

DEPARTMENT *of* INFRASTRUCTURE, ENERGY *and* RESOURCES  
TASMANIA  
ROADWORKS SPECIFICATION  
R76 – ROADSIDE MAINTENANCE  
November 2010

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### R76.1 SCOPE

This Specification sets out the requirements for the management of vegetation within the road reservation and the requirements when dealing with protected areas.

Vegetation management is carried out to achieve the following purposes:

- Ensure a safe road environment;
- General growth control;
- Maintaining visibility of and clearance around roadside traffic facilities;
- Control and / or eradication of noxious, secondary and other weeds;
- Maintenance of protected areas.

### R76.2 REFERENCES

This Specification shall be read in conjunction with the following specifications

- G1 – General Provisions/MG1 Maintenance General Provisions
- G2 - Contract Management Plan/MG2 Maintenance Contract Management Plan
- G3 - Traffic Management

### R76.3 DEFINITIONS

- **Grass** – Any vegetation not including trees.
- **Intervention Level** - The value of a condition parameter, which triggers maintenance investigation or activity.
- **Maintenance** - All actions necessary for retaining an asset as near as practicable to its original configuration and condition, or reducing its deterioration.
- **Mowing** – the cutting of light vegetation and saplings.
- **Tree** - a woody plant with a trunk diameter greater than 150 mm measured one metre from the ground.
- **Portal** – as defined in Annexure R76A to this Specification - Fig 1, Fig 2 and Fig 3.
- **Vegetation control zone** - consists of the verge and shoulder including median verges and shoulders, on a single carriageway and dual carriageway, up to the defined horizontal limit of the portal as nominated on Fig 1, Fig 2 and Fig 3 in Annexure R76A to this Specification. On narrower roads it may include other elements such as parts of the roadsides. The vegetation to be maintained in the vegetation control zone grows up through the surface. Vegetation to be maintained at the boundaries of the portal grows into the portal from the sides and down from the top of the portal.
- **Landscaped areas** - shall comprise all areas where plants are arranged in beds, massed plantings or in paved areas or in roadside rest areas.

### R76.4 REQUIREMENTS

#### R76.4.1 General

All waste materials, generated as a result of undertaking work, are to be treated in accordance with this specification or as directed by the Superintendent.

#### R76.4.2 Mowing General

Three categories of mowing have been defined; they are types A, B and C as described in the following clauses. The Superintendent shall identify the location, type and extent of mowing.

The Contractor shall undertake mowing to ensure cut grass and trimmings and windrowed discharges from mowers do not lie in drainage lines, kerb and gutter or pit openings, or on paved areas in medians or on the shoulders or travel lanes. Cut grass shall not end up flushed into drainage pits. Mowing operations shall not damage trees, bushes or landscaped areas.

Areas infested with noxious weeds shall be mown before seed set.

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Areas of native grasses shall not be mown until after seed set.

Mowing operations shall cease during periods of Total Fire Ban.

**R76.4.2.1 Mowing Type A**

Mowing Type A generally applies to lawn areas such as built-up urban areas and rest areas where a neat uniform closely mown surface is required. All edges shall be trimmed, including in and around roadside traffic facilities, garden beds, trees, retaining walls etc.

All items of litter and debris shall be removed from the nominated areas immediately prior to Type A mowing.

Vegetation shall be mown in accordance with the intervention level and / or specified frequency and shall be cut to a height of 50 mm. Brush cutters and other similar devices should be used to treat areas that can not be reached by mechanical operations.

Shredded litter remaining after Type A mowing will be removed.

**R76.4.2.2 Mowing Type B**

Mowing Type B generally applies in outer urban areas. Type B mowing includes trimming of all edges, including in and around traffic furniture.

Grass shall be mown in accordance with the intervention level and / or specified frequency and shall be cut to a height of 150 mm.

**R76.4.2.3 Mowing Type C**

Mowing Type C is generally undertaken in rural areas.

Vegetation shall be mown in accordance with the intervention level and / or specified frequency and shall be mown to a height of 150 mm.

**R76.4.3 Verge Maintenance**

The objective of verge maintenance is to keep the roadway and immediate environs clear and safe for the travelling public. The area identified for verge maintenance shall be defined as the vegetation control zone and extends 1m behind the carriageway, which is usually defined by the nominal line of the guideposts.

