2 95247484 Fax: +61 (0)2 95314040 Mobile: +61 0419 012 777 Email: brian.lay@bigpond.com	
 TALBOT SERVICES P.O. BOX 33 MANGAWHIA RD NEW ZEALAND Phone: 080 651 8666 Mobile: 0274 526 371 email: talbot@csa.co.nz	
L & A Talbot Services Ltd PROJECT INSTALL 140.5 TONNE TRANSFORMER AT HUME LINK SUBSTATION	
TITLE PROPOSED TRANSPORT CONFIGURATION #1 ON 12R8 DRAKE & 2R8 DOLLY	
DRAWING No.	REV
2762/D3/101	A

51009 ±

TRANSFORMER - 140.50 TONNES
CENTRE OF GRAVITY 4360mm AHEAD
OF CENTRE OF SUSPENSION

CL GRIVITY 4360
CL TRAILER SUSPENSION

6894

4000 PUSHBAR

12 LINE 1.83 SPACED GOOSENECK PLATFORM TRAILER - 4800 WIDE

12 AXLES AT 1830 SPACING = 20130

TRANSFORMER - 140.50 TONNES
CENTRE OF GRAVITY ON CENTRE OF TRAILER

OUTSIDE AUXILIARY TRUCK RADIUS 23000

OUTSIDE TRAILER RADIUS 23150

INSIDE TRAILER RADIUS 13000

OUTSIDE PRIME MOVER RADIUS 23800

NOTE: RADII COMPUTED WITH TRAILER WHEELSET AT MAX 45°

TRAILER CROSS SECTION SCALE - 1:100

AXLE NO.	AXLE WEIGHTS	GROSS WEIGHT
1	3.90	3.90
2	11.80	11.80
3	15.50	15.50
4	4.10	4.10
5	4.93	4.93
6	9.03	9.03
7	6.00	6.00
8	9.25	9.25
9	9.25	9.25
10	6.00	6.00

Dimensions:
3890, 4175, 1270, 8460, 1435, 4810, 6000, 5400, 1450

2762/D3/104-A

27

[illegible]

2762/D3/111-A SCALE FOR REDUCED PRINTS - 10 mm DIVISIONS

[illegible]

2762/D3/112-A SCALE FOR REDUCED PRINTS - 10 mm DIVISIONS

56100 ±

3200

6200 ±

1800 ± 30600

3500 DRAWBAR

7184

TRANSFORMER - 153.5 TONNES
CENTRE OF GRAVITY ON CENTRE
OF TRAILER

18 LINE GOLDHOFER
THP 3L SPLIT PLATFORM
TRAILER - 4200 WIDE
TARE 82.0 TONNE

18 AXLES (17 SPACES) @ 1800 = 30600

6200 ±

3200

6.00 9.25 9.25 6.00

TARE WEIGHTS
TRANSFORMER
GROSS WEIGHT

18 LINES @ 4.56
18 LINES @ 8.53
18 LINES @ 13.08

9.25 9.25

NOTE: RADII COMPUTED WITH TRAILER WHEELSET AT MAX 55° WITH TRAILER 3000 WIDE

REFERENCE DRAWINGS		NOTES		A		ISSUED FOR COMMENT		LT		BY		DATES	
		1) IT IS ASSUMED THAT THE HAUL WILL BE UNDERTAKEN WITH COMPETENT AND EXPERIENCED HAUL SUPERVISORS/OPERATORS WHO WILL BE AWARE OF THE TYPE OF HAUL, OPERATING EQUIPMENT IN GOOD CONDITION, WITHIN ITS DESIGN CAPABILITIES, AND TAKING INTO ACCOUNT THE ROAD TRAFFIC CONDITIONS AT THE SITE. IT IS ALSO ASSUMED THAT THE LOAD BEING TRANSPORTED AND ANY BEAMS OR SUPPORT FRAMEWORK HAVE BEEN DESIGNED TO BE ABLE TO BE TRANSPORTED ON THE HAULER PROVIDED, AND THAT THE METHOD OF SECURING THE LOAD IS CAPABLE OF WITHSTANDING THE FORCES GENERATED DURING TRANSPORTATION. IT CANNOT BE HELD RESPONSIBLE FOR OPERATOR ERROR, INCLUDING ALL THE ABOVE, AND ESPECIALLY, BUT NOT LIMITED TO, EXCESSIVE SPEED FOR THE CONDITIONS AT THAT POINT IN TIME.		REV		DESIGN		DRAWN		CHECK		BY	
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				1.100		-		-		-		AUG 23	

