

Kent M Barnes

From: Christopher J Wood
Sent: Tuesday, 18 December 2018 3:24 PM
To: Kent M Barnes
Cc: Arunav Kakati
Subject: FW: Poolwood Road and Captian Cook highway Roundabout in Cairns
Attachments: Comments_mdmcdon.pdf

Ken,, for your information

Kind Regards

Christopher Wood

Project Manager | Far North District/Cairns Office
Program Delivery And Operations | Department of Transport and Main Roads
Floor 7 | Cairns Corporate Tower | 15 Lake Street | Cairns Qld 4870
PO Box 6185 | Cairns Qld 4870
P: (07) 40457158
E: Christopher.j.wood@tmr.qld.gov.au
W: www.tmr.qld.gov.au

From: Julianne A Whiteside

Sent: Tuesday, 18 December 2018 2:02 PM

To: Arunav Kakati <arunav.z.kakati@tmr.qld.gov.au>; Christopher J Wood <Christopher.J.Wood@tmr.qld.gov.au>;
David G Hamilton <david.g.hamilton@tmr.qld.gov.au>

Cc: Carolyn A Siggs <carolyn.a.siggs@tmr.qld.gov.au>; Grant J Pollard <grant.j.pollard@tmr.qld.gov.au>; Nicole M Buchanan <Nicole.M.Buchanan@tmr.qld.gov.au>

Subject: FW: Poolwood Road and Captian Cook highway Roundabout in Cairns

Afternoon.

For your information.

We will be adjusting accordingly and get something to you in the new year.
We will be incorporating the Council comments as best as we can too.

Regards,

Julianne

Principal Engineer (Civil) | Far North District
Program Delivery And Operations | Department of Transport and Main Roads
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P: (07) 40457195 | F: (07) 40457250
M: N/R
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From: Grant J Pollard

Sent: Tuesday, 18 December 2018 10:44 AM

To: Julianne A Whiteside <Julianne.A.Whiteside@tmr.qld.gov.au>

Subject: FW: Poolwood Road and Captian Cook highway Roundabout in Cairns

Kind regards,

Grant Pollard
Senior Advisor (Design) | Far North Region / Cairns Office
Program Delivery Branch | Department of Transport and Main Roads

Floor 10 | Cairns Corporate Tower | 15 Lake Street | Cairns Qld 4870
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E: grant.j.pollard@tmr.qld.gov.au
W: www.tmr.qld.gov.au

From: Mark D McDonald
Sent: Monday, 17 December 2018 6:13 PM
To: Grant J Pollard <grant.j.pollard@tmr.qld.gov.au>
Cc: Jon C Douglas <jon.c.douglas@tmr.qld.gov.au>; David P Gough <David.P.Gough@tmr.qld.gov.au>
Subject: RE: Poolwood Road and Captian Cook highway Roundabout in Cairns

Hi Grant,
Please find my comments in the attached markup. I agree with David's comment to use the D4-1 sign in place of KEEP RIGHT. Please note my comments apply to all the approaches, I've only commented on the first instance of an issue to avoid duplication.

Happy to discuss further.

Kind regards,

Mark McDonald
Principal Technologist (Bicycles, Pedestrians and Motorcycles) | Road Operations
Engineering & Technology | Department of Transport and Main Roads

Floor 11 | Brisbane City - 313 Adelaide Street | 313 Adelaide Street | Brisbane City Qld 4000
GPO Box 1412 | Brisbane City Qld 4001
P: (07) 30666494
E: mark.d.mcdonald@tmr.qld.gov.au
W: www.tmr.qld.gov.au



From: Grant J Pollard
Sent: Tuesday, 11 December 2018 2:33 PM
To: Mark D McDonald <Mark.D.McDonald@tmr.qld.gov.au>
Subject: Poolwood Road and Captian Cook highway Roundabout in Cairns

Hi Mark
David Gough forward information on a number of months ago to a bicycle section of TMR..
We have changed the Roundabout Approach to reduce approach speed, I have some pavement marking details relating to on road Bicycle paths and markings and make sure it meets latest District Policy.
Would it be possible to case your eye over it, We are yet to send it to the local bicycle group for comment,
Thanks Mark

Kind regards,

Grant Pollard
Senior Advisor (Design) | Far North Region / Cairns Office
Program Delivery Branch | Department of Transport and Main Roads

Floor 10 | Cairns Corporate Tower | 15 Lake Street | Cairns Qld 4870
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Released under RTI - DTMR

Design Report

**Cairns Regional Council
Captain Cook Highway**

Improved Approaches and General Traffic Improvements

274/20A/559849

Released under RTI - DTMR

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Cairns Regional Council

Intersection of Captain Cook Highway and Poolwood Road

MC01 (Mossman - Cairns) 557.723 - 56.123 km

MC02 (Cairns - Mossman) 18.626 – 19.08 km

Improved Approaches and General Traffic Improvements

Road Design Report

1/ Introduction

The purpose of this report is to provide sufficient information to the RPEQ to allow the RPEQ to be confident that the design is safe and in accordance with the current design standards and specifications and that it is constructable. The report attempts to summarise the major design details and make reference to standards where considered necessary.

2/ Design Data

The Traffic Lanes are 3.5m on approach and 4.2m wide on the radius 45m just prior to the roundabout, which allows for curve widening in both lanes.

Shoulders are minimum 2.5m in width for the Bike Lane and 1.2m to Kerbing on the opposite side on Approaches. Shoulder widening LHS around the roundabout and the exit legs is a minimum 2.5m, with the opposite shoulder untouched. Sealed formation width is full width on approaches and only on widenings elsewhere.

3/ Design Speed

The new Approach speed to Poolwood Roundabout has a design speed 50km/h with a post speed of 40km/h. Speed signs have been allowed for in the Schedule.

4/ Horizontal Geometry

Reduced Approach curves on the Captain Cook Highway to achieve a Radius 45m to slow vehicles speeds to a design speed of 50km/h and a posted speed of 40km/h. Curvatures and Super-elevations were reviewed by David Gough.

Rate of rotation apply was 0.025 Rad greater than design speed of 70km/h and 0.035 for less than 70km/h design speed.

Design approaches were discussed with Owen Arndt and David Gough (Geometric standards, Brisbane).

5/ Vertical Geometry

Design was confined to existing conditions, Work required is widening and superelevation correction.

6/ Pavement and Seal Design

No pavement design was undertaken as per design Brief, Design life will remain as per original design.

Seal Design is summarised as follows:

All aggregate pre-coated.

Widening only:

AMC00_ Prime.

Sami_ PMB (S35E) with 10mm Aggregate.

SMA12 (40mm) AS5.

Existing Asphalt

Mill (40mm) where required.

DG Corrector Course as required.

PMB (S35E) with 10mm Aggregate if required or Tack coat.

SMA12 (40mm) AS5.

NOTE:

No testing undertaken brief was to use existing pavement design.

7/ Drainage Design

Extension of an existing 600RCP class3 Concrete Pipe by 2.44 on roundabout to achieve 2.5m shoulder. Drainage reshaping has been allowed for in schedule under item 32106.01.

Reinstatement of shoulder dykes also been allowed for.

Breaks in new Kerbs have been allowed for in plans under notes.

8/ Guardrail - Safety Barrier (if applicable)

N/A

9/ WCLT (if applicable)

N/A

10/ Accesses

N/A

11/ Signs and Delineation Design

Signs and pavement marking for the job have been designed in accordance with MUTCD Fig 4.21 and the relevant Standard Drawings. All other signs have been included as relevant, for the safety of the travelling public for warning and regulatory purposes. (Refer Drawings.) Signs are located on the Drawings except for the project signs, which are to be determined by the Project administrator.

2 x Regulatory Speed signs have been provided (40km/hr)

12/ Documentation

The documentation has been prepared for a MIC-SI Contract, to the latest release of specifications, Dated November 2018.

Job Number 274/20A/55849, Contract Number CN-11204.

13/ Public Utility Services.

Dial Before you dig (DBYD) has been carried out to confirm all services.

It has been noted in the Documents under Supplementary Specification that the Contractor is responsible for consulting with the relevant service authorities and programming of works if required.

13.1 Telstra

Several Telecommunication lines were identified within limits of the job. These were highlighted on the plans and noted it was Contractors Responsibility to ensure exact location and their correct identification. Pot holing Item 9000.02P was allowed for in schedule.

13.2 ERGON Energy

Both above ground and below ground services were identified within limits of the job. These were highlighted on the plans and noted that it is the Contractors Responsibility to ensure their identification and exact location and their correct. Pot holing Item 9000.02P was allowed for in schedule.

13.2 Cairns City Council Assets

Water mains have been identified within the limits of the job. These were highlighted on the plans and noted that it is the Contractors Responsibility to ensure their identification and exact location. Pot holing Item 9000.02P was allowed for in schedule, and Provisional Item 9000.03P for Relocation of water Values.

14/ Environmental

While Identified as Low Risk, Environmental Staff have also provided input to the following Specification Annexures:

MRTS04.1, MRTS16.1, MRTS28.1, MRTS51.1 and MRTS52.1.

15/ Estimate and Schedules

An estimate was prepared which amounts to \$1.545 million. Tender Schedules were prepared using 3PCM outputs. Note some Item no's will need to be corrected as they were superseded for example, 9000 items are now 90000.

16/ Safety in Design

In accordance with the "Legislative Guide – designer written report for a structure", there is nothing unusual or atypical in the design features of this section of road or for the Construction Contractor to deal with, that is not either specified by current design and construction standards or specifications.

The major risk to the contractor:

While working under traffic is always potentially dangerous, Construction should be able to operate safely with one lane under traffic on the Dual lane road.

There is a potential issue noise and vibration, while we believe risk is small there has been allowances for monitoring in schedule items 20207.1P, 20212.01P, 20213.01P, 20217.01P, 20221.01P, 20226.01P, 20230.01P.

The major risk to the public:

While no formal Risk Assessment was undertaken, Risks was stringently discussed for Cyclists and Vehicles with outcomes recorded in meeting minutes, In general design allowed for bike friendly Kerbs and a 2.5 m bike lane/shoulder, holding rails allowed for cyclist to stop to give way to traffic without unclipping. Raised Pavement Markings were placed on line marking approaching Kerbs and on Bike lane marking adjacent to Kerbing.

Reduced Approach curves on the Captain Cook Highway to improve safety for traveling public by reducing speed.

Design approaches were discussed with Owen Arndt and David Gough (Geometric standards). Johnathan Giles (pedestrian and Cycling Facilities).

Meetings with Cycling group C bug and Cairns Regional Council were undertaken and there feedback was taken into account.

Report Prepared by: ... N/R 14/3/2019
(Grant Pollard) Date

Approved By: N/R 14.03.2019
(Julianne Whiteside) Date

Released under RTI - DTMR

Trinity Beach Roundabout Approaches and General Traffic Improvements



LOCALITY PLAN
NTS

DRAWING LIST - CN12079

| DRAWING NUMBER | REVISION | SERIES | DESCRIPTION |
|----------------------------------|----------|----------|---|
| 811294 | A | 01 OF 18 | LOCALITY PLAN, DRAWING LIST AND SIGNATURE BLOCK |
| 811295 | A | 02 OF 18 | TYPICAL CROSS SECTIONS |
| 811296 | A | 03 OF 18 | KERB, MEDIAN AND CULVERT SETOUT |
| 811297 | A | 04 OF 18 | SURVEY SETOUT DETAILS |
| 811298 | A | 05 OF 18 | CONTROL LINE MC02 SETOUT DETAILS |
| 811299 | A | 06 OF 18 | CONTROL LINE MC01 SETOUT DETAILS |
| 811300 | A | 07 OF 18 | PAVEMENT AND KERB SETOUT MC02 (SHEET 1 OF 2) |
| 811301 | A | 08 OF 18 | PAVEMENT AND KERB SETOUT MC02 (SHEET 2 OF 2) |
| 811302 | A | 09 OF 18 | PAVEMENT AND KERB SETOUT MC01 |
| 811303 | A | 10 OF 18 | PAVEMENT MARKINGS AND SIGNAGE MC02 (SHEET 1 OF 2) |
| 811304 | A | 11 OF 18 | PAVEMENT MARKINGS AND SIGNAGE MC02 (SHEET 2 OF 2) |
| 811305 | A | 12 OF 18 | PAVEMENT MARKINGS AND SIGNAGE MC01 (SHEET 1 OF 2) |
| 811306 | A | 13 OF 18 | PAVEMENT MARKINGS AND SIGNAGE MC01 (SHEET 2 OF 2) |
| 811307 | A | 14 OF 18 | SERVICES PLAN MC02 (SHEET 1 OF 2) |
| 811308 | A | 15 OF 18 | SERVICES PLAN MC02 (SHEET 2 OF 2) |
| 811309 | A | 16 OF 18 | SERVICES PLAN MC01 |
| 811310 | A | 17 OF 18 | PAVEMENT AND ASPHALT CUT STRINGS MC02 |
| 811311 | A | 18 OF 18 | PAVEMENT AND ASPHALT CUT STRINGS MC01 |
| ELECTRICAL SERVICES PLANS | | | |
| 811408 | A | 1 OF 4 | ELECTRICAL SERVICES LEGEND AND GENERAL NOTES |
| 811409 | A | 2 OF 4 | ELECTRICAL SERVICES SITE PLAN |
| 811410 | A | 3 OF 4 | ELECTRICAL SERVICES LEGEND SCHEMATICS |
| 811411 | A | 4 OF 4 | ELECTRICAL SERVICES SCHEDULE |

TOTAL NUMBER OF DRAWINGS = 22

SIGNATURE BLOCK

SCHEME SUBMITTED (External Consultants or Internal Business Unit):
This design meets the requirements of all relevant Australian Standards, Austroads Guidelines and Transport and Main Roads - Policies, References, Standards, Planning and Design Instructions, Guidelines and the requirements of the project brief/functional specifications.

SIGNED: [Signature] TITLE: Principal Engineer (Civil)
Organisation: DMR DATE: 24/9/19

SCHEME SCOPE AND FINANCIAL APPROVAL: (Regional Director or Delegate):
I hereby certify that this scheme complies with the intent of the scope and financial limits of the relevant project on QTRIP and the scheme is approved for release in accordance with that program.

SIGNED: [Signature] TITLE: District Director DATE: 27/9/19

| Location | Roads | Chainage | Preceding RP | Dist. to start of job (km) | From start to end of job | From end to following RP | Following RP | Through Chainage from Intersection |
|------------------------|--------------------|-----------------|--------------|----------------------------|--------------------------|--------------------------|--------------|------------------------------------|
| MC01 (Against Gazette) | (Mossman - Cairns) | 0.000 - 490.483 | 204/09 | 1.614 | 0.480 | 1.204 | 204/09 | 204/654 - 25.204 - 57.204km |
| MC02 | (Cairns - Mossman) | 0.000 - 481.358 | 204/06 | 1.204 | 0.481 | 1.614 | 204/09 | 204/309 - 17.570 - 18.021km |

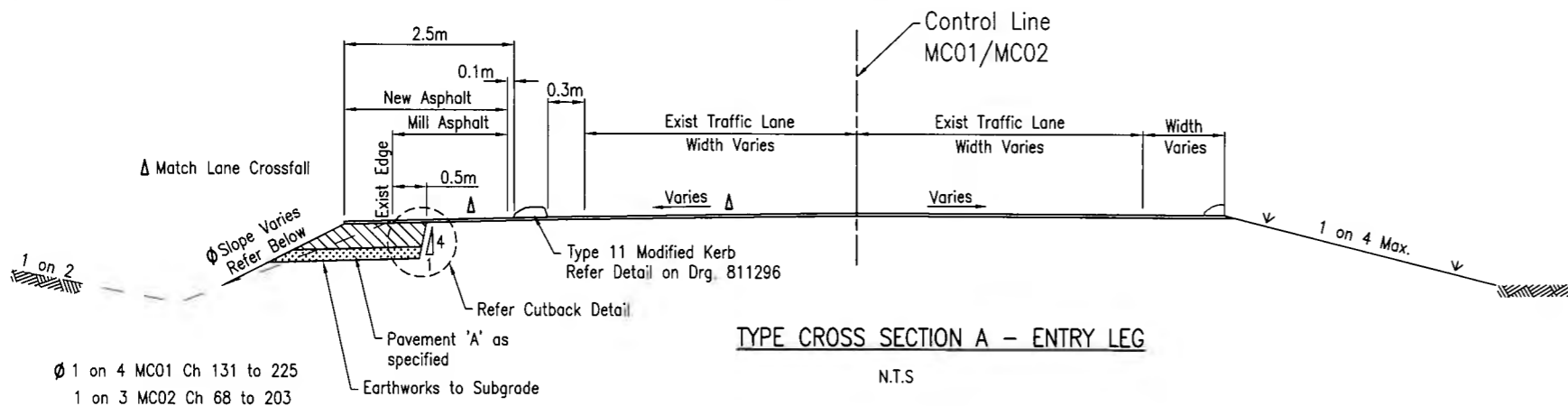
| | | | | | | | | | | |
|---|---|----------------------------|--------------------------|--------------------------|--------------|--|--|--|--|--|
| Scales | CAIRNS REGION (274) | | | | | TRINITY BEACH ROUNDABOUT LOCALITY PLAN, DRAWING LIST AND SIGNATURE BLOCK | | | | |
| | CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A) | | | | | ENGINEERING CERTIFICATION (RPEQ) | | | | |
| | CTL CHGE MC01 0.00 - 490.483, MC02 0.00 - 481.358 | | | | | | | | | |
| NOT TO SCALE | Reference Points | | | | | Name | | | | |
| | Preceding RP | Dist. to start of job (km) | From start to end of job | From end to following RP | Following RP | Signature | | | | |
| Through Chainage from Refer. No. 811294 for Details | | | | | Date | | | | | |

Last Modified: Sep 26, 2019 - 2:43pm XREFS

| Revisions/Descriptions | Drawn or RPEQ No. | Signature | Date |
|---------------------------|-------------------|-------------|---------|
| A Issued For Construction | 811311 | [Signature] | 27/9/19 |
| | 811408 TO 811411 | [Signature] | |

Queensland Government

Job No: 274/20A/559849
Contract No: CN-12079
Drawing No: 811294 A
Scale: 01 of 18



Seal Notes

Bitumen Spray Rates and Aggregate Spread Rates are Indicative only and need to be Calculated on site and Confirmed by Superintendent's Representative.

Legend

Pavement A

Full Width SMA12 40mm deep Binder in AC to be A5S. Mill to nominal depth of 40mm as required and replace. PMB S35E.



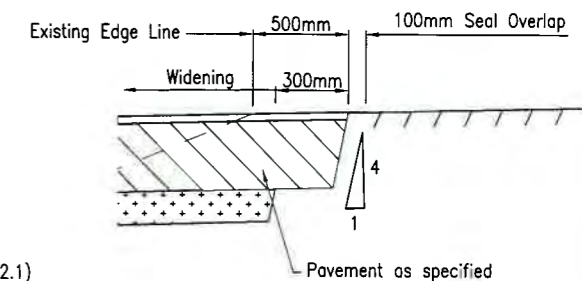
400mm Cement Modified Base (Subtype 2.1)



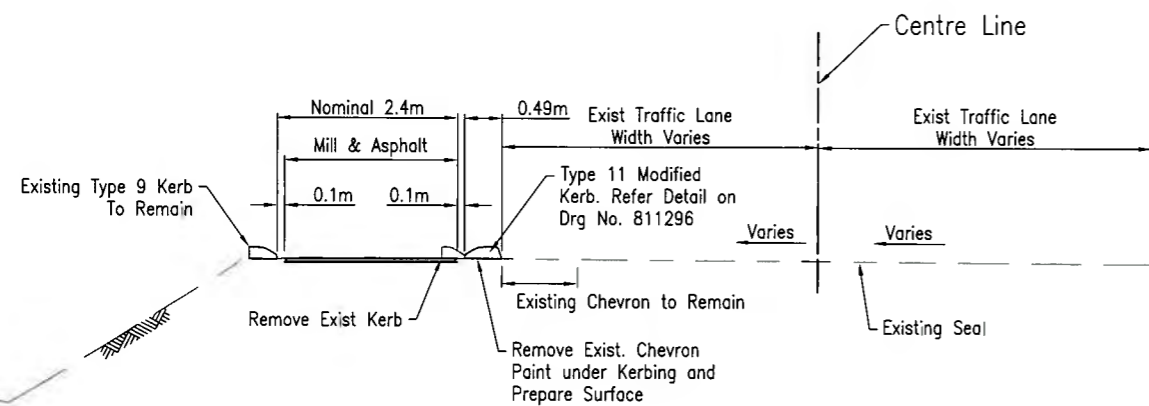
200mm Subbase Type 2.3



100mm Topsoil and Turf.



CUTBACK DETAIL
N.T.S.

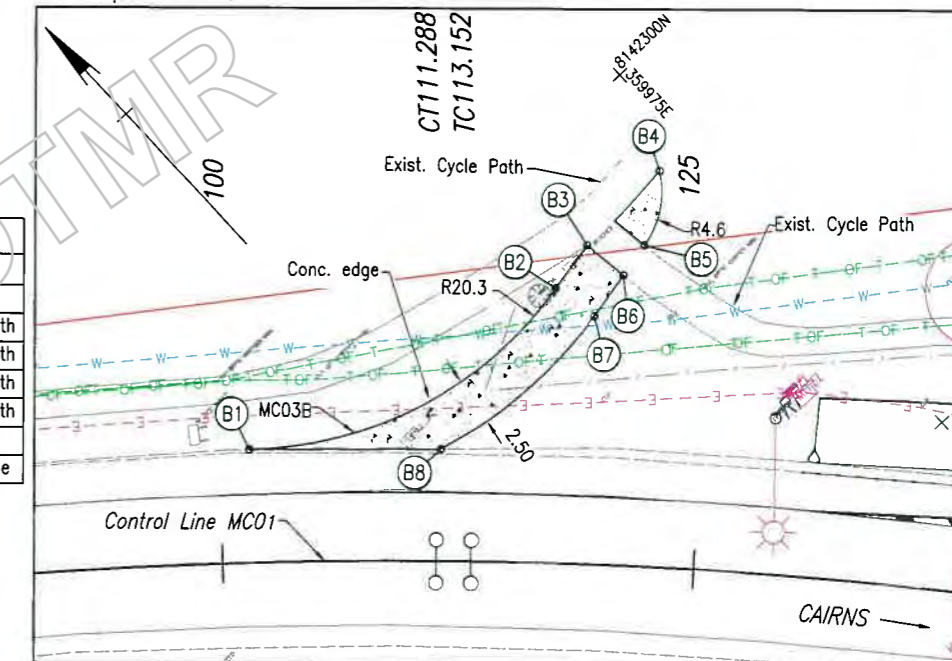


TYPE CROSS SECTION - CIRCULATING ROUNDABOUT LEGS

N.T.S.

CONCRETE CYCLE RAMP

| POINT NO. | EASTING | NORTHING | COMMENTS |
|-----------|------------|-------------|--|
| B1 | 359947.218 | 8142299.026 | 0.00 (MC03) = 101.571 (MC01) TC |
| B2 | 359964.868 | 8142294.107 | CT |
| B3 | 359967.625 | 8142294.657 | Match smoothly into exist. concrete path |
| B4 | 359973.107 | 8142294.849 | Match smoothly into exist. concrete path |
| B5 | 359969.856 | 8142292.553 | Match smoothly into exist. concrete path |
| B6 | 359967.962 | 8142292.175 | Match smoothly into exist. concrete path |
| B7 | 359965.357 | 8142291.655 | CT |
| B8 | 359954.630 | 8142292.093 | TC Match smoothly into Pavement edge |

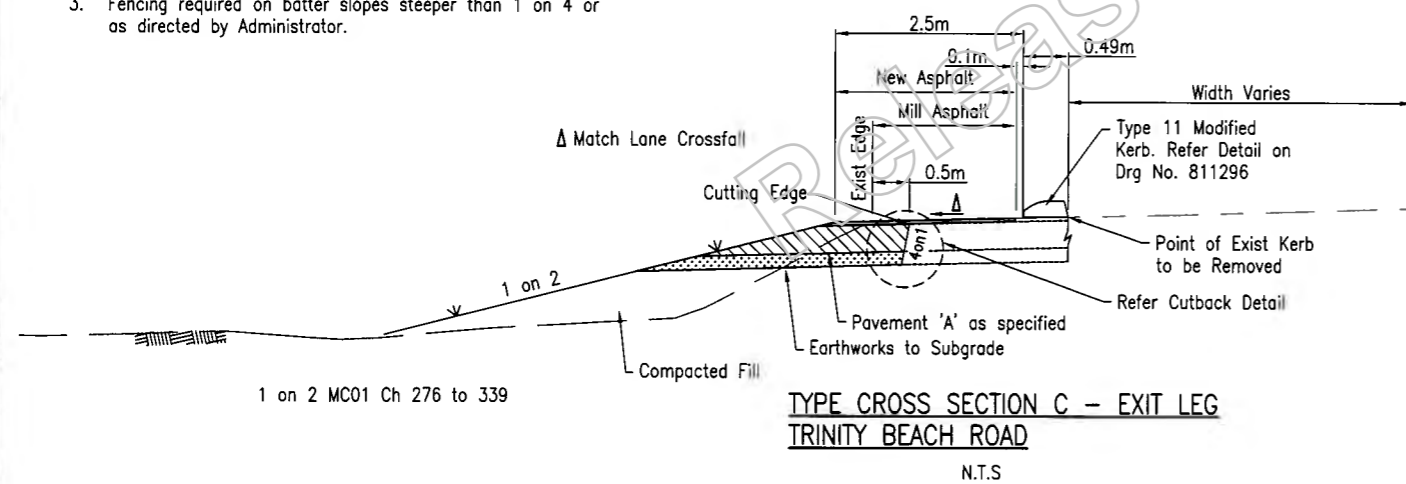


CYCLE PATH RAMP

Scale A

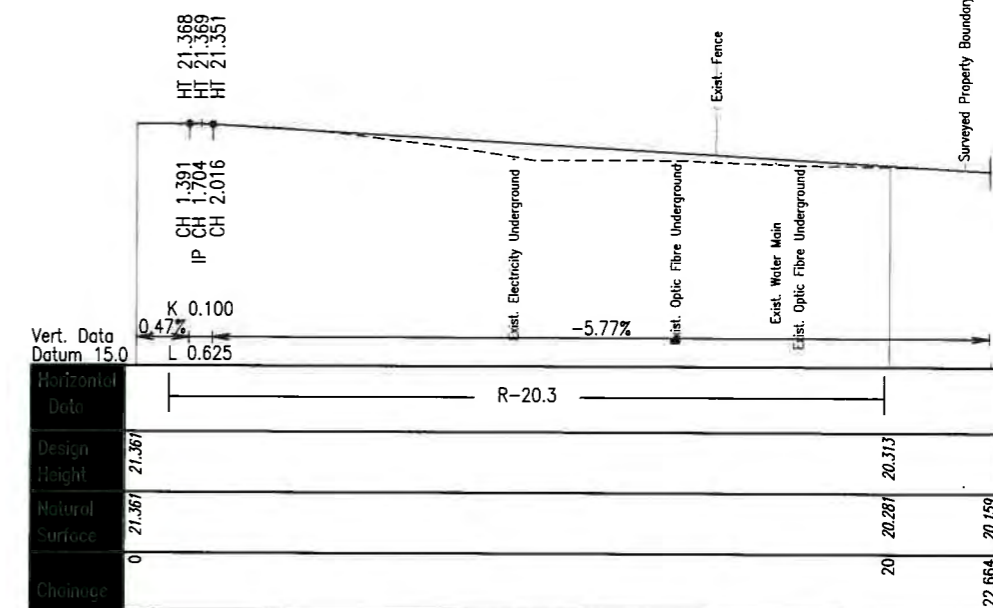
Notes

1. Widening Through Median Refer to Drawing No. 811300
2. Cutback Line nominal 500mm from existing pavement edge unless otherwise shown.
3. Fencing required on batter slopes steeper than 1 on 4 or as directed by Administrator.



TYPE CROSS SECTION C - EXIT LEG TRINITY BEACH ROAD

N.T.S.



CYCLE PATH RAMP MC03B

Scale B

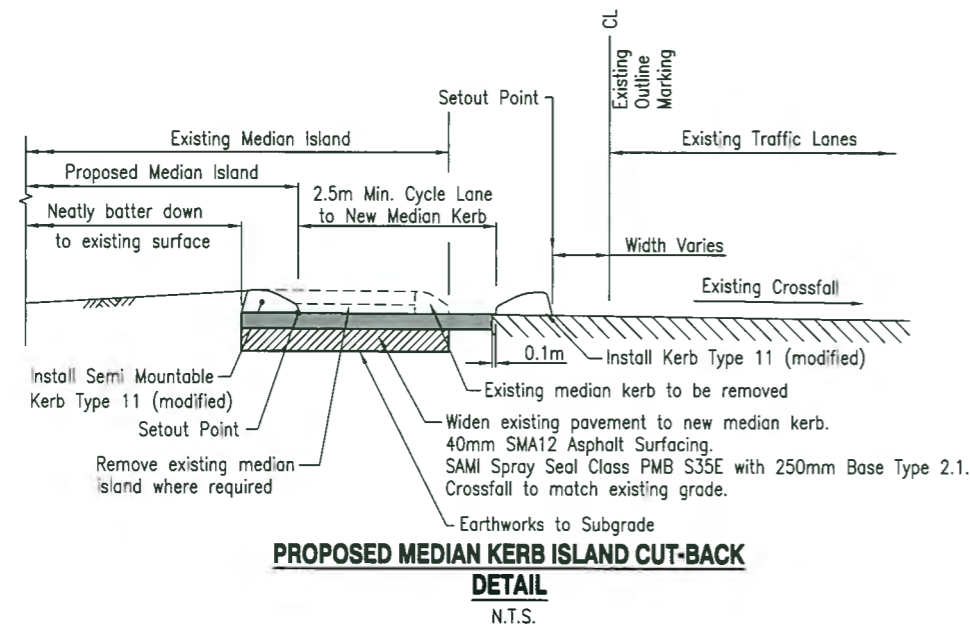
Last Modified: Sep 26, 2019 - 2:49pm XRES: -- MC01 Final 250.dwg : Lights.dwg : X_Survey_250.dwg

| Revisions/Descriptions | Date |
|---------------------------|---------|
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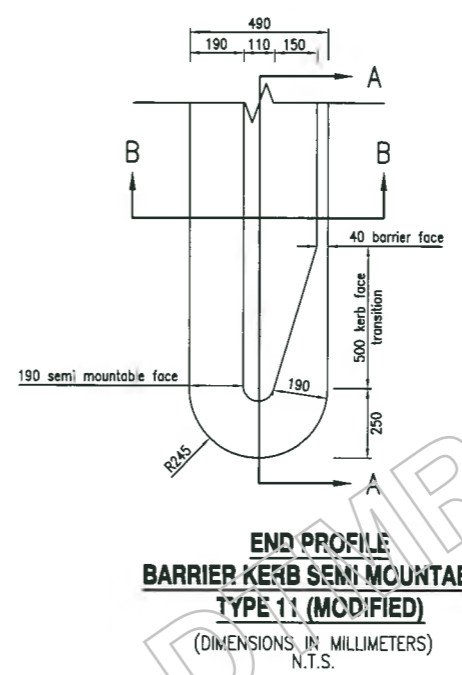
| Associated Job No. | Survey Data |
|--------------------|-------------|
| 811294 TO 811311 | GDA94 |
| 811408 TO 811411 | MGA Zone 53 |

| CAIRNS REGION (274) | | | | | |
|---|----------------------------|--------------------------|--------------------------|--------------|--|
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A) | | | | | |
| CTL CHGE MC01 0.00 - 490.483, MC02 0.00 - 481.358 | | | | | |
| Reference Points | | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP | |
| | | | | | |

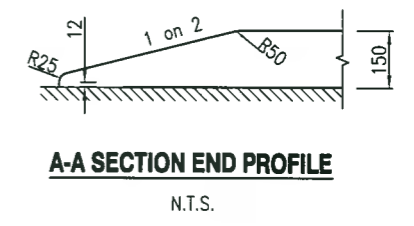
| TRINITY BEACH ROUNDABOUT TYPICAL CROSS SECTIONS | | | | | |
|---|--------------|----------|----------|---------|----------------|
| ENGINEERING CERTIFICATION (RPEQ) | | | | | |
| Drawn | Checked | Designed | Reviewed | Date | Project No. |
| E. Chimbundi | J. Whitehead | | | 7/15/19 | 274/20A/559849 |
| | | | | | CN-12079 |
| | | | | | 8/1295/A |
| | | | | | 02 of 18 |



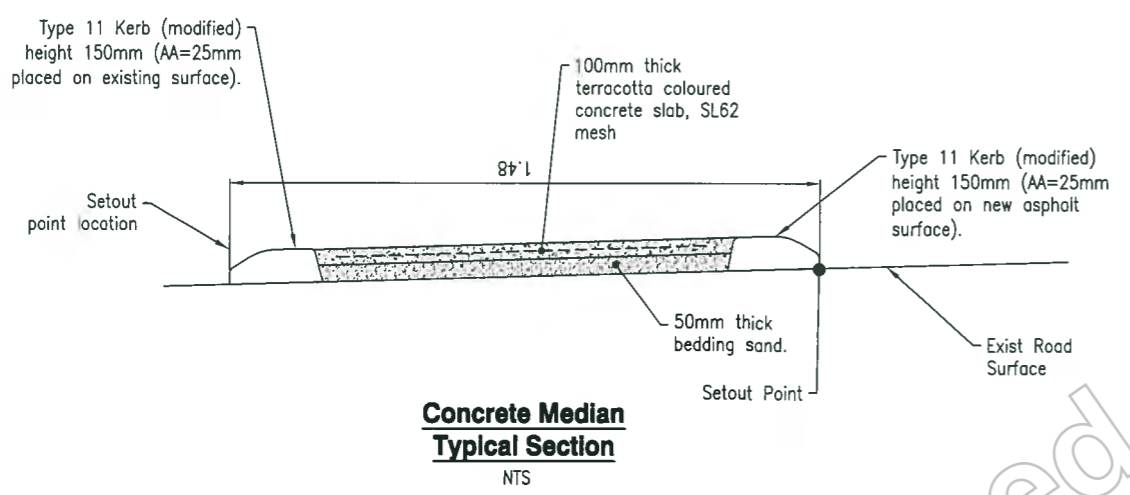
PROPOSED MEDIAN KERB ISLAND CUT-BACK DETAIL
N.T.S.



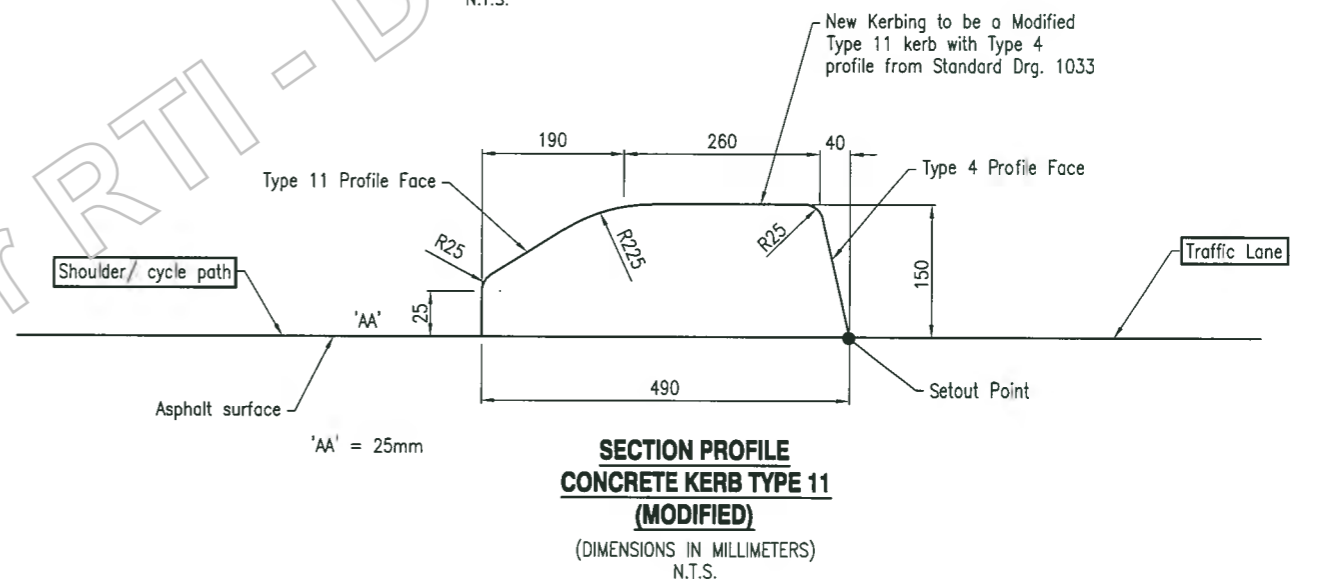
END PROFILE BARRIER KERB SEMI MOUNTABLE TYPE 11 (MODIFIED)
(DIMENSIONS IN MILLIMETERS)
N.T.S.



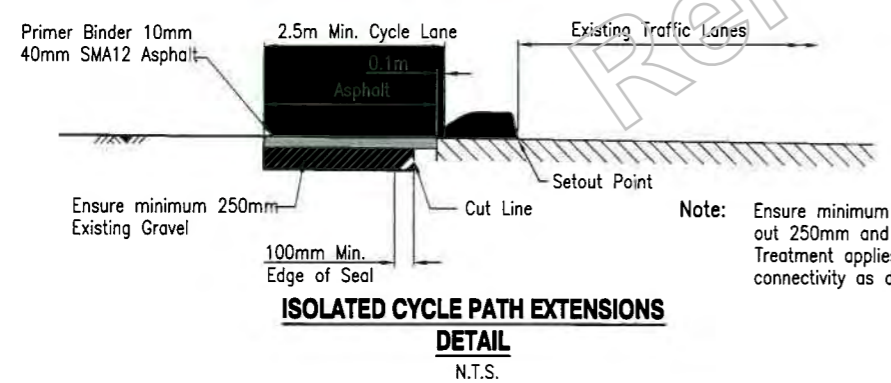
A-A SECTION END PROFILE
N.T.S.



Concrete Median Typical Section
N.T.S.

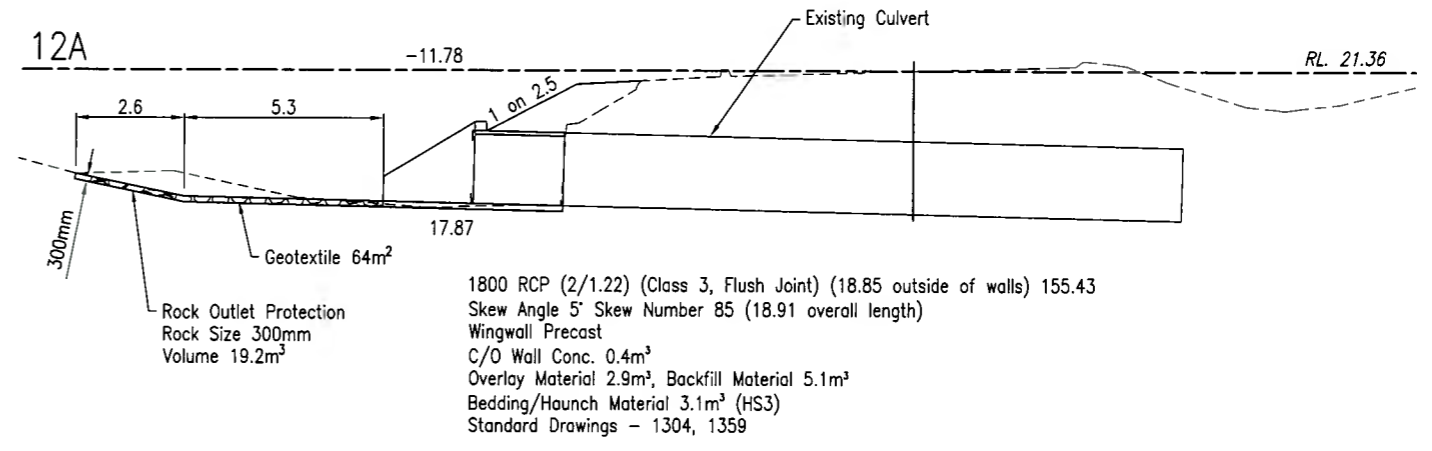


SECTION PROFILE CONCRETE KERB TYPE 11 (MODIFIED)
(DIMENSIONS IN MILLIMETERS)
N.T.S.



ISOLATED CYCLE PATH EXTENSIONS DETAIL
N.T.S.

Note: Ensure minimum 250mm of existing gravel otherwise box out 250mm and replace with Base Type 2.2 or better. Treatment applies on isolated sections of cycle path for connectivity as directed by the Administrator.



1800 RCP (2/1.22) (Class 3, Flush Joint) (18.85 outside of walls) 155.43
Skew Angle 5° Skew Number 85 (18.91 overall length)
Wingwall Precast
C/O Wall Conc. 0.4m³
Overlay Material 2.9m³, Backfill Material 5.1m³
Bedding/Haunch Material 3.1m³ (HS3)
Standard Drawings - 1304, 1359

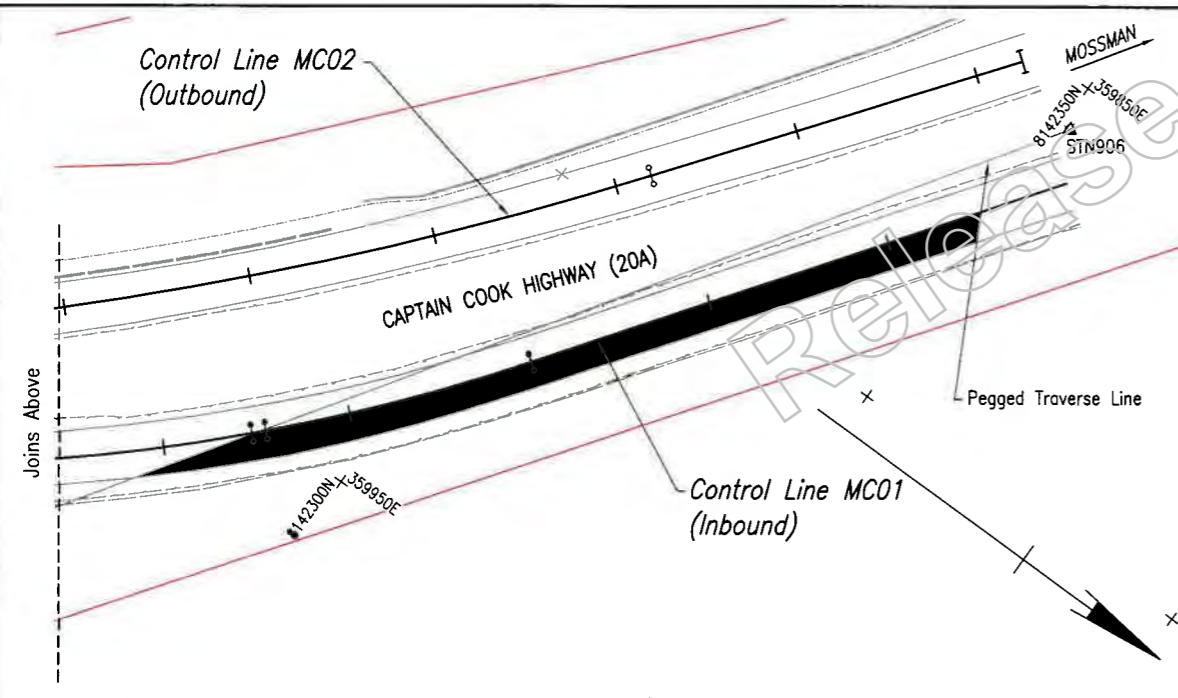
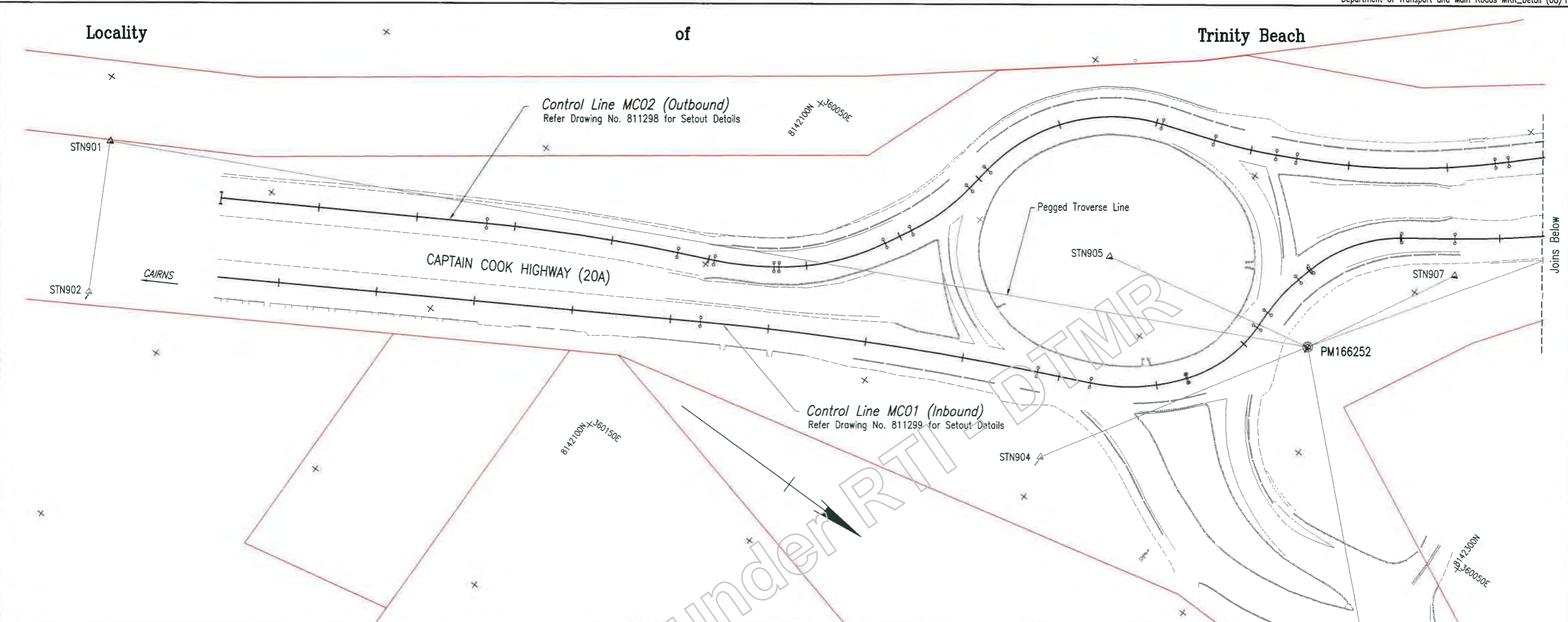
Last Modified: 26-Sep-2019 2:49pm XREFS: MC01_Final_250.dwg : Lights.dwg : X_Survey_250.dwg

| | | | | | | | | |
|--|--------------------|-------------|--------------|------|---|------------------------|---|--|
| G F E D C B A Issued For Construction Revisions/Descriptions | Associated Job No. | Survey Date | Scales | | CAIRNS REGION (274) | | TRINITY BEACH ROUNDABOUT | |
| | Auxiliary Dwg No. | Drawn | NOT TO SCALE | | CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A) | | KERB, MEDIAN AND CULVERT SETOUT | |
| | 811294 TO 811311 | GTAB4 | | | CTL CHGE MC01 0.00 - 490.483, MC02 0.00 - 481.358 | | ENGINEERING CERTIFICATION (RPEQ) | |
| | 811408 TO 811411 | MGA Zone 55 | | | Reference Points | | Drawn: E Chimbardi Checked: J Whiteside Date: 30/9/19 | |
| Name of RPEQ No. | | Signature | | Date | | Job No. 274/20A/559849 | | |
| Name of RPEQ No. | | Signature | | Date | | Contract No. CN-12679 | | |
| Name of RPEQ No. | | Signature | | Date | | Drawing No. 811296 1A | | |
| Name of RPEQ No. | | Signature | | Date | | Series Number 05 of 18 | | |

Locality

of

Trinity Beach



PERMANENT SURVEY MARK COORDINATES AND DETAILS

| Name | Easting | Northing | Height | Combined Scale Factor | Comment |
|----------|------------|-------------|--------|-----------------------|----------|
| PT17311 | 360449.308 | 8141476.689 | 17.487 | 0.99982811 | 123119 |
| PM53559 | 360140.006 | 8142554.321 | 13.696 | 0.99982977 | 53559 |
| PM91580 | 360128.762 | 8142863.038 | 12.146 | 0.99983005 | 91580 |
| PM166252 | 360027.081 | 8142236.214 | 20.622 | 0.99982908 | PM166252 |

Fixed Survey Control

| Name | Easting | Northing | Height | Combined Scale Factor | Comment |
|----------|------------|-------------|--------|-----------------------|----------|
| STN901 | 360163.441 | 8141959.333 | 20.383 | 0.99982864 | PIW |
| STN906 | 359855.782 | 8142351.277 | 21.346 | 0.99982955 | PIW |
| PM166252 | 360027.081 | 8142236.214 | 20.622 | 0.99982908 | PM166252 |

TRAVERSE STATION COORDINATES AND DETAILS

| Name | Easting | Northing | Height | Combined Scale Factor | Comment |
|--------|------------|-------------|--------|-----------------------|-----------------|
| STN901 | 360163.441 | 8141959.333 | 20.383 | 0.99982864 | PIW |
| STN903 | 360091.786 | 8142304.727 | 14.734 | 0.99982978 | MAIL IN KERB |
| STN904 | 360089.415 | 8142197.598 | 20.496 | 0.99982888 | MAIL IN BITUMEN |
| STN905 | 360038.138 | 8142182.063 | 21.641 | 0.99982888 | PIW |
| STN906 | 359855.782 | 8142351.277 | 21.346 | 0.99982955 | PIW |
| STN907 | 359990.663 | 8142255.757 | 20.936 | 0.99982915 | PIW |
| STN902 | 360197.412 | 8141977.298 | 19.573 | 0.99982865 | MAIL IN CONC |

Last Modified: 26-Sep-2019 2:51pm XREFS: X_Survey.dwg; Survey_clean.dwg; MCO1_Final.dwg; MCO2_Final.dwg; MCO1_Final.dwg

| | | | | |
|------------------------------------|--|--------------------|--|---|
| Associated Job No. | | Survey Data | | Scales 0 5 10 15 20m |
| Name: CD004 | | Name: CD004 | | |
| Auxiliary Dwg Nos. | | Name: WGA Zone 55 | | Dimensions shown in metres except where shown otherwise |
| 811294 TO 811311, 811408 TO 811411 | | Name: AHD Derived | | |
| Revisions/Descriptions | | Name: MR101013-20A | | |

CAIRNS REGION (274)
CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A)
CTL CHGE MC01 0.00 - 490.483, MC02 0.00 - 481.358

| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
|--------------|----------------------------|--------------------------|--------------------------|--------------|
| | | | | |

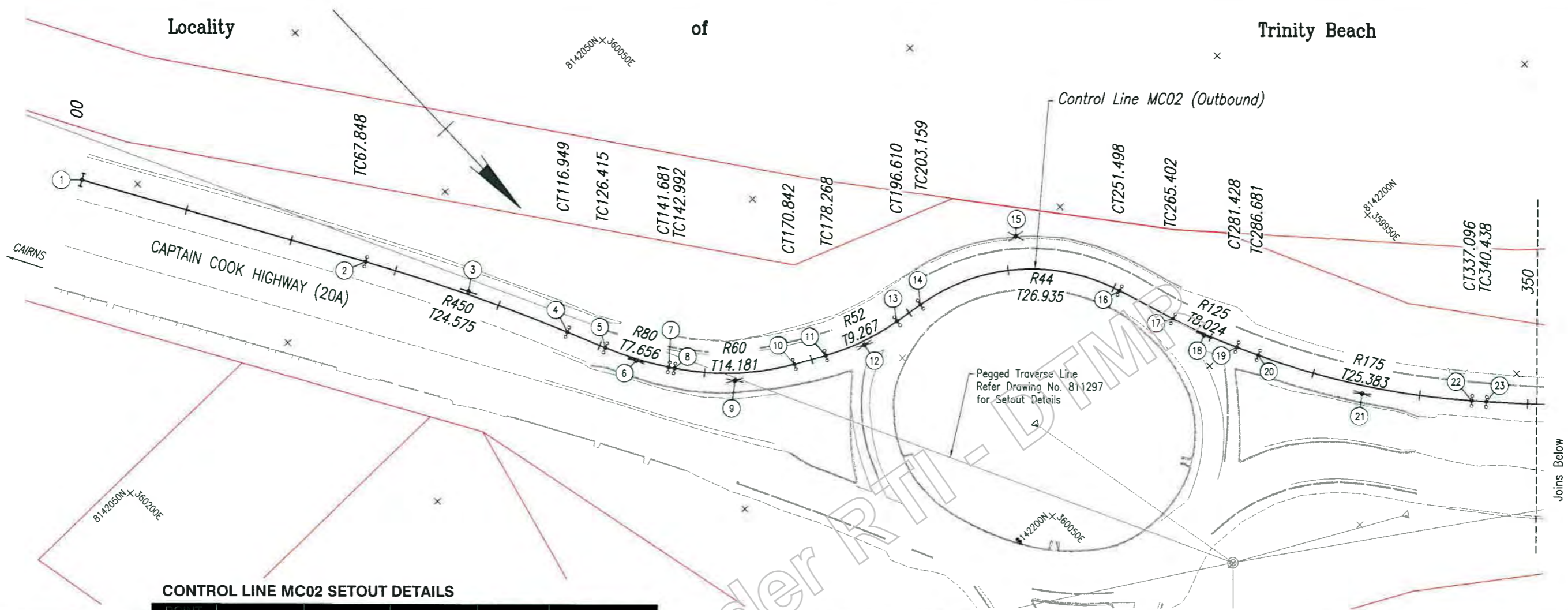
Through Chainage from Refer Dwg. No. 811294 for Details

TRINITY BEACH ROUNDABOUT SURVEY SETOUT DETAILS

| ENGINEERING CERTIFICATION (RPEO) | | | |
|----------------------------------|---------|------|---------|
| NAME | DATE | NO. | DATE |
| J. Whitehead | 25/9/19 | 7745 | 25/9/19 |

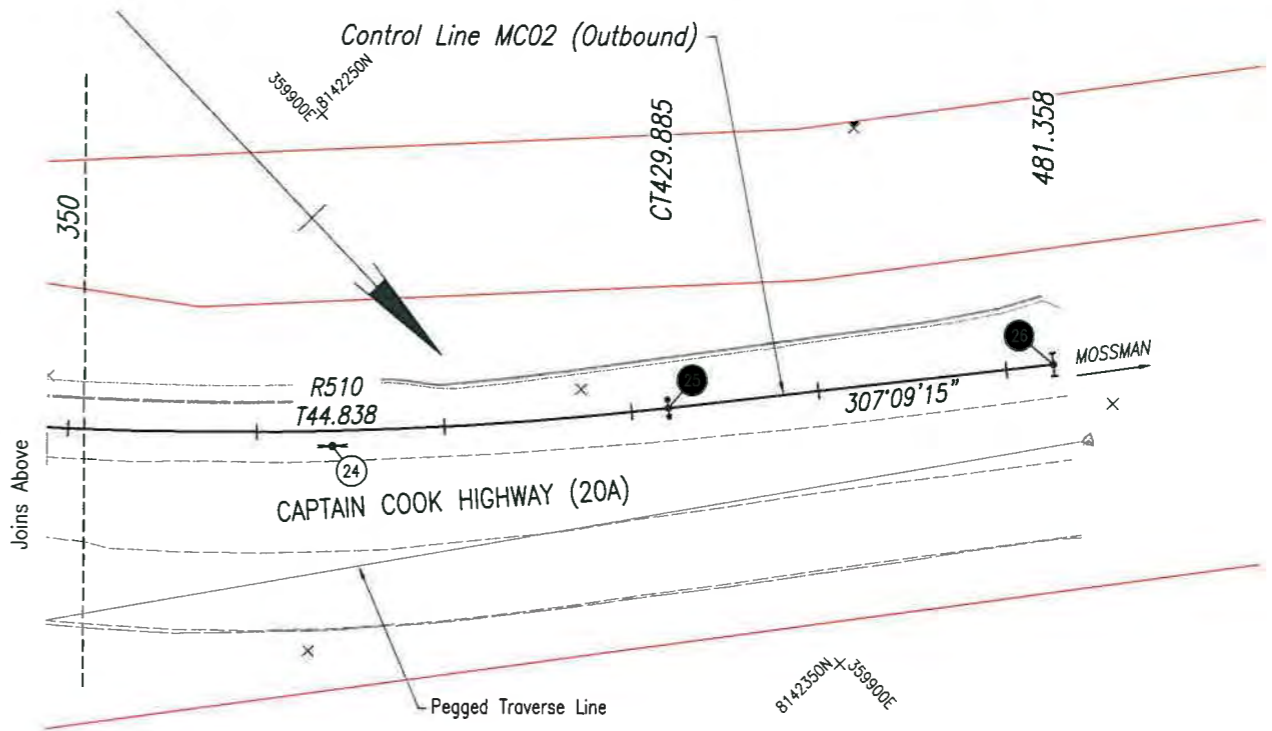
Queensland Government

Job No. 274/20A/559849
 Contract No. CN-12079
 Drawing No. 811297/A
 Series Number 04 of 18



CONTROL LINE MC02 SETOUT DETAILS

| POINT NO | EASTING | NORTHING | BEARING | RADIUS | COMMENTS |
|----------|------------|-------------|------------|--------|------------|
| 1 | 360158.623 | 8141990.476 | 329°35'39" | | START MC02 |
| 2 | 360124.284 | 8142048.992 | 329°35'39" | | TC |
| 3 | 360111.846 | 8142070.187 | | R450 | |
| 4 | 360101.790 | 8142092.611 | 335°50'46" | | |
| 5 | 360097.917 | 8142101.248 | 335°50'46" | | |
| 6 | 360094.784 | 8142108.234 | | R80 | |
| 7 | 360090.383 | 8142114.495 | 324°54'47" | | |
| 8 | 360089.630 | 8142115.571 | 324°54'47" | | TC |
| 9 | 360081.478 | 8142127.175 | | IP | |
| 10 | 360068.995 | 8142133.902 | 298°19'00" | | CT |
| 11 | 360062.457 | 8142137.424 | | TC | |
| 12 | 360054.299 | 8142141.820 | | R52 | |
| 13 | 360045.124 | 8142143.178 | | CT | |
| 14 | 360038.641 | 8142149.510 | | TC | |
| 15 | 360019.975 | 8142160.000 | | R44 | |
| 16 | 360003.230 | 8142174.180 | 341°03'18" | | CT |
| 17 | 359998.716 | 8142177.477 | 341°03'18" | | TC |
| 18 | 359996.111 | 8142194.066 | | R125 | |
| 19 | 359992.557 | 8142201.260 | 333°42'32" | | CT |
| 20 | 359990.230 | 8142205.970 | 333°42'32" | | TC |
| 21 | 359978.987 | 8142228.727 | | R175 | |
| 22 | 359961.742 | 8142247.352 | 317°12'11" | | CT |
| 23 | 359959.471 | 8142249.805 | 317°12'11" | | TC |
| 24 | 359929.608 | 8142282.706 | | R510 | |
| 25 | 359893.271 | 8142309.786 | 307°09'15" | | CT |
| 26 | 359852.247 | 8142340.874 | 307°09'15" | | END MC02 |



Last Modified: 26 Sep 2019 2:51pm XREFS: Survey clean.sh.dwg : MC02_Final.dwg

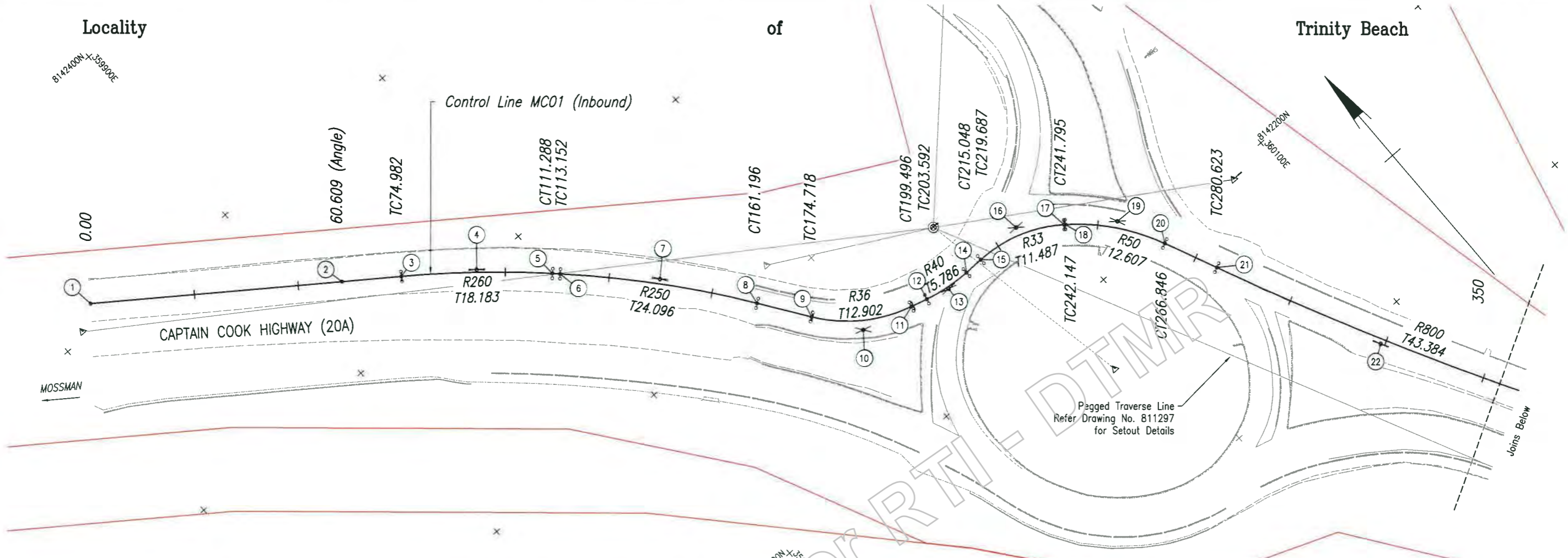
| | |
|------------------------|-------------------------|
| G | |
| F | |
| E | |
| D | |
| C | |
| B | |
| A | Issued For Construction |
| Revisions/Descriptions | |
| | |
| | |

| | |
|------------------------------------|--------------|
| Associated Job No | Survey Date |
| 811294 TO 811311, 811408 TO 811411 | |
| Auxiliary Dwg Nos | North |
| | GDA84 |
| | MGA Zone 55 |
| | AHD Derived |
| | Survey Book |
| | MR101013-20A |

| | | | | |
|--|----------------------------|--------------------------|--------------------------|--------------|
| CAIRNS REGION (274) | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A) | | | | |
| CTL CHGE 0.00 - 481358 (MC02) | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| | | | | |

