

GUIDELINES

for Assessing B-Doubles and Higher Mass Limit Vehicles on Local Road

1. PROCEDURE OBJECTIVES

This procedure provides a process to ensure consistency in assessing applications made by transport operators to access any road on the local road network by B-Doubles and Higher Mass Limit Vehicles.

2. PROCEDURE

These guidelines have been developed to allow Council to work through the approval process for heavy vehicle access in a clear and logical manner.

The figure below schematically shows the assessment procedure detailed by these guidelines.

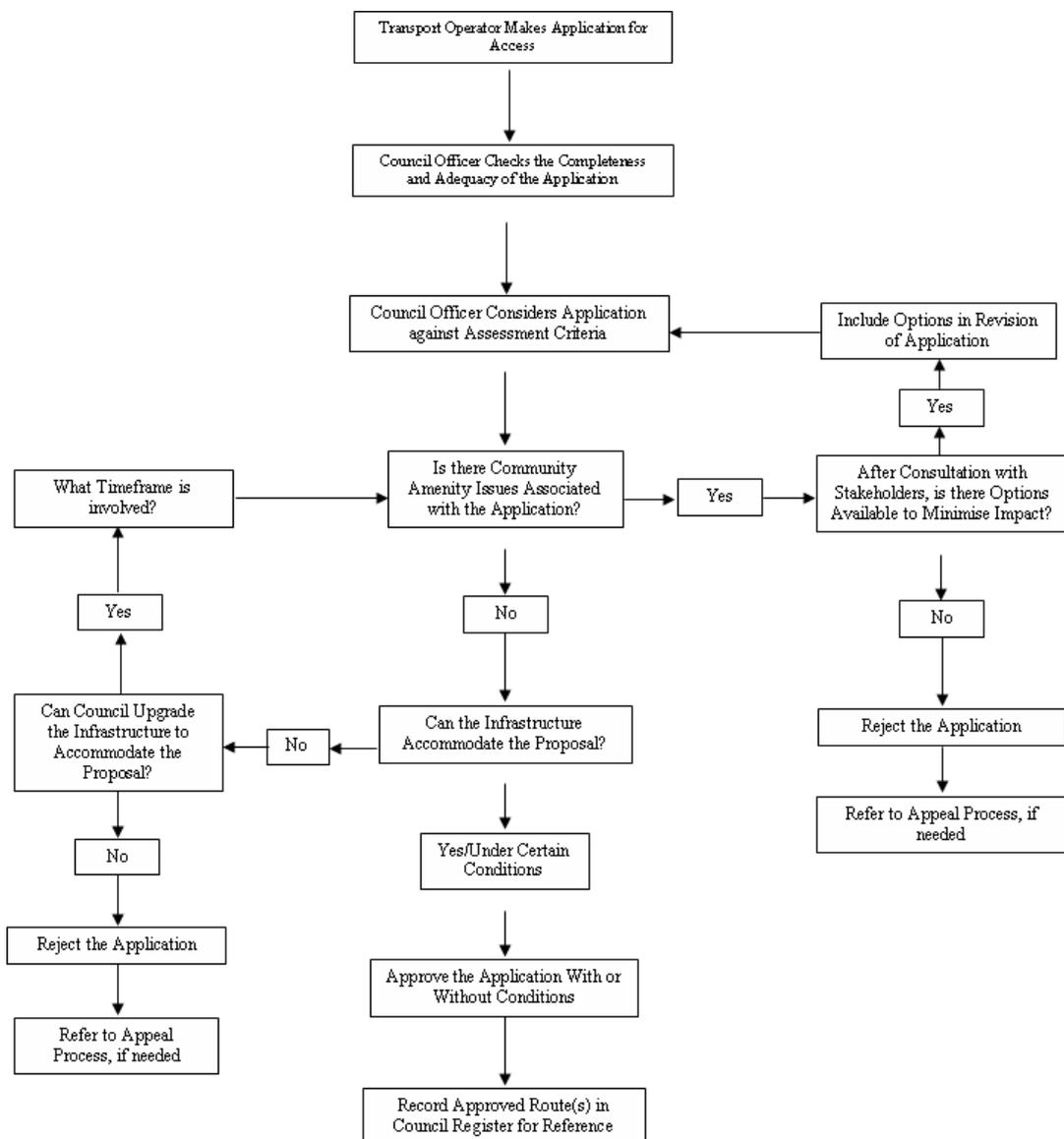


Figure 1.0 – Assessment Procedure

The development of these guidelines is an opportunity for Council and both local and regional transport operators to develop an understanding of their respective roles and responsibilities in the decision making process.