When using herbicides to control vegetation within the vegetation control zone the requirements of R76.3.6 shall be adhered to. In addition to the requirements of R76.3.6, the Contractor shall mechanically treat the vegetation control zone, within 3 months of herbicide treatment, to remove unsightly vegetation to achieve type B standard after treatment.

Vegetation that obstructs sight distance to roadside traffic facilities, accesses, drainage facilities or obscures the line of sight on horizontal curves with sight benches, shall be trimmed, lopped or removed.

Verges shall be mown in conjunction with and to a standard consistent with the adjacent roadside mowing where Type A and Type B mowing is specified for the adjacent roadside area.

All other verges shall be mown to a Type B standard, including trimming around traffic furniture where practicable.

Chopped waste material from Type B verge maintenance operations that is shorter than 450mm or where otherwise has an individual branch diameter of less than 20mm, may be left on the roadside, provided it is clear of the verge and is not left in areas that are mown or

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where it could obstruct drainage. Chopped waste material must be disposed of in a fashion that is in keeping with the area. Where necessary, material may need to be chopped or mulched.

The chopped waste material shall be removed from areas identified for mowing or locations that could obstruct drainage.

**R76.4.4 Portal Maintenance**

All vegetation encroaching into the portal shall be mechanically or manually pruned. All pruning cuts shall be made cleanly and shall be done in a manner that prevents the stripping back of bark.

Verge maintenance (Clause R76.3.3 Verge Maintenance) or control of vegetation growth on the verges, and control of any vegetation on the shoulders, is work undertaken within the portal, but at road level.

**R76.4.5 Tree and Sapling Maintenance**

The Superintendent may require that trees, saplings, limbs or hedges, located outside the bounds of the Portal are lopped, dropped or trimmed. Where such work is directed, the work shall include the removal and disposal of the material. The Superintendent will advise the Contractor when tree stumps need to be removed.

No tree shall be substantially lopped or removed without the prior approval of the Superintendent, except for the removal of broken branches.

Waste material may be left insitu, provided it is clear of the verge, not left in areas that are to be mown or where it could obstruct drainage and must be disposed of in a fashion that is in keeping with the area. Where necessary, material may need to be chopped or mulched.

**R76.4.6 Herbicide Spraying of Vegetation**

Chemical vegetation control shall only be undertaken if approved by the Superintendent. All chemical vegetation control shall be undertaken in accordance with relevant Acts, Regulations, Bylaws and Codes of Practice including:

- The Agricultural and Veterinary Chemicals (Control of Use) Act 1995.
- DPIW Code of Practice for Spraying in Public Places; and
- DPIW Code of Practice for Ground Spraying.

Only herbicides registered for use in Tasmania shall be permitted.

A registered herbicide sprayer only shall undertake the spraying work with all employees holding a current certificate appropriate for their level of operation.

Herbicide spraying in drainage channels shall only be undertaken where mowing is not practicable and subject to the approval of the Superintendent.

Herbicide spraying in drainage channels shall only be undertaken using herbicides specifically approved for that purpose.

Herbicide spraying shall not be undertaken in wet or windy conditions or on areas subject to erosion.

Herbicide spraying must not take place in the vicinity of mature blackberry bushes from March through to May.

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The Contractor shall take care when applying herbicides. Any damage to surrounding vegetation due to herbicide use will be remedied at the Contractor's expense. The Contractor shall retain spray task records, detailing quantity and type of herbicide sprayed, application system, location, weather conditions and date of spraying.

The Contractor shall provide notification to adjacent landowners and occupiers to advise when spraying operations are programmed. The Contractor shall respond to reasonable requests not to spray near private property.

Areas that are sprayed shall have less than 10% re-growth after 6 months.

**R76.4.7 Protected Areas**

Protected areas of native grasses and/or other vegetation are shown in the Project Specific Section or on the plans and are identified on site by a yellow L shaped marker placed on the fence line at the start and end of the site. The horizontal bar of the marker points towards the site. No work shall be carried out in such areas unless specifically directed by the Superintendent.

