



SURVEYORS, ENGINEERS & PLANNERS



441 TINDERBOX ROAD, TINDERBOX, 7054

PROPOSED RESIDENTIAL SUBDIVISION DEVELOPMENT TRAFFIC IMPACT STATEMENT

Table of Contents

1. INTRODUCTION	3
2. SITE DESCRIPTION & DRIVEWAY LOCATION	4
3. SIGHT DISTANCES AND OTHER SAFETY CONSIDERATIONS.....	8
Sight Distances.....	14
4. CONCLUSIONS AND RECOMMENDATIONS.....	20
Management of Road Accesses and Junctions	20
Conclusions.....	20

© PDA Surveyors, Engineers & Planners

This document is and shall remain the property of PDA Surveyors, Engineers & Planners. Unauthorised use of this document in any form whatsoever is prohibited. This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose. We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

1. INTRODUCTION

PDA Surveyors, Engineers and Planners have been engaged by Tinderbox Proprietary Limited to prepare a Development Application for a subdivision of their property at 441 Tinderbox Road, Tinderbox (FR 139168/1).

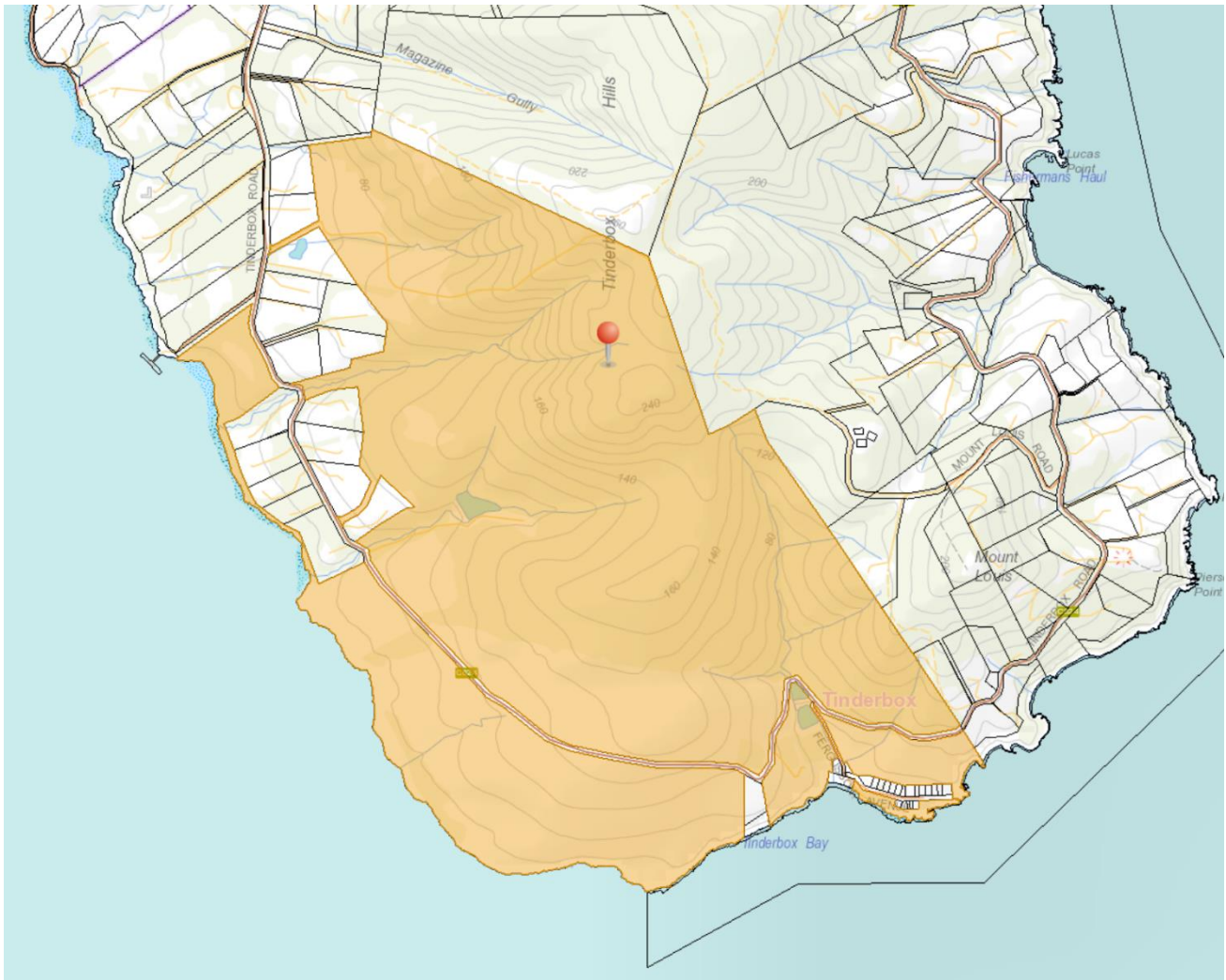
The subdivision proposal consists of forming twelve lots out of the existing property, with a remaining balance lot of 199.4ha.