3. APPLICATION FOR ACCESS

The following details are required by Council to assess applications to use B-Doubles and Higher Mass Limit vehicles received from transport operators.

- Contact details,
- Route details. Taking account of roads to be used, the direction of travel, origin and destination of trips including locations of properties in the Colac Otway Shire to be serviced,
- Vehicle details. This includes information such as vehicle type, overall vehicle length, gross vehicle mass, etc
- Operational details. This includes the purpose or type of material to be transported, frequency of travel, time period if applicable, time of travel, etc
- Other relevant task specific information.

Attachment A is the prescribed form to be completed by the transport operator when applying for heavy vehicle access.

4. ASSESSMENT OF APPLICATION

There is no ideal route for B-doubles or Higher Mass Limit Vehicles; therefore it is important that thorough and proper consideration be given to best match routes with the proposed vehicle types.

Upon receipt of an application to use B-doubles or Higher Mass Limit Vehicles on its local road network, Council is to prepare an impact statement to identify and address issues relating to the proposed route.

This impact statement should address safety, technical, and environmental issues, along with any community concerns. A checklist of assessment criteria given in Attachment B is to be completed and shall form the basis of the impact statement:

Attachment B contains criteria for assessing B-double routes. Proposed B-double routes are to be assessed on the basis of 25m B-doubles unless the application relates specifically to B-doubles not exceeding 19 metres but exceeding 50 tonnes. In this case the only criteria that needs to be considered relates to bridges.

Any impact statement may include other significant local issues not listed in Attachment B. Council, if it is considered necessary, may undertake community consultation to help identify issues for the impact statement. This consultation may involve, local residents, Road Safety Committee, the local police, etc.

Council may request the applicant to provide further information necessary to complete the impact statement.

If a proposed route(s) crosses a municipal boundary, the adjoining Council through which the route passes is to be consulted. Council should seek to avoid the problem of one Council approving the route and another Council not approving its part of the same route.

All applications involving a single route shall be assessed by the General Manager, Infrastructure and Services, or their delegate. For an application seeking to use multiple routes, the applicant maybe requested to provide a certified route assessment from an independent traffic engineer. These guidelines shall form the basis of this assessment.

5. GENERAL REQUIRES FOR ROUTE ASSESSMENT

Where an application is made to use B-doubles that exceed 19-metres in length the route assessment is to focus on operating parameters which differentiate B-doubles from normal articulated vehicles.

It should be noted that these Assessment Criteria are for guidance only and are not rigid rules. In addition, short sections of lower standard of a total route which is otherwise satisfactory would not necessarily preclude acceptance of the route as a whole.

It should be acknowledged that B-doubles not exceeding 19 metres in length have geometric performance that is significantly better than that of normal articulated vehicles. On this basis, Council encourages the use of these vehicles in preference to tri-axle trailers operating at Higher Mass Limits.

When considering applications to utilise Higher Mass Limit Vehicles, the structural capacity of road infrastructure, including road pavements and structures needs to be included in the assessment criteria.

5.1 Assessment of Safety

5.1.1 Lane and Shoulder Widths

Desirable standards for lane and shoulder widths for B-double routes are -

| Description | AADT | Minimum Lane Width (m) | Min Shoulder Width (m) |
|--------------------------|------------|---|------------------------|
| Low Volume Refer Note | < 100 | 5.5 m formation on straight alignment. For curves, refer 5.1.3 | |
| Low volume Refer Note | 100 - 500 | 7.0 m formation on straight alignment. For curves, refer 5.1.3 | |
| Other | 500 - 2000 | 3.0 | 1.0 |

Note - Local and regional roads carrying low volumes of traffic are to be assessed based on traffic, gradient, lane width, sight distances and other relevant factors.

Table 1.0 – Minimum Lane & Shoulder Widths, Sealed Roads

Lane width is the 'trafficable width' divided by number of lanes. Shoulder width includes both sealed and unsealed portions of the shoulder.

These standards may, in some instances, preclude the use of unsealed roads. Where applications are received to utilise local roads of this nature it may be advantageous to grant permission for short lengths of unsealed local roads where direct access to properties such as agricultural properties or timber coupes is provided.

