

Transport Impact Assessment

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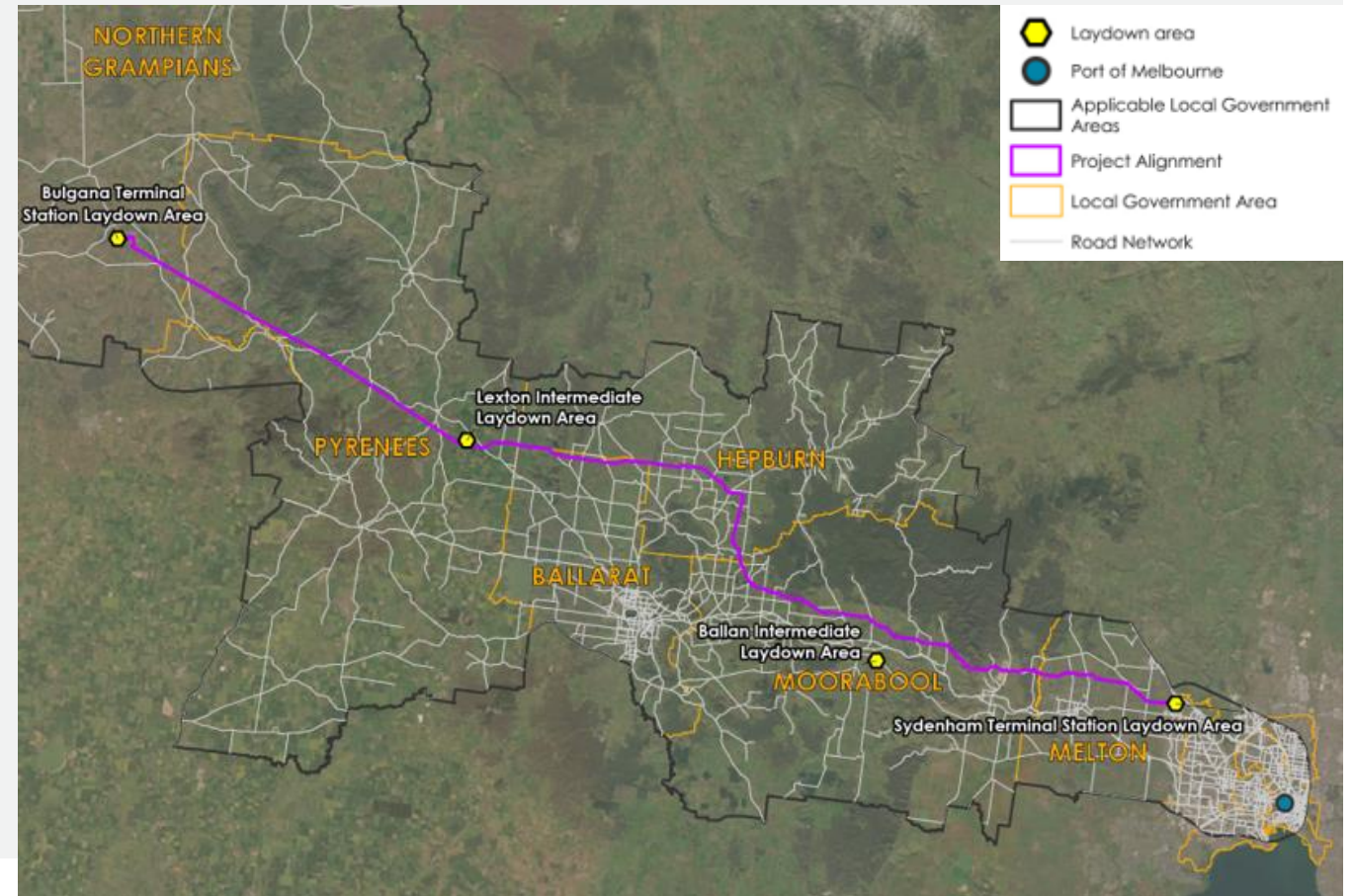