Kingborough Council has requested a traffic impact statement to demonstrate that the existing property accesses off of Tinderbox Road, which are to be upgraded and utilised for this subdivision, allow for adequate safe sight distances (in accordance with TSD-RF01-v3) with supporting evidence and reasons.

2. SITE DESCRIPTION & DRIVEWAY LOCATION

The site of the proposed subdivision is located at 441 Tinderbox Road, Tinderbox. The subdivision site is highlighted on the extract from the "LISTmap" for this area, seen as Figure 2.1.

Figure 2.1 Extract from LISTmap showing location of development site.



The proposed location for the lots and the existing driveways is shown on PDA Surveyors, Engineers & Planners Drawing 43586HC-C-1H (see Figure 2.2). With the northern access point shown on PDA Surveyors, Engineers & Planners Drawing 43586HC-C-4H (see Figure 2.3) and the southern access & balance lot access shown on PDA Surveyors, Engineers & Planners Drawing 43586HC-C-5H (see Figure 2.4)

At these access points the driveways satisfy the requirements for safe sight distances with little or no required vegetation removal.

Figure 2.2 PDA Surveyors, Engineers & Planners Drawing 43586HC-C-1H.

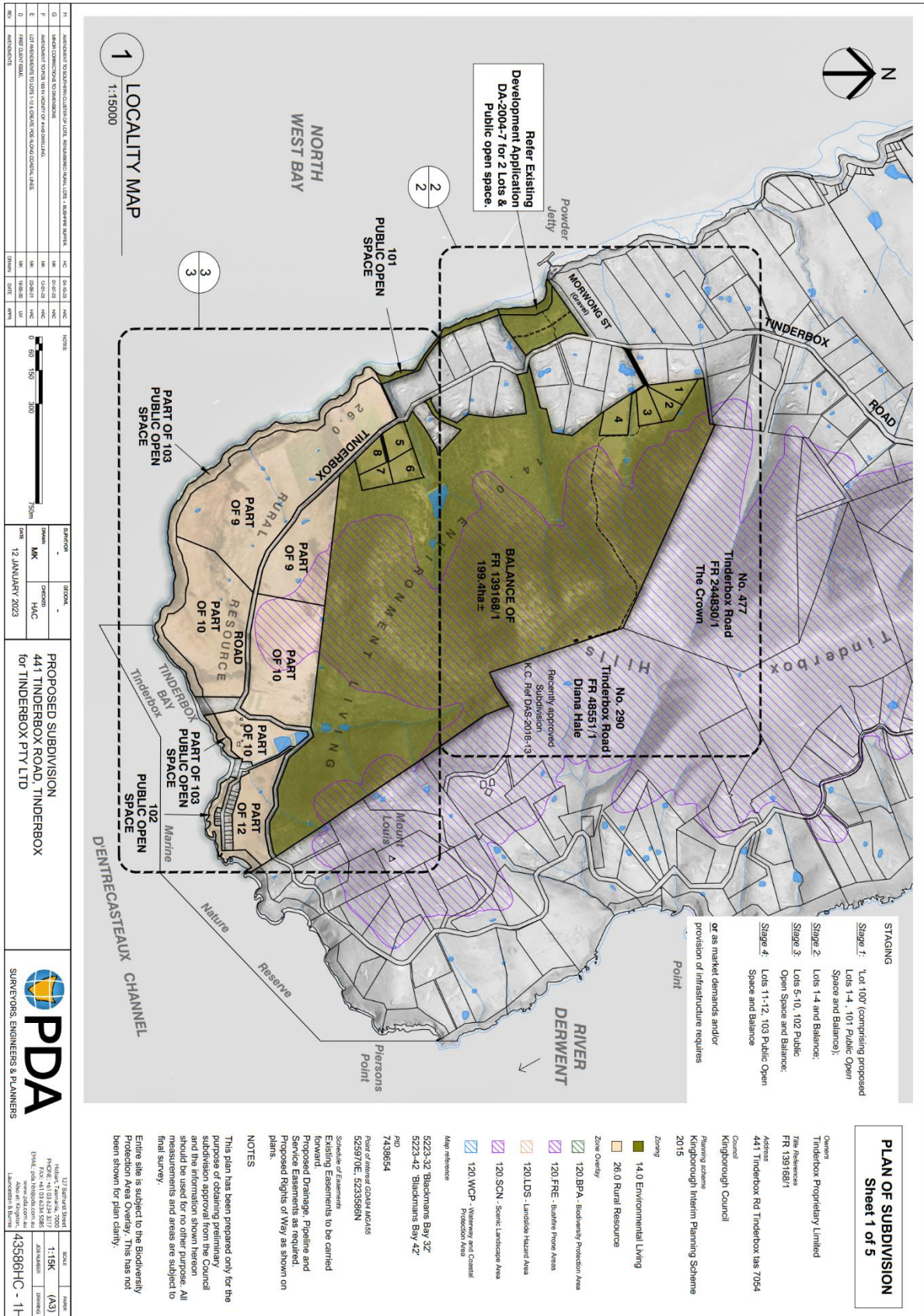


Figure 2.3 PDA Surveyors, Engineers & Planners Drawing 43586HC-C-4H.