2762/D3/113-A

SCALE FOR REDUCED PRINTS - 10 mm DIVISIONS

Clarıs CAD 2.0v3

TARE WEIGHTS	
6.00	4.10 4.10 3.90 3.90
4.03 4.03	11.60 11.60
9.03 9.03	15.50 15.50

NOTE: RADII COMPUTED WITH TRAILER WHEELSET AT MAX 45°

REFERENCE DRAWINGS

NOTES

1) IT IS ASSUMED THAT THE HAUL WILL BE UNDERTAKEN WITH COMPETENT AND SUITABLE PERSONNEL AND THAT THE PILOTS/ASSISTANTS AS APPROPRIATE FOR THE TYPE OF HAUL, OPERATING EQUIPMENT IN GOOD CONDITION, WITHIN THE SCOPE OF THE PILOT'S TRAINING INTO ACCOUNT THE ROAD/TRAFFIC /WEATHER CONDITIONS AT THE TIME. IT IS ALSO ASSUMED THAT THE LOAD BEING TRANSPORTED IS SECURELY FASTENED TO THE SUPPORT FRAMEWORK HAVE BEEN DESIGNED TO BE ABLE TO BE TRANSPORTED IN THE MANNER DESCRIBED. THE PILOT'S METHOD OF SECURING THE LOAD IS CAPABLE OF WITHSTANDING THE FORCES GENERATED DURING TRANSPORTATION. THE PILOT'S METHOD OF SECURING THE LOAD IS CAPABLE OF WITHSTANDING THE FORCES GENERATED DURING TRANSPORTATION. THE PILOT'S METHOD OF SECURING THE LOAD IS CAPABLE OF WITHSTANDING THE FORCES GENERATED DURING TRANSPORTATION. THE PILOT'S METHOD OF SECURING THE LOAD IS CAPABLE OF WITHSTANDING THE FORCES GENERATED DURING TRANSPORTATION.

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3	1.200	CHECK -	-

Hitachi Energy

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Fax: +61 (02) 95314040
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TSL
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MOUNTAIN
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Phone: 08 941 138 371
Email: t.slay@tsl.co.nz

L & A Talbot Services Ltd

PROJECT
INSTALL 153.50 TONNE
TRANSFORMER
AT HUME LINK SUBSTATION

TITLE
PROPOSED TRANSPORT
CONFIGURATION #2 ON 12R8
DRAKE & 2R8 DOLLY

DRAWING No. 2762/D3/102
REV A

2762/D3/102-A SCALE FOR REDUCED PRINTS - 10 mm DIVISIONS

Attachment H – National Heavy Vehicle Regulator Permit

Oversize and/or Overmass (OSOM) Mass or Dimension Exemption Permit

Heavy Vehicle National Law

This Permit is issued under the provisions of *Section 122 of the Heavy Vehicle National Law* for the operation of a Class 1 vehicle (*as defined in this Permit*) subject to the conditions set out in this Permit and any attachments.

Permit details

This Permit is issued to

O. D. TRANSPORT PTY. LTD.

Address

88-98 Hallam Valley Rd
Dandenong South, VIC 3175

Vehicle configuration and description

Block-truck towing OS/OM/OSOM load
Block Truck, Platform, Block Truck (with or without Block Truck)

Permit type

Oversize and Overmass (OSOM)

Permit period

Start date

25-Feb-2026

End date

04-May-2026

Period or fixed trips

Multiple Trips

Number of trips

6

continued on next page...