Impact assessment method overview

- Study area
- Existing conditions
- Risk screening
- Impact assessment
- Summary

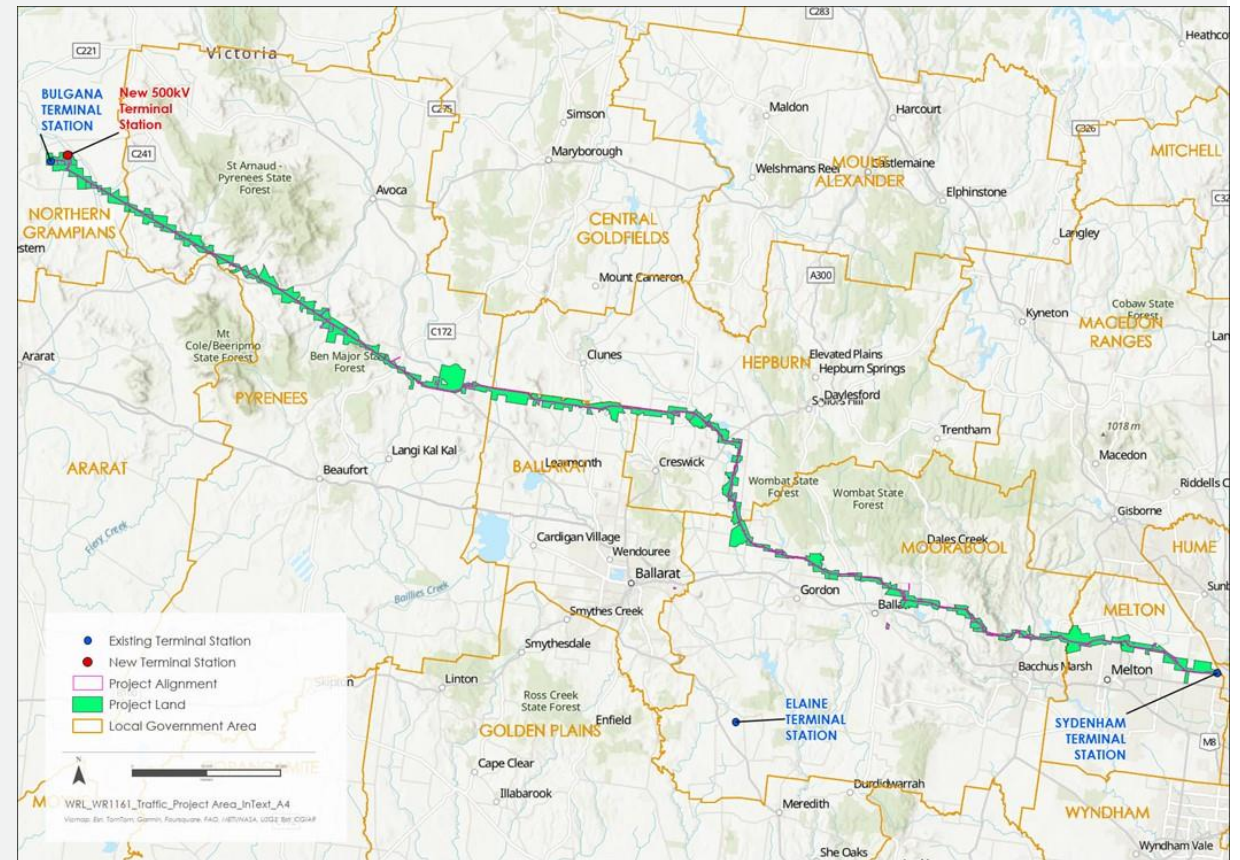
Study area

- Project Area extends from Bulgana in western Victoria to Sydenham in Melbourne's north-west.
- Study area is the road network that can be used to access the Project Area, laydown areas, and workforce accommodation facilities.
- Split into six sections, delineated by the six LGAs:
 - Shire of Northern Grampians
 - Shire of Pyrenees
 - City of Ballarat
 - Shire of Hepburn
 - Shire of Moorabool
 - City of Melton
- Includes routes from Port of Melbourne to Western Freeway and Calder Freeway.