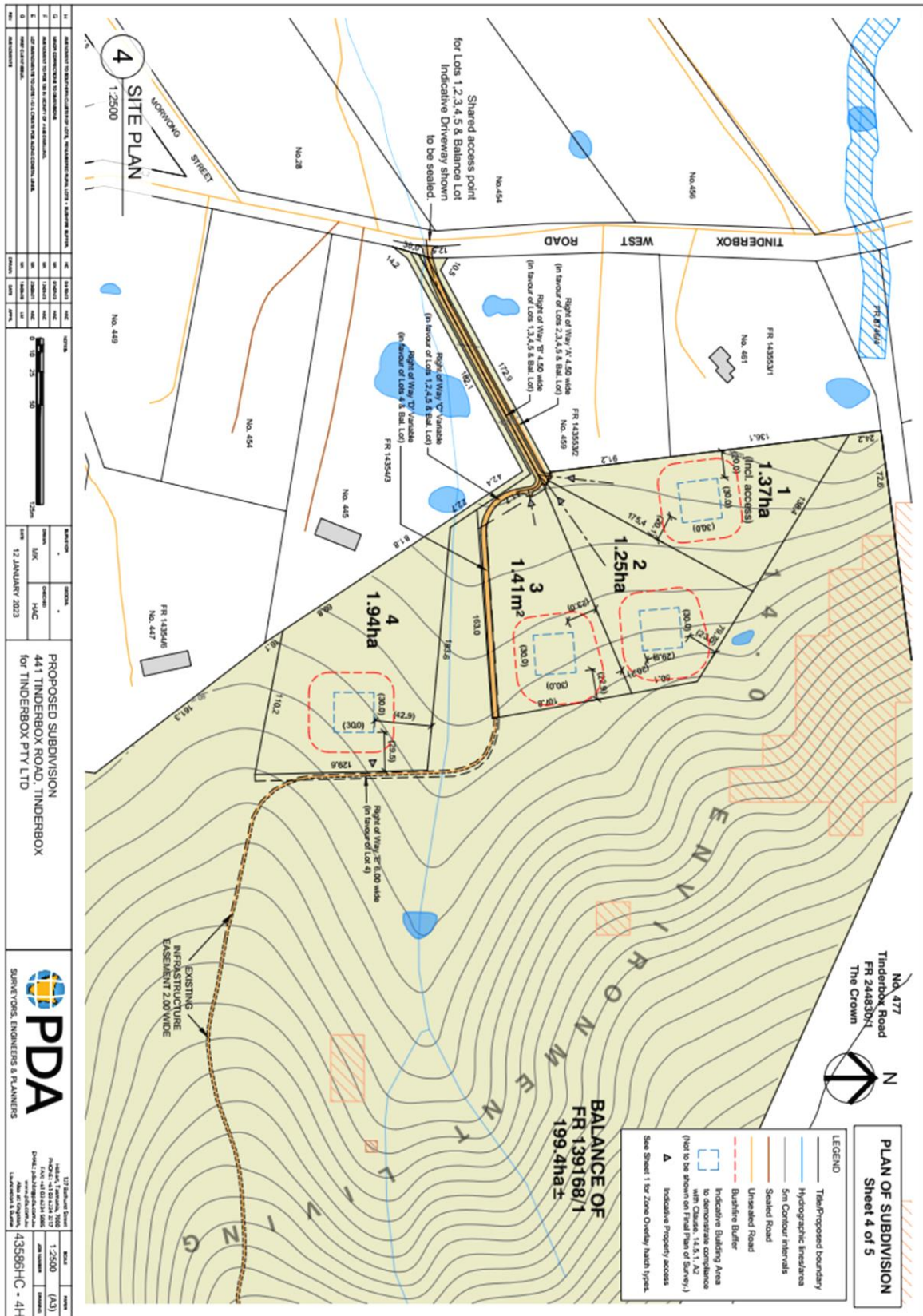