**R76.4.8 Landscaped Areas**

**R76.4.8.1 General**

All waste material generated, as a result of treatment/s shall be removed.

New plantings shall be maintained sufficiently to ensure their survival and good health.

**R76.4.8.2 Weeding**

Weeding of landscaped areas shall comprise the removal of all weeds, grass, dead plants and unwanted self-seeded plants. Weeding shall be carried out before weeds have dried off and dropped their seed.

**R76.4.8.3 Herbicide Spraying**

Herbicide spraying shall be carried out by spot treatment only in accordance with this Specification.

Within two weeks of application of the herbicide a 95% kill rate shall be evident and the area shall be free of diseased or dead plants and plants with broken limbs or branches.

Within four weeks of the herbicide treatment, all treated weeds shall be trimmed as low as is practicable.

**R76.4.8.4 Pruning**

Pruning shall include trimming and lopping of trees, shrubs and ground cover plants where:

- The plants encroach onto the road formation, footpaths and footways, or onto paved areas;
- The plants have diseased or broken limbs or branches; or
- The plants form recognised hedges that have been trimmed in the past.

Pruning cuts shall be made cleanly and shall be done in a manner to prevent stripping back of bark.

Pruning shall be carried out after flowering and in accordance with recognised horticultural practices.

#### **R76.4.9 Litter Collection**

##### **R76.4.9.1 General**

Collection and removal of litter and debris from the Road Reservation shall include (but is not limited to) the following items:

- Litter (eg. paper, bottles, cans etc.) and dumped garbage;
- Road Kill;
- Rubbish in bins; and
- Debris (eg rocks, plaster board, lengths of timber etc).

*Note:*

*Some sections of the road network have litter and debris collected by other groups or organisations under the Adopt-a-Highway scheme. This does not exclude the contractor from undertaking litter and debris removal if required.*

##### **R76.4.9.2 Roadside**

All litter visible from the travel lanes shall be removed.

Bagged litter shall not be left on the road shoulder/verge overnight.

All other litter on pavement or shoulders, e.g. burst truck tires, broken glass etc., shall be removed.

##### **R76.4.9.3 Road kill**

Within the road reserve, all visible road kill shall be collected and disposed of in an appropriate manner. Road kill that is squashed into the pavement or shoulder shall also be removed.

In rural areas, road kill may be placed unobtrusively within the road reservation but:

- Not in table drains or waterways or in a cutting, or
- Or within 500m of a house or dwelling.

Road kill collected near and in urban areas must be removed from site and shall be disposed of in accordance with the requirements of the local Council.

##### **R76.4.9.4 Litter Bins**

Litterbins shall be emptied on a regular basis and the litter in the general area adjacent to litter bins shall be removed when bins are emptied.

#### **R76.4.10 Access and Intersection Sight Distance Maintenance**

The objective of access and sight distance maintenance is to ensure that no vegetation impedes sight distances at junctions, side roads, accesses, bus stops, rest areas or parking bays or obscures the line of sight around corners and over sight benches. The work may involve either mowing or tree maintenance.

Vegetation shall be trimmed to a height of less than 300 mm.

#### **R76.4.11 Sight Distance to Traffic Signs**

The objective of maintaining sight distance to traffic signs is to ensure that no vegetation impedes sight distances to traffic signs that may lie outside the verge. The work may involve either mowing or tree maintenance.

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**R76.5 PERFORMANCE CRITERIA**

**R76.5.1 Maintenance in Construction Contracts**

The Intervention Level and the condition following treatment are set out in **Table R76.1 Intervention Levels Construction Contracts**.