Existing conditions

- Review of relevant legislation, policy and guidelines, including:
 - Road Management Act 2004
 - National Heavy Vehicle Regulations
- Review of regional context of the major road network and traffic generators/ attractors in the Project Area.
- Review of local transport provisions and conditions, including:
 - Traffic volumes
 - Pavement sealing
 - Heavy vehicle routes
 - Crash history
 - Public transport and school bus services
 - Active transport facilities
 - Load limits and overpass clearances
- Collation of community and stakeholder feedback for input into assessment.

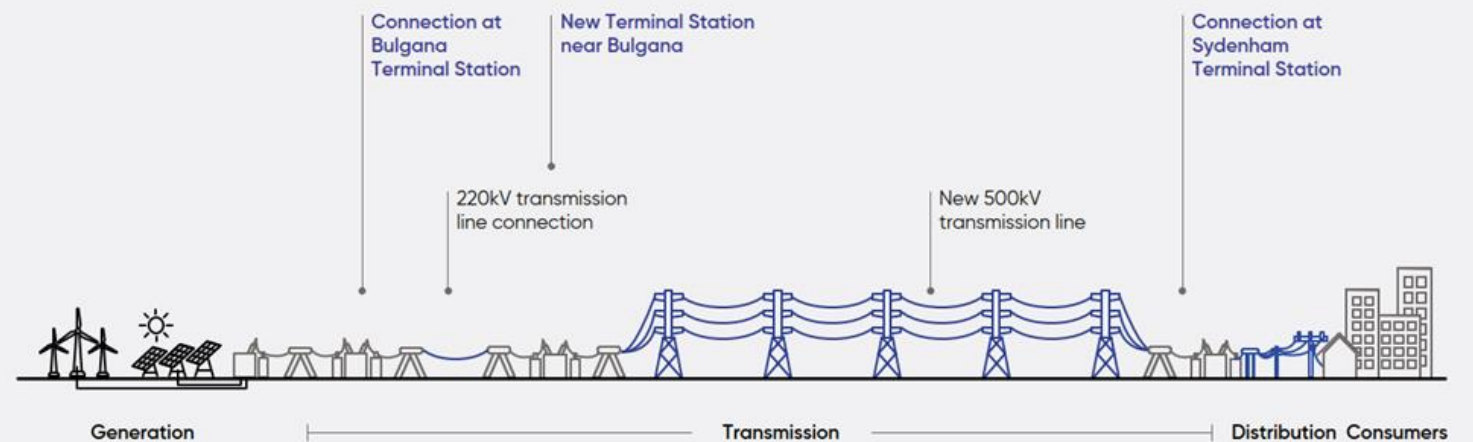


Risk screening

Risk screening was undertaken to identify transport-related risks associated with the Project.

Key issues were identified and considered in the impact assessment:

- Increased road congestion
- Degradation of road infrastructure
- Reduced safety for road users