Vehicle details

Block Truck

Registration	State of Registration	VIN	GVM (t)	GTM (t)
ODT1	VIC	6FMM22E43AVB04445	26.5t	n/a
ODT12	VIC	6F5000000JA464336	26.5t	n/a
ODT20	VIC	6F5000000EA453639	26.5t	n/a
ODT25	VIC	6FMB05E067D714642	26.5t	n/a
ODT30	VIC	6F50000002A423289	26.5t	n/a
ODT35	VIC	6F50000007A434522	26.5t	n/a
ODT40	VIC	W1T96442220653149	26.5t	n/a

Drawn Platform

Registration	State of Registration	VIN	GVM (t)	GTM (t)
52456S	VIC	7A9MT25WE61001063	n/a	35t
69612S	VIC	7A9MT50WE71001108	n/a	50t
YV04FP	VIC	7A9MT10WE61001058	n/a	130t
YV06FP	VIC	7A9MT10WE61001062	n/a	130t
YV07FP	VIC	7A9MT15WE71001104	n/a	150t
YV69DC	VIC	7A9MT50PAL1001127	n/a	50t
YV70DC	VIC	7A9MT50PAL1001126	n/a	50t
YV71DC	VIC	7A9MT50PAM1001026	n/a	50t
YV72DC	VIC	7A9MT10PAL1001125	n/a	100t

Block Truck

Registration	State of Registration	VIN	GVM (t)	GTM (t)
ODT1	VIC	6FMM22E43AVB04445	n/a	200t
ODT12	VIC	6F5000000JA464336	n/a	180t
ODT20	VIC	6F5000000EA453639	n/a	250t
ODT25	VIC	6FMB05E067D714642	n/a	200t
ODT30	VIC	6F50000002A423289	n/a	200t
ODT35	VIC	6F50000007A434522	n/a	200t
ODT40	VIC	W1T96442220653149	n/a	180t

Block Truck

Registration	State of Registration	VIN	GVM (t)	GTM (t)
ODT1	VIC	6FMM22E43AVB04445	n/a	200t
ODT12	VIC	6F5000000JA464336	n/a	163.5t
ODT20	VIC	6F5000000EA453639	n/a	250t
ODT25	VIC	6FMB05E067D714642	n/a	200t
ODT30	VIC	6F50000002A423289	n/a	200t
ODT35	VIC	6F50000007A434522	n/a	200t

ODT40	VIC	W1T96442220653149	n/a	180t
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GCM must not exceed manufacturer's specifications

Loaded axle mass and spacings

Axle group	Axle group mass	Axle #	No. Tyres	Minimum distance from previous axle	Tyre size	Steerable	Minimum ground contact width	Load sharing
Block truck 1-2 axle								
Steer	6t	1	2	n/a	295mm	Yes	2.4m	No
Drive	18.5t	1	4	3.4m	279mm	No	2.4m	Yes
		2	4	1.35m	279mm	No	2.4m	Yes
Drawn platform 14 axle								
Trailer	190t	1	8	6m	215mm	Yes	4.2m	Yes
		2	8	1.83m	215mm	Yes	4.2m	Yes
		3	8	1.83m	215mm	Yes	4.2m	Yes
		4	8	1.83m	215mm	Yes	4.2m	Yes
		5	8	1.83m	215mm	Yes	4.2m	Yes
		6	8	1.83m	215mm	Yes	4.2m	Yes
		7	8	1.83m	215mm	Yes	4.2m	Yes
		8	8	1.83m	215mm	Yes	4.2m	Yes
		9	8	1.83m	215mm	Yes	4.2m	Yes
		10	8	1.83m	215mm	Yes	4.2m	Yes
		11	8	1.83m	215mm	Yes	4.2m	Yes
		12	8	1.83m	215mm	Yes	4.2m	Yes
		13	8	1.83m	215mm	Yes	4.2m	Yes
		14	8	1.83m	215mm	Yes	4.2m	Yes
Block truck 1-2 axle								
Steer	6t	1	2	6m	295mm	Yes	2.4m	No
Drive	18.5t	1	4	3.4m	279mm	No	2.4m	Yes
		2	4	1.35m	279mm	No	2.4m	Yes
Block truck 1-2 axle								
Steer	6t	1	2	4m	295mm	Yes	2.4m	No
Drive	18.5t	1	4	3.4m	279mm	No	2.4m	Yes
		2	4	1.35m	279mm	No	2.4m	Yes

