

1985/58. West Coast gravity tie stations

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This report presents absolute gravity values for a series of tie stations on the west coast of Tasmania. Intervals were measured using Worden gravity meter W913 and Sodin gravity meter S183 with a minimum of six measurements of each interval. The measured interval between Hobart Airport and Strahan Airport was in error by $2.1 \mu\text{m}/\text{sec}^2$ and between Strahan and Smithton Airports was in error by $0.2 \mu\text{m}/\text{sec}^2$. All observed gravity values have an error of less than $1 \mu\text{m}/\text{sec}^2$.

The observed gravity values are given in Table 1 and the station locations are shown on Figure 1.

Table 1. GRAVITY TIE STATIONS, WEST COAST GRAVITY SURVEY

Location	Number	Adjusted gravity value ($\mu\text{m}/\text{sec}^2$)	AMG reference
Ouse	8451.9004	9.8036534	476500, 5296100
Wayatinah (Liapootah)	8451.9005	9.8031976	460100, 5308300
Tarraleah	8451.9006	9.8024509	454550, 5316120
Bronte	8451.9007	9.8021387	457550, 5331300
Derwent Bridge	8451.9008	9.8020928	436350, 5334650
Collingwood River	8451.9009	9.8028353	410500, 5331450
Gormanston	8051.9905	9.8027416	383500, 5341000
Gormanston (alternative)	8551.9975	9.8027423	383500, 5341000
Queenstown	8451.9010	9.8030527	378300, 5340900
Strahan	6491.9136	9.8037169	358800, 5331700
Zeehan	8451.9011	9.8029800	366000, 5362300
Rosebery	8051.9906	9.8028124	378600, 5373500
Tullah	8051.9902	9.8027489	385200, 5378200
Que River	8451.9012	9.8017797	389450, 5393950
Que River (alternative)	8551.9976	9.8017750	389550, 5393950
Fingerpost (Waratah)	8451.9013	9.8018200	383400, 5412100
Parrawe	8451.9014	9.8019949	381400, 5427700
Yolla	8451.9015	9.8022770	392400, 5446400
Wynyard	8451.9016	9.8028619	394700, 5460100
Rocky Cape	8451.9017	9.8026415	370800, 5472600
Stanley	8451.9018	9.8026845	352800, 5480500
Smithton	6491.9142	9.8027605	338600, 5478000

More detailed location plans and descriptions are given for each station in the following pages. The location of the station in the photographs is shown by the "witches hat", which was placed on the station to make the locations more obvious.

[28 October 1985]

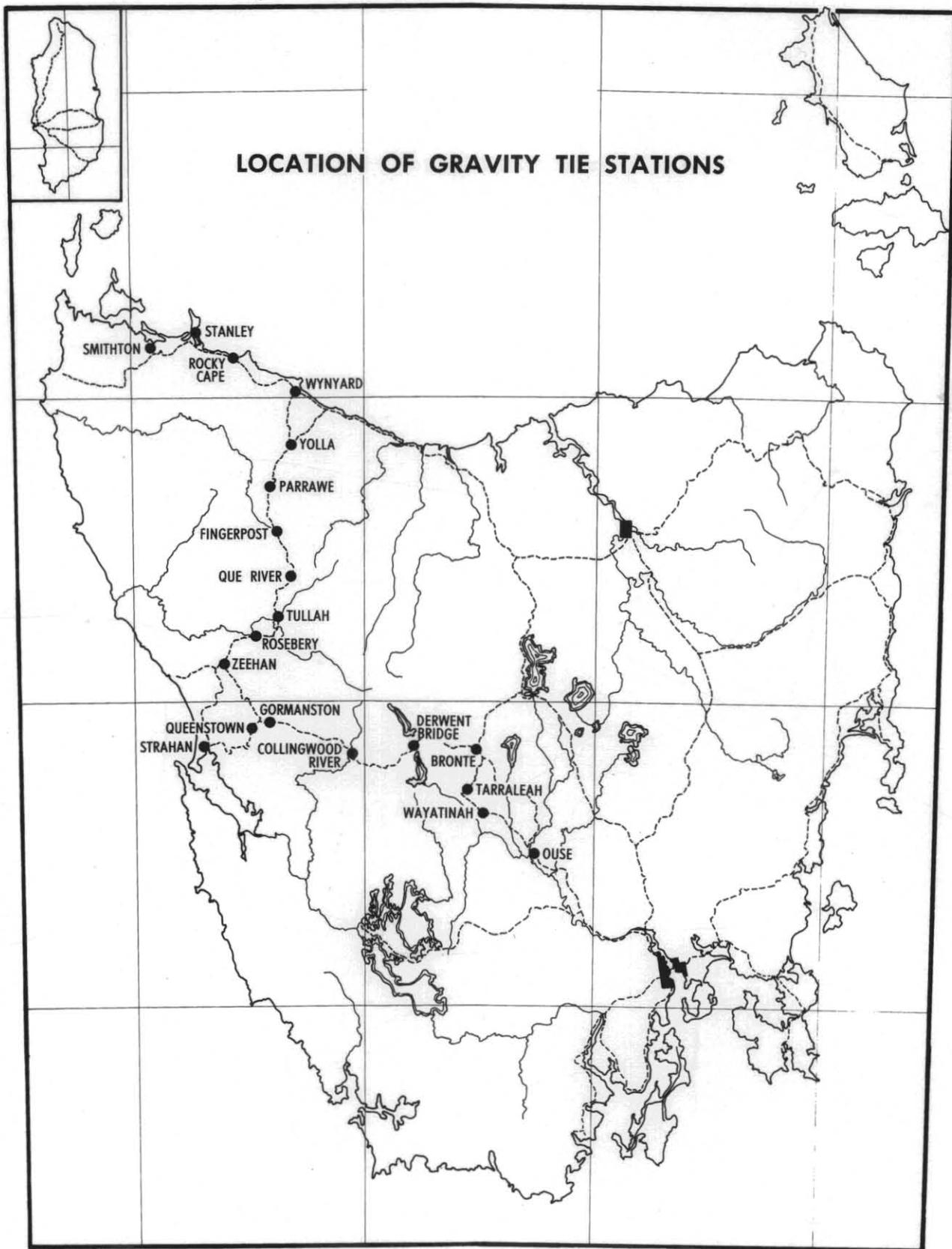


Figure 1.

5 cm

APPENDIX 1

Location details of West Coast gravity tie stations

OUSE (8451.9004)

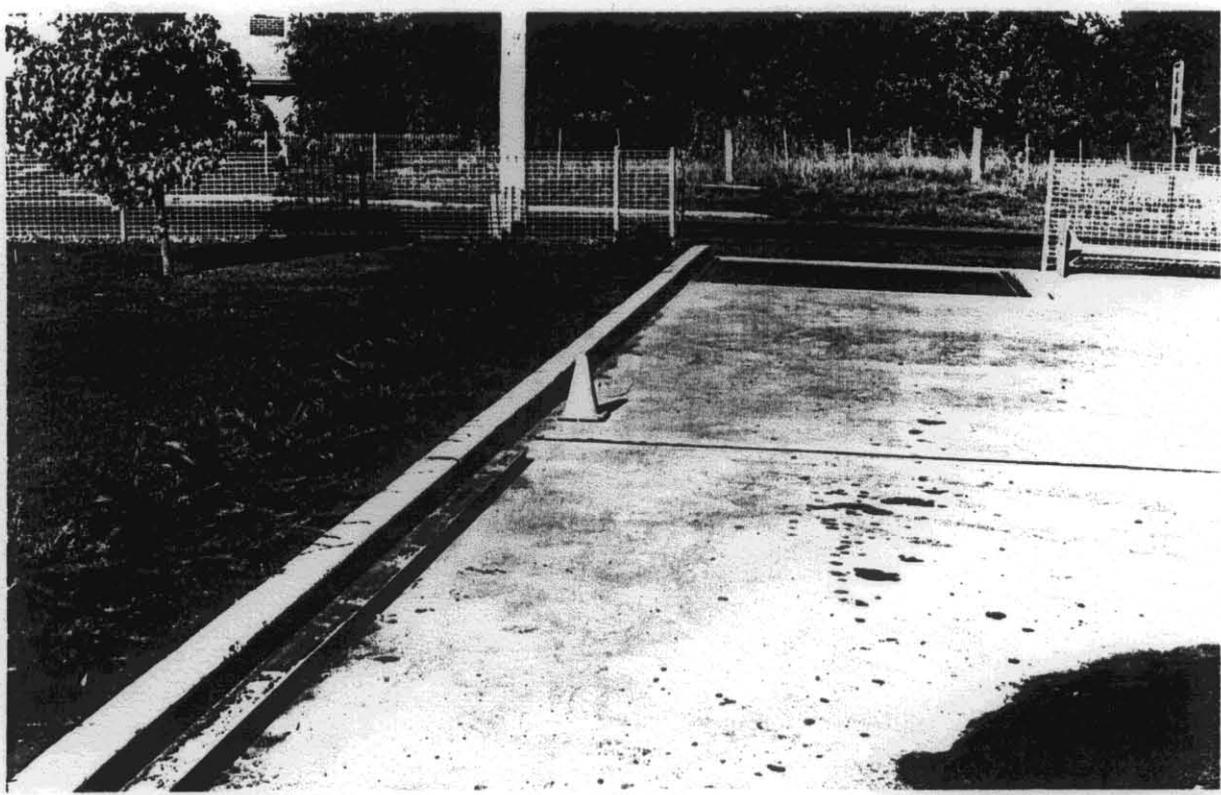
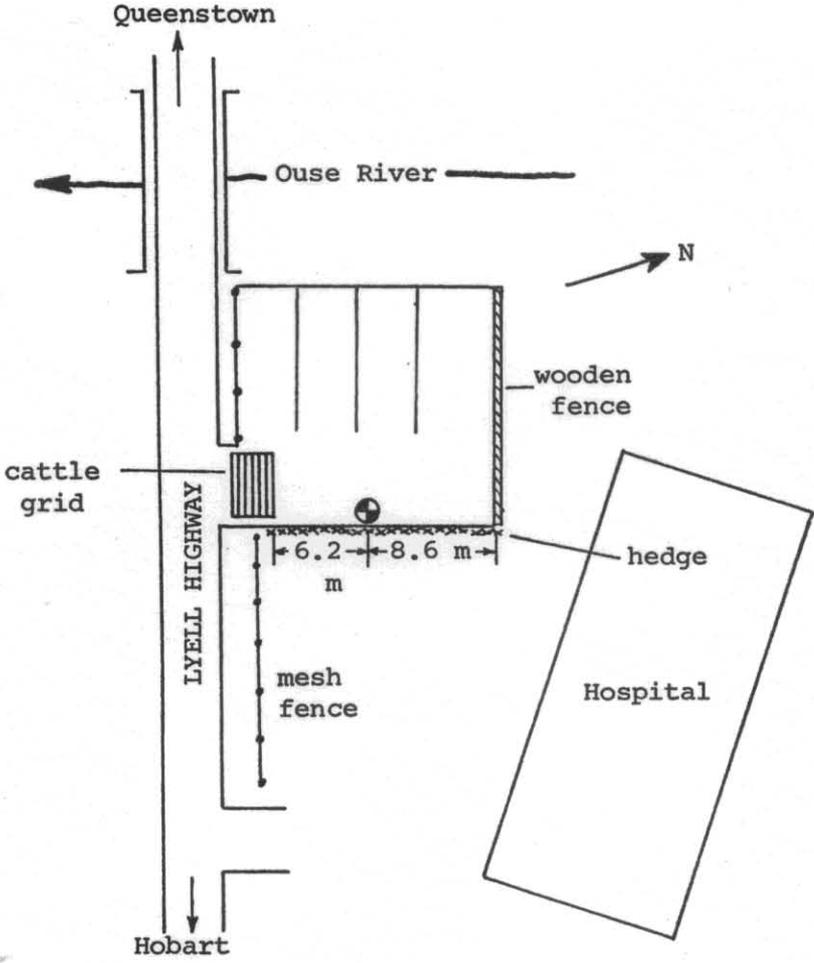
AMG reference: 476500 mE
5296100 mN

Description: Gravity station is a yellow-painted pipe set in concrete on the eastern side of the car park, Ouse Hospital. Hospital is located immediately east of the bridge carrying the Lyell Highway over the Ouse River on the eastern side of Ouse township.



5 cm

OUSE - sketch location plan



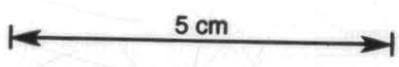
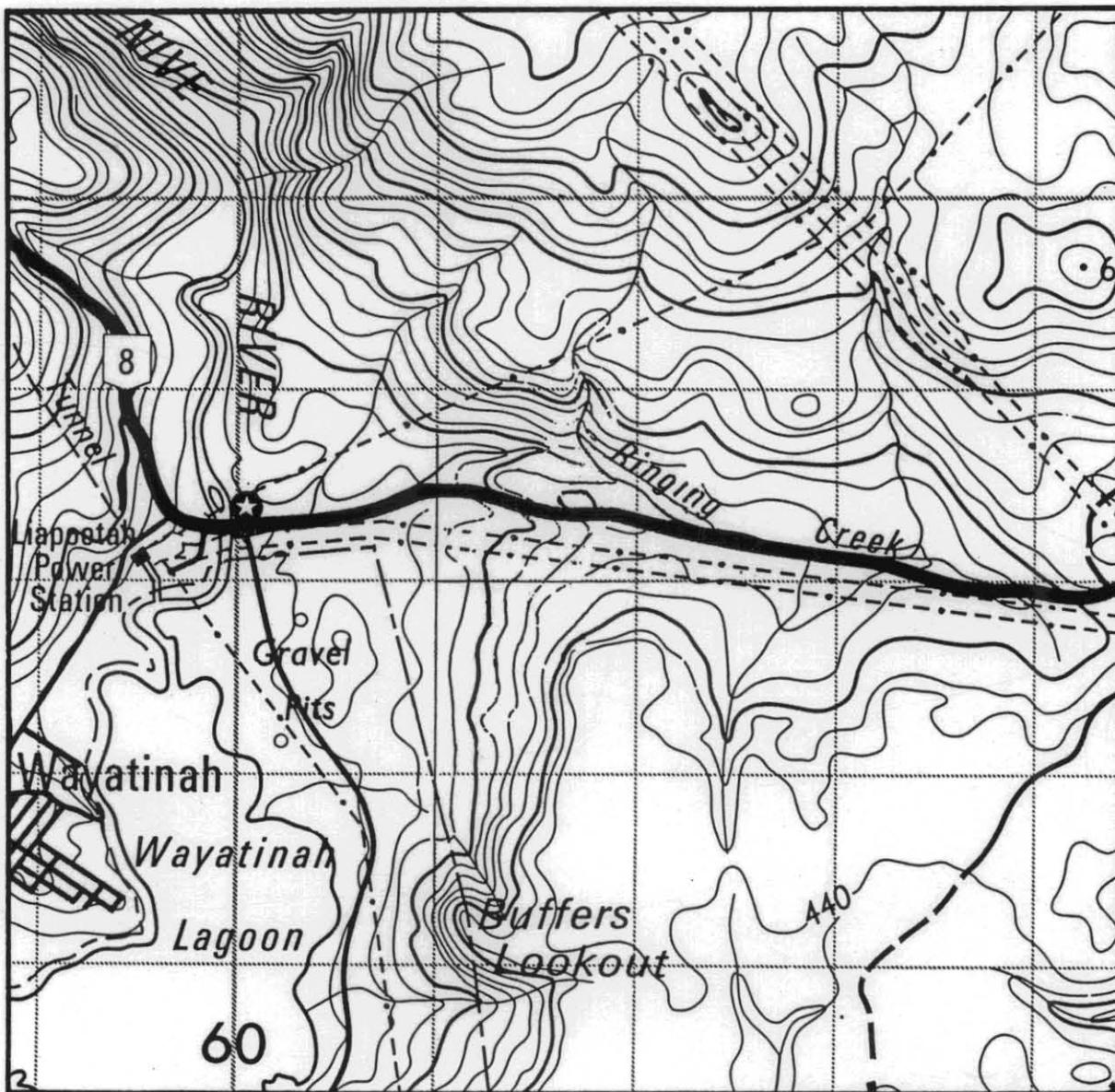
58-5

5 cm

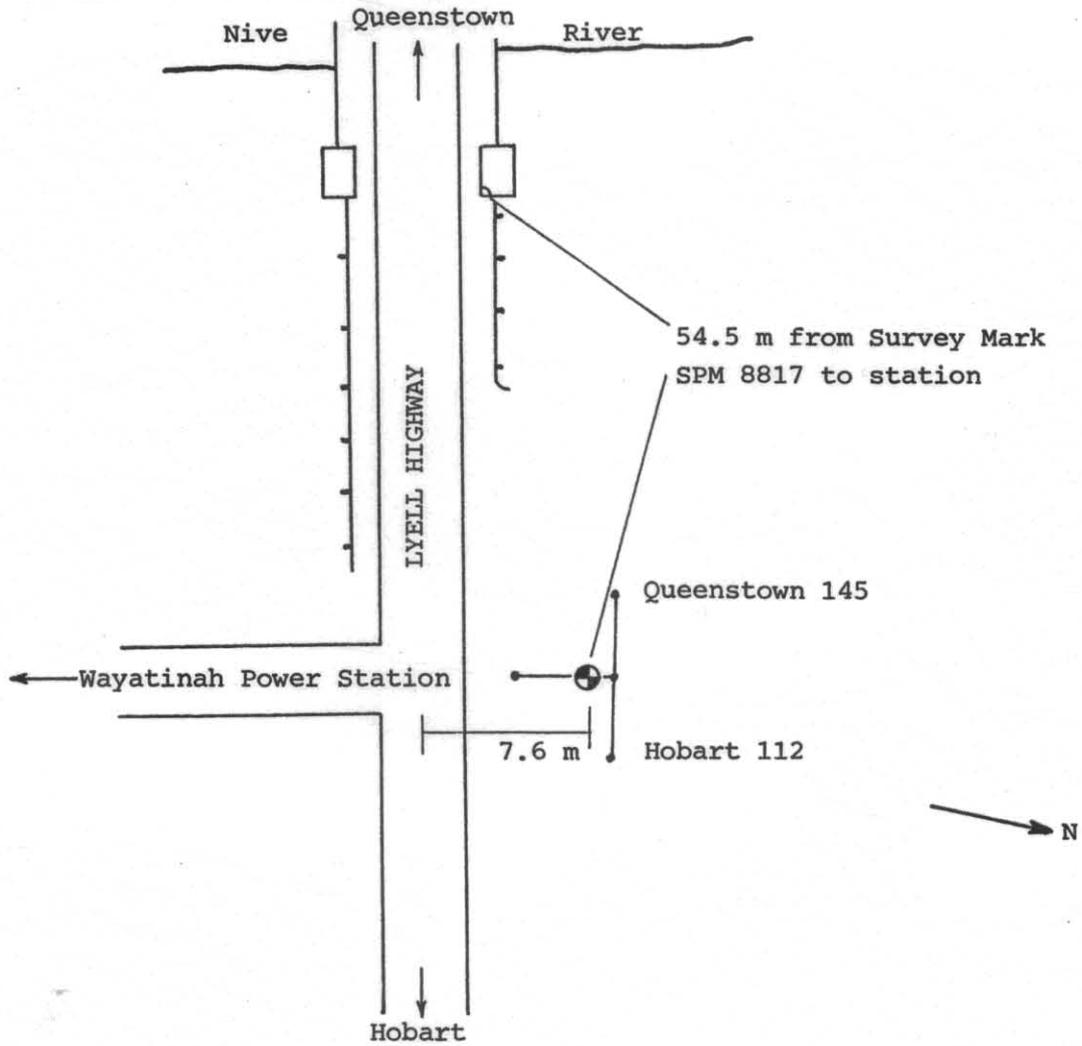
WAYATINAH (LIAPOOTAH) (8451.9005)

AMG reference: 460100 mE
5308300 mN

Description: Star picket set in 300 x 300 m yellow-painted concrete pad at base of road sign. Station located at junction of Lyell Highway and road to Wayatinah Power Station, 55 m east of Lands Department Survey Mark SPM 8817 on north-east abutment of bridge over Nive River.