Unless for direct property access on an occasional or intermittent basis, B-doubles may not be recommended for use on sealed roads less than 3.3-metres wide due to safety risks and the potential for edge and shoulder damage.

Assessment of these routes should be based on traffic, geometric capacity, sight distances and any other relevant factors.

In urban areas, the minimum desirable shoulder widths may not apply.

Corners which would be travelled at low speed are to be checked to ensure that they adequately accommodate the B-double swept path.

5.1.2 Bridge Widths

The Table below shows the minimum width between bridge kerbings for all B-doubles and Higher Mass Limit Vehicles, subject the conditions indicated. Where width requirements cannot be met, a physical inspection of the route should occur before any recommendation is considered.

| AADT | Minimum Width Between Bridge Handrails | Comments |
|---------------|---|--|
| Less than 200 | 5.0 m | * A reduced AADT of 150 applies where signing and road marking on the approaches to single lane bridges does not meet minimum standards. |
| 200* or more | 7.2 m | |

Table 1.0 – Minimum Bridge Width Requirements

5.1.3 Vehicle Swept Path Requirements

The geometry of curves on low speed and/or low volume roads, intersections, roundabouts, and other traffic management devices should be checked to ensure they adequately accommodate B-doubles travelling at low speed.

Swept path diagrams for a B-double appear in Austroads *Design Vehicles and Turning Path Templates* and are included in Appendix B.

A field trial will assist in assessing swept path requirements.

5.1.4 Railway Level Crossings and Adjacent Intersections

At crossings controlled by signals, the signal warning time is to allow for clearance of the longer vehicle.

At crossings with passive control (signs only) sight envelopes are to be adequate for B doubles.

There is to be sufficient road length either side of a level crossing to allow a B-double to clear the crossing before having to stop at an intersection, and to clear an intersection before having to stop at the level crossing.

Similarly, there is to be sufficient road length between adjacent intersections to allow a B-double to clear the first intersection before stopping at the second.

5.1.5 Property Access

The applicant is responsible for ensuring the suitability of access to serviced properties. The Council Officer assessing the application should ensure that the geometry of the access is sufficient to allow entry and exit in a forward direction. Swept path diagrams and/or a field trial may assist the applicant to identify the suitability of the terminal.

5.1.6 Overtaking Opportunities - Rural Areas

In general, overtaking a B-double is not significantly different to overtaking a normal articulated vehicle. However, the crash history of the route should be checked to determine any pattern of overtaking crashes. If a pattern emerges, the sight distances along the route should be checked. Particular attention should also be given to roads with significant proportions of grade exceeding 5%.

5.1.7 Sight Distances

Horizontal and vertical sight distances at intersections should meet the minimum safe intersection sight standards as specified in the table below.

| Design Speed (km/h) | Safe Intersection Sight distance (m) * | |
|------------------------|--|-------|
| | Rural | Urban |
| 40 | 70 | 60 |
| 50 | 90 | 80 |
| 60 | 115 | 105 |
| 70 | 140 | 130 |
| 80 | 175 | |
| 90 | 210 | |
| 100 | 250 | |
| 110 | 290 | |
| 120 | 330 | |

* **Note** – Refer Austroads *Guide to Traffic Engineering Practice – Part 5* for corrections to address approach grades.

Table 3.0 – Safe Intersection Sight Distances

Sight distances which do not meet these standards can still be considered.

5.2 Assessment of Environmental Impact

5.2.1 Noise

Noise assessment is a critical component, particularly where the proposed route passes through residential areas.

The noise emanating from B-doubles is similar to the noise from the standard 6 axle articulated vehicles that would be replaced by B-doubles. Therefore, use of B-doubles instead of normally articulated trucks decreases total noise exposure as less trucks are required for a given freight task.

In assessing routes which pass through noise sensitive areas, the views of the local residents are to be considered. Monitoring of existing noise levels and projections if the route is approved will assist to determine specific noise impacts.

5.2.2 Community Amenity

The assessment officer may, if deemed necessary, engage in further consultation with the community directly affected by the proposal to determine concerns and how these maybe addressed through alternative options if available.

Local community concerns should be taken into account and balanced against economic, road safety, traffic management and other technical issues.

5.3 Assessment of Impact on Infrastructure

5.3.1 Bridges & Other Structures

The impact of Higher Mass Limit Vehicles on certain bridge types can be greater than for other conventional legally loaded vehicles, and these bridges may need to be checked to ensure they have adequate capacity. The bridges which should be checked are –

- Bridges built to older designs which have simple spans greater than 30m or which have spans between 10m and 14 m which are structurally continuous; or
- Light truss bridges, or
- Bridges assessed as being in poor condition.