**Table R76.1 Intervention Levels Construction Contracts**

ROUTINE MAINTENANCE TREATMENT	INTERVENTION LEVEL	MINIMUM CONDITION AFTER REINSTATEMENT
Mowing Type A	Roadside areas are to be mown at a frequency advised by the Superintendent.	Cut to a height of 50 mm
Mowing Type B	Roadside areas are to be mown at a frequency advised by the Superintendent.	<b>Cut to a height of 150 mm</b>
Mowing Type C	Roadside areas are to be mown at a frequency advised by the Superintendent.	Cut to a height of 150 mm
Verge Maintenance to minimum of 1.0 m behind traffic furniture and including median maintenance	Vegetation control to type B Standard.	Cut to a height of 150 mm
Tree and Sapling Maintenance	A branch impedes sight distance to traffic furniture from a distance of 200 m as viewed from an approaching vehicle. Vegetation that encroaches into a portal, 5.6 m above the pavement and 1m from the back of the shoulder. Dead or broken branches and limbs in the area of the road reservation	Prune or remove vegetation
Landscaped Area Maintenance	Garden Beds – Weeding at the assigned frequency Other landscape areas - Weeding at the assigned frequency. Pruning (including the removal of trunks of shrubs and trees) to maintain the Portal, unless directed otherwise by Superintendent Remove diseased, dead plants and broken limbs and branches	Weeds removed Trees pruned/removed Diseased, dead plants and broken limbs and branches removed
Roadside Litter and Debris Collection (Includes pedestrian underpasses and around or under bridges)	Pick up all litter and debris visible from a standard 4WD located anywhere on the pavement. No visible litter after mowing	Contractor shall collect and remove from the road reservation.

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Road Kill	Pick up Road kill within the road reservation	Contractor shall collect and remove from the Road Reservation in Urban areas. Small dead animals may be disposed of within the roadside reservation out of sight of the travelling public in rural areas only.
Access and Intersection sight distance maintenance	Vegetation that impedes sight distance at junctions, accesses, side roads, bus stops, rest areas, parking bays from a distance of 300 m as viewed from an approaching vehicle shall not exceed a height of 300 mm	Sight distance unimpeded
Sight Benches and Sight Lines across Curves	Vegetation that impedes sight distance.	Sight distance unimpeded with vegetation treated in accordance with existing pavement markings.
Sight distance to traffic signs	Vegetation that impedes the visibility of traffic signs from a distance of 200 m as viewed from an approaching vehicle	Sight distance unimpeded

**R76.5.2 Network Maintenance Contracts**

The Performance Standards for the Network Maintenance Contract will be based on the requirements of **Table R76.2 Intervention Levels/Frequency Network Maintenance Contracts**.

**Table R76.2 Intervention Levels/Frequency Network Maintenance Contracts**

ROUTINE MAINTENANCE TREATMENT	Intervention Level and / or Frequency	MINIMUM CONDITION AFTER REINSTATEMENT
Mowing Type A	As specified in Contract	Cut to a height of 50 mm
Mowing Type B	As specified in Contract	<b>Cut to a height of 150 mm</b>
Mowing Type C	As specified in Contract	Cut to a height of 150 mm
Verge Maintenance	As specified in Contract	Herbicide spray and cut to a height of 150 mm; or Cut to a height of 150 mm
Portal Maintenance	As specified in Contract	Prune or remove vegetation
Landscaped Area Maintenance	As specified in Contract	Weeds removed, diseased, dead plants and broken limbs and branches removed
Roadside Litter and Debris Collection (Includes pedestrian underpasses and around or under bridges)	As specified in Contract	Contractor shall collect and remove from the Road Reservation.



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Road Kill Management	As specified in Contract	Contractor shall collect and remove from the Road Reservation in Urban areas. Small dead animals may be disposed of within the roadside reservation out of sight of the travelling public in rural areas only.
Management of Sight Distance to Accesses and Intersections	As specified in Contract	Sight distance unimpeded
Management of Overtaking Sight Distance, including Sight Benches and Sight Lines across Curves	As specified in Contract	Sight distance unimpeded with vegetation treated in accordance with existing pavement markings.
Management of Sight Distance to Signs	As specified in Contract	Sight distance unimpeded

## **R76.6 MEASUREMENT AND PAYMENT**

### ***R76.6.1 Maintenance in Construction Contracts***

Payment shall be at the relevant Scheduled Rate and shall include all labour, plant and materials required including reinstatement of areas where trees have been removed, the supply and application of herbicides, removal and disposal of all weeds and the collection and disposal of all litter and rubbish.