WAYATINAH - sketch location plan



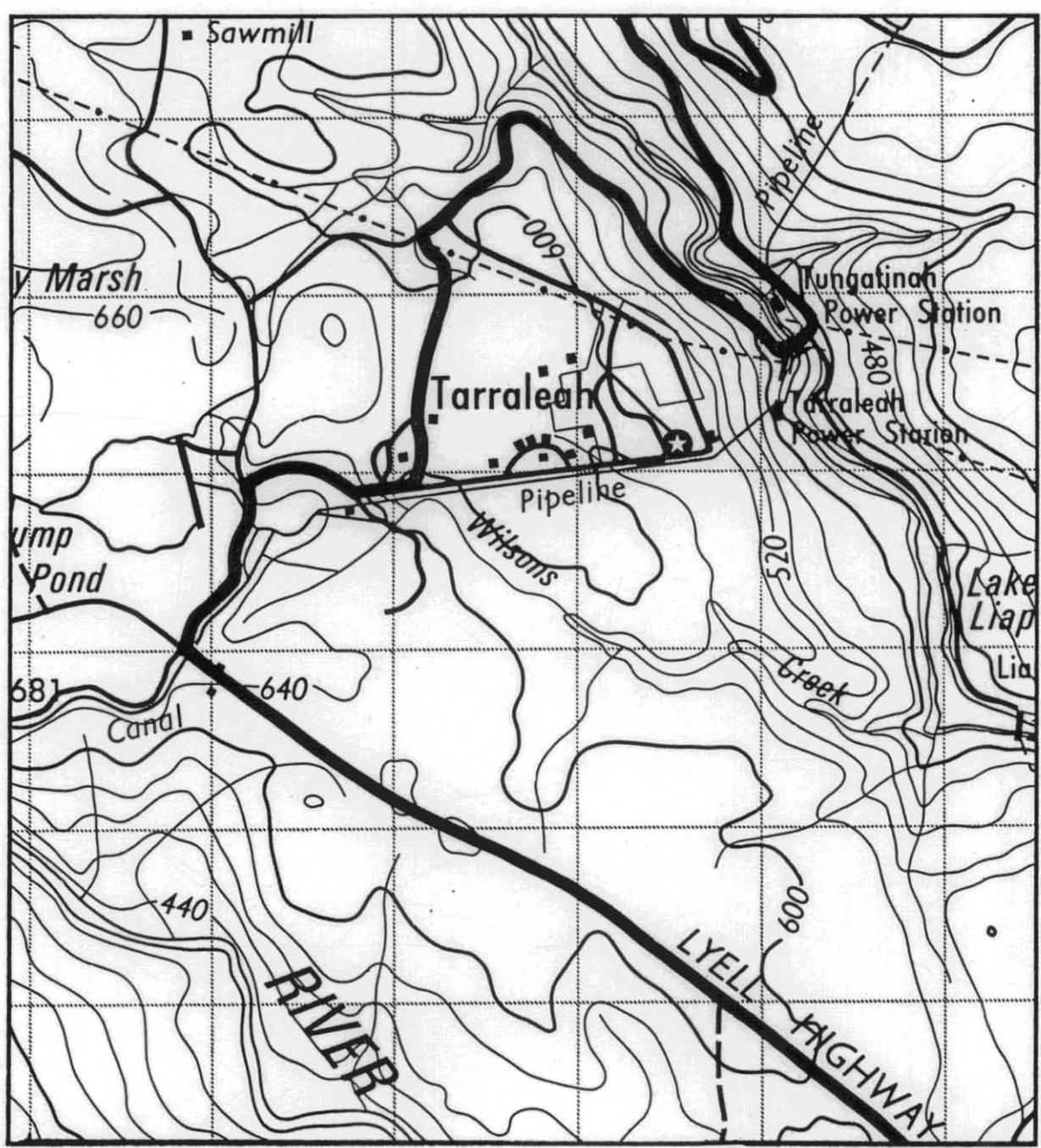
58-7

5 cm

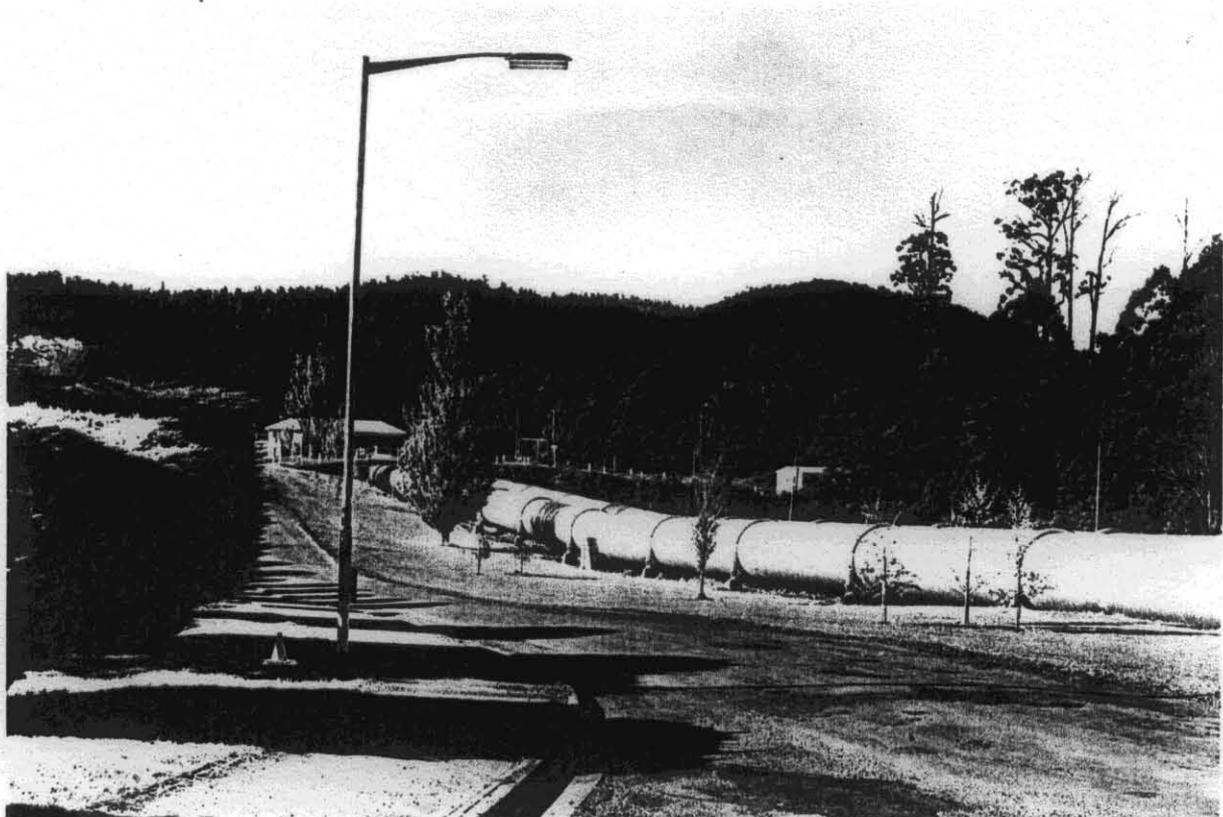
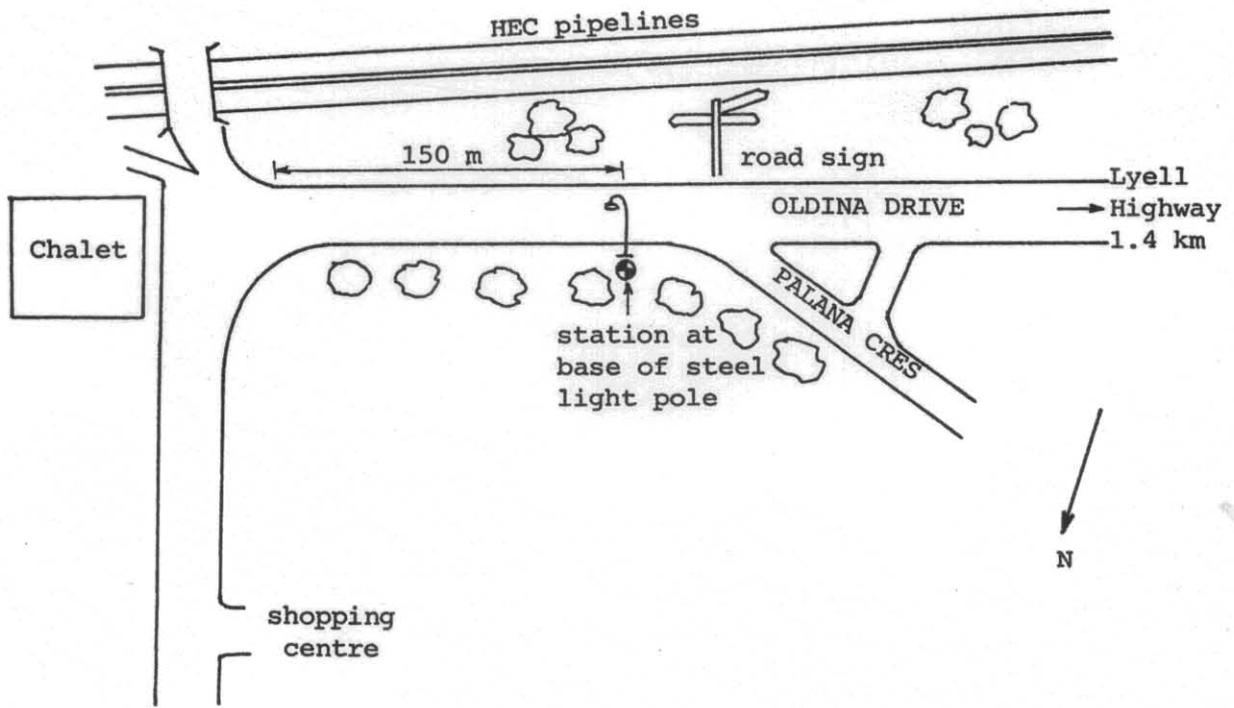
TARRALEAH (8451.9006)

AMG reference: 454550 mE
5316120 mN

Description: 20 mm pipe set in 350 x 400 m yellow-painted concrete pad. Station is located on northern side of Oldina Drive in Tarraleah township, 1.4 km from junction of Lyell Highway and Oldina Drive. Station is located 3 m from edge of road at base of a steel light pole.



TARRALEAH - sketch location plan



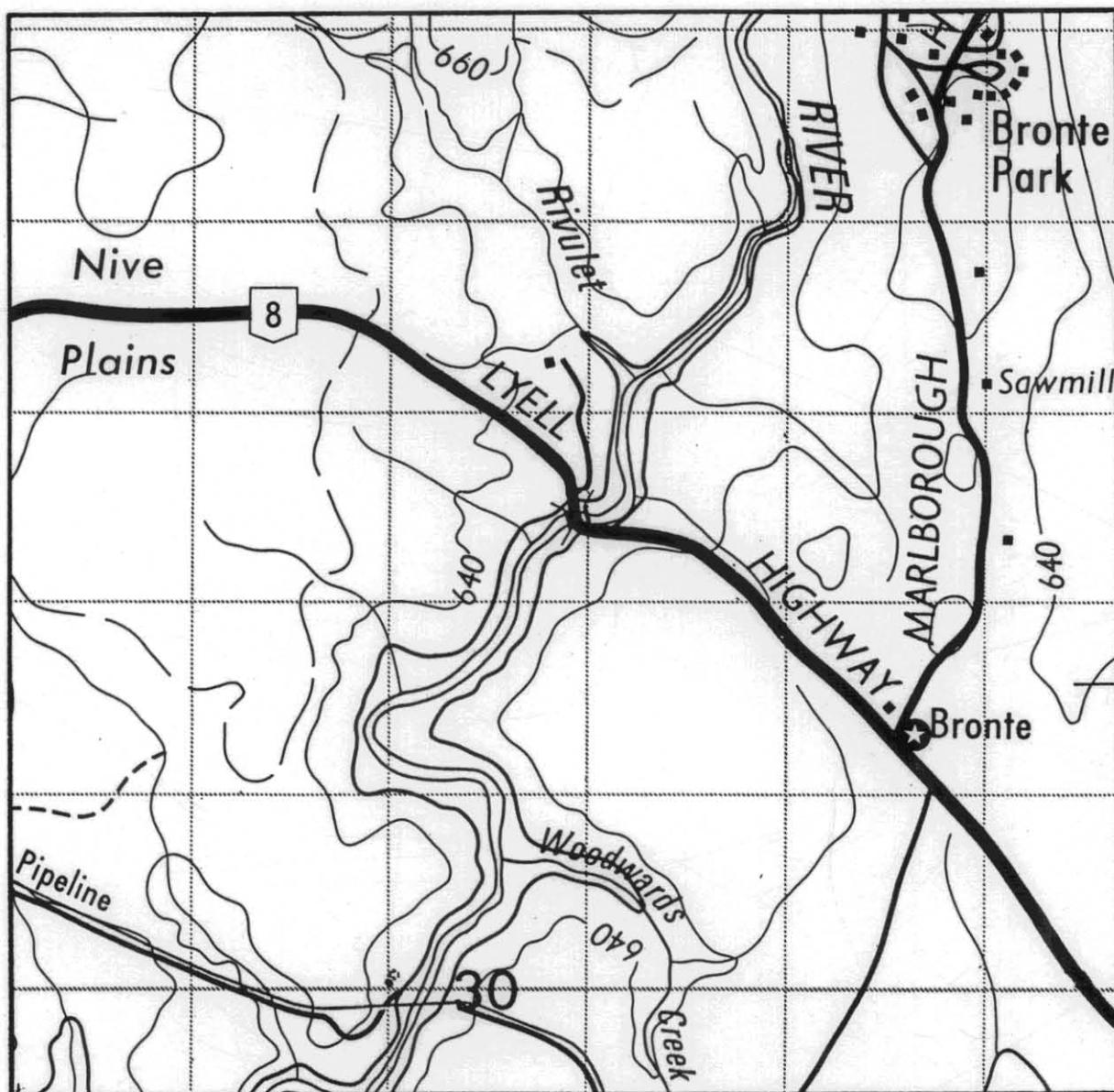
58-9

5 cm

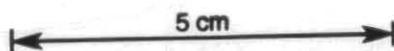
BRONTE (8451.9007)

AMG reference: 457550 mE
5331300 mN

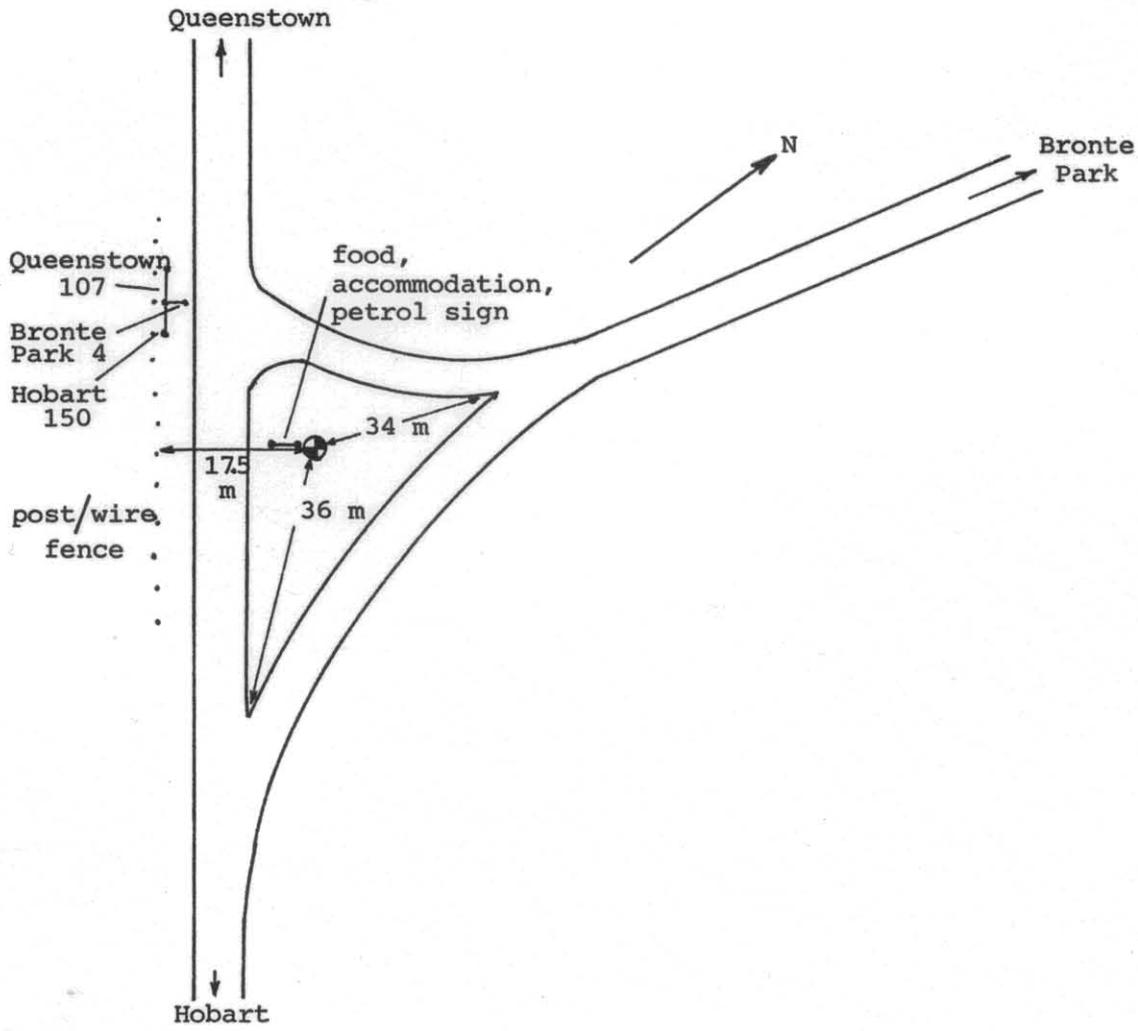
Description: Star picket set in yellow-painted concrete pad at base of road sign on traffic island, junction of Lyell Highway and Marlborough Highway.



58-10



BRONTE - sketch location plan



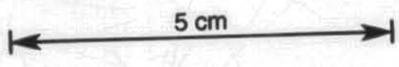
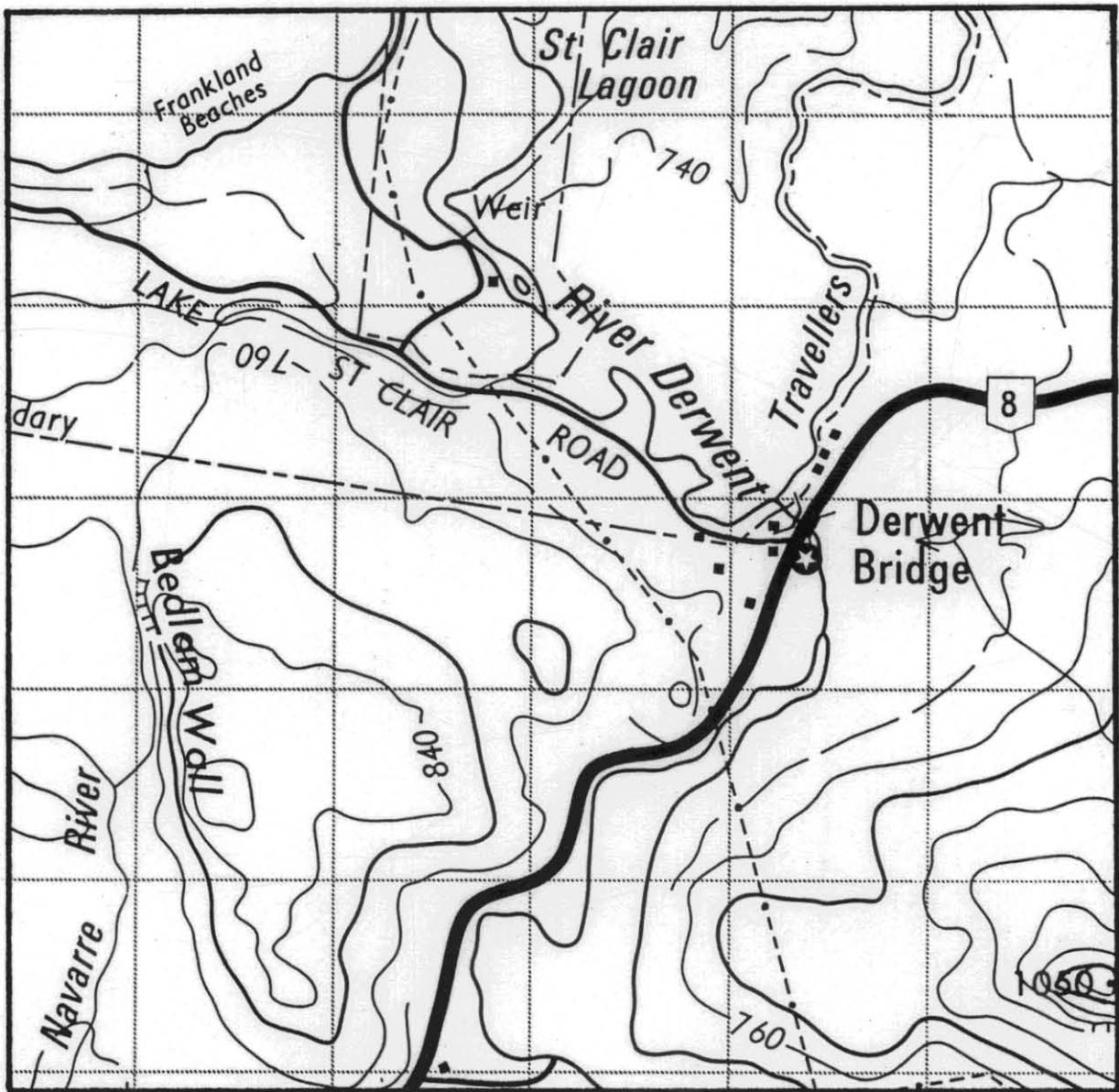
58-11