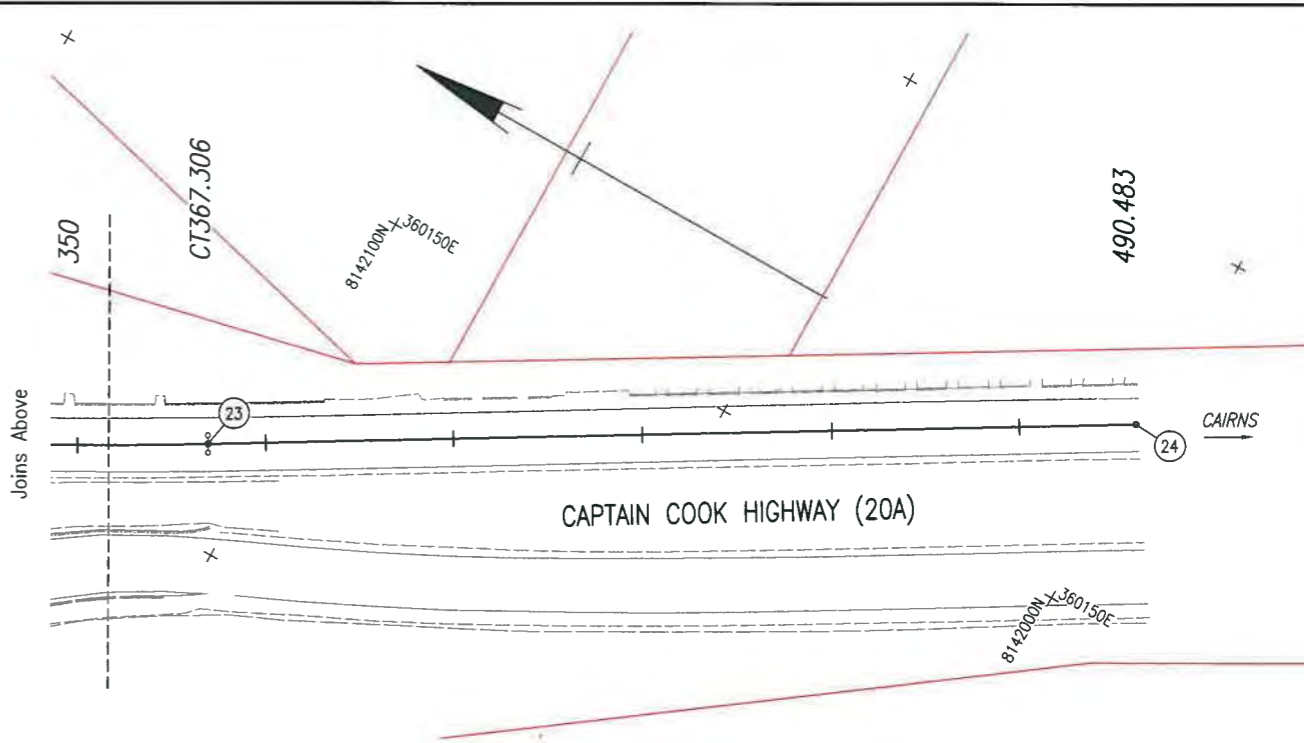
| | | | | |
|--|-------------|-----------|----------|----------|
| TRINITY BEACH ROUNDABOUT CONTROL LINE MC02 (OUTBOUND) SETOUT DETAILS | | | | |
| ENGINEERING CERTIFICATION (RPEQ) | | | | |
| Drawn | Checked | Designed | Reviewed | Approved |
| E Chimbardi | J Whittside | G Pollard | | |

| | |
|-----------------------|----------------|
| Queensland Government | |
| Job No | 274/20A/559849 |
| Contract No | CN-12079 |
| Drawing No | 811298 A |
| Scale | 05 of 18 |



CONTROL LINE MC01 SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | BEARING | RADIUS | COMMENTS |
|-----------|------------|-------------|------------|--------|------------|
| 1 | 359861.713 | 8142355.062 | 125°52'01" | | START MC01 |
| 2 | 359910.829 | 8142319.551 | 125°43'40" | | ANGLE |
| 3 | 359922.498 | 8142311.158 | 125°43'40" | | TC |
| 4 | 359937.258 | 8142300.540 | | R260 | IP |
| 5 | 359950.397 | 8142287.972 | 133°43'42" | | CT |
| 6 | 359951.744 | 8142286.684 | 133°43'42" | | TC |
| 7 | 359969.156 | 8142270.028 | | R250 | IP |
| 8 | 359983.067 | 8142250.352 | 144°44'22" | | CT |
| 9 | 359990.874 | 8142239.311 | 144°44'22" | | TC |
| 10 | 359998.322 | 8142228.776 | | R36 | IP |
| 11 | 360010.767 | 8142225.370 | 105°18'16" | | CT |
| 12 | 360014.718 | 8142224.289 | 105°18'16" | | TC |
| 13 | 360020.281 | 8142222.767 | | R40 | IP |
| 14 | 360026.048 | 8142222.878 | 88°53'38" | | TC |
| 15 | 360030.685 | 8142222.967 | 88°53'38" | | CT |
| 16 | 360042.170 | 8142223.189 | | R33 | IP |
| 17 | 360051.310 | 8142216.231 | 127°16'48" | | CT |
| 18 | 360051.590 | 8142216.019 | 127°16'48" | | TC |
| 19 | 360061.621 | 8142208.382 | | R50 | IP |
| 20 | 360066.832 | 8142196.903 | 155°34'59" | | CT |
| 21 | 360072.528 | 8142184.358 | 155°34'59" | | TC |
| 22 | 360090.461 | 8142144.854 | | R800 | IP |
| 23 | 360112.562 | 8142107.522 | 149°22'29" | | CT |
| 24 | 360175.311 | 8142001.525 | 149°22'29" | | END MC01 |



Last Modified: Sep 26, 2019 - 2:51pm XREFS: Survey clean.kin.dwg: MC01_Final.dwg

| | | | |
|---|-------------------------|------------------------------------|---|
| G | | Associated Job No. | Survey Data |
| F | | | GDA94 |
| E | | | |
| D | | Auxiliary Dwg No. | North Grid NGA Zone 52 |
| C | | 811294 TO 811311, 811408 TO 811411 | Height Datum AHD Derived |
| B | | | Survey Point BR101013-20A |
| A | Issued For Construction | | Dimensions shown in metres except where shown otherwise |

| | | | | | |
|--|----------------------------|--------------------------|--------------------------|--------------|--|
| CAIRNS REGION (274) | | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A) | | | | | |
| CTL CHGE 0.00 - 490.483 (MC01) | | | | | |
| Reference Points | | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP | |

| | | | |
|---|--------------|----------|----------|
| TRINITY BEACH ROUNDABOUT CONTROL LINE MC01 (INBOUND) SETOUT DETAILS | | | |
| ENGINEERING CERTIFICATION (RPEQ) | | | |
| Drawn | Checked | Designed | Approved |
| E. Chimbondt | J. Whiteside | | |
| Scale | 77.5 | 27/9/19 | |

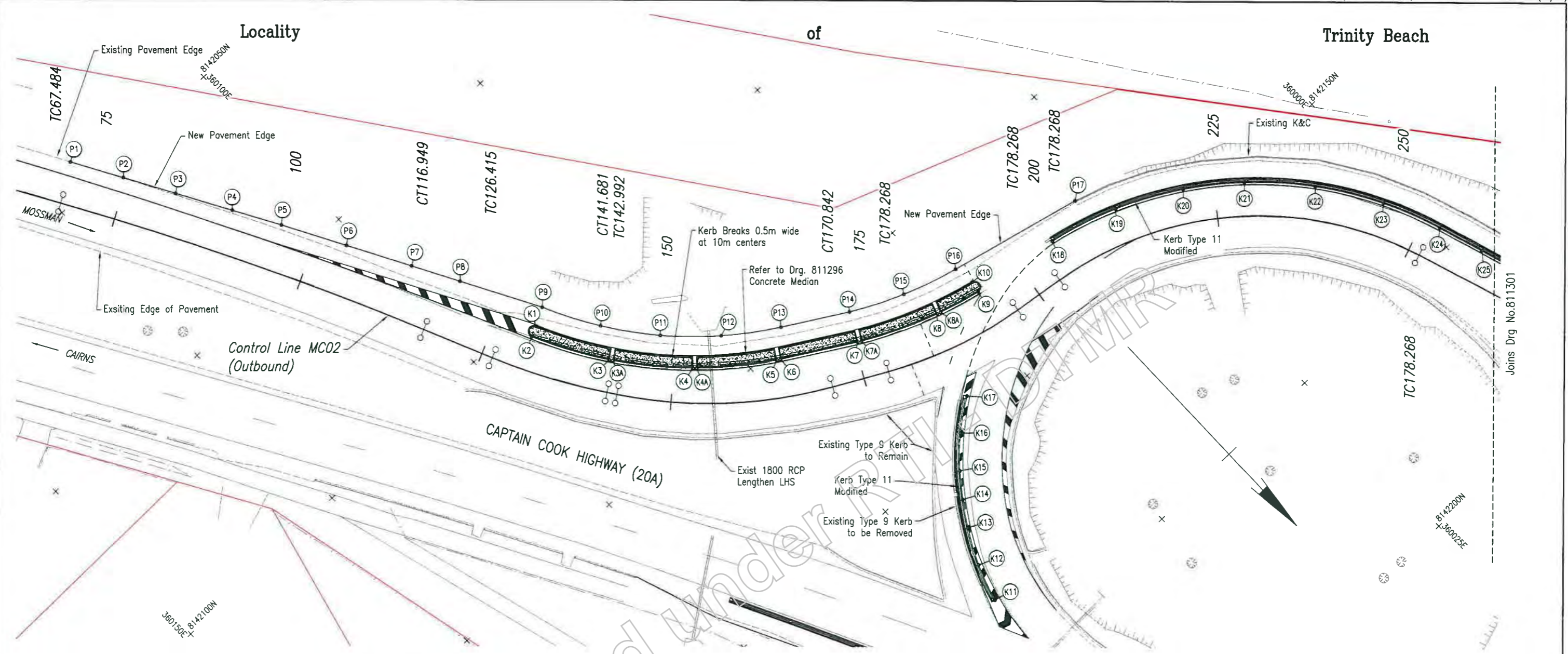
Queensland Government

Job No. 274/20A/559849

Contract No. CN-12079

Drawing No. 811294 A

Sheet Number 06 of 1



Joins Drg No.811301

MC02 KERB SETOUT

| POINT NO. | EASTING | NORTHING | COMMENTS |
|-----------|------------|-------------|-----------------|
| K1 | 360091.081 | 8142102.180 | START R0.7 |
| K2 | 360092.425 | 8142102.800 | CC R0.7 & R55.4 |
| K3 | 360097.318 | 8142111.707 | END R55.4 |
| K3A | 360097.029 | 8142112.114 | START R55.4 |
| K4 | 360090.291 | 8142119.870 | END R55.4 |
| K4A | 360079.928 | 8142120.213 | START R55.4 |
| K5 | 360071.817 | 8142126.520 | END R55.4 |
| K6 | 360071.393 | 8142126.785 | |
| K7 | 360062.767 | 8142131.981 | |
| K7A | 360062.332 | 8142132.278 | START R56.4 |
| K8 | 360052.949 | 8142136.406 | END R56.4 |
| K8A | 360052.474 | 8142136.583 | START R56.4 |
| K9 | 360047.244 | 8142138.010 | CC R56.4 & R0.7 |
| K10 | 360046.940 | 8142136.582 | END R0.7 |
| K11 | 360072.579 | 8142167.776 | START R.33.6 |

| POINT NO. | EASTING | NORTHING | COMMENTS |
|-----------|------------|-------------|------------------|
| K12 | 360091.081 | 8142102.180 | MID PT R33.6 |
| K13 | 360092.425 | 8142102.800 | CC R33.6 & R52.6 |
| K14 | 360097.318 | 8142111.707 | MID PT R52.6 |
| K15 | 360097.029 | 8142112.114 | CC R52.6 & R27.9 |
| K16 | 360090.291 | 8142119.870 | MID PT R27.9 |
| K17 | 360079.928 | 8142120.213 | END R27.9 |
| K18 | 360071.817 | 8142126.520 | START R49.3 |
| K19 | 360071.393 | 8142126.785 | |
| K20 | 360062.767 | 8142131.981 | |
| K21 | 360062.332 | 8142132.278 | MID PT R49.3 |
| K22 | 360052.949 | 8142136.406 | |
| K23 | 360052.474 | 8142136.583 | |
| K24 | 360047.244 | 8142138.010 | END R49.3 |
| K25 | 360046.940 | 8142136.582 | |

MC02 NEW PAVEMENT EDGE

| POINT NO. | EASTING | NORTHING | COMMENT |
|-----------|------------|-------------|--------------|
| P1 | 360119.761 | 8142046.070 | |
| P2 | 360116.276 | 8142052.150 | |
| P3 | 360112.791 | 8142058.230 | |
| P4 | 360109.306 | 8142064.310 | |
| P5 | 360105.821 | 8142070.390 | |
| P6 | 360102.336 | 8142076.470 | |
| P7 | 360098.851 | 8142082.550 | |
| P8 | 360095.366 | 8142088.630 | |
| P9 | 360091.881 | 8142094.710 | START R51.4 |
| P10 | 360088.396 | 8142100.790 | |
| P11 | 360084.911 | 8142106.870 | MID PT R51.4 |
| P12 | 360081.426 | 8142112.950 | |
| P13 | 360077.941 | 8142119.030 | END R51.4 |
| P14 | 360074.456 | 8142125.110 | START R52.3 |
| P15 | 360070.971 | 8142131.190 | MID PT R52.3 |
| P16 | 360067.486 | 8142137.270 | END R52.3 |
| P17 | 360064.001 | 8142138.120 | |

NOTES

- 1. Drg No. 811301 for Notes and Legend

Last Modified: 26-Sep-2019 2:51pm XREFS: Survey cleankin_250.dwg, MC02 Final_250.dwg

| | |
|------------------------|------------------|
| Associated Job No. | 811294 TO 811311 |
| Auxiliary Drg No. | 811408 TO 811411 |
| Revisions/Descriptions | |

| | |
|------------------|-------------|
| Survey Data | CDAG4 |
| Horizontal Datum | MGA Zone 55 |
| Vertical Datum | AHD Derived |
| Survey Books | MR10101-20A |

| | | | | |
|--|----------------------------|--------------------------|--------------------------|--------------|
| CAIRNS REGION (274) | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A) | | | | |
| CTL CHGE 0.00 - 481.358 (MC02) | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |

| | | | | |
|---|---------------|----------|------------|---------|
| TRINITY BEACH ROUNDABOUT PAVEMENT AND KERB SETOUT DETAILS (MC02) SHEET 1 OF 2 | | | | |
| ENGINEERING CERTIFICATION (RPEQ) | | | | |
| Drawn | E. Chinniboud | Checked | J. Walside | Date |
| Designed | | Reviewed | | 26/9/19 |

| |
|------------------------|
| Queensland Government |
| Job No. 274/20A/559849 |
| Contract No. CN-12079 |
| Drawing No. 811300 A |
| Scale 1:100 |

Locality

of

Trinity Beach

NOTES

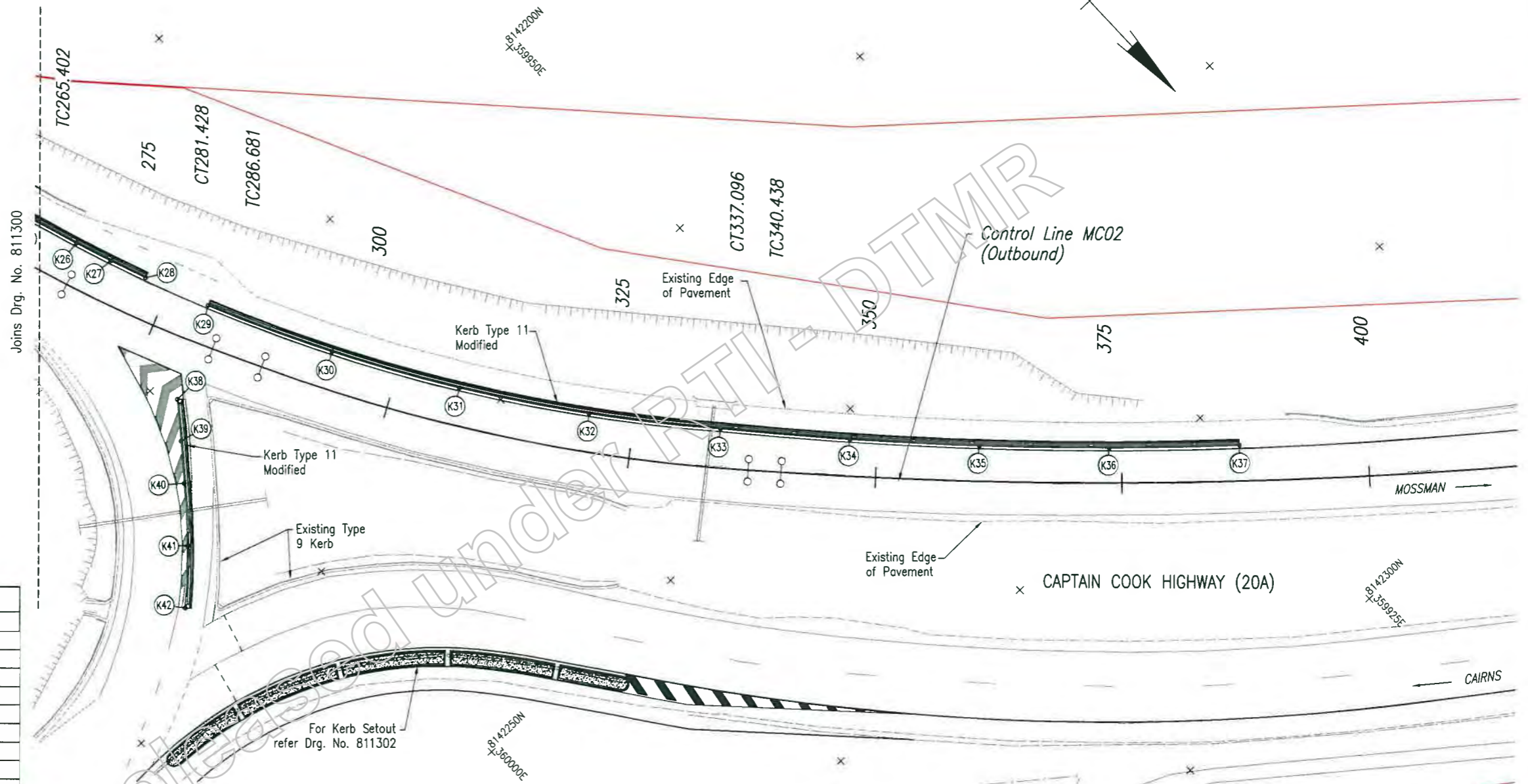
- All coordinates are to face of barrier kerb and semi mountable kerb.
- All kerbs to be painted white with an application of visi-beads in accordance with MUTCD guidelines. Traffic islands are to be concrete filled, with terracotta coloured concrete.
- Refer to Median Kerb Island Cut-Back Detail and New Median/Barrier Kerb Type Section on Drg No. 811295 & 811296 for details.
- Provide kerb breaks of 0.5m wide @ 10m intervals and sag points along new barrier kerb, unless noted otherwise

LEGEND

- Proposed Control Line
- Barrier Kerb Type 11 (Modified)
Refer to detail on Drg No. 811296
- P1 Pavement Edge Setout Points
- K1 Kerb Setout Points

MC02 KERB SETOUT

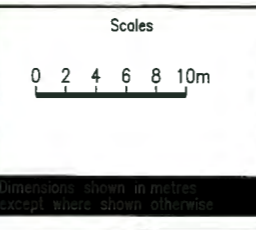
| POINT NO. | EASTING | NORTHING | COMMENTS |
|-----------|------------|-------------|------------------|
| K22 | 360006.872 | 8142157.871 | |
| K23 | 360002.013 | 8142165.446 | |
| K24 | 359998.954 | 8142172.700 | END R49.3 |
| K25 | 359997.061 | 8142178.432 | |
| K26 | 359995.167 | 8142184.163 | START R165 |
| K27 | 359993.885 | 8142187.818 | MID PT R165 |
| K28 | 359992.516 | 8142191.443 | END R165 |
| K29 | 359989.879 | 8142197.806 | START R165 |
| K30 | 359984.012 | 8142209.790 | |
| K31 | 359977.200 | 8142221.263 | MID PT R165 |
| K32 | 359969.484 | 8142232.149 | |
| K33 | 359960.914 | 8142242.376 | CC R165 & R388.3 |
| K34 | 359952.165 | 8142252.177 | |
| K35 | 359943.091 | 8142261.676 | MID PT R388.3 |
| K36 | 359933.700 | 8142270.863 | |
| K37 | 359924.003 | 8142279.727 | END R388.3 |
| K38 | 359998.591 | 8142202.509 | START R209.3 |



Last Modified: 26-Sep-2019 11:25:29am XREFS: Survey elements_250.dwg; MC02 Final 250.dwg

| | | | |
|------------------------|-------------------------|-------------------|----------------|
| G | | | |
| F | | | |
| E | | | |
| D | | | |
| C | | | |
| B | | | |
| A | Issued For Construction | | |
| Revisions/Descriptions | | Name or RP/CO No. | Signature Date |

| | |
|------------------------------------|--------------|
| Associated Job No. | Survey Date |
| 811294 TO 811311, 811408 TO 811411 | |
| Auxiliary Drg No. | Name |
| | CDAG4 |
| | MCA Zone 50 |
| | AHD Derived |
| | MR101013-20A |



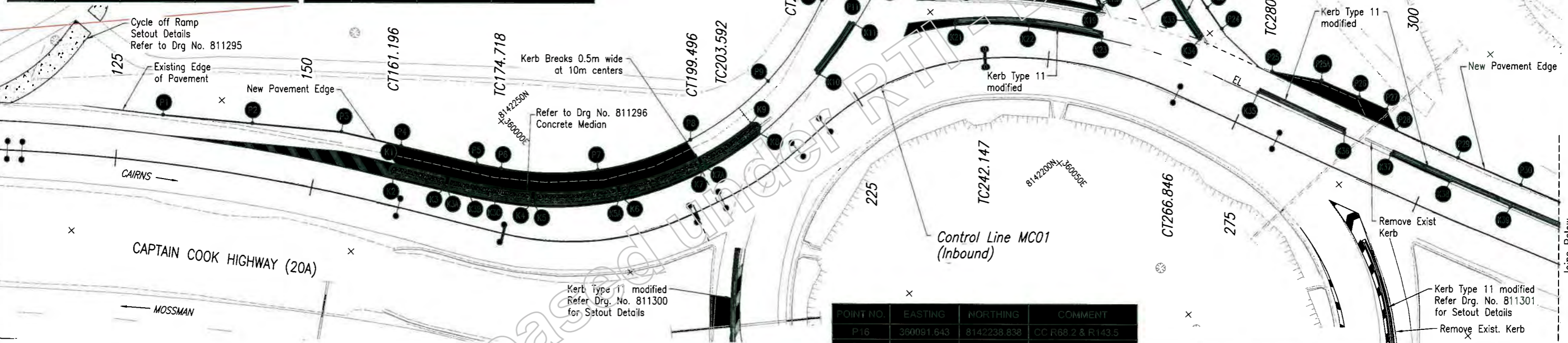
| | | | | |
|--|----------------------------|--------------------------|--------------------------|--------------|
| CAIRNS REGION (274) | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A) | | | | |
| CTL CHGE 0.00 - 481.358 (MC02) | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| | | | | |

| | | | | |
|---|----------|----------|----------|--------|
| TRINITY BEACH ROUNDABOUT PAVEMENT AND KERB SETOUT DETAILS (MC02) SHEET 2 OF 2 | | | | |
| ENGINEERING CERTIFICATION (RPEQ) | | | | |
| Drawn | Checked | Reviewed | Approved | Scale |
| E. Chiribawit | J. White | | | 1:1000 |
| | | | | 2/2/19 |

| | |
|-----------------------|----------------|
| Queensland Government | |
| Job No. | 274/20A/550R49 |
| Project No. | CN-120-9 |
| Drawing No. | 81130_1A |
| Scale | 08 of 18 |

MC01 KERB SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | COMMENT | POINT NO. | EASTING | NORTHING | COMMENT |
|-----------|------------|-------------|------------------|-----------|------------|-------------|--------------------|
| K1 | 359986.335 | 8142254.519 | START R0.7 | K19 | 360066.113 | 8142211.349 | CC R54.5 & R0.5 |
| K2 | 359985.143 | 8142253.541 | END R0.7 | K19A | 360067.010 | 8142211.529 | END R0.5 |
| K3 | 359988.989 | 8142248.388 | | K20 | 360067.449 | 8142213.520 | |
| K3A | 359989.264 | 8142247.094 | | K21 | 360051.457 | 8142221.915 | START R52.7 |
| K3B | 359990.966 | 8142245.662 | | K22 | 360058.541 | 8142215.831 | MID PT R52.7 |
| K3C | 359993.013 | 8142243.101 | START R41 | K23 | 360064.427 | 8142208.609 | END R52.7 |
| K4 | 359996.009 | 8142239.747 | END R41 | K24 | 360089.783 | 8142245.052 | START R65.2 |
| K5 | 359996.365 | 8142239.385 | START R41 | K25 | 360089.333 | 8142242.359 | MID PT R65.2 |
| K5A | 360004.893 | 8142232.957 | END R41 | K26 | 360089.771 | 8142239.686 | CC R65.2 & R140.5 |
| K6 | 360005.329 | 8142232.741 | START R41.2 | K27 | 360085.925 | 8142232.415 | MID PT R140.5 |
| K7 | 360015.291 | 8142226.865 | END R41.2 | K28 | 360082.679 | 8142225.314 | CC R140.5 & R157.5 |
| K7A | 360015.777 | 8142228.748 | START R41 | K29 | 360080.340 | 8142221.052 | MID PT R157.5 |
| K8 | 360023.698 | 8142227.704 | CC R41 & R0.7 | K30 | 360078.134 | 8142216.720 | END R157.5 |
| K9 | 360023.734 | 8142229.183 | END R0.7 | K31 | 360076.938 | 8142213.920 | START R37 |
| K10 | 360034.241 | 8142228.509 | START R52.4 | K32 | 360074.959 | 8142208.572 | MID PT R37 |
| K11 | 360041.716 | 8142230.278 | END R52.4 | K33 | 360073.891 | 8142203.018 | END R37 |
| K12 | 360045.329 | 8142231.455 | START R32.9 | K34 | 360073.603 | 8142200.285 | |
| K13 | 360055.167 | 8142237.552 | MID PT R32.9 | K35 | 360074.811 | 8142190.414 | START R916.7 |
| K14 | 360082.307 | 8142246.635 | CC R32.9 & R37.2 | K36 | 360079.754 | 8142179.479 | END R916.7 |
| K15 | 360064.690 | 8142252.052 | END R37.2 | K37 | 360082.479 | 8142173.608 | START R916.7 |
| K16 | 360053.065 | 8142228.051 | | K38 | 360085.981 | 8142166.220 | |
| K16A | 360054.480 | 8142225.442 | START R1.5 | K39 | 360085.549 | 8142158.853 | MID PT R916.7 |
| K17 | 360054.660 | 8142223.285 | CC R1.5 & R54.5 | K40 | 360093.182 | 8142151.538 | |
| K18 | 360060.842 | 8142217.754 | MID PT R54.5 | K41 | 360096.880 | 8142144.246 | END R916.7 |



- NOTES**
- All coordinates are to face of barrier kerb and semi mountable kerb.
 - All kerbs to be painted white with an application of visi-beads in accordance with MUTCD guidelines. Traffic islands are to be concrete filled, with terracotta coloured concrete.
 - Refer to Median Kerb Island Cut-Back Detail and New Median/Barrier Kerb Type Section on Drg No. 811295 & 811296 for details.
 - Provide kerb breaks of 0.5m wide @ 10m intervals and sag points along new barrier kerb, unless noted otherwise
 - Concrete Ramp (LHS) from CH 60 from road shoulder to footpath to meet FNQROC STD.

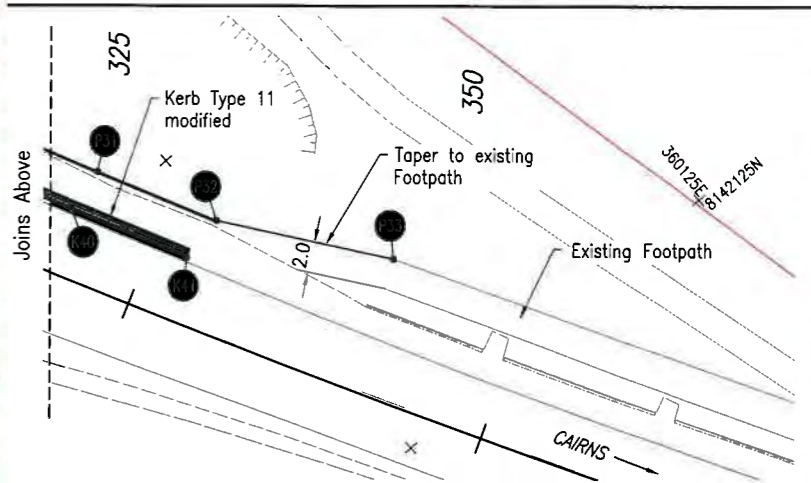
LEGEND

- Proposed Control Line
- Barrier Kerb Type 11 (Modified) Refer to detail on Drg No. 811296
- Pavement Edge Setout Points
- Kerb Setout Points

MC01 NEW PAVEMENT EDGE

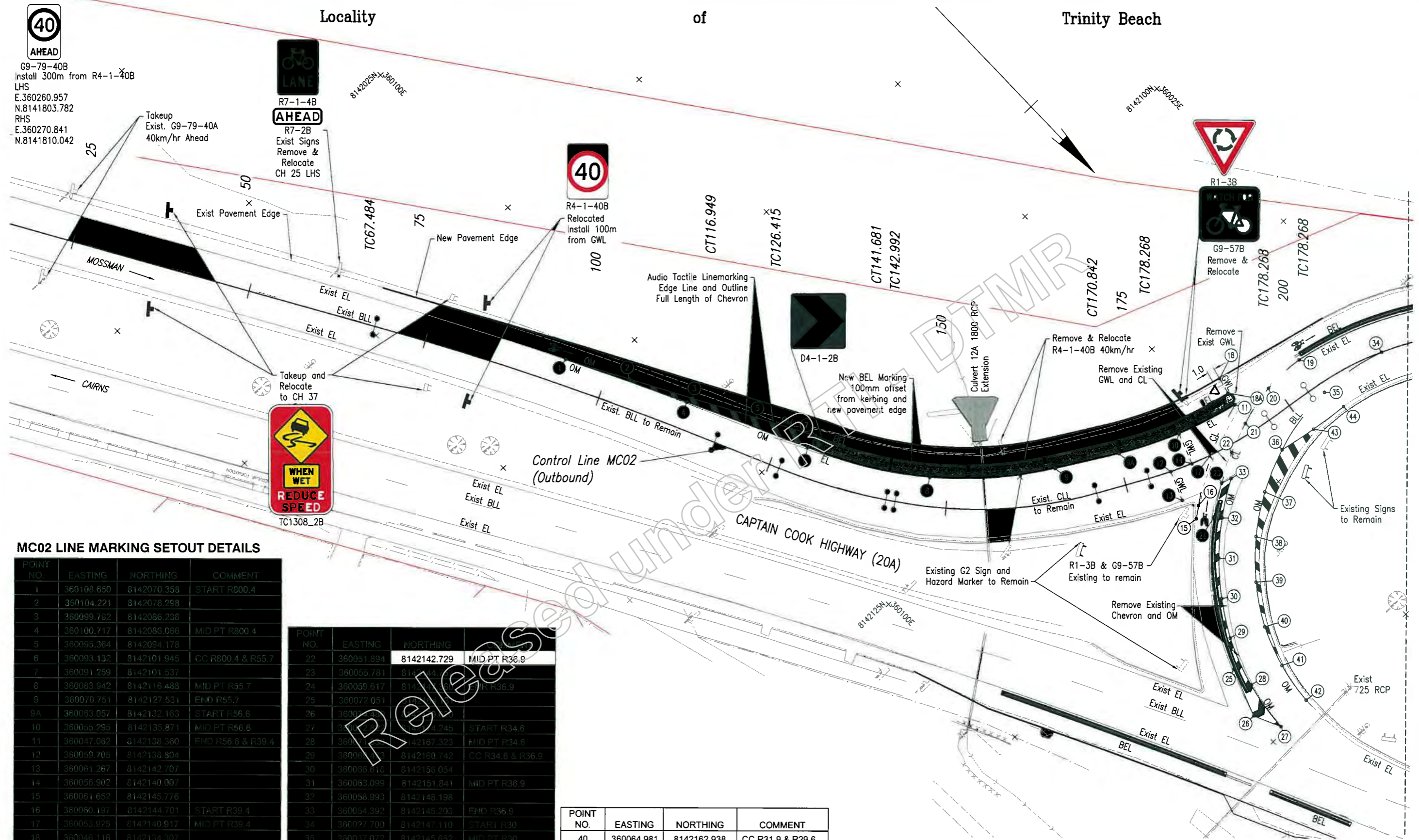
| POINT NO. | EASTING | NORTHING | COMMENT |
|-----------|------------|-------------|----------------|
| P1 | 359968.149 | 8142278.534 | |
| P2 | 359975.999 | 8142270.363 | |
| P3 | 359983.849 | 8142262.191 | START R254.3 |
| P4 | 359988.382 | 8142255.854 | END R254.3 |
| P5 | 359994.198 | 8142247.993 | |
| P6 | 359996.126 | 8142245.581 | START R37 |
| P7 | 360005.264 | 8142237.398 | |
| P8 | 360016.572 | 8142232.645 | MID PT R37 |
| P9 | 360028.813 | 8142231.842 | |
| P10 | 360040.645 | 8142235.077 | END R37 |
| P11 | 360043.661 | 8142234.141 | START R29.9 |
| P12 | 360053.038 | 8142239.656 | MID PT R29.9 |
| P13 | 360059.671 | 8142248.047 | CC R29.9 & R32 |
| P14 | 360061.692 | 8142252.583 | END R32 |
| P15 | 360082.742 | 8142244.822 | START R66.2 |

| POINT NO. | EASTING | NORTHING | COMMENT |
|-----------|------------|-------------|--------------------|
| P16 | 360081.643 | 8142238.838 | CC R68.2 & R143.5 |
| P17 | 360088.694 | 8142231.286 | MID PT R143.5 |
| P18 | 360085.322 | 8142223.913 | CC R143.5 & R154.5 |
| P19 | 360083.015 | 8142219.714 | MID PT R154.5 |
| P20 | 360080.839 | 8142215.445 | END R154.5 |
| P21 | 360079.592 | 8142212.687 | START R34 |
| P22 | 360077.844 | 8142207.788 | MID PT R34 |
| P23 | 360076.861 | 8142202.679 | END R34 |
| P24 | 360076.522 | 8142199.452 | |
| P25 | 360077.844 | 8142191.266 | |
| P25A | 360051.847 | 8142186.344 | |
| P26 | 360084.087 | 8142181.676 | |
| P27 | 360085.681 | 8142178.255 | |
| P28 | 360074.893 | 8142175.503 | START R900.5 |
| P29 | 360088.556 | 8142167.789 | |
| P30 | 360092.284 | 8142160.075 | MID PT R900.5 |
| P31 | 360098.085 | 8142152.418 | |
| P32 | 360099.958 | 8142144.797 | END R900.5 |
| P33 | 360107.198 | 8142135.223 | |



Last Modified: 26 Sep 2019 - 2:50pm XREFS: Survey element: 250.dwg; MC01_Plan_250.dwg

| | | | | | | | | |
|------------------------------------|--|--|--|--|--|---|--|--|
| Associated Job No. Survey Data | | Scales | | CAIRNS REGION (274) | | TRINITY BEACH ROUNDABOUT | | <p>Queensland Government</p> |
| Auxiliary Drg No. 811294 TO 811311 | | 0 2 4 6 8 10m | | CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A) | | PAVEMENT AND KERB SETOUT DETAILS (MC01) | | |
| 811408 TO 811411 | | | | CTL CHGE 0.00 - 490.483 (MC01) | | | | |
| Issued For Construction | | Reference Points | | Preceding RP | | From start to end of job | | ENGINEERING CERTIFICATION (RPEQ) J. Muller 26/9/19 |
| Revisions/Descriptions | | Dist. to start of job (km) | | From end to Following RP | | Following RP | | Job No. 274/20A/559849 |
| Name of RPEQ | | Through Change from Refer. Drg. No. 811294 for Details | | RTI-1227 Release.ppt - Page Number: 15 of 64 | | | | Contract No. CN-12079 |
| Signature | | | | | | | | Drawing No. 81302A |
| Date | | | | | | | | Series Number 09 of 10 |



MC02 LINE MARKING SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | COMMENT |
|-----------|------------|-------------|-------------------|
| 1 | 360108.650 | 8142070.358 | START R800.4 |
| 2 | 360104.221 | 8142078.298 | |
| 3 | 360099.792 | 8142086.238 | |
| 4 | 360100.717 | 8142085.096 | MID PT R800.4 |
| 5 | 360095.364 | 8142094.178 | |
| 6 | 360093.132 | 8142101.945 | CC R800.4 & R55.7 |
| 7 | 360091.259 | 8142101.537 | |
| 8 | 360083.942 | 8142116.489 | MID PT R55.7 |
| 9 | 360070.751 | 8142127.531 | END R55.7 |
| 9A | 360063.057 | 8142132.193 | START R56.6 |
| 10 | 360055.295 | 8142135.871 | MID PT R56.6 |
| 11 | 360047.062 | 8142138.360 | END R56.6 & R39.4 |
| 12 | 360050.705 | 8142138.894 | |
| 13 | 360061.267 | 8142142.707 | |
| 14 | 360056.902 | 8142140.007 | |
| 15 | 360061.652 | 8142145.776 | |
| 16 | 360060.197 | 8142144.701 | START R39.4 |
| 17 | 360053.975 | 8142140.917 | MID PT R39.4 |
| 18 | 360046.116 | 8142134.307 | |
| 18A | 360046.666 | 8142138.522 | |
| 19 | 360036.508 | 8142140.090 | START R24.5 |
| 20 | 360042.216 | 8142139.951 | MID PT R24.5 |
| 21 | 360017.793 | 8142141.176 | CC R24.5 & R36.9 |

| POINT NO. | EASTING | NORTHING | COMMENT |
|-----------|------------|-------------|------------------|
| 22 | 360051.894 | 8142142.729 | MID PT R36.9 |
| 23 | 360055.781 | 8142144.444 | |
| 24 | 360059.617 | 8142146.159 | END R36.9 |
| 25 | 360072.051 | 8142147.874 | START R34.6 |
| 26 | 360084.485 | 8142149.589 | |
| 27 | 360096.919 | 8142151.304 | START R34.6 |
| 28 | 360109.353 | 8142167.323 | MID PT R34.6 |
| 29 | 360121.787 | 8142183.342 | CC R34.6 & R36.9 |
| 30 | 360086.616 | 8142156.054 | |
| 31 | 360053.099 | 8142151.841 | MID PT R36.9 |
| 32 | 360058.993 | 8142148.198 | |
| 33 | 360054.392 | 8142145.203 | END R36.9 |
| 34 | 360077.700 | 8142147.110 | START R30 |
| 35 | 360037.072 | 8142145.632 | MID PT R30 |
| 36 | 360046.640 | 8142147.257 | CC R30 & R31.9 |
| 37 | 360052.290 | 8142149.755 | |
| 38 | 360057.391 | 8142153.296 | MID PT R31.9 |
| 39 | 360061.635 | 8142157.736 | |

| POINT NO. | EASTING | NORTHING | COMMENT |
|-----------|------------|-------------|------------------|
| 40 | 360064.981 | 8142162.938 | CC R31.9 & R29.6 |
| 41 | 360066.934 | 8142168.345 | MID PT R29.6 |
| 42 | 360067.805 | 8142174.027 | END R29.6 |
| 43 | 360041.587 | 8142148.213 | MID PT R91.4 |
| 44 | 360036.488 | 8142148.883 | END R91.4 |

NOTES:
1. Refer Drawing No. 811304 for Pavement Marking Legend and Notes.

Last Modified: Sep 26, 2019 - 2:52pm XREFS: Survey_Linemarking.dwg, MC02_Final.dwg

| | | |
|------------------------|-------------|---------------|
| Associated Job Nos | Survey Date | Scale |
| 811294 TO 811411 | 04/09/19 | 0 2 4 6 8 10m |
| Revisions/Descriptions | Drawn | Checked |
| | E. Chimbo | J. Williams |

CAIRNS REGION (274)
CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A)
CTL CHGE 0.00 - 481.358 (MC02)

| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
|--------------|----------------------------|--------------------------|--------------------------|--------------|
| | | | | |

TRINITY BEACH ROUNDABOUT
PAVEMENT MARKING AND SIGNAGE (MC02)
SHEET 1 OF 2

ENGINEERING CERTIFICATION (RPEQ)

7/19 26/9/19

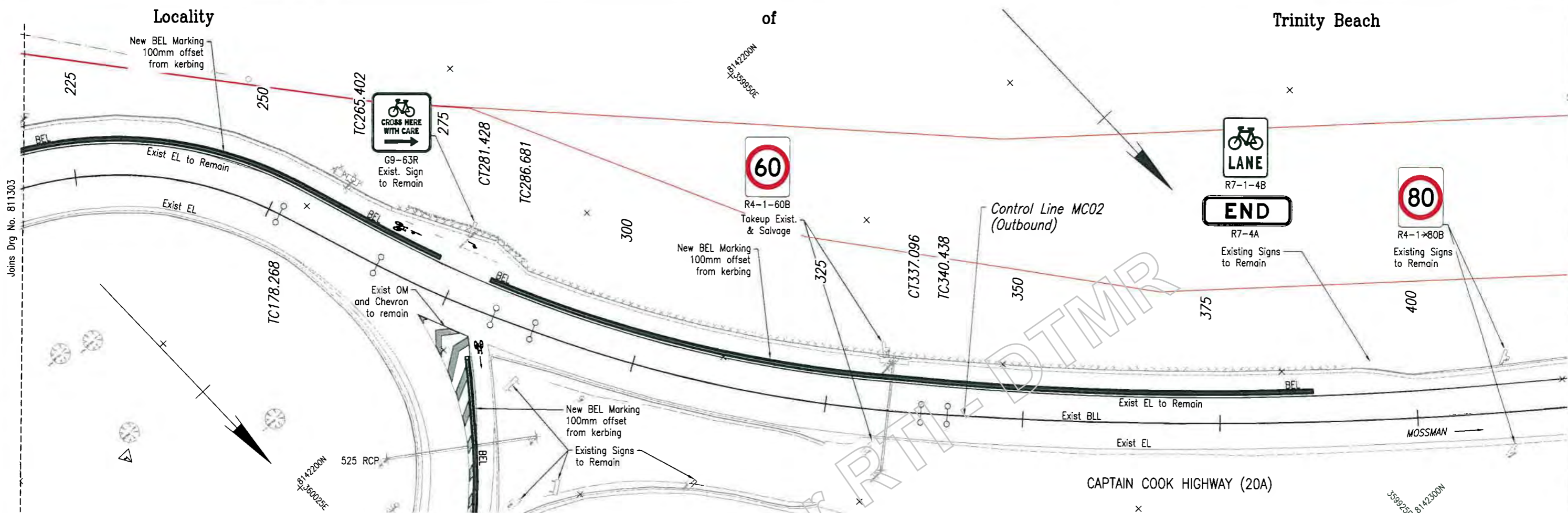
Queensland Government

Job No: 274/20A/559849

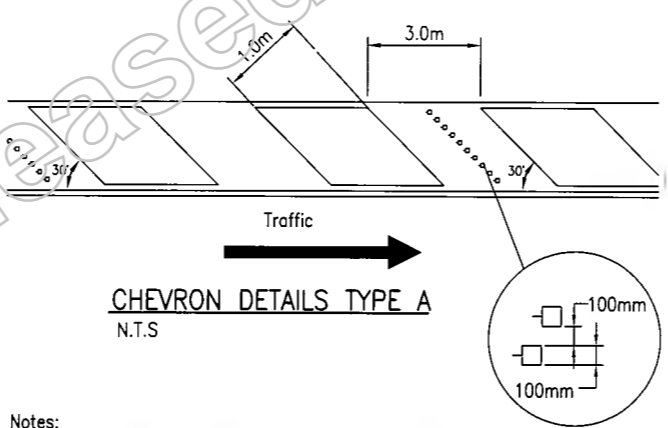
Contract No: CN-12079

Drawing No: 811303/A

Series Number: 10 of 18



1. New BEL linemarking to be offset 100mm from the new pavement edge and off the back of the new kerb.
2. All pavement marking, raised pavement markers and road edge guide posts, shall be in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) and design drawings.
3. Lateral spacing between edge line and edge of RRPM must be in the range of 25mm (min.) to 50mm (max.).
4. Contractor to install temporary Raised Reflectorised Pavement Markers (T.R.R.P.M.'s) in accordance with MTRS45 and MTRS45-1 (Annexure).
5. Contractor is to spot all longitudinal lines in accordance with MTRS45 and MTRS45-1 (Annexure).
6. Kerbs to be in accordance with Standard Drawing 1033 and Drg. 811296
7. All existing signs to remain unless shown otherwise. Remove and Re-erect existing signs only in case of interference with Contractor's construction activities.
8. Signs to be installed in accordance with MRTS14 and Standard Drawings 1363 and 1368.
9. All diagonal markings to be 30° as detailed below or as existing if re-spraying.
10. Pavement marking is NOT IN CONTRACT. Drawings are prepared for the Principal's use in setting out the final pavement marking. Contractor may use for spotting and T.R.R.P.M setting out purposes.
11. Contractor to ensure signs are installed at 5' or one tenth of the width of the sign from the Normal to Traffic Flow (See Details this plan) or as directed by the Administrator in particular situations.
12. Colour of Temporary RRPM's shall comply with Table 5.3 of MUTCD. (eg. Yellow TRRPM on Centre Lines or Edge Line (RHS) for Divided Roads, Figure 5.21)
13. Red Uni-directional RRPM @ min. 6.0m spacing (Min. 2 per section of Kerb)



- Notes:**
1. Diagonal rows of RRPM's to be placed centrally between diagonal painted markings in every second space.
 2. Markers to be Red unidirectional and placed normal to the direction of traffic.

DIAGONAL MARKING
N.T.S.

LEGEND FOR PAVEMENT MARKING
(Unlabelled dimensions are in millimetres.)

| LONGITUDINAL LINES | | OTHER MARKINGS | |
|--------------------|------|--------------------------------|--|
| Dividing Lines | | Intersection Pavement Arrows | |
| Two-lane roads | BDL | Left Turn @ 30m Separation | |
| Barrier Lines | | Right Turn @ 25m Separation | |
| Single | SBL | RRPM Yellow Bidirectional | |
| One direction | ODBL | RRPM Yellow Unidirectional | |
| Both directions | DBL | RRPM White Bidirectional | |
| Lane Lines | | RRPM White Unidirectional | |
| Broken | BLL | RRPM Red Bidirectional | |
| Continuous | CLL | Exist Sign | |
| Edge Lines | EL | New Sign | |
| Continuity Lines | CL | Cycle Giveway | |
| Outline Marking | OM | Cycle Bike | |
| Turning Line | TL | Cycle Path Arrow Specification | |
| Bike Edge Line | BEL | Cycle Path Arrow Specification | |
| TRANSVERSE LINES | | | |
| Stop Lines | SL | | |
| Give Way Lines | GWL | | |

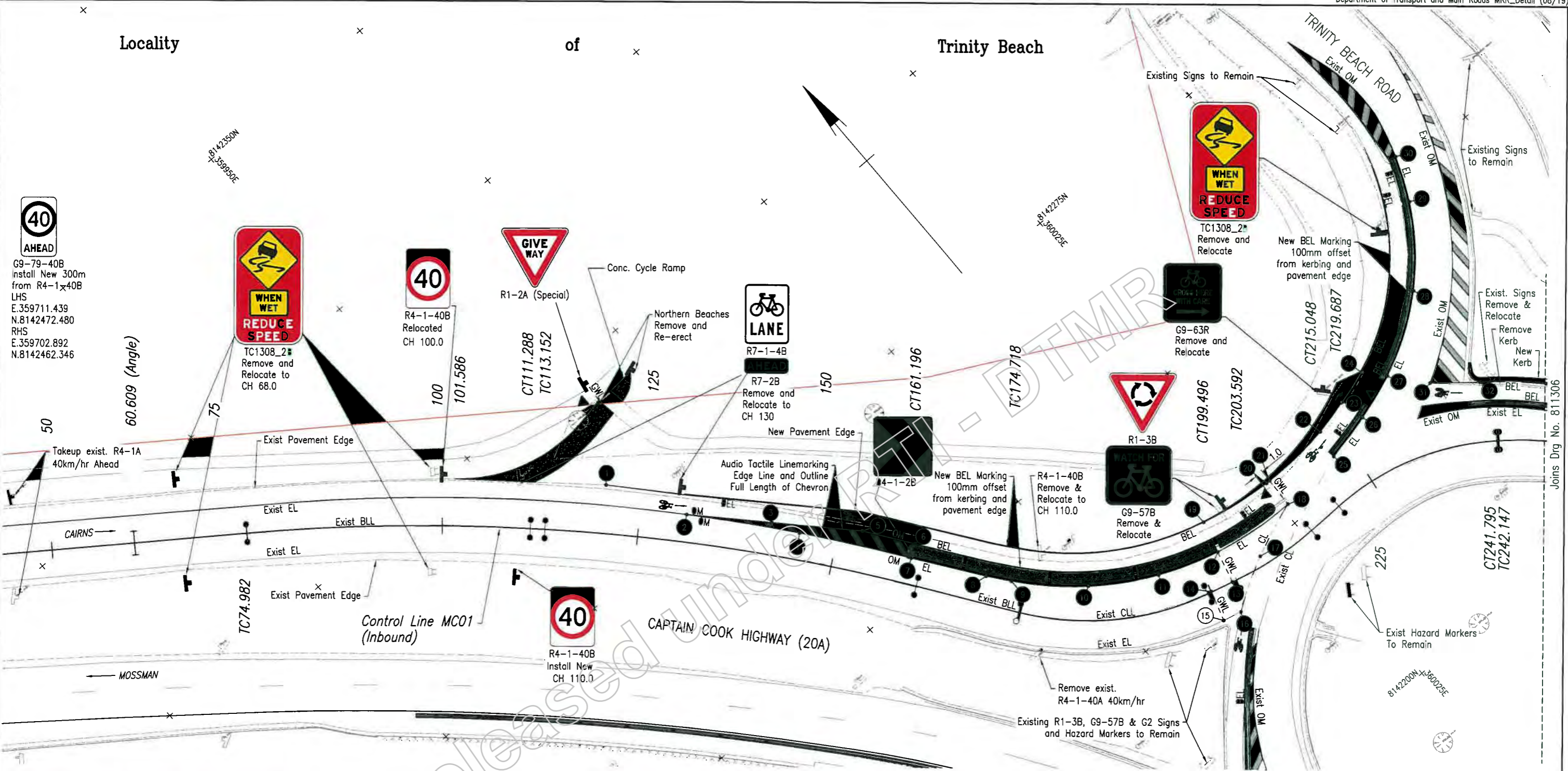
Last Modified: Sep 26, 2019 - 2:50pm XREFS: Survey, Linemarking.dwg; MC02_Final.dwg

| <p>Associated Job Nos. Survey Data</p> <p>Home Datum: CGDA34</p> | | <p>Scales</p> <p>0 2 4 6 8 10m</p> | | <p>CAIRNS REGION (274)</p> <p>CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A)</p> <p>CTL CHGE 0.00 - 481.358 (MC02)</p> | | <p>TRINITY BEACH ROUNDABOUT</p> <p>PAVEMENT MARKING AND SIGNAGE (MC02)</p> <p>SHEET 2 OF 2</p> | | <p>Queensland Government</p> <p>Job No. 274/20A/559849</p> | | | | | | | | | | | |
|---|----------------------------|---|--------------------------|---|--|--|----------------------------|--|--------------------------|--------------|--|--|--|--|--|---|--|--|--|
| <p>Auxiliary Drg Nos.</p> <p>811294 TO 811311</p> <p>811408 TO 811411</p> | | <p>Home Grid: MGA Zone 59</p> <p>Height datum: AHD Derived</p> <p>Survey Books: AR10101-20A</p> | | <p>Reference Points</p> <table border="1"> <tr> <th>Preceding RP</th> <th>Dist. to start of job (km)</th> <th>From start to end of job</th> <th>From end to Following RP</th> <th>Following RP</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | | Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP | | | | | | <p>ENGINEERING CERTIFICATION (RPEQ)</p> <p>Drawn: C. Chikabandi</p> <p>Checked: J. Whiteside</p> <p>DATE: 24/9/19</p> | | <p>Contract No. CN-12079</p> <p>Drawing No. 811304 A</p> <p>Series Number 11 of 18</p> | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

Locality

of

Trinity Beach



MC01 LINE MARKING SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | COMMENT | POINT NO. | EASTING | NORTHING | COMMENT | POINT NO. | EASTING | NORTHING | COMMENT |
|-----------|------------|-------------|--------------|-----------|------------|-------------|-------------------|-----------|------------|-------------|------------------|
| 1 | 359961.324 | 8142285.888 | | 13 | 360014.159 | 8142224.448 | | 25 | 360034.289 | 8142228.214 | START R57.8 |
| 2 | 359966.719 | 8142276.335 | START R250 | 14 | 360011.283 | 8142225.313 | | 26 | 360040.300 | 8142229.541 | MID PT R57.8 |
| 3 | 359974.313 | 8142268.487 | | 15 | 360010.140 | 8142221.489 | | 27 | 360046.137 | 8142231.500 | CC R57.8 & R33.2 |
| 4 | 359976.145 | 8142265.164 | MID PT R250 | 16 | 360012.505 | 8142220.869 | START R49.3 | 28 | 360055.844 | 8142237.578 | MID PT R33.2 |
| 5 | 359982.378 | 8142260.151 | | 17 | 360018.972 | 8142224.637 | MID PT R49.3 | 29 | 360062.571 | 8142246.493 | CC R33.2 & R37.5 |
| 6 | 359986.431 | 8142254.556 | | 18 | 360025.935 | 8142227.383 | END R41.4 & R49.3 | 30 | 360064.981 | 8142251.976 | END R37.5 |
| 7 | 359984.903 | 8142253.461 | END P250 | 19 | 360016.258 | 8142232.618 | CC R37.2 & R 45.2 | 31 | 360049.657 | 8142237.279 | |
| 8 | 359990.731 | 8142246.475 | | 20 | 360025.584 | 8142231.165 | MID PT R45.2 | 32 | 360054.599 | 8142233.205 | START R54.4 |
| 9 | 359982.783 | 8142242.908 | START R41.4 | 21 | 360026.082 | 8142231.143 | | | | | |
| 10 | 359999.774 | 8142236.050 | | 22 | 360035.009 | 8142231.679 | CC R45.2 & R67.4 | | | | |
| 11 | 360001.547 | 8142231.278 | MID PT R41.4 | 23 | 360039.502 | 8142232.710 | MID PT R67.4 | | | | |
| 12 | 360015.179 | 8142228.579 | | 24 | 360043.915 | 8142234.046 | CC R67.4 & R30 | | | | |

NOTES:
1. Refer Drawing No. 811304 for Pavement Marking Legend and Notes.

Last Modified: 26-Sep-2019 2:57pm XREFS: Survey Linemarking.dwg, MC01_Plan_250.dwg

| | | | | | | | | | |
|--|--|--|--|--|--|---|--|------------------------|--|
| Approved Job No: Survey Dist. | | Scales 0 2 4 6 8 10m | | CAIRNS REGION (274) CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A) CTL CHGE 0.00 - 490.483 (MC01) | | TRINITY BEACH ROUNDABOUT PAVEMENT MARKING AND SIGNAGE (MC01) SHEET 1 OF 2 | | Queensland Government | |
| Auxiliary Job No: 811294 TO 811311, 811409 TO 811411 | | Road: GDA94, MGA Zone 53, ARD Derived | | Reference Points Preceding RP, Dist. to start of job (km), From start to end of job, From end to Following RP, Following RP | | ENGINEERING CERTIFICATION (RPEQ) | | Job No: 274/20A/559849 | |
| Issued For Construction | | Revisions/Descriptions | | Through Change from Ref: No. 811294 for Details | | E. Crimbandi, G. Pollard | | Contract No: CN 12079 | |
| G:\CAID\DESIGN\Projects\274\20A\110319 Trinity Beach Roundabout\ACAD\Drawings\Linemarking & Signs MC01.dwg | | RTI-1227 Release.pdf Page Number: 22 of 84 | | Drawing No: 811294 | | 7748 30/9/19 | | Drawing No: 811305 A | |



R4-1-40B
Install New 150m
from Intersection
E. 360111.507
N. 8142346.586

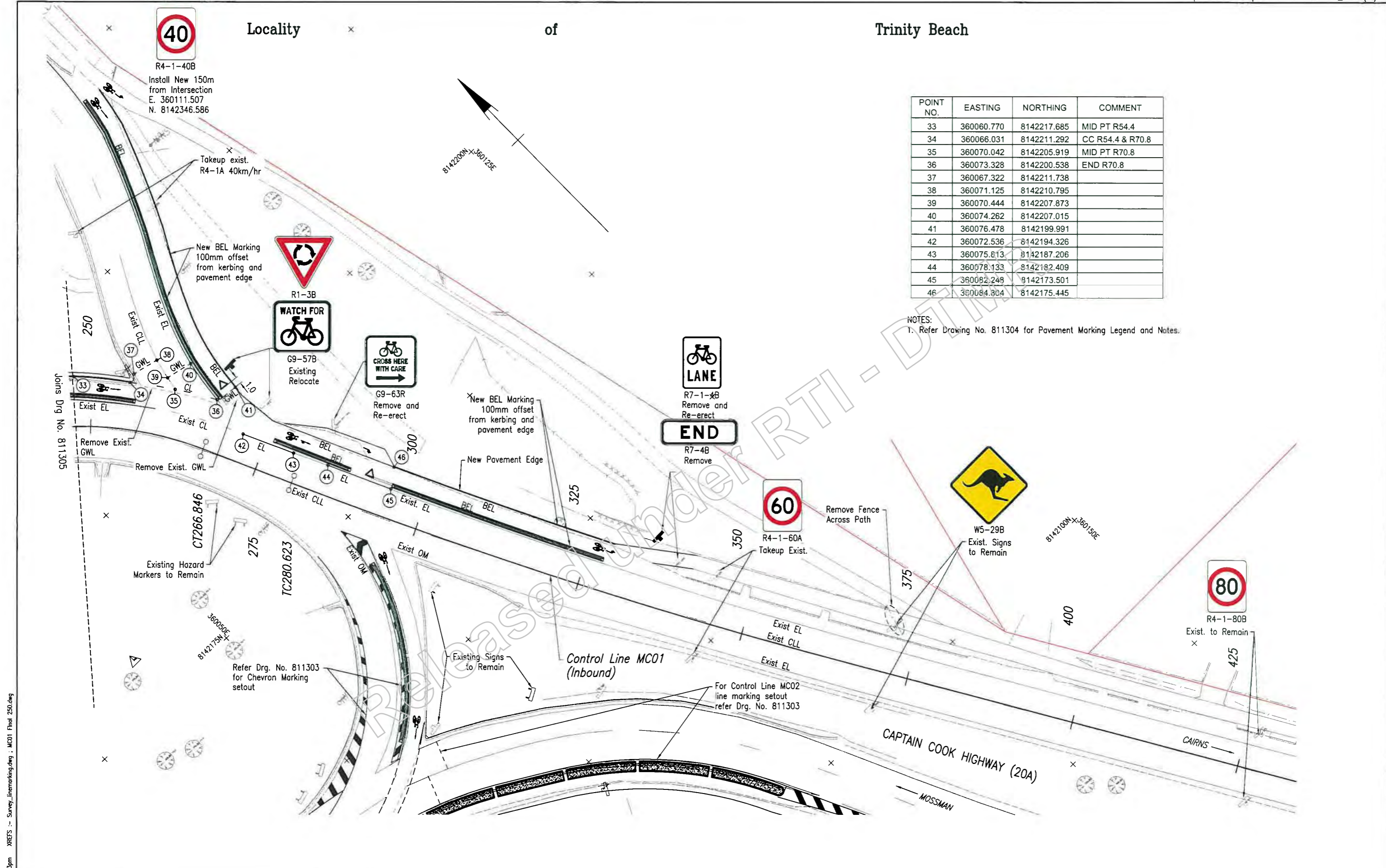
Locality

of

Trinity Beach

| POINT NO. | EASTING | NORTHING | COMMENT |
|-----------|------------|-------------|------------------|
| 33 | 360060.770 | 8142217.685 | MID PT R54.4 |
| 34 | 360066.031 | 8142211.292 | CC R54.4 & R70.8 |
| 35 | 360070.042 | 8142205.919 | MID PT R70.8 |
| 36 | 360073.328 | 8142200.538 | END R70.8 |
| 37 | 360067.322 | 8142211.738 | |
| 38 | 360071.125 | 8142210.795 | |
| 39 | 360070.444 | 8142207.873 | |
| 40 | 360074.262 | 8142207.015 | |
| 41 | 360076.478 | 8142199.991 | |
| 42 | 360072.536 | 8142194.326 | |
| 43 | 360075.813 | 8142187.206 | |
| 44 | 360078.133 | 8142182.409 | |
| 45 | 360082.248 | 8142173.501 | |
| 46 | 360084.804 | 8142175.445 | |

NOTES:
1. Refer Drawing No. 811304 for Pavement Marking Legend and Notes.