Loaded axle mass and spacings for alternate configurations

Alternate configuration #1 Mass & Axle Spacings

Axle group	Axle group mass	Axle #	No. Tyres	Minimum distance from previous axle	Tyre size	Steerable	Minimum ground contact width	Load sharing
Block truck 1-2 axle								
Steer	6t	1	2	n/a	295mm	Yes	2.4m	No
Drive	18.5t	1	4	3.4m	279mm	No	2.4m	Yes
		2	4	1.35m	279mm	No	2.4m	Yes
Drawn platform 14 axle								
Trailer	190t	1	8	6m	215mm	Yes	4.2m	Yes
		2	8	1.83m	215mm	Yes	4.2m	Yes
		3	8	1.83m	215mm	Yes	4.2m	Yes
		4	8	1.83m	215mm	Yes	4.2m	Yes
		5	8	1.83m	215mm	Yes	4.2m	Yes
		6	8	1.83m	215mm	Yes	4.2m	Yes
		7	8	1.83m	215mm	Yes	4.2m	Yes
		8	8	1.83m	215mm	Yes	4.2m	Yes
		9	8	1.83m	215mm	Yes	4.2m	Yes
		10	8	1.83m	215mm	Yes	4.2m	Yes
		11	8	1.83m	215mm	Yes	4.2m	Yes
		12	8	1.83m	215mm	Yes	4.2m	Yes
		13	8	1.83m	215mm	Yes	4.2m	Yes
		14	8	1.83m	215mm	Yes	4.2m	Yes
Block truck 1-2 axle								
Steer	6t	1	2	6m	295mm	Yes	2.4m	No
Drive	18.5t	1	4	3.4m	279mm	No	2.4m	Yes
		2	4	1.35m	279mm	No	2.4m	Yes

Alternate configurations

Alternate configuration	Alternate configuration length	Alternate configuration tare mass	Alternate configuration total mass
Configuration #1	55m	105t	239t

Unladen dimensions

Unladen width (metres)	Unladen length (metres)	Unladen height (metres)	Tare mass (tonnes)
3.5m	41.5m	4.3m	129.5t

Laden dimensions

Width (metres)	Length (metres)	Height (metres)	Total mass (tonnes)
5.3m	66m	5.35m	263.5t

Forward projection (metres)	Rear overhang (metres)
n/a	n/a

Load type	Description of load
Indivisible	TRANSFORMER

continued on next page...

Authorised Routes

Turn by turn description

1350541r1v1 - Single Route

Start: AAT, Yampi Way, Port Kembla NSW
 Yampi Way, Port Kembla
 Tom Thumb Rd, Port Kembla
 Springhill Rd, [Port Kembla - Spring Hill]
 Masters Rd, [Spring Hill - Figtree]
 Princes Mtwy, [Figtree - Gwynneville]
 Memorial Dr, [Gwynneville - North Wollongong]
 Princes Hwy, [North Wollongong - Fairy Meadow]
 Mount Ousley Rd, [Fairy Meadow - Keiraville]
 Princes Mtwy, [Keiraville - Cataract]
 Picton Rd, [Cataract - Wilton]
 Hume Mtwy, [Wilton - Berrima]
 Hume Hwy, [Berrima - Little Billabong]
 Little Billabong Rd, [Little Billabong - Carabost]
 Tumbarumba Rd, [Carabost - Tumbarumba]
 Masons Hill Rd, Tumbarumba
 Albury St, Tumbarumba
 The Parade, Tumbarumba
 Bridge St, Tumbarumba
 Winton St, Tumbarumba
 Regent St, Tumbarumba
 William St, Tumbarumba
 Tooma Rd, [Tumbarumba - Paddys River]
 Elliott Way, [Paddys River - Nurenmerenmong]
 End: Elliott Way (Approx. 0.4km East of East Bago Powerline Road), Nurenmerenmong NSW

Road conditions

Regulator

(1) G003 -

You may be required under another law to obtain consent or approval from a Third Party entity.