5 cm

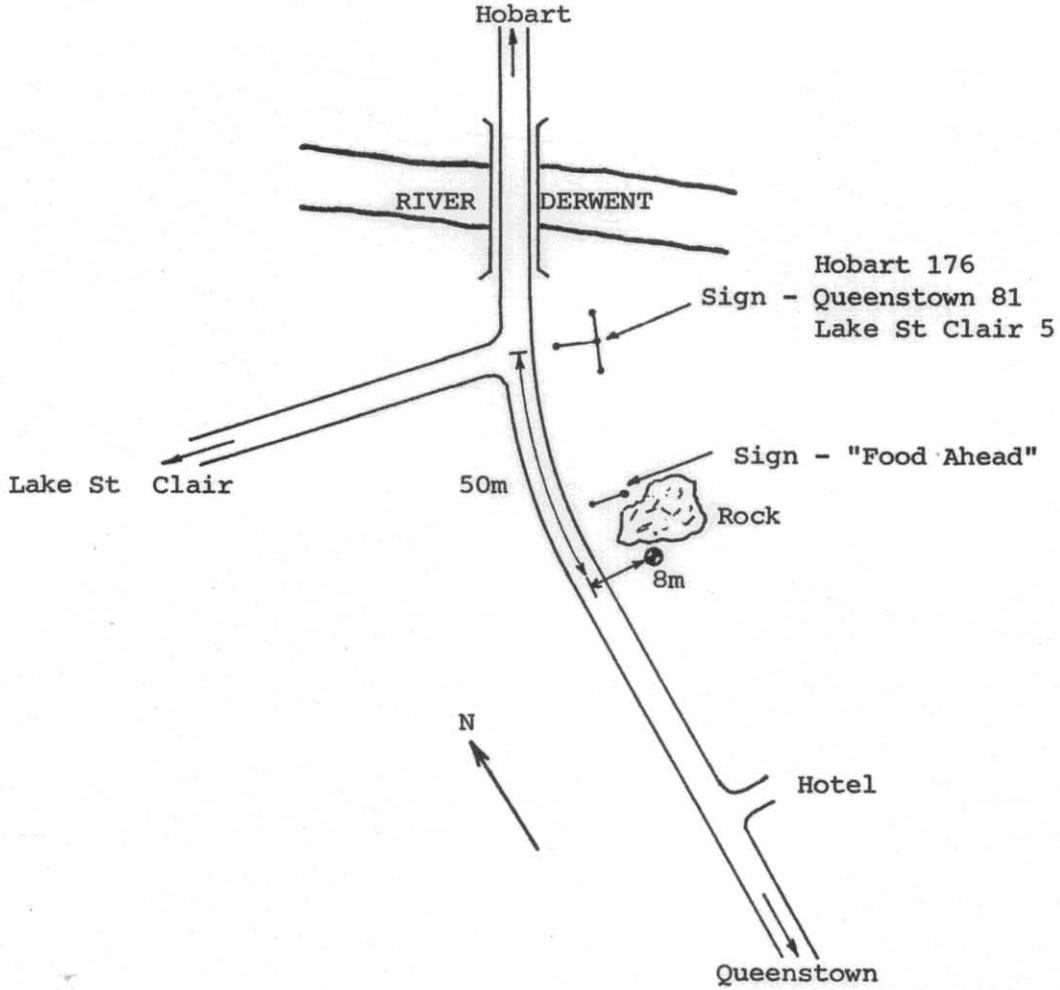
DERWENT BRIDGE (8451.9008)

AMG reference: 436350 mE
5334650 mN

Description: Gravity station is a star picket set in a yellow-painted concrete pad at the base of a large rock beside the Lyell Highway. This rock is located on the eastern side of the highway about 50 m on the Queenstown side of the junction between the Lyell Highway and the road to Lake St Clair. The station is 8 m from the centreline of the highway.



DERWENT BRIDGE - sketch location plan



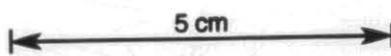
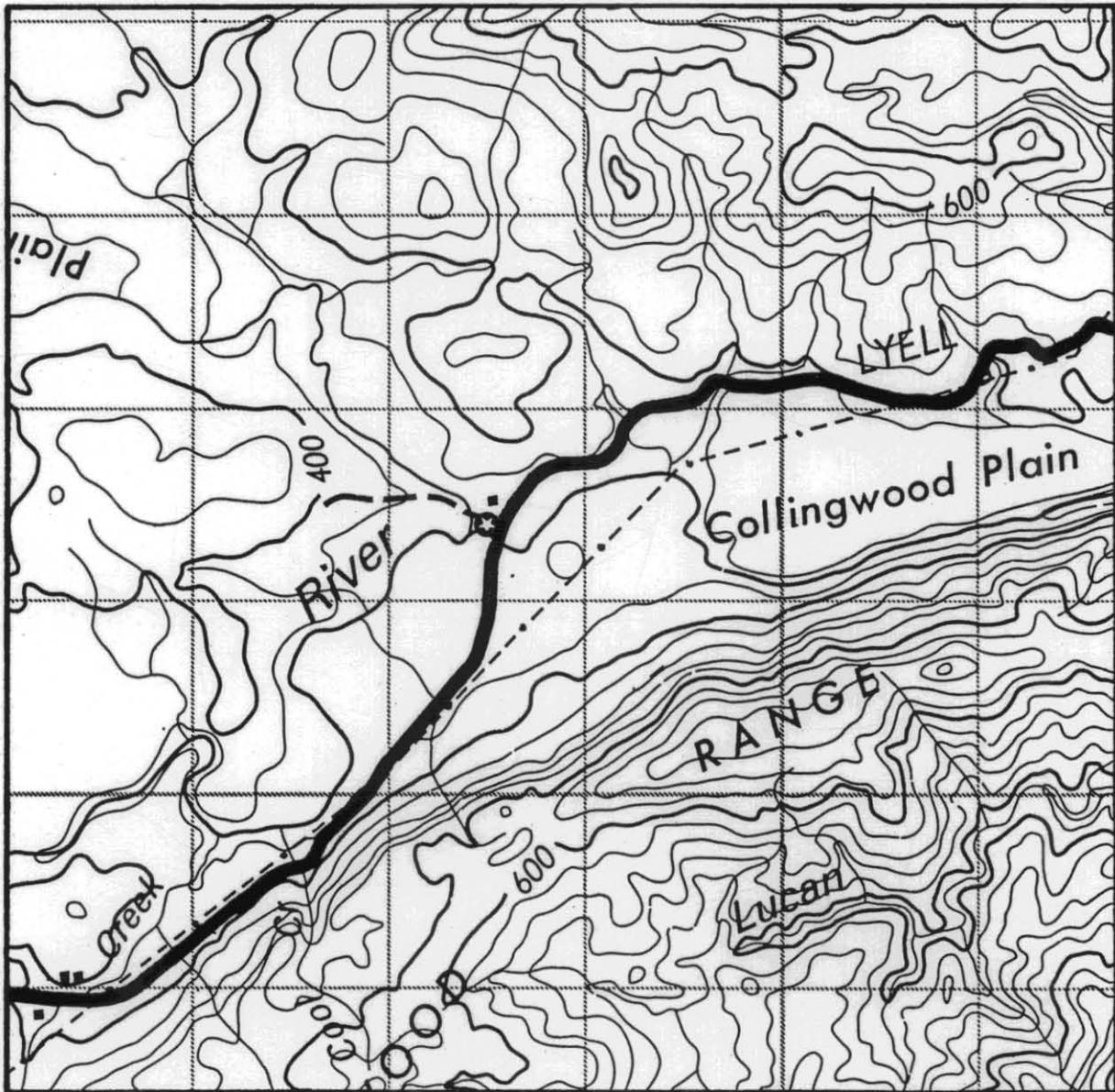
58-13

5 cm

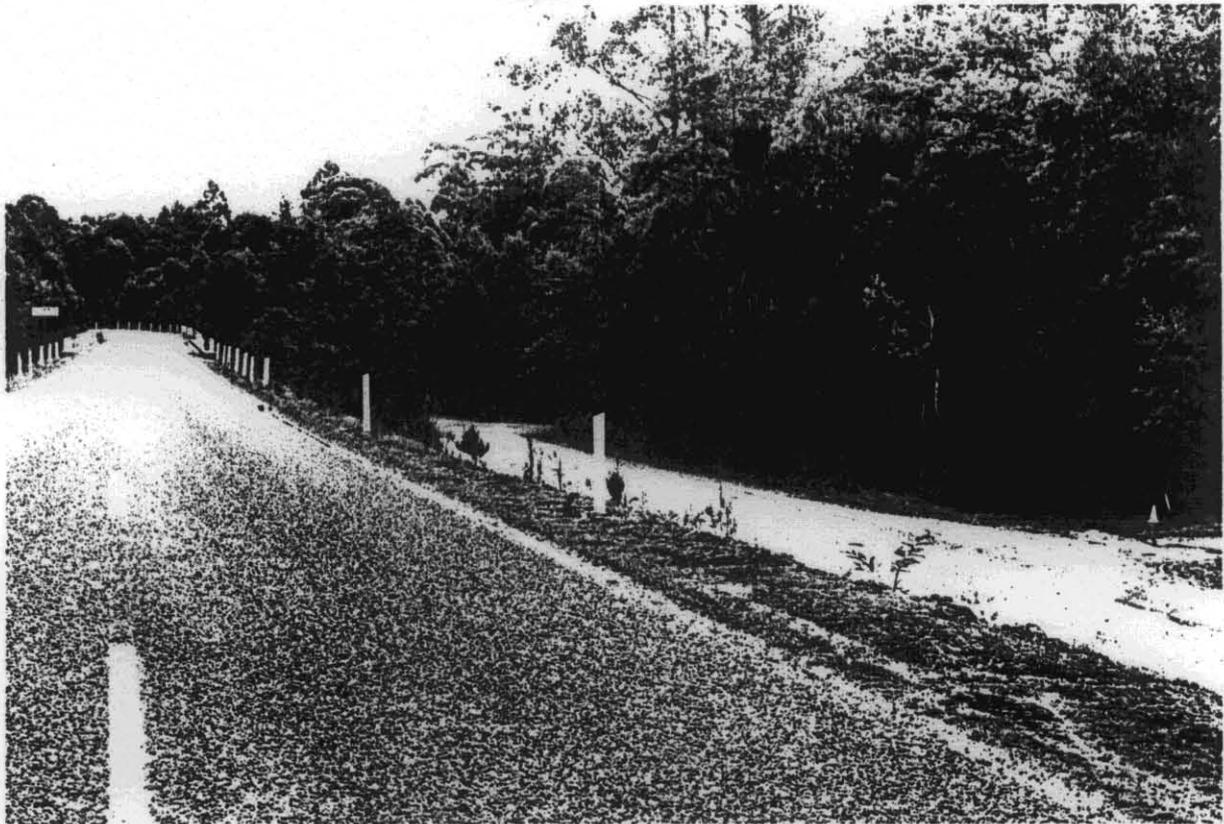
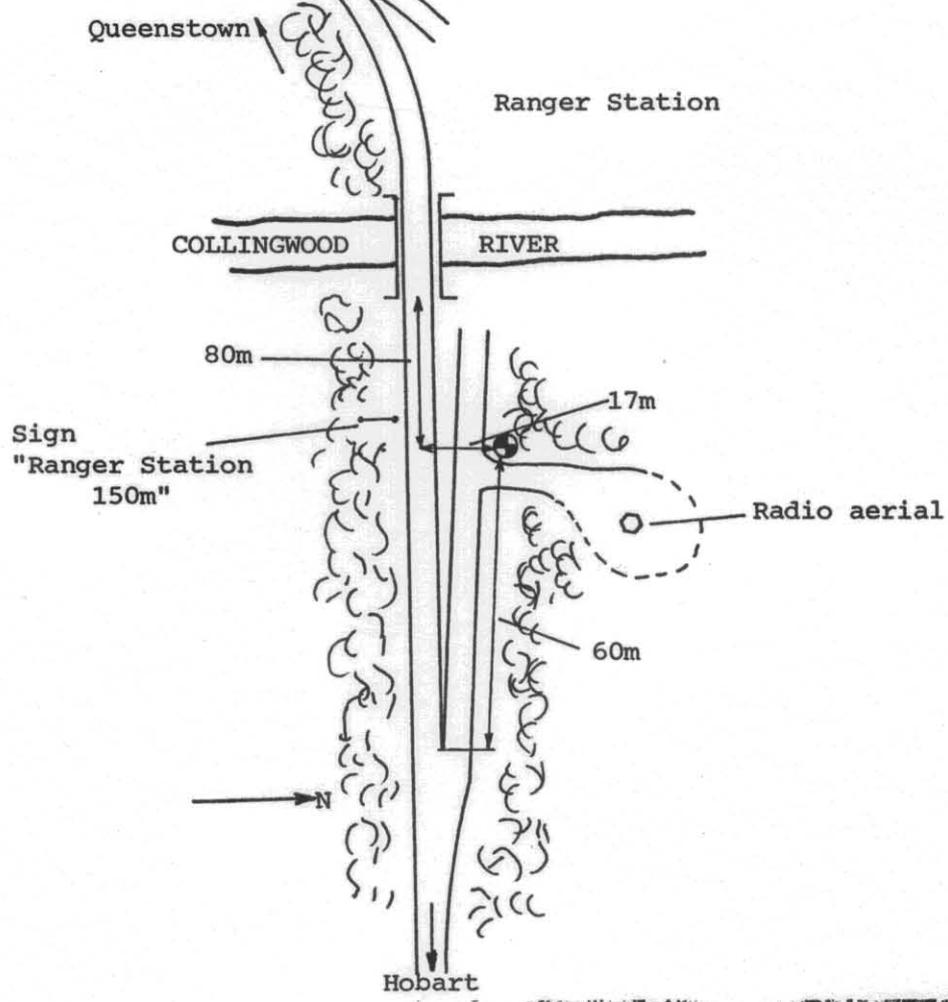
COLLINGWOOD RIVER (8451.9009)

AMG reference: 410500 mE
5331450 mN

Description: Gravity station is a star picket set in a yellow-painted concrete pad on the north-western side of the junction between the old highway and the track to the radio aerial. The location is about 60 m from the junction of the old highway and the new Lyell Highway alignment, and about 80 m on the Hobart side of the bridge carrying the Lyell Highway over the Collingwood River.



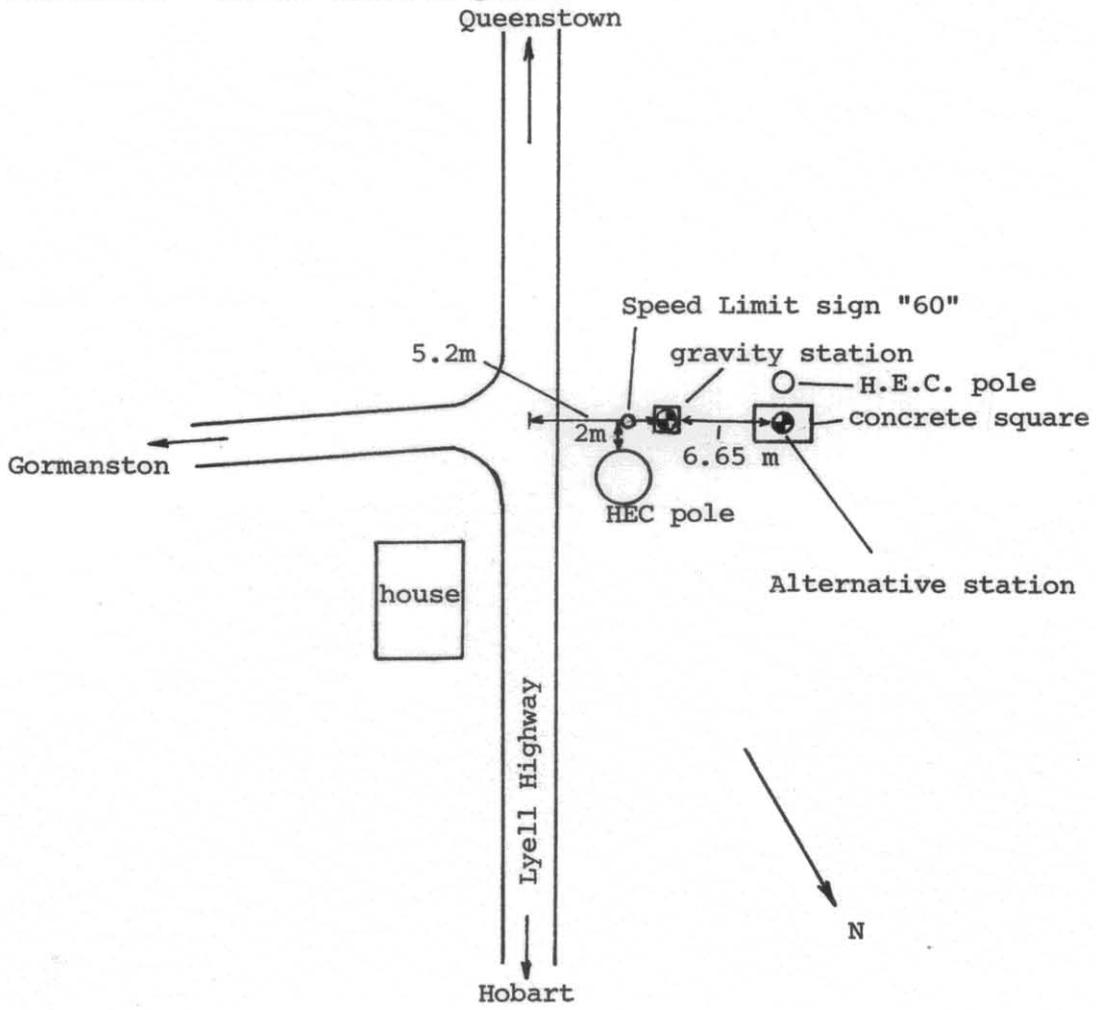
COLLINGWOOD RIVER - sketch location plan



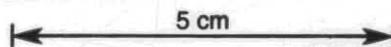
58-15

5 cm

GORMANSTON - sketch location plan



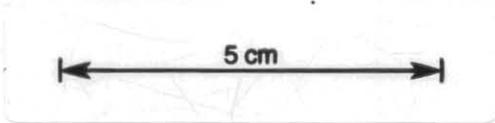
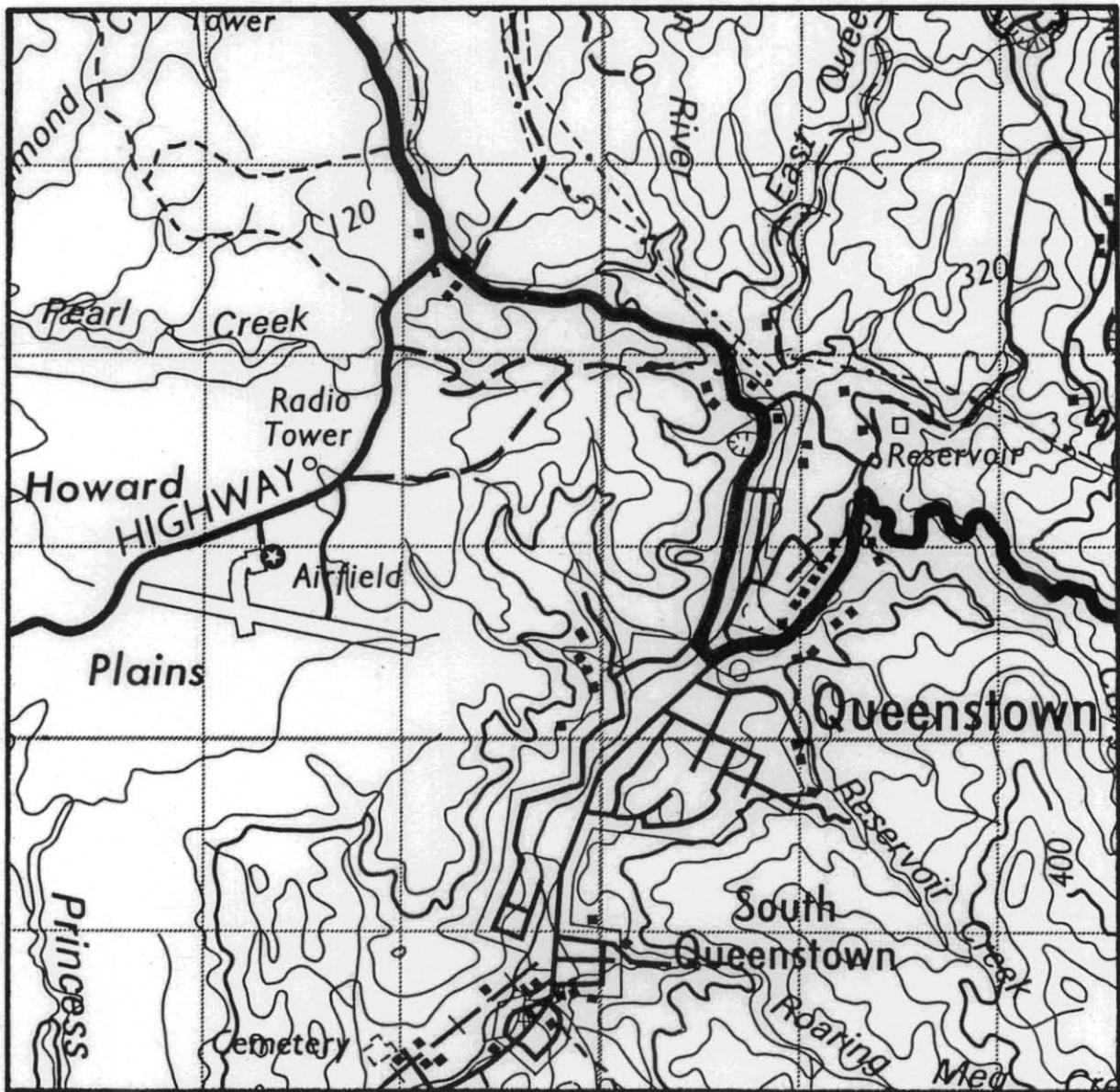
58-17