The axle configurations detailed in Appendix A shall be used for any structural assessment. A bridge assessment may require the services of a qualified consulting engineer, whose costs, if considered appropriate, may be recovered from the applicant.

5.3.2 Road Pavements

There maybe a need to assess the condition of the road pavement along the route, including depth and quality of pavement, subgrade conditions etc, if the proposed operations are likely to exceed the total equivalent loading from General Mass Vehicles.

5.3.3 Turning at Intersections

It is essential that intersections can be safely negotiated, with minimal or no interference to other traffic or road infrastructure (eg. drainage pits, kerb & channel, signs, vegetation, footpaths, etc).

Where there is any possibility that the B-double may have insufficient clearance from kerbs or other nearby objects, standard turning templates shall be used to accurately check the swept path.

The appropriate turning template shall be superimposed over a suitably scaled drawing of the intersection and any clearance problems shall be noted.

Swept path diagrams for a B-double appear in Austroads *Design Vehicles and Turning Path Templates* and appear in Appendix B.

As a guide –

- The wheel paths of the rear trailer of the combination should not come any closer than 600 mm to the face of any kerb.
- The overhang path should not come any closer than 600 mm to a nearby object.
- For a left turn, the wheel paths should not cross into the path of oncoming traffic. (Encroachment over the centreline may be acceptable where traffic volumes are very low, i.e. less than 250 vehicles per day oncoming traffic.)

6. ASSESSMENT OUTCOMES

Once Council has completed its assessment it may resolve to either approve or reject the application to use B-Doubles or Higher Mass Limit Vehicles on the nominated local road(s).

The applicant will be notified in writing of Councils decision. Applications will be approved subject to conditions. These conditions may include all or any combination of the following -

Standard Conditions – shall be included on every approval.

- Compliance with the Colac Otway Shire conditions as quoted on the approval letter at all times. Council reserves the right to revoke any approval at reasonable notice to the applicant.
- The applicant shall keep records for any traffic accident, near misses, or complaints by other road users involving the applicant's vehicle(s), and provide Council with appropriate reports on request.
- A review of the operation of B-Doubles or Higher Mass Limit Vehicles, on the approved route(s), may be undertaken by Council within 12 months of the approval date, and approval conditions may be amended.
- Where roads are designated school bus routes applicants shall not operate between the times 7:30 am and 9:00 am and 3:00 pm and 4:30 pm on school days. Alternately operating times may be other than within 15 minutes of scheduled school bus times where the applicant has determined for affected roads the accurate times and achieved agreement to the arrangement from the school bus coordinator.

Other Conditions – may be included if applicable

- Some roads are subject to regular cattle crossings. The Applicant is to identify the location of these and the normal crossing times and exercise appropriate caution.
- Entries to properties being serviced by the Applicant must be constructed for sight distance and width standards to Council's satisfaction for safety and to prevent road base or earth spill onto sealed surfaces and damage to sealed edges and road verges. Approval may be withdrawn if damage occurs and is not repaired to the satisfaction of Council.
- Where more than four return trips per day occur on local roads the Applicant is required to erect and maintain approved temporary Australian standard warning signs, except where these signs already exist. The signs shall be located at entry/exit from properties, at intersections and at not greater than 2km intervals for the duration of the permit approval.
- All Permits may be suspended where the road surface has deteriorated and is determined by Council to be unsafe for heavy haulage or any form of transport or that continuing use will cause a safety risk and/or significant damage to occur.
- To minimise the potential for road damage, restrictions on the time of year vehicles are permitted to operate may be applied. This includes sealed or unsealed roads with poor pavement condition that are affected by wet weather.

Where an application is rejected or the transport operator considers Council to have been unreasonable in its decision, Council will endeavour to work in consultation with the applicant to reach a mutually beneficial solution.

7. PERFORMANCE REVIEW

These guidelines are to be reviewed on an annual basis by the General Manager, Infrastructure and Services to ensure its continued suitability and effectiveness.

Records of such reviews shall be maintained.

8. ATTACHMENTS

Attachment A - Application for Consent to Operate B-Doubles and HMLV on Local Roads
Attachment B – Route Impact Statement
Appendix A – Axle Configurations
Appendix B – Standard Turning Templates