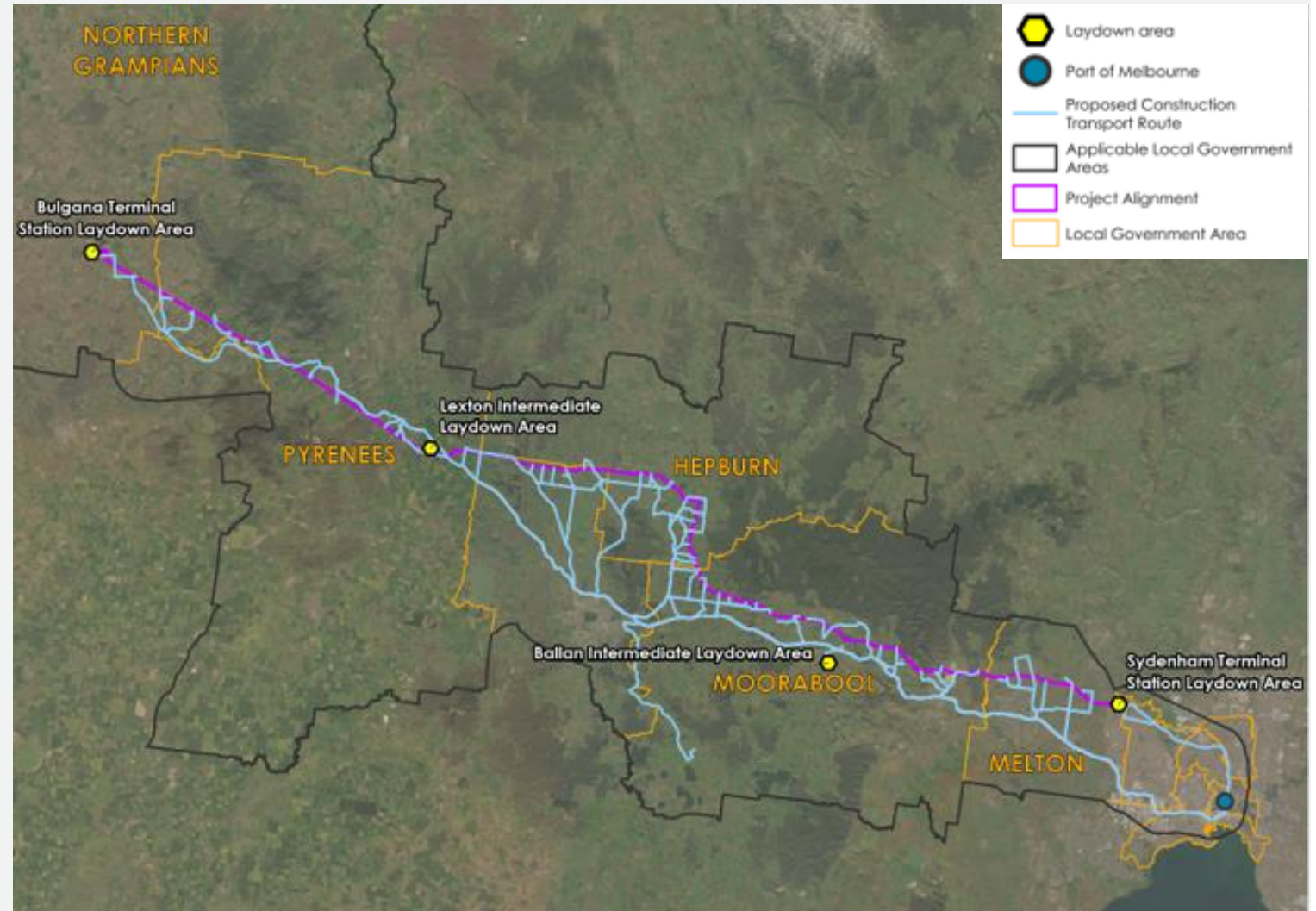
Impact assessment:

Key Assumptions

- Project generates traffic from the following activities:
 - Construction of temporary laydown areas and workforce accommodation facilities
 - Construction of access tracks
 - Construction of towers and transmission line works
 - Construction/ upgrade of terminal stations
- Construction traffic to use major roads and connectors for as long as possible, before accessing local roads and access tracks.
- Construction will be staged along the Project alignment, however for the impact assessment, it has been assumed to occur simultaneously.