These approvals must be carried and produced on request by an authorised officer. In this section Third Party entity usually include the following -

- (a) police especially with respect to the movement of vehicles which exceed dimension requirements due to the potential risks to other road users and possible need for police assistance to control traffic
- (b) rail infrastructure managers the movement of oversize/overmass heavy vehicles across level crossings or restricted access vehicles near rail infrastructure may create risks that need to be managed
- (c) utilities restricted access vehicles may have adverse effects on utilities infrastructure with over height vehicles and telecommunications/power lines being a common concern
- (d) private road owners allowing public access toll roads, ports, airports, hospitals and private estates are potential examples where those road owners, who may not be road managers for the purpose of the HVNL, also need to grant consent to the use of restricted access vehicles
- (e) forestry agencies roads owned by governmental agencies can possess different characteristics that may pose risks not found on typical roads and if the government agency

is not a road manager for the purpose of the HVNL may require special consideration to manage risks arising from the use of restricted access vehicles on these roads.

(2) LEMS1 -

Should a Road Manager not indicate or express a minimum requirement of Pilots or Escorts within the permitted roads/areas/routes, the corresponding requirement shall be applied in accordance with the Multi-State Class 1 Load Carrying Vehicles Dimension Exemption Notice including the associated schedule/s and amendment notices.

Should a permitted dimension be in excess of the dimensions indicated within the Multi-State Class 1 Load Carrying Vehicles Dimension Exemption Notice including the associated schedule/s and amendment notices, the maximum Pilot and Escort vehicle requirements shall be applied.

Snowy Valleys Council

(1) RI08 - Roadside furniture - class 1 heavy vehicle -

(1) If roadside furniture is required to be removed to allow the passage of the heavy vehicle, it must be prepared for ease of removal and then removed as the heavy vehicle is approaching and replaced as originally fitted immediately after the heavy vehicle has passed.

(a) As per subsection (1), the permit holder is responsible for the removal and replacement of all roadside furniture without adversely interrupting the movement of the heavy vehicle. A separate support vehicle must travel with the vehicle and load if the removal of any road furniture is required. This task is not to be performed by Pilot/escort vehicles.

(b) If the heavy vehicle or heavy vehicle combination is likely to cross over and cause damage to traffic islands, kerbs or medians, suitable heavy timber ramps and running planks are to be placed to prevent damage to these assets.

(2) RI08 - - (1) If roadside furniture is required to be removed to allow the passage of the heavy vehicle, it must be prepared for ease of removal and then removed as the heavy vehicle is approaching and replaced as originally fitted immediately after the heavy vehicle has passed.

(a) As per subsection (1), the permit holder is responsible for the removal and replacement of all roadside furniture without adversely interrupting the movement of the heavy vehicle. A separate support vehicle must travel with the vehicle and load if the removal of any road furniture is required. This task is not to be performed by Pilot/escort vehicles.

(b) If the heavy vehicle or heavy vehicle combination is likely to cross over and cause damage to stock grids, fencing, kerbs or medians, suitable heavy timber ramps and running planks are to be placed to prevent damage to these assets.

(3) RI10 - Heavy vehicle movement - Report of Damage

In the event that the permitted heavy vehicle damages assets or infrastructure, contact must be made with Geoff Neil of Manager of Roads Maintenance via 0409526965 with receipt of the advised damage from the road manager.

A written statement of the damage must be recorded and provided in writing to the road manager prior to repairs of the damaged infrastructure or asset.

Transport for New South Wales (TfNSW)

(1) LSC01 - Please be advised that there is a low vertical clearance under BN8116 Hume Highway overpass over ramp at North Goulburn. This bridge has a signposted vertical clearance of 5.3m.

Under Schedule 8 of the MDL it is the responsibility of the operator to survey the route prior to travel and ensure the most suitable lane is used to avoid damage to infrastructure.

(2) LSC01 - Please be advised that there is a low vertical clearance under BN952 Masters Rd overpass over Southbound Princes Mwy at Spring Hill. This bridge has a signposted vertical clearance of 5.2m.

Under Schedule 8 of the MDL it is the responsibility of the operator to survey the route prior

to travel and ensure the most suitable lane is used to avoid damage to infrastructure.

- (3) LSC01 - Please be advised that there is a low vertical clearance under BN952 Masters Rd overpass over Northbound Princes Mwy at Spring Hill. This bridge has a signposted vertical clearance of 5m.