QUEENSTOWN (8451.9010)

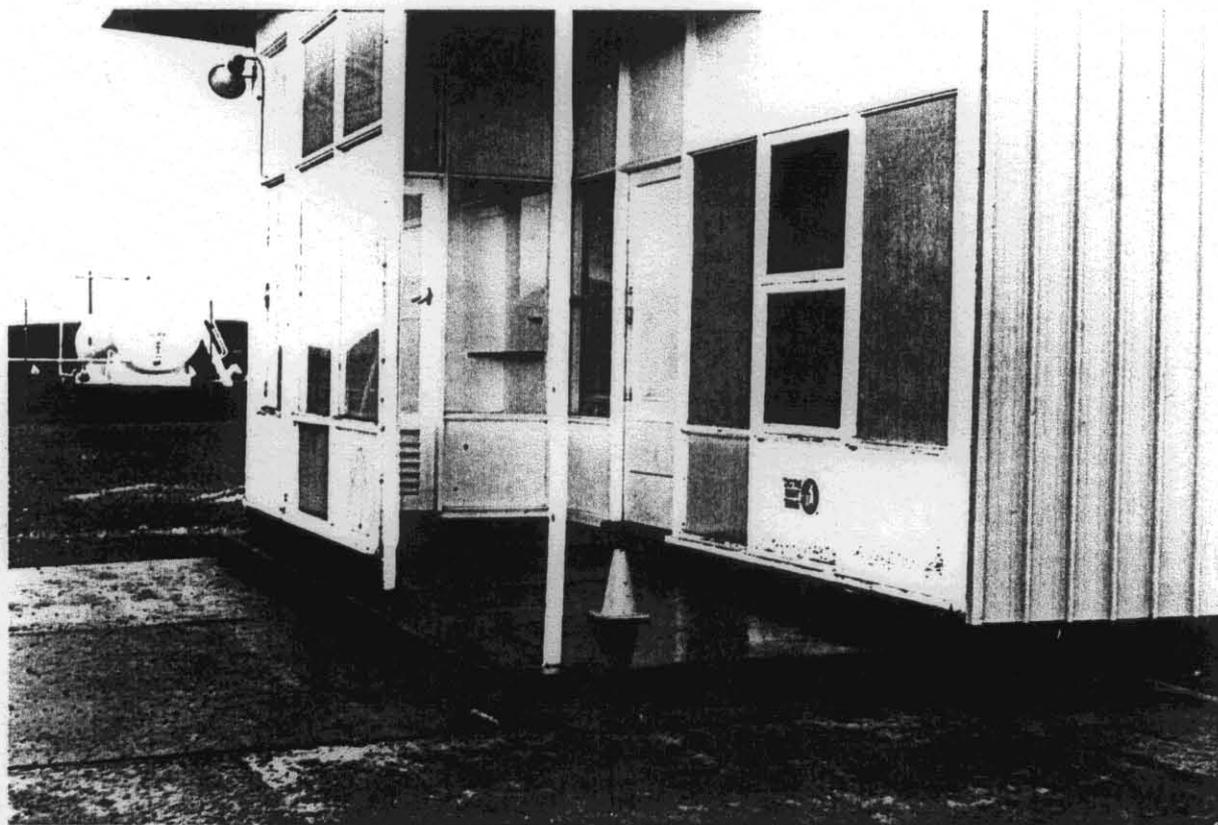
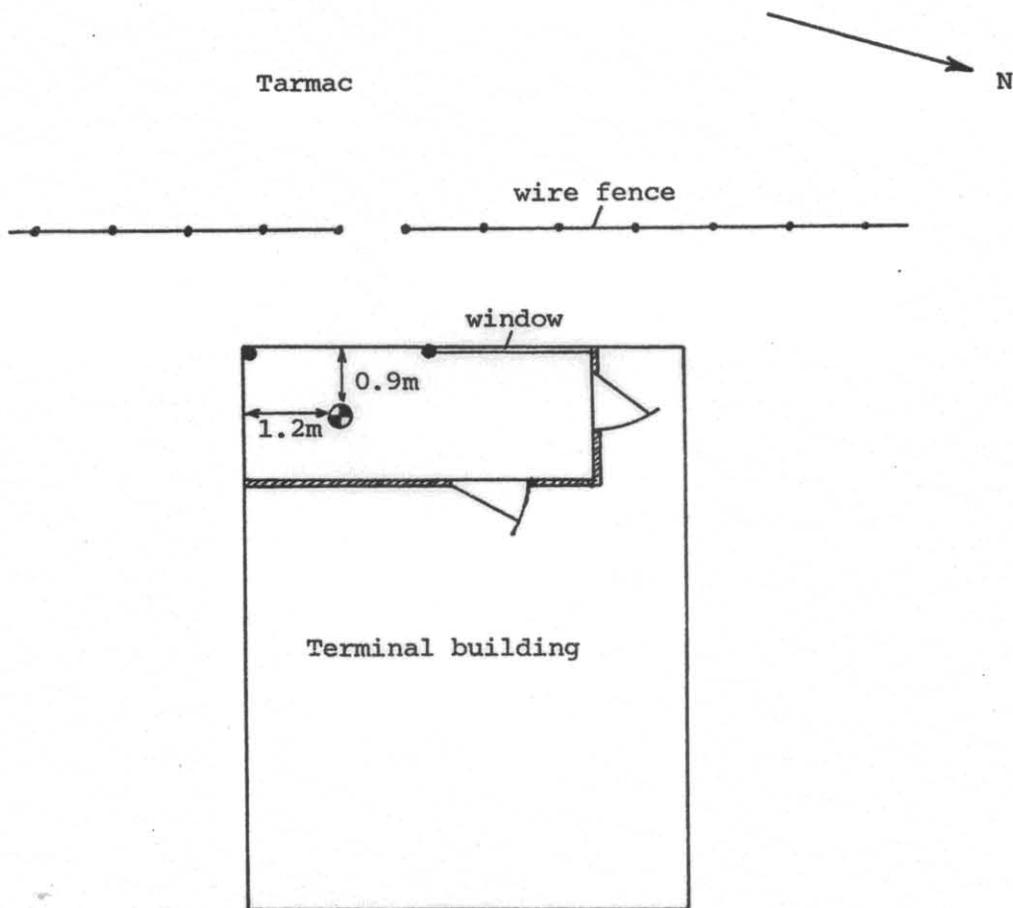
AMG reference: 378300 mE
5340900 mN

Description: This station is located in the terminal building at Queenstown airport, approximately 5 km from Queenstown on the Lyell Highway to Strahan. The station is a 33 mm diameter pipe sunk in the concrete slab at the entrance to the airport terminal building.



19/
43

QUEENSTOWN AIRPORT - sketch location plan



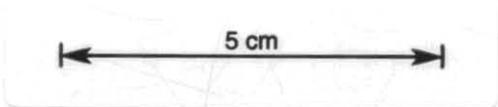
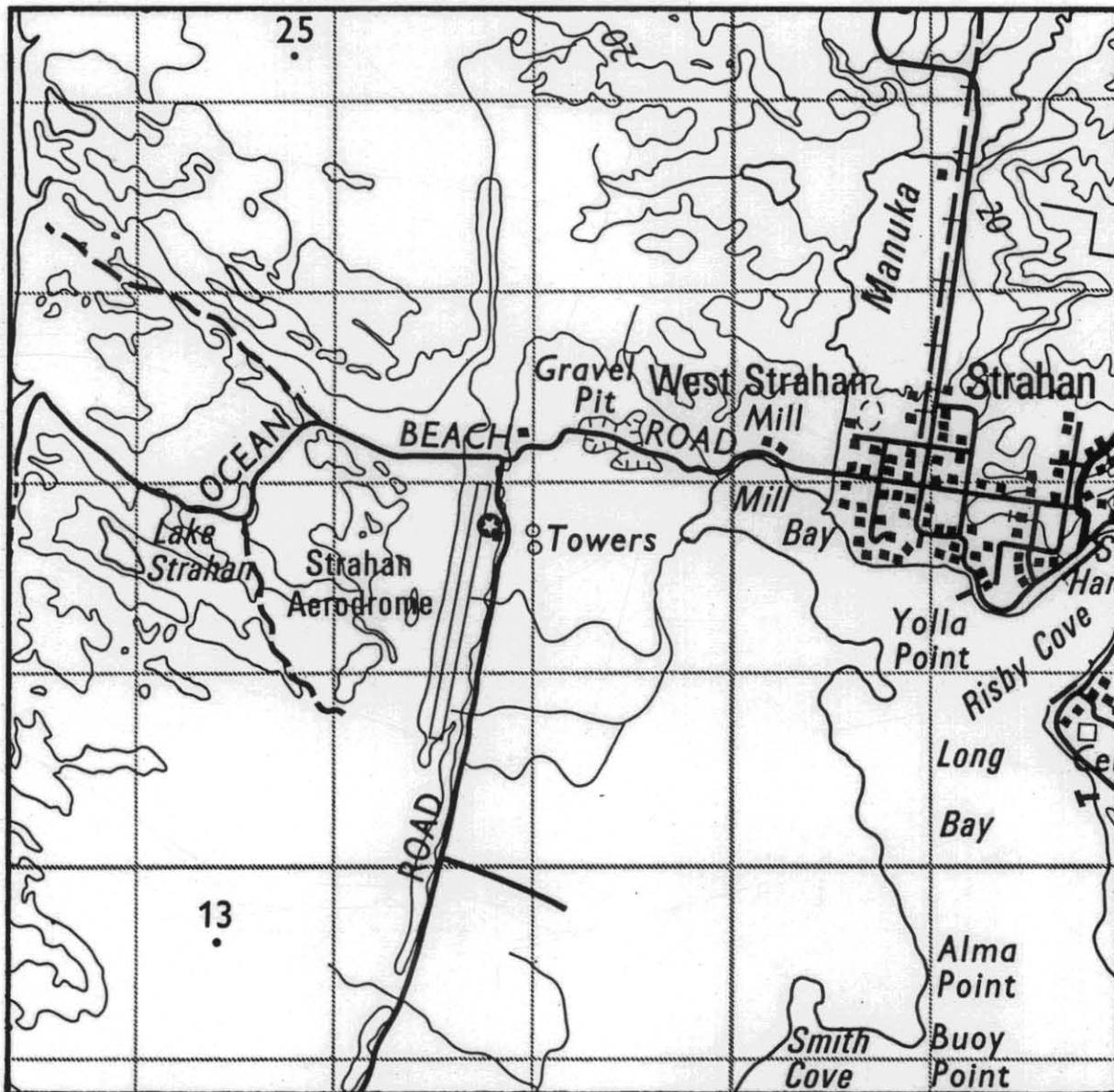
58-19

5 cm

STRAHAN (6491.9136)

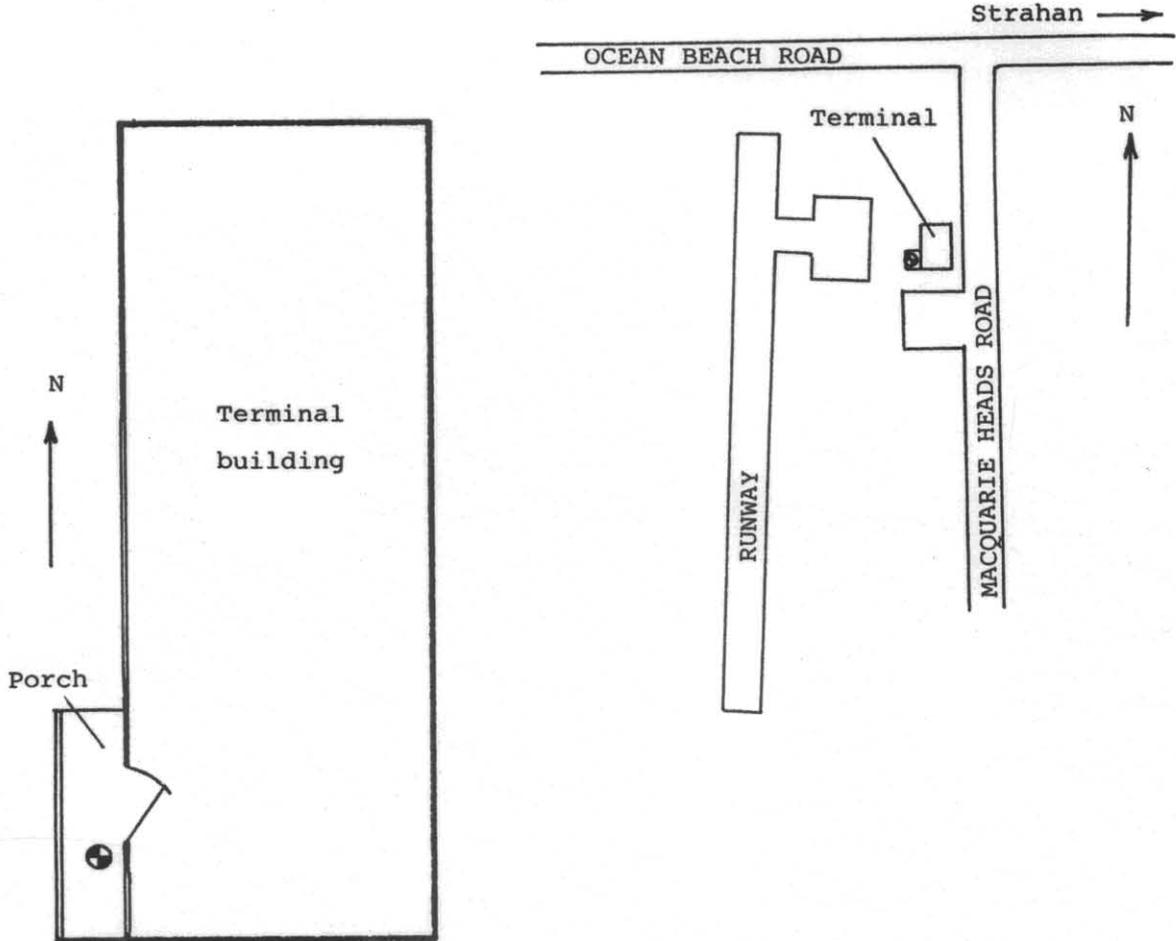
AMG reference: 358800 mE
5331700 mN

Description: Station is located at Strahan airport, approximately 3.5 km from Strahan on Macquarie Heads Road. Station is 33 mm diameter pipe sunk in concrete slab in the centre of the entrance porch of the airport terminal building.

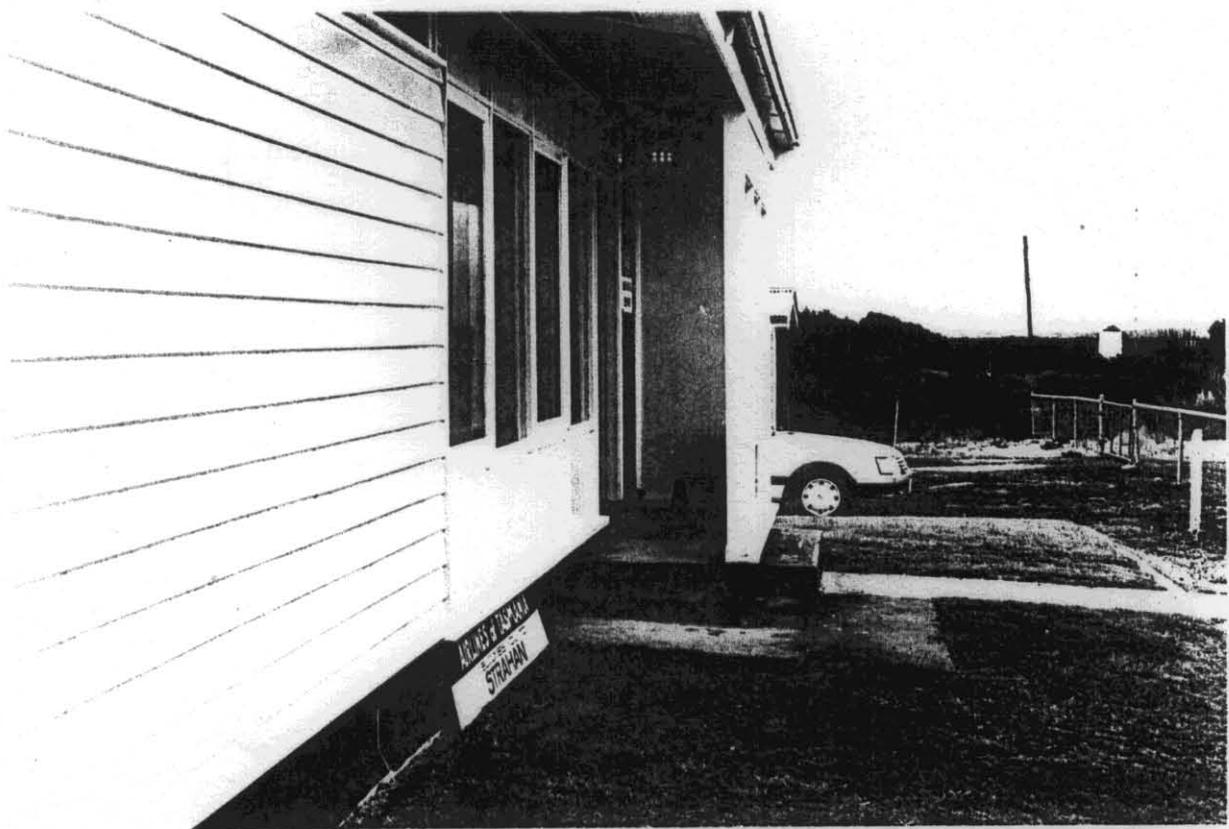


21/43

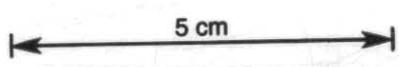
STRAHAN AIRPORT - sketch location plan



Detail of location in terminal building



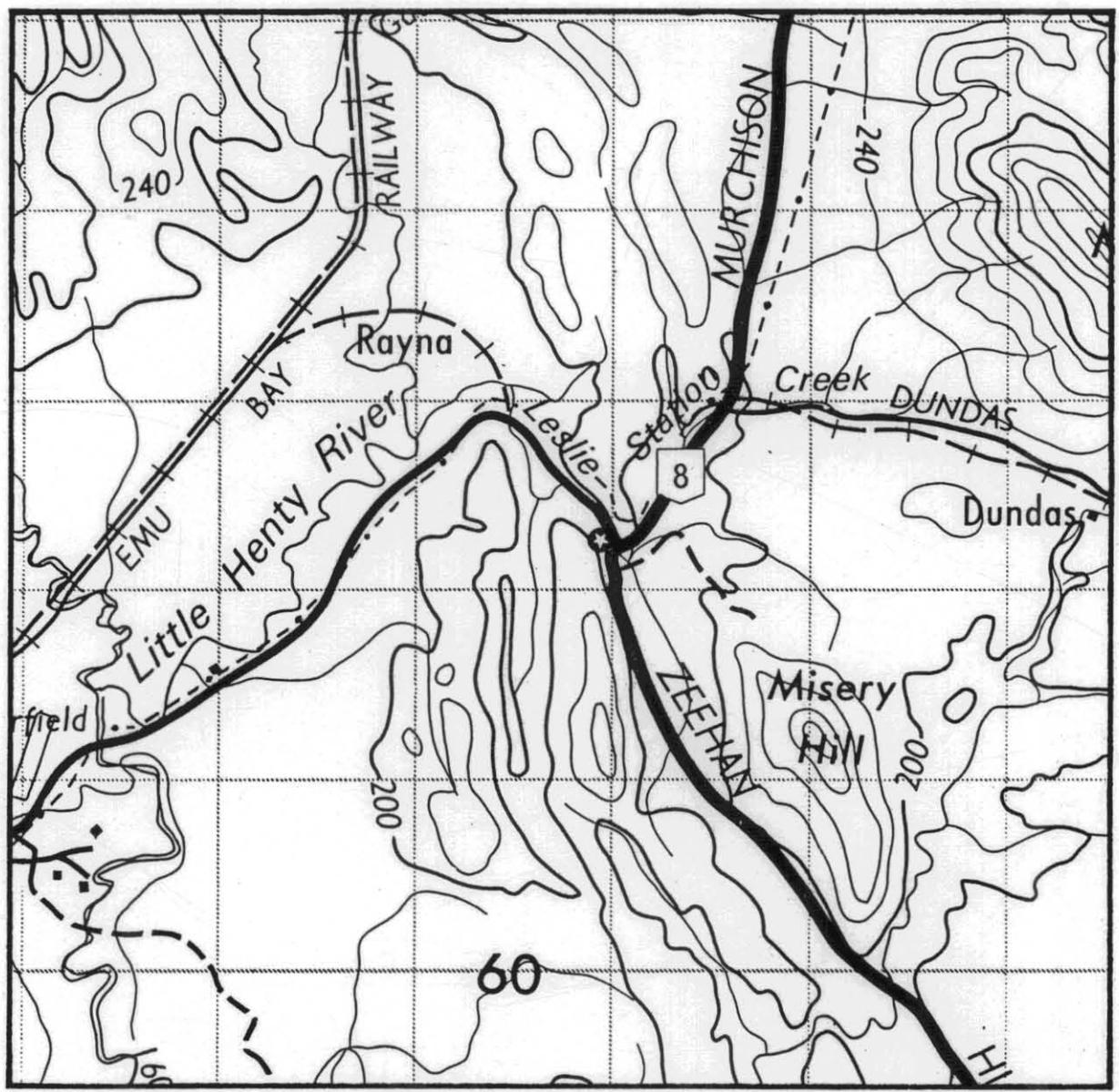
58-21



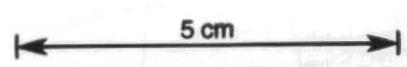
ZEEHAN (8451.9011)