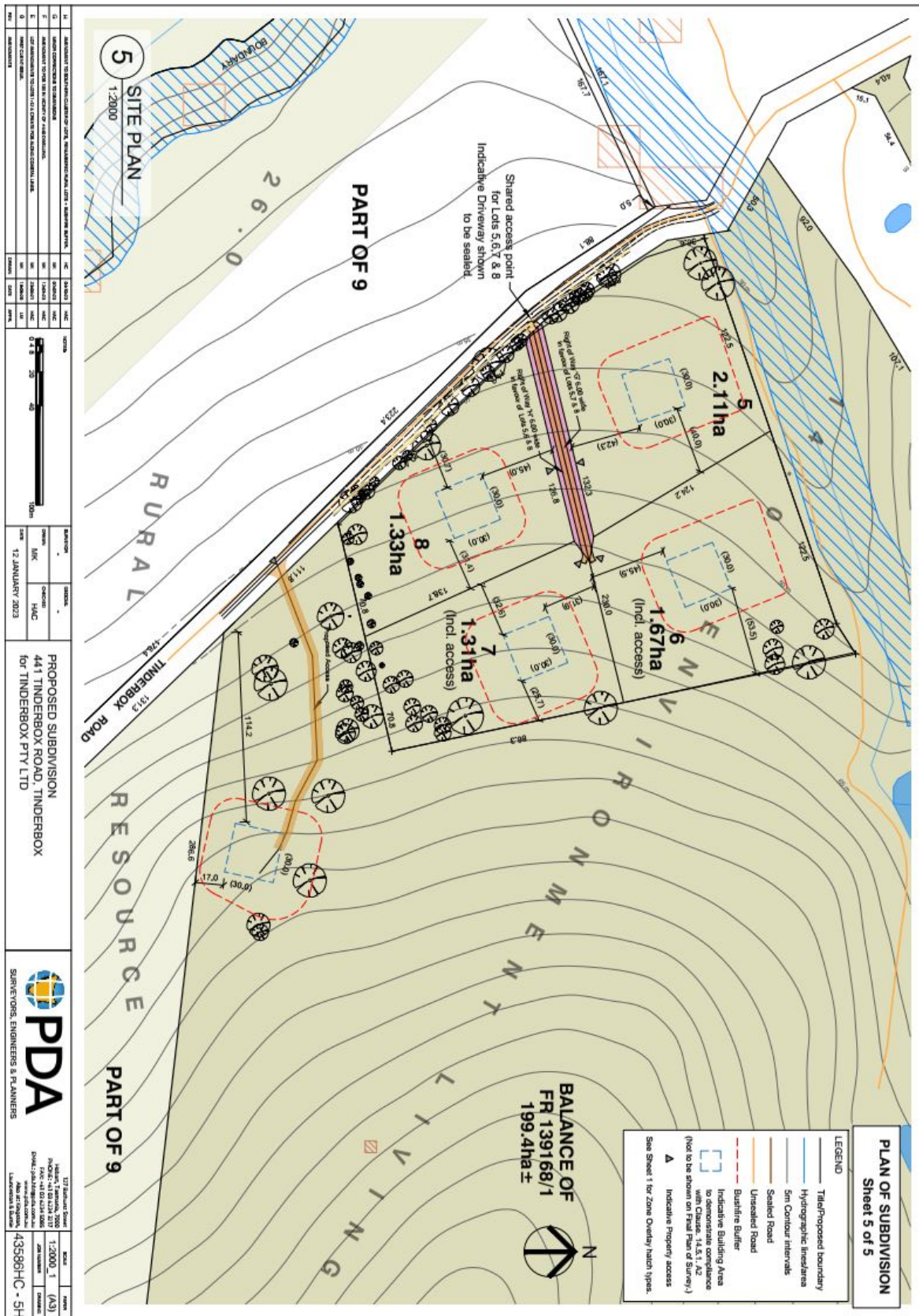