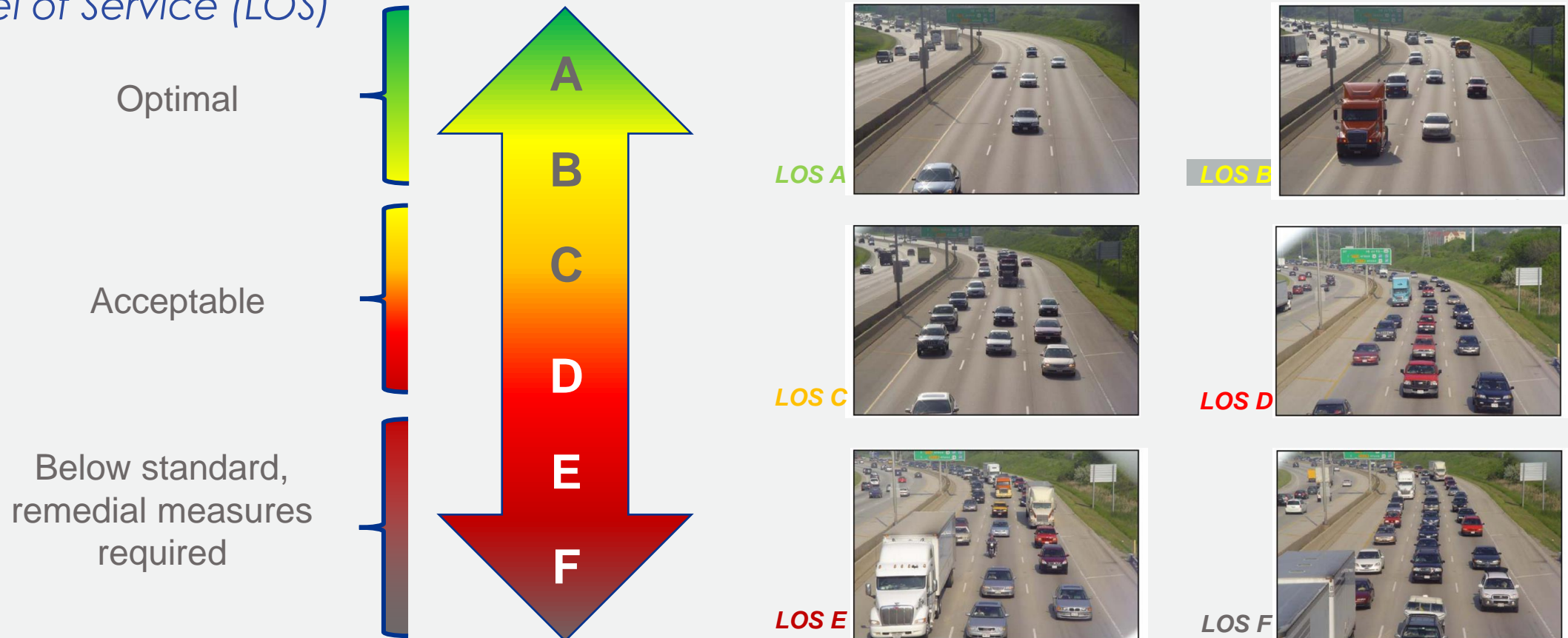
Impact assessment: Construction Traffic Modelling

- A traffic model has been produced to assess the traffic performance of each road along the proposed construction transport route.
- Trip rates are used to estimate the amount of construction traffic along each road.
- Construction traffic is assumed to travel from the Port of Melbourne to laydown areas and then from laydown areas to construction sites.
- Modelling represents a conservative approach as not all construction traffic will occur at the same time.



Traffic Performance Measure

Level of Service (LOS)



Source: Guide to Traffic Management: Traffic Studies and Analysis (Part 3) (Austroads, 2013)

Road condition

- Local roads have been assessed to identify those which may experience degradation due to the Project.
- The assessment considered the existing pavement condition (road/ shoulder sealing) both through site visits and a review of desktop material.