AMG reference: 366000 mE
5362300 mN

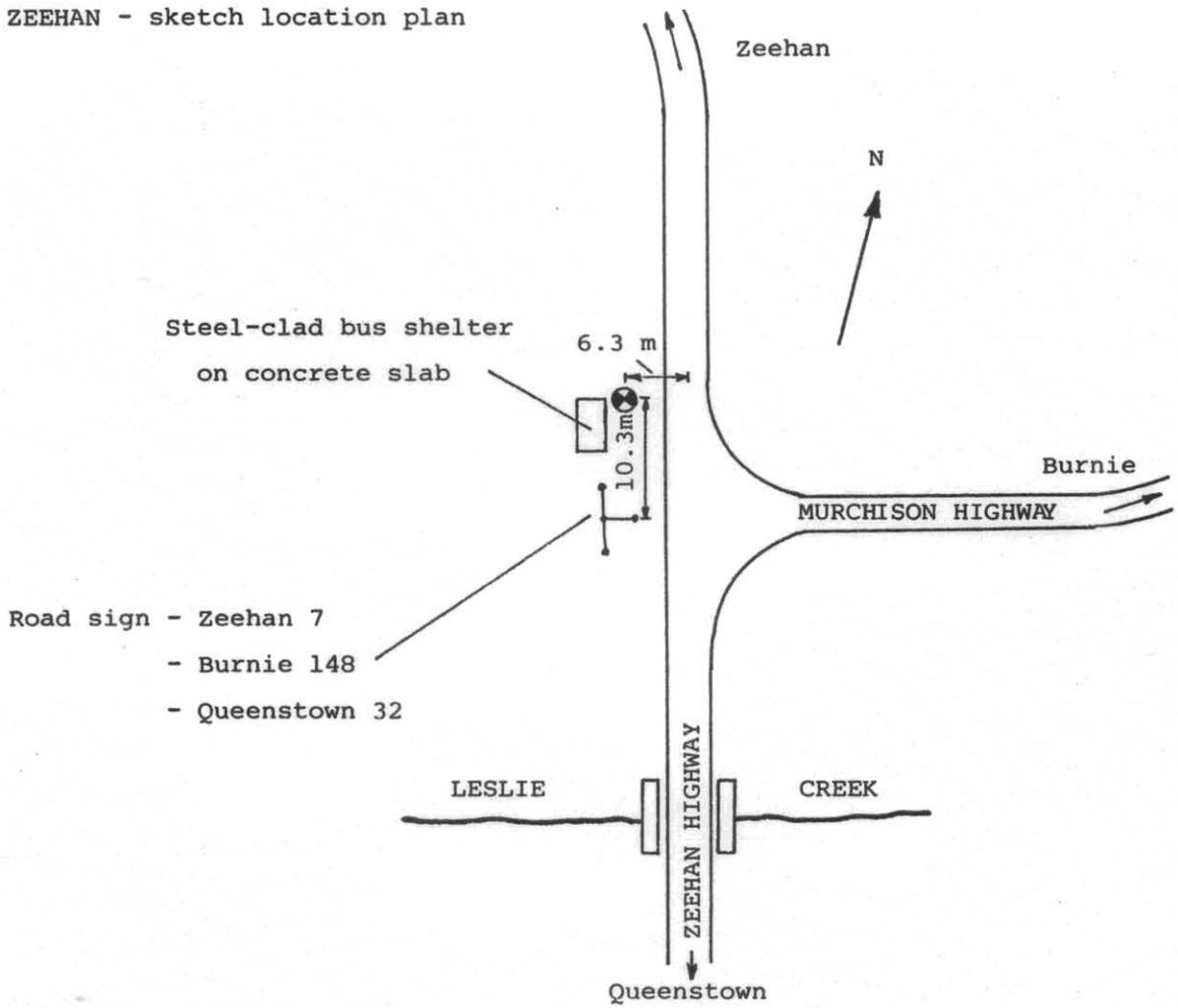
Description: Station is a star picket set in a yellow-painted concrete pad. The station is located adjacent to a steel-clad bus shelter on the western side of the Zeehan Highway, at the junction with the Murchison Highway. Station is 0.8 m from bus shelter and 6.3 m from edge of road.



58-22



ZEEHAN - sketch location plan



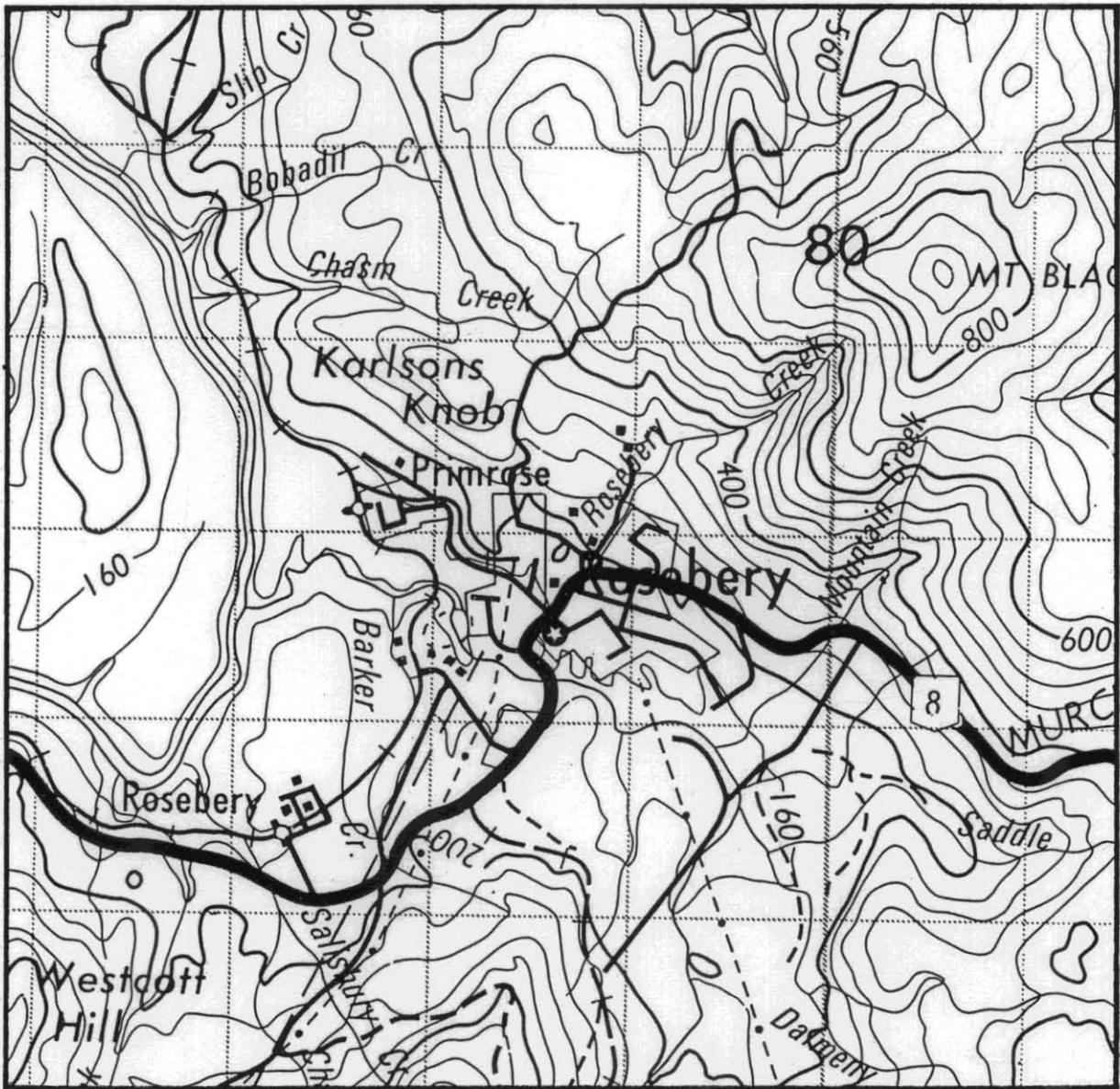
58-23

5 cm

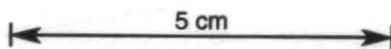
ROSEBERY (8051.9906)

AMG reference: 378600 mE
5373500 mN

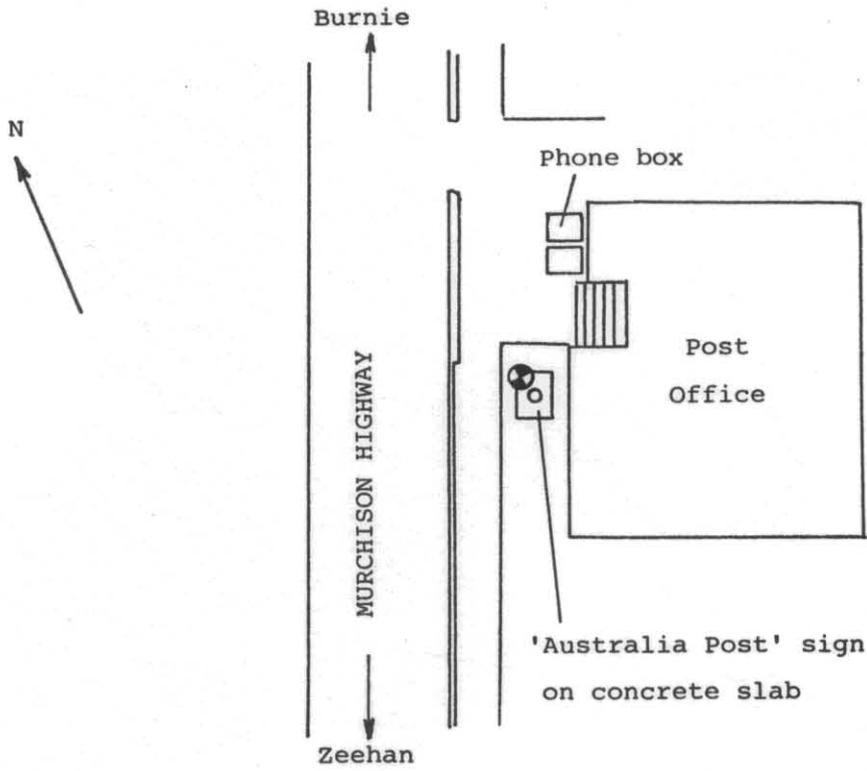
Description: Station is a 33 mm diameter pipe sunk in the concrete base of the "Australia Post" sign outside Rosebery Post Office. The post office is located on the eastern side of the Lyell Highway in Rosebery township.



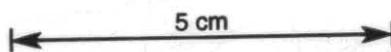
58-24



ROSEBERY - sketch location plan



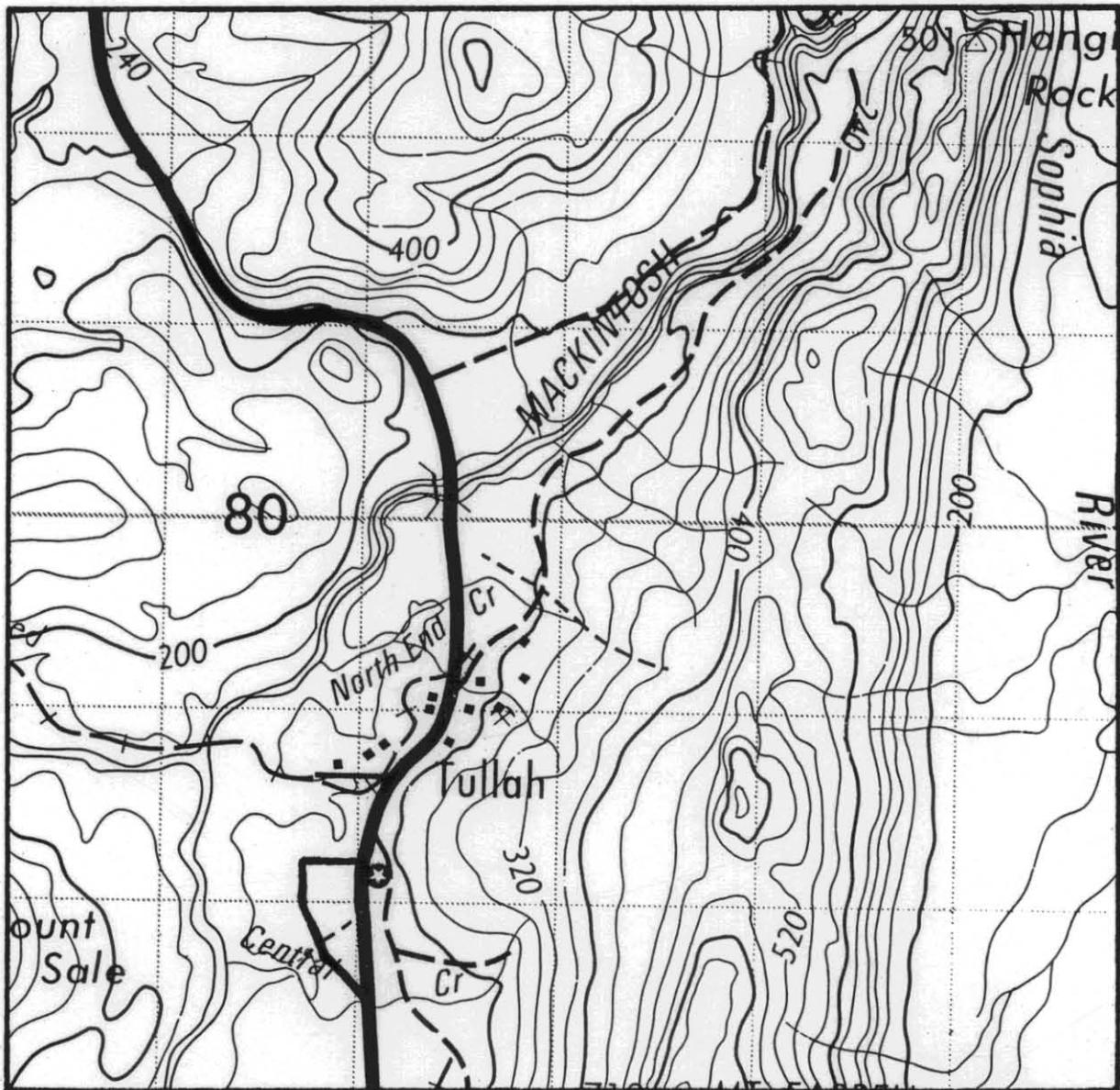
58-25



TULLAH (8051.9902)

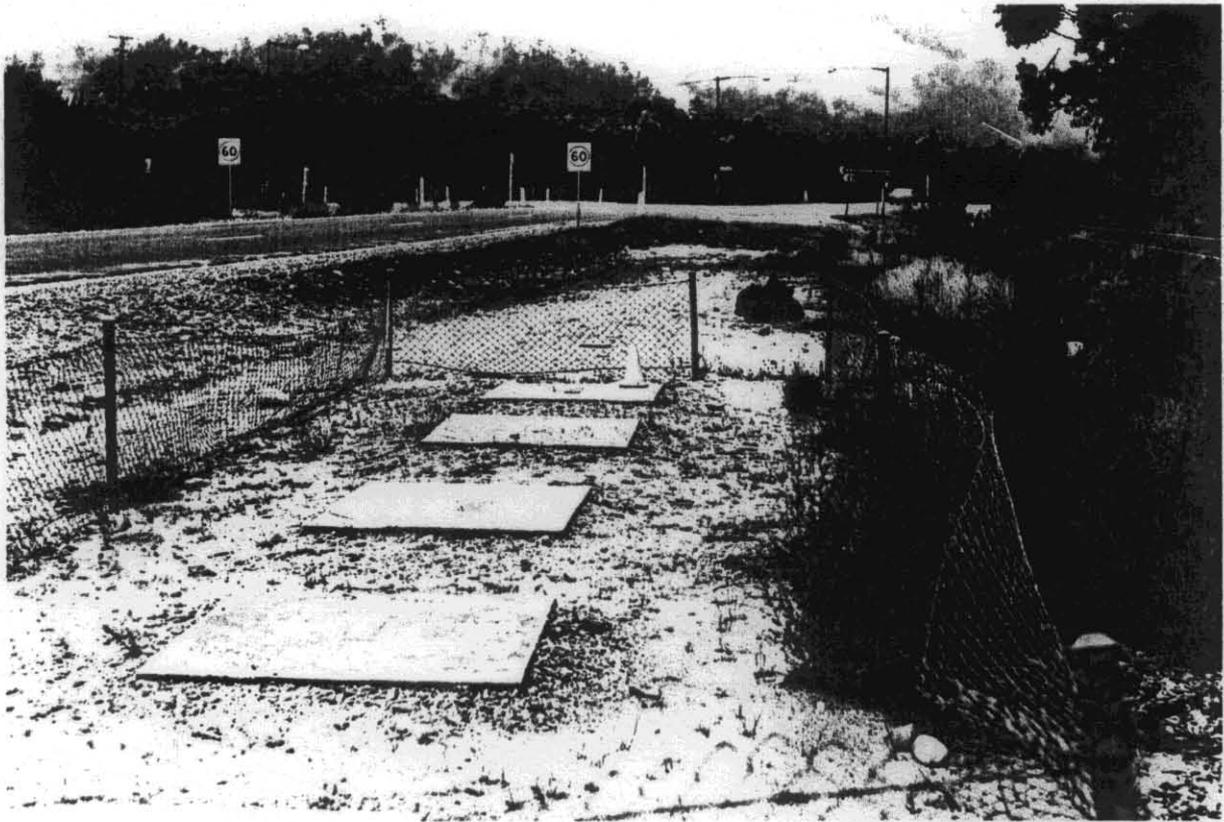
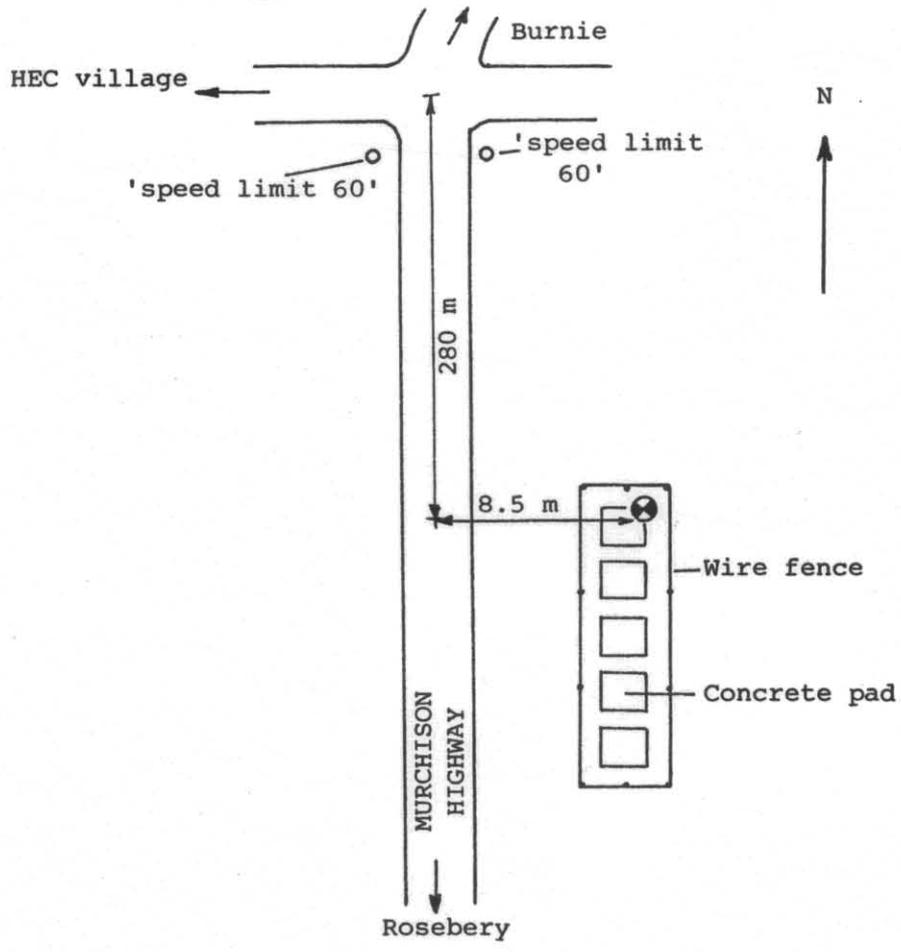
AMG reference: 385200 mE
5378200 mN

Description: The station is located on the northernmost of five concrete pads enclosed by a low wire fence on the eastern side of the Murchison Highway, approximately 80 m south of the intersection of the highway and the road to the H.E.C. construction village. The station is a 33 mm diameter pipe set in one corner of the concrete pad, 8.5 m from the highway centreline.