Figure 2.4 PDA Surveyors, Engineers & Planners Drawing 43586HC-C-5H.



3. SIGHT DISTANCES AND OTHER SAFETY CONSIDERATIONS

Tinderbox Road along the entire frontage of the property is an unsealed road, from both the northern & southern approaches the road is sign posted as 60km on the sealed section of road with no speed change advised at the start of the unsealed section.

It is noted that whilst there is no posted speed limit change the change in surface treatment from sealed to gravel and relatively narrow formation of the road limit the actual travelled speed to 50km/hr for the majority of vehicles. Whilst undertaking this investigation speeds of all vehicles that transited the site were observed to be approximately 50km/h, however a radar gun was not used to verify the actual speeds.

At the northern access the road is of minimal grade and curvature, and has clear visibility in both directions. (Figure 3.2 & Figure 3.3)

At the southern access the road slopes in at a consistent uphill grade from north to south. There is clear visibility to the north, there is a kink in the road with an elevation change approximately 90m from the access (see Figure 3.5). But to the south, visibility is slightly impacted by the tree line and other vegetation (see Figure 3.6).

At the balance lot access the road is of minimal grade and curvature, and has clear visibility in both directions. (Figure 3.8 & Figure 3.9)



Figure 3.1 Ground level view of northern access point frontage



Figure 3.2 Tinderbox Road looking north from northern access point



Figure 3.3 Tinderbox Road looking south from northern access point



Figure 3.4 Ground level view of southern access point frontage



Figure 3.5 Tinderbox Road looking north-west from southern access point



Figure 3.6 Tinderbox Road looking south-west from southern access point



Figure 3.7 Ground level view of proposed balance lot access point frontage



Figure 3.8 Tinderbox Road looking north-west from proposed balance lot access point frontage



Figure 3.9 Tinderbox Road looking south-east from proposed balance lot access point frontage

As noted, the visibility in both directions for the northern access is clear given the limited curvature in the road. In conjunction with the level road grade, no action has to be taken for this access, other than ensuring vegetation is maintained to comply with TSD-RF01-v3.

The southern access poses potential issues however, with the previously noted kink in the road and its elevation change limiting visibility of incoming vehicles. However, vehicles are still visible heading into the kink as can be seen in Figure 3.5.

Due to the slower vehicle speeds coming out of the kink due to its geometry (it is signed with an advisory speed of 25km/hr) a shorter safe sight distance of 80m is required, no actions are necessary to the north other than ensuring vegetation is kept under control to comply with TSD-RF01-v3 as the sight distance meets the required 105m. To the south, the tree line and vegetation slightly obscures the vision of incoming vehicles.

The road is of consistent grade, meaning there are no dips or blind spots, and as such the only action required is the trimming of vegetation for a clearer line of sight with oncoming traffic.

- To comply with TSD-RF01-v3 the vegetation must be managed to a height of 1.00 metres (or cleared altogether) to enable visibility through the undergrowth.
- The affected vegetation is limited to grasses and sedges, the vegetation is located within the road reserve, and will thus be subject to council approval, it would be expected that this work is undertaken conjointly with the upgrading of the access points.

Visibility in both directions for the proposed access to balance lot is clear given the limited curvature in the road. In conjunction with the level road grade, no action has to be taken for this access, other than ensuring vegetation is maintained to comply with TSD-RF01-v3. It is noted that due to the earth works required some small blackwoods saplings would need to be removed from the road verge.

Sight Distances

(Refer to Tasmanian Standard Drawings - TSD-RF01-v3 and PDA Surveyors, Engineers & Planners Drawings 43586HC-C-700 & 701), see figures 3.10, 3.11 & 3.12 respectively.

Northern Access

The required sight distances from the property access to Tinderbox Road are approximately 105 metres in both directions along the centreline of the road.

- As the vertical alignment of Tinderbox Road is quite flat in the vicinity, the sight distances are determined by the horizontal alignment only.
- These distances are acceptable for a speed limit of 60km/h, and vehicle speeds of 60km/h in both directions (as per TSD-RF01-v3).

Southern Access

The required sight distances from the property access to Tinderbox Road are approximately 105 metres (left) and 80 metres (right) along the centreline of the road.

- As the vertical alignment of Tinderbox Road is of a consistent slope in the vicinity, the sight distances are determined by the horizontal alignment only.
- These distances are acceptable for a speed limit of 60 km/h, and vehicle speeds of 50km/h from the right & 60km/h from the left. (as per TSD-RF01-v3).
 - This 50km/h speed is determined from the aforementioned s-bend that occurs a short distance to the right of the proposed access location. Given the elevation change involved, a lower vehicle speed from this direction can be assumed and would likely be closer to 40km/h.
- To allow for inter-visibility between vehicles at the intersection, present vegetation (shrubs and bushes) within the denoted areas within the provided PDA drawings must be cut down to a level of 1.00m. This is 0.10m greater than the established 1.10m driver's eye height level (as per TSD-RF01-v3), for additional safety and visibility.

Balance Lot Access

The required sight distances from the property access to Tinderbox Road are approximately 105 metres in both directions along the centreline of the road.