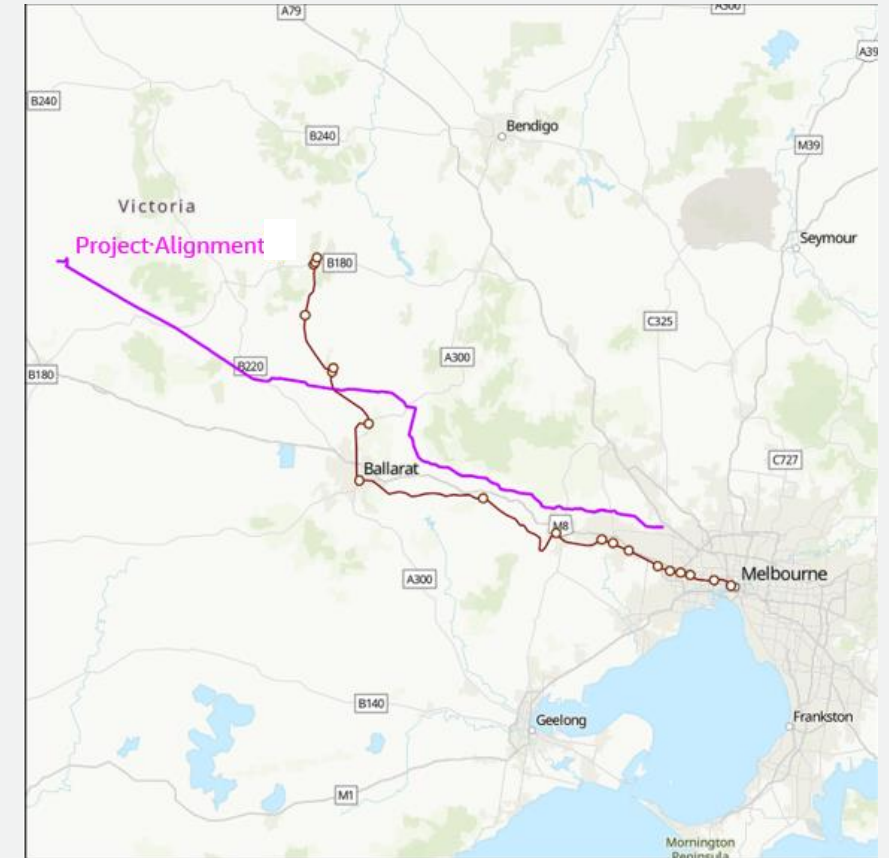
Typical example of an unsealed road within the study area