5 cm

TULLAH - sketch location plan



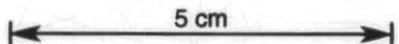
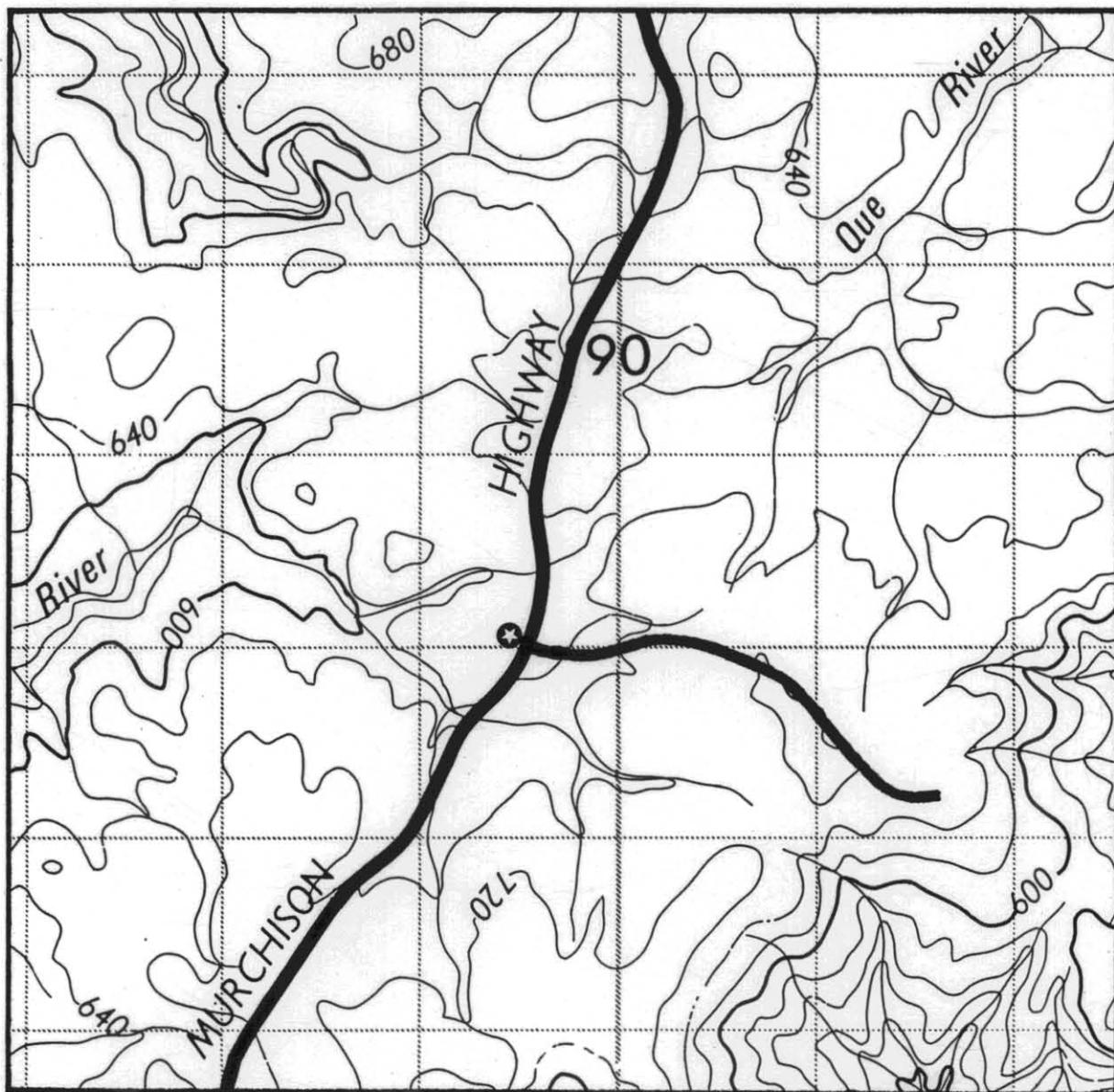
58-27

5 cm

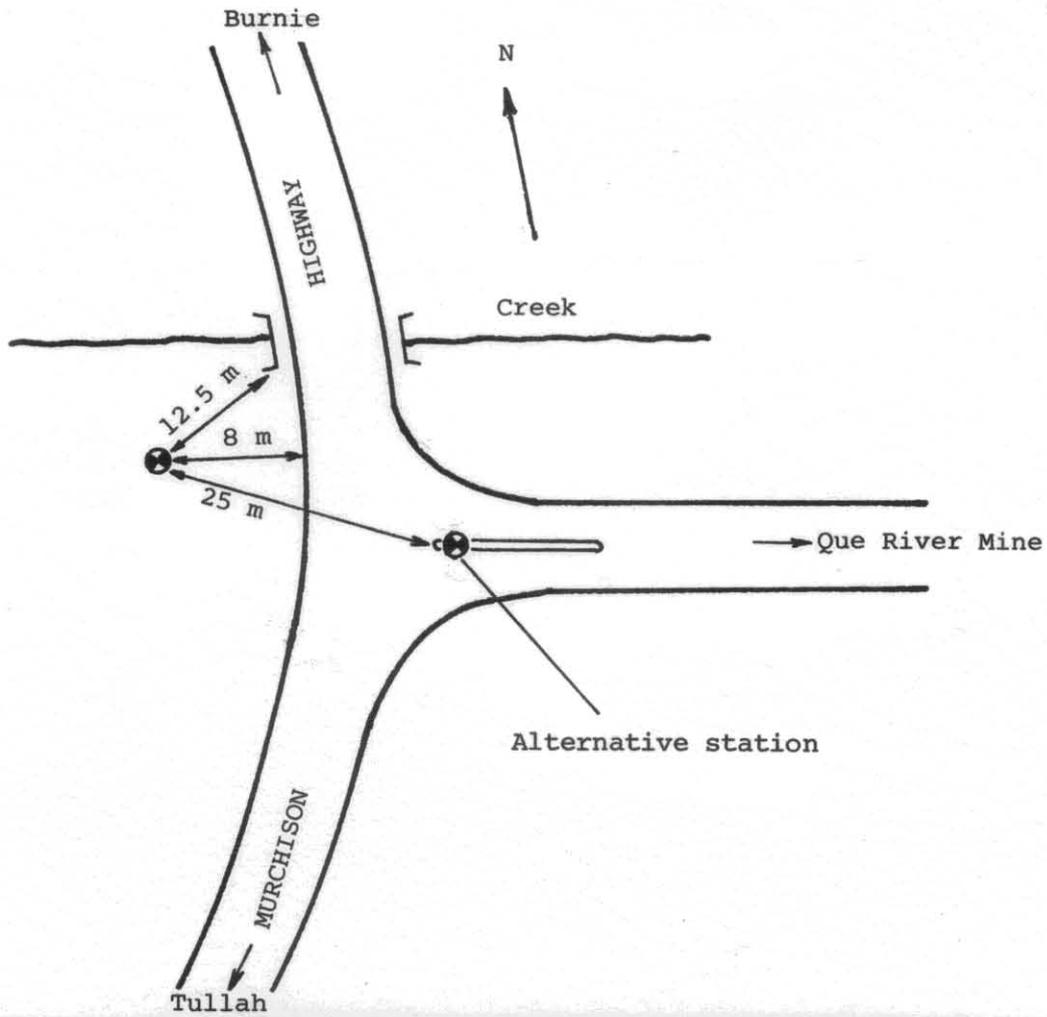
QUE RIVER (8451.9012, 8551.9976)

AMG reference: 389450 mE
5393950 mN

Description: Station is a 33 mm diameter pipe set in a yellow-painted concrete pad on the inside of the broad left-hand curve of the Murchison Highway at the intersection with the road to the Que River mine. The station is located 8 m from the edge of the sealed pavement and 12.5 m from the end of a concrete culvert north of the intersection. An alternative station is a 50 mm diameter pipe set in concrete on the highway end of the traffic island on the Que River road.



QUE RIVER - sketch location plan



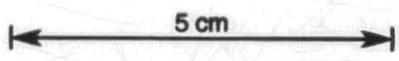
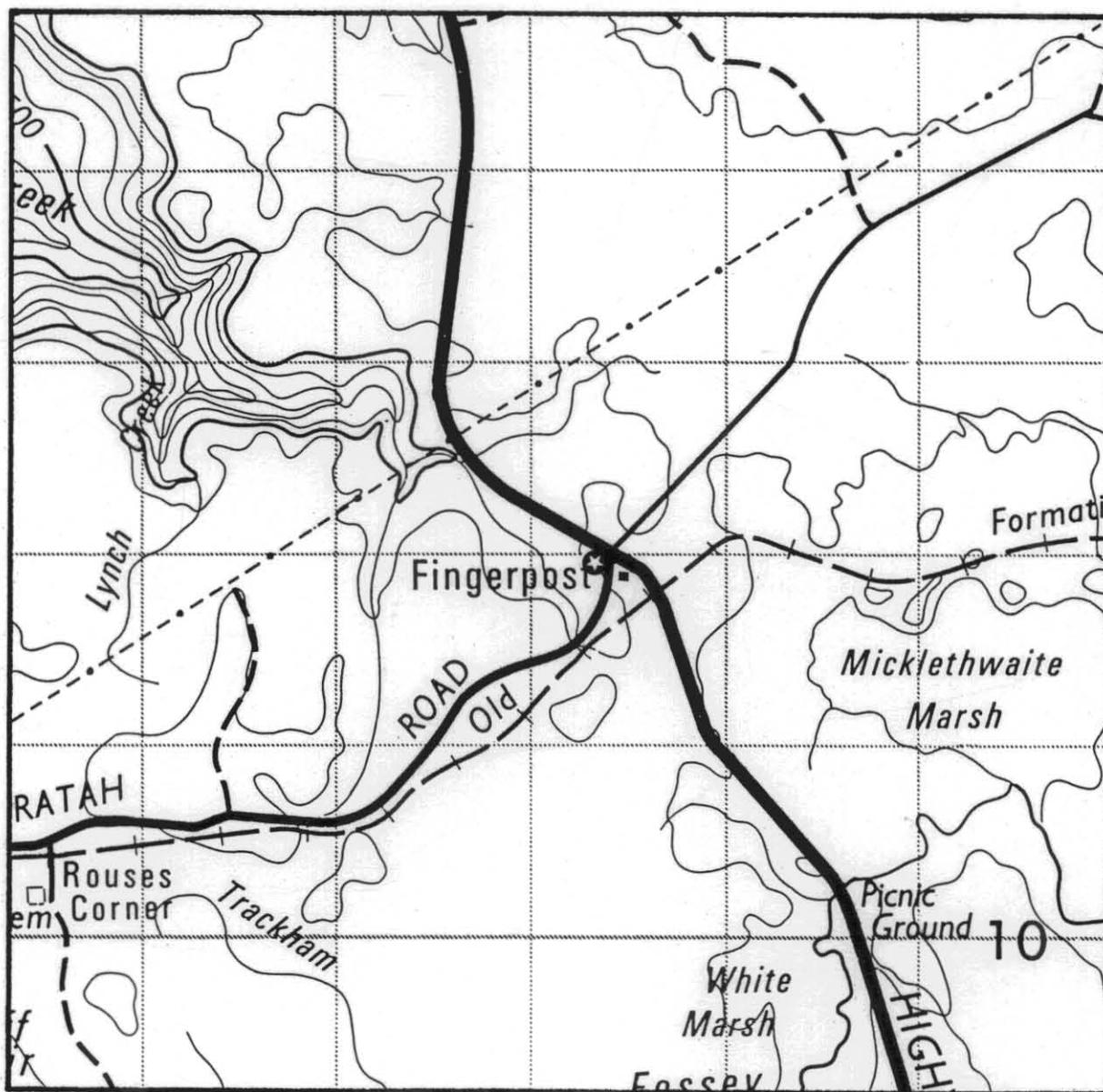
58-29

5 cm

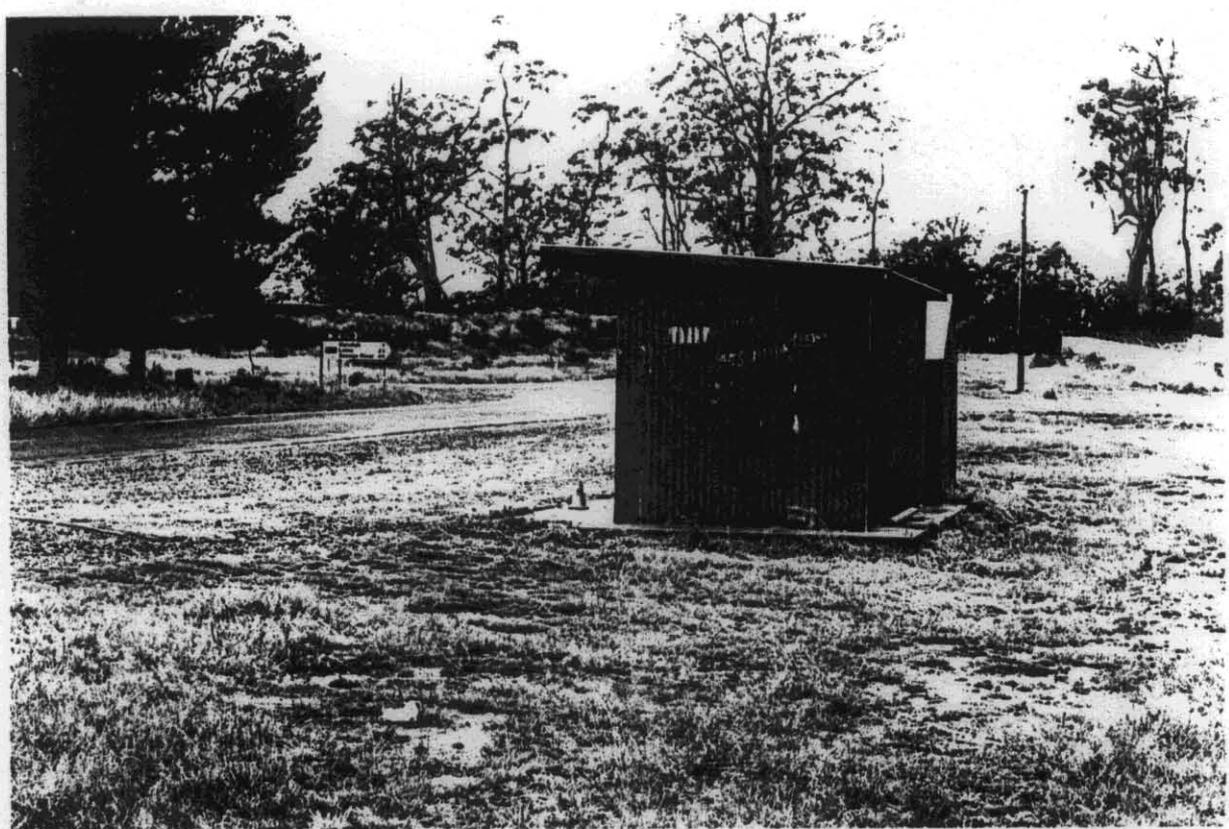
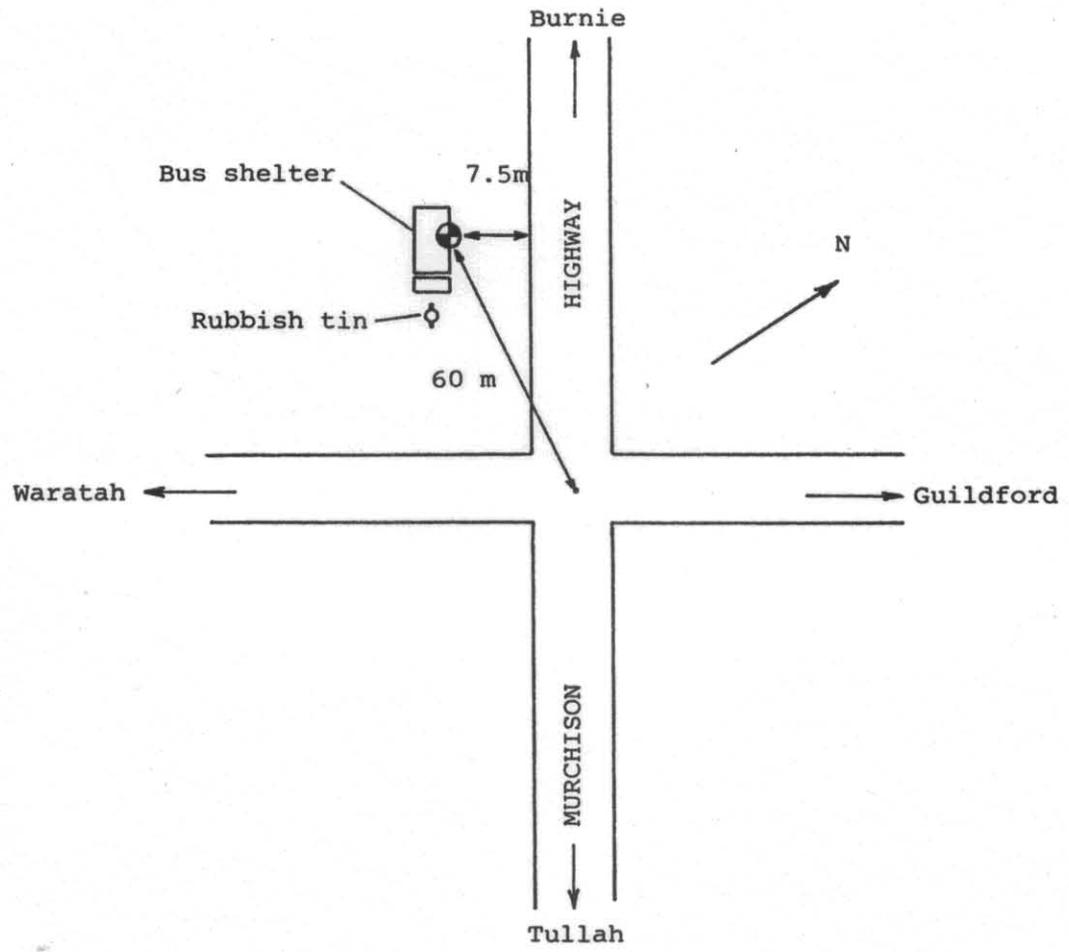
FINGERPOST (WARATAH) (8451.9013)

AMG reference: 383400 mE
5412100 mN

Description: Drilled hole in the concrete slab of a G.I. clad bus shelter on the western side of the Murchison Highway, 60 m north of the intersection of the highway and Waratah Road.