Last Modified: Sep 26, 2019 - 2:53pm
 XREFS: Survey, linemarking.dwg, MC01 Final 250.dwg
 CAD FILES: G:\CAD\DESIGN\Projects\274\20A\110319 Trinity Beach Roundabout\ACAD\Drawings\Linemarking\Signs MC01.dwg

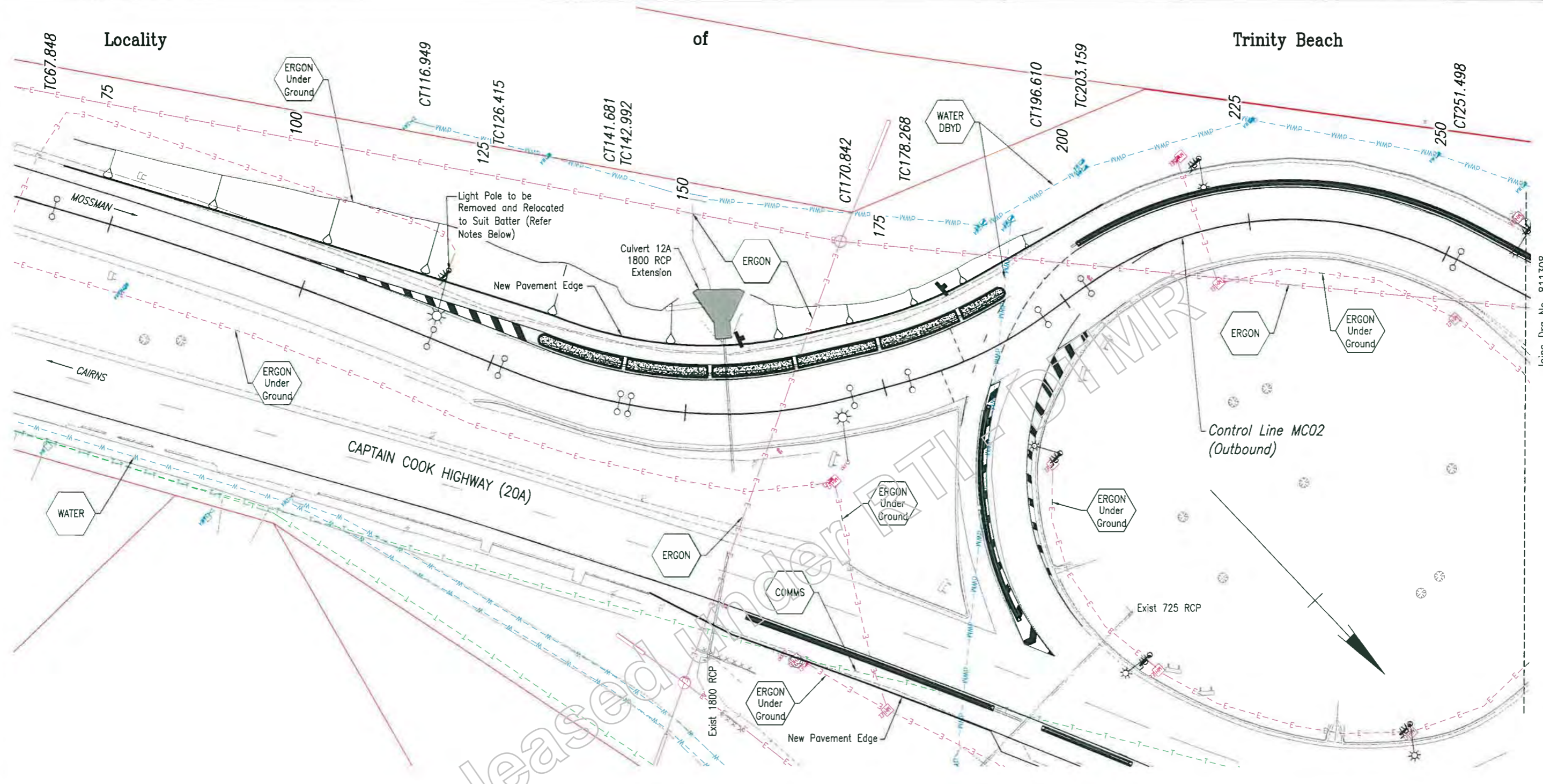
| Revisions/Descriptions | Date | By | Checked |
|---------------------------|------|----|---------|
| A Issued For Construction | | | |

| | |
|--------------------|--------------|
| Associated Job No. | Survey Data |
| 811294 TO 811311 | CDAG94 |
| 811408 TO 811411 | NGA Zone 54 |
| | AHD Derived |
| | Survey |
| | NR101013-20A |

| | | | | |
|--|----------------------------|--------------------------|--------------------------|--------------|
| CAIRNS REGION (274) | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A) | | | | |
| CTL CHGE 0.00 - 490.483 (MC01) | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| | | | | |

| | | | |
|-------------------------------------|-----------|-------|-----------|
| TRINITY BEACH ROUNDABOUT | | | |
| PAVEMENT MARKING AND SIGNAGE (MC01) | | | |
| SHEET 2 OF 2 | | | |
| ENGINEERING CERTIFICATION (RPEQ) | | | |
| Drawn | ENG. AREA | DATE | SIGNATURE |
| E. Chimbandi | | 27/08 | |
| Designed | CIVIL | | |
| G. Pollard | | | |

| | |
|-----------------------|----------------|
| Queensland Government | |
| Job No. | 274/20A/559849 |
| Contract No. | CN-12079 |
| Drawing No. | 811306 A |
| Series Number | 13 of 14 |



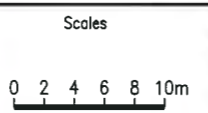
Joins Drg No. 811308

- NOTES:**
1. Refer Drg No. 811308 for Services Notes and Legend.
 2. Refer Electrical Services Plans Drg. Nos 811408 - 811411 for details of lighting.

Last Modified: 26-Sep-2019 2:53pm XREFS: X_Survey_250.dwg; Services.dwg; MC02_Final_250.dwg; Lights.dwg

| | | | |
|------------------------|-------------------------|-------------------|-----------|
| G | | | |
| F | | | |
| E | | | |
| D | | | |
| C | | | |
| B | | | |
| A | Issued For Construction | | |
| Revisions/Descriptions | | Name or RP/CD No. | Signature |
| | | | |

| | |
|------------------------------------|----------------------------|
| Associated Job No. | Survey Data |
| | Horizontal: GDA94 |
| Auxiliary Drg. Nos. | Horizontal: WGA Zone 55 |
| 811294 TO 811311, 811408 TO 811411 | Height Datum: AHD Derived |
| | Survey Books: MR101013-20A |



| CAIRNS REGION (274) | | | | |
|---|----------------------------|--------------------------|--------------------------|--------------|
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A) | | | | |
| CTL CHGE 0.00 - 481.358 (MC02) | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| REFER | | 811294 | FOR | DETAILS |

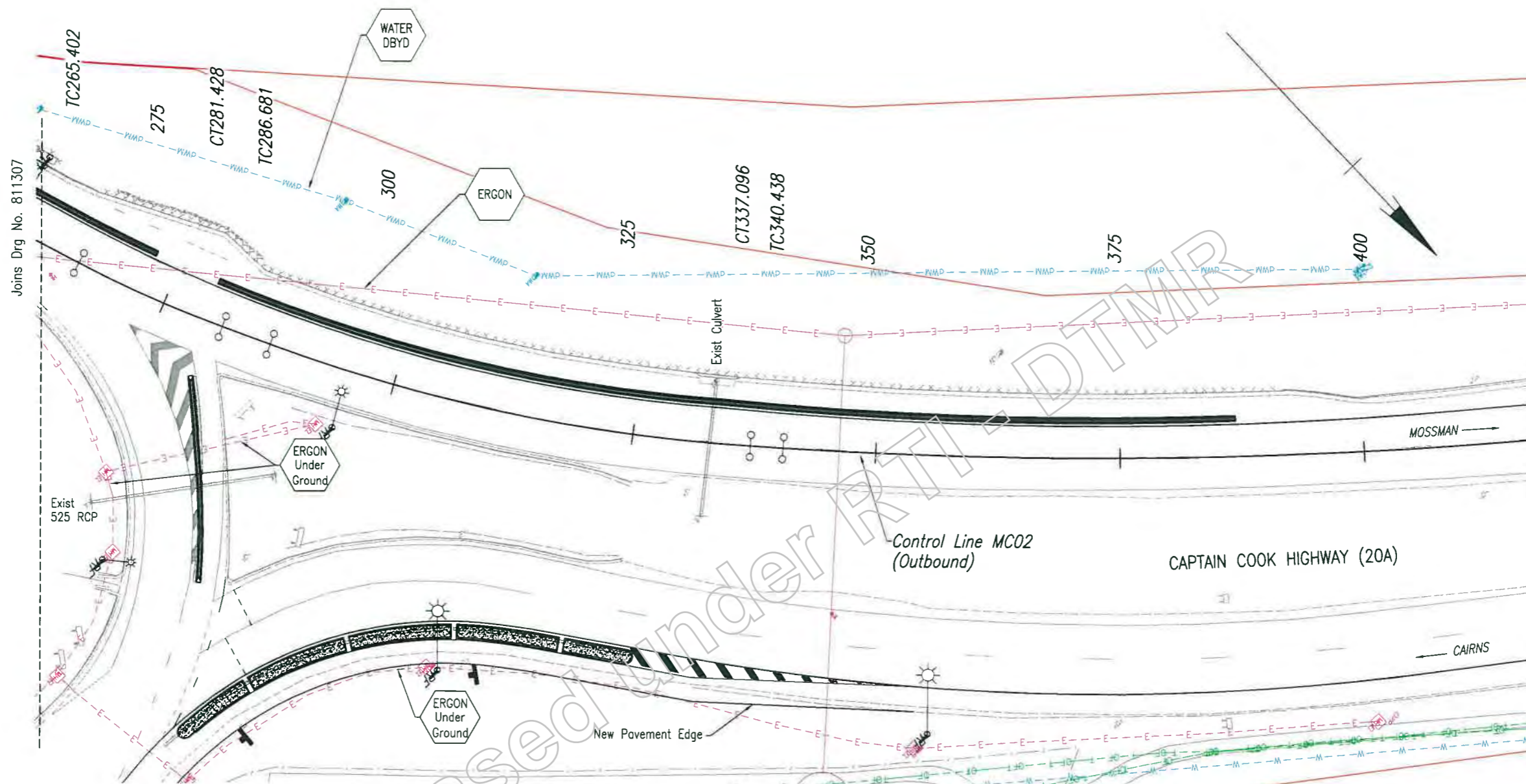
| | | | |
|--|--------------|----------|----------|
| TRINITY BEACH ROUNDABOUT SERVICES PLAN (MC02) | | | |
| SHEET 1 OF 2 | | | |
| ENGINEERING CERTIFICATION (RPEQ) | | | |
| Drawn | Checked | Designed | Approved |
| E. Chimbardi | J. Whiteside | | |
| 746 | 8/9/19 | | |

| | |
|------------------------------|----------------|
| Queensland Government | |
| Job No. | 274/20A/559049 |
| Contract No. | CN-12079 |
| Drawing No. | 811307 1A |
| Series Number | 14 of 18 |

Locality

of

Trinity Beach



LEGEND

- COMMS TELSTRA_NBN_OPTUS
- ERGON ERGON (Electricity)
- ERGON Under Ground Power to Street Lighting
- WATER Cairns Regional Council Water (CRC)
- WATER DBYD Cairns Regional Council Water (CRC)

SERVICES LEGEND

- EXISTING ELECTRICITY - ABOVEGROUND
- EXISTING ELECTRICITY - UNDERGROUND
- EXISTING TELSTRA - CABLE
- EXISTING WATER MAIN
- WATER (DIAL BEFORE YOU DIG)
- EXISTING STREET LIGHT

SERVICES NOTE

The locations of underground services have been approximated from the known positions of valves, manholes, etc and information supplied by the service authorities. Details of utility services are provided for information only, and no responsibility is taken for the accuracy and completeness of the information supplied. Positions of major service relocations and conflict points shall be recorded and checked by the Contractor. Service relocations may or may not be completed at time of construction. For further details, refer relevant service authority.

Possible service authority conflict points are shown thus:

DISCLAIMER

Access to this plan has been given on the basis that it is used as an information source only. If it is intended to be relied upon in any way, any information contained with it, should be independently verified by the user for accuracy and currency.

Communication Cable.
No work is to be done within 3m of cable without first consulting Communications Representative.

- NOTES:**
- Refer Electrical Services Plans Drg. Nos 811408 - 811411 for details of lighting.

Last Modified: Sep 26, 2019 - 2:53pm XREFS: X_Survey_250.dwg : Services.dwg : MC02_Final_250.dwg : Lights.dwg

| | | | |
|---|-------------------------|---|---------------|
| G | | Associated Job No. | Survey Date |
| F | | Drawn | GDA04 |
| E | | Proj. Grid | MGA Zone 55 |
| D | | Height Datum | AHD Derived |
| C | | Survey Book | (MR101013-20) |
| B | | Dimensions shown in metres except where shown otherwise | |
| A | Issued For Construction | Home or RPEQ No. | Signature |
| | Revisions/Descriptions | Home or RPEQ No. | Signature |

| | | | | |
|---|----------------------------|--------------------------|--------------------------|--------------|
| CAIRNS REGION (274) | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A) | | | | |
| CTL CHGE 0.00 - 481.358 (MC02) | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| | | | | |

| | | | | |
|---|-----------|--------------|-----------|------|
| TRINITY BEACH ROUNDABOUT SERVICES PLAN (MC02) SHEET 2 OF 2 | | | | |
| ENGINEERING CERTIFICATION (RPEQ) | | | | |
| Drawn | ENG. AREA | NAME | SIGNATURE | No. |
| E. Chirabendi | CPL | J. Whiteside | | 7715 |
| Designed | | | | |
| G. Pollard | | | | |

| | |
|------------------------------|----------------|
| Queensland Government | |
| Job No. | 274/20A/550849 |
| Contract No. | CN-12079 |
| Drawing No. | 811308/A |
| Sheet Number | 15 of 18 |

Locality

of

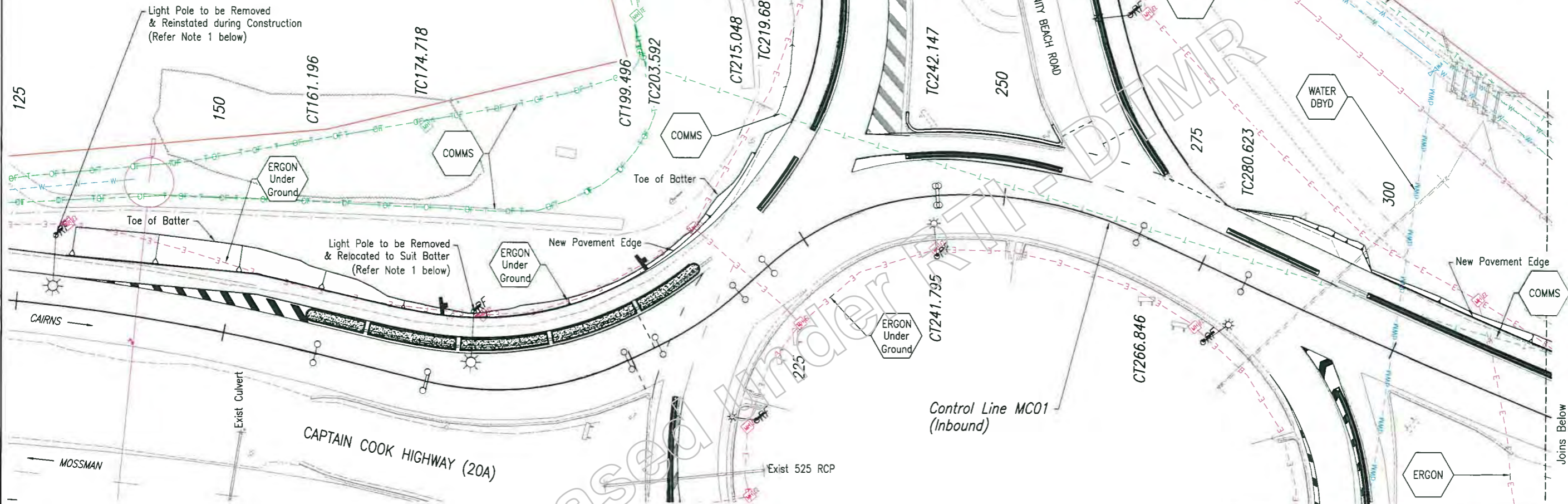
Trinity Beach

DISCLAIMER

Access to this plan has been given on the basis that it is used as an information source only. If it is intended to be relied upon in any way, any information contained with it, should be independently verified by the user for accuracy and currency.

Communication Cable

No work is to be done within 3m of cable without first consulting Communications Representative.



LEGEND

- COMMS TELSTRA_ NBN_OPTUS
- ERGON ERGON (Electricity)
- ERGON Under Ground Power to Street Lighting
- WATER Cairns Regional Council Water (CRC)
- WATER DBYD Cairns Regional Council Water (CRC)

NOTES:

- Refer Electrical Services Plans Drg. Nos 811408 - 811411 for details of lighting.

SERVICES LEGEND

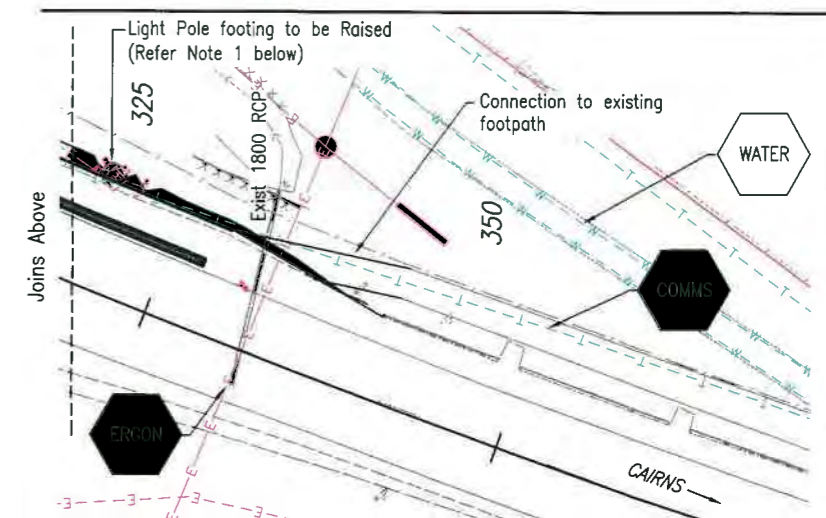
- EXISTING ELECTRICITY - ABOVEGROUND
- EXISTING ELECTRICITY - UNDERGROUND
- EXISTING TELSTRA - CABLE
- EXISTING WATER MAIN
- WATER (DIAL BEFORE YOU DIG)
- EXISTING STREET LIGHT

SERVICES NOTE

The locations of underground services have been approximated from the known positions of valves, manholes, etc and information supplied by the service authorities. Details of utility services are provided for information only, and no responsibility is taken for the accuracy and completeness of the information supplied. Positions of major service relocations and conflict points shall be recorded and checked by the Contractor. Service relocations may or may not be completed at time of construction. For further details, refer relevant service authority.

Possible service authority conflict points are shown thus:

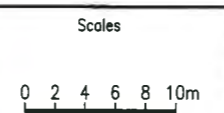
Contractor shall check services on site.



Last Modified: Sep 26, 2019 2:53pm XREFS: X_Survey_250.dwg : MC01 Final 250.dwg : Lights.dwg : Services.dwg

| | |
|------------------------|-------------------------|
| G | |
| F | |
| E | |
| D | |
| C | |
| B | |
| A | Issued For Construction |
| Revisions/Descriptions | |
| | |
| | |
| | |

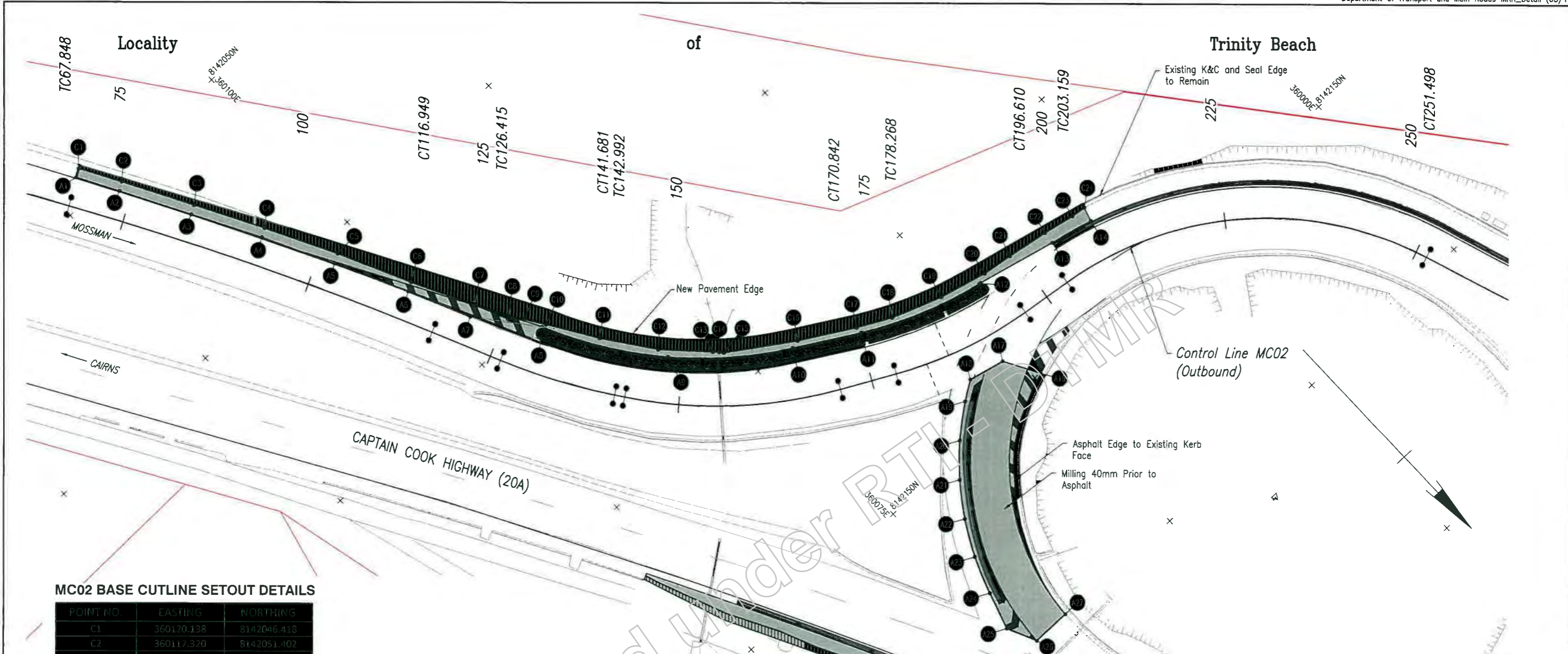
| | |
|-------------------|-------------|
| Associated Job No | Survey Data |
| | |
| Auxiliary Dwg Nos | Home Datum |
| | |
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| | |
|--|----------------------------|
| CAIRNS REGION (274) | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A) | |
| CTL CHGE 0.00 - 490.483 (MC01) | |
| Reference Points | |
| Preceding RP | Dist. to start of job (km) |
| From start to end of job | From end to Following RP |

| | |
|---|--|
| TRINITY BEACH ROUNDABOUT SERVICES PLAN (MC01) | |
| ENGINEERING CERTIFICATION (RPEQ) | |
| | |
| | |
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|------------------------|
| Queensland Government |
| Job No: 274/20A/559849 |
| Contract No: CN-12079 |
| Drawing No: 3-1309-A |
| Scale: 1:100 |
| Sheet: 16 of 18 |





MC02 BASE CUTLINE SETOUT DETAILS

| POINT NO. | EASTING | NORTHING |
|-----------|------------|-------------|
| C1 | 360120.138 | 8142046.418 |
| C2 | 360117.320 | 8142051.402 |
| C3 | 360112.639 | 8142059.946 |
| C4 | 360108.163 | 8142068.242 |
| C5 | 360103.645 | 8142077.070 |
| C6 | 360099.366 | 8142086.163 |
| C7 | 360095.491 | 8142093.904 |
| C8 | 360093.607 | 8142098.133 |
| C9 | 360092.139 | 8142099.559 |
| C10 | 360090.550 | 8142101.988 |
| C11 | 360088.817 | 8142107.957 |
| C12 | 360082.353 | 8142114.181 |
| C13 | 360077.536 | 8142119.217 |
| C14 | 360076.953 | 8142119.802 |
| C15 | 360076.561 | 8142120.275 |
| C16 | 360068.694 | 8142125.701 |
| C17 | 360062.100 | 8142129.658 |
| C18 | 360057.939 | 8142131.902 |
| C19 | 360051.645 | 8142134.304 |
| C20 | 360045.505 | 8142135.972 |
| C21 | 360041.619 | 8142136.611 |
| C22 | 360036.390 | 8142137.574 |
| C23 | 360032.390 | 8142138.425 |
| C24 | 360030.513 | 8142138.719 |

MC02 ASPHALT CUTLINE SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | POINT NO. | EASTING | NORTHING |
|-----------|------------|-------------|-----------|------------|-------------|
| A1 | 360121.161 | 8142046.987 | A14 | 360031.060 | 8142140.492 |
| A2 | 360118.353 | 8142052.041 | A16 | 360049.013 | 8142150.137 |
| A3 | 360113.728 | 8142060.542 | A17 | 360051.487 | 8142145.644 |
| A4 | 360109.226 | 8142068.883 | A18 | 360056.090 | 8142144.468 |
| A5 | 360104.776 | 8142077.700 | A19 | 360058.517 | 8142146.018 |
| A6 | 360100.425 | 8142086.764 | A20 | 360062.419 | 8142149.138 |
| A7 | 360096.909 | 8142094.561 | A21 | 360065.873 | 8142152.748 |
| A8 | 360091.120 | 8142101.857 | A22 | 360068.818 | 8142156.784 |
| A9 | 360082.101 | 8142115.731 | A23 | 360071.202 | 8142161.175 |
| A10 | 360069.782 | 8142125.920 | A24 | 360072.981 | 8142165.844 |
| A11 | 360062.104 | 8142130.542 | A25 | 360074.483 | 8142170.614 |
| A12 | 360046.899 | 8142136.469 | A26 | 360072.759 | 8142174.382 |
| A13 | 360036.564 | 8142139.131 | A27 | 360067.807 | 8142174.412 |


LEGEND

-  Asphalt Overlay (Milling as required) DG14
-  Pavement Widening Section

Notes:

1. Any exposed areas after milling shall require sealing prior to Asphalting or as directed by Administrator.
2. Milled area shall be swept clean prior to any further treatment.
3. Tack coating prior to Asphalting may be required as directed by Administrator.

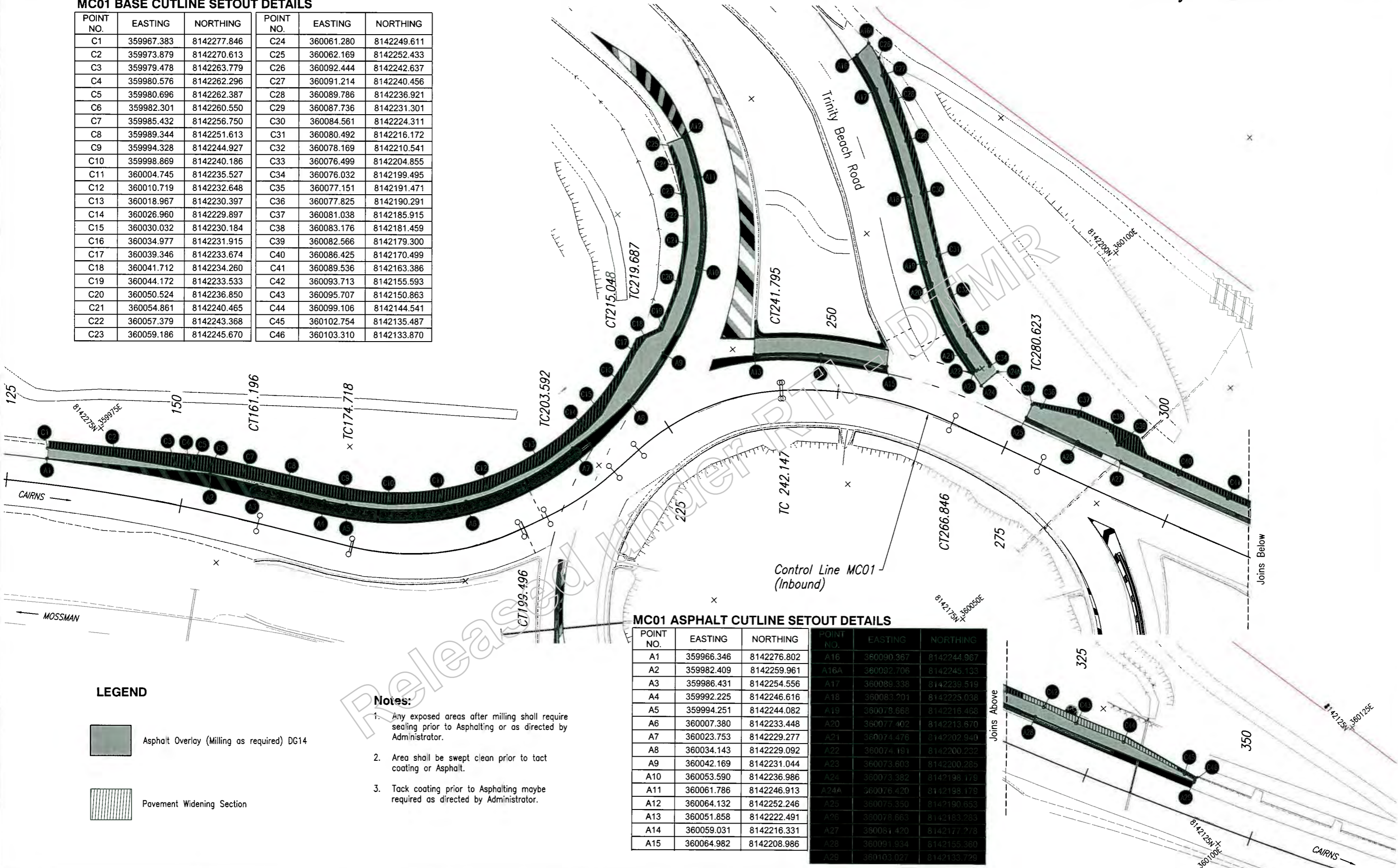
Last Modified: 26 Sep 2019 2:54pm XREFS: X:\Survey_250.dwg, MC02_Final_250.dwg, Base Cut Lines.dwg, Asphalt_Cutline.dwg

| <p>Associated Job No. 811294 TO 811311</p> <p>Auxiliary Draw No. 811408 TO 811411</p> <p>Issued For Construction</p> <p>Revisions/Descriptions</p> | <p>Survey Date</p> <p>Home Datum GDA94</p> <p>Home Grid MGA Zone 53</p> <p>Home Datum AHD Derived</p> <p>Survey Book (NR101013-20R)</p> | <p>Scales</p>  | <p>CAIRNS REGION (274)</p> <p>CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A)</p> <p>CTL CHGE 0.00 - 481.358 (MC02)</p> <p>Reference Points</p> <table border="1" style="width: 100%; font-size: small;"> <tr> <th>Preceding RP</th> <th>Dist. to start of job (km)</th> <th>From start to end of job</th> <th>From end to Following RP</th> <th>Following RP</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table> | Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP | | | | | | <p>TRINITY BEACH ROUNDABOUT</p> <p>PAVEMENT AND ASPHALT CUTLINES (MC02)</p> <p>ENGINEERING CERTIFICATION (RPEQ)</p> <p>Drawn: F. Chimbardi</p> <p>Checked: J. Whiteside</p> <p>Approved: G. Pollard</p> | <p>Job No. 274/20A/559849</p> <p>Contract No. CN-12079</p> <p>Drawing No. 811310/A</p> <p>Series Number 17 of 18</p> |
|--|---|---|---|--------------|----------------------------|--------------------------|--------------------------|--------------|--|--|--|--|--|---|--|
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

MC01 BASE CUTLINE SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | POINT NO. | EASTING | NORTHING |
|-----------|------------|-------------|-----------|------------|-------------|
| C1 | 359967.383 | 8142277.846 | C24 | 360061.280 | 8142249.611 |
| C2 | 359973.879 | 8142270.613 | C25 | 360062.169 | 8142252.433 |
| C3 | 359979.478 | 8142263.779 | C26 | 360092.444 | 8142242.637 |
| C4 | 359980.576 | 8142262.296 | C27 | 360091.214 | 8142240.456 |
| C5 | 359980.696 | 8142262.387 | C28 | 360089.786 | 8142236.921 |
| C6 | 359982.301 | 8142260.550 | C29 | 360087.736 | 8142231.301 |
| C7 | 359985.432 | 8142256.750 | C30 | 360084.561 | 8142224.311 |
| C8 | 359989.344 | 8142251.613 | C31 | 360080.492 | 8142216.172 |
| C9 | 359994.328 | 8142244.927 | C32 | 360078.169 | 8142210.541 |
| C10 | 359998.869 | 8142240.186 | C33 | 360076.499 | 8142204.855 |
| C11 | 360004.745 | 8142235.527 | C34 | 360076.032 | 8142199.495 |
| C12 | 360010.719 | 8142232.648 | C35 | 360077.151 | 8142191.471 |
| C13 | 360018.967 | 8142230.397 | C36 | 360077.825 | 8142190.291 |
| C14 | 360026.960 | 8142229.897 | C37 | 360081.038 | 8142185.915 |
| C15 | 360030.032 | 8142230.184 | C38 | 360083.176 | 8142181.459 |
| C16 | 360034.977 | 8142231.915 | C39 | 360082.566 | 8142179.300 |
| C17 | 360039.346 | 8142233.674 | C40 | 360086.425 | 8142170.499 |
| C18 | 360041.712 | 8142234.260 | C41 | 360089.536 | 8142163.386 |
| C19 | 360044.172 | 8142233.533 | C42 | 360093.713 | 8142155.593 |
| C20 | 360050.524 | 8142236.850 | C43 | 360095.707 | 8142150.863 |
| C21 | 360054.861 | 8142240.465 | C44 | 360099.106 | 8142144.541 |
| C22 | 360057.379 | 8142243.368 | C45 | 360102.754 | 8142135.487 |
| C23 | 360059.186 | 8142245.670 | C46 | 360103.310 | 8142133.870 |

Locality of Trinity Beach



MC01 ASPHALT CUTLINE SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | POINT NO. | EASTING | NORTHING |
|-----------|------------|-------------|-----------|------------|-------------|
| A1 | 359966.346 | 8142276.802 | A16 | 360090.367 | 8142244.967 |
| A2 | 359982.409 | 8142259.961 | A16A | 360092.706 | 8142245.133 |
| A3 | 359986.431 | 8142254.556 | A17 | 360089.338 | 8142239.519 |
| A4 | 359992.225 | 8142246.616 | A18 | 360083.201 | 8142225.038 |
| A5 | 359994.251 | 8142244.082 | A19 | 360079.668 | 8142216.468 |
| A6 | 360007.380 | 8142233.448 | A20 | 360077.402 | 8142213.670 |
| A7 | 360023.753 | 8142229.277 | A21 | 360074.478 | 8142202.940 |
| A8 | 360034.143 | 8142229.092 | A22 | 360074.191 | 8142200.232 |
| A9 | 360042.169 | 8142231.044 | A23 | 360073.603 | 8142200.265 |
| A10 | 360053.590 | 8142236.986 | A24 | 360073.382 | 8142198.178 |
| A11 | 360061.786 | 8142246.913 | A24A | 360076.420 | 8142198.178 |
| A12 | 360064.132 | 8142252.246 | A25 | 360075.350 | 8142190.653 |
| A13 | 360051.858 | 8142222.491 | A26 | 360078.663 | 8142183.283 |
| A14 | 360059.031 | 8142216.331 | A27 | 360081.420 | 8142177.778 |
| A15 | 360064.982 | 8142208.986 | A28 | 360091.934 | 8142155.360 |
| | | | A29 | 360103.027 | 8142133.726 |

LEGEND

- Asphalt Overlay (Milling as required) DG14
- Pavement Widening Section

Notes:

1. Any exposed areas after milling shall require sealing prior to Asphalting or as directed by Administrator.
2. Area shall be swept clean prior to tack coating or Asphalt.
3. Tack coating prior to Asphalting maybe required as directed by Administrator.

Last Modified: 26 Sep 2019 2:54pm XREFS: X:Survey_250.dwg; MC01 Final 250.dwg; Base Cut Lines.dwg; Asphalt Cutline.dwg

| | | | |
|--|--|--|--|
| <p>CAIRNS REGION (274) CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)(20A) CTL CHGE 0.00 - 490.483 (MC01)</p> | | <p>TRINITY BEACH ROUNDABOUT PAVEMENT AND ASPHALT CUT STRINGS (MC01)</p> | |
| <p>Preceding RP: [] Dist. to start of job (km): [] From start to end of job: [] From end to Following RP: [] Following RP: []</p> | | <p>ENGINEERING CERTIFICATION (RPEQ)</p> | |
| <p>Scale: 0 2 4 6 8 10m</p> | | <p>Queensland Government</p> | |
| <p>Issued For Construction</p> | | <p>Job No: 274/20A/559849</p> | |
| <p>Revisions/Descriptions</p> | | <p>Contract No: CN-12079</p> | |
| <p>Name of RPEQ: [] Signature: [] Date: []</p> | | <p>Issue No: 81311A</p> | |
| <p>Through Change from Refer. No. 811294 for Details</p> | | <p>Series Number: 18 of 18</p> | |

GENERAL NOTES

- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE TMR STANDARD SPECIFICATION ROADS.
- THE CONTRACTOR SHALL GIVE ALL NECESSARY NOTICES, OBTAIN ALL PERMITS, PERFORM ALL TESTS AND PAY ALL FEES AND OTHER COSTS IN CONNECTION WITH THE WORK.
- THE CONTRACTOR SHALL FILE ALL NECESSARY PLANS AND OBTAIN ALL NECESSARY APPROVALS FROM THE STATUTORY AUTHORITIES HAVING JURISDICTION OVER THE WORK.
- ALL MATERIALS, SUPPLIES AND ALL WORK INSTALLED SHALL COMPLY TO THE SPECIFICATIONS, STANDARDS, CODES, RULES AND REGULATIONS OF ALL STATUTORY AUTHORITIES HAVING JURISDICTION OVER THE WORKS. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:

- GENERAL STANDARDS**
- ELECTRICITY ACT & REGULATIONS
 - ELECTRICAL SAFETY ACT & REGULATIONS
 - ELECTRICAL SAFETY (CODES OF PRACTICE) NOTICE 2002
 - GUIDES FOR USE IN THE QUEENSLAND ELECTRICITY SUPPLY INDUSTRY
 - WORKPLACE HEALTH AND SAFETY ACT 1995 & REGULATIONS
 - ENVIRONMENTAL PROTECTION ACT
 - PLANT PROTECTION ACT
 - TRANSPORT OPERATIONS (ROAD USE MANAGEMENT) ACT
 - TRANSPORT INFRASTRUCTURE ACT
 - MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), PART 3 WORKS ON ROADS 2003

- AUSTRALIAN STANDARDS**
- AS/NZS 3000
 - AS/NZS 3008
 - AS/NZS 1158
 - AS/NZS 2053
 - AS 3996

- DEPARTMENT OF TRANSPORT AND MAIN ROADS STANDARDS**
- ROAD PLANNING AND DESIGN MANUAL
 - MRS & MRTS 91 CONDUITS AND PITS
 - MRS & MRTS 92 TRAFFIC SIGNAL AND ROAD LIGHTING FOOTINGS
 - MRS & MRTS 94 ROAD LIGHTING
 - MRS & MRTS 95 SWITCHBOARDS AND CABLES
 - TMR STANDARD DRAWINGS FOR ROAD LIGHTING, BUT NOT LIMITED TO:
 - 1149 - TRAFFIC SIGNALS/ROAD LIGHTING - DUCTS FOR UNDERGROUND ELECTRICAL CONDUIT
 - 1314 - TRAFFIC SIGNALS/ROAD LIGHTING - PIT - DRAINAGE DETAILS
 - 1323 - ROAD LIGHTING - LUMINAIRE TERMINAL PANEL
 - 1328 - ROAD LIGHTING POLE - ANCHOR CAGE FABRICATION DETAILS
 - 1329 - ROAD LIGHTING POLE AND PIT - TYPICAL PHYSICAL ARRANGEMENT
 - 1333 - TRAFFIC SIGNALS/ROAD LIGHTING/ITS - MINIMUM CLEARANCE OF OVERHEAD ELECTRIC LINES FROM GROUND AND STRUCTURES
 - 1370 - ROAD LIGHTING POLE - GENERAL ARRANGEMENTS
 - 1371 - ROAD LIGHTING POLE - FIXED BASE
 - 1372 - ROAD LIGHTING POLE - SLIP BASE
 - 1377 - TRAFFIC SIGNALS/ROAD LIGHTING - JOINT USE TRAFFIC SIGNAL AND ROAD LIGHTING POLE
 - 1380 - ROAD LIGHTING POLE - SLIP BASE POLE INSTALLATION DETAILS FOR NO CROSSFALL
 - 1381 - ROAD LIGHTING POLE - SLIP BASE POLE INSTALLATION DETAILS FOR CROSSFALLS NOT EXCEEDING 1:6
 - 1382 - ROAD LIGHTING POLE - SLIP BASE POLE INSTALLATION DETAILS FOR CROSSFALLS OF BETWEEN 1:6 AND 1:3
 - 1389 - ROAD LIGHTING POLE - SLIP BASE POLE MALE/FEMALE CONNECTORS INSTALLATION DETAILS.
 - 1392 - ROAD LIGHTING - BASE PLATE MOUNTED POLE AND FOOTING INSTALLATION DETAILS FOR CROSSFALLS UP TO AND INCLUDING 1:2
 - 1396 - TRAFFIC SIGNALS/ROAD LIGHTING - JOINT USE TRAFFIC SIGNAL AND ROAD LIGHTING POLE AND FOOTING INSTALLATION DETAILS.
 - 1399 - ROAD LIGHTING POLE - BASE PLATE MOUNTED POLE WIRING DETAILS.
 - 1400 - ROAD LIGHTING - SLIP BASE POLE WIRING DETAILS.
 - 1407 - TRAFFIC SIGNALS - TRAFFIC SIGNAL TERMINAL PANEL FOR JOINT USE POLES.
 - 1408 - TRAFFIC SIGNALS - TRAFFIC SIGNAL TERMINAL PANEL FOR JOINT USE POLES WIRING DETAILS.
 - 1409 - ROAD LIGHTING POLE - LUMINAIRE HEADFRAMES WIRING DETAILS EXCLUDING 4x400W LUMINAIRES.
 - 1415 - TRAFFIC SIGNALS/ROAD LIGHTING - CABLE JOINTING PIT, CIRCULAR 600 DIAMETER.
 - 1416 - TRAFFIC SIGNALS/ROAD LIGHTING - COLLAR FOR 600 DIAMETER CIRCULAR CABLE JOINTING PIT.
 - 1417 - TRAFFIC SIGNALS/ROAD LIGHTING - CABLE JOINTING PIT CIRCULAR 600 DIAMETER COVER DRAWING 1 OF 2.
 - 1417 - TRAFFIC SIGNALS/ROAD LIGHTING - CABLE JOINTING PIT CIRCULAR 600 DIAMETER COVER DRAWING 2 OF 2.
 - 1418 - TRAFFIC SIGNALS/ROAD LIGHTING - CABLE JUNCTION BOX SUPPORTING STRAP.
 - 1429 - ROAD LIGHTING - SLIP BASE POLE AND FOOTING INSTALLATION DETAILS FOR CROSS FALLS GREATER THAN 1:6 UP TO AND INCLUDING 1:3 USING CONCRETE.
 - 1434 - TRAFFIC SIGNALS/ROAD LIGHTING - CABLE GUARD MANUFACTURING DETAILS.
 - 1623 - ROAD LIGHTING POLE - SWITCHBOARD TYPICAL LAYOUT AND CIRCUIT DIAGRAM MEN SYSTEM.
 - 1624 - ROAD LIGHTING - SINGLE PHASE JUNCTION BOX WIRING DETAILS.
 - 1626 - ROAD LIGHTING POLE - ACTIVE, NEUTRAL AND EARTH BOLTING ARRANGEMENTS.
 - 1627 - ROAD LIGHTING - SWITCHBOARD TOP MOUNTED.
 - 1628 - ROAD LIGHTING - POST TOP MOUNTED SWITCHBOARD.
 - 1630 - TRAFFIC SIGNALS/ROAD LIGHTING - CONDUIT ENTRY DETAILS INTO CIRCULAR PITS.
 - 1636 - ROAD LIGHTING - SYMBOLS.
 - 1671 - TRAFFIC SIGNALS/ROAD LIGHTING - ROAD LIGHTING LABELS INSTALLATION.
 - 1673 - TRAFFIC SIGNALS/ROAD LIGHTING - LABELS.
 - 1699 - TRAFFIC SIGNALS/ROAD LIGHTING/ITS - PARTS LIST.

ERGON ENERGY STANDARDS

- ROAD LIGHTING WITHIN LIMIT OF RECOMMENDATION (LOR) DESIGNED TO AS/NZS 1158 CATEGORY V3. NEW POLE SELECTION BASED ON AUSTRROADS GUIDE TO ROAD DESIGN, PART 6, TABLE 4.1. POSTED SPEED OF 40km/hr FOR TRINITY BEACH ROAD ROUNDABOUT.
- NEW ROAD LIGHTING TO BE CONNECTED UNDER ERGON ENERGY RATE 3 TARIFF.

- DESIGN ASSUMES AN UPGRADE ANGLE OF 5 DEGREES ON ALL STREET LIGHTS.
- ALL NEW STREET LIGHT POLES TO BE GALVANISED STEEL SLIP BASE MOUNTED (SBM) OR GALVANISED BASE PLATE MOUNTED (BPM). REFER SCHEDULES.
- ALL OUTREACHES ARE TO BE INSTALLED PERPENDICULAR TO THE CARRIAGEWAY, UNLESS OTHERWISE NOTED
- LUMINAIRES ARE ONLY TO BE AS SPECIFIED ON THESE DRAWINGS. DESIGN IS BASED UPON THE SYLVANIA ROADLED 175W AEROSCREEN LUMINAIRE PHOTOMETRIC FILE: ROADLED 175W 4K 02A AERO 216150M.ies
- ELECTRICAL WORK CAN ONLY BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR.
- LOCATION OF UNDERGROUND SERVICES TO BE CONFIRMED PRIOR TO EXCAVATION. PROVE LOCATION BY HAND EXCAVATION BEFORE PROCEEDING WITH EXCAVATIONS WITH POWER EQUIPMENT. REPAIR ANY DAMAGE TO SERVICES CAUSED BY NEGLIGENCE OF THIS PRECAUTION.
- LOCATION OF STREET LIGHTING, PITS AND CONDUITS IS APPROXIMATE ONLY. CONTRACTOR TO CONFIRM ALL MEASUREMENTS ON SITE.
- FOR STREET LIGHTS INSTALLED ON CROSSFALLS, PROVIDE BATTER TREATMENT AND/OR A RETAINING WALL AS REQUIRED BY TMR STANDARD DRAWINGS.
- ANY POSSIBLE VARIATIONS TO POLE LOCATIONS CONSIDERED NECESSARY PRIOR TO INSTALLATION, OR IN THE FIELD, SHALL BE CHECKED WITH THE SUPERINTENDENT.
- ENSURE CLEARANCES BETWEEN STREET LIGHTS AND ERGON ENERGY O/H POWER LINES ARE MAINTAINED IN ACCORDANCE WITH THE ERGON ENERGY STANDARDS, TMR DRAWING NO. 1333 AND TMR 'ROAD PLANNING AND DESIGN MANUAL'.
- LOCATION OF PITS AND CONDUITS TO BE INSTALLED IS INDICATIVE ONLY. PITS AND CONDUITS SHALL BE INSTALLED IN ACCORDANCE WITH TMR STANDARD DRAWING 1329. FINAL LOCATIONS SHALL BE CONFIRMED ON SITE BY SUPERINTENDENT.
- ACTUAL LENGTHS OF CONDUIT & CABLES TO BE INSTALLED SHALL BE CONFIRMED BY THE CONTRACTOR BY ON-SITE MEASUREMENT.
- ALL NEW CONDUITS TO BE HEAVY DUTY RIGID TO AS 2053 AND LAID IN ACCORDANCE WITH TMR STANDARD DRAWING 1149.
- TRENCHING, CONDUITS, CONDUIT BENDS AND PITS ARE NOT SCHEDULED.
- CONDUIT, CONDUIT BENDS AND CABLE BETWEEN EACH STREETLIGHT AND ITS ASSOCIATED PIT ARE AS PER TMR STANDARDS. THESE ARE NOT INCLUDED IN THE SCHEDULES. SIMILARLY, CABLES INTERNAL TO STREETLIGHT COLUMNS ARE NOT SCHEDULED.
- INSTALL 'E' MARKERS IN ANY KERBS ABOVE ROAD CROSSING CONDUITS.
- PROVIDE LABELLING TO ALL HRC FUSES INDICATING THE RATING, TYPE AND CIRCUIT NAME.
- ALL PIT LIDS ARE TO BE GALVANISED STEEL. A NON-SLIP, NON-CONDUCTIVE COATING IS TO BE APPLIED TO THE TOP SURFACE OF THE COVER AND THE ALUMINIUM TEXT PLATE. COATING IS TO MEET THE REQUIREMENTS OF MRTS91.
- ALL CALCULATIONS BASED ON 400V SUPPLY.
- MAXIMUM VOLTAGE DROP FROM SUPPLY POINT - 5%
- FAULT LOOP IMPEDANCE CALCULATED USING THE FOLLOWING DISCONNECT TIME, HRC FUSES, I_{sc} IN ACCORDANCE WITH AS/NZS 3000-2007:
 - PIT-PIT 5 SEC
 - PIT-POLE 0.4 SEC
- MAXIMUM SIZE OF PROTECTION TO COMPLY WITH FAULT LOOP IMPEDANCE REQUIREMENTS.
- VOLTAGE DROP CALCULATIONS BASED ON THE FOLLOWING STARTING & RUNNING CURRENTS OF POWER FACTOR CORRECTED LUMINAIRES OBTAINED FROM TMR. SYLVANIA ROADLED 175W AEROSCREEN LUMINAIRE LED175A : STARTING - 0.77A, RUNNING - 0.77A.
- ALL METAL PIT COLLARS ARE TO BE BONDED TO EARTHING LUG IN BASE OF LIGHTING POLE.
- JOINTING OF STREETLIGHTING CABLE AS PER TRAFFIC AND ROAD USE MANAGEMENT MANUAL (TRUM) AND TMR DRAWING NO. 1624.

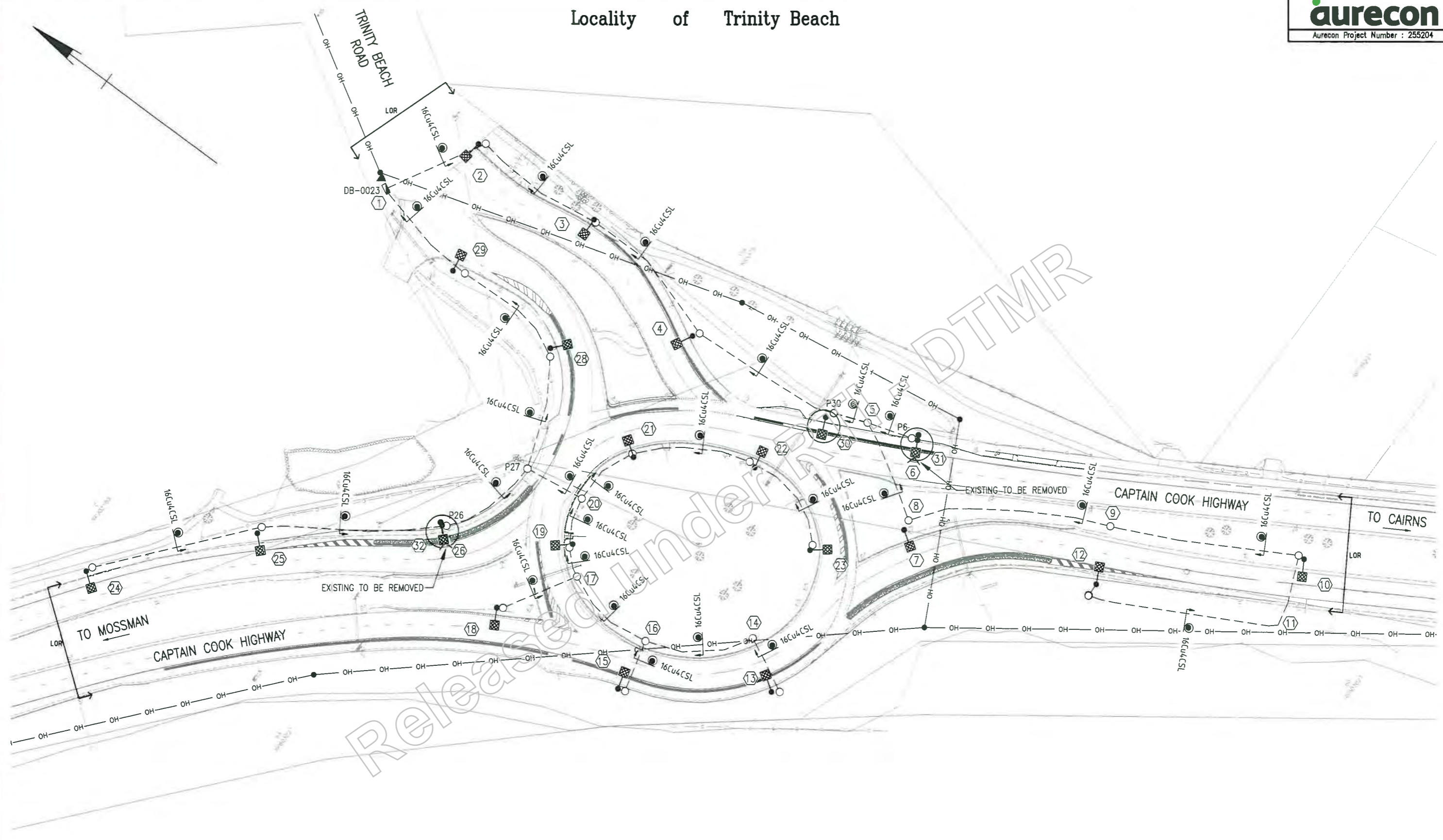
STREET LIGHTING LEGEND

| SYMBOL | DESCRIPTION |
|--------|--|
| | 175W LED STREETLIGHT - INSTALLED ON RATE 3 |
| | ELECTRICAL PIT 600# C/W LID TO BE INSTALLED. P# - DENOTES PIT STATION No |
| | UNDERGROUND CONDUIT TO BE INSTALLED |
| | EXISTING UNDERGROUND CONDUIT |
| | EXISTING ERGON ENERGY HV/LV POLE |
| | EXISTING ERGON ENERGY HV POLE |
| | EXISTING ERGON ENERGY LV POLE |
| | LV UNDERGROUND TERMINATION (POINT OF SUPPLY) |
| | EXISTING ERGON ENERGY OVERHEAD NETWORK TO REMAIN |
| | EXISTING ERGON ENERGY OVERHEAD NETWORK, TO BE RECOVERED. REFER TO ERGON DRAWINGS FOR DETAILS |
| | LUMINAIRE TO BE INSTALLED |
| | LUMINAIRE TO BE REMOVED |
| | STATION NUMBER |
| | SWITCHBOARD - RATE 3 STREETLIGHTING OR TRAFFIC SIGNALS |
| | CONDUIT CROSS SECTION |
| | SL - STREET LIGHTING P - POWER |
| | NUMBER OF CORES |
| | NOMINAL CONDUCTOR AREA (mm) |
| | 80mm DIAMETER CONDUIT UNO |
| | PROPOSED CABLES |
| | EXISTING CABLES |
| | DENOTES 100mm CONDUIT |
| | LIMIT OF RECOMMENDATION FOR LIGHTING |

Last Modified: Sep 25, 2019 - 11:50am XREFS :

| | | | | | | | | | | | | | |
|---------------------------|--|---|--|--------------|--|-----------|--|---|--|----------------------------------|--|------------------------|--|
| G | | Associated Job No. | | Survey Date | | Scales | | CAIRNS REGION (274) | | TRINITY BEACH ROAD ROUNDABOUT | | Queensland Government | |
| F | | | | Datum | | | | CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) (20A) | | ELECTRICAL SERVICES | | JOB NO. 274/20A/559849 | |
| E | | Auxiliary Dwg No. | | Main Dwg | | | | CTL CHGE MCO1 0.00-490.483, MCO2 00-481.358 | | LEGEND AND GENERAL NOTES | | Contract No. CN-12079 | |
| D | | | | MGA Zone 55 | | | | Reference Points | | ENGINEERING CERTIFICATION (RPEQ) | | Date: 25/09/19 | |
| C | | | | AHD Derived | | | | Preceding RP | | NAME | | Drawn No. 811408 | |
| B | | | | MRT101013-20 | | | | Dist. to start of job (km) | | J.P. JACOBS | | Series Number | |
| A Issued For Construction | | | | | | | | From start to end of job | | | | Sheet 1 of 4 | |
| Revisions/Descriptions | | Carried out | | Date | | Microfilm | | Following RP | | | | WPR (Scale) 100/100 | |
| CAD FILES | | P:\255204 Cairns TMR Traffic Signal and Street Lighting Projects\5 Deliver design - Reed Road and Trinity Beach Road Roundabouts\503 Drawings\EE\811408.dwg | | | | | | Through Chains from | | 0.0 - 400 | | | |

Locality of Trinity Beach



NOTES
1. REFER TO DRAWING NO. 811408 FOR LEGEND AND GENERAL NOTES.

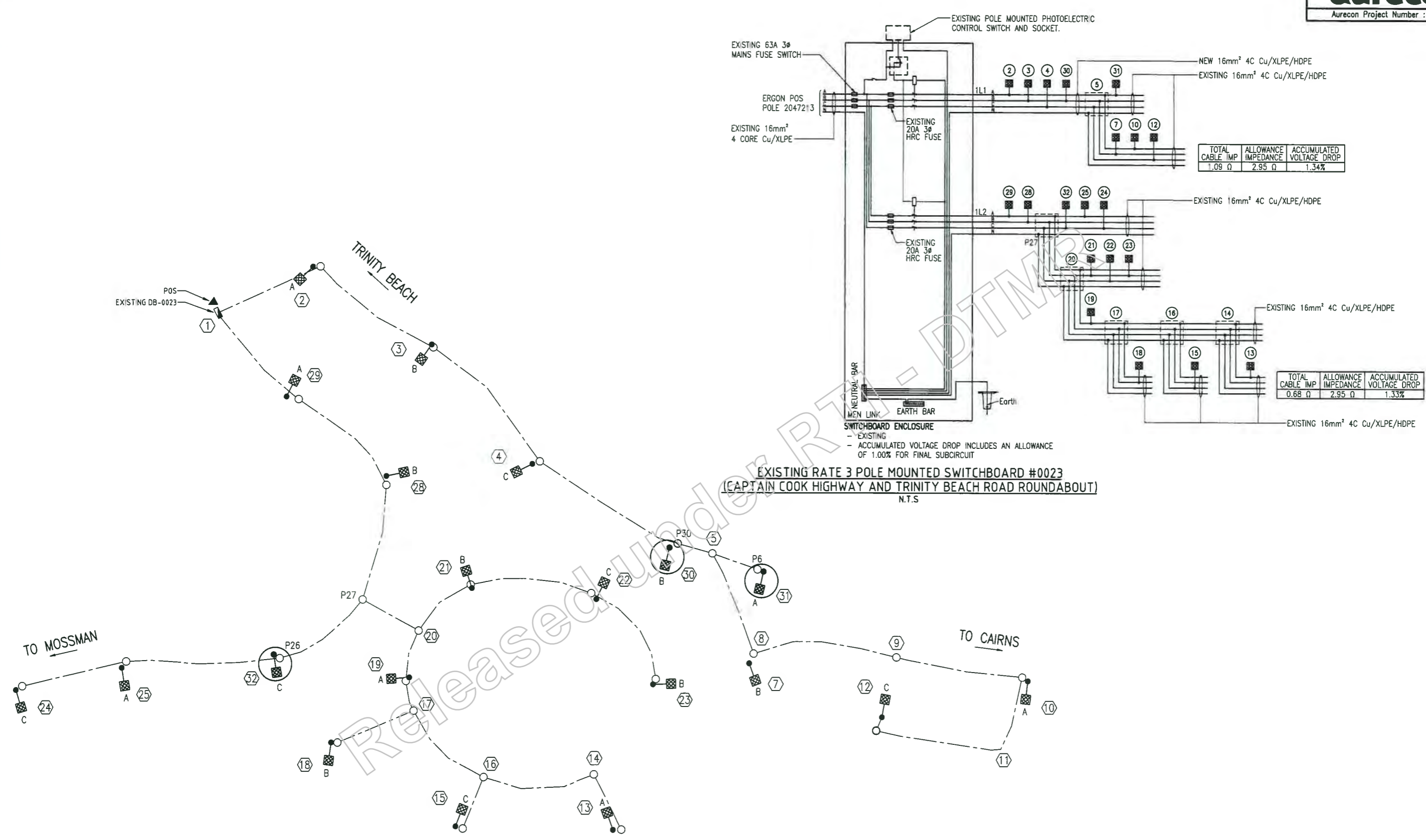
Last Modified: Sep 25, 2019 - 11:51am XREFS: Survey clean.kin.dwg; Pavement & Herb MCO2.dwg; Services.dwg; TRINITY-4_ASI.dwg
 CAD FILES: P:\255204 Cairns TMR Traffic Signs and Street Lighting Projects\503 Driver design - Reed Road and Trinity Beach Road Roundabouts\503 Drawings\EE\811409.dwg

| | | | |
|------------------------|-------------------------|---------------------|-------------|
| G | | Associated Job Plan | Survey Data |
| F | | | |
| E | | | |
| D | | | |
| C | | | |
| B | | | |
| A | Issued For Construction | | |
| Revisions/Descriptions | | Certification | Date |
| | | | |

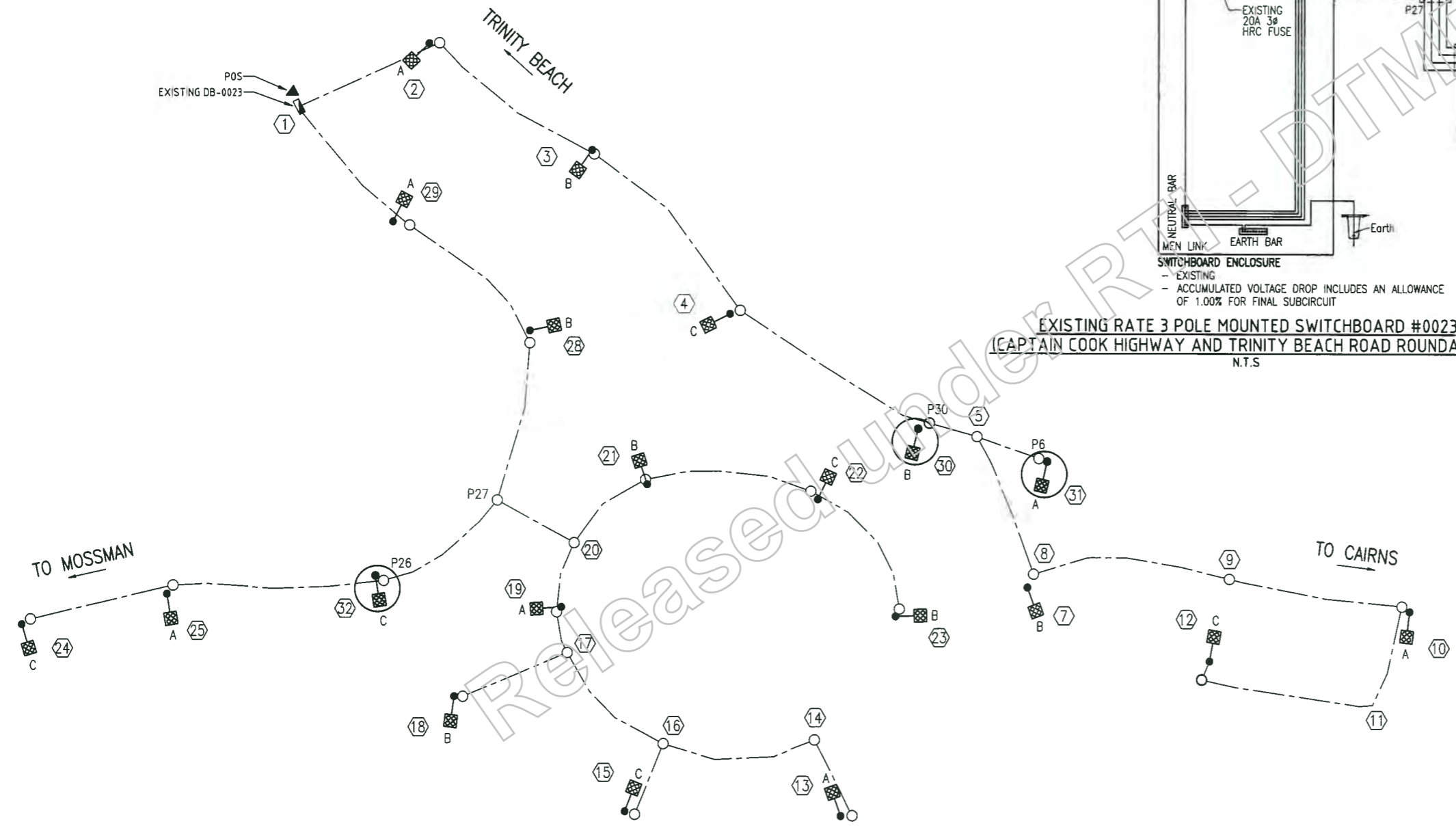
| | | | | |
|--|----------------------------|--------------------------|--------------------------|--------------|
| CAIRNS REGION (274) | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) (20A) | | | | |
| CTL CHGE MCO1 0.00-490.483, MCO2 00-481.358 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| | | | | |

| | | | |
|--------------------------------------|----------|------------|----------|
| TRINITY BEACH ROAD ROUNDABOUT | | | |
| ELECTRICAL SERVICES | | | |
| SITE PLAN | | | |
| ENGINEERING CERTIFICATION (RPEQ) | | | |
| Drawn | Checked | Designed | Reviewed |
| M.HOGAN | | J.P.JACOBS | |
| NO | DATE | NO | DATE |
| ELEC | 25/09/19 | 8914 | 25/09/19 |

| | |
|---------------|----------------|
| Job No. | 274/20A/559849 |
| Contract No. | CN-12079 |
| Drawing No. | 811409 1A |
| Series Number | |



EXISTING RATE 3 POLE MOUNTED SWITCHBOARD #0023
(CAPTAIN COOK HIGHWAY AND TRINITY BEACH ROAD ROUNDABOUT)
N.T.S



NOTE: NEW CABLE TO BE 4C 16mm² Cu/XLPE/HDPE
SINGLE LINE DIAGRAM
N.T.S

NOTES
1. REFER TO DRAWING NO. 811408 FOR LEGEND AND GENERAL NOTES.