Under Schedule 8 of the MDL it is the responsibility of the operator to survey the route prior to travel and ensure the most suitable lane is used to avoid damage to infrastructure.

- (4) LSC01 - Please be advised that there is a low vertical clearance under BN625 Gipps Rd Bridge over Princes Highway at Keiraville. This bridge has a signposted vertical clearance of 5m.

Under Schedule 8 of the MDL it is the responsibility of the operator to survey the route prior to travel and ensure the most suitable lane is used to avoid damage to infrastructure.

- (5) LSC01 - Please be advised that there is a low vertical clearance under BN6311 on Federal Highway overpass over Hume Highway at South Goulburn. This bridge has a signposted vertical clearance of 5.2m.

Under Schedule 8 of the MDL it is the responsibility of the operator to survey the route prior to travel and ensure the most suitable lane is used to avoid damage to infrastructure.

- (6) LSC01 - Please be advised that there is a low vertical clearance under BN6311 Northbound load ramp at the Federal Highway Interchange at Breadalbane on the Hume Highway. This bridge has a signposted vertical clearance of 5.2m.

Under Schedule 8 of the MDL it is the responsibility of the operator to survey the route prior to travel and ensure the most suitable lane is used to avoid damage to infrastructure.

- (7) NSWCONTACT - The operator must contact the Transport for NSW (TfNSW) via email roadmanager@transport.nsw.gov.au a minimum five (5) business days prior to proposed travel date.

- (8) NSWOSOMRIM - NSWOSOMRIM

If your combination exceeds five (5) metres wide and/or 30m long and/or five (5) metres high and/ or mass covered under the National Class 1 Load Carrying Vehicle Mass Exemption Notice you are required to obtain consent (approval) from the relevant Rail Infrastructure Manager (RIM) prior to travel over any rail infrastructure (level crossing and/ or bridge over rail). These approvals must be carried and produced on request by an authorised officer. Contact details can be found at <https://www.nhvr.gov.au/road-access/access-management/third-party-approvals> This requirement is in addition to any condition/s listed on the National Network Map

- (9) NSWPolSMR -

For all moves which require a NSW Police escort, a signed measurement record is required. Before commencing the journey you must take measurements of the actual height, width and length of the laden combination. This record must be signed by the operator, the person who took the measurements and the driver. The signed measurement record must be produced to a police officer or an authorised officer on request.

- (10) RI02 - Restricted Structure

The heavy vehicle must not travel on or traverse the nominated asset BN655 University Ave Overpass Bridge at North Wollongong over Memorial Dr/ Princes Hwy when overall height exceeds 4.7 combination must be lowered.

- (11) RMSBR01 -

TfNSW Bridge Report Conditions

The operator must comply with all conditions as stated in the TfNSW Bridge Report PT3063. This document must be carried at all times.

- (12) RMSC001 - The permitted heavy vehicle combination must comply with the conditions of access located within "Schedule 2 New South Wales" forming part of the "National Class 1 Load Carrying Vehicle Dimension Exemption Notice 2025 (No.1)" located at <https://www.nhvr.gov.au/law-policies/notices-and-permit-based-schemes/national-notices>. The permitted heavy vehicle combination must also operate in accordance with "Additional Access Conditions for oversize and overmass heavy vehicles and loads" document (available at www.transport.nsw.gov.au).

- (13) RMSC002 - In addition to the pilot and escort requirements contained in the "New South Wales Class 1 Load Carrying Vehicle Exemption Notice 2023 (No.1)", the operator must comply with the pilot and escort requirements listed in the "New South Wales Class 1 Load Carrying Vehicle Operator's Guide" document (available at www.nhvr.gov.au), and "Additional Access Conditions for oversize and overmass heavy vehicles and loads" document (available at www.rms.nsw.gov.au).
- (14) RMSCT01 - Convoy travel is not permitted on state authority roads within NSW.
- (15) RMSEI01 - In the event of an emergency or incident, the Traffic Management Centre (TMC) must be contacted Ph. 1800 679 782 to enable any necessary warnings to be issued to minimise the impact to other road users.
- (16) RMSPE01 - A minimum of 2 Pilot vehicle(s) are required at all times. The operator prior to travel must contact the NSW Police for any additional escort requirements.
- (17) RMSPP02 - The operator must contact the NSW Police prior to travel for any additional escort requirements.
- (18) TfNSWPolice - Where a condition listed in this permit requires contact with NSW Police for any additional pilot or escort requirements, the written advice received from NSW Police must be attached and carried with this permit. NSW Police Traffic and Highway Patrol Command can be contacted at trafficosom@police.nsw.gov.au or (02) 8882 1436. A minimum of 5 working days notice will be required to allow police to issue notification letters and/or organise police resources. If police escort vehicles are not required, then you must obtain and carry the written advice from NSW Police stating the pilot vehicle requirements that apply for this journey.