Typical example of a narrow pavement/sealed road within the study area

Public, school and active transport

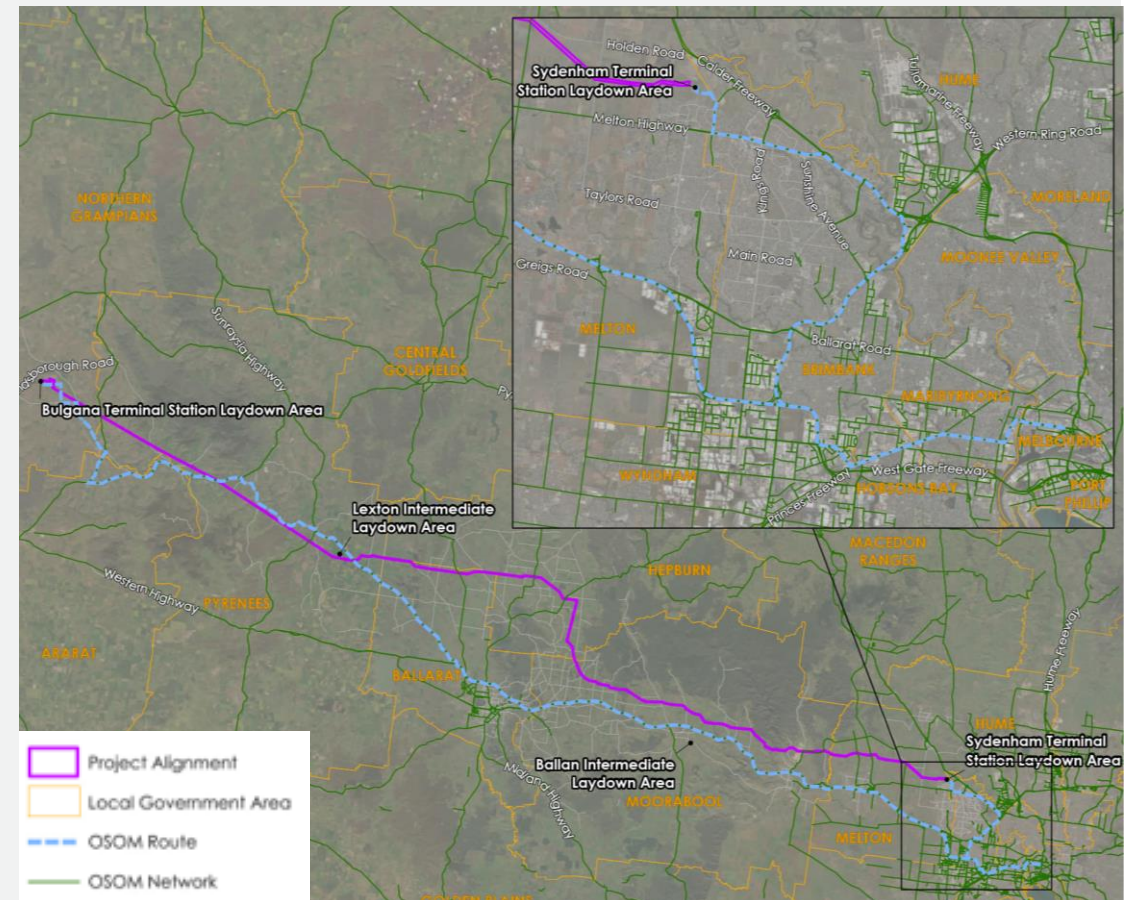
- Safety may be impacted for public transport, school bus and active transport users due to increased construction traffic interacting with these vulnerable road users.
- The assessment considered potential conflicts with the proposed construction transport route by mapping:
 - Existing rail and public bus routes
 - Schools and school bus routes
 - Active transport infrastructure
- Information was sourced from Councils, PTV, Victorian Government Data portal and from the Community through Social Pinpoint Data.



Ballarat rail corridor originating at Maryborough, intersecting Project alignment