Last Modified: 25/09/2019 11:51am XREFS

| | | | | | | | | | | | | | | | | | |
|---|--|-------------------------|--|-----------------------------|--|--------|--|---|--|----------------------------|--|----------------------------------|--|--------------------------|--|------------------------|--|
| G | | Revised Job No. | | Survey Data | | Scales | | CAIRNS REGION (274) | | | | TRINITY BEACH ROAD ROUNDABOUT | | | | | |
| F | | 811408 | | Date: 04/04 | | NTS | | CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) (20A) | | | | ELECTRICAL SERVICES | | | | | |
| E | | 811409 | | Datum: MGA Zone 55 | | | | CTL CHGE MCO1 0.00-490.483, MCO2 00-481.358 | | | | SCHEMATICS | | | | | |
| D | | 811411 | | Height Origin: AHD Derived | | | | Reference Points | | | | ENGINEERING CERTIFICATION (RPEQ) | | | | | |
| C | | | | Survey Points: AR101013-204 | | | | Preceding RP | | Dist. to start of job (km) | | From start to end of job | | From end to Following RP | | Job No. 274/20A/559849 | |
| B | | | | | | | | | | | | | | | | Contract No. 04-12079 | |
| A | | Issued For Construction | | | | | | | | | | | | | | Drawing No. 811410 | |
| | | Revisions/Descriptions | | Certification | | Date | | Microfilm | | | | | | | | Series Number 3 of 4 | |
| | | | | | | | | | | | | | | | | MRR Date 02/14 | |

| LOCATION | STN No | SITE I.D. (POS & POLE No) | POLE or COMPONENTS | | | | | | LUMINAIRE | | | | | | OUTREACH BRACKET | | | | REMARKS | | | | | |
|--|--------|---------------------------|--------------------|-----------|-------------|-----------|-----------|---------|-----------|---------------|-----------|-------|-----------|-----------|------------------|-------|-----------|-----------|---------|---------|-----------|-----------|----------------------------------|---|
| | | | COMP I.D. | EXIST (m) | RECOVER (m) | ERECT (m) | SLM or IN | EASTING | NORTHING | ALIGNMENT (m) | COMP I.D. | EXIST | RECOVER | | ERECT | | SLM or IN | EXIST (m) | | REC (m) | ERECT (m) | SLM or IN | MOUNT HI (m) | |
| | | | | | | | | | | | | | LUMINAIRE | CUST. | LUMINAIRE | CUST. | | | | | | | | |
| SWB #0023 CAPTAIN COOK HIGHWAY & TRINITY BEACH RD ROUNDABOUT | 2 | 300042R | P01 | 8.5BPM | | | | | | SL1 | S250 | S250 | TMR | LED 175 A | TMR | | | 3 | | | | 10.5 | EXISTING POLE, REPLACE LUMINAIRE | |
| | 3 | 300041R | P01 | 8.5BPM | | | | | | SL1 | S250 | S250 | TMR | LED 175 A | TMR | | | 3 | | | | 10.5 | EXISTING POLE, REPLACE LUMINAIRE | |
| | 4 | 300040R | P01 | 8.5BPM | | | | | | SL1 | S250 | S250 | TMR | LED 175 A | TMR | | | 3 | | | | 10.5 | EXISTING POLE, REPLACE LUMINAIRE | |
| | 6 | 300039R | P01 | 8.5BPM | 8.5BPM | | | | | SL1 | S250 | S250 | TMR | | | | | | 3 | | | | 10.5 | RECOVER EXISTING POLE, LUMINAIRE AND OUTREACH |
| | 7 | 300038R | P01 | 8.5BPM | | | | | | SL1 | S250 | S250 | TMR | LED 175 A | TMR | | | 4.5 | | | | | 10.5 | EXISTING POLE, REPLACE LUMINAIRE |
| | 10 | 300038R | P01 | 8.5BPM | | | | | | SL1 | S250 | S250 | TMR | LED 175 A | TMR | | | 4.5 | | | | | 10.5 | EXISTING POLE, REPLACE LUMINAIRE |
| | 12 | 300037R | P01 | 8.5BPM | | | | | | SL1 | S250 | S250 | TMR | LED 175 A | TMR | | | 4.5 | | | | | 10.5 | EXISTING POLE, REPLACE LUMINAIRE |
| | 13 | 300034R | P01 | 8.5BPM | | | | | | SL1 | S250 | S250 | TMR | LED 175 A | TMR | | | 3 | | | | | 10.5 | EXISTING POLE, REPLACE LUMINAIRE |
| | 15 | 300035R | P01 | 8.5BPM | | | | | | SL1 | S250 | S250 | TMR | LED 175 A | TMR | | | 3 | | | | | 10.5 | EXISTING POLE, REPLACE LUMINAIRE |
| | 18 | 300026R | P01 | 8.5BPM | | | | | | SL1 | S250 | S250 | TMR | LED 175 A | TMR | | | 3 | | | | | 10.5 | EXISTING POLE, REPLACE LUMINAIRE |
| | 19 | 300030R | P01 | 8.5BPM | | | | | | SL1 | S250 | S250 | TMR | LED 175 A | TMR | | | 3 | | | | | 10.5 | EXISTING POLE, REPLACE LUMINAIRE |
| | 21 | 300031R | P01 | 8.5BPM | | | | | | SL1 | S250 | S250 | TMR | LED 175 A | TMR | | | 3 | | | | | 10.5 | EXISTING POLE, REPLACE LUMINAIRE |
| | 22 | TBD | P01 | 8.5BPM | | | | | | SL1 | S250 | S250 | TMR | LED 175 A | TMR | | | 3 | | | | | 10.5 | EXISTING POLE, REPLACE LUMINAIRE |
| | 23 | 300033R | P01 | 8.5BPM | | | | | | SL1 | S250 | S250 | TMR | LED 175 A | TMR | | | 3 | | | | | 10.5 | EXISTING POLE, REPLACE LUMINAIRE |
| | 24 | 300025R | P01 | 8.5BPM | | | | | | SL1 | S250 | S250 | TMR | LED 175 A | TMR | | | 4.5 | | | | | 10.5 | EXISTING POLE, REPLACE LUMINAIRE |
| | 25 | 300024R | P01 | 8.5BPM | | | | | | SL1 | S250 | S250 | TMR | LED 175 A | TMR | | | 4.5 | | | | | 10.5 | EXISTING POLE, REPLACE LUMINAIRE |
| | 26 | 300023R | P01 | 8.5BPM | 8.5BPM | | | | | SL1 | S250 | S250 | TMR | | | | | | 4.5 | | | | 10.5 | RECOVER EXISTING POLE, LUMINAIRE AND OUTREACH |
| | 28 | 300022R | P01 | 8.5BPM | | | | | | SL1 | S250 | S250 | TMR | LED 175 A | TMR | | | 3 | | | | | 10.5 | EXISTING POLE, REPLACE LUMINAIRE |
| | 29 | 300021R | P01 | 8.5BPM | | | | | | SL1 | S250 | S250 | TMR | LED 175 A | TMR | | | 3 | | | | | 10.5 | EXISTING POLE, REPLACE LUMINAIRE |
| | 30 | | P01 | | | | | | 360086.8 | 8142174.79 | | SL1 | | | LED 175 A | TMR | | | | | 3 | | 10.5 | INSTALL NEW POLE, LUMINAIRE AND OUTREACH. NEW PIT AND CONDUIT TO BE INSTALLED. |
| | 31 | | P01 | | | | | | 360097.97 | 8142151.51 | | SL1 | | | LED 175 A | TMR | | | | | 3 | | 10.5 | INSTALL NEW POLE, LUMINAIRE AND OUTREACH. POLE TO BE CONNECTED TO EXISTING PIT. |
| | 32 | | P01 | | | | | | 360000.87 | 8142241.98 | | SL1 | | | LED 175 A | TMR | | | | | 4.5 | | 10.5 | INSTALL NEW POLE, LUMINAIRE AND OUTREACH. POLE TO BE CONNECTED TO EXISTING PIT. |

| LOCATION | STATIONS FROM - TO | VOLTAGE | EX | REC | IN | CABLE SIZE/TYPE | TOTAL LENGTH | REMARKS | |
|--|--------------------|----------|-----|-----|----------------------|----------------------|--------------|--|-----|
| | | | | | | | | | POS |
| SWB #0023 CAPTAIN COOK HIGHWAY & TRINITY BEACH RD ROUNDABOUT | POS | 1 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 15 | | |
| | 1 | SWB#0023 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 10 | | |
| | Circuit No.1 | | | | | | | | |
| | SWB#0023 | 1 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 10 | | |
| | 1 | 2 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 34 | | |
| | 2 | 3 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 44 | | |
| | 3 | 4 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 48 | | |
| | 4 | P30 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 46 | INSTALL NEW PIT TO EXISTING CONDUIT AT P30. ALLOW TO USE EXISTING CABLE. INSTALL JUNCTION BOX TO CABLE AT P30. | |
| | P30 | 5 | 400 | | X | 4C 16mm Cu/XPLE/HDPE | 14 | INSTALL NEW CABLE TO EXISTING CONDUIT | |
| | 5 | P6 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 19 | | |
| | 5 | 8 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 35 | | |
| | 8 | 9 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 60 | | |
| | 9 | 10 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 60 | | |
| | 10 | 11 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 24 | | |
| | 11 | 12 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 60 | | |
| | Circuit No.2 | | | | | | | | |
| | SWB#0023 | 1 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 10 | | |
| | 1 | 29 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 36 | | |
| | 29 | 28 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 0 | | |
| | 28 | P27 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 18 | | |
| | P27 | P26 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 18 | | |
| | P26 | 25 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 18 | | |
| | 25 | 24 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 18 | | |
| | P27 | 20 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 20 | | |
| | 20 | 19 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 18 | | |
| | 19 | 17 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 13 | | |
| | 17 | 18 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 28 | | |
| | 17 | 16 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 33 | | |
| | 16 | 15 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 18 | | |
| | 16 | 14 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 33 | | |
| | 14 | 13 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 19 | | |
| | 20 | 21 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 21 | | |
| 21 | 22 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 36 | | | |
| 22 | 23 | 400 | X | | 4C 16mm Cu/XPLE/HDPE | 33 | | | |

| ROAD LIGHTING CIRCUIT SCHEDULE | | | | | | | | | | | |
|---|---------------------|-------|-------------|-------------|--------|------------------------------|----------------------------|-----------------------|------------------------|------------------|--------------------------------------|
| POWER SUPPLY LOCATION/TYPE | POWER SUPPLY NUMBER | PHASE | CIRCUIT No. | STATION NO. | LOAD | START CURRENT (A) Calculated | RUN CURRENT (A) Calculated | PROTECTION RATING (A) | MINIMUM CONDUCTOR SIZE | ASSOCIATED PLANS | REMARKS |
| SWB #0023 CAPTAIN COOK HIGHWAY & TRINITY BEACH RD ROUNDABOUT | 2047213 | A | 1L1 | 2,31,10 | 3x175W | 2.31 | 2.31 | 20 A | 4C 16mm Cu/XPLE/HDPE | | |
| | | B | 1L1 | 3,7,30 | 3x175W | 2.31 | 2.31 | 20 A | 4C 16mm Cu/XPLE/HDPE | | STATION 30 ADDED TO EXISTING CIRCUIT |
| | | C | 1L1 | 4,12 | 2x175W | 1.54 | 1.54 | 20 A | 4C 16mm Cu/XPLE/HDPE | | |
| | | A | 1L2 | 13,19,25,29 | 4x175W | 3.08 | 3.08 | 20 A | 4C 16mm Cu/XPLE/HDPE | | |
| | | B | 1L2 | 18,21,23,28 | 4x175W | 3.08 | 3.08 | 20 A | 4C 16mm Cu/XPLE/HDPE | | |
| | | C | 1L2 | 15,22,24,32 | 4x175W | 3.08 | 3.08 | 20 A | 4C 16mm Cu/XPLE/HDPE | | |

| MAINTENANCE FACTOR | | | | | | | | | |
|--|------------------------------|-----------|--------------------|------------------------------|-------------------------|---------------------------|---|--|-------------------------------|
| LOCATION | LUMINAIRE MAINTENANCE FACTOR | | | | LAMP MAINTENANCE FACTOR | | | LUMINAIRE CLEANING AND BULK LAMP REPLACEMENT INTERVAL (MONTHS) | TOTAL MAINTENANCE FACTOR (MF) |
| | LUMINAIRE | IP RATING | POLLUTION CATEGORY | LUMINAIRE MAINTENANCE FACTOR | LAMP TYPE | LUMEN DEPRICIATION FACTOR | LAMP SURVIVAL FACTOR (SPOT REPLACEMENT = 1) | | |
| CAPTAIN COOK HIGHWAY & TRINITY BEACH RD ROUNDABOUT | ROADLED 175W LED 02A AERO | IP65 | MEDIUM | 0.9 | LED 175 A | 0.85 | 1 | 48 | 0.80 |

| LIGHT TECHNICAL PARAMETERS | | | | | | | |
|--|-----|-------------------|--------------|-------------|--------------|------|--------------|
| LOCATION | CAT | E min | | E max/E min | | UWLR | |
| | | CODE (MAINTAINED) | DESIGN VALUE | CODE | DESIGN VALUE | CODE | DESIGN VALUE |
| CAPTAIN COOK HIGHWAY & TRINITY BEACH RD ROUNDABOUT | V3 | 7.5 | 8.8 | 8.0 | 4.5 | 3.0 | 0.0 |

NOTES
1. REFER TO DRAWING NO. 811408 FOR LEGEND AND GENERAL NOTES.

Last Modified :- Sep 25, 2019 - 11:52am XREFS :-

| | | | | |
|-------------------------|---|--------|---|---|
| Associated Job No | Survey Data | Scales | CAIRNS REGION (274) | TRINITY BEACH ROAD ROUNDABOUT ELECTRICAL SERVICES SCHEDULES |
| 811408 | CDM94 | NTS | CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) (20A) | ENGINEERING CERTIFICATION (RPEQ) |
| 811409 | MCA Zone55 | | CTL CHGE MC01 0.00-490.483, MC02 00-481.358 | Job No. 274/20A/559849 |
| 811410 | AHD Derived | | Reference Points | Contract No. CN-12079 |
| Issued For Construction | MR 01013-20 | | Preceding RP | Drawn No. 6914 |
| Revisions/Descriptions | Dimensions shown in millimetres unless otherwise stated | | Dist. to start of job (km) | DATE 25/09/19 |
| | | | From start to end of job | Drawn By S.HICKLING |
| | | | From end to Following RP | Checked By J.P.JACOBS |
| | | | Following RP | Scale Number |
| | | | Through Chainage from 0.0 - 400 | MRR_Detail |

Kerb profile on bike side should be semi-mountable. Barrier profile on general purpose side, refer TRUM volume 1 part 10 section 7-1

Ensure ponding eliminated

Flare nose on bike side

Consider staggered giveway arrangement to reduce visibility being obstructed by a vehicle in offside lane. 4.5m value taken from MUTCD part 2 Figure 2.2 note 5

Consider set back giveway line (refer TN136 treatment A2).

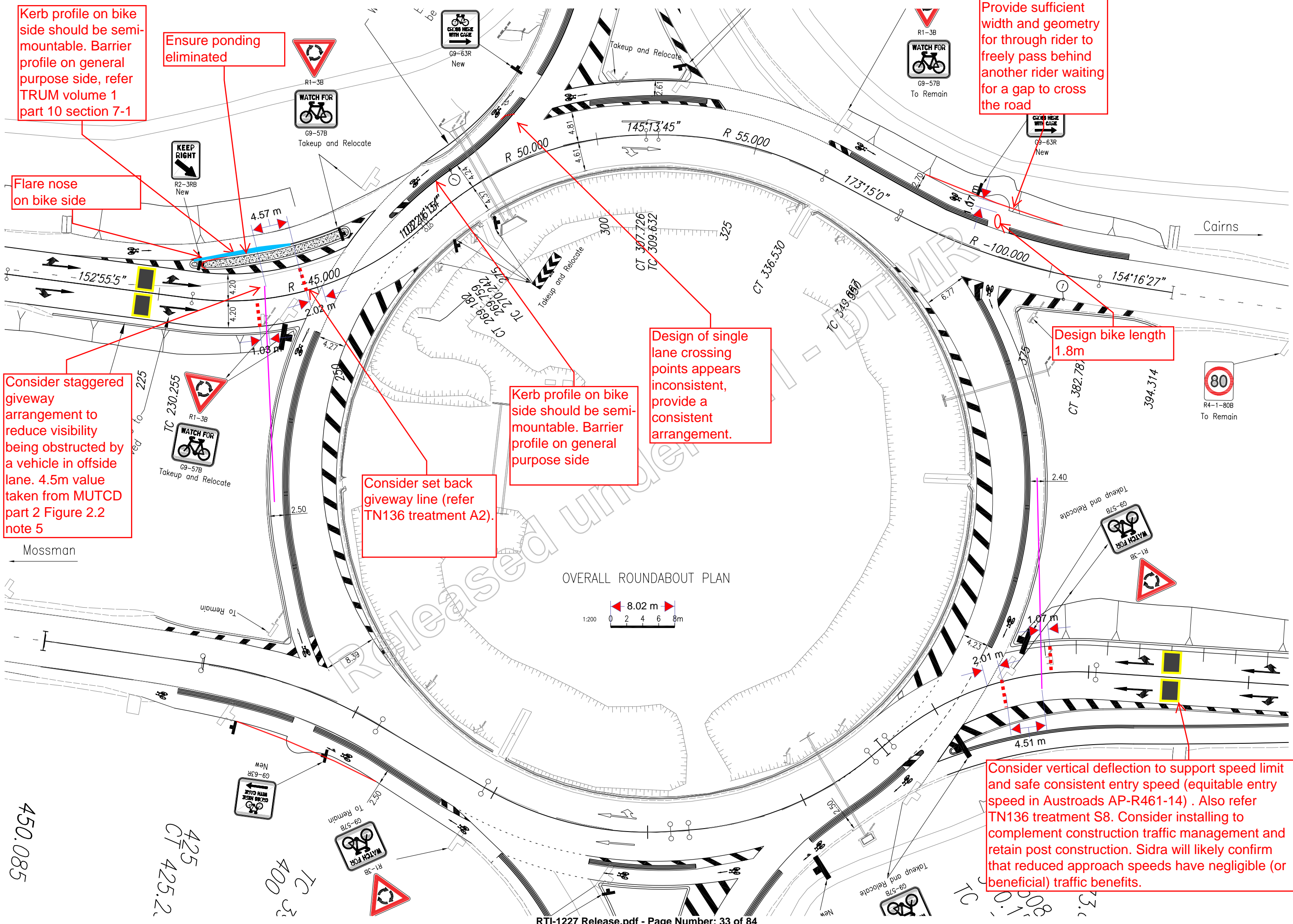
Kerb profile on bike side should be semi-mountable. Barrier profile on general purpose side

Design of single lane crossing points appears inconsistent, provide a consistent arrangement.

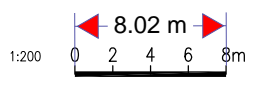
Provide sufficient width and geometry for through rider to freely pass behind another rider waiting for a gap to cross the road

Design bike length 1.8m

Consider vertical deflection to support speed limit and safe consistent entry speed (equitable entry speed in Austroads AP-R461-14) . Also refer TN136 treatment S8. Consider installing to complement construction traffic management and retain post construction. Sidra will likely confirm that reduced approach speeds have negligible (or beneficial) traffic benefits.



OVERALL ROUNDABOUT PLAN



450.085

425
CT 425.2

TC 400

Poolwood Roundabout

Improved Approaches and General Traffic Improvements



LOCALITY PLAN
NTS

DRAWING LIST - CN11204

| DRAWING NUMBER | REVISION | SERIES | DESCRIPTION |
|----------------|----------|----------|---|
| 811040 | A | 1 OF 26 | LOCALITY PLAN, DRAWING LIST AND SIGNATURE BLOCK |
| 811041 | A | 2 OF 26 | TYPICAL CROSS SECTIONS |
| 811042 | A | 3 OF 26 | SURVEY SETOUT DETAILS |
| 811043 | A | 4 OF 26 | CONTROL LINE MCO2 SETOUT DETAILS |
| 811044 | A | 5 OF 26 | CONTROL LINE MCO1 SETOUT DETAILS |
| 811045 | A | 6 OF 26 | WORKING PLAN 1 OF 2 |
| 811046 | A | 7 OF 26 | WORKING PLAN 2 OF 2 |
| 811047 | A | 8 OF 26 | KERB, MEDIAN AND CULVERT SETOUT |
| 811048 | A | 9 OF 26 | PAVEMENT AND KERB SETOUT 1 OF 5 |
| 811049 | A | 10 OF 26 | PAVEMENT AND KERB SETOUT 2 OF 5 |
| 811050 | A | 11 OF 26 | PAVEMENT AND KERB SETOUT 3 OF 5 |
| 811051 | A | 12 OF 26 | PAVEMENT AND KERB SETOUT 4 OF 5 |
| 811052 | A | 13 OF 26 | PAVEMENT AND KERB SETOUT 5 OF 5 |
| 811053 | A | 14 OF 26 | PAVEMENT MARKING AND SIGNS 1 OF 6 |
| 811054 | A | 15 OF 26 | PAVEMENT MARKING AND SIGNS 2 OF 6 |
| 811055 | A | 16 OF 26 | PAVEMENT MARKING AND SIGNS 3 OF 6 |
| 811056 | A | 17 OF 26 | PAVEMENT MARKING AND SIGNS 4 OF 6 |
| 811057 | A | 18 OF 26 | PAVEMENT MARKING AND SIGNS 5 OF 6 |
| 811058 | A | 19 OF 26 | PAVEMENT MARKING AND SIGNS 6 OF 6 |
| 811059 | A | 20 OF 26 | SERVICES PLAN 1 OF 5 |
| 811060 | A | 21 OF 26 | SERVICES PLAN 2 OF 5 |
| 811061 | A | 22 OF 26 | SERVICES PLAN 3 OF 5 |
| 811062 | A | 23 OF 26 | SERVICES PLAN 4 OF 5 |
| 811063 | A | 24 OF 26 | SERVICES PLAN 5 OF 5 |
| 811064 | A | 25 OF 26 | MCO1 PAVEMENT CUT LINE 1 OF 2 |
| 811065 | A | 26 OF 26 | MCO2 PAVEMENT CUT LINE 2 OF 2 |

TOTAL NUMBER OF DRAWINGS = 26
10 Sheets of Annotated Cross Sections

SIGNATURE BLOCK

SCHEME SUBMITTED (External Consultants or Internal Business Unit):
This design meets the requirements of all relevant Australian Standards, Austroads Guidelines and Transport and Main Roads - Policies, References, Standards, Planning and Design Instructions, Guidelines and the requirements of the project brief/functional specifications.

SIGNED: [Signature] TITLE: PECCIVIL
Organisation: DMR DATE: 8.03.2019.

SCHEME SCOPE AND FINANCIAL APPROVAL: (Regional Director or Delegate):
I hereby certify that this scheme complies with the intent of the scope and financial limits of the relevant project on QTRIP and the scheme is approved for release in accordance with that program.

SIGNED: [Signature] TITLE: DISTRICT DIRECTOR DATE: 8-3-19

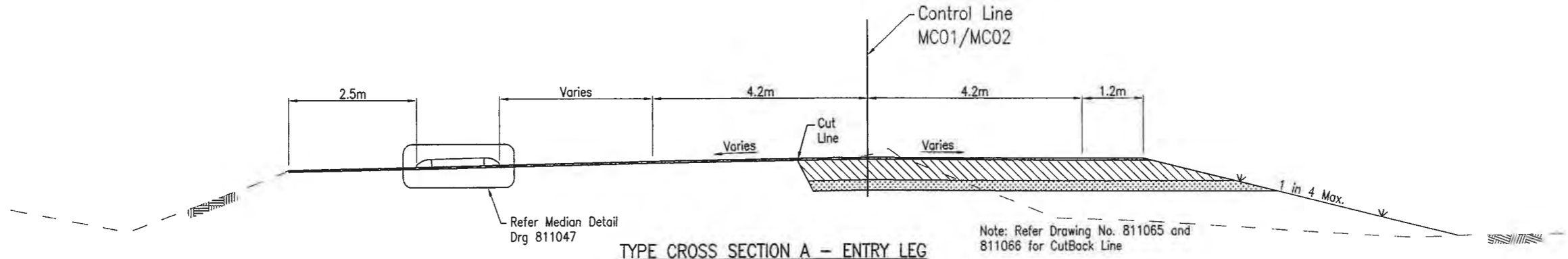
| Location | Road | Chainage | From start to end of job (km) | From end to following RP | Through Chainage from Refer Above |
|-------------------|----------------------|---------------|-------------------------------|--------------------------|-----------------------------------|
| MCO1 (Roundabout) | Captain Cook Highway | 0+000 - 0+314 | 0.314 | 0.000 | 0+000 - 0+314 |
| MCO2 | Captain Cook Highway | 0+450 - 0+500 | 0.050 | 0.000 | 0+450 - 0+500 |

| Scale | Datum |
|--------------|---------|
| NOT TO SCALE | CGD2011 |

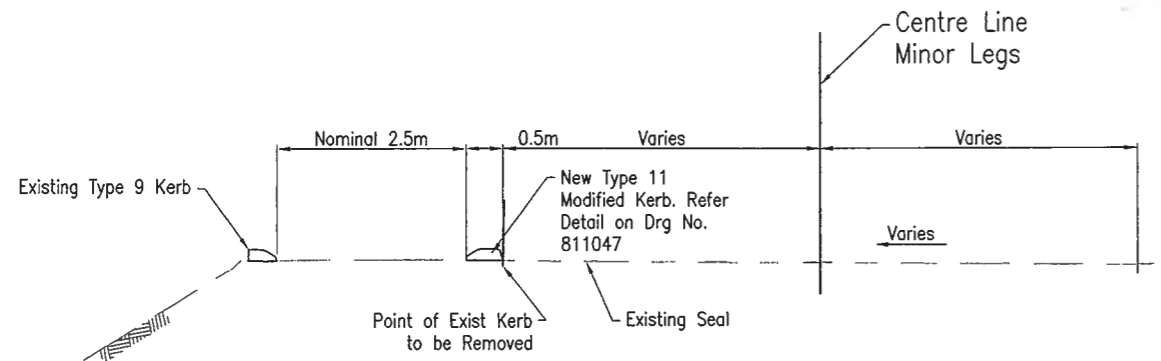
| CAIRNS REGION | | | | |
|---|----------------------------|--------------------------|--------------------------|--------------|
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MCO1 0.00-394.314, MCO2 00-450.085 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| | | | | |
| Refer Above | | | | |

| POOLWOOD ROAD ROUNDABOUT | |
|---|--------|
| LOCALITY PLAN, DRAWING LIST AND SIGNATURE BLOCK | |
| ENGINEERING CERTIFICATION (RPEQ) | |
| [Signature] | 8/3/19 |

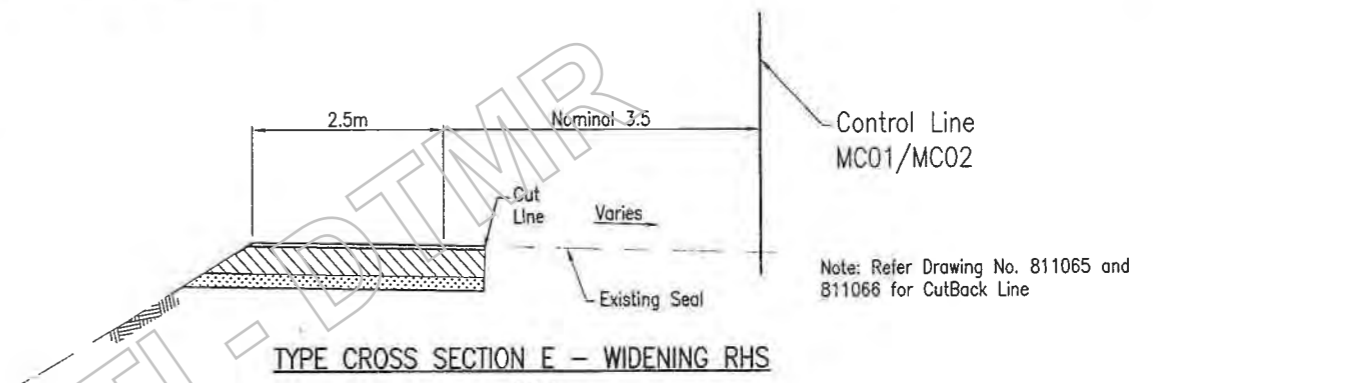
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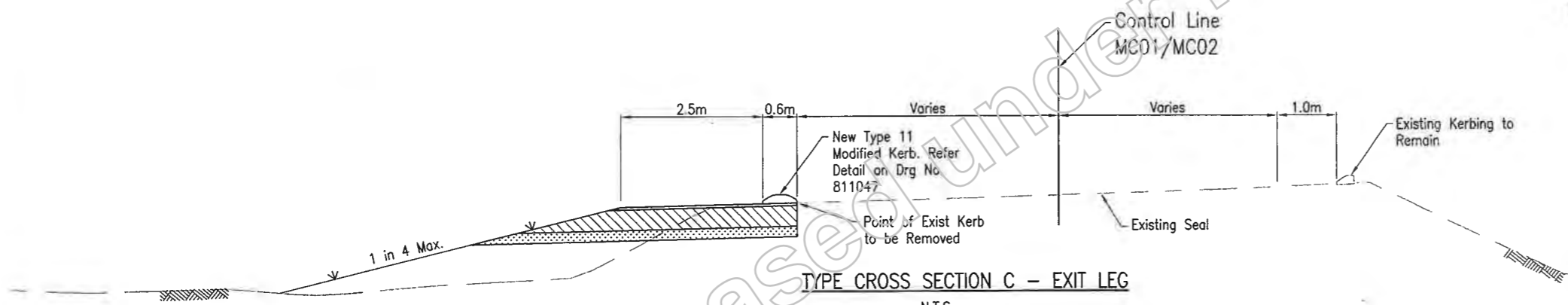
TYPE CROSS SECTION A - ENTRY LEG
N.T.S



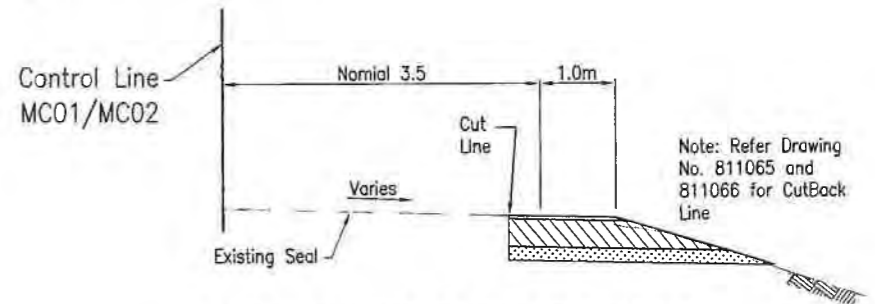
TYPE CROSS SECTION B - THROUGH ROUNDABOUT
N.T.S



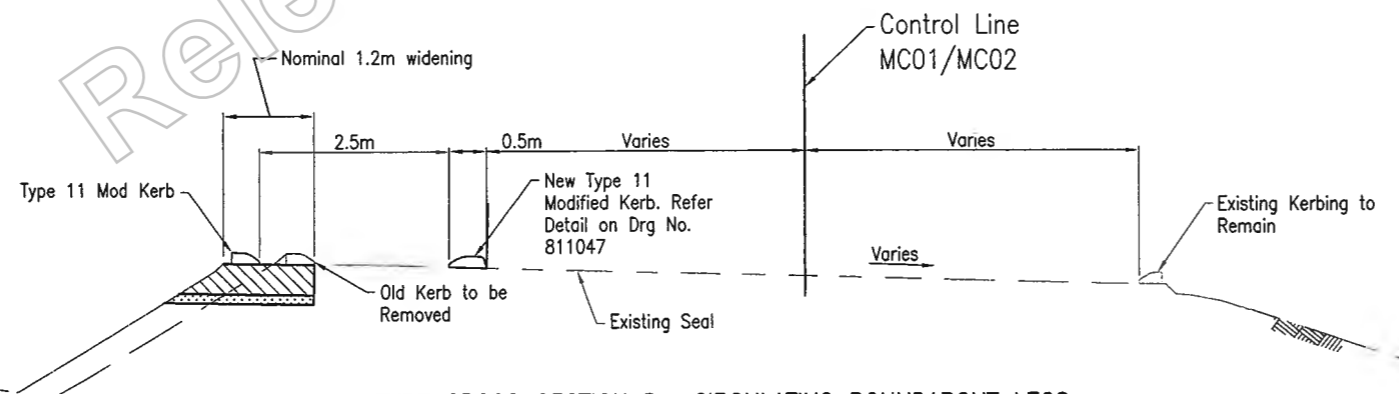
TYPE CROSS SECTION E - WIDENING RHS
N.T.S



TYPE CROSS SECTION C - EXIT LEG
N.T.S



TYPE CROSS SECTION F - WIDENING LHS
N.T.S



TYPE CROSS SECTION D - CIRCULATING ROUNDABOUT LEGS
N.T.S

Seal Notes

Bitumen Spray Rates and Aggregate Spread Rates are Indicative only and need to be Calculated on site and Confirmed by Superintendent's Representative.

Legend

- Pavement A**
- Full Width SMA12 40mm Deep Binder in AC to be AS5. Mill to Nominal Depth of 40mm as Required and Replace.
 - 400mm Cement Modified Base
 - 200mm Subbase Type 2.3
 - 100mm Topsoil and Turf.

Last Modified: Mar 07, 2019 - 4:28pm XREFS :-

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| G | | | | |
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| A | Issued For Construction | | | |
| Revisions/Descriptions | | Certification | Date | Microfiled |

| | | | |
|--------------------|---------------|--------------|---|
| Associated Job Nos | Survey Data | | Scales |
| | Datum | GDA94 | |
| Auxiliary Drg Nos | Horiz. Grid | MGA Zone55 | NOT TO SCALE |
| | Height Origin | AHDD | |
| | Survey Books | MR101097-20A | Dimensions shown in metres except where shown otherwise |

| | | | | |
|--|----------------------------|--------------------------|--------------------------|--------------|
| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MC01 0.00-394.314, MC02 00-450.085 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |
| Through Chainage from Refer Drg No. 811040 For Details | | | | |

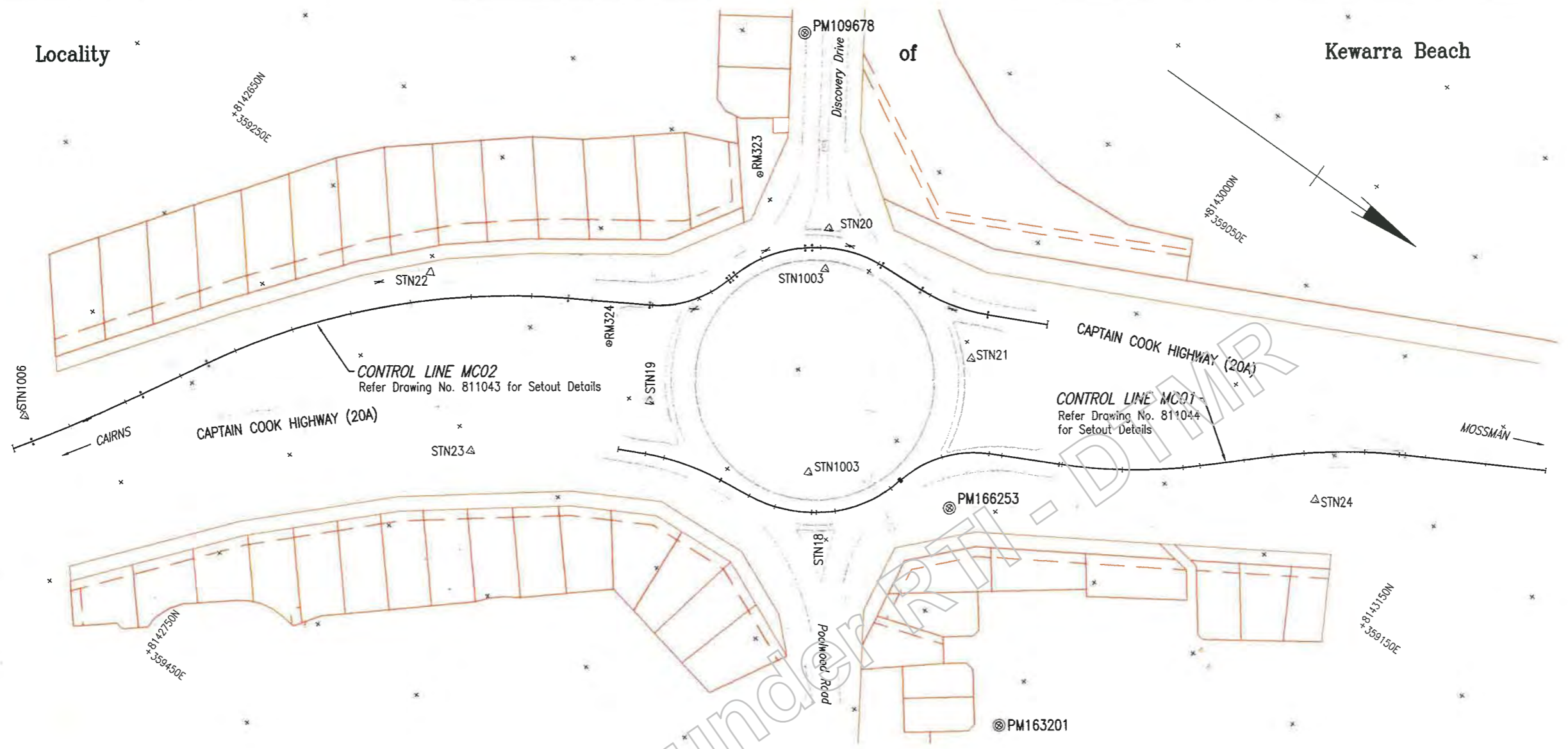
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|----------------------------------|-------------|-------------|--------|
| POOLWOOD ROAD ROUNDABOUT | | | |
| TYPICAL CROSS SECTIONS | | | |
| ENGINEERING CERTIFICATION (RPEQ) | | | |
| Checked | Drawn | Scale | Date |
| G Pollard | J Whittaker | 1:100 | 3/3/19 |
| Approved | Checked | Drawn | Date |
| G Pollard | J Whittaker | J Whittaker | 3/3/19 |

Queensland Government
 7742204/53/PA
 6N 1120
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 811041

Locality

of

Kewarra Beach



| TRAVERSE STATION COORDINATES AND DETAILS | | | | | |
|--|------------|-------------|--------|-----------------------|---------------------|
| Name | Easting | Northing | Height | Combined Scale Factor | Comment |
| STN22 | 359255.656 | 8142753.240 | 22.403 | 0.99983147 | STN22 STAR PKT |
| STN23 | 359305.504 | 8142809.428 | 21.233 | 0.99983148 | STN23 STAR PKT |
| STN24 | 359119.568 | 8143104.092 | 19.825 | 0.99983235 | STN24 STAR PKT |
| STN19 | 359246.021 | 8142857.609 | 21.023 | 0.99983172 | STN19 ORIG STAR PKT |
| STN20 | 359145.395 | 8142876.433 | 22.984 | 0.99983176 | STN20 ORIG STAR PKT |
| STN21 | 359154.442 | 8142955.323 | 20.948 | 0.99983205 | STN21 ORIG STAR PKT |
| STN18 | 359250.788 | 8142943.086 | 21.817 | 0.99983158 | STN18 ORIG STAR PKT |
| STN1003 | 359231.774 | 8142927.967 | 20.343 | 0.99983187 | PIN |
| STN1004 | 359159.848 | 8142884.852 | 21.695 | 0.99983191 | PIN |
| STN1006 | 359401.161 | 8142652.177 | 22.939 | 0.99983088 | NAIL IN CONC |

| PERMANENT MARK COORDINATES AND DETAILS | | | | | |
|--|------------|-------------|--------|-----------------------|----------------------------|
| Name | Easting | Northing | Height | Combined Scale Factor | Comment |
| PM166253 | 359209.822 | 8142983.844 | 20.489 | 0.99983193 | PM166253 TYPE C |
| PM109678 | 359085.876 | 8142821.638 | 22.500 | 0.99983204 | PM109678 BRASS PLAQUE |
| PM154110 | 359416.171 | 8142899.549 | 19.526 | 0.99983136 | PM154110 HEIGHT UNRELIABLE |
| PM163201 | 359270.588 | 8143052.247 | 18.136 | 0.99983209 | PM163201 |

| STATION OFFSET COORDINATES AND DETAILS | | | | | |
|--|------------|-------------|--------|-----------------------|---------------------|
| Name | Easting | Northing | Height | Combined Scale Factor | Comment |
| RM324 | 359236.524 | 8142830.448 | 21.634 | 0.99983166 | RM324 ORIG STAR PKT |
| RM323 | 359143.831 | 8142840.661 | 22.326 | 0.99983187 | RM323 ORIG STAR PKT |

Last Modified: 07-Mar-2019 4:28pm XREFS: Survey_Current.dwg; MCO1A.dwg; MCO2A.dwg

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| A | Issued For Construction | | | |
| | Revisions/Descriptions | Certification | Date | Microfiled |

| | |
|--------------------|----------------------------|
| Associated Job Nos | Survey Data |
| | Datum: GDA94 |
| Auxiliary Drg Nos | Horiz. Grid: MGA Zone55 |
| | Height Origin: AHDD |
| | Survey Books: MR101097-20A |

CAIRNS REGION

CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)

CTL CHGE MC01 0.00-394.314, MC02 00-450.085

| Reference Points | | | | |
|------------------|----------------------------|--------------------------|--------------------------|--------------|
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
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Refer Drg No. 811040 For Details

Through Chainage from Refer Drg No. 811040 For Details

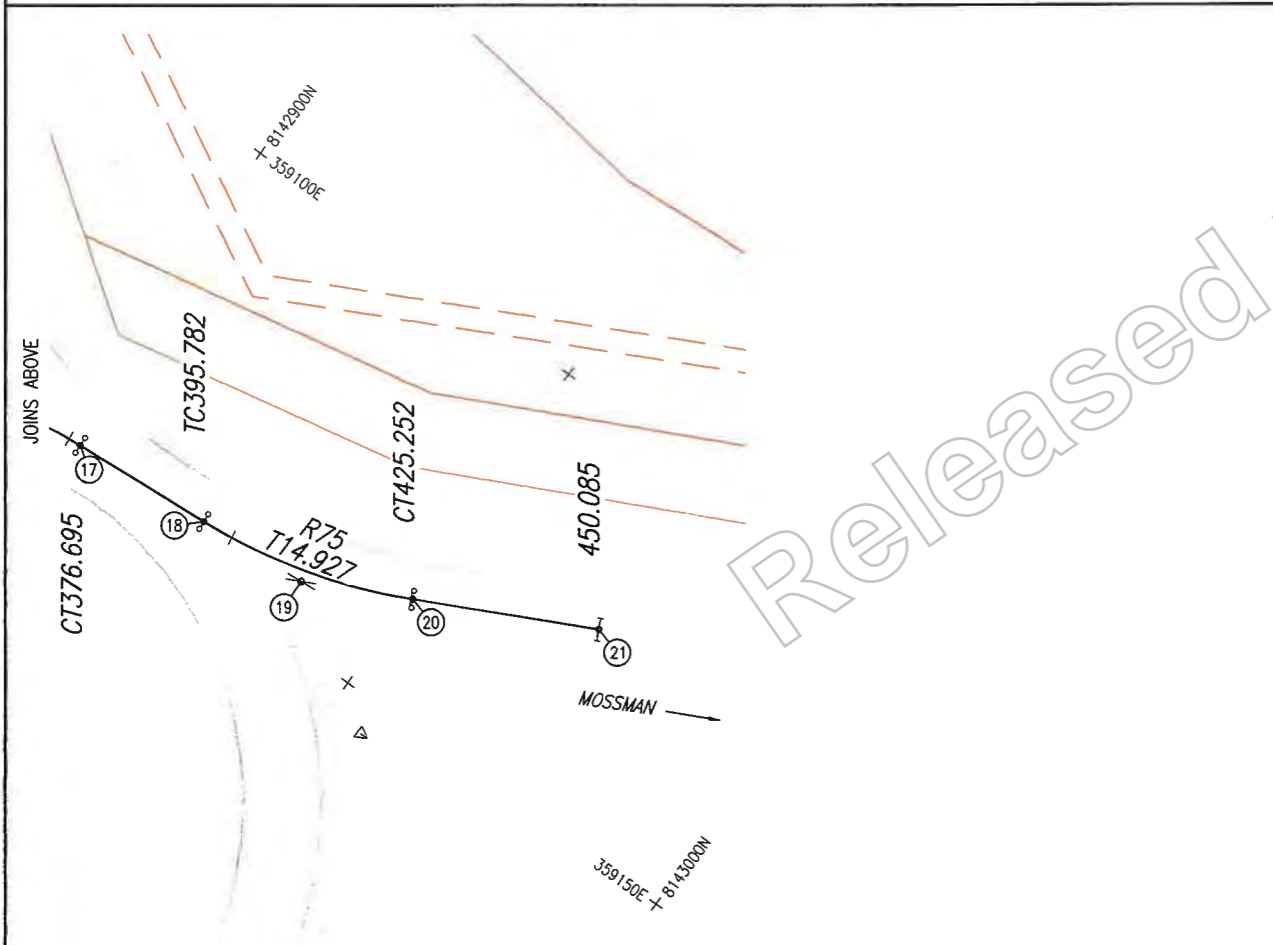
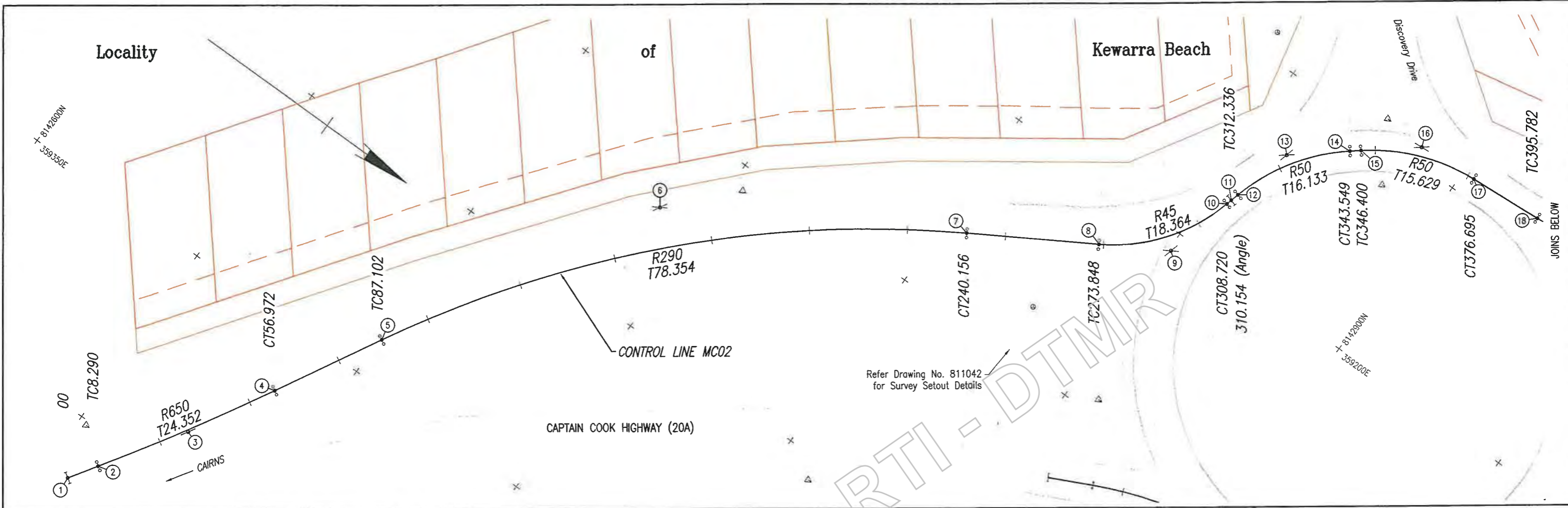
POOLWOOD ROAD ROUNDABOUT

SURVEY SETOUT DETAILS

ENGINEERING CERTIFICATION (RPEQ)

| | |
|-----------|-------|
| Signature | Date |
| | 23/19 |





CONTROL LINE MC02 SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | BEARING | RADIUS | COMMENTS |
|-----------|------------|-------------|------------|--------|------------|
| 1 | 359414.682 | 8142656.225 | 303°18'52" | | START MC02 |
| 2 | 359407.754 | 8142660.779 | 303°18'52" | | TC |
| 3 | 359387.404 | 8142674.154 | | R650 | IP |
| 4 | 359366.110 | 8142685.969 | 299°01'24" | | CT |
| 5 | 359339.764 | 8142700.587 | 299°01'24" | | TC |
| 6 | 359271.249 | 8142738.601 | | R290 | IP |
| 7 | 359231.202 | 8142805.948 | 329°15'45" | | CT |
| 8 | 359213.981 | 8142834.908 | 329°15'45" | | TC |
| 9 | 359204.595 | 8142850.692 | | R45 | IP |
| 10 | 359186.846 | 8142855.403 | 284°51'45" | | CT |
| 11 | 359185.460 | 8142855.770 | 285°33'19" | | ANGLE |
| 12 | 359183.357 | 8142856.356 | 285°33'19" | | TC |
| 13 | 359167.815 | 8142860.682 | | R50 | IP |
| 14 | 359157.732 | 8142873.277 | 321°19'19" | | CT |
| 15 | 359155.950 | 8142875.503 | 321°19'19" | | TC |
| 16 | 359146.183 | 8142887.704 | | R50 | IP |
| 17 | 359145.103 | 8142903.295 | 356°02'15" | | CT |
| 18 | 359143.784 | 8142922.336 | 356°02'15" | | TC |
| 19 | 359142.752 | 8142937.228 | | R75 | IP |
| 20 | 359136.097 | 8142950.590 | 333°31'27" | | CT |
| 21 | 359125.026 | 8142972.819 | 333°31'27" | | END MC02 |

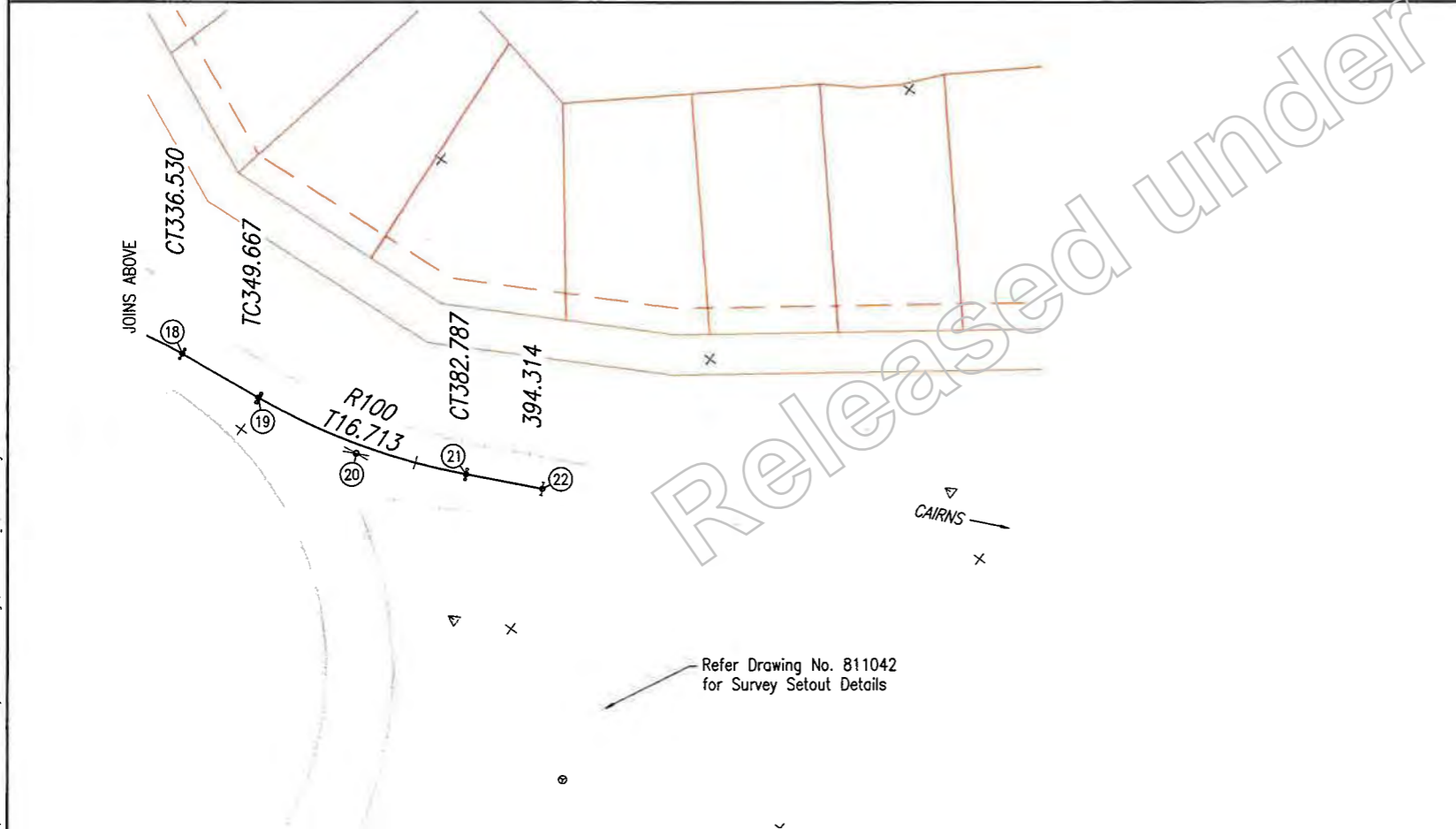
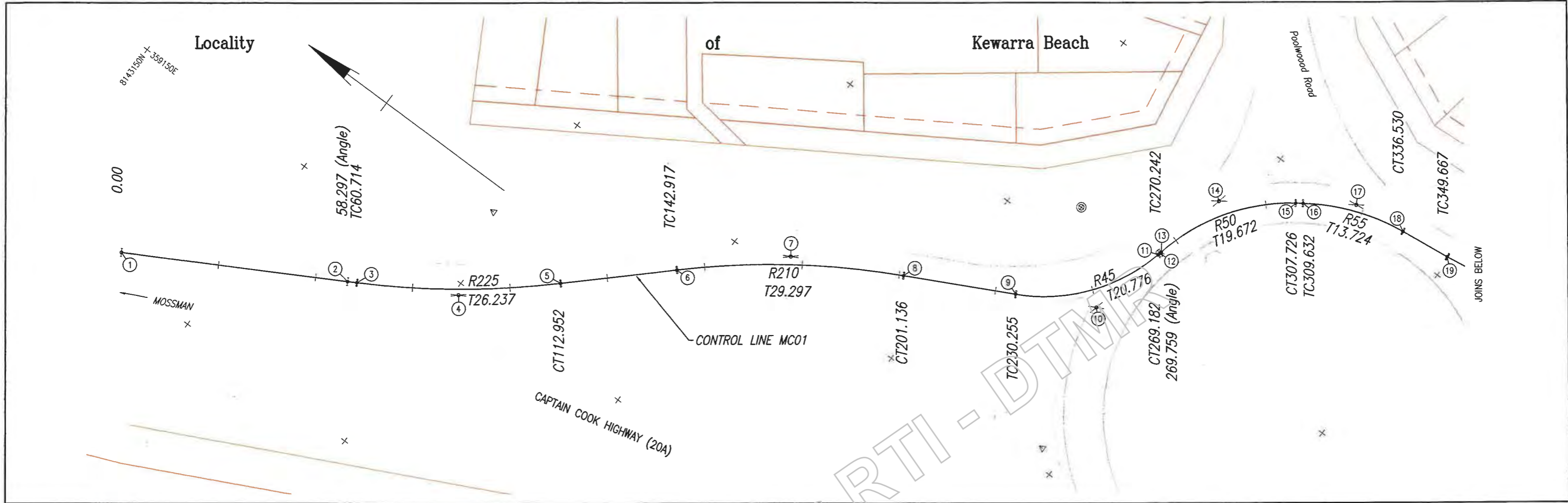
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| A | Issued For Construction | | | |
| | Revisions/Descriptions | Certification | Date | Microfiled |

| | | |
|--------------------|---------------|--------------|
| Associated Job Nos | Survey Data | |
| | Datum | GDA94 |
| Auxiliary Drg Nos | Horiz. Grid | MGA Zone55 |
| | Height Origin | AHDD |
| | Survey Books | MR101097-20A |

| | | | | |
|--|----------------------------|--------------------------|--------------------------|--------------|
| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MC02 00-450.085 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |
| Through Chainage from Refer Drg No. 811040 For Details | | | | |

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|----------------------------------|--|-------------------|--|----------------|--|
| POOLWOOD ROAD ROUNDABOUT | | CONTROL LINE MC02 | | SETOUT DETAILS | |
| ENGINEERING CERTIFICATION (RPEQ) | | | | | |
| M. Buchanan | | J. Whiteside | | 7746 2/3/19 | |
| CIVIL | | CIVIL | | 7746 2/3/19 | |



CONTROL LINE MC01 SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | BEARING | RADIUS | COMMENTS |
|-----------|------------|-------------|------------|--------|------------|
| 1 | 359054.561 | 8143174.426 | 150°45'03" | | START MC01 |
| 2 | 359083.045 | 8143123.562 | 150°20'10" | | ANGLE |
| 3 | 359084.242 | 8143121.461 | 150°20'10" | | TC |
| 4 | 359097.227 | 8143098.663 | | R255 | IP |
| 5 | 359115.109 | 8143079.464 | 137°02'02" | | CT |
| 6 | 359135.532 | 8143057.537 | 137°02'02" | | TC |
| 7 | 359155.500 | 8143036.098 | | R210 | IP |
| 8 | 359168.838 | 8143010.013 | 152°55'05" | | CT |
| 9 | 359182.095 | 8142984.087 | 152°55'05" | | TC |
| 10 | 359191.553 | 8142965.589 | | R45 | IP |
| 11 | 359211.767 | 8142960.790 | 103°21'15" | | CT |
| 12 | 359212.328 | 8142960.657 | 102°16'34" | | ANGLE |
| 13 | 359212.800 | 8142960.554 | 102°16'34" | | TC |
| 14 | 359232.023 | 8142956.372 | | R50 | IP |
| 15 | 359243.241 | 8142940.213 | 145°13'45" | | CT |
| 16 | 359244.328 | 8142938.647 | 145°13'45" | | TC |
| 17 | 359252.155 | 8142927.374 | | R55 | IP |
| 18 | 359253.768 | 8142913.745 | 173°15'00" | | CT |
| 19 | 359255.312 | 8142900.699 | 173°15'00" | | TC |
| 20 | 359257.276 | 8142884.102 | | R100 | IP |
| 21 | 359264.531 | 8142869.046 | 154°16'27" | | CT |
| 22 | 359269.534 | 8142858.661 | 154°16'27" | | END MC01 |

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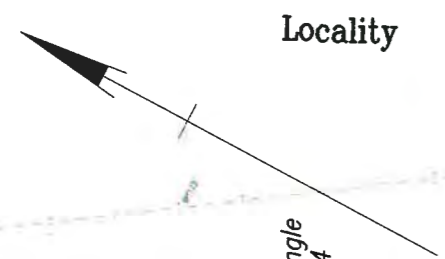
| Revisions/Descriptions | Certification | Date | Microfiled |
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| A Issued For Construction | | | |

| | |
|--------------------|-------------------------|
| Associated Job Nos | Survey Data |
| | Datum: GDA94 |
| Auxiliary Drg Nos | Horiz. Grid: MGA Zone55 |
| | Height Origin: AHDD |
| Survey Books | MR101097-20A |

| | | | | |
|---|----------------------------|--------------------------|--------------------------|--------------|
| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MCO1 0.00-394.314 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
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| Refer Drg No. 811040 For Details | | | | |

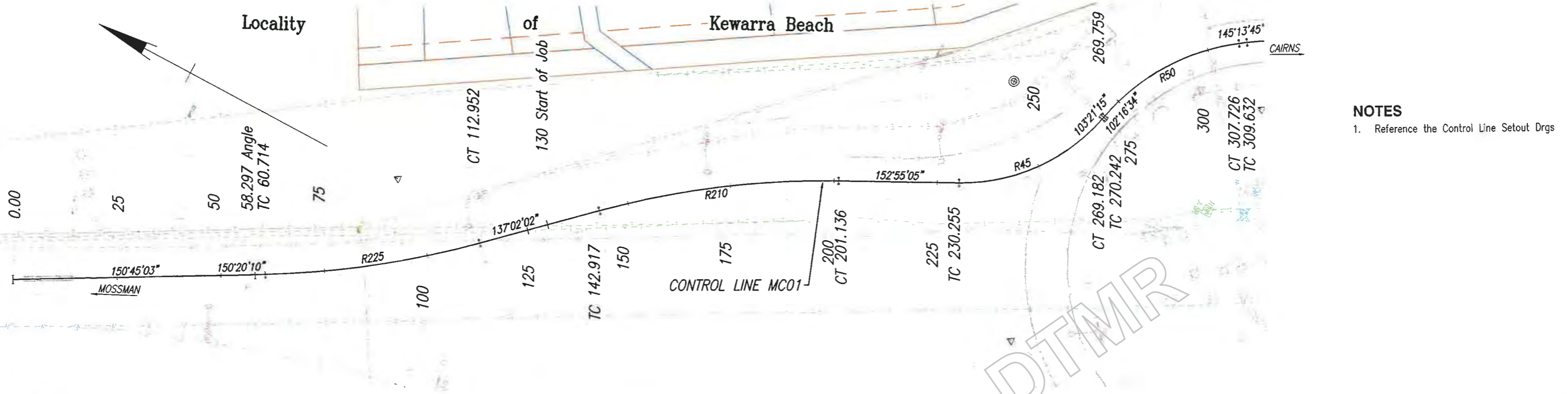
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| POOLWOOD ROAD ROUNDABOUT | |
| CONTROL LINE MC01 | |
| SETOUT DETAILS | |
| ENGINEERING CERTIFICATION (RPEQ) | |
| Signature: J. Whiteside | Date: 7/4/19 |