Travel conditions

Snowy Valleys Council

- (1) TravelSVCCContact - Contact Snowy Valleys Council 5 working days before date of intended travel on 1300 275 782 and request the Road Manager or the Road Safety Officer. This notification will allow council to notify other road users of the OSOM journey.

Transport for New South Wales (TfNSW)

- (1) NSWCON01 - When width exceeds six (6) metres, or total combination mass exceeds 200 tonne, the operator is required to contact TfNSW OSOM Road Access Unit by email to spu@rms.nsw.gov.au at least five (5) business days prior to proposed date of travel.
- (2) NSWLIVETRAFFIC - TfNSW Live Traffic must be checked prior to departure, if there are any road works and/or restrictions along the planned route the operator must ensure that they can travel along the route without causing damage or disruption.

Please Note

Class 1 vehicles travelling under a Permit MUST NOT travel off the approved route listed in the permit unless an updated permit is obtained from the NHVR.

- (3) NSWOH01 - For travel on State classified roads when overall height exceeds 5.0 metres, written approval must be obtained from the relevant telecommunications and/ or electrical authorities. A copy of this approval must be carried with this permit and produced on request by an authorised officer. Any conditions listed in this approval must be adhered to.
- (4) RMSSZ01 - Travel is not permitted through sign posted school zones during the designated school operation times.
- (5) RMSTMC01 - The NSW Transport Management Centre (TMC) must be contacted prior to the commencement and at the conclusion of each stage of the movement. Phone 1800 679 782.
- (6) TMP01 -

In accordance with the supplied Transport Management Plan (TMP), the operator must adhere to the identified special manoeuvres, removal and replacement of road side furniture, road closures and all other conditions identified as part of the approved TMP. The TMP must be carried in conjunction with this permit.

For further clarification, requirements and information relating to the Transport Management Plan (TMP), please seek advice directly from the corresponding jurisdiction in which you transport task will be completed.

Australian Capital Territory - www.accesscanberra.act.gov.au

New South Wales - www.transport.nsw.gov.au

South Australia - www.dpti.sa.gov.au

Tasmania - www.transport.tas.gov.au

Victoria - www.vicroads.vic.gov.au

Queensland - www.tmr.qld.gov.au

Vehicle conditions

Regulator

- (1) LE14 - A class 1 heavy vehicle operating under this permit must comply with the conditions stated within Divisions 1, 2 and 5 of Schedule 8 of the Heavy Vehicle National (Mass, Dimension and Loading) Regulation, unless otherwise expressly exempted by a stated condition in this permit.

- (2) LEOL - Other Laws and Legislation

Nothing within this permit exempts the driver or operator of the permitted heavy vehicle from complying with legislation regulating the use of heavy vehicle. This includes but is not limited to conditions applied within the vehicles registration, compliance with sign posted restrictions, traffic law or compliance with lawful directions of authorised officer.

continued on next page...

The driver of the heavy vehicle who is driving a vehicle that is subject to a permit issued under the HVNL must keep a copy of the permit for the exemption in the driver's possession.

The driver or operator of a heavy vehicle being used on a road that is subject to a permit issued under the HVNL must not contravene a condition of the permit.

The driver or operator must comply with the provisions of the Heavy Vehicle (Mass, Dimension and Loading) National Regulation unless anything contrary is applied within this permit.

It is an offence to operate a vehicle at a mass limit greater than indicated by an official traffic sign.

Declaration

Signed:



NHVR Delegate

Dated: 25-Feb-2026

Associated documents

N/A

Disclaimer:

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