FINGERPOST - sketch location plan



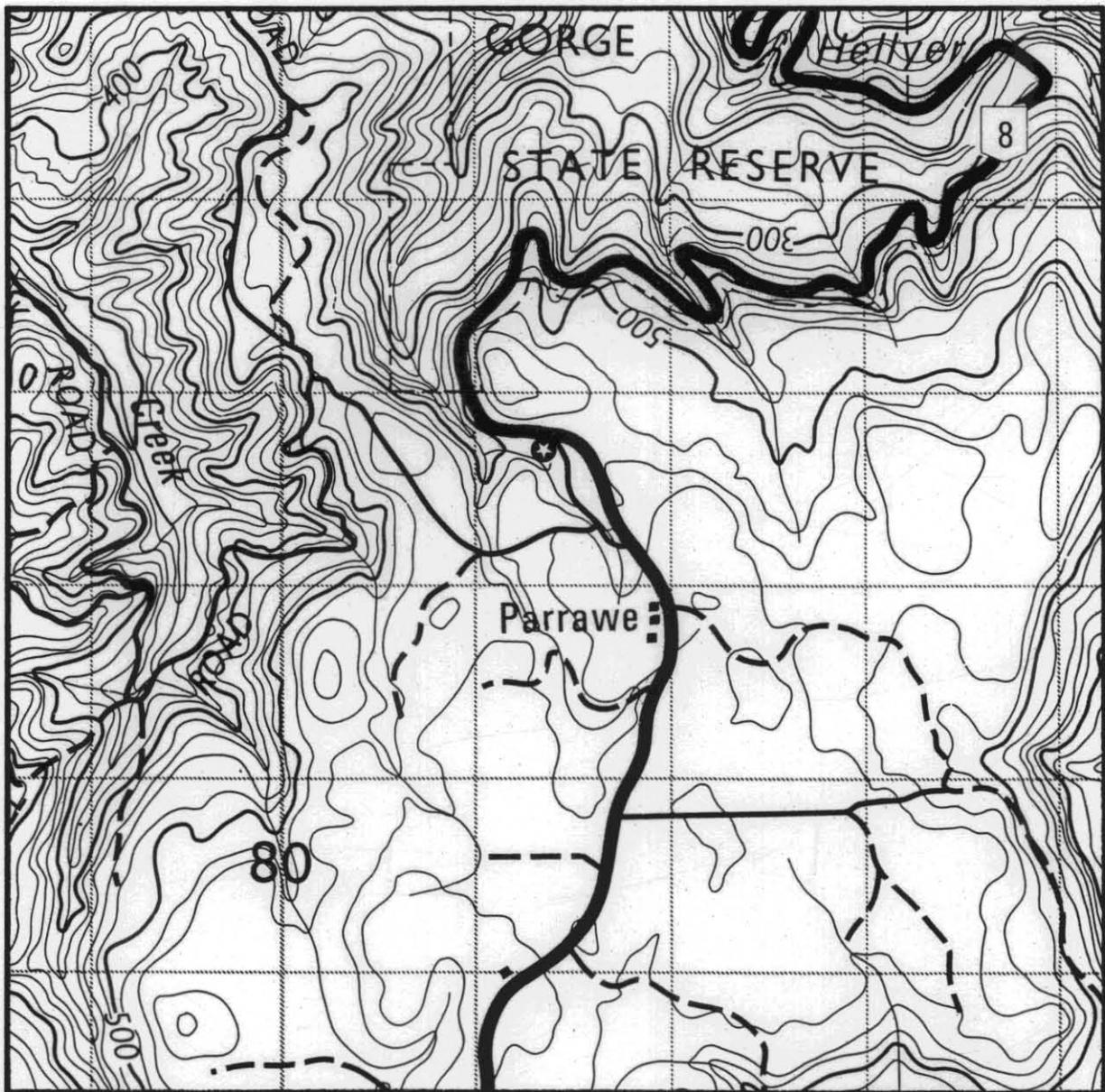
58-31

5 cm

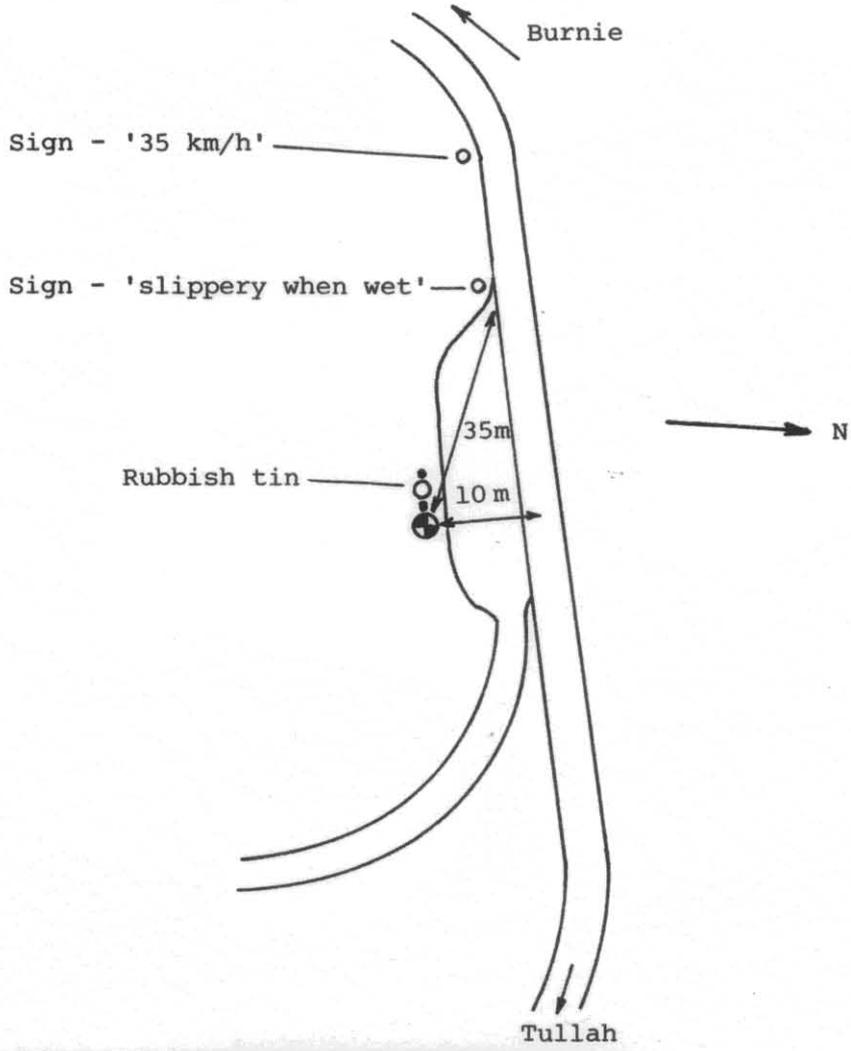
PARRAWE (8451.9014)

AMG reference: 381400 mE
5427700 mN

Description: Station is a star picket set in a yellow-painted concrete slab on the western side of the Murchison Highway. The station is adjacent to a rubbish tin on a pull-off area at the start of the main descent into Hellyer Gorge, about one kilometre north of Parrawe. The station is 7 m from the edge of the sealed pavement, and 35 m from the "Slippery when wet" warning sign.



PARRAWE - sketch location plan



58-33

5 cm

YOLLA (8451.9015)

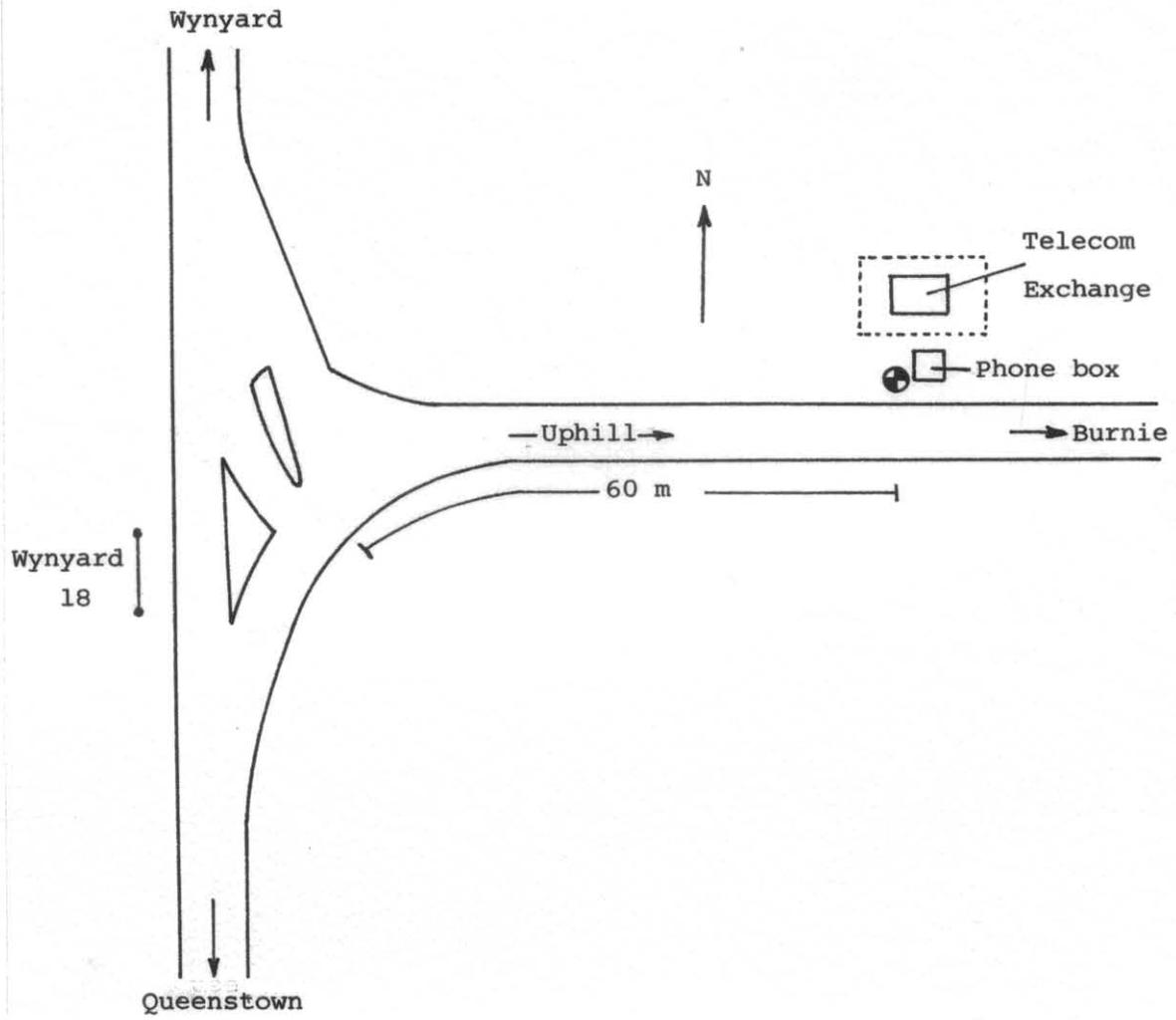
AMG reference: 392400 mE
5446400 mN

Description: Station is a star picket set in a yellow-painted concrete slab adjacent to one corner of the telephone box on the northern side of the Murchison Highway. The telephone box is within Yolla township and is about 100 m east of the corner where the Murchison Highway turns towards Burnie and junctions with the Yolla-Wynyard (Mount Hicks) road.



5 cm

YOLLA - sketch location plan



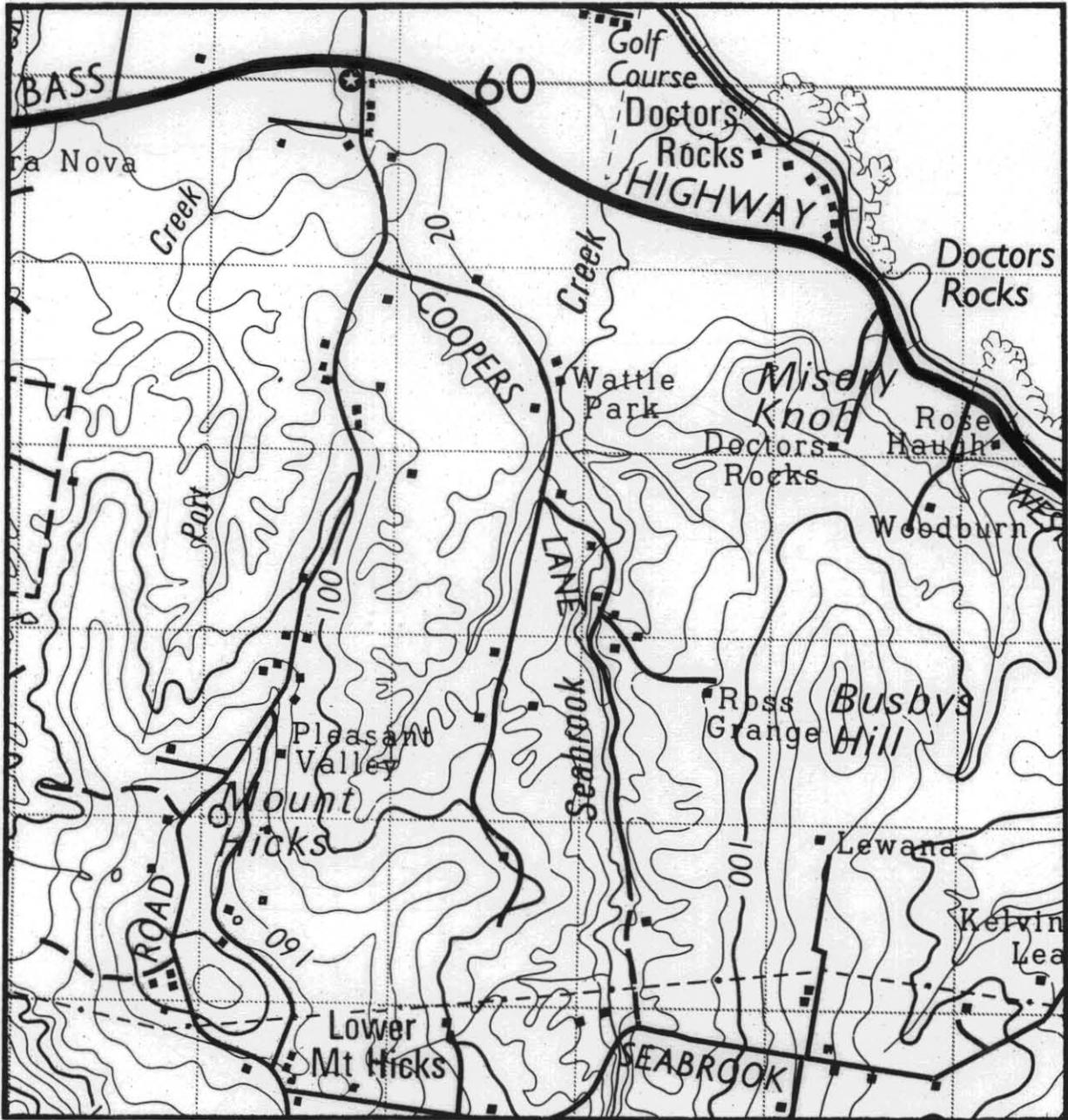
58-35

5 cm

WYNYARD (8451.9016)

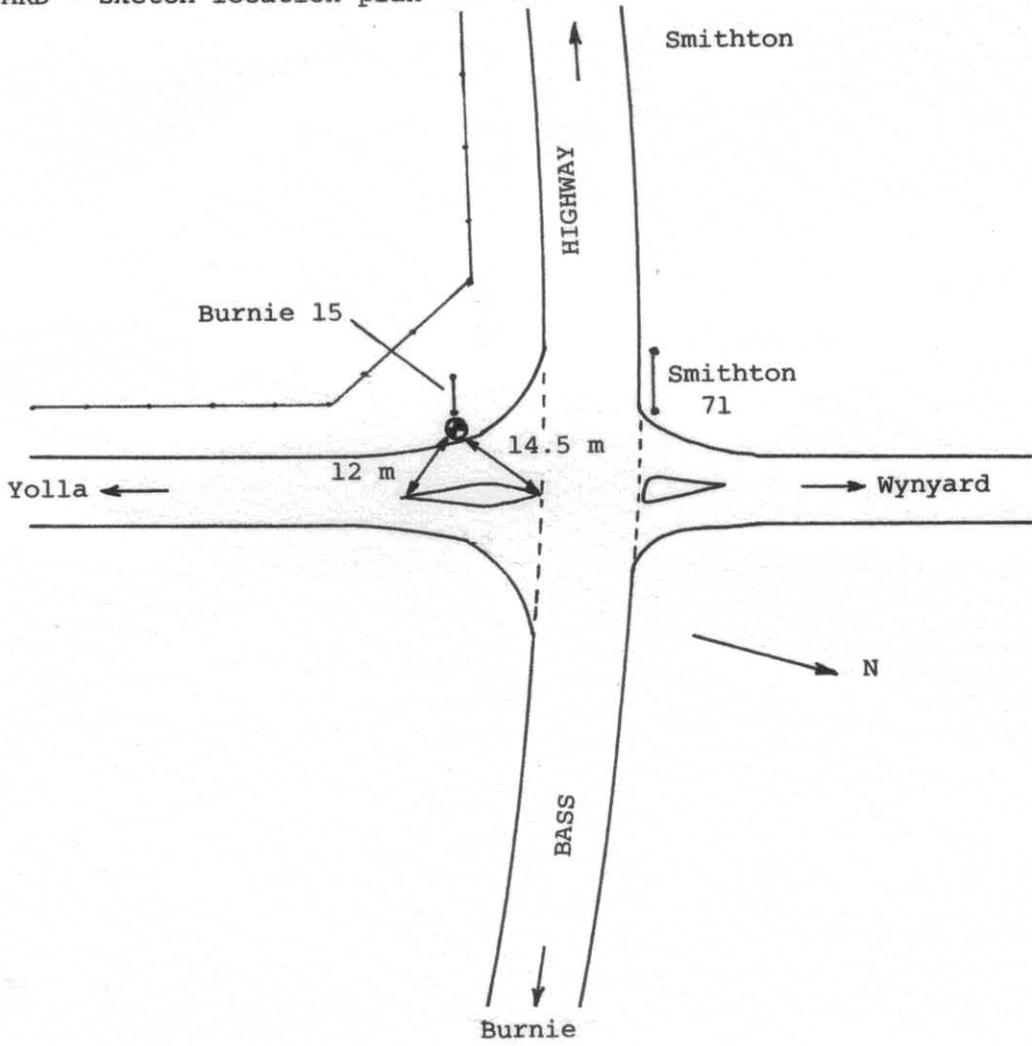
AMG reference: 394700 mE
5460100 mN

Description: Station is a star picket set in a yellow-painted concrete pad on the south-western corner of the intersection of the Bass Highway and the Wynyard-Yolla (Mt Hicks) road. The station is at the base of one of the upright poles of a road direction sign, "Burnie 15".



5 cm

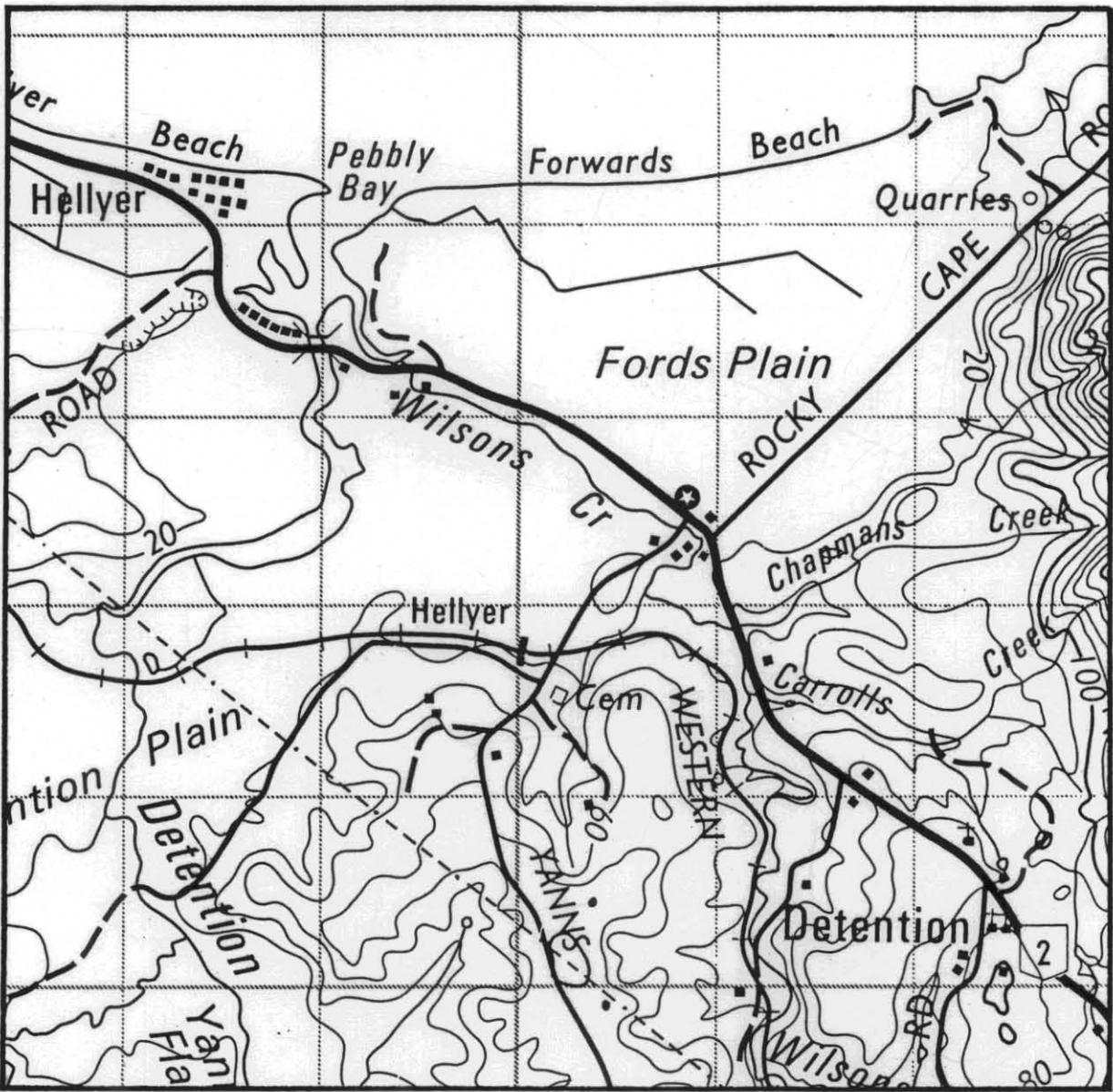
WYNYARD - sketch location plan



ROCKY CAPE (8451.9017)

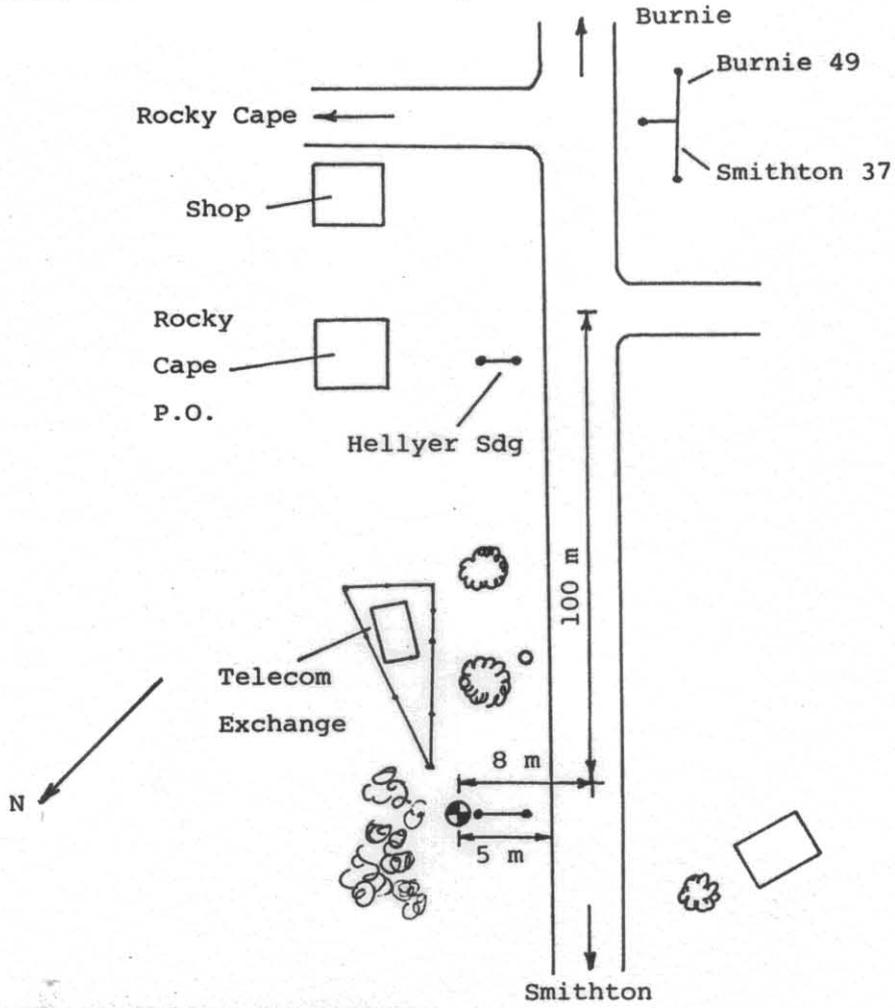
AMG reference: 370800 mE
5472600 mN

Description: Station is a star picket set in a 600 x 600 mm concrete pad at the base of one upright pole of the large Rocky Cape turnoff warning sign on the northern side of the Bass Highway, approximately 220 m west of the Rocky Cape Road junction and 100 m west of the highway/Yanns Road (Hellyer Siding) junction. Station is 5 m from edge of sealed pavement, and is on the Smithton side of Rocky Cape.