Queensland Government
 14/04/2019
 811044
 7745
 8/3/19

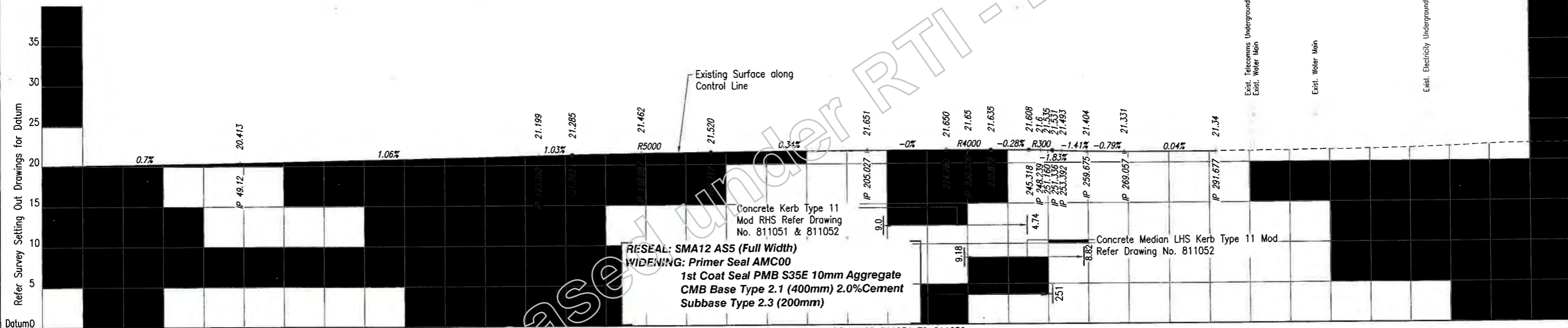


Locality

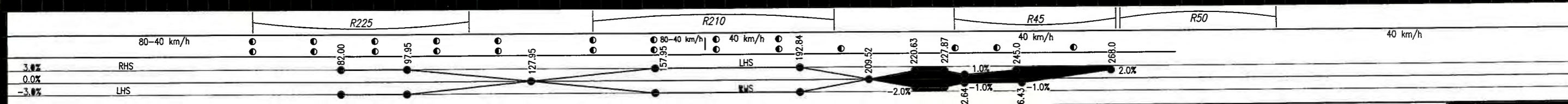
of Kewarra Beach



NOTES
1. Reference the Control Line Setout Drgs



Datum 0
Pvt Mkg
Type XS
PAVEMENT MARKING REFER DRAWINGS 811054 TO 811059
F&E F A



| | | | | | |
|-------------------------|------------------------|---|------|----------------------------------|--|
| G | | CAIRNS REGION | | MC01 | |
| F | | CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | WORKING PLAN | |
| E | | CTL CHGE MC01 0.00-394.314 | | SHEET 1 OF 2 | |
| C | | Reference Points | | ENGINEERING CERTIFICATION (RPEQ) | |
| Issued For Construction | Revisions/Descriptions | Certification | Date | Microfiled | |

Scales

Horizontal 0 5 10 15 20m

Vertical 0 2 4 6 8 10m

Preceding RP

Dist. to start of job (km)

From start to end of job

From end to Following RP

Following RP

Refer Drg No. 811040 For Details

Through Chainage from Refer Drg No. 811040 For Details

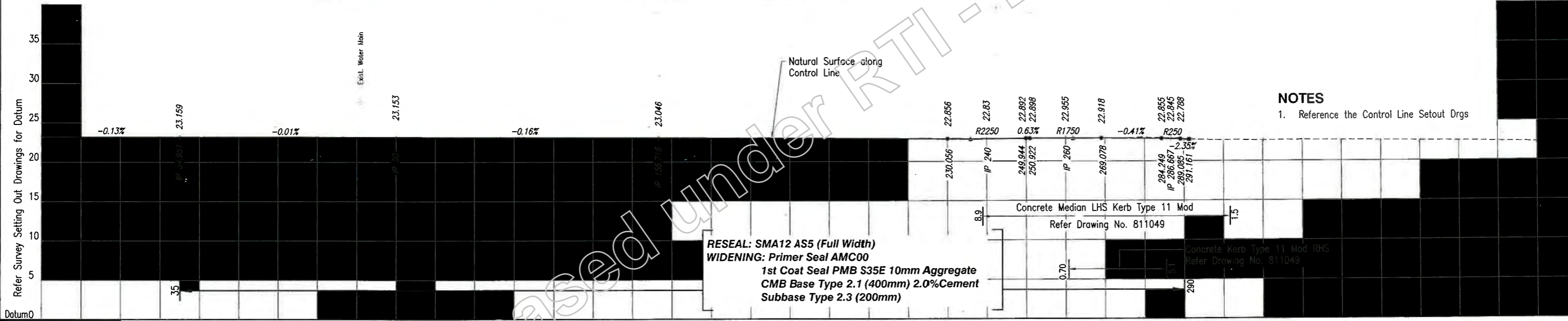
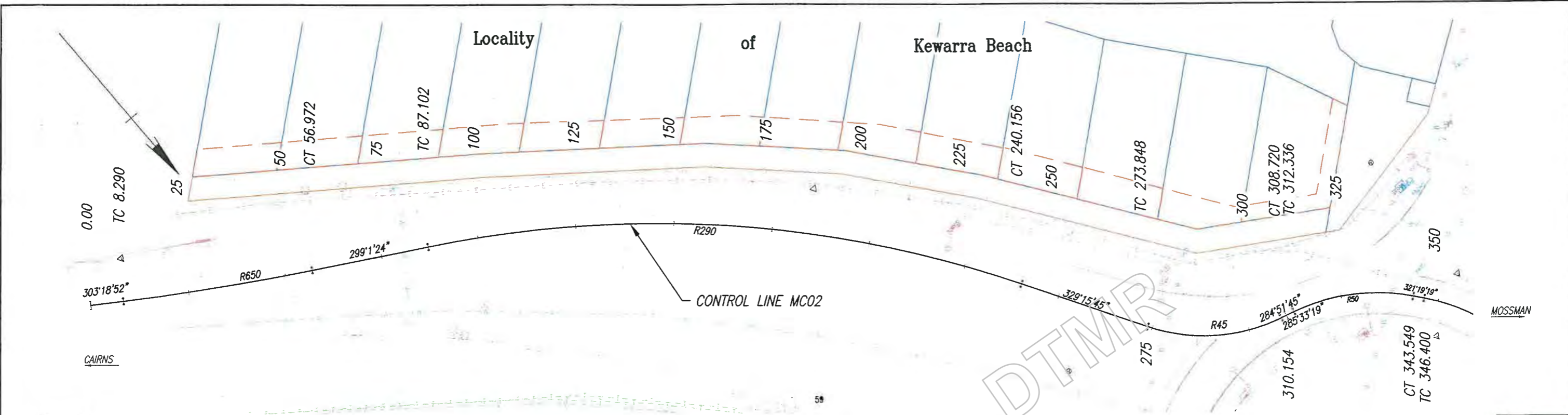
Polled

Checked

Drawn

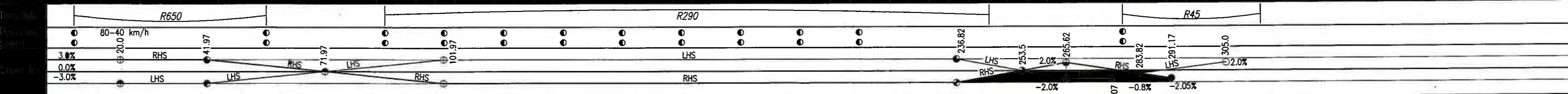
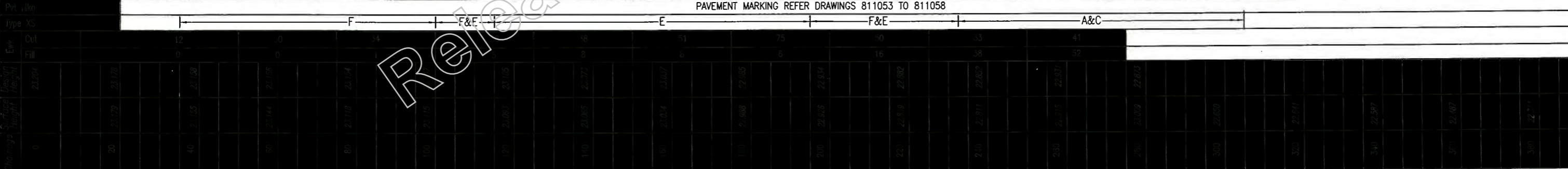
Approved

Last Modified: 07-Apr-2019 4:28pm XREFS



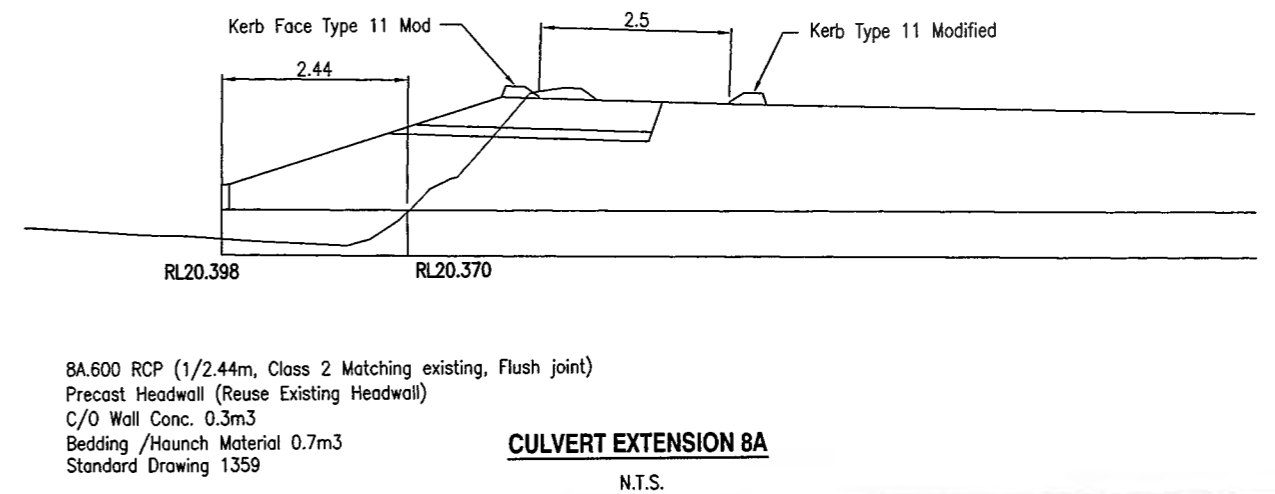
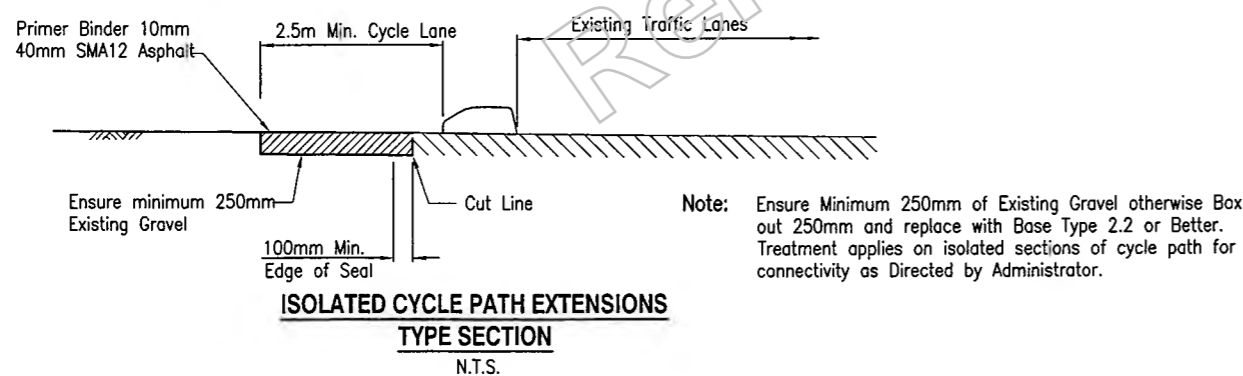
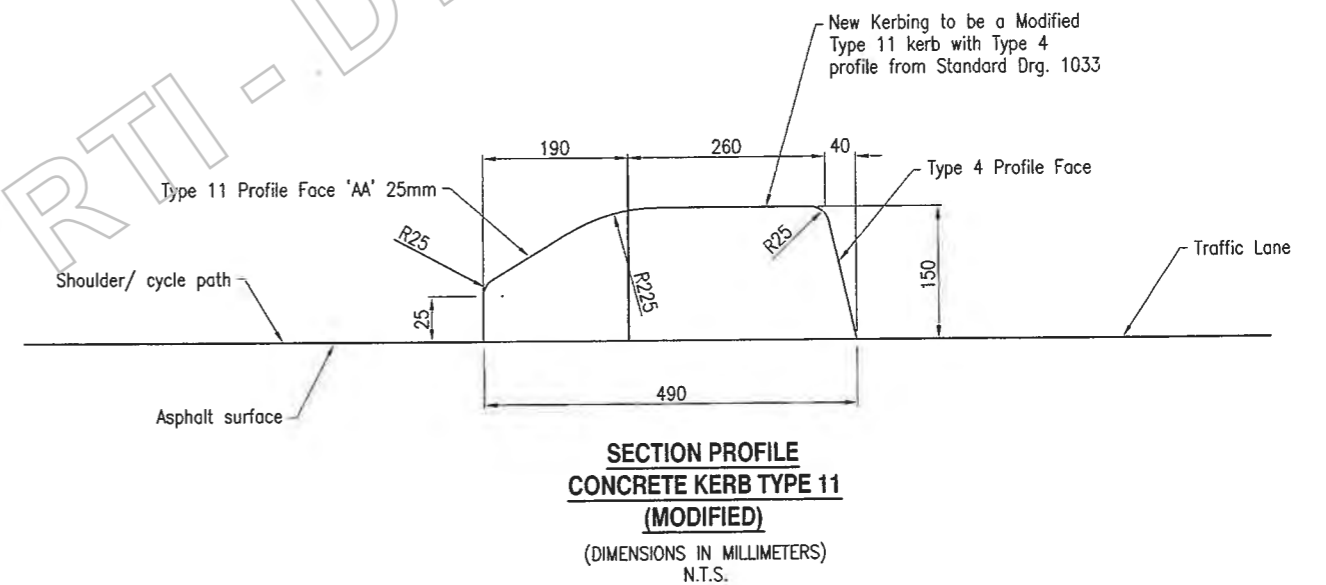
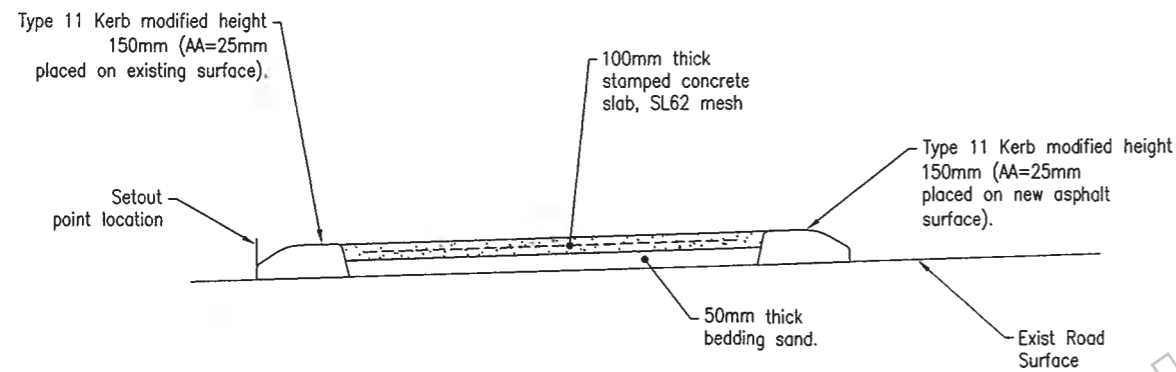
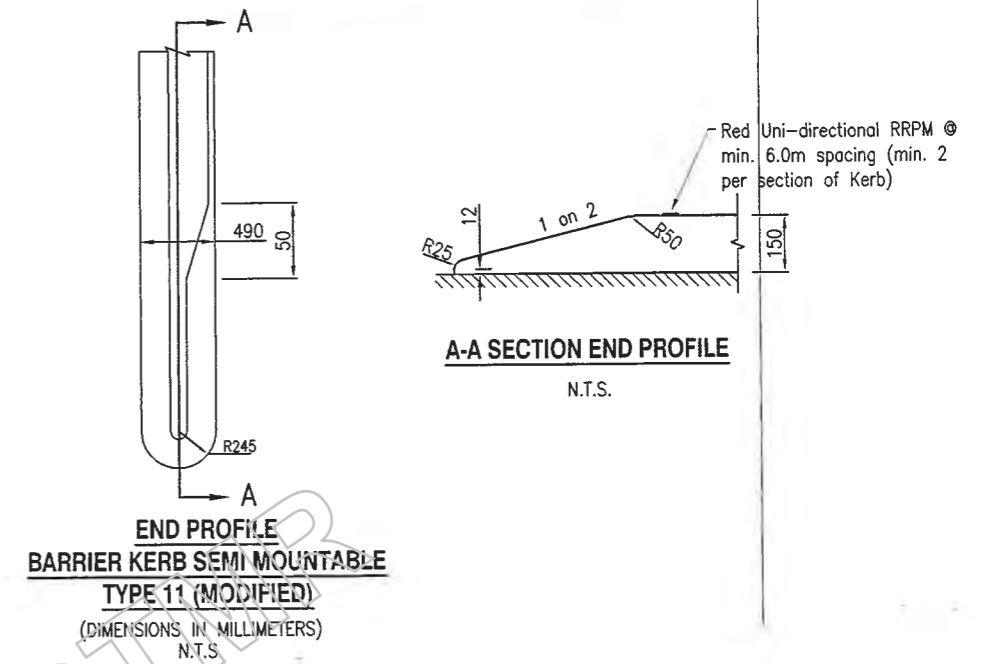
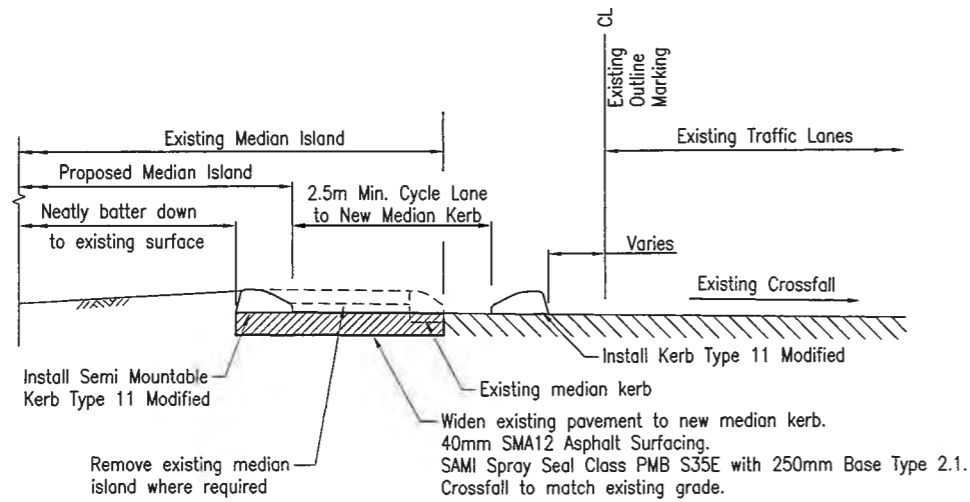
NOTES
1. Reference the Control Line Setout Drgs

PAVEMENT MARKING REFER DRAWINGS 811053 TO 811058



| <p>CAIRNS REGION CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) CTL CHGE 18645 - 19280</p> | | <p>MC02 WORKING PLAN SHEET 2 OF 2</p> | | | | | | | | | | | |
|---|----------------------------|--|--------------------------|--------------|----------------------------|--------------------------|--------------------------|--------------|--|--|--|--|--|
| <p>Reference Points</p> <table border="1"> <thead> <tr> <th>Preceding RP</th> <th>Dist. to start of job (km)</th> <th>From start to end of job</th> <th>From end to Following RP</th> <th>Following RP</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | | | | Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP | | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP | | | | | | | | | |
| | | | | | | | | | | | | | |
| <p>Refer Drg No. 811040 For Details Through Change from Refer Drg No. 811040 For Details</p> | | | | | | | | | | | | | |
| <p>Scales</p> <p>Horizontal: 0 5 10 15 20m</p> <p>Vertical: 0 2 4 6 8 10m</p> | | <p>ENGINEERING CERTIFICATION (RPEQ)</p> <p>NO. 7746 3/3/19</p> | | | | | | | | | | | |

Last Modified: Mar 07, 2019 - 4:28pm XREFS



Last Modified: Mar 07, 2019 - 4:29pm XREFS

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|------------------------|-------------------------|---------------|------|------------|
| C | | | | |
| F | | | | |
| E | | | | |
| D | | | | |
| C | | | | |
| B | | | | |
| A | Issued For Construction | | | |
| Revisions/Descriptions | | Certification | Date | Microfiled |

| | | | |
|--------------------|---------------|--------------|---|
| Associated Job Nos | Survey Data | | Scales NOT TO SCALE |
| | Datum | GDA94 | |
| Auxiliary Drg Nos | Horiz. Grid | MGA Zone55 | |
| | Height Origin | AHDD | |
| | Survey Books | MR101097-20A | Dimensions shown in metres except where shown otherwise |

| | | | | |
|--|----------------------------|--------------------------|--------------------------|--------------|
| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MCO1 0.00-394.314, MCO2 00-450.085 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |
| Through Chainage from Refer Drg No. 811040 For Details | | | | |

| | |
|----------------------------------|--------|
| POOLWOOD ROAD ROUNDABOUT | |
| KERB, MEDIAN AND CULVERT SETOUT | |
| ENGINEERING CERTIFICATION (RPEQ) | |
| Checked | 7/7/19 |
| Drawn | 8/3/19 |

Queensland Government

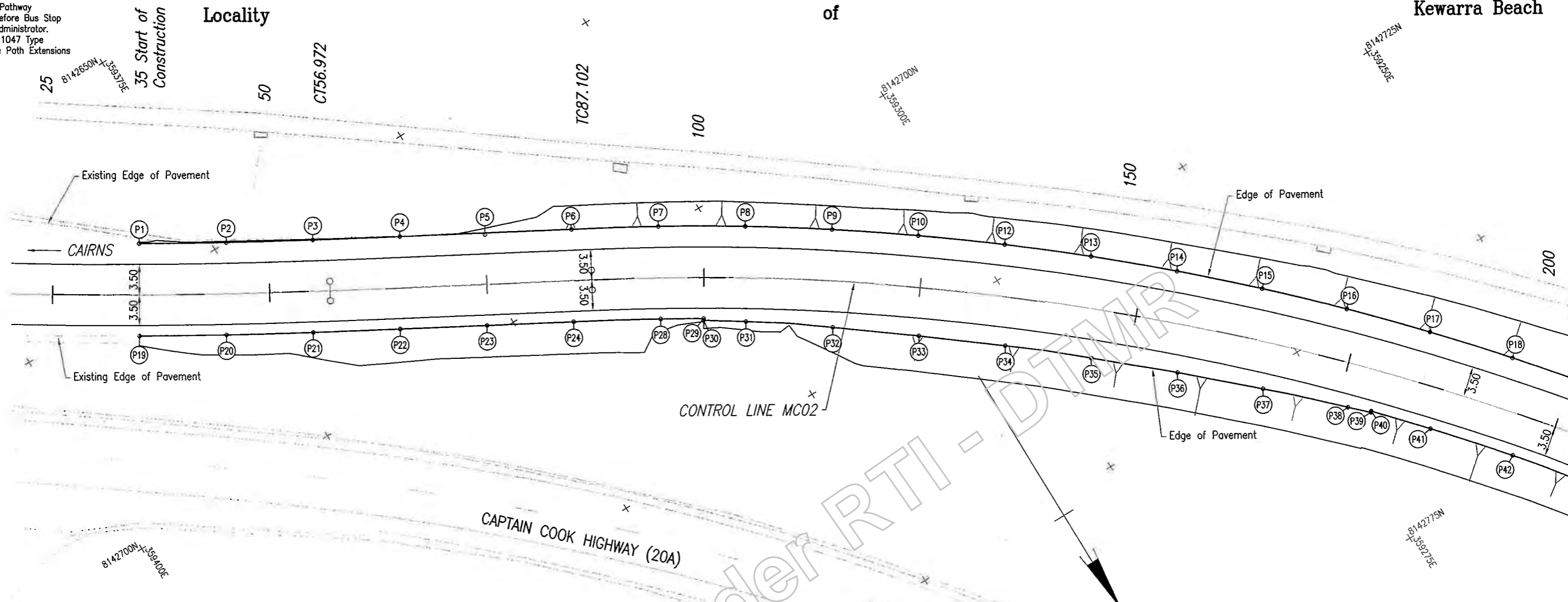
559849
CN-11204
8 of 26

Cycle Path Link from Road Shoulder to existing Concrete Pathway Approximately 40m before Bus Stop As directed by the Administrator. Refer Drawing No. 811047 Type Section Isolated Cycle Path Extensions

Locality

of

Kewarra Beach



PAVEMENT EDGE SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | COMMENTS | POINT NO. | EASTING | NORTHING | COMMENTS |
|-----------|------------|-------------|----------|-----------|------------|-------------|----------|
| P1 | 359382.104 | 8142669.927 | | P21 | 359370.252 | 8142689.042 | |
| P2 | 359373.489 | 8142675.004 | | P22 | 359361.509 | 8142693.896 | |
| P3 | 359364.796 | 8142679.947 | | P23 | 359352.765 | 8142698.748 | |
| P4 | 359356.053 | 8142684.801 | | P24 | 359344.021 | 8142703.600 | |
| P5 | 359347.565 | 8142689.711 | | P28 | 359335.328 | 8142709.543 | |
| P6 | 359338.739 | 8142694.408 | | P29 | 359331.089 | 8142711.097 | |
| P7 | 359330.047 | 8142699.351 | | P30 | 359331.191 | 8142711.264 | |
| P8 | 359321.523 | 8142704.579 | | P31 | 359327.138 | 8142713.936 | |
| P9 | 359313.180 | 8142710.092 | | P32 | 359318.969 | 8142719.696 | |
| P10 | 359305.029 | 8142715.884 | | P33 | 359310.974 | 8142725.702 | |
| P12 | 359297.077 | 8142721.947 | | P34 | 359303.091 | 8142731.856 | |
| P13 | 359289.336 | 8142728.276 | | P35 | 359295.387 | 8142738.227 | |
| P14 | 359281.812 | 8142734.863 | | P36 | 359287.840 | 8142744.787 | |
| P15 | 359274.516 | 8142741.701 | | P37 | 359280.461 | 8142751.536 | |
| P16 | 359267.454 | 8142748.781 | | P38 | 359273.242 | 8142758.454 | |
| P17 | 359260.636 | 8142756.095 | | P39 | 359271.306 | 8142760.352 | |
| P18 | 359254.069 | 8142763.636 | | P40 | 359271.197 | 8142760.251 | |
| P19 | 359387.557 | 8142679.016 | | P41 | 359266.410 | 8142765.549 | |
| P20 | 359378.942 | 8142684.095 | | P42 | 359259.931 | 8142773.166 | |

LEGEND

- +— Proposed Control Line Alignment
- ==== Semi Mountable Kerb Type 9 (AA=50mm) Refer TMR Std Drg No. 1033 for details
- ==== Barrier Kerb Type 11 (Modified) Refer to detail on Drg No. 811047
- (P1) Pavement Edge Setout Points
- (K1) Kerb Setout Points

NOTES

1. All coordinates are to face of barrier kerb and semi mountable kerb.
2. All kerbs to be painted white with an application of visi-beads in accordance with MUTCD guidelines. Traffic islands are to be concrete filled.
3. Refer to Median Kerb Island Cut-Back Type Section and New Median/Barrier Kerb Type Section on Drg No. 811047 for details.
4. Provide kerb breaks of 0.5m wide @ 10m intervals and sag points along new barrier kerb, unless noted otherwise

Last Modified: Mar 07, 2019 - 4:29pm XREFS :- MCO10A.dwg ; Road_Edge.dwg ; Survey.dwg ; New_Survey.dwg

| <p>G</p> <p>F</p> <p>E</p> <p>D</p> <p>C</p> <p>B</p> <p>A Issued For Construction</p> | <p>Associated Job Nos</p> <p>Survey Data</p> <p>Datum GDA94</p> <p>Auxiliary Drg Nos</p> <p>Horiz. Grid MGA Zone55</p> <p>Height Origin AHDD</p> <p>Survey Books MR101097-20A</p> | <p>Scales</p> <p>0 2 4 6 8 10m</p> | <p>CAIRNS REGION</p> <p>CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN)</p> <p>CTL CHGE MCO2 00-450.085</p> <p>Reference Points</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Preceding RP</th> <th>Dist. to start of job (km)</th> <th>From start to end of job</th> <th>From end to Following RP</th> <th>Following RP</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table> <p>Refer Drg No. 811040 For Details</p> | Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP | | | | | | <p>POOLWOOD ROAD ROUNDABOUT</p> <p>PAVEMENT AND KERB SETOUT DETAILS</p> <p>SHEET 1</p> <p>ENGINEERING CERTIFICATION (RPEQ)</p> <p>CIVIL J Whiteside</p> <p>7746 3/3/19</p> | <p>Queensland Government</p> <p>559849</p> <p>CN-11204</p> <p>9 of 26</p> |
|--|---|------------------------------------|---|--------------|----------------------------|--------------------------|--------------------------|--------------|--|--|--|--|--|---|--|
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

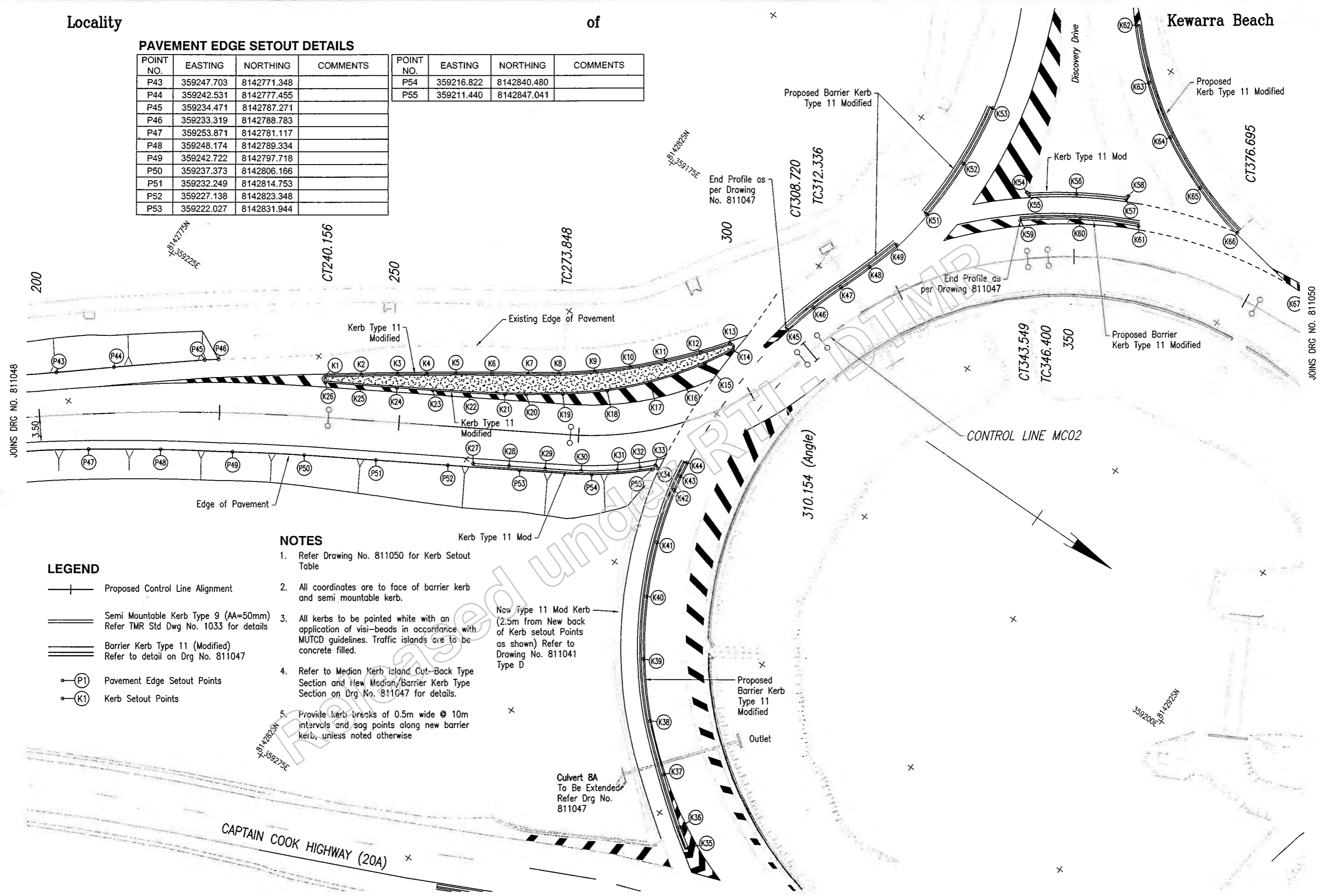
Locality

of

Kewarra Beach

PAVEMENT EDGE SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | COMMENTS | POINT NO. | EASTING | NORTHING | COMMENTS |
|-----------|------------|-------------|----------|-----------|------------|-------------|----------|
| P43 | 359247.703 | 8142771.348 | | P54 | 359216.822 | 8142840.480 | |
| P44 | 359242.531 | 8142777.455 | | P55 | 359211.440 | 8142847.041 | |
| P45 | 359234.471 | 8142787.271 | | | | | |
| P46 | 359233.319 | 8142788.783 | | | | | |
| P47 | 359253.871 | 8142781.117 | | | | | |
| P48 | 359248.174 | 8142789.334 | | | | | |
| P49 | 359242.722 | 8142797.718 | | | | | |
| P50 | 359237.373 | 8142806.166 | | | | | |
| P51 | 359232.249 | 8142814.753 | | | | | |
| P52 | 359227.138 | 8142823.348 | | | | | |
| P53 | 359222.027 | 8142831.944 | | | | | |



LEGEND

- Proposed Control Line Alignment
- Semi Mountable Kerb Type 9 (AA=50mm)
Refer TMR Std Dwg No. 1033 for details
- Barrier Kerb Type 11 (Modified)
Refer to detail on Drg No. 811047
- Pavement Edge Setout Points
- Kerb Setout Points

NOTES

1. Refer Drawing No. 811050 for Kerb Setout Table
2. All coordinates are to face of barrier kerb and semi mountable kerb.
3. All kerbs to be painted white with an application of visi-beads in accordance with MUTCD guidelines. Traffic islands are to be concrete filled.
4. Refer to Median Kerb Island Cut-Back Type Section and New Median/Barrier Kerb Type Section on Drg No. 811047 for details.
5. Provide kerb breaks of 0.5m wide @ 10m intervals and sag points along new barrier kerb, unless noted otherwise

New Type 11 Mod Kerb
(2.5m from New back of Kerb setout Points as shown) Refer to Drawing No. 811041 Type D

Culvert 8A
To Be Extended
Refer Drg No. 811047

Last Modified: 07/03/2019 4:29pm XREFS: M001AA.dwg; Road_Edge.dwg; Survey.dwg; New_Survey.dwg

| | | | | | | |
|---|-------------------------|---------------|---------------|---|---|----------------------------------|
| G | Associated Job Nos | Survey Data | | Scales | CAIRNS REGION | POOLWOOD ROAD ROUNDABOUT |
| | | Datum | GDA94 | | | |
| F | Auxiliary Drg Nos | Horiz. Grid | MGA Zone55 | 0 2 4 6 8 10m | CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | PAVEMENT AND KERB SETOUT DETAILS |
| E | | Height Origin | AHDD | | | |
| D | Survey Books | MR101097-20A | | Dimensions shown in metres except where shown otherwise | CTL CHGE | SHEET 2 |
| C | | MR101097-20A | | | | |
| B | Issued For Construction | | Certification | | ENGINEERING CERTIFICATION (RPEQ) | |
| A | Provisions/Descriptions | | Date | | 7746 8/3/19 | |

| | | | | |
|--|----------------------------|--------------------------|--------------------------|--------------|
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |
| Through Chainage from Refer Drg No. 811040 For Details | | | | |

Queensland Government

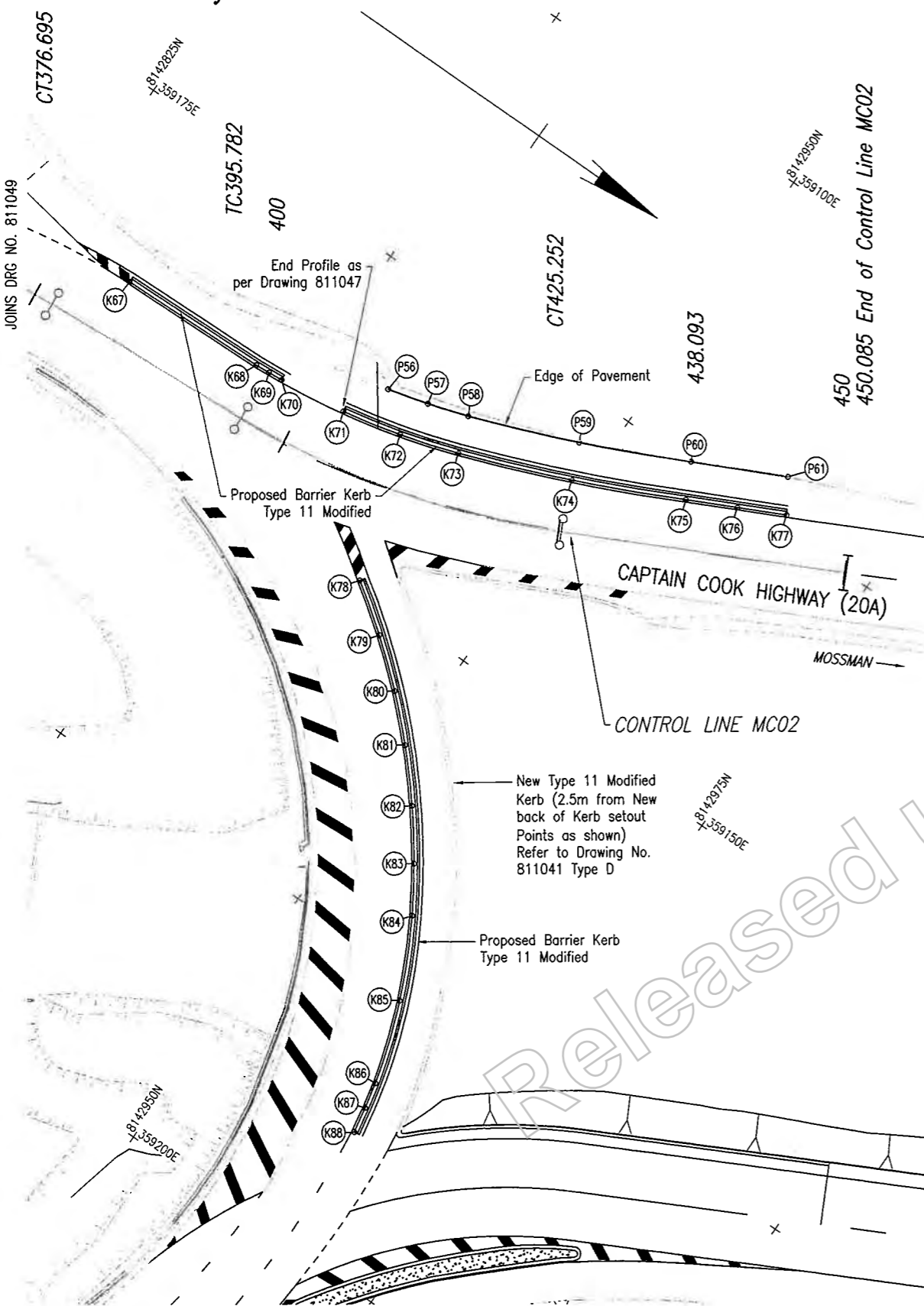
27/7/2019 3:46:42 PM

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MRR Detail (02/14)

11 Modified

Locality of Kewarra Beach



LEGEND

- Proposed Control Line Alignment
- Semi Mountable Kerb Type 9 (AA=50mm)
Refer TMR Std Drg No. 1033 for details
- Barrier Kerb Type 11 (Modified)
Refer to detail on Drg No. 811047
- Pavement Edge Setout Points
- Kerb Setout Points

NOTES

1. All coordinates are to face of barrier kerb and semi mountable kerb.
2. All kerbs to be painted white with an application of visi-beads in accordance with MUTCD guidelines. Traffic islands are to be concrete filled.
3. Refer to Median Kerb Island Cut-Back Type Section and New Median/Barrier Kerb Type Section on Drg No. 811047 for details.
4. Provide kerb breaks of 0.5m wide @ 10m intervals and sag points along new barrier kerb, unless noted otherwise

PAVEMENT EDGE SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | COMMENTS |
|-----------|------------|-------------|-------------------|
| P56 | 359134.500 | 8142931.348 | START R63.4 |
| P57 | 359133.579 | 8142934.884 | MID PT R63.4 |
| P58 | 359132.455 | 8142938.361 | CC R63.4 & R158.3 |
| P59 | 359128.883 | 8142947.502 | MID PT R158.3 |
| P60 | 359124.751 | 8142956.405 | END R158.3 |
| P61 | 359121.096 | 8142964.001 | |

KERB SETOUT DETAILS

| POINT NO | EASTING | NORTHING | COMMENTS | POINT NO | EASTING | NORTHING | COMMENTS |
|----------|------------|-------------|-------------------|----------|------------|-------------|-------------------|
| K1 | 359226.612 | 8142802.262 | CC R0.3 & R804.6 | K46 | 359180.172 | 8142852.635 | MID PT R60.6 |
| K2 | 359223.667 | 8142806.303 | | K47 | 359175.675 | 8142854.197 | CC R60.6 & R98.4 |
| K3 | 359220.748 | 8142810.362 | | K48 | 359171.117 | 8142855.852 | MID PT R98.4 |
| K4 | 359218.384 | 8142813.688 | MID PT R804.6 | K49 | 359166.484 | 8142857.280 | END R98.4 |
| K5 | 359216.038 | 8142817.026 | | K51 | 359160.628 | 8142858.193 | START R58.5 |
| K6 | 359213.185 | 8142821.132 | | K52 | 359151.916 | 8142858.429 | MID PT R58.5 |
| K7 | 359210.358 | 8142825.256 | CC R804.6 & R81.2 | K53 | 359143.267 | 8142857.373 | END R58.5 |
| K8 | 359207.915 | 8142828.783 | | K54 | 359150.206 | 8142867.960 | START R0.3 |
| K9 | 359204.850 | 8142832.710 | | K55 | 359150.362 | 8142868.434 | CC R0.3 & R65.2 |
| K10 | 359201.542 | 8142836.449 | MID PT R81.2 | K56 | 359146.564 | 8142873.817 | MID PT R65.2 |
| K11 | 359197.991 | 8142839.997 | | K57 | 359143.149 | 8142879.916 | CC R65.2 & R0.3 |
| K12 | 359194.237 | 8142843.311 | | K58 | 359142.606 | 8142879.906 | END R0.3 |
| K13 | 359190.906 | 8142845.930 | CC R81.2 & R0.3 | K59 | 359153.941 | 8142869.406 | START R61.9 |
| K14 | 359191.431 | 8142846.777 | CC R0.3 & R50.7 | K60 | 359149.116 | 8142876.148 | MID PT R61.9 |
| K15 | 359195.139 | 8142844.704 | | K61 | 359145.235 | 8142883.474 | END R61.9 |
| K16 | 359198.655 | 8142842.332 | | K62 | 359122.421 | 8142867.450 | START R50.7 |
| K17 | 359201.669 | 8142839.926 | MID PT R50.7 | K63 | 359127.990 | 8142873.373 | |
| K18 | 359206.089 | 8142835.619 | | K64 | 359132.541 | 8142880.110 | MID PT R50.7 |
| K19 | 359209.953 | 8142830.807 | END R50.7 | K65 | 359135.957 | 8142887.488 | |
| K20 | 359212.674 | 8142826.678 | | K66 | 359138.151 | 8142895.316 | END R 50.7 |
| K21 | 359214.549 | 8142824.226 | | K67 | 359139.679 | 8142907.727 | |
| K22 | 359217.246 | 8142820.016 | | K68 | 359139.309 | 8142920.824 | START R66.6 |
| K23 | 359219.800 | 8142815.718 | | K69 | 359139.229 | 8142922.068 | MID PT R66.6 |
| K24 | 359222.354 | 8142811.420 | | K70 | 359139.125 | 8142923.311 | END R66.6 |
| K25 | 359224.905 | 8142807.119 | | K71 | 359138.307 | 8142929.236 | START R66.7 |
| K26 | 359227.447 | 8142802.814 | START R0.3 | K72 | 359137.139 | 8142934.405 | MID R66.7 |
| K27 | 359224.916 | 8142826.107 | | K73 | 359135.565 | 8142939.466 | CC R66.7 & R161.6 |
| K28 | 359222.360 | 8142830.404 | | K74 | 359131.918 | 8142948.798 | MID PT R161.6 |
| K29 | 359219.805 | 8142834.702 | | K75 | 359127.700 | 8142957.886 | END R161.6 |
| K30 | 359217.220 | 8142838.982 | | K76 | 359125.736 | 8142961.913 | |
| K31 | 359214.301 | 8142843.039 | | K77 | 359123.852 | 8142965.764 | |
| K32 | 359212.232 | 8142845.469 | | K78 | 359149.433 | 8142938.716 | START R64.7 |
| K33 | 359210.720 | 8142847.060 | START R0.3 | K79 | 359152.337 | 8142942.785 | |
| K34 | 359210.884 | 8142847.568 | END R0.3 | K80 | 359155.547 | 8142946.617 | |
| K35 | 359251.779 | 8142881.080 | | K81 | 359158.858 | 8142950.014 | MID PT R64.7 |
| K36 | 359250.039 | 8142878.493 | START R145.3 | K82 | 359162.805 | 8142953.481 | |
| K37 | 359245.337 | 8142872.438 | MID PT R145.3 | K83 | 359166.810 | 8142956.473 | |
| K38 | 359240.323 | 8142866.640 | CC R145.3 & R55.6 | K84 | 359170.594 | 8142958.888 | CC R64.7 & R51.6 |
| K39 | 359233.761 | 8142860.973 | MID PT R55.6 | K85 | 359177.223 | 8142962.203 | MID PT R51.6 |
| K40 | 359226.397 | 8142856.396 | CC R55.6 & R58 | K86 | 359184.260 | 8142964.534 | CC R51.6 & R63.4 |
| K41 | 359219.409 | 8142853.296 | MID PT R58 | K87 | 359186.506 | 8142965.014 | MID PT R63.4 |
| K42 | 359212.073 | 8142851.141 | CC R58 & R60.5 | K88 | 359188.768 | 8142965.413 | END R63.4 |
| K43 | 359210.005 | 8142850.753 | MID PT R60.5 | | | | |
| K44 | 359207.925 | 8142850.437 | END R60.5 | | | | |
| K45 | 359184.777 | 8142851.431 | START R60.6 | | | | |

Last Modified: Mar 07, 2019 4:29pm XREFS: MCD10A.dwg: Road_Edge.dwg: Survey.dwg: New_Survey.dwg

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| G | | | | |
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| D | | | | |
| C | | | | |
| B | | | | |
| A | Issued For Construction | | | |
| Revisions/Descriptions | | Certification | Date | Microfiled |

| | |
|--------------------|----------------------------|
| Associated Job Nos | Survey Data |
| | Datum: GDA94 |
| Auxiliary Drg Nos | Horiz. Grid: MGA Zone55 |
| | Height Origin: AHDD |
| | Survey Books: MR101097-20A |

Scales

0 5 10 15 20m

Dimensions shown in metres except where shown otherwise

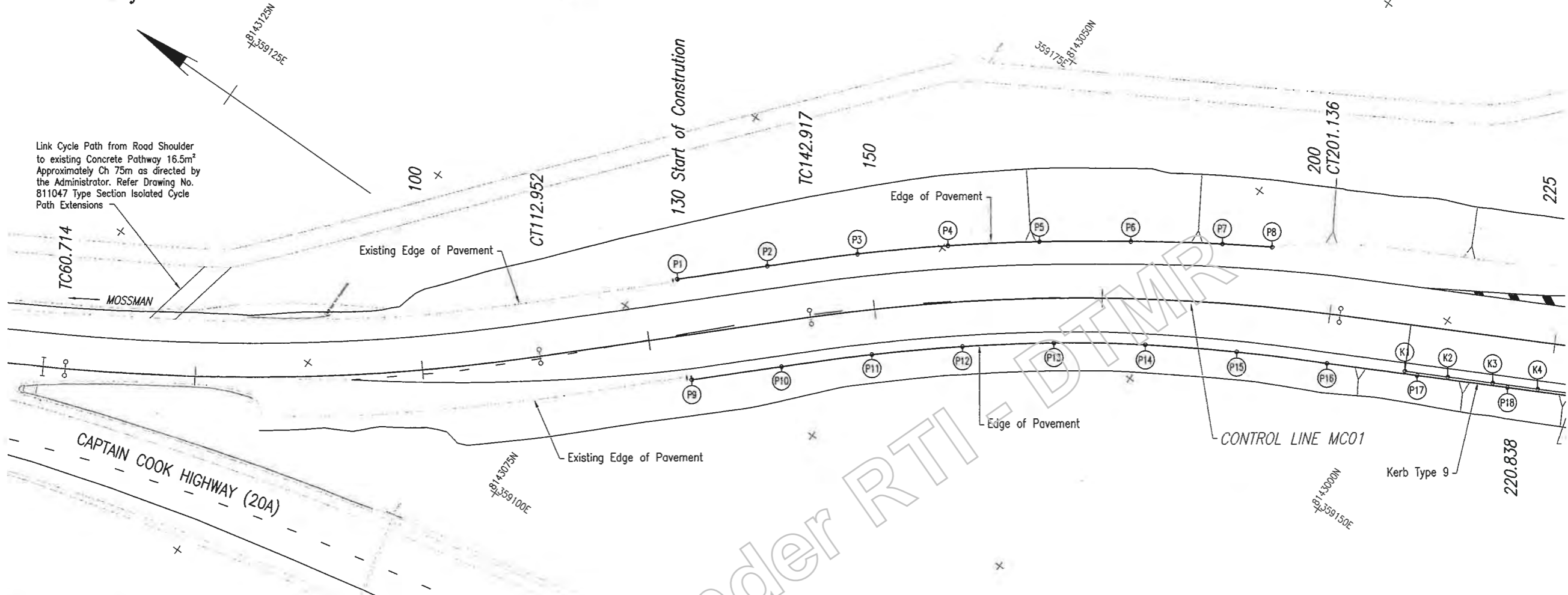
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|--|----------------------------|--------------------------|--------------------------|--------------|
| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MC02 00-450.085 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |
| Through Chainage from Refer Drg No. 811040 For Details | | | | |

| | | | |
|----------------------------------|--------------|-----------|-------|
| POOLWOOD ROAD ROUNDABOUT | | | |
| PAVEMENT AND KERB SETOUT DETAILS | | | |
| SHEET 3 | | | |
| ENGINEERING CERTIFICATION (RPEQ) | | | |
| Author | Checked | Drawn | Scale |
| M. Buchanan | J. Whiteside | | 7746 |
| Discipline | Project No. | Sheet No. | Date |
| CIVIL | | 2/3/19 | |

Locality

of

Kewarra Beach



JOINS DRG NO. 811052

PAVEMENT EDGE SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | COMMENTS |
|-----------|------------|-------------|----------|
| P1 | 359130.583 | 8143071.946 | |
| P2 | 359137.399 | 8143064.629 | |
| P3 | 359144.151 | 8143057.253 | |
| P4 | 359150.583 | 8143049.597 | |
| P5 | 359156.653 | 8143041.651 | |
| P6 | 359162.398 | 8143033.467 | |
| P7 | 359167.872 | 8143025.099 | |
| P8 | 359170.702 | 8143020.408 | |
| P9 | 359122.461 | 8143064.381 | |
| P10 | 359129.276 | 8143057.063 | |
| P11 | 359136.025 | 8143049.685 | |
| P12 | 359142.435 | 8143042.011 | |
| P13 | 359148.464 | 8143034.033 | |
| P14 | 359154.014 | 8143025.718 | |
| P15 | 359159.061 | 8143017.086 | |
| P16 | 359163.687 | 8143008.222 | |
| P17 | 359168.241 | 8142999.319 | |
| P18 | 359172.794 | 8142990.415 | |

LEGEND

- Proposed Control Line Alignment
- Semi Mountable Kerb Type 9 (AA=50mm)
Refer TMR Std Drg No. 1033 for details
- Barrier Kerb Type 11 (Modified)
Refer to detail on Drg No. 811047
- Pavement Edge Setout Points
- Kerb Setout Points

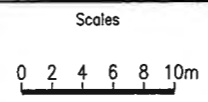
NOTES

1. Refer Drawing No. 811052 for Kerb Setout Table
2. All coordinates are to face of barrier kerb and semi mountable kerb.
3. All kerbs to be painted white with an application of visi-beads in accordance with MUTCD guidelines. Traffic islands are to be concrete filled.
4. Refer to Median Kerb Island Cut-Back Type Section and New Median/Barrier Kerb Type Section on Drg No. 811047 for details.
5. Provide kerb breaks of 0.5m wide @ 10m intervals and sag points along new barrier kerb, unless noted otherwise

Last Modified: Mar 07, 2019 - 6:04pm XREFS: -- NICD1A.dwg : Road_Edgs.dwg : Survey.dwg : New_Survey.dwg

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|---|-------------------------|---------------|-----------------|
| G | | | |
| F | | | |
| E | | | |
| D | | | |
| C | | | |
| B | | | |
| A | Issued For Construction | | |
| | Revisions/Descriptions | Certification | Date Microfiled |

| | |
|--------------------|-------------------------|
| Associated Job Nos | Survey Data |
| | Datum: GDA94 |
| Auxiliary Drg Nos | Horiz. Grid: MGA Zone55 |
| | Height Origin: AHDD |
| Survey Books | MR101097-20A |



| | | | | |
|---|----------------------------|--------------------------|--------------------------|--------------|
| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MC01 0.00-394.314 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |

| | | | |
|----------------------------------|-------------|------|--------|
| POOLWOOD ROAD ROUNDABOUT | | | |
| PAVEMENT AND KERB SETOUT DETAILS | | | |
| SHEET 4 | | | |
| ENGINEERING CERTIFICATION (RPEO) | | | |
| CIVIL | J Whiteside | 1746 | 2/3/19 |

Queensland Government

2/3/19

811052

MRR_Detail (02/14)

Locality

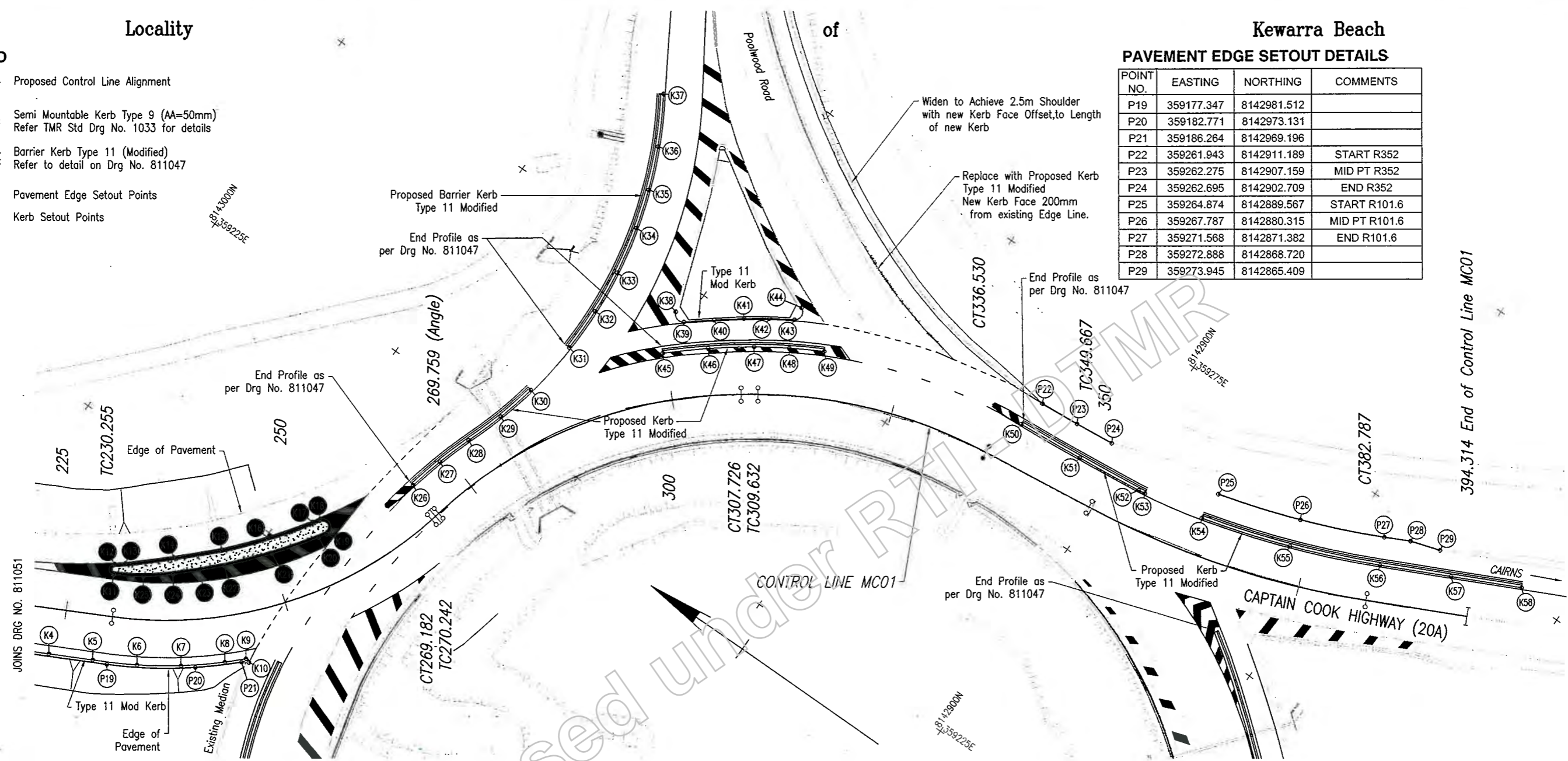
Kewarra Beach

LEGEND

- +— Proposed Control Line Alignment
- ==== Semi Mountable Kerb Type 9 (AA=50mm)
Refer TMR Std Drg No. 1033 for details
- ==== Barrier Kerb Type 11 (Modified)
Refer to detail on Drg No. 811047
- (P1) Pavement Edge Setout Points
- (K1) Kerb Setout Points

PAVEMENT EDGE SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | COMMENTS |
|-----------|------------|-------------|---------------|
| P19 | 359177.347 | 8142981.512 | |
| P20 | 359182.771 | 8142973.131 | |
| P21 | 359186.264 | 8142969.196 | |
| P22 | 359261.943 | 8142911.189 | START R352 |
| P23 | 359262.275 | 8142907.159 | MID PT R352 |
| P24 | 359262.695 | 8142902.709 | END R352 |
| P25 | 359264.874 | 8142889.567 | START R101.6 |
| P26 | 359267.787 | 8142880.315 | MID PT R101.6 |
| P27 | 359271.568 | 8142871.382 | END R101.6 |
| P28 | 359272.888 | 8142868.720 | |
| P29 | 359273.945 | 8142865.409 | |

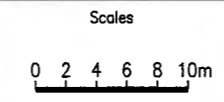


KERB SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | COMMENTS | POINT NO. | EASTING | NORTHING | COMMENTS | POINT NO. | EASTING | NORTHING | COMMENTS | POINT NO. | EASTING | NORTHING | COMMENTS |
|-----------|------------|-------------|-------------------|-----------|------------|-------------|------------------|-----------|------------|-------------|-----------------|-----------|------------|-------------|---------------|
| K1 | 359167.859 | 8143000.680 | | K18 | 359204.596 | 8142971.190 | CC R97.7 & R0.95 | K35 | 359256.217 | 8142961.903 | | K52 | 359260.075 | 8142897.205 | CC R355 & R65 |
| K2 | 359170.008 | 8142996.478 | | K19 | 359203.595 | 8142969.575 | CC R0.95 & R99.6 | K36 | 359260.829 | 8142963.827 | | K53 | 359260.186 | 8142896.416 | END R65 |
| K3 | 359172.285 | 8142992.026 | | K20 | 359202.791 | 8142970.084 | CC R99.6 & R65.4 | K37 | 359266.075 | 8142966.741 | END R49.2 | K54 | 359261.575 | 8142889.573 | START R104.8 |
| K4 | 359174.561 | 8142987.574 | | K21 | 359198.264 | 8142973.328 | MID PT R65.4 | K38 | 359246.695 | 8142951.542 | START R0.9 | K55 | 359264.646 | 8142879.617 | MID PT R104.8 |
| K5 | 359176.837 | 8142983.123 | | K22 | 359194.040 | 8142976.943 | CC R65.4 & R81.8 | K39 | 359246.298 | 8142950.110 | CC R0.9 & R178 | K56 | 359268.692 | 8142870.015 | END R104.8 |
| K6 | 359179.219 | 8142978.728 | | K23 | 359191.970 | 8142979.064 | MID PT R81.8 | K40 | 359248.388 | 8142947.486 | MID PT R178 | K57 | 359272.209 | 8142862.699 | |
| K7 | 359182.007 | 8142974.579 | | K24 | 359189.911 | 8142981.195 | CC R81.8 & R25.6 | K41 | 359250.429 | 8142944.822 | CC R178 & R62.4 | K58 | 359275.726 | 8142855.385 | |
| K8 | 359185.193 | 8142970.729 | | K25 | 359187.819 | 8142983.803 | MID R25.6 | K42 | 359252.071 | 8142942.462 | MID PT R62.4 | | | | |
| K9 | 359186.872 | 8142968.983 | START R0.3 | K26 | 359213.734 | 8142964.747 | START R58.4 | K43 | 359253.602 | 8142940.027 | CC R62.4 & R0.9 | | | | |
| K10 | 359186.704 | 8142968.473 | END R0.3 | K27 | 359217.641 | 8142963.745 | MID PT R58.4 | K44 | 359255.201 | 8142940.110 | END R0.9 | | | | |
| K11 | 359186.085 | 8142986.661 | START R0.6 | K28 | 359221.471 | 8142962.475 | CC R65.4 & R49.2 | K45 | 359242.050 | 8142950.066 | START R74 | | | | |
| K12 | 359187.094 | 8142987.302 | CC R0.6 & R77.3 | K29 | 359225.746 | 8142961.004 | MID PT R49.2 | K46 | 359245.396 | 8142946.178 | MID PT R74 | | | | |
| K13 | 359187.820 | 8142986.368 | CC R77.3 & R186.8 | K30 | 359230.139 | 8142959.931 | END R49.2 | K47 | 359248.467 | 8142942.066 | CC R74 & R59.2 | | | | |
| K14 | 359191.531 | 8142982.282 | MID PT R186.8 | K31 | 359236.552 | 8142959.107 | START R49.2 | K48 | 359250.657 | 8142938.716 | MID PT R59.2 | | | | |
| K15 | 359195.362 | 8142978.308 | CC R186.8 & R63.5 | K32 | 359241.549 | 8142959.051 | | K49 | 359252.615 | 8142935.226 | END R59.2 | | | | |
| K16 | 359199.445 | 8142974.816 | MID PT R63.5 | K33 | 359246.527 | 8142959.502 | | K50 | 359258.654 | 8142912.259 | START R355 | | | | |
| K17 | 359203.809 | 8142971.682 | CC R63.5 & R97.7 | K34 | 359251.919 | 8142960.579 | MID PT R49.2 | K51 | 359259.285 | 8142904.724 | MID PT R355 | | | | |

NOTES

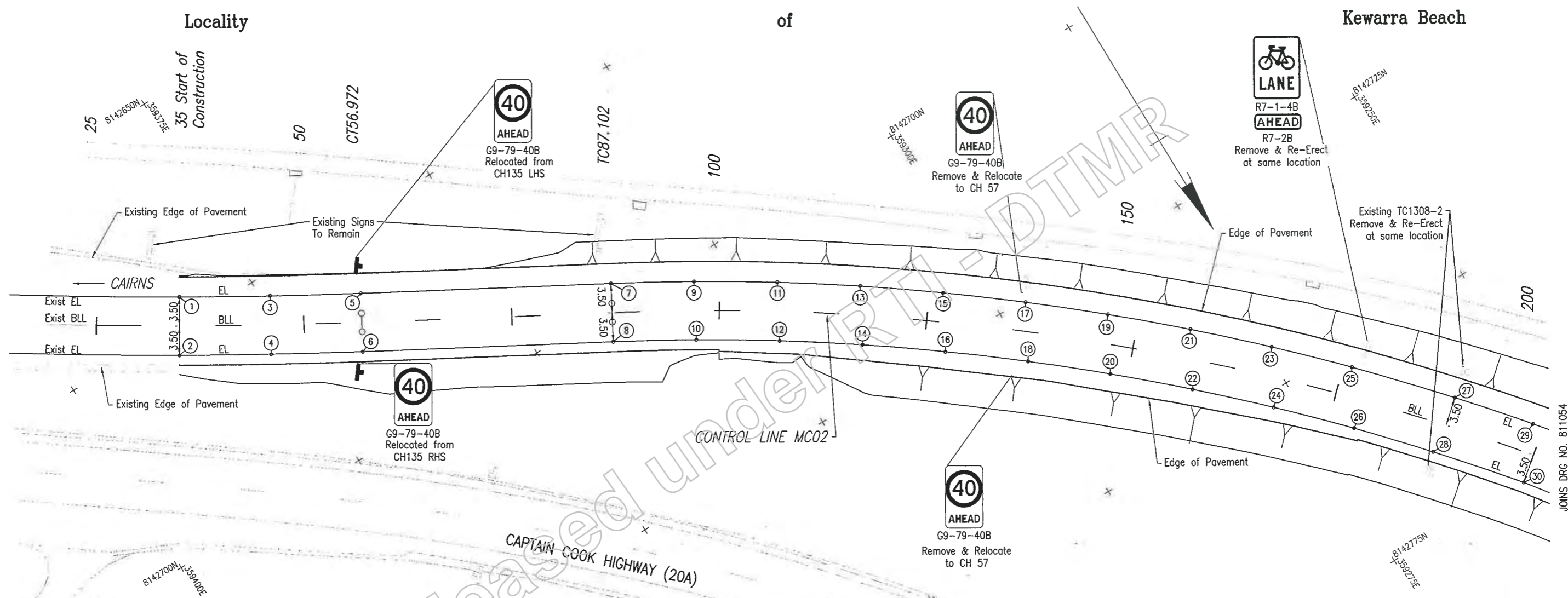
1. All coordinates are to face of barrier kerb and semi mountable kerb.
2. All kerbs to be painted white with an application of visi-beads in accordance with MUTCD guidelines. Traffic islands are to be concrete filled.
3. Refer to Median Kerb Island Cut-Back Type Section and New Median/Barrier Kerb Type Section on Drg No. 811047 for details.
4. Provide kerb breaks of 0.5m wide @ 10m intervals and sag points along new barrier kerb, unless noted otherwise



| CAIRNS REGION | | | | |
|---|----------------------------|--------------------------|--------------------------|--------------|
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MC01 0.00-394.314 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| | | | | |

| POOLWOOD ROAD ROUNDABOUT | | |
|----------------------------------|----------|-------|
| PAVEMENT AND KERB SETOUT DETAILS | | |
| SHEET 5 | | |
| ENGINEERING CERTIFICATION (RPEQ) | | |
| Author | Checked | Drawn |
| Design | Reviewed | Issue |
| Project | Scale | Date |
| Client | Sheet | Of |

Last Modified: Mar 07, 2019 - 6:03pm XREFS -- MC01A.dwg : Road_Edge.dwg : Survey.dwg : New_Survey.dwg



- NOTES:
1. Refer Drawing No. 811055 for Pavement Marking Legend and Notes.
 2. Refer Drawing No. 811058 for Linemarking Setout Table.