- As the vertical alignment of Tinderbox Road is quite flat in the vicinity, the sight distances are determined by the horizontal alignment only.
- These distances are acceptable for a speed limit of 60km/h, and vehicle speeds of 60km/h in both directions (as per TSD-RF01-v3).

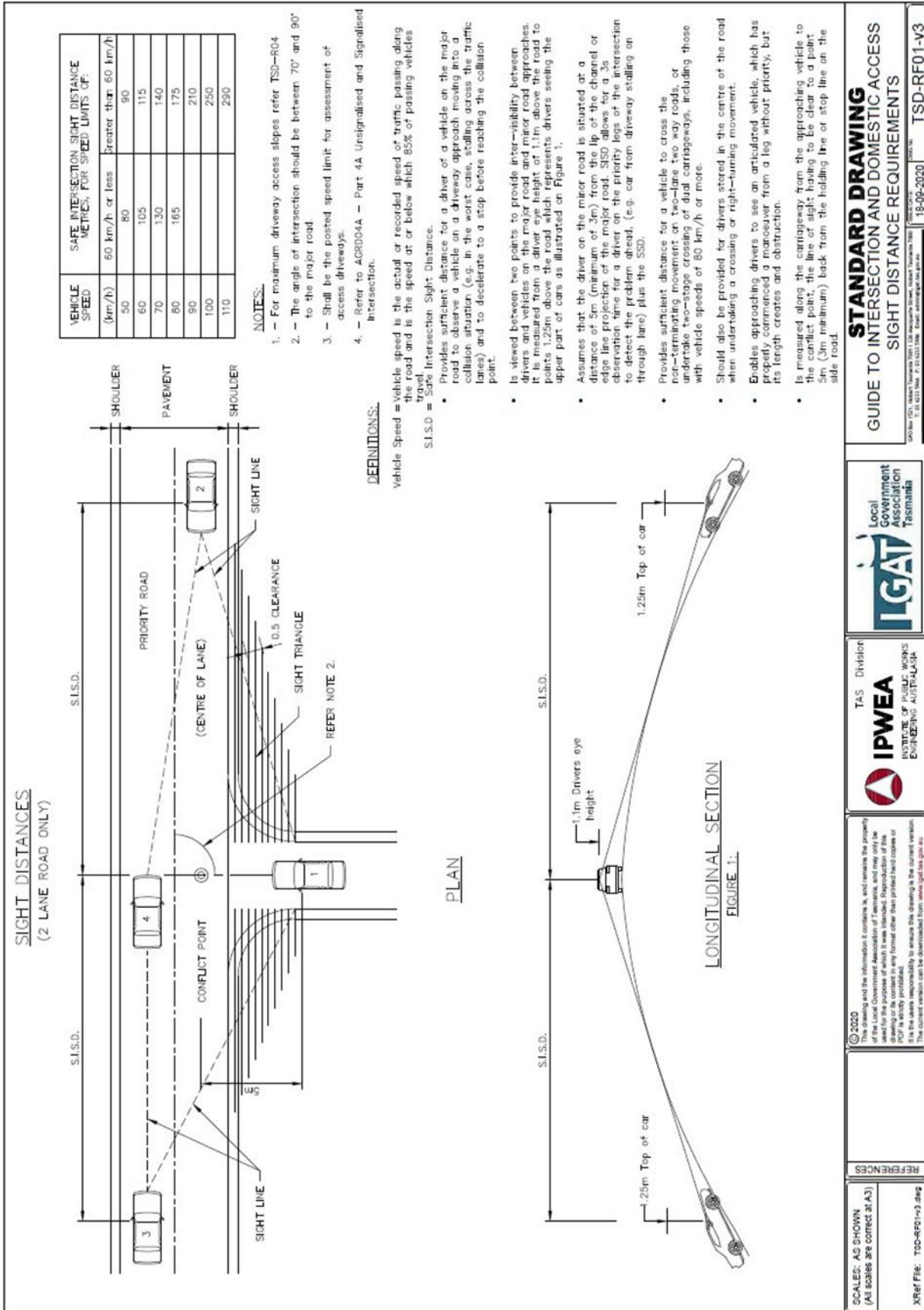


Figure 3.10 Tasmanian Standard Drawing TSD-RF01-v3 (Sight Distances)