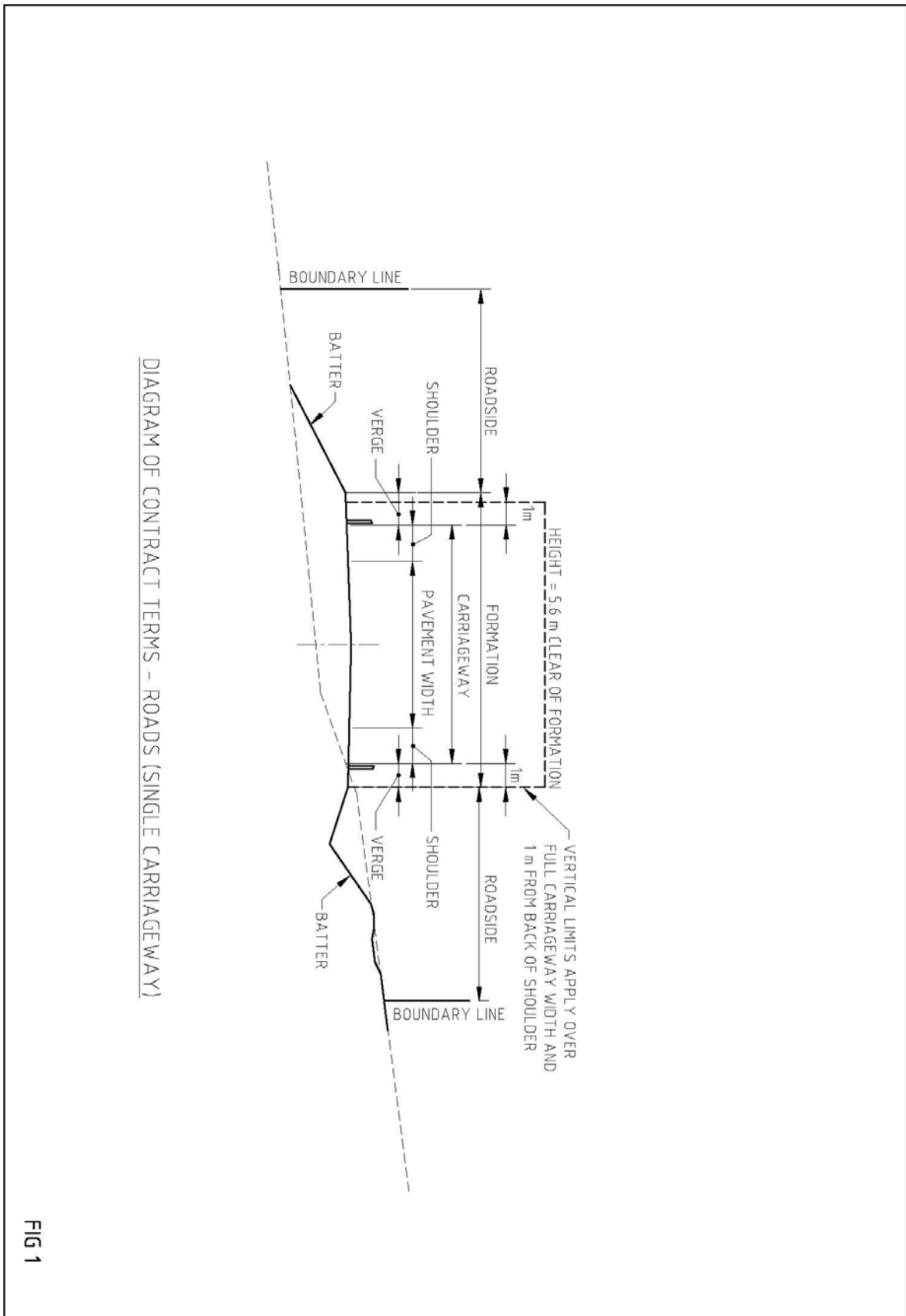
Payment for the maintenance management of roadside maintenance shall include: mowing type A, B, or C, verge maintenance, tree and sapling maintenance, landscape area, roadside litter and debris collection, road kill management, management of sight and sight distance to signs. Payment shall be on a pro-rata basis over the contract period (ref schedule of rates: 7.16 to 7.19)

### ***R76.6.2 Network Maintenance Contracts***

Payment shall be in accordance with the relevant Schedule and Basis of Payment conditions in the Contract and shall include all labour, plant and materials required including reinstatement of areas where trees have been removed, the supply and application of herbicides, removal and disposal of all weeds and the collection and disposal of all litter and rubbish.