Last Modified: Mar 07, 2019 - 4:29pm XREFS: MCD11A.dwg; Road_Edge.dwg; Survey.dwg; New_Survey.dwg

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| A | Issued For Construction | | | |
| Revisions/Descriptions | | Certification | Date | Marked |

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|--------------------|---------------|---|
| Associated Job Nos | Survey Data | |
| | Datum | GDA94 |
| Auxiliary Drg Nos | Horiz. Grid | MGA Zone55 |
| | Height Origin | AHDD |
| Survey Books | MR101097-20A | Dimensions shown in metres except where shown otherwise |

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| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MC02 00-450.085 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |
| Through Chainage from Refer Drg No. 811040 For Details | | | | |

| | | | |
|---|-------|------|------|
| POOLWOOD ROAD ROUNDABOUT PAVEMENT MARKING AND SIGNS SHEET 1 | | | |
| ENGINEERING CERTIFICATION (RPEO) | | | |
| NAME | DATE | NO. | DATE |
| CIVIL | 23/19 | 7748 | |

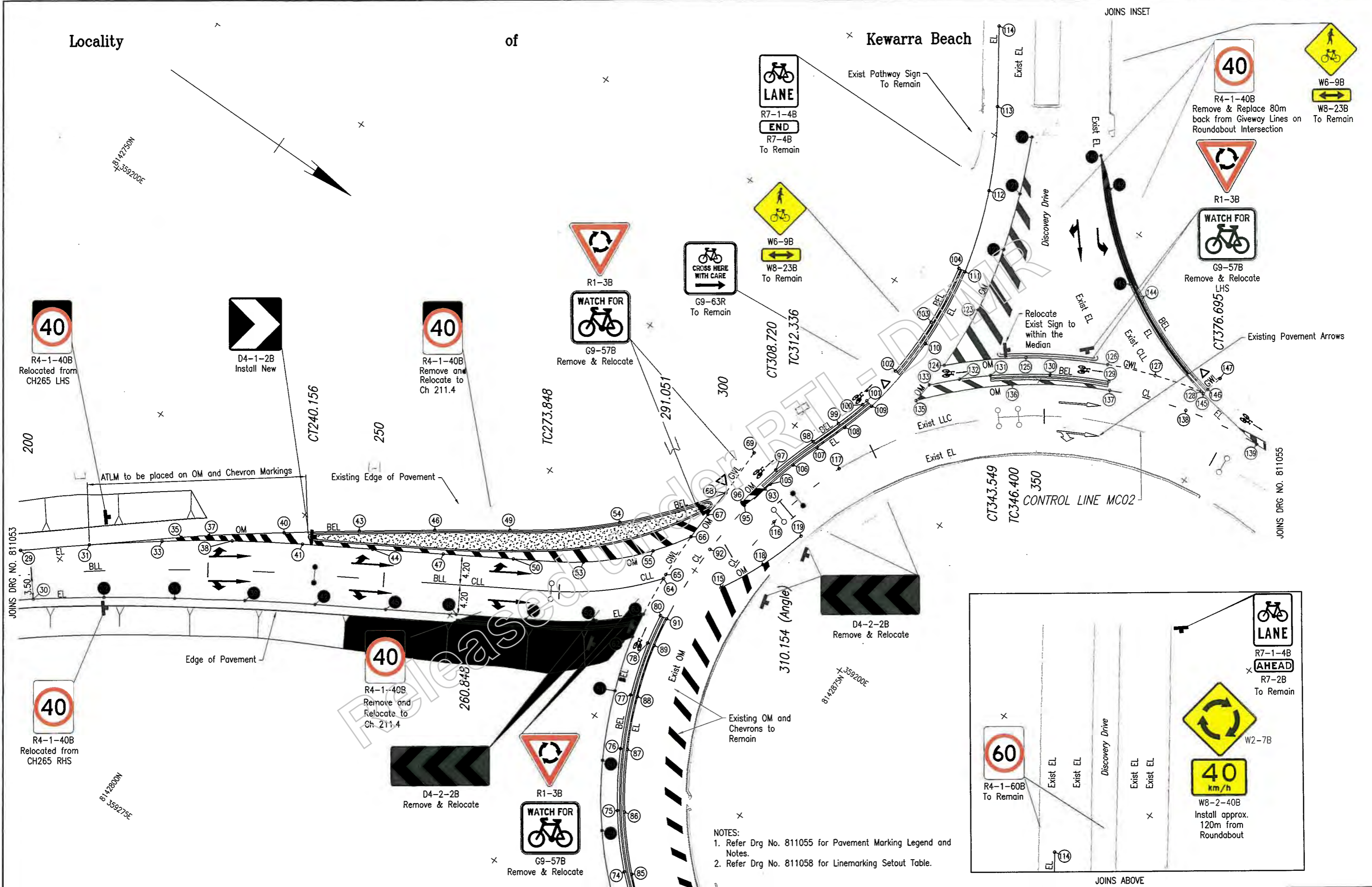
| | |
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| Project No. | 811055 |
| Sheet No. | 14 of 26 |
| Series Number | 14 of 26 |
| Drawn By | J. Whittice |
| Checked By | |
| Approved By | |

Locality

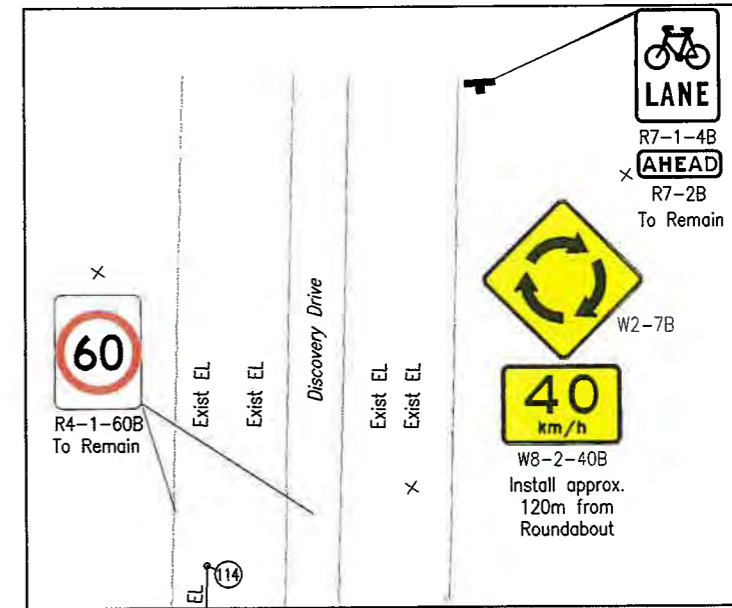
of

Kewarra Beach

JOINS INSET



NOTES:
 1. Refer Drg No. 811055 for Pavement Marking Legend and Notes.
 2. Refer Drg No. 811058 for Linemarking Setout Table.



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| A | Issued For Construction | | |
| Revisions/Descriptions | | | |
| | Certification | Date | Microfile |

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| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MCO2 00-450.085 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |
| Through Change from Refer Drg No. 811040 For Details | | | | |

| | |
|----------------------------------|-------------|
| POOLWOOD ROAD ROUNDABOUT | |
| PAVEMENT MARKING AND SIGNS | |
| SHEET 2 | |
| ENGINEERING CERTIFICATION (RPEQ) | |
| AREA | NAME |
| CIVIL | J Whiteside |
| 7746 | 19 |

Queensland Government

559849

CN-11204

Series Number 15 of 26

Last Modified: Mar 07, 2019 4:29pm
 XREFS: MCO1A.dwg: Road_Edge.dwg: Survey.dwg: New_Survey.dwg
 8112800N 359275E
 8112800N 359275E

Locality of Kewarra Beach

LEGEND FOR PAVEMENT MARKING
(Unlabelled dimensions are in millimetres.)

LONGITUDINAL LINES

| | | | | | | | | | | | | |
|------------------|------|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Dividing Lines | | | | | | | | | | | | |
| Two-lane roads | BDL | 3m | 9m | 3m | 9m | 3m | 9m | 3m | 100 | | | |
| Barrier Lines | | | | | | | | | | | | |
| Single | SBL | [Diagram showing a single barrier line] | | | | | | | | | 100 | |
| One direction | ODBL | [Diagram showing one direction barrier lines] | | | | | | | | | 80 | |
| Both directions | DBL | [Diagram showing both directions barrier lines] | | | | | | | | | 80 | |
| Lane Lines | | | | | | | | | | | | |
| Broken | BLL | 3m | 9m | 3m | 9m | 3m | 9m | 3m | 100 | | | |
| Continuous | CLL | [Diagram showing continuous lane lines] | | | | | | | | | 100 | |
| Edge Lines | EL | [Diagram showing edge lines] | | | | | | | | | 150 | |
| Continuity Lines | CL | 1m | 3m | 1m | 3m | 1m | 3m | 1m | 150 | | | |
| Outline Marking | OM | [Diagram showing outline marking] | | | | | | | | | 150 | |
| Turning Line | TL | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 600 | 100 | | |
| Bike Edge Line | BEL | [Diagram showing bike edge line] | | | | | | | | | 150 | |

TRANSVERSE LINES

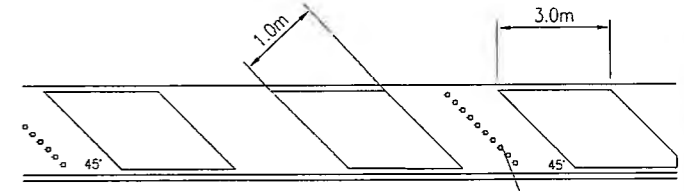
| | | | |
|----------------|-----|---|-----|
| Stop Lines | SL | [Diagram showing stop line] | 300 |
| Give Way Lines | GWL | [Diagram showing give way line with 600mm stripe & gap] | 300 |

OTHER MARKINGS

| | | |
|--------------------------------|--|--|
| Intersection Pavement Arrows | | |
| Left Turn @ 30m Separation | [Diagram showing left turn arrow] | |
| Right Turn @ 25m Separation | [Diagram showing right turn arrow] | |
| RRPM Yellow Bidirectional | [Diagram showing RRPM yellow bidirectional] | |
| RRPM Yellow Unidirectional | [Diagram showing RRPM yellow unidirectional] | |
| RRPM White Bidirectional | [Diagram showing RRPM white bidirectional] | |
| RRPM White Unidirectional | [Diagram showing RRPM white unidirectional] | |
| RRPM Red Bidirectional | [Diagram showing RRPM red bidirectional] | |
| Exist Sign | [Diagram showing exist sign] | |
| New Sign | [Diagram showing new sign] | |
| Cycle Giveway | [Diagram showing cycle giveway] | |
| Cycle Bike | [Diagram showing cycle bike symbol] | |
| Cycle Path Arrow Specification | [Diagram showing cycle path arrow] | |
| Cycle Path Arrow Specification | [Diagram showing cycle path arrow] | |

NOTES

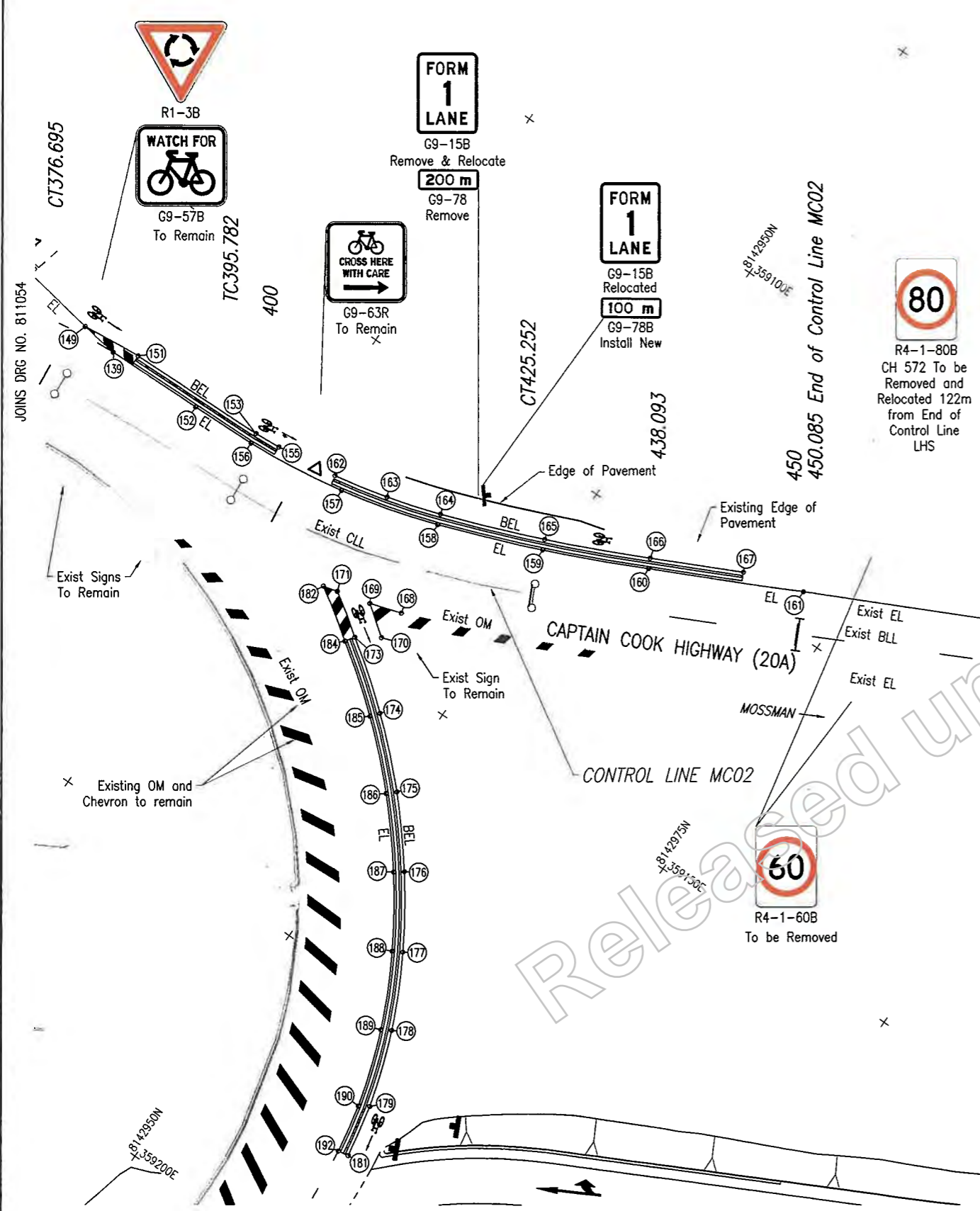
- Refer Drg No. 811054 for Linemarking Setout Table.
- All pavement marking, raised pavement markers and road edge guide posts, shall be in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) and design drawings.
- Lateral spacing between edge line and edge of RRPM must be in the range of 25mm (min.) to 50mm (max.).
- Contractor to install temporary Raised Reflectorised Pavement Markers (T.R.R.P.M's) in accordance with MTRS45 and MTRS45-1 (Annexure).
- Contractor is to spot all longitudinal lines in accordance with MTRS45 and MTRS45-1 (Annexure).
- Kerbs to be in accordance with Standard Drawing 1033 and Drg 811047.
- All existing signs to remain unless shown otherwise. Remove and Re-erect existing signs only in case of interference with Contractor's construction activities.
- Signs to be installed in accordance with MTRS14 and Standard Drawings 1363 and 1368.
- All diagonal markings to be 30° as detailed below.
- Pavement marking is NOT IN CONTRACT. Drawings are prepared for the Principal's use in setting out the final pavement marking. Contractor may use for spotting and T.R.R.P.M setting out purposes.
- Contractor to ensure signs are installed at 5' or one tenth of the width of the sign from the Normal to Traffic Flow (See Details this plan) or as directed by the Administrator in particular situations.
- Colour of Temporary RRPM's shall comply with Table 5.3 of MUTCD. (eg. Yellow TRRPM on Centre Lines or Edge Line (RHS) for Divided Roads)



CHEVRON DETAILS TYPE A
N.T.S

- Notes:
- Diagonal rows of RRPM's to be placed centrally between diagonal painted markings in every second space.
 - Markers to be Red unidirectional and placed normal to the direction of traffic.

DIAGONALE MARKING
N.T.S



| | | | | | | |
|---|--------------------|---------------|--------------|---|---|---|
| G | Associated Job Nos | Survey Data | | Scales | CAIRNS REGION | POOLWOOD ROAD ROUNDABOUT PAVEMENT MARKING AND SIGNS SHEET 3 |
| | | Datum | GDA94 | | | |
| F | Auxiliary Drg Nos | Horiz. Grid | MGA Zone55 | 0 2 4 6 8 10m | CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | ENGINEERING CERTIFICATION (RPEQ) |
| | | Height Origin | AHDD | | | |
| D | | Survey Books | MR101097-20A | Dimensions shown in metres except where shown otherwise | Refer Drg No. 811040 For Details | |
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| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
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Queensland Government

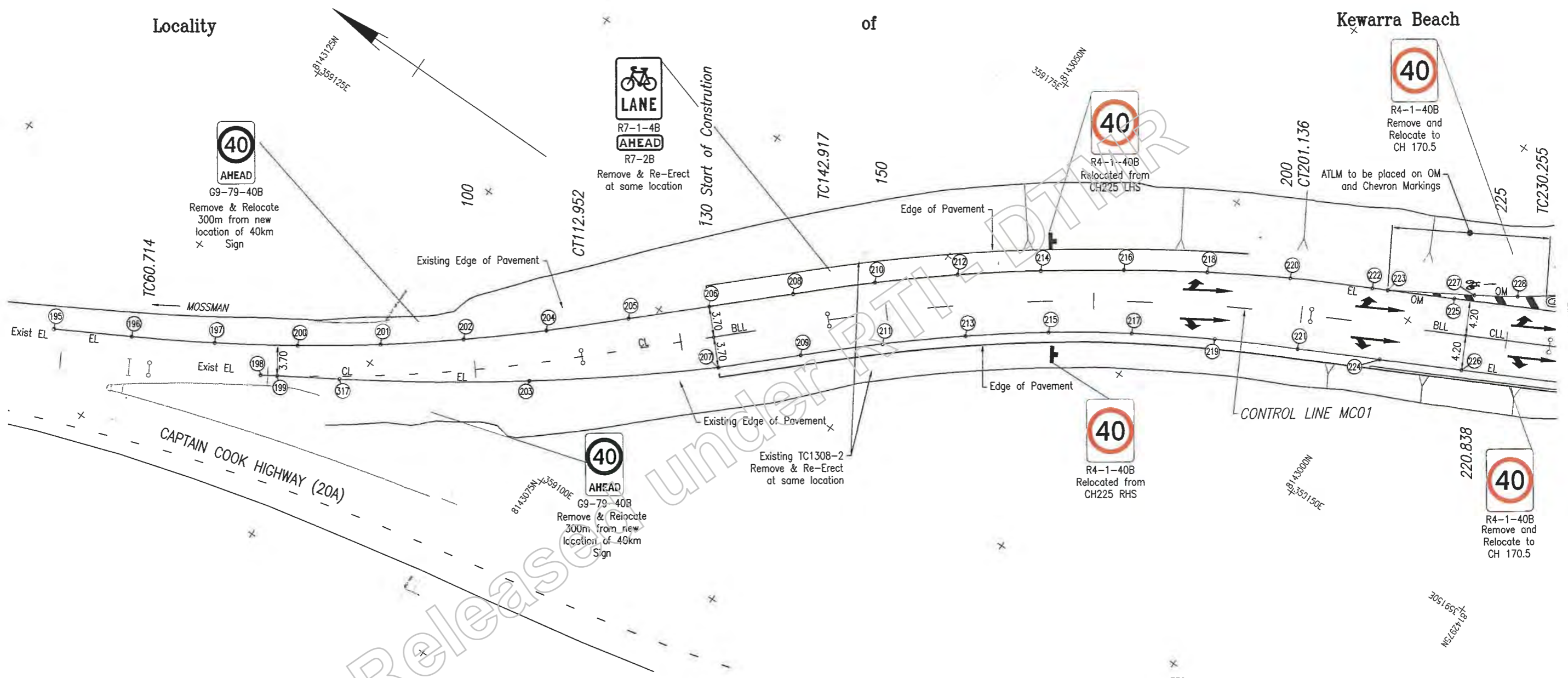
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16 of 26

Last Modified: Mar 07, 2019 - 4:29pm XREFS: MCD1AA.dwg: Road_Edge.dwg: Survey.dwg: New_Survey.dwg



NOTES:
 1. Refer Drg No. 811055 for Pavement Marking Legend and Notes.
 2. Refer Drg No. 811058 for Linemarking Setout Table.

Last Modified: 19-Mar-2019 4:29pm XREFS: MC01AA.dwg - Road_Edgs.dwg - Survey.dwg - New_Survey.dwg

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| A | Issued For Construction | | | |
| | Revisions/Descriptions | Certification | Date | Microfiled |

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|--------------------|------------------------|
| Associated Job Nos | Survey Data |
| | Datum GDA94 |
| Auxiliary Drg Nos | Horiz. Grid MGA Zone55 |
| | Height Origin AHDD |
| Survey Books | MR101097-20A |

Scales

0 2 4 6 8 10m

Dimensions shown in metres except where shown otherwise

| | | | | |
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| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MC01 0.00-394.314 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |
| Through Chainage from Refer Drg No. 811040 For Details | | | | |

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|---|--------------|------|-------|
| POOLWOOD ROAD ROUNDABOUT PAVEMENT MARKING AND SIGNS SHEET 4 | | | |
| ENGINEERING CERTIFICATION (RPEQ) | | | |
| U. Duchonnet | J. Whiteside | 7745 | 13/19 |
| CIVIL | | | |

Queensland Government

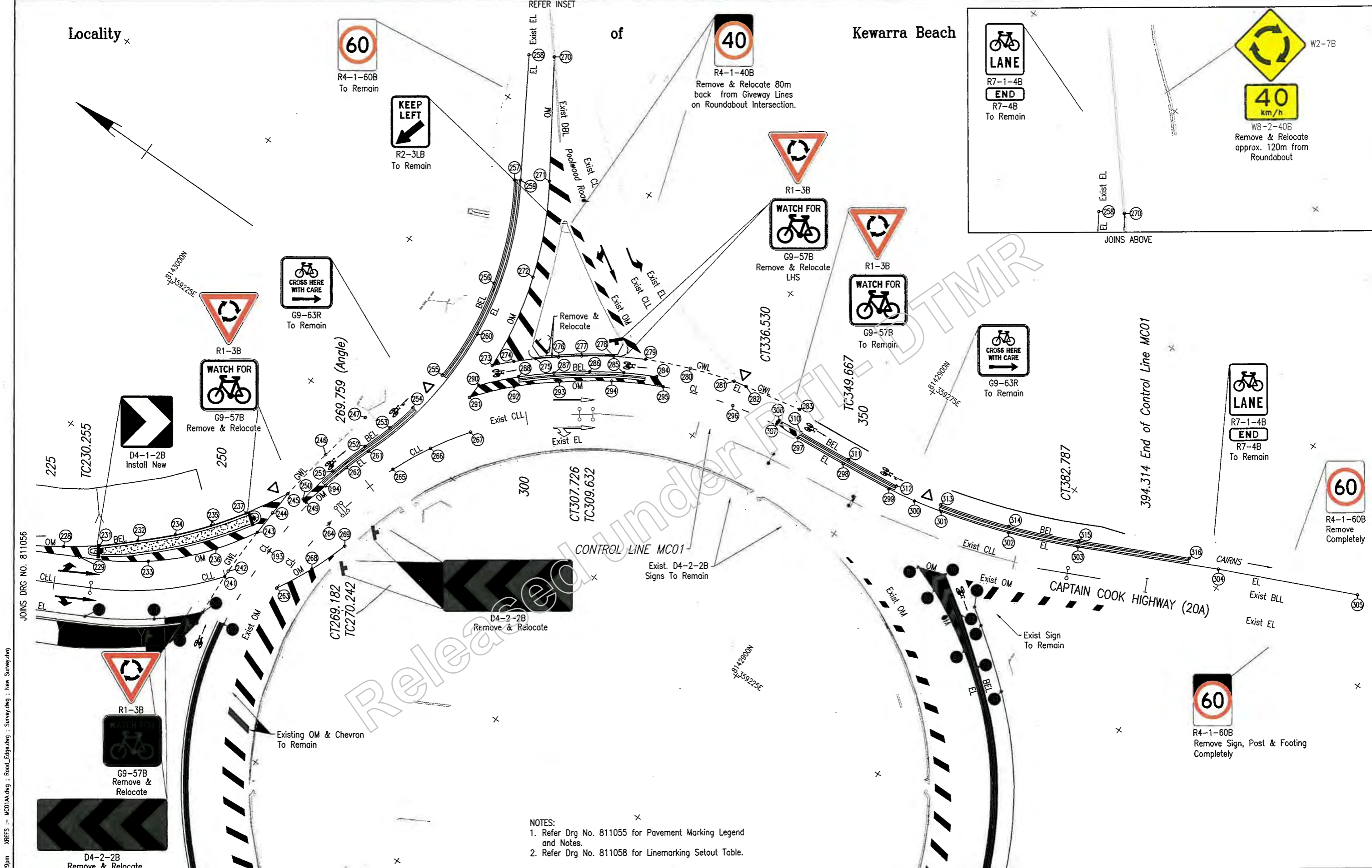
Drawing No. 811056

Page Number 17 of 26

MRP Detail (1/2/14)

Locality x

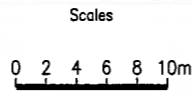
Kewarra Beach



JOINS DRG NO. 811056
 Mar 07, 2019 - 4:29pm
 XREFS: MCO1A.dwg : Road_Edges.dwg : Survey.dwg : New_Survey.dwg

Released Under DTMR

- NOTES:
1. Refer Drg No. 811055 for Pavement Marking Legend and Notes.
 2. Refer Drg No. 811058 for Linemarking Setout Table.



| | | | | |
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| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MCO1 0.00-394.314 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |
| Through Change from Refer Drg No. 811040 For Details | | | | |

POOLWOOD ROAD ROUNDABOUT
PAVEMENT MARKING AND SIGNS
SHEET 5

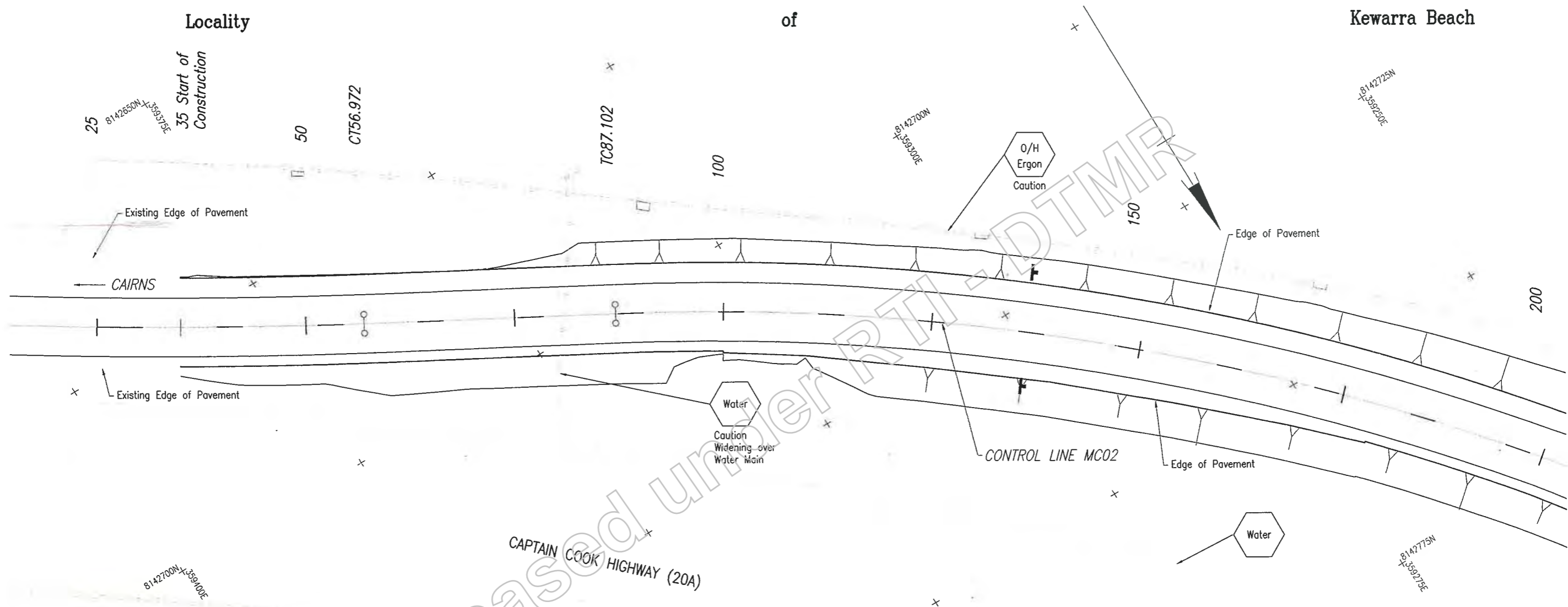
ENGINEERING CERTIFICATION (RPEQ)

| Revisions/Descriptions | Certification | Date | Microfiled |
|------------------------|---------------|------|------------|
| | | | |

Auxiliary Drg Nos

| | | | |
|--|--|--|--|
| | | | |
| | | | |

| POINT NO | EASTING | NORTHING | COMMENTS | POINT NO | EASTING | NORTHING | COMMENTS | POINT NO | EASTING | NORTHING | COMMENTS | POINT NO | EASTING | NORTHING | COMMENTS | POINT NO | EASTING | NORTHING | COMMENTS |
|----------|------------|-------------|-------------------|----------|------------|-------------|---------------------|----------|------------|-------------|------------------------|----------|------------|-------------|------------------------|----------|------------|-------------|-----------------------------|
| 1 | 359383.338 | 8142671.985 | | 63 | 359209.225 | 8142847.544 | START R89 | 130 | 359148.453 | 8142875.745 | MID PT R64.5 | 200 | 359096.764 | 8143108.364 | | 262 | 359217.586 | 8142963.560 | MID PT R57.4 |
| 2 | 359386.939 | 8142677.987 | | 64 | 359203.466 | 8142847.006 | | 131 | 359153.323 | 8142868.899 | CC R64.5 & R62.7 | 317 | 359096.332 | 8143101.903 | START R291 | 263 | 359197.496 | 8142961.898 | START R64.4 & R49 |
| 3 | 359373.921 | 8142677.526 | | 65 | 359202.801 | 8142846.968 | MID PT R89 | 132 | 359156.232 | 8142865.605 | MID PT R62.7 | 201 | 359102.572 | 8143100.225 | | 264 | 359209.570 | 8142961.027 | MID PT R64.4 |
| 4 | 359377.420 | 8142683.589 | | 66 | 359196.353 | 8142846.859 | CC R89 | 133 | 359159.365 | 8142862.523 | END R62.7/START R62.15 | 202 | 359108.742 | 8143092.357 | | 265 | 359221.268 | 8142957.913 | CC R64.4 & R49.9 |
| 5 | 359364.412 | 8142682.908 | END R646.5 | 67 | 359192.400 | 8142847.023 | MID PT R89 | 135 | 359162.279 | 8142862.232 | END R62.15/START R62.6 | 203 | 359109.116 | 8143083.022 | MID PT R291 | 266 | 359226.861 | 8142955.182 | MID PT R49.9 |
| 6 | 359367.808 | 8142689.029 | END R653.5 | 68 | 359188.459 | 8142847.362 | END R79.2 & R89 | 136 | 359152.672 | 8142872.191 | MID PT R62.6 | 204 | 359115.262 | 8143084.775 | | 267 | 359232.070 | 8142951.775 | END R49.9 |
| 7 | 359338.066 | 8142697.526 | START R293.5 | 69 | 359181.514 | 8142847.421 | | 137 | 359145.489 | 8142884.017 | CC R62.6 & R61.2 | 205 | 359122.054 | 8143077.436 | | 268 | 359202.704 | 8142959.267 | MID PT R49 |
| 8 | 359341.462 | 8142703.647 | START R286.5 | 70 | 359254.301 | 8142883.396 | | 138 | 359141.719 | 8142894.555 | MID PT R61.2 | 206 | 359128.754 | 8143070.242 | | 269 | 359208.148 | 8142957.281 | END R49 |
| 9 | 359329.406 | 8142702.526 | | 72 | 359250.694 | 8142878.033 | START R146 | 139 | 359139.932 | 8142905.602 | END R61.2 & R51.6 | 207 | 359123.339 | 8143065.199 | END R291 | 270 | 359283.610 | 8142972.714 | |
| 10 | 359332.804 | 8142708.650 | | 73 | 359245.942 | 8142871.914 | MID PT R146 | 140 | 359118.776 | 8142864.149 | START R51.23 & R20 | 208 | 359135.685 | 8143062.801 | | 271 | 359268.442 | 8142963.033 | START R53.3 |
| 11 | 359320.921 | 8142707.818 | | 74 | 359240.872 | 8142866.056 | CC R146 & R59.4 | 142 | 359121.958 | 8142867.961 | CC R20 & R50 | 209 | 359130.155 | 8143057.881 | | 272 | 359255.682 | 8142957.071 | MID PT R53.3 |
| 12 | 359324.326 | 8142713.953 | | 75 | 359234.243 | 8142860.335 | MID PT R59.4 | 143 | 359131.451 | 8142877.897 | MID PT R51.23 | 210 | 359142.433 | 8143055.422 | | 273 | 359241.806 | 8142954.663 | END R53.3/START R51.2 |
| 13 | 359312.622 | 8142713.395 | | 76 | 359226.773 | 8142855.689 | CC R59.4 & R58.9 | 144 | 359131.940 | 8142880.450 | MID PT R50 | 211 | 359136.904 | 8143050.503 | | 274 | 359244.086 | 8142952.423 | MID PT R51.2 |
| 14 | 359316.039 | 8142719.548 | | 77 | 359219.679 | 8142852.543 | MID PT R58.9 | 145 | 359138.348 | 8142895.278 | END R51.23 | 212 | 359148.854 | 8143047.756 | | 275 | 359246.222 | 8142950.045 | CC R51.2 & R177.9 |
| 15 | 359304.517 | 8142719.252 | | 78 | 359212.244 | 8142850.359 | CC R58.9 & R61.3 | 146 | 359137.474 | 8142895.449 | END R50 | 213 | 359143.316 | 8143042.831 | | 276 | 359248.309 | 8142947.424 | MID PT R177.9 |
| 16 | 359307.951 | 8142725.428 | | 80 | 359208.032 | 8142849.644 | END R61.3 | 147 | 359135.233 | 8142895.984 | | 214 | 359154.909 | 8143039.799 | | 277 | 359250.348 | 8142944.763 | CC R177.9 & R55 |
| 17 | 359296.617 | 8142725.382 | | 81 | 359252.963 | 8142887.244 | START R49.7 | 149 | 359139.474 | 8142902.098 | START R103.3 & R51.6 | 215 | 359149.349 | 8143034.857 | | 278 | 359252.941 | 8142940.920 | MID PT R55 |
| 18 | 359300.074 | 8142731.588 | | 83 | 359251.529 | 8142883.394 | CC R49.7 & R57.3 | 151 | 359138.879 | 8142907.704 | END R103.3 | 216 | 359160.643 | 8143031.676 | | 279 | 359255.201 | 8142936.872 | CC R55 & R79.5 |
| 19 | 359288.930 | 8142731.778 | | 84 | 359246.737 | 8142874.800 | MID PT R57.3 | 152 | 359139.692 | 8142914.815 | | 217 | 359154.910 | 8143026.549 | | 280 | 359257.818 | 8142930.774 | MID PT R79.5 |
| 20 | 359292.416 | 8142738.018 | | 85 | 359240.545 | 8142867.152 | CC R57.3 & R55.7 | 153 | 359138.510 | 8142920.790 | START R65.8 | 218 | 359166.093 | 8143023.224 | | 281 | 359259.910 | 8142924.498 | END R79.5 |
| 21 | 359281.466 | 8142738.431 | | 86 | 359233.851 | 8142861.289 | MID PT R55.7 | 155 | 359138.327 | 8142923.262 | END R65.8 | 219 | 359159.969 | 8143017.924 | | 282 | 359260.287 | 8142922.643 | |
| 22 | 359284.988 | 8142744.712 | | 87 | 359226.305 | 8142856.573 | CC R55.7 & R57.9 | 156 | 359139.506 | 8142920.938 | START R67 | 220 | 359171.146 | 8143014.595 | | 283 | 359261.966 | 8142914.386 | |
| 23 | 359274.232 | 8142745.335 | | 88 | 359219.341 | 8142853.484 | MID PT R57.9 | 157 | 359138.292 | 8142930.369 | MID PT R67 | 221 | 359164.603 | 8143009.064 | | 284 | 359254.057 | 8142934.129 | START R60 |
| 24 | 359277.798 | 8142751.661 | | 89 | 359212.031 | 8142851.336 | CC R57.9 & R60.3 | 158 | 359135.753 | 8142939.533 | CC R67 & R161.8 | 222 | 359175.751 | 8143005.719 | | 285 | 359251.807 | 8142938.348 | MID PT R60 |
| 25 | 359267.238 | 8142752.482 | | 91 | 359207.901 | 8142850.635 | CC R60.3 & R64 | 159 | 359132.102 | 8142948.877 | MID PT R161.8 | 223 | 359176.613 | 8143004.033 | | 286 | 359249.123 | 8142942.524 | CC R60 & R74.9 |
| 26 | 359270.854 | 8142758.857 | | 92 | 359196.318 | 8142850.071 | MID PT R64 | 160 | 359127.879 | 8142957.976 | END R161.8 | 224 | 359169.158 | 8143000.161 | | 287 | 359246.020 | 8142946.680 | MID PT R74.9 |
| 27 | 359258.533 | 8142762.102 | END R293.5 | 93 | 359184.823 | 8142851.607 | END R64 | 161 | 359121.458 | 8142970.990 | | 225 | 359180.303 | 8142996.816 | | 288 | 359242.636 | 8142950.611 | CC R74.9 & R43.3 |
| 28 | 359264.166 | 8142766.291 | | 95 | 359188.416 | 8142850.543 | CC R51.5 & R0.3 | 162 | 359137.520 | 8142929.090 | START R66 | 226 | 359173.711 | 8142991.258 | | 290 | 359238.343 | 8142954.640 | END R43.3/START R53.3 |
| 29 | 359252.130 | 8142769.760 | | 96 | 359188.274 | 8142849.963 | CC R0.3 & R60.8 | 163 | 359136.366 | 8142934.198 | MID PT R66 | 227 | 359182.013 | 8142995.015 | START R77.2 | 291 | 359236.135 | 8142954.742 | END R53.3/START R47.6 |
| 30 | 359256.776 | 8142775.154 | END R286.5 | 97 | 359181.745 | 8142851.349 | MID PT R60.8 | 164 | 359134.811 | 8142939.198 | CC R66 & R160.8 | 228 | 359184.810 | 8142990.625 | MID PT R77.2 | 292 | 359241.109 | 8142950.323 | MID PT R47.6 |
| 30 | 359256.779 | 8142775.150 | | 98 | 359175.408 | 8142853.443 | CC R60.8 & R97.6 | 165 | 359131.182 | 8142948.484 | MID PT R160.8 | 229 | 359184.856 | 8142987.912 | | 293 | 359245.418 | 8142945.253 | CC R47.6 & R58.7 |
| 31 | 359245.959 | 8142777.291 | | 99 | 359171.257 | 8142854.960 | MID PT R97.6 | 166 | 359126.980 | 8142957.538 | END R160.8 | 230 | 359178.263 | 8142982.354 | | 294 | 359249.809 | 8142939.138 | MID PT R58.7 |
| 32 | 359250.892 | 8142783.239 | | 100 | 359167.042 | 8142856.289 | END R97.6 | 167 | 359123.133 | 8142965.413 | | 318 | 359183.652 | 8142973.951 | | 295 | 359253.383 | 8142932.512 | CC R58.7 & R54.6 |
| 33 | 359239.686 | 8142785.434 | | 101 | 359166.285 | 8142856.467 | | 168 | 359144.436 | 8142941.436 | | 231 | 359187.897 | 8142986.432 | CC R77.2 & R186.7 | 296 | 359256.898 | 8142922.621 | MID PT R54.6 |
| 34 | 359245.294 | 8142791.525 | | 102 | 359160.496 | 8142857.402 | START R57.15 | 169 | 359145.386 | 8142938.540 | | 232 | 359191.605 | 8142982.350 | MID PT R186.7 | 297 | 359258.455 | 8142912.239 | END R54.6/CC R48.8 & R346.5 |
| 35 | 359237.654 | 8142787.343 | START R100 | 103 | 359151.929 | 8142857.637 | MID PT R57.15 | 170 | 359147.380 | 8142941.225 | | 233 | 359190.057 | 8142979.394 | | 298 | 359259.086 | 8142904.702 | MID PT R346.5 |
| 37 | 359235.189 | 8142790.451 | CC R100 & R808.3 | 104 | 359143.424 | 8142856.589 | END R57.15 | 171 | 359146.207 | 8142935.383 | START R51 | 234 | 359195.432 | 8142978.380 | CC R186.7 & R63.4 | 299 | 359259.882 | 8142897.181 | CC R346.5 & R64.8 |
| 38 | 359233.936 | 8142793.613 | | 105 | 359183.846 | 8142851.848 | CC R51.6 & R60.9 | 173 | 359146.768 | 8142939.161 | CC R51 & R65.5 | 235 | 359199.507 | 8142974.894 | MID PT R63.4 | 300 | 359260.554 | 8142893.131 | MIDPT R64.8 |
| 39 | 359239.861 | 8142799.920 | | 106 | 359179.752 | 8142852.974 | MID PT R60.9 | 174 | 359153.212 | 8142945.150 | | 236 | 359197.126 | 8142972.357 | | 301 | 359261.482 | 8142889.131 | CC R64.8 & R105 |
| 40 | 359228.768 | 8142799.000 | | 107 | 359175.747 | 8142854.383 | CC R60.9 & R98.7 | 175 | 359158.309 | 8142950.595 | MID PT R65.5 | 237 | 359203.863 | 8142971.766 | START R97.6 | 302 | 359264.528 | 8142879.357 | MID PT R105 |
| 41 | 359228.622 | 8142802.084 | | 108 | 359171.174 | 8142856.043 | MID PT R98.7 | 176 | 359163.992 | 8142955.425 | | 239 | 359186.704 | 8142968.473 | START R31 | 303 | 359268.512 | 8142869.927 | END R105 |
| 42 | 359234.612 | 8142808.431 | | 109 | 359166.524 | 8142857.477 | CC R98.7 & R58.15 | 177 | 359170.188 | 8142959.577 | CC R65.5 & R52.7 | 240 | 359188.482 | 8142968.707 | CC R31 & R81.3 | 304 | 359277.460 | 8142851.318 | |
| 43 | 359222.461 | 8142807.633 | MID PT R808.3 | 110 | 359154.926 | 8142858.702 | MID PT R58.15 | 178 | 359176.771 | 8142962.881 | MID PT R52.7 | 241 | 359194.545 | 8142969.043 | | 305 | 359285.886 | 8142832.466 | |
| 44 | 359223.505 | 8142810.675 | | 111 | 359143.317 | 8142857.587 | CC R58.15 & R63.8 | 179 | 359183.750 | 8142965.235 | CC R52.7 & R64.2 | 242 | 359195.493 | 8142969.066 | MID PT R81.3 | 307 | 359258.373 | 8142915.901 | CC R48.8 & R0.3 |
| 45 | 359229.501 | 8142817.026 | | 112 | 359131.918 | 8142853.885 | MID PT R63.8 | 181 | 359188.643 | 8142966.203 | END R64.2 | 243 | 359202.509 | 8142968.818 | CC R81.3 & R275.5 | 308 | 359258.970 | 8142915.936 | CC R0.3 & R59 |
| 46 | 359216.268 | 8142816.348 | | 113 | 359121.414 | 8142848.114 | END R63.8 | 182 | 359146.562 | 8142934.032 | START R50.5 | 244 | 359206.088 | 8142968.619 | MID PT R275.5 | 310 | 359259.352 | 8142912.310 | CC R59 & R354.4 |
| 47 | 359218.394 | 8142819.270 | | 114 | 359111.882 | 8142841.810 | | 184 | 359149.600 | 8142938.607 | CC R50.5 & R64.5 | 245 | 359209.664 | 8142968.374 | END R97.6/START R169.4 | 311 | 359260.018 | 8142904.404 | MID PT R354.4 |
| 48 | 359224.371 | 8142825.653 | | 115 | 359199.904 | 8142854.469 | START R56.2 & R50.7 | 185 | 359153.980 | 8142944.510 | | 246 | 359217.441 | 8142967.105 | MID PT R169.4 | 312 | 359260.861 | 8142896.515 | END R354.4 |
| 49 | 359210.192 | 8142825.145 | CC R808.3 & R79.2 | 116 | 359187.955 | 8142855.322 | MID PT R56.2 | 186 | 359158.996 | 8142949.869 | MID PT R64.5 | 247 | | | | | | | |



Released under RTI-DTMR

Refer Drg No. 811061 for Services Notes and Legend.

Lost Modified: 07-Mar-2019 4:30pm XREFS: \\MCD\1A.dwg : Road_Edge.dwg : Survey.dwg : New_Survey.dwg

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| Revisions/Descriptions | | Certification | Date | Microfiled |

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|--------------------|---------------|--------------|
| Associated Job Nos | Survey Data | |
| | Datum | GDA94 |
| Auxiliary Drg Nos | Horiz. Grid | MGA Zone55 |
| | Height Origin | AHDD |
| | Survey Books | MR101097-20A |

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| Scales | |
| 0 2 4 6 8 10m | |
| Dimensions shown in metres except where shown otherwise | |

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| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MC02 00-450.085 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |

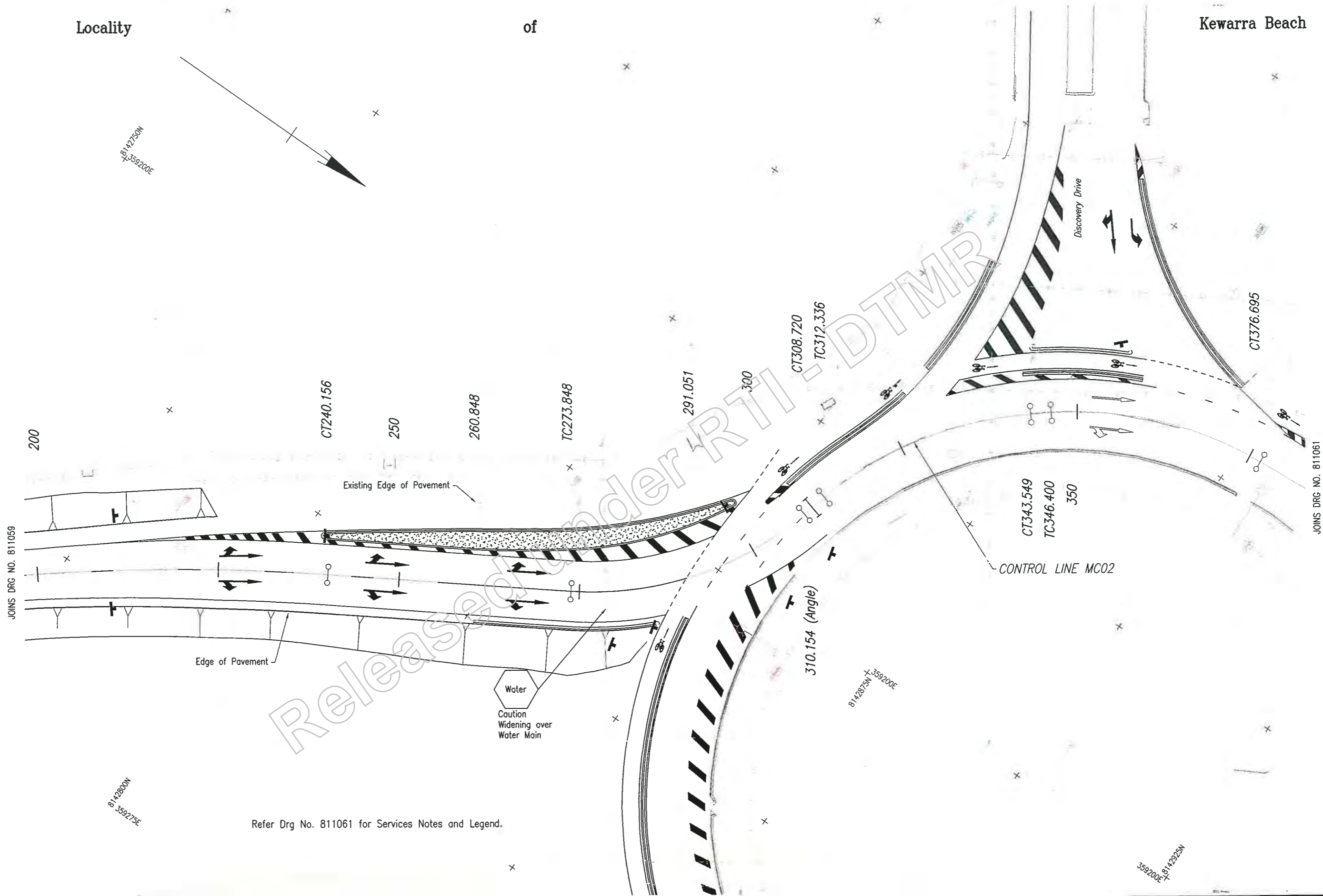
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| POOLWOOD ROAD ROUNDABOUT SERVICES SHEET 1 | | | | |
| ENGINEERING CERTIFICATION (RPEQ) | | | | |
| NAME | NO. | NO. | NO. | NO. |
| CIVIL | J Whiteside | | 7745 | 319 |

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| Queensland Government | |
| Project No. | 1109 |
| Sheet No. | 20 of 26 |
| Scale | As shown |

Locality

of

Kewarra Beach



Refer Drg No. 811061 for Services Notes and Legend.

Last Modified: Mar 07, 2019 - 4:30pm XREFS: - MC01AA.dwg : Road_Edges.dwg : Survey.dwg : New_Survey.dwg

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| A | Issued For Construction | | | |
| Revisions/Descriptions | | Certification | Date | Microfiled |

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| Associated Job Nos | Survey Data | |
| | Datum | GDA94 |
| Auxiliary Drg Nos | Horiz. Grid | MGA Zone55 |
| | Height Origin | AHDD |
| | Survey Books | MR101097-20A |

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| Scales | |
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| Dimensions shown in metres except where shown otherwise | |

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| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
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| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
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| Through Chainage from Refer Drg No. 811040 For Details | | | | |


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| POOLWOOD ROAD ROUNDABOUT | |
| SERVICES | |
| SHEET 2 | |
| ENGINEERING CERTIFICATION (RPEO) | |
| Designed | 7746 2/3/19 |

Queensland Government
 Project No. 811060
 Sheet No. 31 of 26
 Date: 2/3/19

Locality of Kewarra Beach

SERVICES NOTE

The locations of underground services have been approximated from the known positions of valves, manholes, etc and information supplied by the service authorities. Details of utility services are provided for information only, and no responsibility is taken for the accuracy and completeness of the information supplied. Positions of major service relocations and conflict points shall be recorded and checked by the Contractor. Service relocations may or may not be completed at time of construction. For further details, refer relevant service authority.





Possible service authority conflict points are shown thus:  Not all conflicts have necessarily been shown. Contractor shall check services on site.

DISCLAIMER

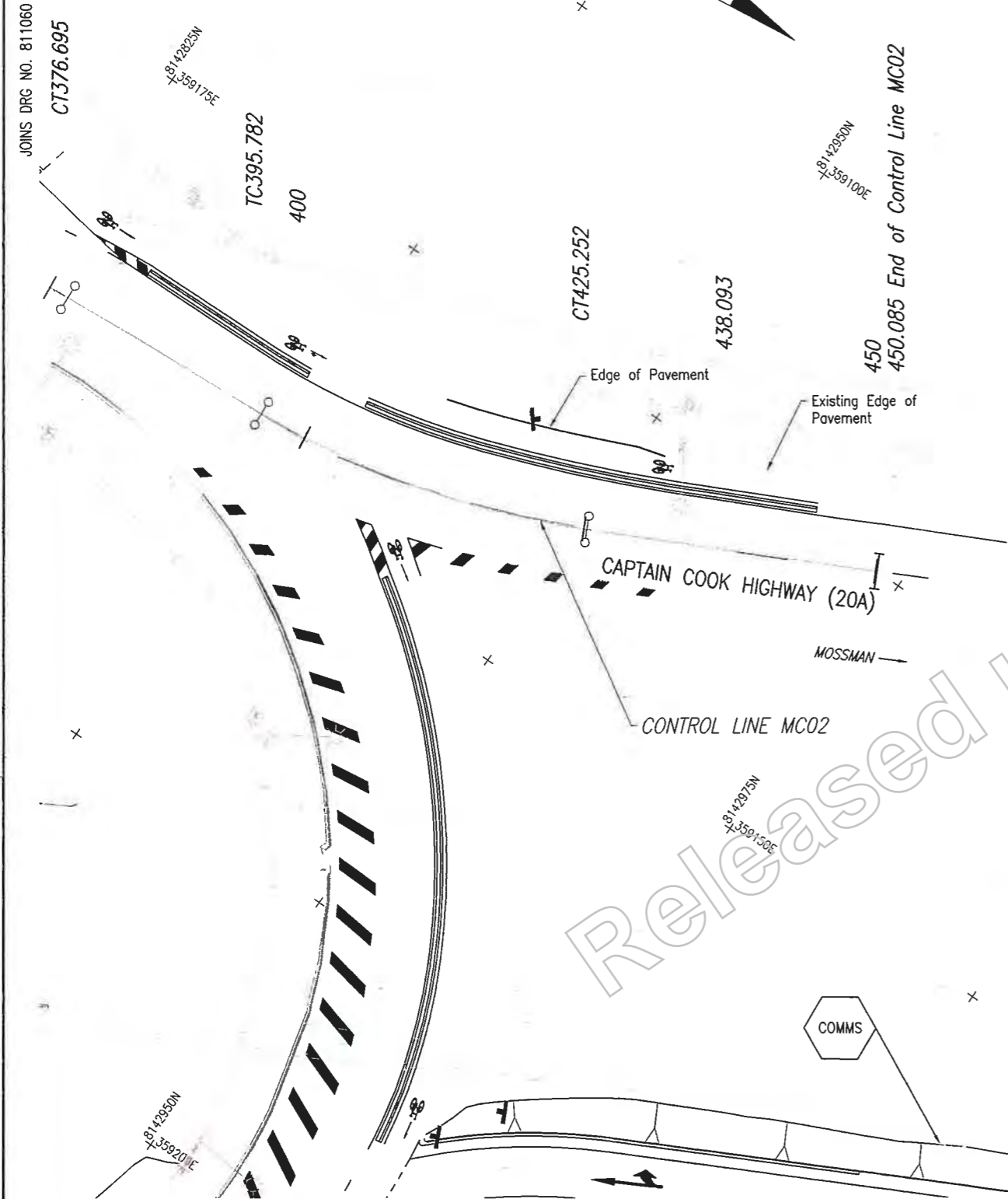
Access to this plan has been given on the basis that it is used as an information source only. If it is intended to be relied upon in any way, any information contained with it, should be independently verified by the user for accuracy and currency.

Communication Cable.
No work is to be done within 3m of cable without first consulting Communications Representative.

LEGEND

-  COMMS TELSTRA_ NBN_OPTUS
-  ERGON ERGON (Electricity)
-  Power Under Ground Power to Street Lighting
-  Water Cairns City Water (CCC)

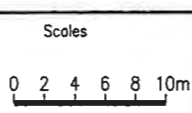
LINETYPES FOR SERVICES
Electricity
Water Main
Telecommunications



Last Modified: 07-Mar-2019 4:30pm XREFS: MC01AA.dwg; Road_Edge.dwg; Survey.dwg; New_Survey.dwg

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| | Revisions/Descriptions | Certification | Date | Microfiled |

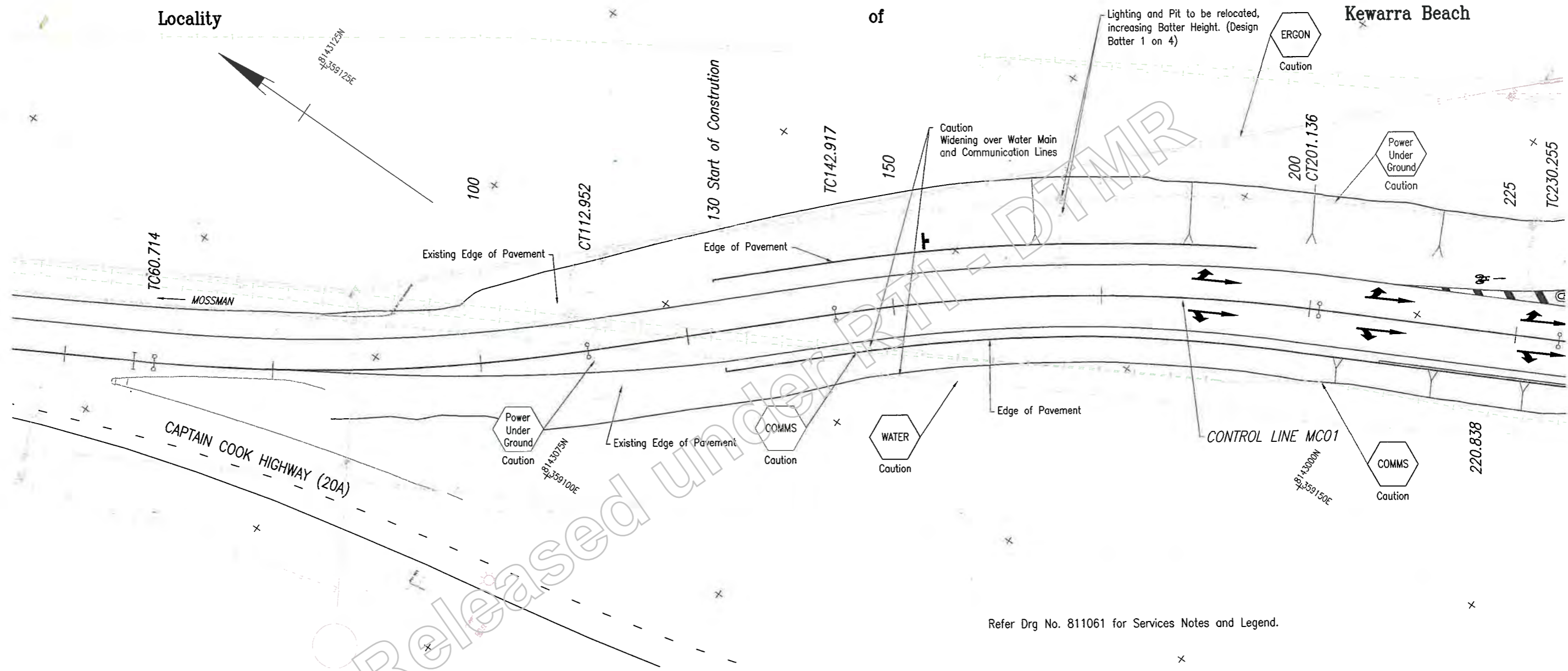
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| Associated Job Nos | Survey Data | |
| | Datum | GDA94 |
| Auxiliary Drg Nos | Horiz. Grid | MGA Zone55 |
| | Height Origin | AHDD |
| Survey Books | MR101097-20A | Dimensions shown in metres except where shown otherwise |



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| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MC02 00-450.085 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |

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| POOLWOOD ROAD ROUNDABOUT SERVICES SHEET 3 | | | | |
| ENGINEERING CERTIFICATION (RPEQ) | | | | |
| NAME | AREA | SIGNATURE | NO. | DATE |
| J Whiteside | CIVIL | | 7746 | 3/19 |

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|---------------|----|----|----|
| Series Number | 22 | of | 26 |
|---------------|----|----|----|



Refer Drg No. 811061 for Services Notes and Legend.