STANDARD DRAWING
GUIDE TO INTERSECTION AND DOMESTIC ACCESS
SIGHT DISTANCE REQUIREMENTS

TSD-RF01-V3
18-00-2020

Local Government Association Tasmania
LGAT

TAS Division
IPWEA
INSTITUTE OF PUBLIC WORKS
ENGINEERING AUSTRALIA

© 2020
This drawing and the information contained herein, and remains the property of the drawing contractor. It is to be used for the purpose for which it was prepared. Reproduction of the drawing or its content in any form other than printed hard copies of the drawing is strictly prohibited. To ensure the drawing is the correct version, the correct version can be downloaded from www.lgat.tas.gov.au.

SCALES: AS SHOWN
(All scales are correct at A3)

XREF FILE: TSD-RF01-v3.dwg



Figure 3.11 PDA Surveyors, Engineers & Planners Drawing 43586HC-C-700



Figure 3.12 PDA Surveyors, Engineers & Planners Drawing 43586HC-C-701



Figure 3.13 PDA Surveyors, Engineers & Planners Drawing 43586HC-C-702

4. CONCLUSIONS AND RECOMMENDATIONS

Management of Road Accesses and Junctions

(Refer to section E5.6.4 of the Kingborough Interim Planning Scheme 2015)

A1 – Sight distances at:

- (a) an access or junction must comply with the Safe Intersection Sight Distance shown in Table E5.1; (Note – Table E5.1 is an extract from TSD-RF01-v3)

Response: E 5.6.4 A1 is met as the access points comply with Table E5.1

It is expected that the development will not have an adverse effect on the level of safety for any road users including pedestrians and cyclists.

Conclusions

It is considered that the proposed development will not have any significant adverse effects on road safety.

The following improvements recommended and should be included as a condition of approval in the permit:

- Removal of vegetation including trees and/or bushes within areas indicated in provided PDA Surveyors Engineers & Planners drawings to a height of 1.00m to allow for inter-visibility between vehicles.

The sight distances available at the proposed accesses are adequate (as per TSD-RF01-v3).

Yours faithfully,

PDA Surveyors, Engineers & Planners

Per:



Dean Panton (BE, FIEAust, CPEng, NER)
Consultant Civil Engineer

Contact

For any enquiries, please contact one of our offices:

HOBART

A: 127 Bathurst Street, Hobart Tasmania 7000

P: (03) 6234 3217

E: pda.hbt@pda.com.au

KINGSTON

A: 6 Freeman Street, Kingston, TAS 7050

P: (03) 6229 2131

E: pda.ktn@pda.com.au

HUONVILLE

A: 11/16 Main Street, Huonville, TAS 7109 - (By appointment)

P: (03) 6264 1277

E: pda.huon@pda.com.au

EAST COAST

A: 3 Franklin Street, Swansea TAS 7190 - (By appointment)

P: (03) 6130 9099

E: pda.east@pda.com.au

LAUNCESTON

A: 3/23 Brisbane Street, Launceston, TAS 7250

P: (03) 6331 4099

E: pda.ltn@pda.com.au

BURNIE

A: 6 Queen Street, Burnie, TAS 7320

P: (03) 6431 4400

E: pda.bne@pda.com.au

DEVONPORT

A: 77 Gunn Street, Devonport, TAS 7310

P: (03) 6423 6875

E: pda.dpt@pda.com.au

WALTER SURVEYS

A: 127 Bathurst Street, Hobart, TAS 7000 (Civil Site Surveying and Machine Control)

P: 0419 532 669 (Tom Walter)

E: tom.walter@waltersurveys.com.au