**ANNEXURE R76A VEGETATION CONTROL ZONE DIAGRAMS**

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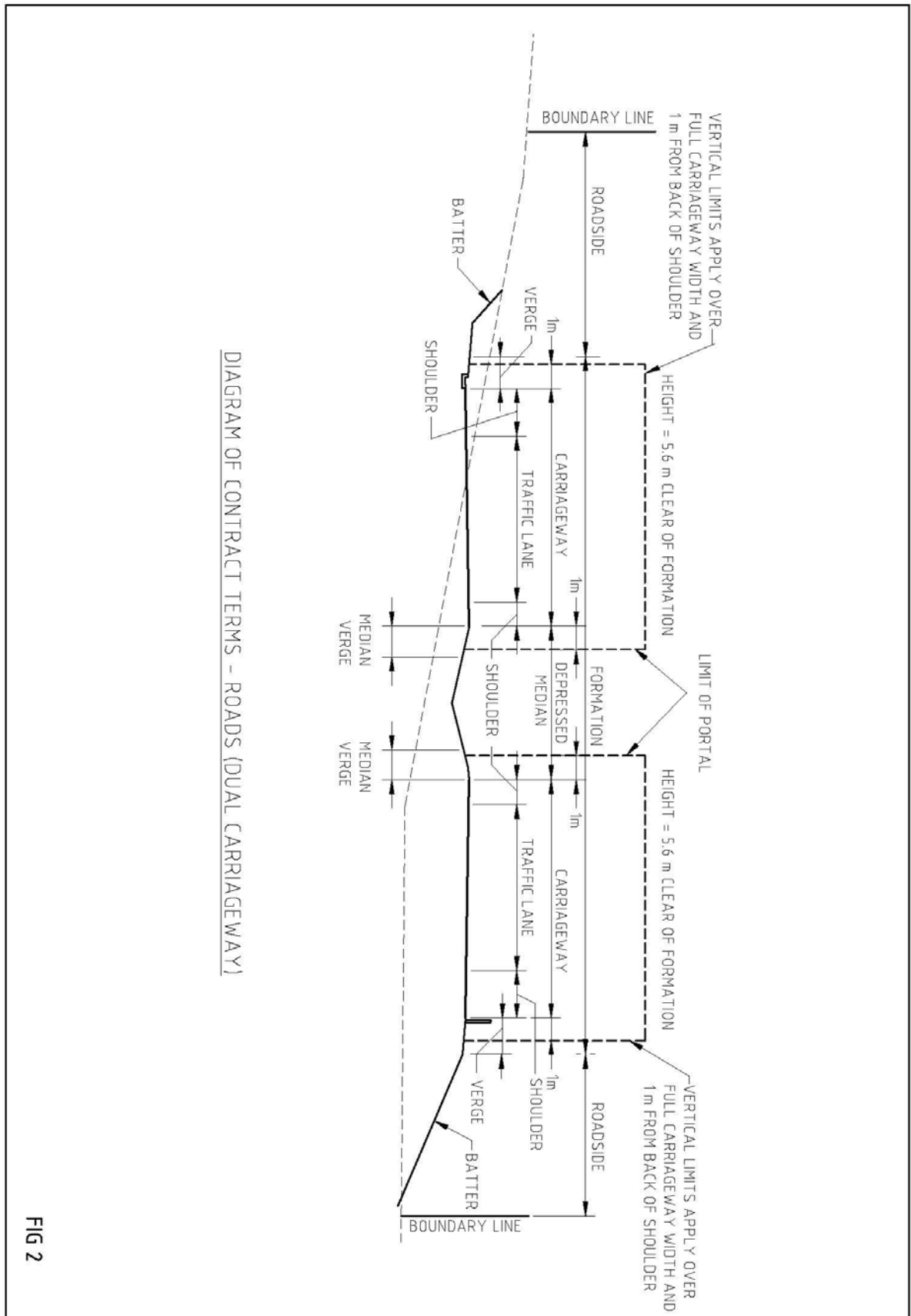


FIG 2

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