JOINS DRG NO. 811063

Last Modified: 17-Mar-2019 4:30pm XREFS: G:\CAD\DESIGN\Projects\214\20A\559849_Roundabouts\Poolwood Rd\Aulocad\811059-811063_Services.dwg

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| Revisions/Descriptions | | Certification | Date | Microfiled |

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| Associated Job Nos | Survey Data |
| | Datum: GDA94 |
| Auxiliary Drg Nos | Horiz. Grid: MGA Zone55 |
| | Height Origin: AHDD |
| Survey Books | MR101097-20A |

Scales

Dimensions shown in metres except where shown otherwise

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| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MCO1 0.00-394.314 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |
| Through Chainage from Refer Drg No. 811040 For Details | | | | |

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| POOLWOOD ROAD ROUNDABOUT SERVICES SHEET 4 | | | |
| ENGINEERING CERTIFICATION (RPEQ) | | | |
| Project | Client | Drawn | Checked |
| | CIVIL | J. Whiteside | |
| Scale | 1:7745 | Date | 17/3/19 |

Queensland Government

Project No: 811063

Sheet No: 4 of 4

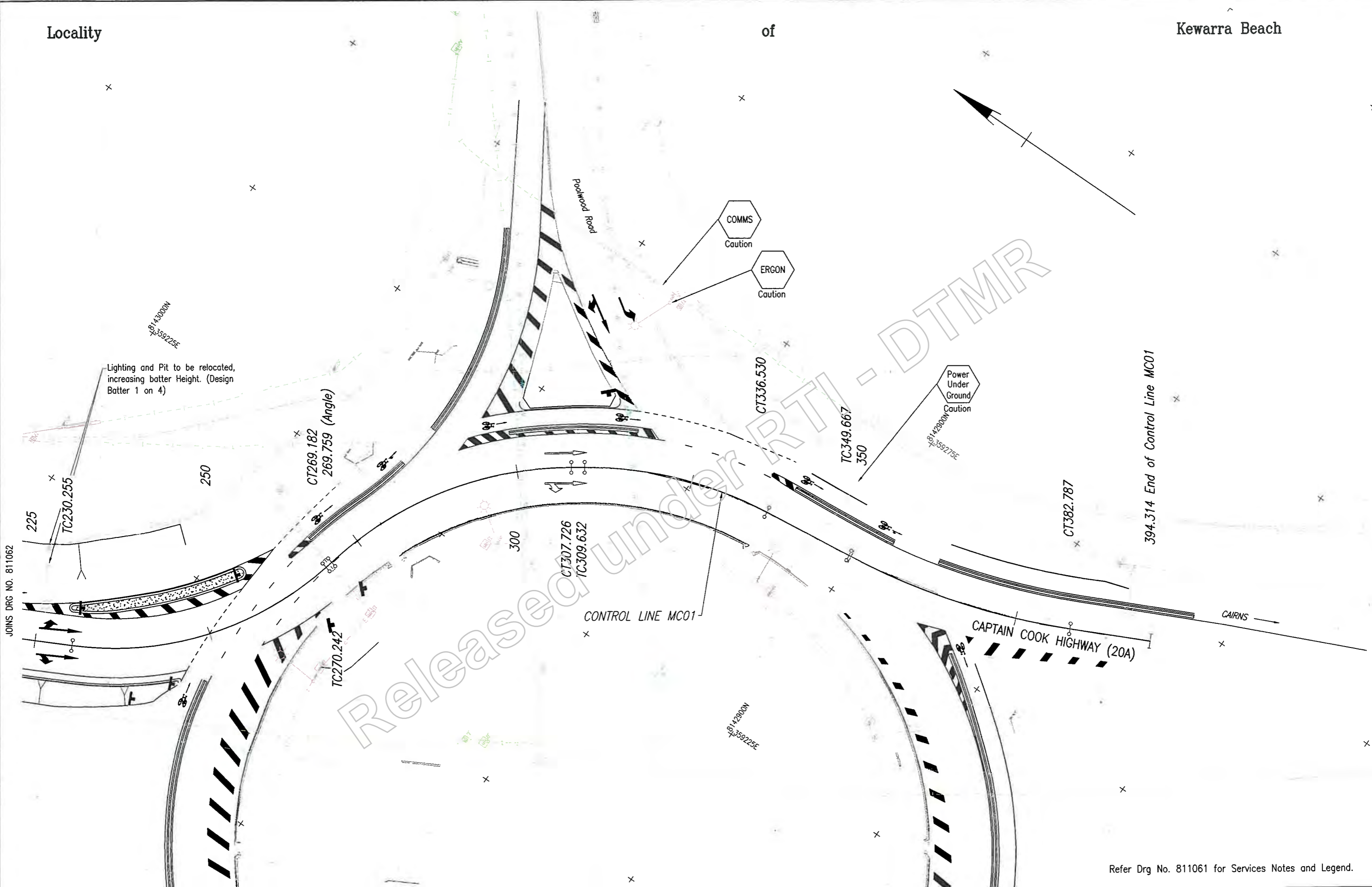
Scale: 1:7745

Date: 17/3/19

Locality

of

Kewarra Beach



JOINS DRG NO. 811062

Last Modified: 07-Mar-2019 4:30pm XREFS: MCO1AA.dwg: Road_Edges.dwg: Survey.dwg: New_Survey.dwg

Refer Drg No. 811061 for Services Notes and Legend.

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| Revisions/Descriptions | | Certification | Date | Microfiled |

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| Associated Job Nos | Survey Data |
| | Datum: GDA94 |
| Auxiliary Drg Nos | Horiz. Grid: MGA Zone55 |
| | Height Origin: AHDD |
| Survey Books | MR101097-20A |

Scales

0 2 4 6 8 10m

Dimensions shown in metres except where shown otherwise

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| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MCO1 0.00-394.314 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |
| Through Change from Refer Drg No. 811040 For Details | | | | |

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| POOLWOOD ROAD ROUNDABOUT | | | |
| SERVICES | | | |
| SHEET 5 | | | |
| ENGINEERING CERTIFICATION (RPEQ) | | | |
| NAME | NO. | DATE | |
| M. Duchesne | 7746 | 23/19 | |
| CIVIL | | | |

Queensland Government

Contract No. 274/2017-1984

Drawing No. 811063

Scale: 1:100

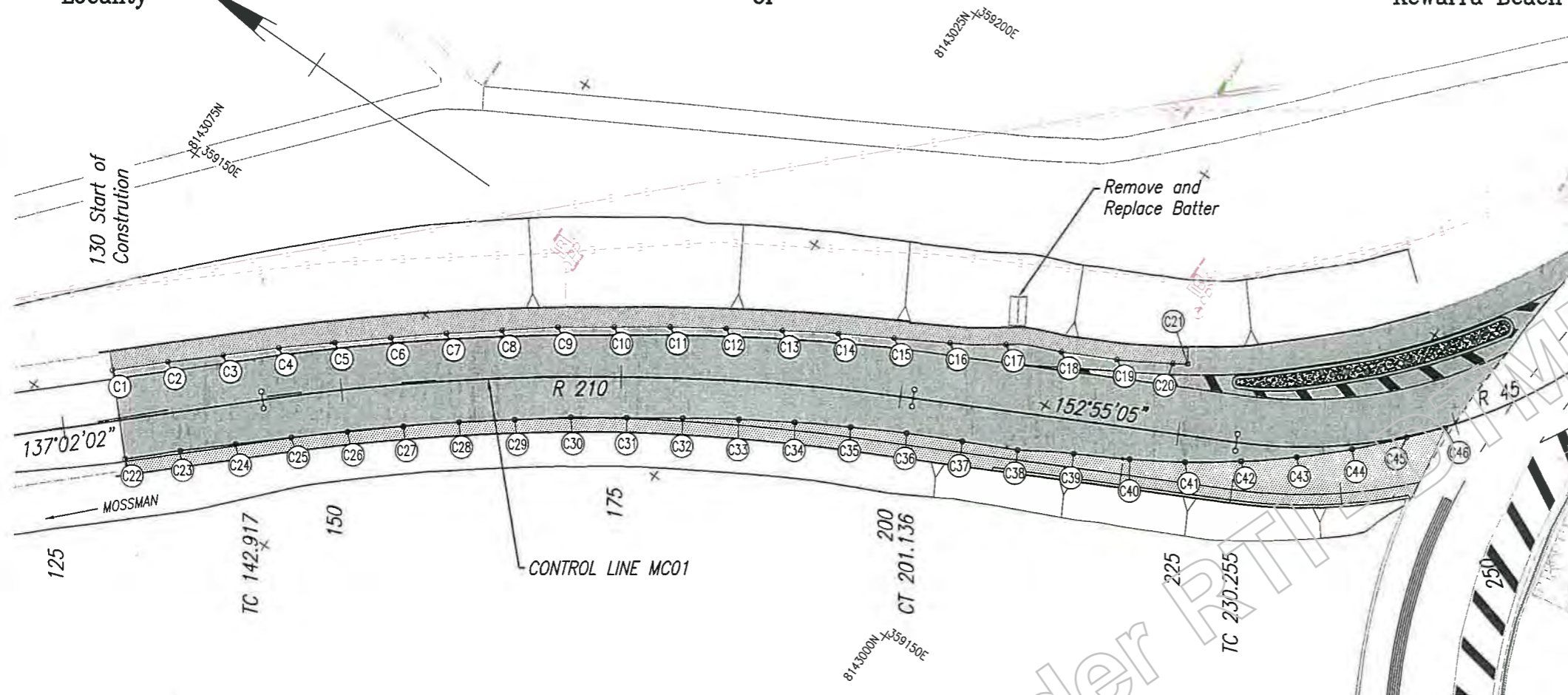
Sheet: 5 of 25

URR: 10271

Locality

of



Kewarra Beach



CUTLINE SETOUT DETAILS

| POINT NO. | EASTING | NORTHING |
|-----------|------------|-------------|
| C1 | 359130.016 | 8143070.052 |
| C2 | 359133.438 | 8143066.406 |
| C3 | 359136.785 | 8143062.692 |
| C4 | 359140.132 | 8143058.978 |
| C5 | 359143.371 | 8143055.169 |
| C6 | 359146.581 | 8143051.335 |
| C7 | 359149.749 | 8143047.468 |
| C8 | 359152.842 | 8143043.539 |
| C9 | 359155.920 | 8143039.600 |
| C10 | 359158.796 | 8143035.509 |
| C11 | 359161.660 | 8143031.411 |
| C12 | 359164.403 | 8143027.231 |
| C13 | 359167.097 | 8143023.019 |
| C14 | 359169.725 | 8143018.766 |
| C15 | 359172.239 | 8143014.444 |
| C16 | 359174.734 | 8143010.111 |
| C17 | 359177.476 | 8143005.936 |
| C18 | 359179.741 | 8143001.505 |
| C19 | 359182.006 | 8142997.049 |
| C20 | 359184.583 | 8142992.765 |
| C21 | 359185.324 | 8142991.641 |
| C22 | 359124.177 | 8143064.613 |
| C23 | 359127.622 | 8143060.989 |
| C24 | 359130.943 | 8143057.252 |
| C25 | 359134.257 | 8143053.507 |
| C26 | 359137.515 | 8143049.715 |
| C27 | 359140.761 | 8143045.912 |
| C28 | 359143.914 | 8143042.033 |
| C29 | 359146.963 | 8143038.070 |
| C30 | 359150.007 | 8143034.104 |
| C31 | 359152.834 | 8143029.981 |
| C32 | 359155.648 | 8143025.847 |
| C33 | 359158.422 | 8143021.688 |
| C34 | 359161.048 | 8143017.434 |
| C35 | 359163.543 | 8143013.102 |
| C36 | 359165.939 | 8143008.714 |
| C37 | 359168.177 | 8143004.243 |
| C38 | 359170.346 | 8142999.738 |
| C39 | 359172.935 | 8142995.463 |
| C40 | 359175.373 | 8142991.098 |
| C41 | 359178.013 | 8142986.853 |
| C42 | 359180.942 | 8142982.802 |
| C43 | 359184.093 | 8142978.923 |
| C44 | 359187.491 | 8142975.257 |
| C45 | 359191.121 | 8142971.874 |
| C46 | 359193.755 | 8142969.559 |

LEGEND

-  Asphalt Overlay (Milling as required) DG14
-  Widening Section Spray Seal and Asphalt

Released under RTI

| | | | |
|------------------------|---------------------------|------|------------|
| Associated Job Nos | Survey Data | | |
| Auxiliary Drg Nos | Datum GDA94 | | |
| | Horiz. Grid MGA Zone55 | | |
| | Height Origin AHDD | | |
| | Survey Books MR101097-20A | | |
| Revisions/Descriptions | Certification | Date | Microfiled |

| | |
|---|--|
| Scales | |
| 0 2 4 6 8 10m | |
| Dimensions shown in metres except where shown otherwise | |

| | | | | |
|---|----------------------------|--------------------------|--------------------------|--------------|
| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MC01 0.00-394.314 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |

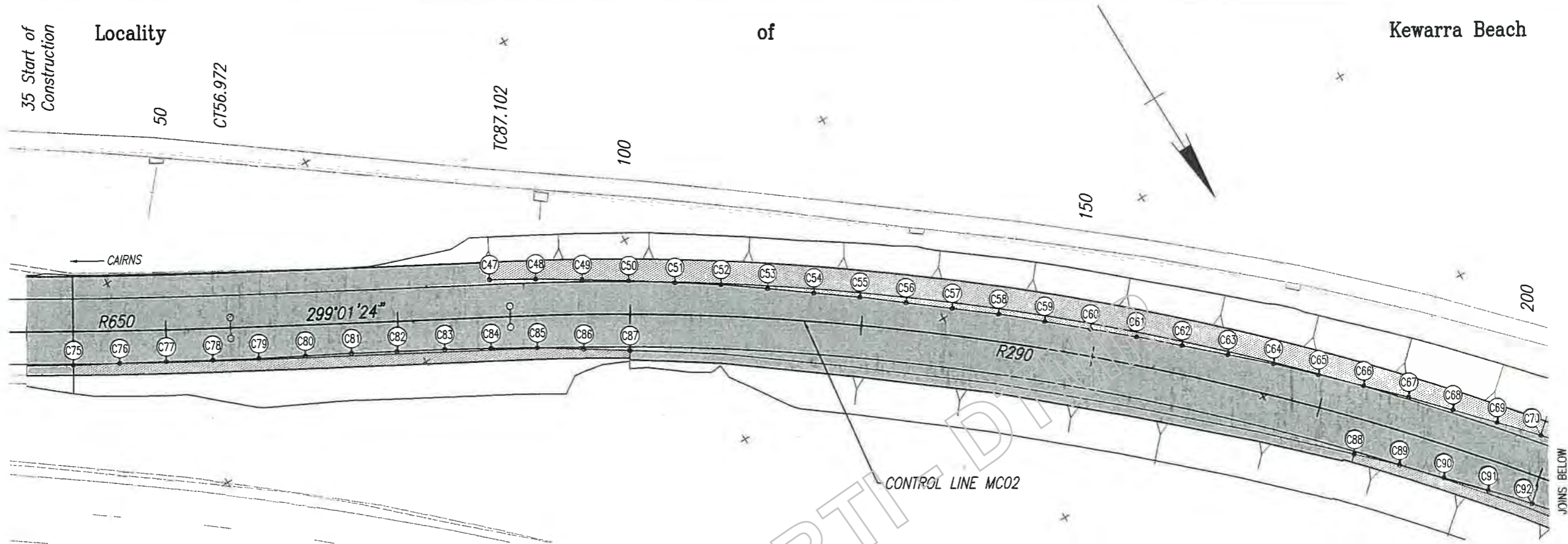
| | |
|----------------------------------|--|
| POOLWOOD ROAD ROUNDABOUT | |
| MC01 PAVEMENT CUT STRINGS | |
| SHEET 1 OF 2 | |
| ENGINEERING CERTIFICATION (RPEQ) | |

Queensland Government

27/03/2019

3/19

Last Modified: -- Mar 08, 2019 -- 10:57am XREFS: -- Survey.dwg: New Survey.dwg: Design Lines.dwg: Survey Line cut.dwg

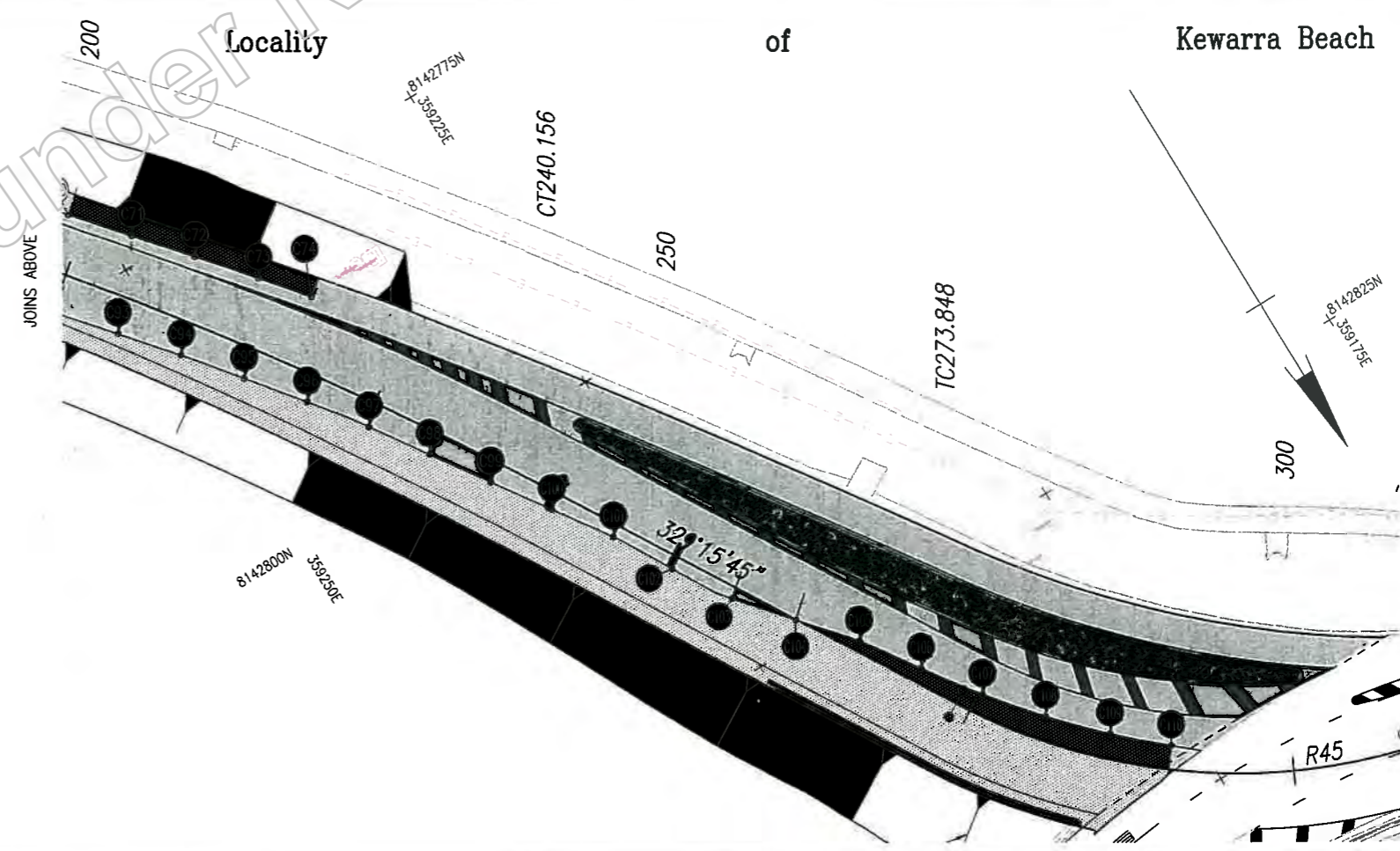


LEGEND

- Asphalt Overlay (Milling as required) DG14
- Widening Section
Spray Seal and Asphalt

CUTLINE SETOUT DETAILS

| POINT NO | EASTING | NORTHING | POINT NO | EASTING | NORTHING | POINT NO | EASTING | NORTHING |
|----------|------------|-------------|----------|------------|-------------|----------|------------|-------------|
| C47 | 359339.646 | 8142696.042 | C71 | 359248.284 | 8142773.028 | C95 | 359246.659 | 8142786.531 |
| C48 | 359335.335 | 8142698.576 | C72 | 359245.037 | 8142776.830 | C96 | 359243.572 | 8142790.464 |
| C49 | 359331.115 | 8142701.257 | C73 | 359241.833 | 8142780.668 | C97 | 359240.574 | 8142794.463 |
| C50 | 359326.896 | 8142703.941 | C74 | 359239.192 | 8142783.885 | C98 | 359237.763 | 8142798.598 |
| C51 | 359322.737 | 8142706.715 | C75 | 359382.678 | 8142680.657 | C99 | 359234.952 | 8142802.733 |
| C52 | 359318.579 | 8142709.492 | C76 | 359378.301 | 8142683.075 | C100 | 359232.125 | 8142806.857 |
| C53 | 359314.541 | 8142712.441 | C77 | 359373.926 | 8142685.495 | C101 | 359229.295 | 8142810.972 |
| C54 | 359310.518 | 8142715.409 | C78 | 359369.566 | 8142687.942 | C102 | 359225.775 | 8142815.294 |
| C55 | 359306.494 | 8142718.377 | C79 | 359365.195 | 8142690.370 | C103 | 359224.127 | 8142819.520 |
| C56 | 359302.557 | 8142721.459 | C80 | 359360.779 | 8142692.716 | C104 | 359220.901 | 8142823.340 |
| C57 | 359298.635 | 8142724.560 | C81 | 359356.372 | 8142695.076 | C105 | 359217.692 | 8142827.174 |
| C58 | 359294.713 | 8142727.662 | C82 | 359352.078 | 8142697.446 | C106 | 359214.845 | 8142831.283 |
| C59 | 359290.899 | 8142730.894 | C83 | 359347.626 | 8142699.925 | C107 | 359211.926 | 8142835.341 |
| C60 | 359287.108 | 8142734.154 | C84 | 359343.305 | 8142702.440 | C108 | 359208.761 | 8142839.211 |
| C61 | 359283.317 | 8142737.415 | C85 | 359338.998 | 8142704.980 | C109 | 359205.323 | 8142842.838 |
| C62 | 359279.613 | 8142740.772 | C86 | 359334.809 | 8142707.709 | C110 | 359201.902 | 8142845.955 |
| C63 | 359275.931 | 8142744.155 | C87 | 359330.667 | 8142710.411 | | | |
| C64 | 359272.249 | 8142747.538 | C88 | 359269.866 | 8142760.363 | | | |
| C65 | 359268.713 | 8142751.073 | C89 | 359266.333 | 8142763.900 | | | |
| C66 | 359265.185 | 8142754.616 | C90 | 359262.939 | 8142767.571 | | | |
| C67 | 359261.670 | 8142758.172 | C91 | 359259.545 | 8142771.242 | | | |
| C68 | 359258.278 | 8142761.845 | C92 | 359256.215 | 8142774.972 | | | |
| C69 | 359254.887 | 8142765.520 | C93 | 359252.988 | 8142778.790 | | | |
| C70 | 359251.531 | 8142769.225 | C94 | 359249.762 | 8142782.610 | | | |

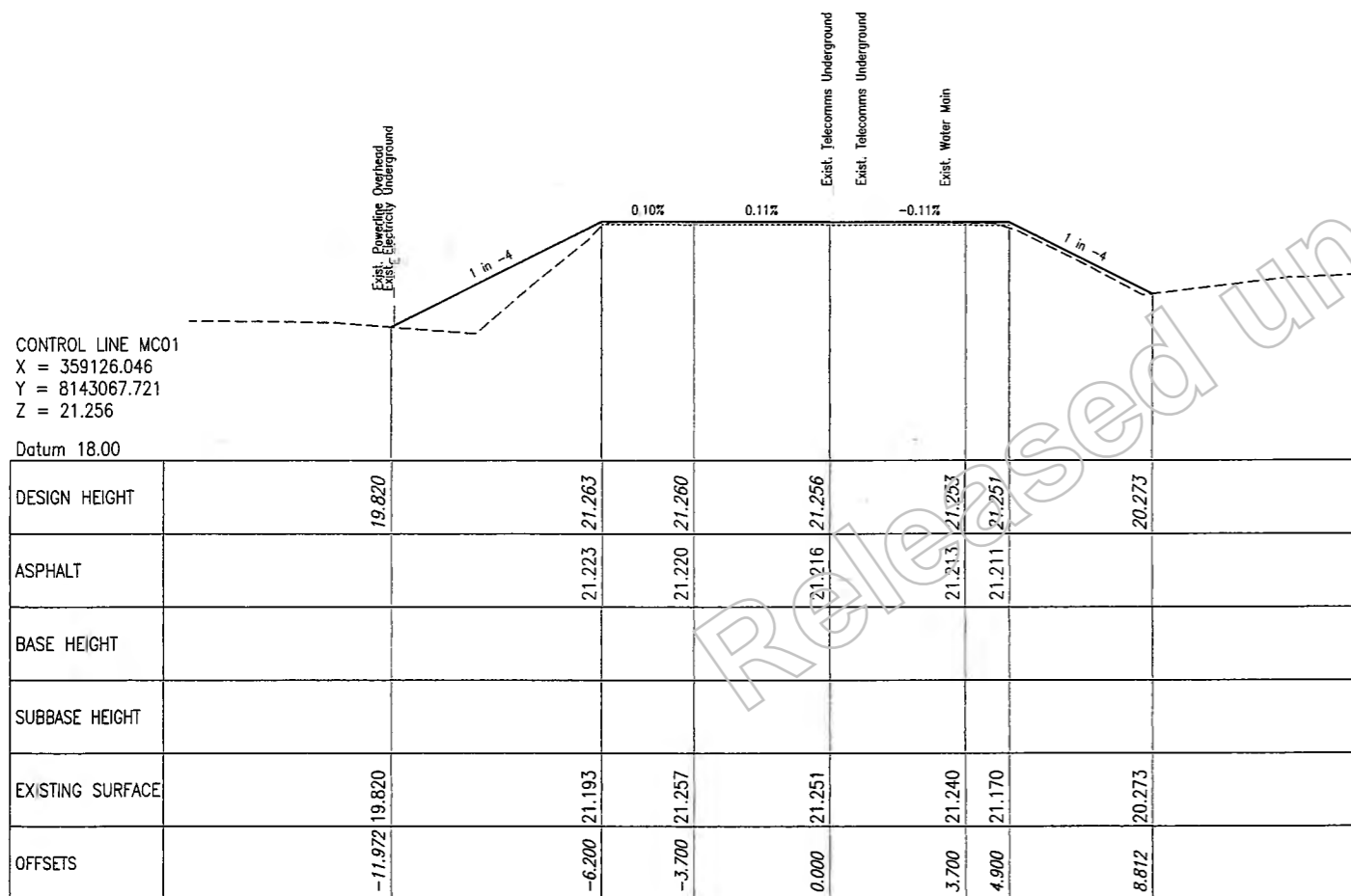


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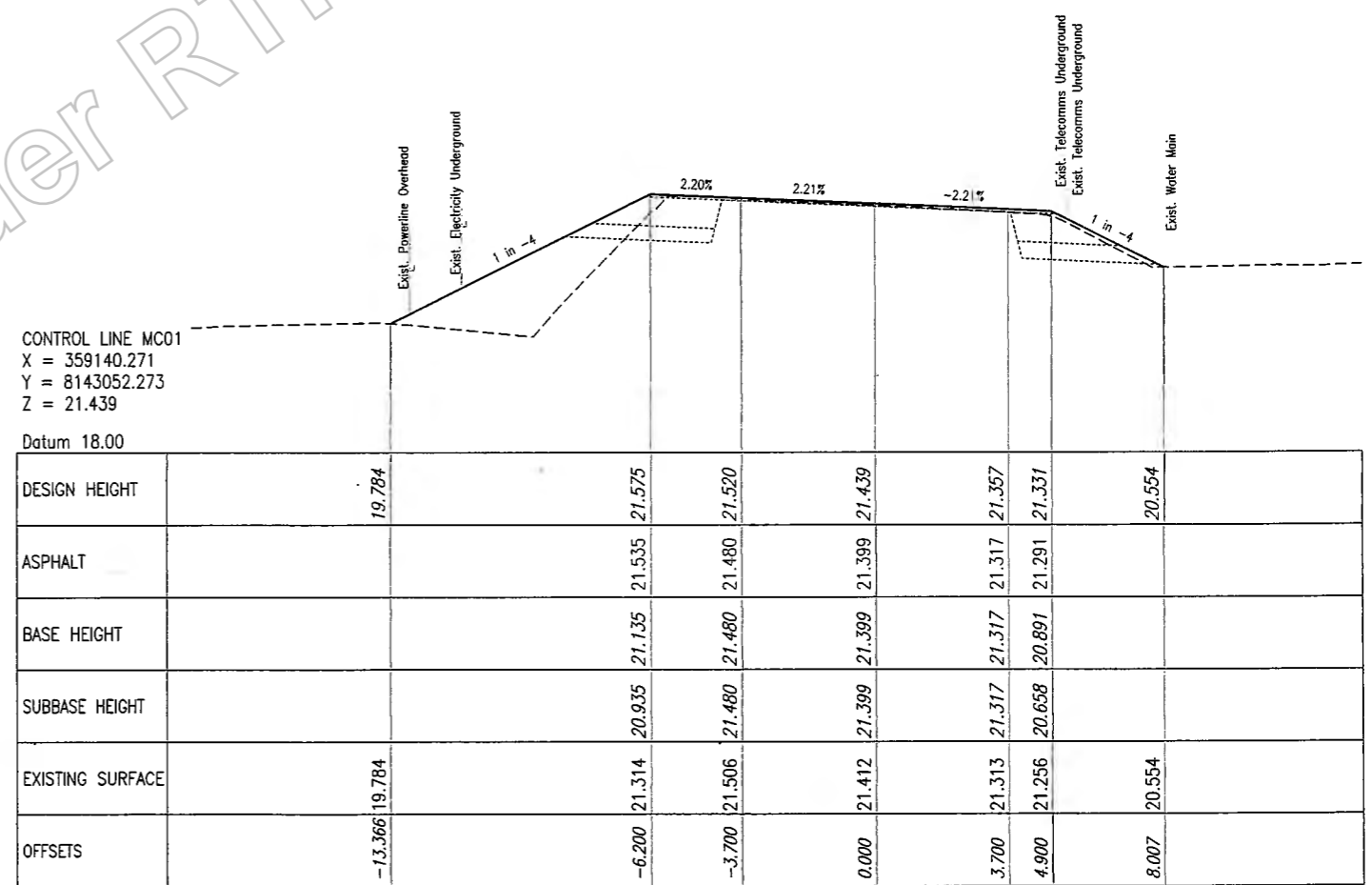
| | |
|---|--|
| Scales | |
| 0 2 4 6 8 10m | |
| Issued For Construction | |
| Revisions/Descriptions | |
| G:\CAD\DESIGN\Projects\214\20A\559849_Roundabouts\Poolwood Rd\Autocad\811064-811065_Pavement Cut Line.dwg | |

| | | | |
|---|----------------------------|--------------------------|--------------------------|
| CAIRNS REGION | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | |
| CTL CHGE MC02 00-450.085 | | | |
| Reference Points | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP |
| | | | Following RP |
| Refer Drg No. 811040 For Details | | | |

| | |
|----------------------------------|--|
| POOLWOOD ROAD ROUNDABOUT | |
| MC02 PAVEMENT CUT STRINGS | |
| SHEET 2 OF 2 | |
| ENGINEERING CERTIFICATION (RPEQ) | |
| 8/3/19 | |



CHAINAGE 129.000

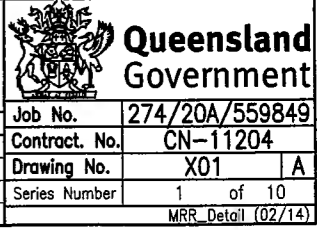


CHAINAGE 150.000

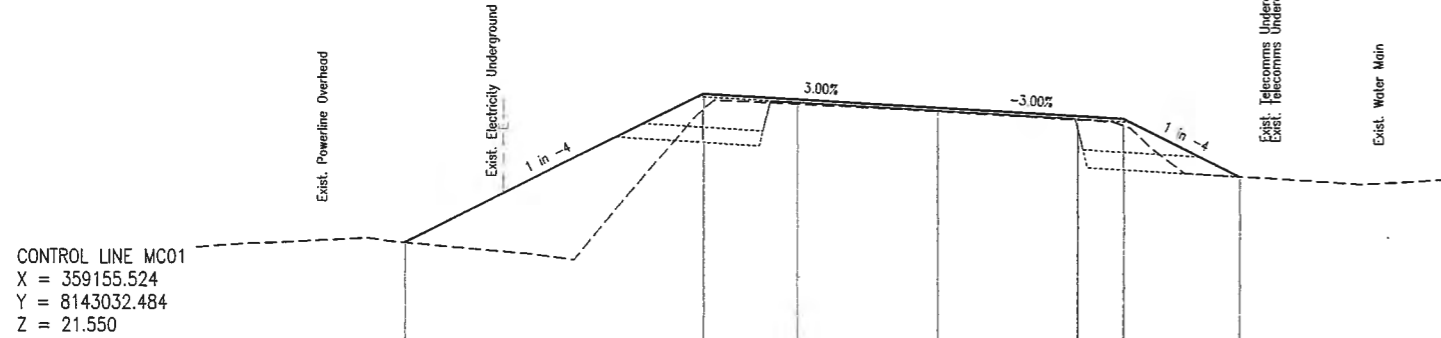
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|---|--|------------------------|---|----------------------------------|---------------------------------------|----------------------------|--------------------------|-------------|----------------------------------|------------------------|
| G | Associated Job Nos | Survey Data | | Scales | CAIRNS REGION | | | MC01 | ENGINEERING CERTIFICATION (RPEQ) | Job No. 274/20A/559849 |
| | | Datum | GDA94 | | CAPTAIN COOK HIGHWAY (CAIRNS-MOSSMAN) | | | | | |
| F | Auxiliary Drg Nos | Horiz. Grid | MGA Zone55 | Reference Points | CTL CHGE MC01 0.00-394.314 | | | X01 | SIGNATURE | Contract No. CN-11204 |
| E | | Height Origin | AHDD | | Preceding RP | Dist. to start of job (km) | From start to end of job | | | |
| D | Survey Books | MR101097-20A | Dimensions shown in metres except where shown otherwise | Refer Drg No. 811040 For Details | Drawn | ENG. AREA | NAME | NO. | DATE | Drawing No. X01 A |
| C | | Revisions/Descriptions | Certification | | Date | Microfiled | CIVIL | J Whiteside | 7746 | |
| B | CAD FILES G:\CAD\DESIGN\Projects\214\20A\559849_Roundabouts\Poolwood Rd\Autocad\Final Xsections\MC01_1.dwg | | | | | | | | | |
| A | Issued For Construction | | | | | | | | | |

Released under RTI - DTMR

Page Number 60 of 84



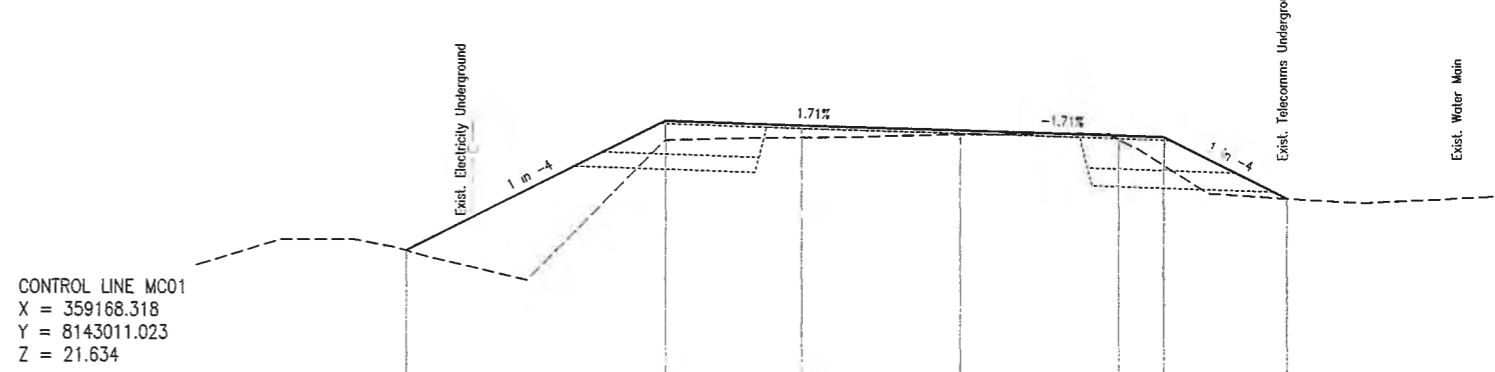
Last Modified: Mar 08, 2019 - 8:50am XREFS



CONTROL LINE MC01
X = 359155.524
Y = 8143032.484
Z = 21.550
Datum 18.00

| | | | | | | | | | |
|------------------|---------|--|--|--|--|--|--|--|--|
| DESIGN HEIGHT | 19.773 | | | | | | | | |
| ASPHALT | | | | | | | | | |
| BASE HEIGHT | | | | | | | | | |
| SUBBASE HEIGHT | | | | | | | | | |
| EXISTING SURFACE | 19.773 | | | | | | | | |
| OFFSETS | -14.049 | | | | | | | | |

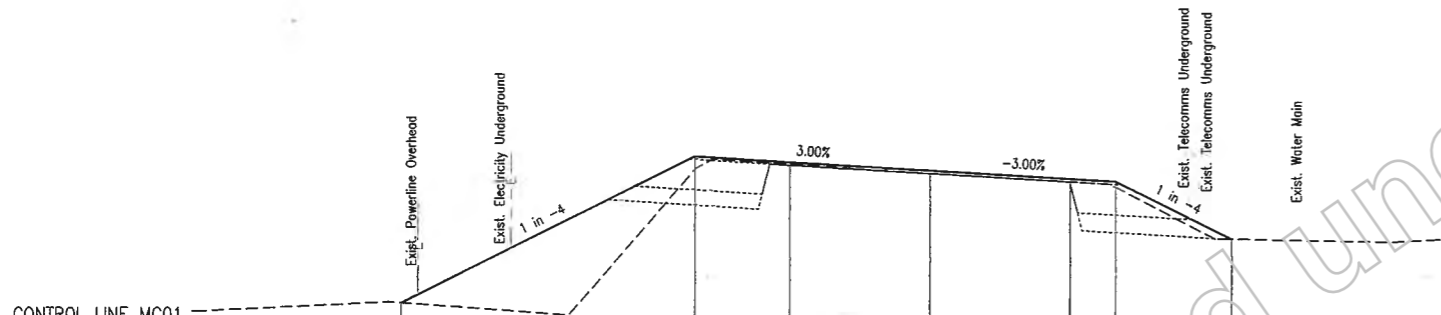
CHAINAGE 175.000



CONTROL LINE MC01
X = 359168.318
Y = 8143011.023
Z = 21.634
Datum 18.00

| | | | | | | | | | |
|------------------|---------|--|--|--|--|--|--|--|--|
| DESIGN HEIGHT | 20.063 | | | | | | | | |
| ASPHALT | | | | | | | | | |
| BASE HEIGHT | | | | | | | | | |
| SUBBASE HEIGHT | | | | | | | | | |
| EXISTING SURFACE | 20.063 | | | | | | | | |
| OFFSETS | -14.576 | | | | | | | | |

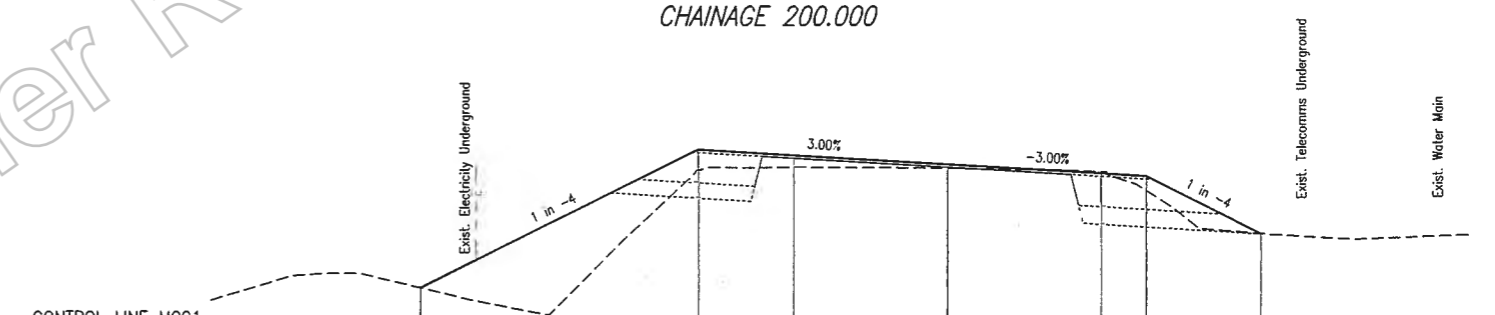
CHAINAGE 200.000



CONTROL LINE MC01
X = 359145.375
Y = 8143046.179
Z = 21.485
Datum 18.00

| | | | | | | | | | |
|------------------|---------|--|--|--|--|--|--|--|--|
| DESIGN HEIGHT | 19.740 | | | | | | | | |
| ASPHALT | | | | | | | | | |
| BASE HEIGHT | | | | | | | | | |
| SUBBASE HEIGHT | | | | | | | | | |
| EXISTING SURFACE | 19.740 | | | | | | | | |
| OFFSETS | -13.926 | | | | | | | | |

CHAINAGE 157.950



CONTROL LINE MC01
X = 359164.914
Y = 8143017.326
Z = 21.610
Datum 18.00

| | | | | | | | | | |
|------------------|---------|--|--|--|--|--|--|--|--|
| DESIGN HEIGHT | 19.982 | | | | | | | | |
| ASPHALT | | | | | | | | | |
| BASE HEIGHT | | | | | | | | | |
| SUBBASE HEIGHT | | | | | | | | | |
| EXISTING SURFACE | 19.982 | | | | | | | | |
| OFFSETS | -13.853 | | | | | | | | |

CHAINAGE 192.836

| | | | | | |
|---|-------------------------|---------------|------|------------|--|
| G | | | | | |
| F | | | | | |
| E | | | | | |
| D | | | | | |
| C | | | | | |
| B | | | | | |
| A | Issued For Construction | | | | |
| | Revisions/Descriptions | Certification | Date | Microfiled | |

| | | |
|--------------------|------------------------|---|
| Associated Job Nos | Survey Data | Scales |
| | Datum GDA94 | |
| Auxiliary Drg Nos | Horiz. Grid MGA Zone55 | |
| | Height Origin AHDD | |
| Survey Books | MR101097-20A | Dimensions shown in metres except where shown otherwise |

| | | | |
|---------------------------------------|----------------------------|--------------------------|--------------------------|
| CAIRNS REGION | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS-MOSSMAN) | | | |
| CTL CHGE MC01 0.00-394.314 | | | |
| Reference Points | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP |
| Refer Drg No. 811040 For Details | | | |

| | | | | | |
|-----------|----------------------------------|-------------|-----------|------|------|
| Drawn | ENGINEERING CERTIFICATION (RPEQ) | | | | |
| | ENG. AREA | NAME | SIGNATURE | NO. | DATE |
| Designed | CIVIL | J Whiteside | | 7746 | |
| G Pollard | | | | | |

Queensland Government

Job No. 274/20A/559849
Contract No. CN-11204
Drawing No. X02 A
Series Number 2 of 10
MRR_Detail (02/14)

Last Modified: 11-Mar-08 2:19:49 AM XREFS

CONTROL LINE MC01
 X = 359172.653
 Y = 8143002.552
 Z = 21.651

Datum 18.00

| | | | | | | | | | | | | | | |
|------------------|--|---------|--|--------|--|--------|--|--------|--|--------|--|--------|--|--------|
| DESIGN HEIGHT | | 20.046 | | 21.651 | | 21.651 | | 21.651 | | 21.651 | | 21.651 | | 20.885 |
| ASPHALT | | | | 21.611 | | 21.611 | | 21.611 | | 21.611 | | 21.611 | | |
| BASE HEIGHT | | | | 21.211 | | 21.612 | | 21.614 | | 21.211 | | 21.211 | | |
| SUBBASE HEIGHT | | | | 21.011 | | 21.612 | | 21.614 | | 20.975 | | 20.975 | | |
| EXISTING SURFACE | | 20.046 | | 21.463 | | 21.533 | | 21.606 | | 21.657 | | 21.542 | | 20.885 |
| OFFSETS | | -14.534 | | -8.114 | | -4.200 | | 0.000 | | 4.200 | | 5.400 | | 8.462 |

CHAINAGE 209.516

CONTROL LINE MC01
 X = 359181.010
 Y = 8142986.208
 Z = 21.649

Datum 18.00

| | | | | | | | | | | | | | | |
|------------------|--|---------|--|--------|--|--------|--|--------|--|--------|--|--------|--|--------|
| DESIGN HEIGHT | | 20.034 | | 21.468 | | 21.565 | | 21.649 | | 21.733 | | 21.757 | | 20.882 |
| ASPHALT | | | | | | | | | | 21.693 | | 21.717 | | |
| BASE HEIGHT | | | | | | | | | | 21.293 | | 21.317 | | |
| SUBBASE HEIGHT | | | | | | | | | | 21.055 | | 21.079 | | |
| EXISTING SURFACE | | 20.034 | | 21.465 | | 21.558 | | 21.629 | | 21.423 | | 21.014 | | 20.882 |
| OFFSETS | | -14.808 | | -9.074 | | -4.200 | | 0.000 | | 4.200 | | 5.400 | | 8.901 |

CHAINAGE 227.873

CONTROL LINE MC01
 X = 359177.713
 Y = 8142992.656
 Z = 21.651

Datum 18.00

| | | | | | | | | | | | | | | |
|------------------|--|---------|--|--------|--|--------|--|--------|--|--------|--|--------|--|--------|
| DESIGN HEIGHT | | 20.004 | | 21.486 | | 21.567 | | 21.651 | | 21.735 | | 21.759 | | 20.908 |
| ASPHALT | | | | 21.446 | | 21.527 | | 21.611 | | 21.695 | | 21.719 | | |
| BASE HEIGHT | | | | 21.046 | | 21.527 | | 21.613 | | 21.294 | | 21.318 | | |
| SUBBASE HEIGHT | | | | 20.846 | | 21.527 | | 21.613 | | 21.056 | | 21.080 | | |
| EXISTING SURFACE | | 20.004 | | 21.467 | | 21.538 | | 21.633 | | 21.741 | | 21.252 | | 20.908 |
| OFFSETS | | -14.138 | | -8.211 | | -4.200 | | 0.000 | | 4.200 | | 5.400 | | 8.801 |

CHAINAGE 220.630


CONTROL LINE MC01
 X = 359179.702
 Y = 8142988.766
 Z = 21.650

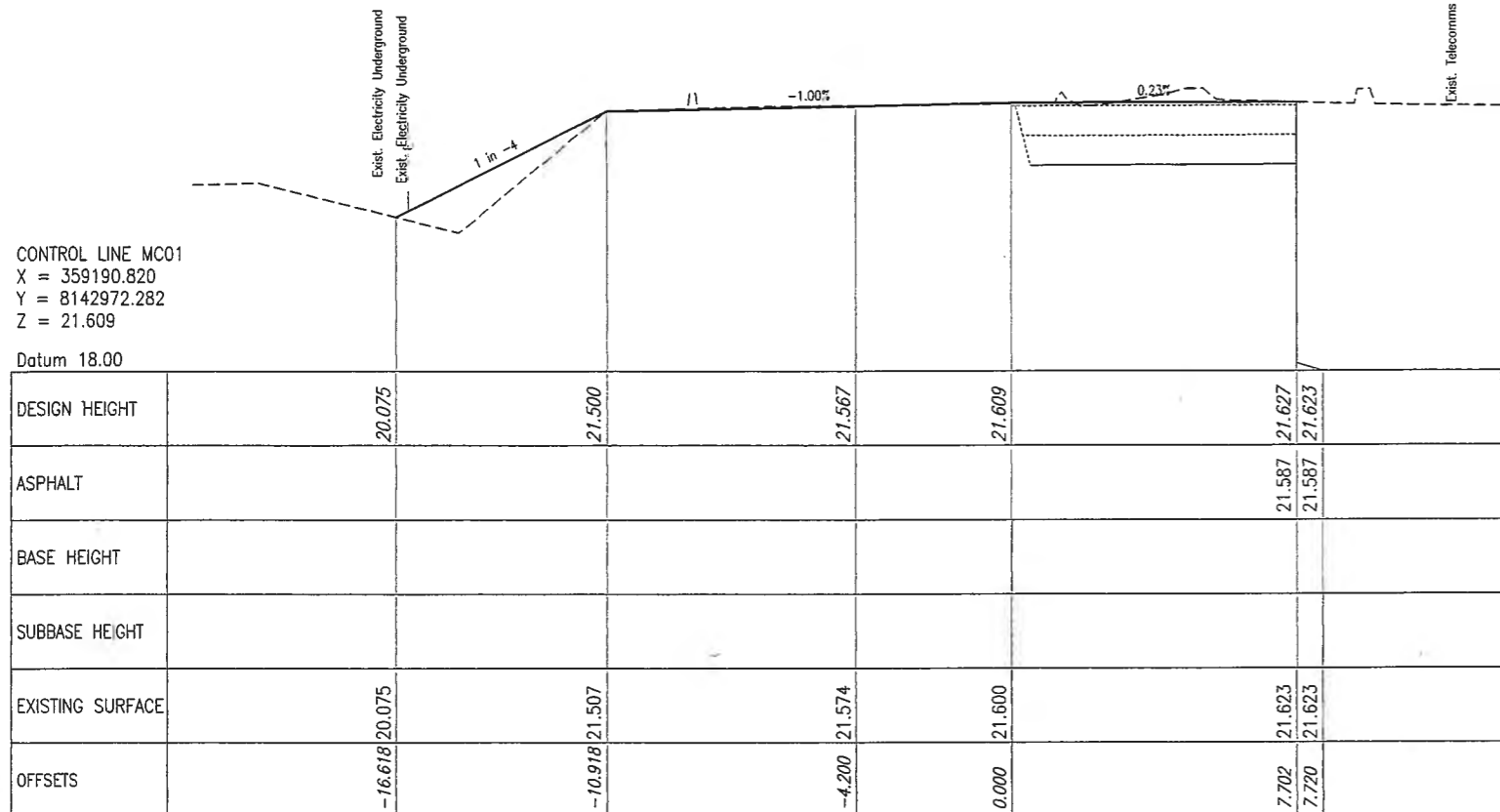
Datum 18.00

| | | | | | | | | | | | | | | |
|------------------|--|---------|--|--------|--|--------|--|--------|--|--------|--|--------|--|--------|
| DESIGN HEIGHT | | 20.009 | | 21.477 | | 21.566 | | 21.650 | | 21.734 | | 21.758 | | 20.896 |
| ASPHALT | | | | 21.437 | | 21.526 | | 21.610 | | 21.694 | | 21.718 | | |
| BASE HEIGHT | | | | | | | | | | 21.294 | | 21.318 | | |
| SUBBASE HEIGHT | | | | | | | | | | 21.056 | | 21.080 | | |
| EXISTING SURFACE | | 20.009 | | 21.460 | | 21.550 | | 21.631 | | 21.548 | | 21.080 | | 20.896 |
| OFFSETS | | -14.562 | | -8.690 | | -4.200 | | 0.000 | | 4.200 | | 5.400 | | 8.848 |

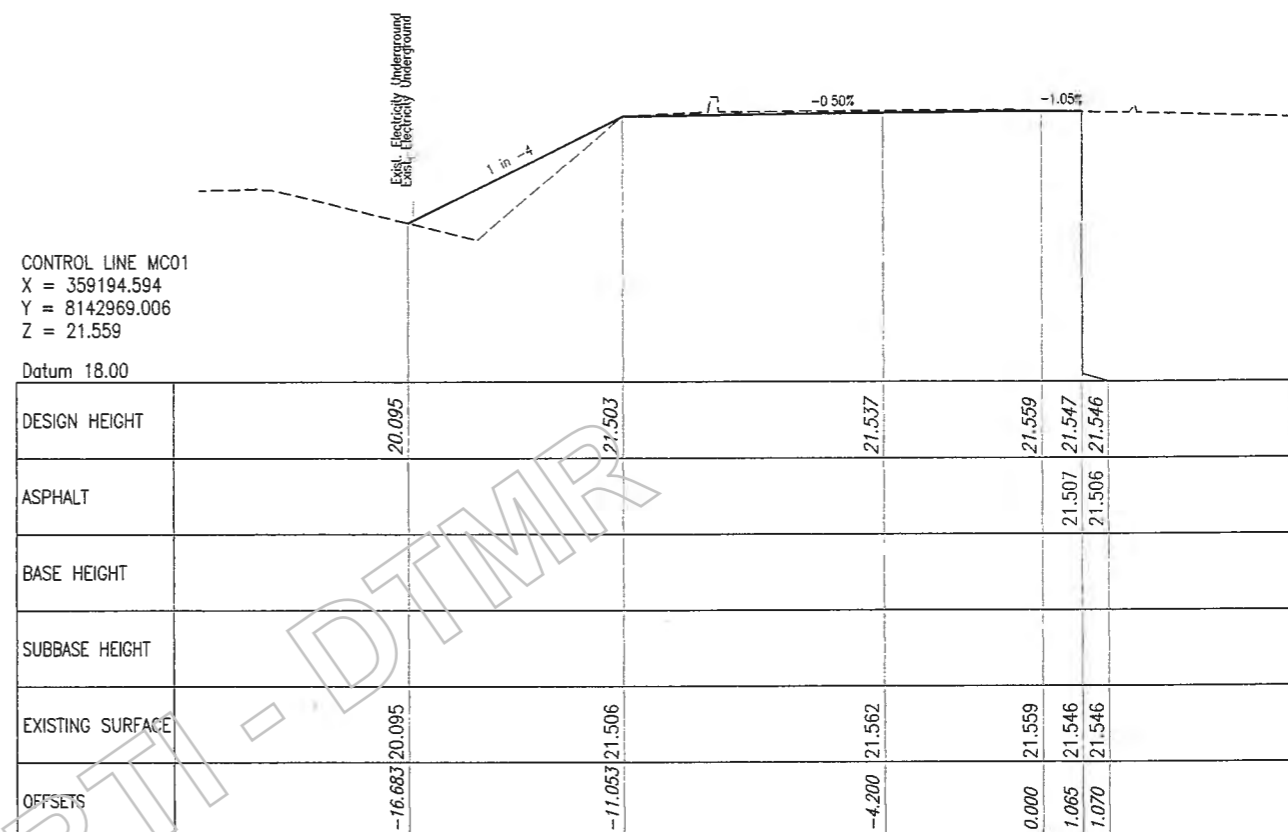
CHAINAGE 225.000

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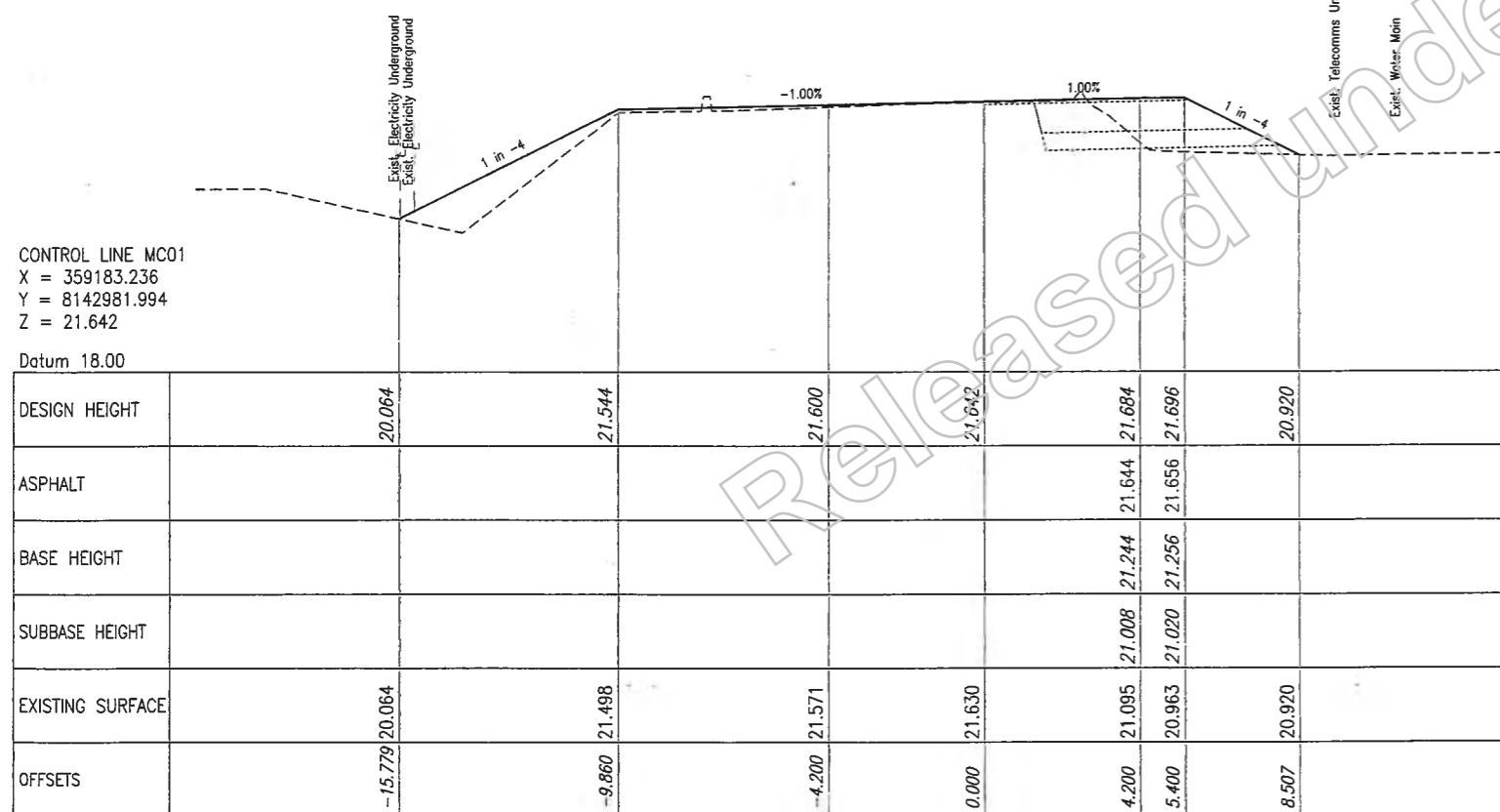
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|---------------------------|--|--|--|---|--|---------------------------------------|--|----------------------------------|--|---|--|
| Associated Job Nos | | Survey Data | | Scales | | CAIRNS REGION | | MC01 | |  Queensland Government Job No. 274/20A/559849 Contract No. CN-11204 Drawing No. X03 of 10 Series Number 3 of 10 MRR_Detail (02/14) | |
| Auxiliary Drg Nos | | Datum GDA94 | | | | CAPTAIN COOK HIGHWAY (CAIRNS-MOSSMAN) | | X03 | | | |
| | | Horiz. Grid MGA Zone55 | | | | CTL CHGE MC01 0.00-394.314 | | 3 of 4 | | | |
| | | Height Origin AHDD | | | | Reference Points | | ENGINEERING CERTIFICATION (RPEQ) | | | |
| | | Survey Books MR101097-204 | | Dimensions shown in metres except where shown otherwise | | Preceding RP | | ENG. AREA | | | |
| | | | | | | Dist. to start of job (km) | | NAME | | | |
| | | | | | | From end to Following RP | | SIGNATURE | | | |
| | | | | | | Following RP | | NO. | | DATE | |
| A Issued For Construction | | | | | | | | CIVIL | | 7746 | |
| Revisions/Descriptions | | Certification | | Date | | Microfiled | | J Whiteside | | | |
| CAD FILES | | G:\CAD\DESIGN\Projects\214\20A\559849_Roundabouts\Poolwood Rd\Autocad\Final\Xsections\MC01_1.dwg | | | | | | G Pollard | | | |