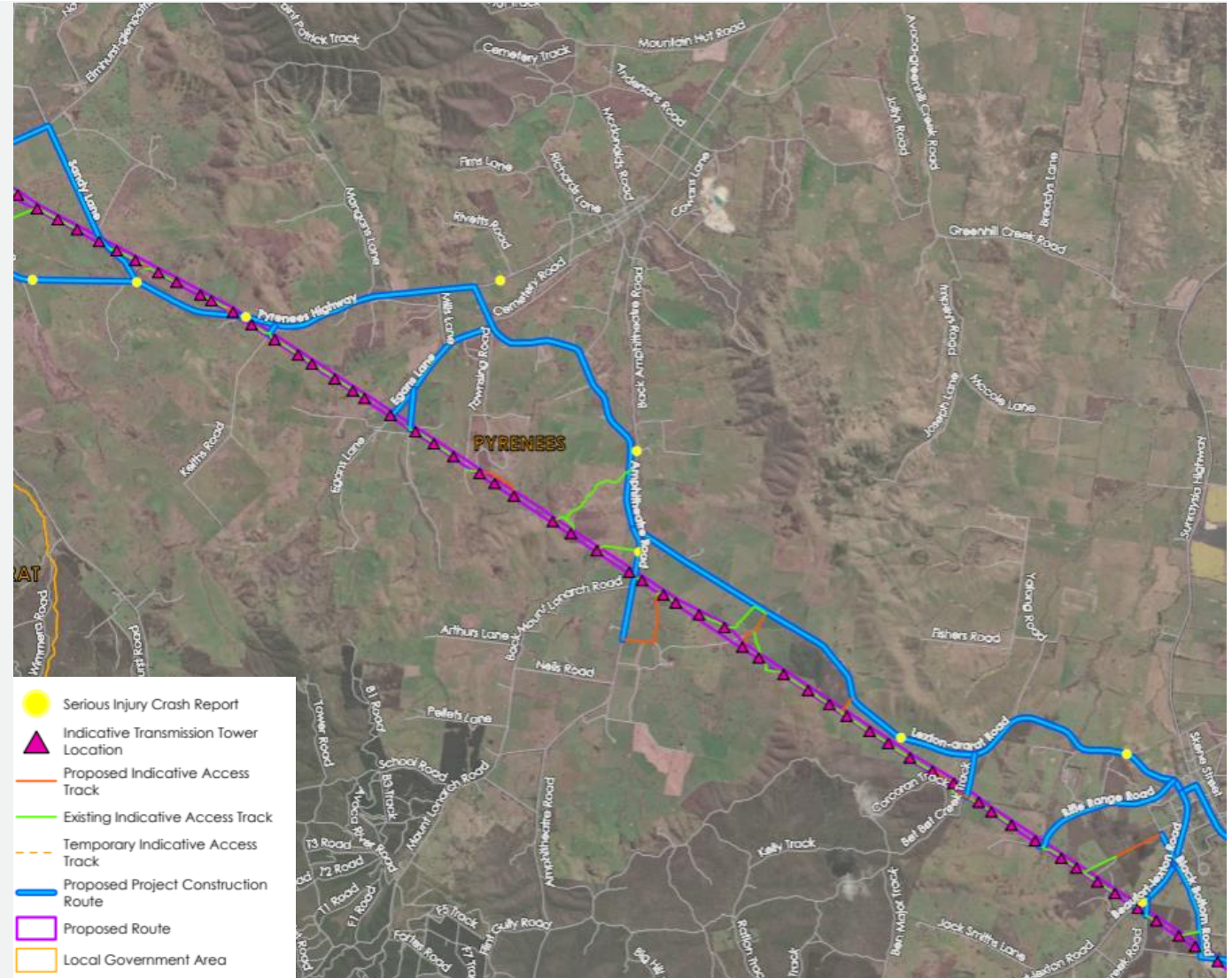
Heavy vehicle and OSOM routes

- Heavy vehicles are required to deliver materials to laydown areas and construction sites.
- Approval status of the proposed construction transport route was checked against the existing DTP gazetted B-double network.
- Approval will be required for heavy vehicles to use roads not on the gazetted network.
- Routes for Oversize Overmass (OSOM) vehicles have also been identified. All OSOM movements require approval through DTP and National Heavy Vehicle Regulator.



Road safety

- Identified road safety trends and crash hot spots along the proposed construction transport route.
- Assessed through analysis of publicly available crash data and site observations.



Load limits and overpass clearances

- Load limits on roads, bridges and major culverts identified along the proposed construction transport route.
- Vertical clearances of overpasses identified along the proposed construction transport route.
- Assessment included:
 - Review of DTP gazetted B-double network and overpass clearance height maps
 - Site observations
 - Council provided road, bridge and culvert load limit data



Gross Load Limit on Holden Road

Summary

- Existing conditions assessment of transport network was used to identify the proposed construction transport route.
- Traffic performance of each road along the proposed construction transport route was assessed using a traffic model which determines the LOS of each road.
- The vast majority of roads are expected to experience minimal impact to LOS due to Project traffic.
- Project traffic may have an impact on the condition of local roads, particularly unsealed roads or roads that have narrow pavements.
- Potential conflicts may occur between Project traffic and public transport, school bus and active transport users due to the proximity of other road user infrastructure and services.
- Approval is required for heavy vehicles to use roads not on the gazetted network and all OSOM movements.
- Bridges and major culverts without specified load limit data require further evaluation or approval for use.