5 cm

ROCKY CAPE - sketch location plan



58-39

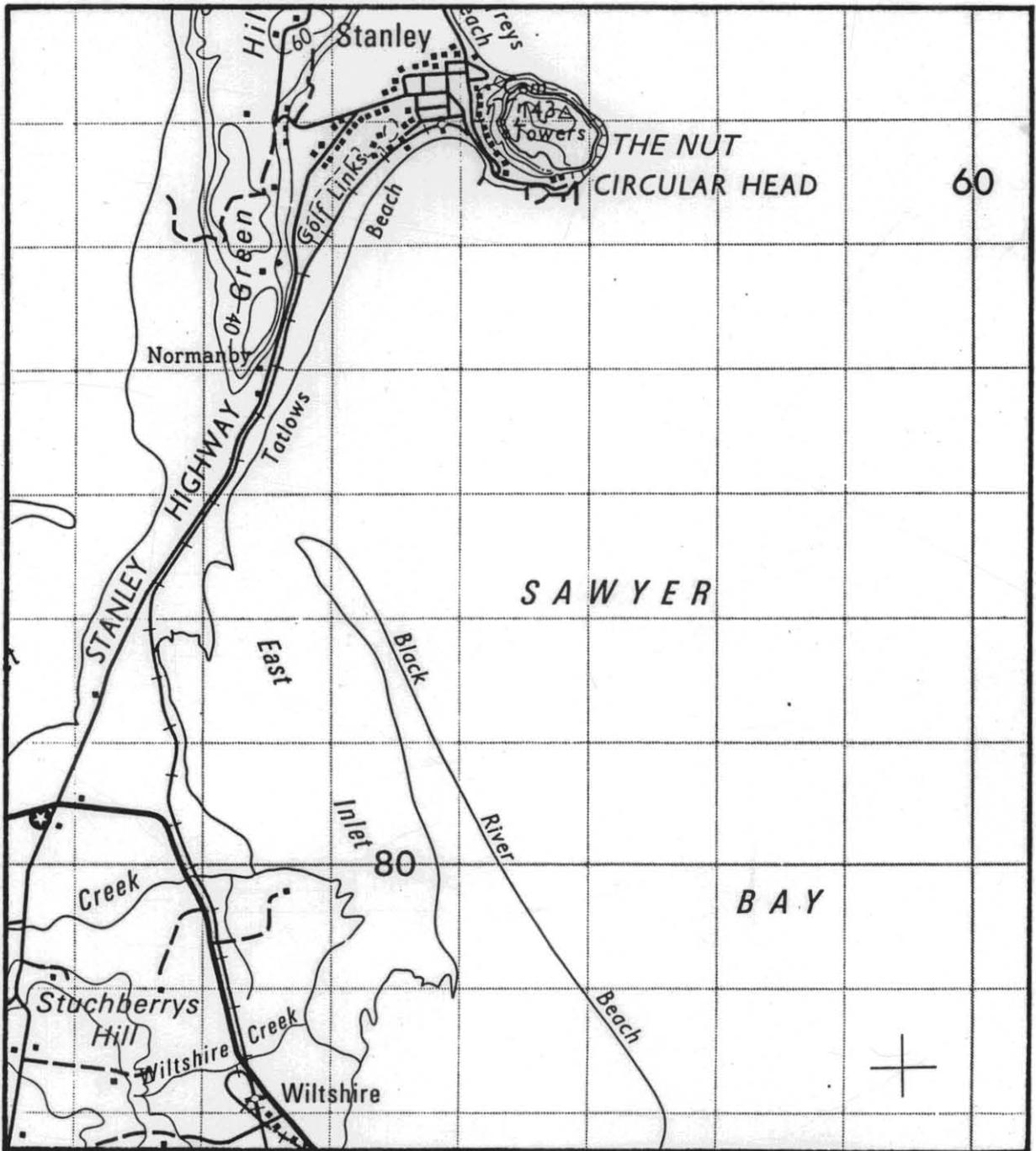
5 cm

40/43

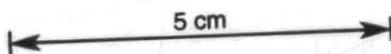
STANLEY (8451.9018)

AMG reference: 352800 mE
5480500 mN

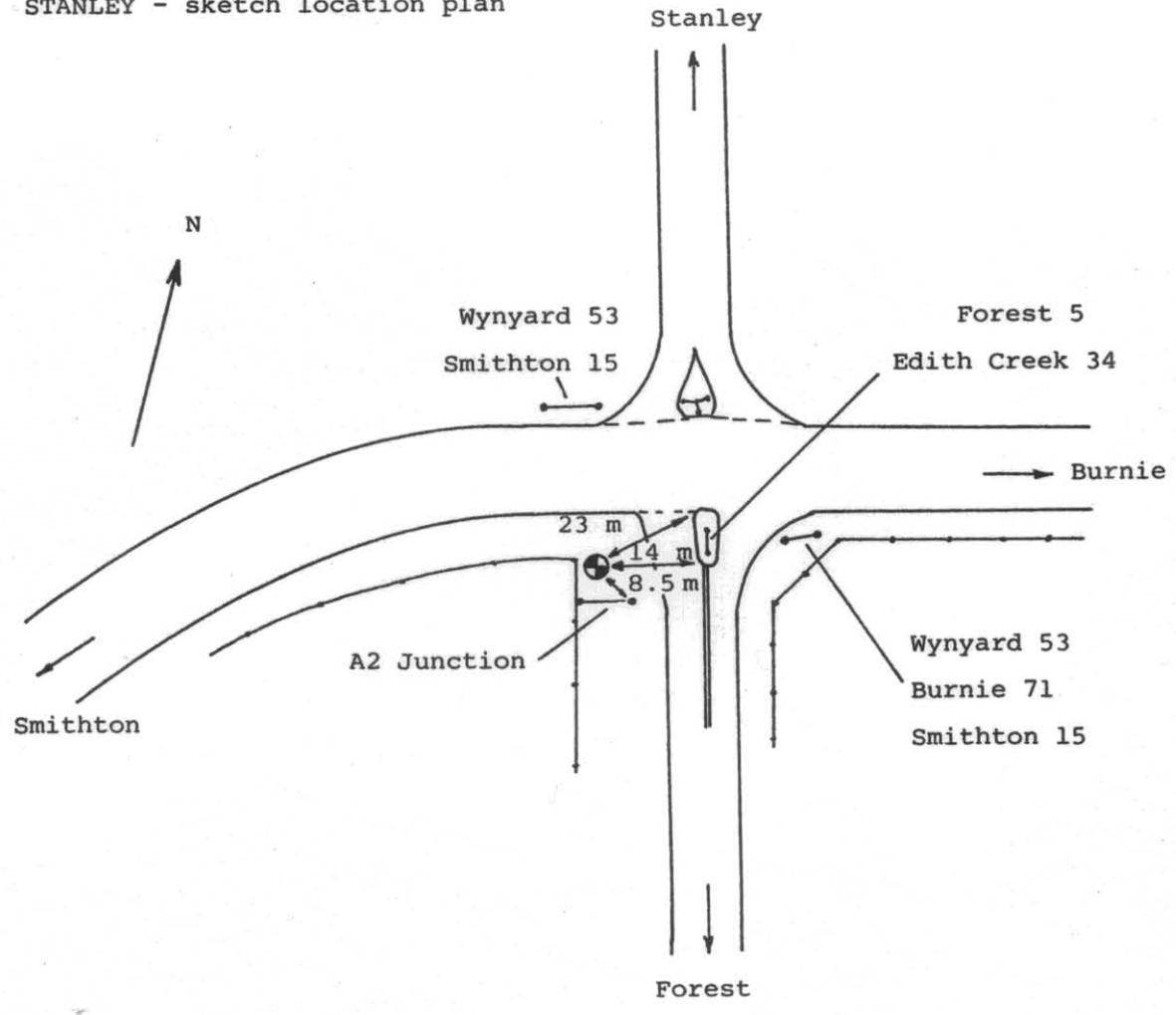
Description: Station is a star picket set in a concrete pad on the south-western corner of the Bass Highway/Stanley Highway/Mengha Road junction, 3.5 km west of Wiltshire. The station is close to a round fence corner post about 8.5 m from an "A2 Junction" sign and 14 m from the Forest end of the traffic island on Mengha Road.



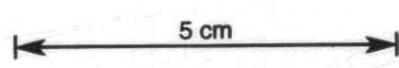
58-40



STANLEY - sketch location plan



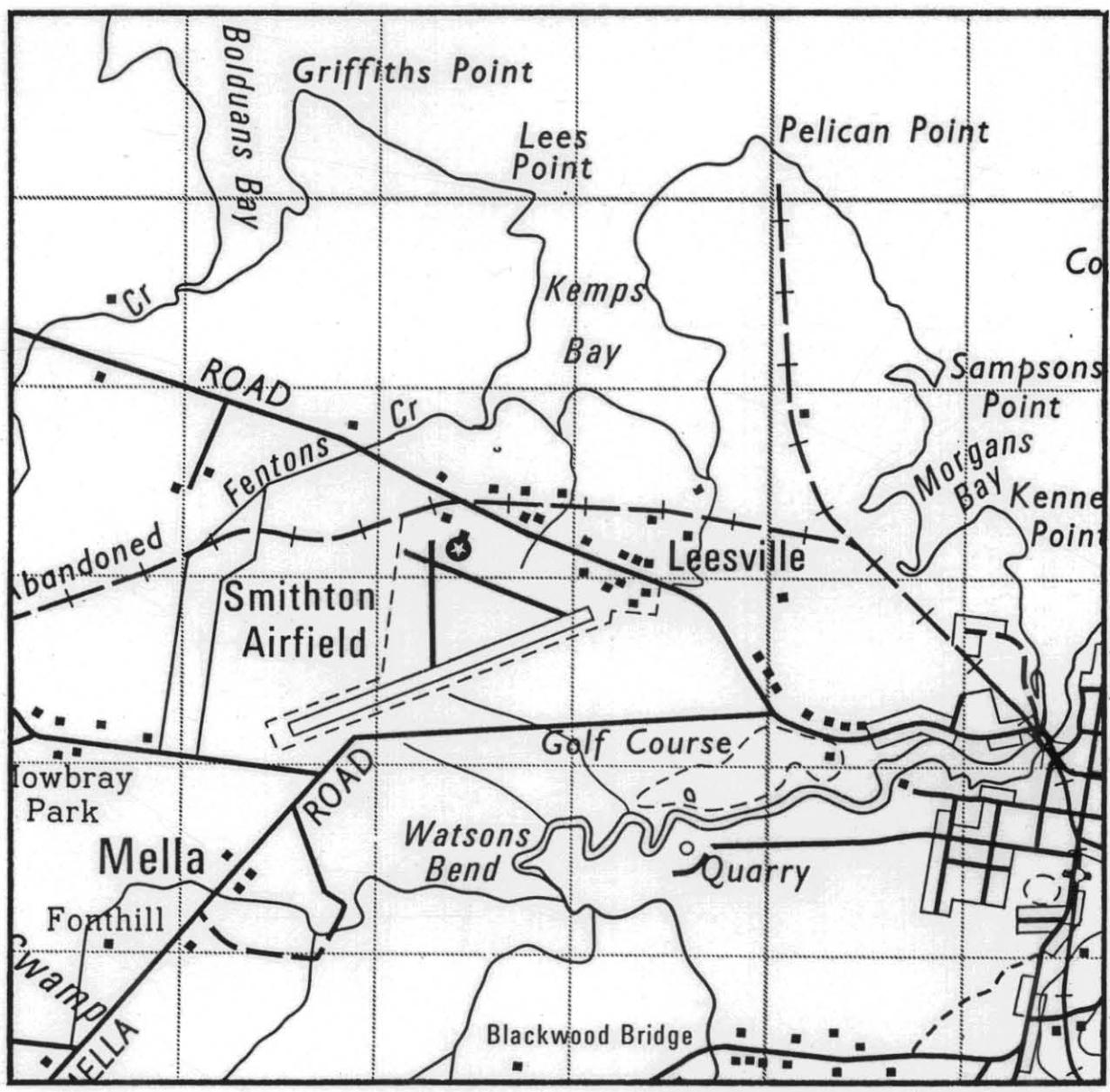
58-41



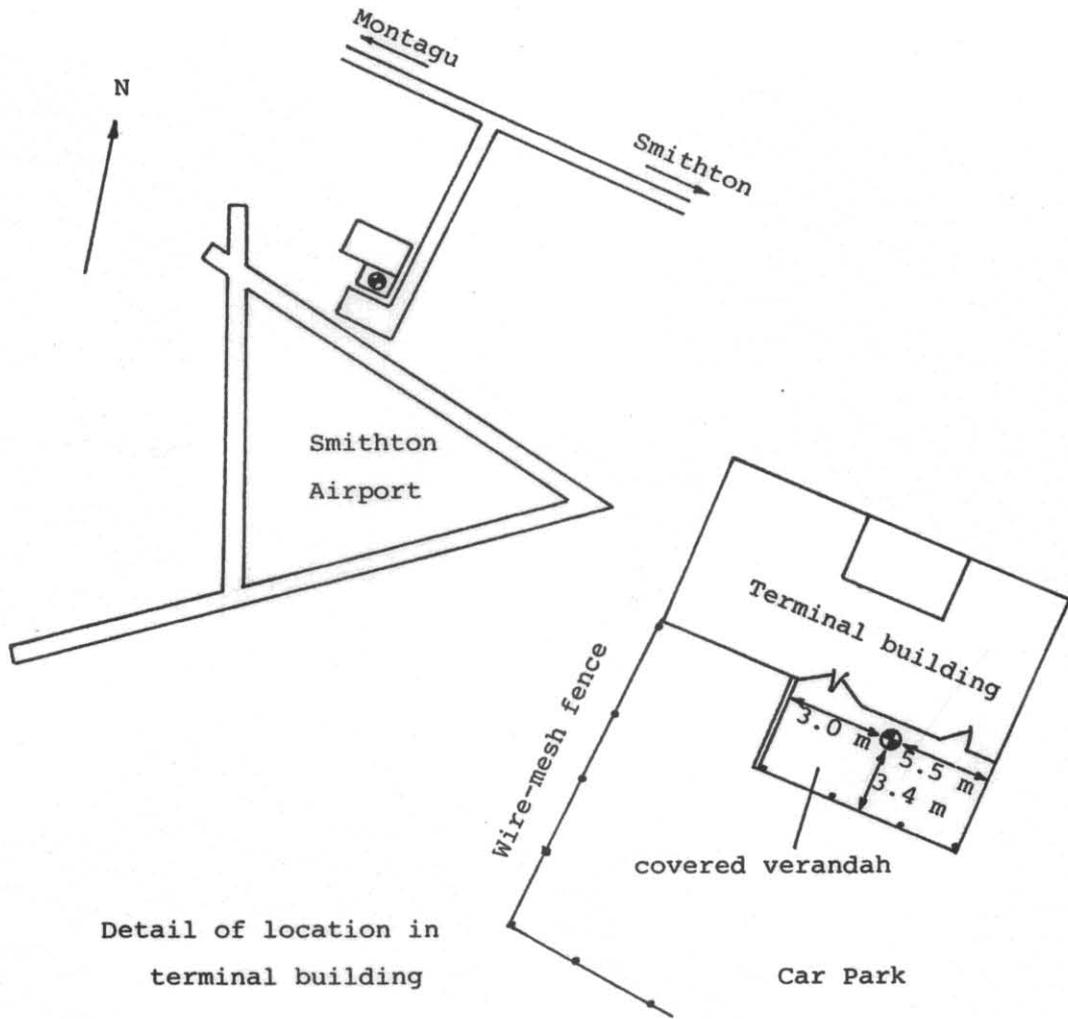
SMITHTON (6491.9142)

AMG reference: 338600 mE
5478000 mN

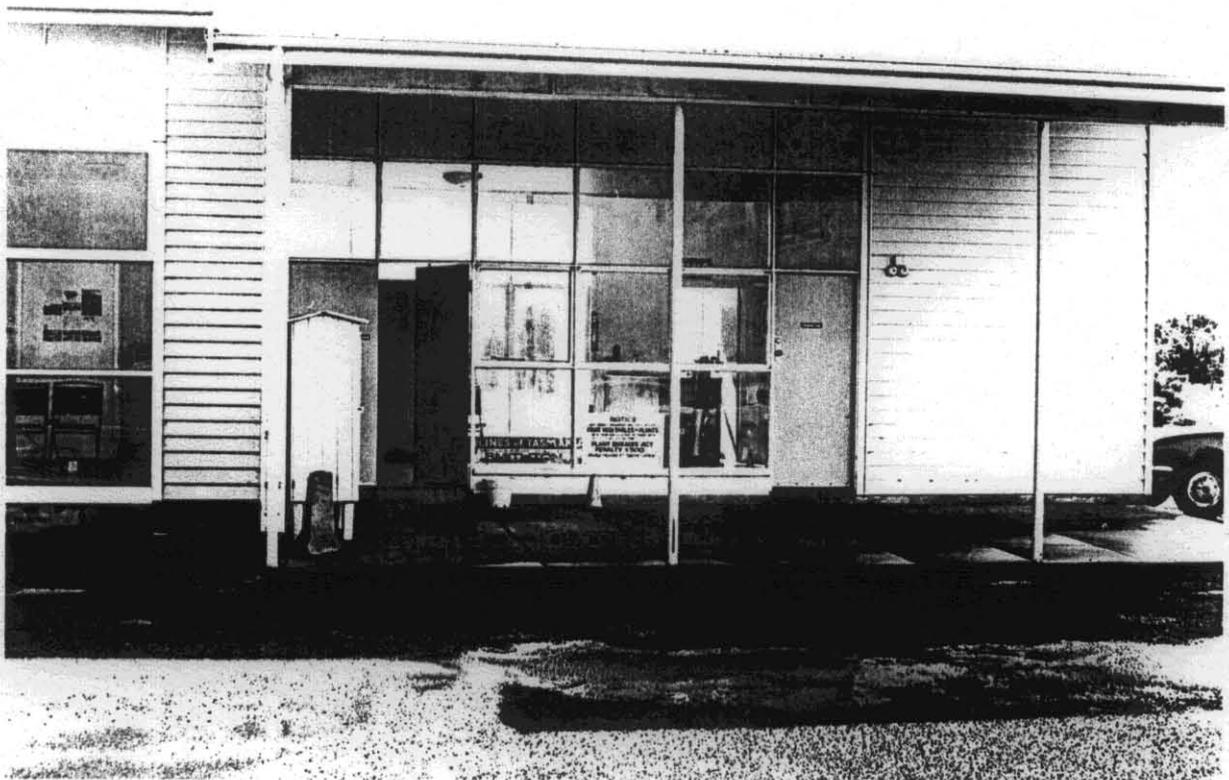
Description: This station is located at Smithton airport, about 4 km west of Smithton on Montagu Road. The station is a 33 mm diameter pipe set in the concrete slab of the covered area at the entrance to the main terminal building at the airport. The station is set back almost against the terminal wall, and about half-way between the two entrance doors.



SMITHTON AIRPORT - sketch location plan



Detail of location in terminal building



58-43