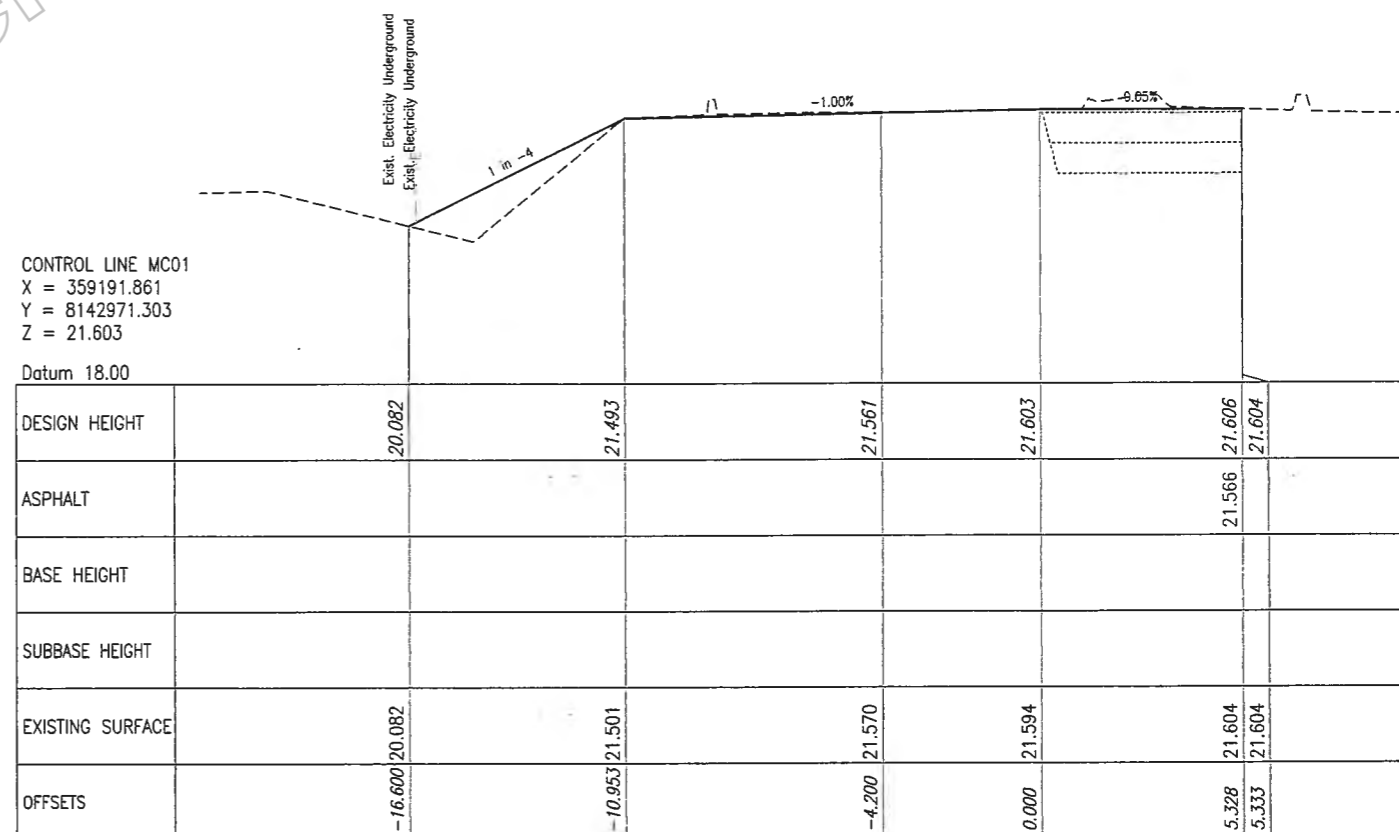
CHAINAGE 245.000



CHAINAGE 250.000



CHAINAGE 232.639



CHAINAGE 246.429

Last Modified: Mar 06, 2019 - 8:48am XREFS: 1

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|------------------------|--|---------------|--|---|--|---------------------------------------|--|----------------------------------|--|----------------------------------|--|--------------------------|--|--|--|----------|-----------|-------------|-----------|------|------|
| Associated Job Nos | | Survey Data | | Scales | | CAIRNS REGION | | | | MC01 | | | | <p>Queensland Government</p> <p>Job No. 274/20A/559849 Contract No. CN-11204 Drawing No. X04 of 10 Series Number 4 of 10 MRR Detail (02/14)</p> | | | | | | | |
| Datum | | GDA94 | | | | CAPTAIN COOK HIGHWAY (CAIRNS-MOSSMAN) | | | | X04 | | | | | | | | | | | |
| Auxiliary Drg Nos | | MGA Zone55 | | | | CTL CHGE MC01 0.00-394.314 | | | | 4 of 4 | | | | | | | | | | | |
| Horiz. Grid | | AHDD | | | | Reference Points | | | | ENGINEERING CERTIFICATION (RPEQ) | | | | | | | | | | | |
| Height Origin | | | | | | Preceding RP | | Dist. to start of job (km) | | From start to end of job | | From end to Following RP | | Following RP | | Drawn | ENG. AREA | NAME | SIGNATURE | NO. | DATE |
| Survey Books | | MR101097-20A | | Dimensions shown in metres except where shown otherwise | | | | | | | | | | | | Designed | CIVIL | J Whiteside | | 7746 | |
| Revisions/Descriptions | | Certification | | Date | | Microfiled | | Refer Drg No. 811040 For Details | | | | | | | | | | | | | |

CONTROL LINE MC02
 X = 359379.141
 Y = 8142678.540
 Z = 23.158

Datum 20.00

| | | | | | | | | | |
|------------------|--|--------|--------|--------|--------|--------|--------|--------|--------|
| DESIGN HEIGHT | | 22.955 | 22.981 | 23.053 | | 23.158 | 23.263 | 23.299 | 22.741 |
| ASPHALT HEIGHT | | 22.941 | 23.013 | | 23.158 | 23.223 | 23.259 | | |
| BASE HEIGHT | | | | | | | 22.859 | | |
| SUBBASE HEIGHT | | | | | | | 22.659 | 22.726 | |
| EXISTING SURFACE | | 22.955 | 22.950 | 23.073 | 23.156 | 23.251 | 23.213 | 22.741 | |
| OFFSETS | | -6.007 | -5.900 | -3.500 | 0.000 | 3.500 | 4.700 | 6.931 | |

CHAINAGE 41.972

CONTROL LINE MC02
 X = 359385.139
 Y = 8142674.986
 Z = 23.159

Datum 22.00

| | | | | | | | | | |
|------------------|--|--------|--------|--------|--------|--------|--------|--------|--------|
| DESIGN HEIGHT | | 22.947 | 22.982 | 23.054 | | 23.159 | 23.264 | 23.300 | 23.022 |
| ASPHALT HEIGHT | | 22.942 | 23.014 | | 23.159 | 23.224 | 23.260 | | |
| BASE HEIGHT | | | | | | | | | |
| SUBBASE HEIGHT | | | | | | | | | |
| EXISTING SURFACE | | 22.947 | 22.953 | 23.064 | 23.159 | 23.268 | 23.261 | 23.022 | |
| OFFSETS | | -6.041 | -5.900 | -3.500 | 0.000 | 3.500 | 4.700 | 5.813 | |

CHAINAGE 35.000

CONTROL LINE MC02
 X = 359352.993
 Y = 8142693.246
 Z = 23.155

Datum 22.00

| | | | | | | | | | |
|------------------|--|--------|--------|--------|--------|--------|--------|--------|--------|
| DESIGN HEIGHT | | 23.132 | 23.155 | 23.155 | | 23.155 | 23.155 | 23.155 | 22.251 |
| ASPHALT HEIGHT | | 23.115 | 23.115 | | 23.115 | 23.115 | 23.115 | 23.115 | |
| BASE HEIGHT | | | | | | | | | |
| SUBBASE HEIGHT | | | | | | | | | |
| EXISTING SURFACE | | 23.132 | 23.135 | 23.169 | 23.138 | 23.099 | 22.715 | 22.515 | 22.251 |
| OFFSETS | | -5.997 | -5.900 | -3.500 | 0.000 | 3.500 | 4.700 | 8.315 | |

CHAINAGE 71.972

CONTROL LINE MC02
 X = 359372.188
 Y = 8142682.553
 Z = 23.157

Datum 20.00

| | | | | | | | | | |
|------------------|--|--------|--------|--------|--------|--------|--------|--------|--------|
| DESIGN HEIGHT | | 22.997 | 23.028 | 23.080 | | 23.157 | 23.234 | 23.261 | 22.673 |
| ASPHALT HEIGHT | | 22.988 | 23.040 | | 23.117 | 23.194 | 23.221 | | |
| BASE HEIGHT | | | | | | | | | |
| SUBBASE HEIGHT | | | | | | | | | |
| EXISTING SURFACE | | 22.997 | 22.991 | 23.104 | 23.162 | 23.220 | 23.154 | 22.620 | 22.673 |
| OFFSETS | | -6.023 | -5.900 | -3.500 | 0.000 | 3.500 | 4.700 | 7.049 | |

CHAINAGE 50.000


Last Modified: Mar 08, 2019 - 9:03am XREFS

| | | | | |
|------------------------|-------------------------|---------------|------|------------|
| G | | | | |
| F | | | | |
| E | | | | |
| D | | | | |
| C | | | | |
| B | | | | |
| A | Issued For Construction | | | |
| Revisions/Descriptions | | Certification | Date | Microfiled |

| | | |
|---|------------------------|--------|
| Associated Job Nos | Survey Data | Scales |
| | Datum GDA94 | |
| Auxiliary Drg Nos | Horiz. Grid MGA Zone55 | |
| | Height Origin AHDD | |
| Survey Books | MR101097-20A | |
| Dimensions shown in metres except where shown otherwise | | |

| | | | | |
|---------------------------------------|----------------------------|--------------------------|--------------------------|--------------|
| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS-MOSSMAN) | | | | |
| CTL CHGE MC02 00-450.085 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |

| | | | | |
|-----------|----------------------------------|-------------|-----------|----------|
| Drawn | ENGINEERING CERTIFICATION (RPEQ) | | | |
| G Pollard | ENG. AREA | NAME | SIGNATURE | NO. DATE |
| Designed | CIVIL | J Whiteside | | 7746 |
| G Pollard | | | | |

| | |
|--|----------------|
|  Queensland Government | |
| Job No. | 274/20A/559849 |
| Contract No. | CN-11204 |
| Drawing No. | X05 |
| Series Number | 5 of 10 |
| MRR_Detail (02/14) | |

CONTROL LINE MC02
X = 359328.628
Y = 8142707.093
Z = 23.137

Datum 22.00

| | | | | | | | | | |
|------------------|--|--------|--------|--------|--------|--------|--------|--------|--|
| DESIGN HEIGHT | | 22.596 | 23.302 | 23.235 | 23.137 | 23.039 | 23.000 | 22.762 | |
| ASPHALT HEIGHT | | | 23.262 | 23.195 | 23.097 | 22.999 | 22.960 | 22.762 | |
| BASE HEIGHT | | | 22.862 | 23.195 | 23.097 | 22.999 | 22.560 | 22.533 | |
| SUBBASE HEIGHT | | | 22.662 | | | 22.360 | 22.333 | | |
| EXISTING SURFACE | | 22.596 | 23.065 | 23.217 | 23.115 | 23.010 | 22.944 | 22.762 | |
| OFFSETS | | -8.726 | -5.900 | -3.500 | 0.000 | 3.500 | 4.895 | 5.845 | |

CHAINAGE 100.00

CONTROL LINE MC02
X = 359307.919
Y = 8142721.084
Z = 23.097

Datum 20.00

| | | | | | | | | | |
|------------------|--|--------|--------|--------|--------|--------|--------|--------|--|
| DESIGN HEIGHT | | 22.541 | 23.274 | 23.202 | 23.097 | 22.992 | 22.931 | 21.916 | |
| ASPHALT HEIGHT | | | 23.234 | 23.162 | 23.057 | 22.952 | 22.891 | | |
| BASE HEIGHT | | | 22.833 | 22.761 | 23.057 | 22.952 | | | |
| SUBBASE HEIGHT | | | 22.633 | 22.561 | | | | | |
| EXISTING SURFACE | | 22.541 | 22.857 | 23.183 | 23.081 | 22.974 | 22.886 | 21.916 | |
| OFFSETS | | -8.832 | -5.900 | -3.500 | 0.000 | 3.500 | 5.522 | 9.561 | |

CHAINAGE 125.00

CONTROL LINE MC02
X = 359350.346
Y = 8142694.715
Z = 23.155

Datum 22.00

| | | | | | | | | | |
|------------------|--|--------|--------|--------|--------|--------|--------|--------|--|
| DESIGN HEIGHT | | 23.039 | 23.172 | 23.165 | 23.155 | 23.144 | 23.140 | 22.233 | |
| ASPHALT HEIGHT | | | 23.132 | 23.125 | 23.155 | 23.104 | 23.100 | | |
| BASE HEIGHT | | | | | 22.704 | 22.700 | 22.700 | | |
| SUBBASE HEIGHT | | | | | 22.566 | 22.500 | | | |
| EXISTING SURFACE | | 23.039 | 23.138 | 23.175 | 23.130 | 23.082 | 22.975 | 22.233 | |
| OFFSETS | | -6.434 | -5.900 | -3.500 | 0.000 | 3.500 | 4.700 | 8.331 | |

CHAINAGE 75.00


CONTROL LINE MC02
X = 359326.952
Y = 8142708.131
Z = 23.134

Datum 22.00

| | | | | | | | | | |
|------------------|--|--------|--------|--------|--------|--------|--------|--------|--|
| DESIGN HEIGHT | | 22.598 | 23.311 | 23.239 | 23.134 | 23.029 | 22.985 | 22.794 | |
| ASPHALT HEIGHT | | | 23.271 | 23.199 | 23.134 | 22.989 | 22.945 | | |
| BASE HEIGHT | | | 22.871 | 23.199 | 23.094 | | | | |
| SUBBASE HEIGHT | | | 22.670 | | | | | | |
| EXISTING SURFACE | | 22.598 | 23.059 | 23.216 | 23.116 | 23.010 | 22.946 | 22.794 | |
| OFFSETS | | -8.750 | -5.900 | -3.500 | 0.000 | 3.500 | 4.950 | 5.716 | |

CHAINAGE 101.972

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| | | | | | | | | | | | | | | | | | |
|---|--|-------------------------|--|---------------|--|--------------|--|---|--|--|--|----------------------------------|--|-----------|--|--|--|
| G | | Associated Job Nos | | Survey Data | | Scales | | CAIRNS REGION | | | | MC02 | | | |  Queensland Government Job No. 274/20A/559849 Contract No. CN-11204 Drawing No. X06 Series Number 6 of 10 MRR_Detail (02/14) | |
| F | | | | Datum GDA94 | | | | CAPTAIN COOK HIGHWAY (CAIRNS-MOSSMAN) | | | | X06 | | | | | |
| E | | | | MGA Zone55 | | | | CTL CHGE MC02 00-450.085 | | | | 2 of 6 | | | | | |
| D | | Auxiliary Drg Nos | | Horiz. Grid | | | | Reference Points | | | | ENGINEERING CERTIFICATION (RPEQ) | | | | | |
| C | | | | AHDD | | | | Preceding Dist. to start of job (km) | | | | G Pollard | | ENG. AREA | | | |
| B | | | | Survey Books | | MR101097-20A | | From start to end of job | | | | Designed | | CIVIL | | | |
| A | | Issued For Construction | | Certification | | Date | | From end to Following RP | | | | G Pollard | | NAME | | | |
| | | Revisions/Descriptions | | Date | | Microfiled | | Refer Drg No. 811040 For Details | | | | | | SIGNATURE | | | |
| | | | | | | | | Dimensions shown in metres except where shown otherwise | | | | | | NO. DATE | | | |
| | | | | | | | | | | | | | | 7746 | | | |
| | | | | | | | | | | | | | | | | | |

CONTROL LINE MC02
 X = 359270.489
 Y = 8142754.141
 Z = 22.998

Datum 20.00

| | | | | | | | |
|------------------|--------|--------|--------|--------|--------|--------|--------|
| DESIGN HEIGHT | 22.251 | 23.175 | 23.103 | 22.998 | 22.893 | 22.848 | 21.782 |
| ASPHALT HEIGHT | | 23.135 | 23.063 | 22.998 | 22.853 | 22.808 | |
| BASE HEIGHT | | 22.735 | 22.909 | 22.958 | 22.853 | | |
| SUBBASE HEIGHT | | 22.535 | 22.909 | | | | |
| EXISTING SURFACE | 22.251 | 22.865 | 23.104 | 23.001 | 22.900 | 22.845 | 21.782 |
| OFFSETS | -9.596 | -5.900 | -3.500 | 0.000 | 3.500 | 5.010 | 9.275 |

CHAINAGE 175.000

CONTROL LINE MC02
 X = 359254.046
 Y = 8142772.963
 Z = 22.934

Datum 20.00

| | | | | | | | |
|------------------|---------|--------|--------|--------|--------|--------|--------|
| DESIGN HEIGHT | 21.961 | 23.111 | 23.039 | 22.934 | 22.829 | 22.793 | 21.730 |
| ASPHALT HEIGHT | | 23.071 | 22.999 | 22.894 | 22.789 | 22.753 | |
| BASE HEIGHT | | 22.670 | 22.999 | 22.894 | 22.368 | 22.352 | |
| SUBBASE HEIGHT | | 22.470 | 22.999 | 22.894 | 22.188 | 22.152 | |
| EXISTING SURFACE | 21.961 | 23.072 | 23.033 | 22.926 | 22.815 | 22.592 | 21.730 |
| OFFSETS | -10.500 | -5.900 | -3.500 | 0.000 | 3.500 | 4.700 | 8.948 |

CHAINAGE 200.000

CONTROL LINE MC02
 X = 359288.491
 Y = 8142736.805
 Z = 23.056

Datum 20.00

| | | | | | | | |
|------------------|--------|--------|--------|--------|--------|--------|--------|
| DESIGN HEIGHT | 22.447 | 23.233 | 23.161 | 23.056 | 22.951 | 22.899 | 21.849 |
| ASPHALT HEIGHT | | 23.193 | 23.121 | 23.056 | 22.911 | 22.849 | |
| BASE HEIGHT | | 22.793 | 22.721 | 23.016 | 22.911 | | |
| SUBBASE HEIGHT | | 22.593 | 22.521 | | | | |
| EXISTING SURFACE | 22.447 | 22.795 | 23.149 | 23.053 | 22.948 | 22.871 | 21.849 |
| OFFSETS | -9.045 | -5.900 | -3.500 | 0.000 | 3.500 | 5.593 | 9.751 |

CHAINAGE 150.000


CONTROL LINE MC02
 X = 359267.750
 Y = 8142757.056
 Z = 22.988

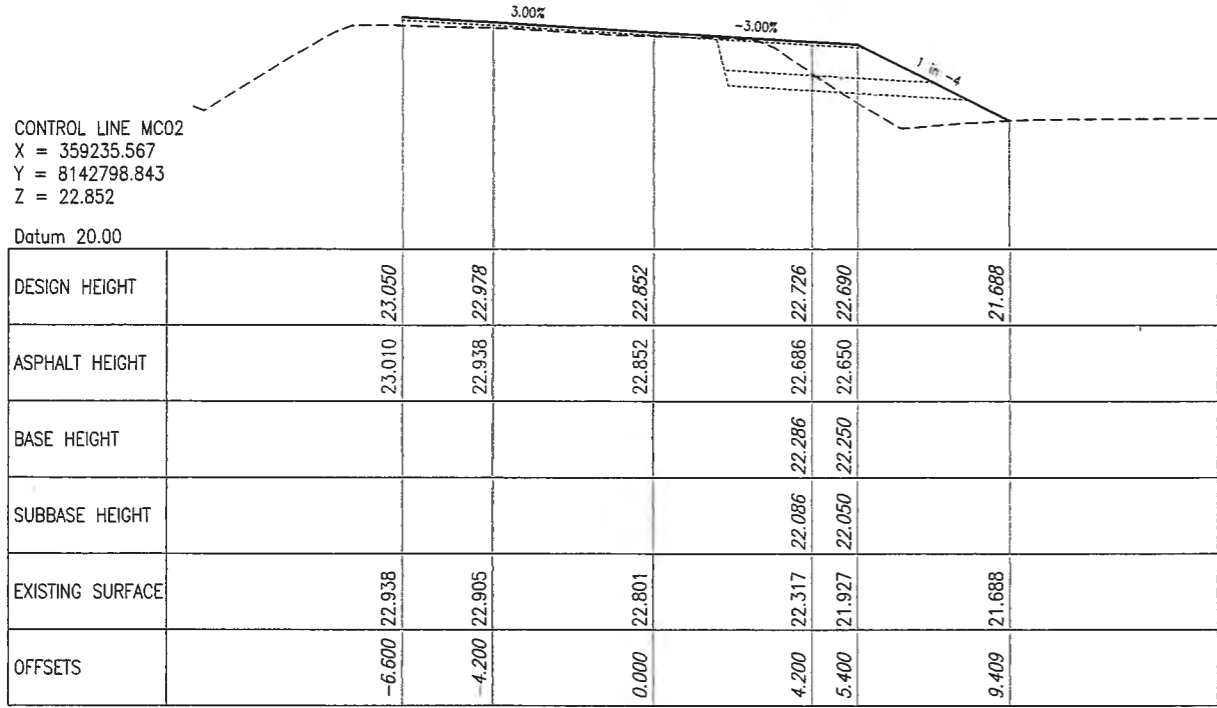
Datum 20.00

| | | | | | | | |
|------------------|--------|--------|--------|--------|--------|--------|--------|
| DESIGN HEIGHT | 22.203 | 23.165 | 23.093 | 22.988 | 22.883 | 22.842 | 21.772 |
| ASPHALT HEIGHT | | 23.125 | 23.053 | 22.988 | 22.843 | 22.802 | |
| BASE HEIGHT | | 22.725 | 23.053 | 22.948 | 22.843 | 22.802 | |
| SUBBASE HEIGHT | | 22.525 | | | | | |
| EXISTING SURFACE | 22.203 | 22.905 | 23.097 | 22.991 | 22.887 | 22.836 | 21.772 |
| OFFSETS | -9.748 | -5.900 | -3.500 | 0.000 | 3.500 | 4.849 | 9.131 |

CHAINAGE 179.000

Last Modified: Mar 06, 2019 - 9:04am XREFS: CAD FILES

| | | | | | | | | | | | | | | | |
|--------------------|--|--------------|--|---|--|--|--|--|--|--|--|--|--|--|--|
| Associated Job Nos | | Survey Data | | Scales | | CAIRNS REGION | | | | MCO2 X07 | | | |  Queensland Government Job No. 274/20A/559849 Contract No. CN-11204 Drawing No. X07 Series Number 7 of 10 MRR Detail (02/14) | |
| Datum | | GDA94 | | | | CAPTAIN COOK HIGHWAY (CAIRNS-MOSSMAN) | | | | 3 of 6 | | | | | |
| Auxiliary Drg Nos | | Horiz. Grid | | MGA Zone55 | | CTL CHGE MCO2 00-450.085 | | | | | | | | | |
| Height Origin | | AHDD | | | | Reference Points | | | | ENGINEERING CERTIFICATION (RPEQ) | | | | | |
| Survey Books | | MR101097-204 | | Dimensions shown in metres except where shown otherwise | | Preceding RP Dist. to start of job (km) From start to end of job From end to Following RP Following RP | | | | Drawn: G Pollard Designed: G Pollard ENG. AREA: CIVIL NAME: J Whiteside SIGNATURE: [Signature] NO.: 7746 DATE: | | | | | |

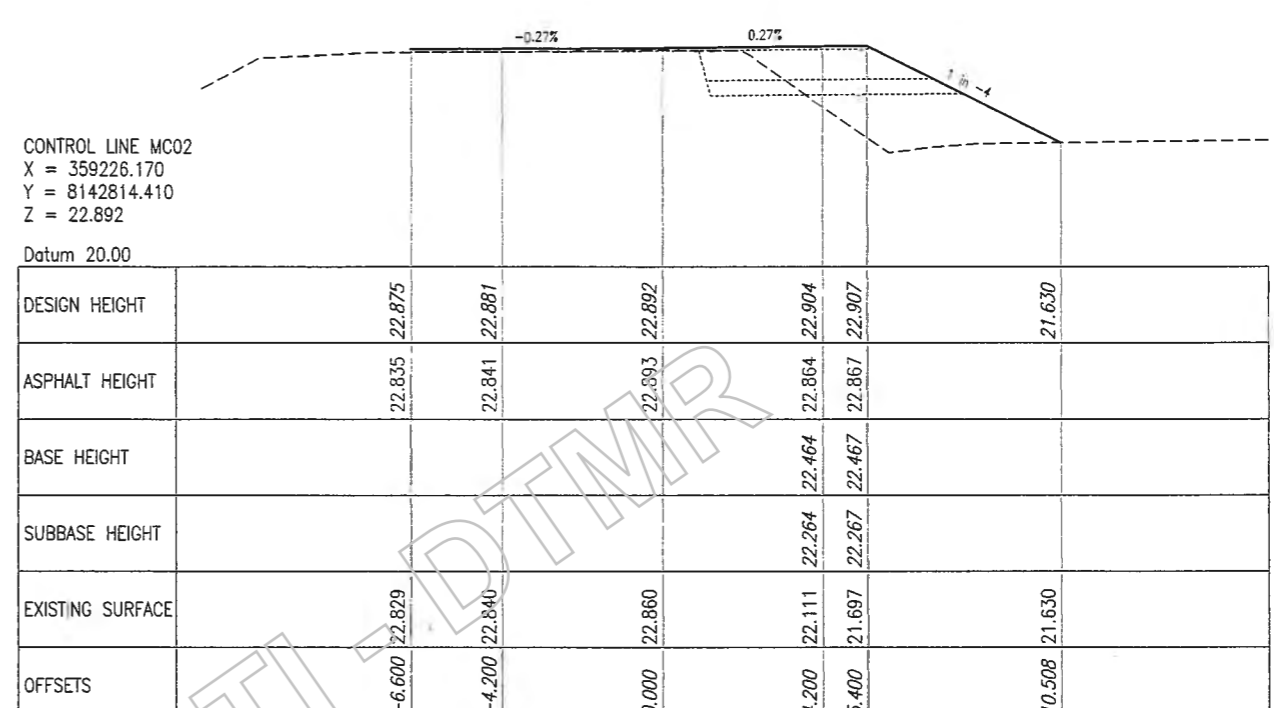


CONTROL LINE MC02
 X = 359235.567
 Y = 8142798.843
 Z = 22.852

Datum 20.00

| | | | | | | | |
|------------------|--|--------|--------|--------|--------|--------|--------|
| DESIGN HEIGHT | | 23.050 | | 22.852 | 22.726 | 22.690 | 21.688 |
| ASPHALT HEIGHT | | 23.010 | 22.938 | 22.852 | 22.686 | 22.650 | |
| BASE HEIGHT | | | | | 22.286 | 22.250 | |
| SUBBASE HEIGHT | | | | | 22.086 | 22.050 | |
| EXISTING SURFACE | | 22.938 | 22.905 | 22.801 | 22.317 | 21.927 | 21.688 |
| OFFSETS | | -6.600 | -4.200 | 0.000 | 4.200 | 5.400 | 9.409 |

CHAINAGE 231.816

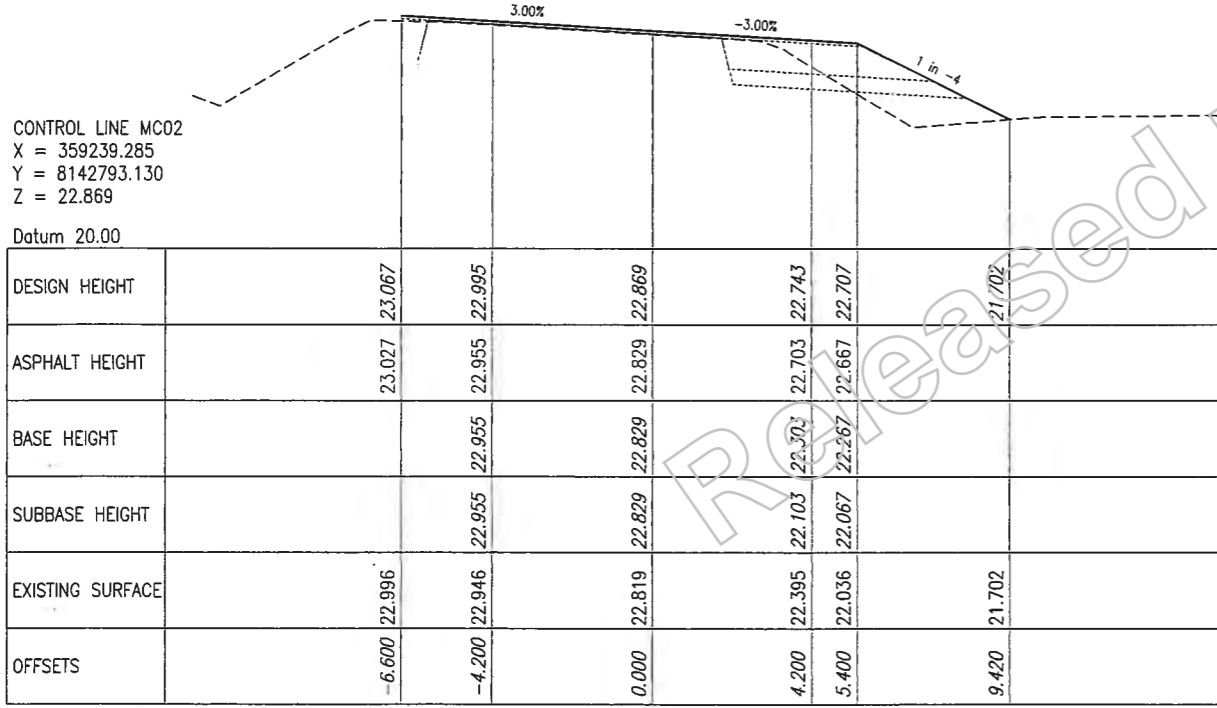


CONTROL LINE MC02
 X = 359226.170
 Y = 8142814.410
 Z = 22.892

Datum 20.00

| | | | | | | | |
|------------------|--|--------|--------|--------|--------|--------|--------|
| DESIGN HEIGHT | | 22.875 | | 22.892 | 22.904 | 22.907 | 21.630 |
| ASPHALT HEIGHT | | 22.835 | 22.841 | 22.893 | 22.864 | 22.867 | |
| BASE HEIGHT | | | | | 22.464 | 22.467 | |
| SUBBASE HEIGHT | | | | | 22.264 | 22.267 | |
| EXISTING SURFACE | | 22.829 | 22.840 | 22.860 | 22.111 | 21.697 | 21.630 |
| OFFSETS | | -6.600 | -4.200 | 0.000 | 4.200 | 5.400 | 10.508 |

CHAINAGE 250.000

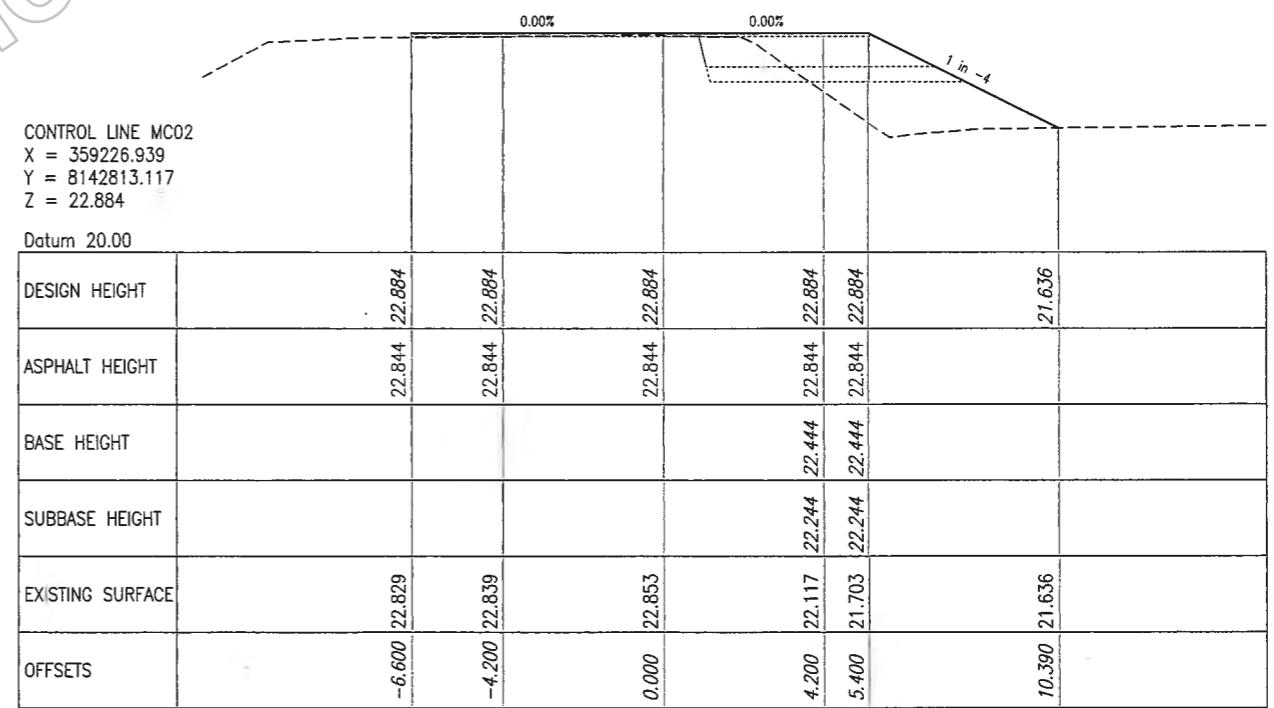


CONTROL LINE MC02
 X = 359239.285
 Y = 8142793.130
 Z = 22.869

Datum 20.00

| | | | | | | | |
|------------------|--|--------|--------|--------|--------|--------|--------|
| DESIGN HEIGHT | | 23.067 | | 22.869 | 22.743 | 22.707 | 21.702 |
| ASPHALT HEIGHT | | 23.027 | 22.955 | 22.829 | 22.703 | 22.667 | |
| BASE HEIGHT | | | 22.955 | 22.829 | 22.303 | 22.267 | |
| SUBBASE HEIGHT | | | 22.955 | 22.829 | 22.103 | 22.067 | |
| EXISTING SURFACE | | 22.996 | 22.946 | 22.819 | 22.395 | 22.036 | 21.702 |
| OFFSETS | | -6.600 | -4.200 | 0.000 | 4.200 | 5.400 | 9.420 |

CHAINAGE 225.000



CONTROL LINE MC02
 X = 359226.939
 Y = 8142813.117
 Z = 22.884

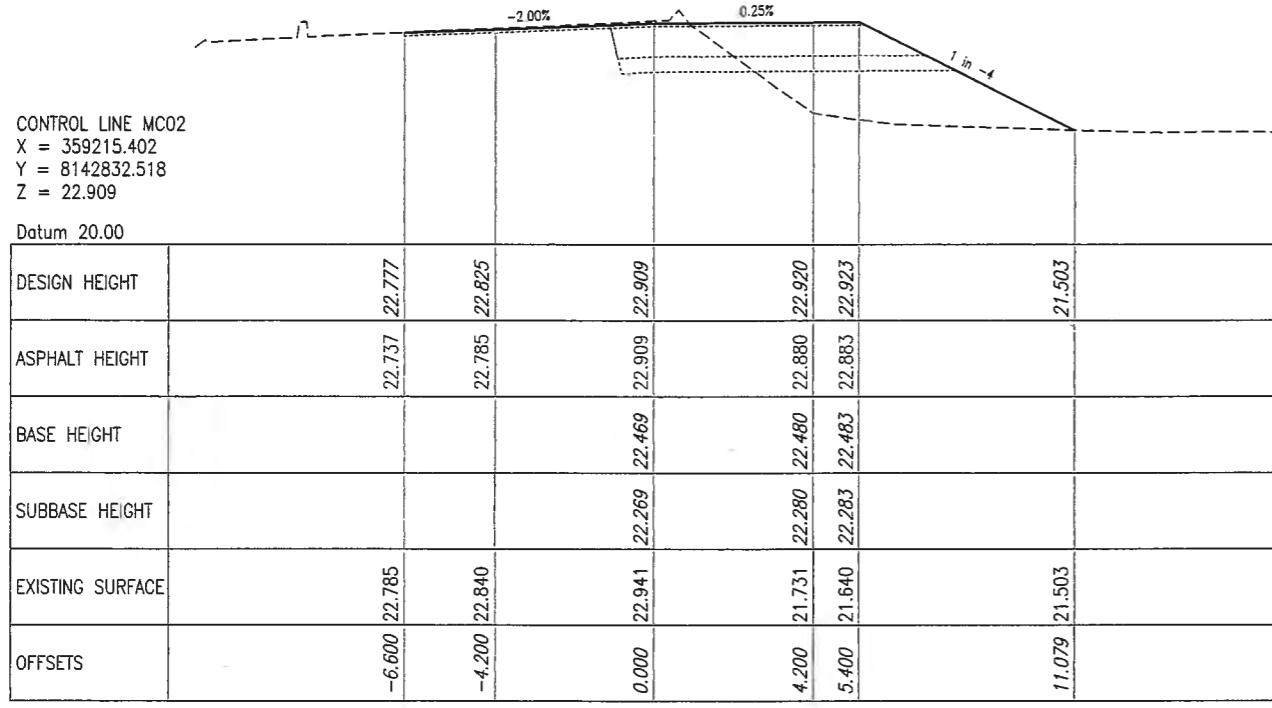
Datum 20.00

| | | | | | | | |
|------------------|--|--------|--------|--------|--------|--------|--------|
| DESIGN HEIGHT | | 22.884 | | 22.884 | 22.884 | 22.884 | 21.636 |
| ASPHALT HEIGHT | | 22.844 | 22.844 | 22.844 | 22.844 | 22.844 | |
| BASE HEIGHT | | | | | 22.444 | 22.444 | |
| SUBBASE HEIGHT | | | | | 22.244 | 22.244 | |
| EXISTING SURFACE | | 22.829 | 22.839 | 22.853 | 22.117 | 21.703 | 21.636 |
| OFFSETS | | -6.600 | -4.200 | 0.000 | 4.200 | 5.400 | 10.390 |

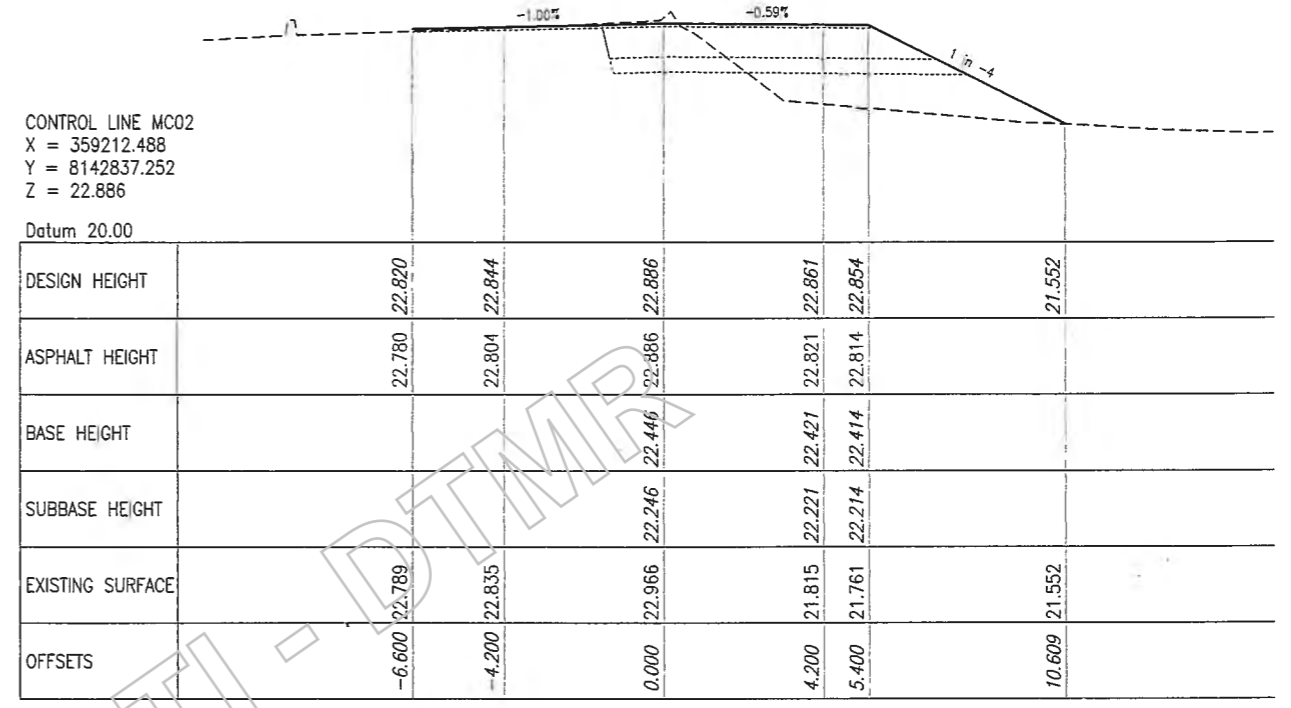
CHAINAGE 248.496

Last Modified: Mar 06, 2019 - 9:34am XREFS

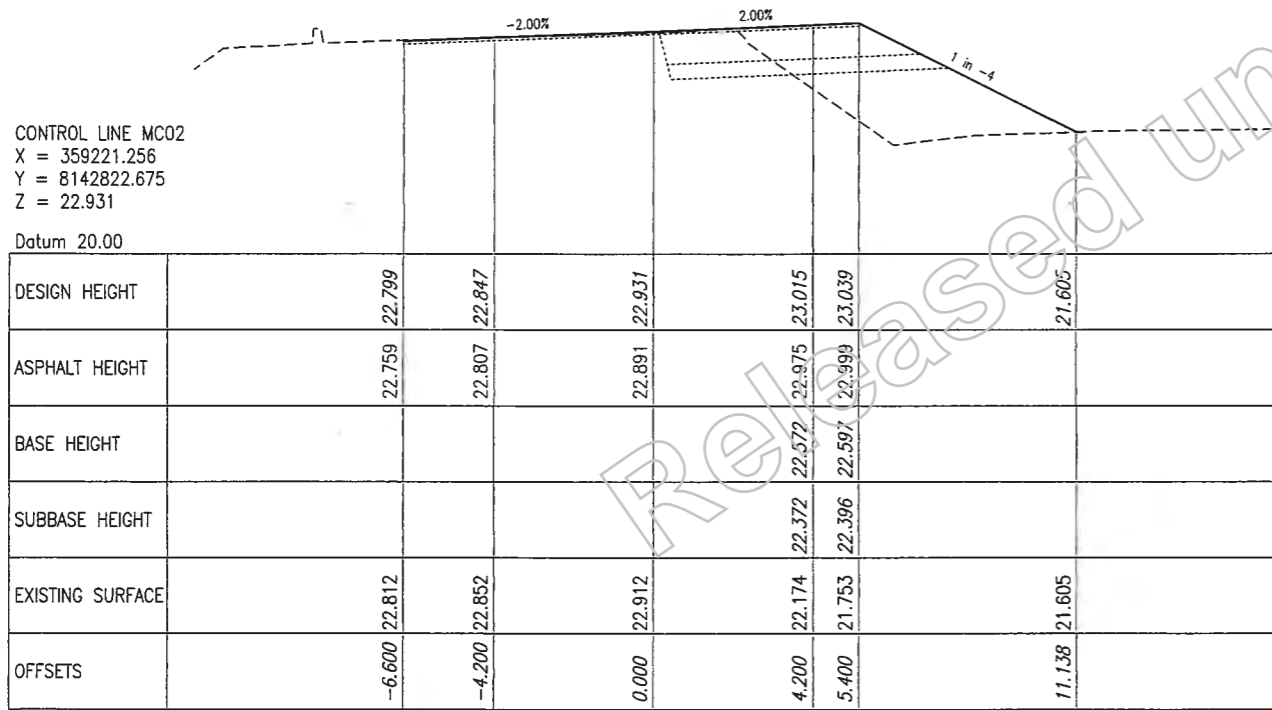
| | | | | | | | | | | | | | | | | | | |
|---|--|---|--|--------|--|--|--|--|--|----------------------------------|--|------------------|--|-------------------------------------|--|----------|------|-----------------------|
| Associated Job Nos | | Survey Data | | Scales | | CAIRNS REGION | | | | MC02 | | | | <p>Queensland Government</p> | | | | |
| | | Datum meters | | | | CAPTAIN COOK HIGHWAY (CAIRNS-MOSSMAN) | | | | X08 | | | | | | | | |
| Auxiliary Drg Nos | | Horiz. Grid MGA Zone55 | | | | CTL CHGE MC02 00-450.085 | | | | 4 of 6 | | | | | | | | |
| | | Height Origin AHDD | | | | Reference Points | | | | ENGINEERING CERTIFICATION (RPEQ) | | | | | | | | |
| Survey Books MR101097-20A | | Dimensions shown in metres except where shown otherwise | | | | Preceding RP Dist. to start of job (km) From start to end of job From end to following RP Following RP | | | | Drawn G Pollard | | | | Job No. 274/20A/559849 | | | | |
| A Issued For Construction | | | | | | | | | | Designed G Pollard | | | | Contract No. CN-11204 | | | | |
| Revisions/Descriptions | | Certification | | Date | | Microfiled | | | | ENG. AREA CIVIL | | NAME J Whiteside | | SIGNATURE | | NO. 7746 | DATE | Drawing No. X08 A |
| CAD FILES G:\CAD\DESIGN\Projects\214\20A\559849_Roundabouts\Poolwood Rd\Autocad\Final Xsections MC021.dwg | | | | | | | | | | | | | | | | | | Series Number 8 of 10 |



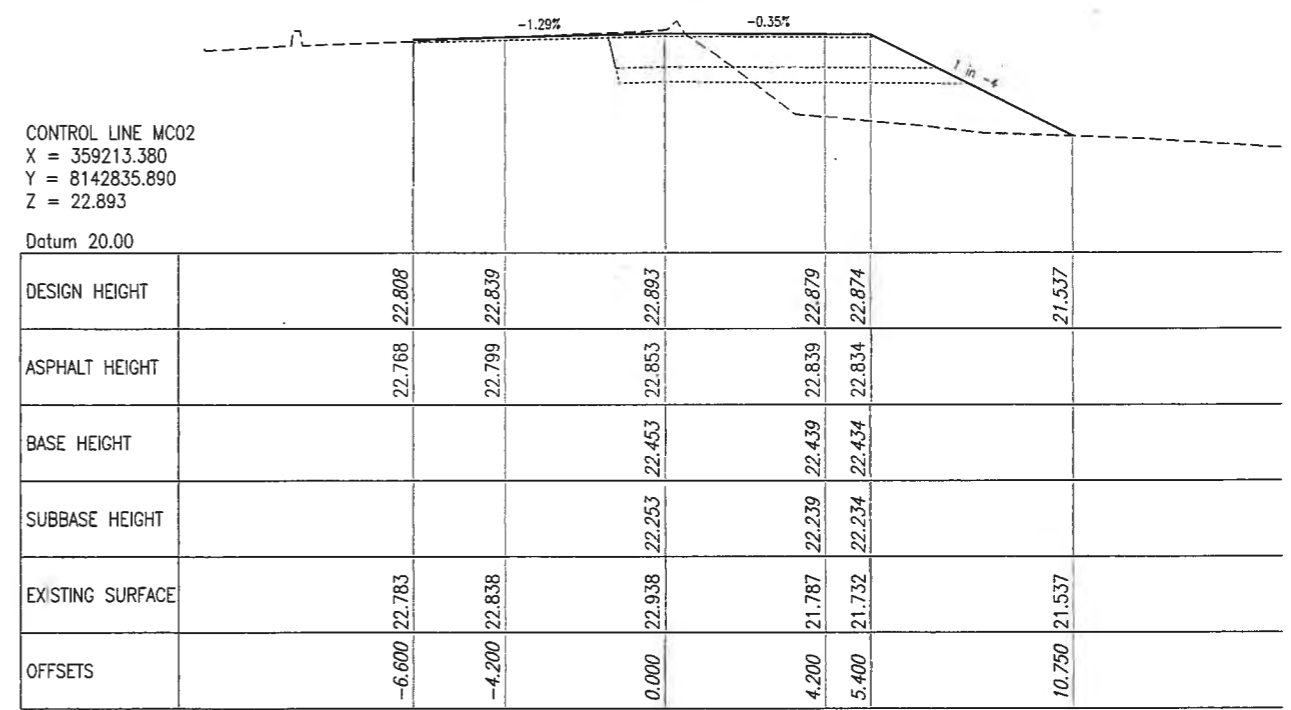
CHAINAGE 271.068



CHAINAGE 276.628



CHAINAGE 259.616



CHAINAGE 275.000

Last Modified: 11-Mar-2019 9:04am XREFS

| | | | | | | | | | | | | | | | | | |
|---|--|-------------------------|--|---|--|---------------------------|--|--|--|--|--|---|--|--|--|--|--|
| G | | Associated Job Nos | | Survey Data | | Scales | | CAIRNS REGION | | | | MC02 | | | | | |
| F | | | | Datum GDA94 | | | | CAPTAIN COOK HIGHWAY (CAIRNS-MOSSMAN) | | | | X09 | | | | | |
| E | | | | Auxiliary Drg Nos | | Horiz. Grid MGA Zone55 | | CTL CHGE MC02 00-450.085 | | | | 5 of 6 | | | | | |
| D | | | | Height Origin AHDD | | Survey Books MR101097-20A | | Reference Points | | | | ENGINEERING CERTIFICATION (RPEQ) | | | | | |
| C | | | | Dimensions shown in metres except where shown otherwise | | | | Preceding RP Dist. to start of job (km) From start to end of job From end to Following RP | | | | Drawn: G Pollard ENG. AREA: CIVIL NAME: J Whiteside SIGNATURE: NO: 7746 DATE: | | | | | |
| B | | | | | | | | Refer Drg No. 811040 For Details | | | | Contract No. 274/20A/559849 Drawing No. X09 A Series Number 9 of 10 MRR_Detail (02/14) | | | | | |
| A | | Issued For Construction | | | | | | | | | | | | | | | |

CONTROL LINE MC02
 X = 359206.322
 Y = 8142844.509
 Z = 22.840

| | | | | | | |
|------------------|--|--------|--------|--------|--------|--------|
| Datum 22.00 | | | | | | |
| DESIGN HEIGHT | | 22.855 | 22.849 | 22.840 | 22.727 | 22.727 |
| ASPHALT HEIGHT | | 22.815 | 22.809 | 22.840 | 22.687 | 22.687 |
| BASE HEIGHT | | | | 22.400 | 22.283 | 22.283 |
| SUBBASE HEIGHT | | | | 22.200 | 22.083 | 22.083 |
| EXISTING SURFACE | | 22.795 | 22.805 | 22.928 | 22.737 | 22.737 |
| OFFSETS | | -6.600 | -4.200 | 0.000 | 5.715 | 5.720 |

CHAINAGE 286.169

CONTROL LINE MC02
 X = 359203.007
 Y = 8142847.369
 Z = 22.754

| | | | | | | |
|------------------|--|--------|--------|--------|--------|--------|
| Datum 22.00 | | | | | | |
| DESIGN HEIGHT | | 22.806 | 22.787 | 22.754 | 22.745 | 22.745 |
| ASPHALT HEIGHT | | 22.766 | 22.747 | 22.754 | 22.705 | 22.705 |
| BASE HEIGHT | | | | 22.314 | 22.324 | 22.324 |
| SUBBASE HEIGHT | | | | 22.114 | 22.124 | 22.124 |
| EXISTING SURFACE | | 22.799 | 22.791 | 22.767 | 22.766 | 22.766 |
| OFFSETS | | -6.600 | -4.200 | 0.000 | 0.392 | 0.397 |

CHAINAGE 290.549

CONTROL LINE MC02
 X = 359195.005
 Y = 8142852.366
 Z = 22.636

| | | | | | |
|------------------|--|--------|--------|--------|--|
| Datum 22.00 | | | | | |
| DESIGN HEIGHT | | 22.768 | 22.720 | 22.636 | |
| ASPHALT HEIGHT | | 22.728 | 22.680 | | |
| BASE HEIGHT | | | | | |
| SUBBASE HEIGHT | | | | | |
| EXISTING SURFACE | | 22.791 | 22.757 | 22.650 | |
| OFFSETS | | -6.600 | -4.200 | 0.000 | |

CHAINAGE 300.000

CONTROL LINE MC02
 X = 359209.072
 Y = 8142841.651
 Z = 22.863

| | | | | | | |
|------------------|--|--------|--------|--------|--------|--------|
| Datum 22.00 | | | | | | |
| DESIGN HEIGHT | | 22.845 | 22.851 | 22.863 | 22.803 | 22.785 |
| ASPHALT HEIGHT | | 22.805 | 22.811 | 22.823 | 22.763 | 22.745 |
| BASE HEIGHT | | | | 22.423 | 22.363 | 22.345 |
| SUBBASE HEIGHT | | | | 22.223 | 22.159 | 22.328 |
| EXISTING SURFACE | | 22.790 | 22.826 | 22.958 | 22.842 | 22.886 |
| OFFSETS | | -6.600 | -4.200 | 0.000 | 4.200 | 5.400 |

CHAINAGE 282.201

CONTROL LINE MC02
 X = 359203.438
 Y = 8142847.029
 Z = 22.767

| | | | | | | |
|------------------|--|--------|--------|--------|--------|--------|
| Datum 22.00 | | | | | | |
| DESIGN HEIGHT | | 22.814 | 22.797 | 22.767 | 22.742 | 22.742 |
| ASPHALT HEIGHT | | 22.774 | 22.757 | 22.727 | 22.702 | 22.702 |
| BASE HEIGHT | | | | 22.327 | 22.309 | 22.309 |
| SUBBASE HEIGHT | | | | 22.127 | 22.109 | 22.109 |
| EXISTING SURFACE | | 22.799 | 22.792 | 22.789 | 22.766 | 22.766 |
| OFFSETS | | -6.600 | -4.200 | 0.000 | 1.068 | 1.073 |


CHAINAGE 290.000

CONTROL LINE MC02
 X = 359199.370
 Y = 8142849.932
 Z = 22.687

| | | | | | |
|------------------|--|--------|--------|--------|--|
| Datum 22.00 | | | | | |
| DESIGN HEIGHT | | 22.777 | 22.744 | 22.687 | |
| ASPHALT HEIGHT | | 22.737 | 22.704 | | |
| BASE HEIGHT | | | | | |
| SUBBASE HEIGHT | | | | | |
| EXISTING SURFACE | | 22.799 | 22.783 | 22.696 | |
| OFFSETS | | -6.600 | -4.200 | 0.000 | |

CHAINAGE 295.000

Last Modified: 11-Mar-2019 9:04am XREFS

| | | | | | | | | | | | | | | |
|---------------------------------|---------------------------|---|--------|---------------------------------------|----------------------------|--------------------------|--------------------------|----------------------------------|-----------------|-----------------|------------------|---|----------|------|
| G F E D C B A | Associated Job Nos | Survey Data | Scales | CAIRNS REGION | | | | MC02 | | | |  Queensland Government Job No. 274/20A/559849 Contract No. CN-11204 Drawing No. X10 A Series Number 10 of 10 MRR Detail (02/14) | | |
| | Auxiliary Drg Nos | Datum GDA94 | | CAPTAIN COOK HIGHWAY (CAIRNS-MOSSMAN) | | | | X10 | | | | | | |
| | | Horiz. Grid MGA Zone55 | | CTL CHGE MC02 00-450.085 | | | | 6 of 6 | | | | | | |
| | | Height Origin AHDD | | Reference Points | | | | ENGINEERING CERTIFICATION (RPEQ) | | | | | | |
| | Survey Books MR101097-204 | Dimensions shown in metres except where shown otherwise | | Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP | Drawn G Pollard | ENG. AREA CIVIL | NAME J Whiteside | SIGNATURE | NO. 7746 | DATE |
| Revisions/Descriptions | | Certification | Date | Refer Drg No. B11040 For Details | | Designed G Pollard | | | | | | | | |

Safety upgrades for Reed Road and Trinity Beach Road roundabouts

Project overview

In late 2019, the Department of Transport and Main Roads (TMR) will commence a project to increase safety for all road users on Reed Road and Trinity Beach Road roundabouts on Captain Cook Highway.

The project will apply the same treatment, cross section and layout as the recently upgraded Poolwood Road roundabout. This will improve safety for motorists and bike riders by providing a consistent road user experience at all three intersections.

Work on Trinity Beach Road roundabout is expected to take eight weeks, weather permitting. Work on Reed Road roundabout is expected to take ten weeks, weather permitting.

Project funding

These works form part of the High Risk Roads (HRR) program.

The HRR program is a state funded initiative to address key safety concerns on the state-controlled network.

Project Scope

TMR must undertake further planning before the scope of work is finalised. However, the final design will likely include:

- Realignment of approach curves, where required to meet current design standards
- provision of barrier treatments at all major culverts.
- Removal of existing kerbs and installation of a kerbs with a smoother profile on the bike rider side and a barrier profile on the vehicle side

This will increase safety for all road users through encouraging slower movements through the roundabout at the signed speed limit of 40 km/h.

Construction impacts

For the safety of work crews and road users, changed traffic conditions will be in place while works are being carried out.

TMR will make every effort to minimise traffic delays. However, some impacts will be unavoidable and motorists should allow additional time for their journey or use an alternate route where possible.

During community consultation undertaken by TMR, the local community overwhelmingly requested that works be undertaken at night to minimise impacts during construction. TMR has listened to this feedback and will undertake majority of these works as night works.

Nearby residents may experience temporary impacts during work hours, including noise, dust and vibrations. Every effort will be made to minimise these impacts as much as possible.

Community Engagement

TMR has a long history of working with Queenslanders in the planning, provision and management of Queensland's state-controlled road network of more than 33,000 kilometres.

Consultation activities have been planned by the project team to maximise the opportunity for members of the public to have a say in the design and construction of Reed Road and Trinity Beach Road roundabouts.

These activities include a community information session, meetings with technical officers of Cairns Regional Council and face to face engagement meetings with local cycling groups.

For more information

If you need further information about the project, or would like to be added to the project mailing list, please contact Jade Wicks, Communication Officer via

Phone: 4045 7037

Email: cairns.office@tmr.qld.gov.au



Extra Brief Requirements

- Design as per the TMR design
- Road Planning Design Manual and Supplements referring to Austroads particularly part 4A and 4B, - MUTCD.
- Changes in alignment should be towards the inner side of approach avoiding existing asset if possible.
- The 20km/h speed break down curves as stated in the Road Planning Design Manual and its supplements to Austroads may no longer be required but keeping the existing slow down curves may be advantageous to achieving the R45 entry curve.
- A design requirement is 45m traffic centre line Radius, with a "entry path of a two-lane entry- staying in the correct lane" (as per Austroads Guide to Road Design Part 4B Roundabouts)
- Lane widths of 4.2m minimum on the R45 is required and normal standard widening application on any other approach curves. However, these Lane widths may widen in line with B-double vehicle path.
- Shoulders to be 2.5m from edge line on approach curve and 1.5m plus protective kerbing on roundabout. Cyclist protection measures on entry and negotiating roundabout are required
- B-double template is required from entry through to exist of Roundabout on main Legs to ensure adequate widths do not encroach onto shoulder/bike lane or traffic lane. Shy lines should also be adopted. Modification of island on adjacent legs maybe required.
- Hold Point for review (allowing 4 working days for review) with clear understandable plans showing alignment and proposed formation (including centreline edge line and shoulder), entry curve data, B-double vehicle paths, note this hold point review is not part of the design contract stage and shall be undertaken well before 30% stage.
- Any costs associated with adjustments from design reviews shall be included in the tender price of the design contract.
- Pavement marking through the roundabout shall remain unchanged, however amendments maybe required to cater for any changes in entry points.

_ Surfacing to be replace with new where foot print of design starts to where it reaches the roundabout.

Poolwood Roundabout

Improved Approaches and General Traffic Improvements



LOCALITY PLAN
NTS

DRAWING LIST - CN11204

| DRAWING NUMBER | REVISION | SERIES | DESCRIPTION |
|----------------|----------|----------|---|
| 811040 | C | 1 OF 26 | LOCALITY PLAN, DRAWING LIST AND SIGNATURE BLOCK |
| 811041 | A | 2 OF 26 | TYPICAL CROSS SECTIONS |
| 811042 | A | 3 OF 26 | SURVEY SETOUT DETAILS |
| 811043 | A | 4 OF 26 | CONTROL LINE MCO2 SETOUT DETAILS |
| 811044 | A | 5 OF 26 | CONTROL LINE MCO1 SETOUT DETAILS |
| 811045 | A | 6 OF 26 | WORKING PLAN 1 OF 2 |
| 811046 | A | 7 OF 26 | WORKING PLAN 2 OF 2 |
| 811047 | A | 8 OF 26 | KERB, MEDIAN AND CULVERT SETOUT |
| 811048 | A | 9 OF 26 | PAVEMENT AND KERB SETOUT 1 OF 5 |
| 811049 | B | 10 OF 26 | PAVEMENT AND KERB SETOUT DETAILS, SHEET 2 OF 5 |
| 811050 | B | 11 OF 26 | PAVEMENT AND KERB SETOUT DETAILS, SHEET 3 OF 5 |
| 811051 | A | 12 OF 26 | PAVEMENT AND KERB SETOUT 4 OF 5 |
| 811052 | A | 13 OF 26 | PAVEMENT AND KERB SETOUT DETAILS, SHEET 5 OF 5 |
| 811053 | B | 14 OF 26 | PAVEMENT MARKING AND SIGNS 1 OF 6 |
| 811054 | C | 15 OF 26 | PAVEMENT MARKING AND SIGNS SHEET 2 OF 6 |
| 811055 | B | 16 OF 26 | PAVEMENT MARKING AND SIGNS 3 OF 6 |
| 811056 | B | 17 OF 26 | PAVEMENT MARKING AND SIGNS 4 OF 6 |
| 811057 | C | 18 OF 26 | PAVEMENT MARKING AND SIGNS SHEET 5 OF 6 |
| 811058 | B | 19 OF 26 | PAVEMENT MARKING AND SIGNS SHEET 6 OF 6 |
| 811059 | A | 20 OF 26 | SERVICES PLAN 1 OF 5 |
| 811060 | A | 21 OF 26 | SERVICES PLAN 2 OF 5 |
| 811061 | A | 22 OF 26 | SERVICES PLAN 3 OF 5 |
| 811062 | A | 23 OF 26 | SERVICES PLAN 4 OF 5 |
| 811063 | A | 24 OF 26 | SERVICES PLAN 5 OF 5 |
| 811064 | A | 25 OF 26 | MCO1 PAVEMENT CUT LINE 1 OF 2 |
| 811065 | A | 26 OF 26 | MCO2 PAVEMENT CUT LINE 2 OF 2 |

TOTAL NUMBER OF DRAWINGS = 26
10 Sheets of Annotated Cross Sections

SIGNATURE BLOCK

SCHEME SUBMITTED (External Consultants or Internal Business Unit):
This design meets the requirements of all relevant Australian Standards, Austroads Guidelines and Transport and Main Roads - Policies, References, Standards, Planning and Design Instructions, Guidelines and the requirements of the project brief/functional specifications.

SIGNED: Original Signed by J. Whiteside TITLE: PE (Civil)
Organisation: DATE: 08/03/2019

SCHEME SCOPE AND FINANCIAL APPROVAL: (Regional Director or Delegate):
I hereby certify that this scheme complies with the intent of the scope and financial limits of the relevant project on QTRIP and the scheme is approved for release in accordance with that program.

SIGNED: Original Signed by R. Hodgmen TITLE: District Director DATE: 08/03/2019

| REFERENCE POINTS | | | | | | | | |
|--------------------------|----------------------------|-----------|--------------|----------------------------|--------------------------|--------------------------|--------------|------------------------------------|
| Location | Roads Captain Cook Highway | Chainage | Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP | Through Chainage from Intersection |
| MCO1 (Against Gazetteal) | (Mossman - Cairns) | 0.0 - 400 | 20A/09 | 0.427 | 0.400 | 2.472 | 20A/08 | INT 20A/809: 55.723 - 56.123km |
| MCO2 | (Cairns - Mossman) | 0.0 - 450 | 20A/08 | 2.29 | 0.450 | 0.559 | 20A/09 | INT 20A/655: 18.626 - 19.08km |

| | | | | | |
|---|-------------------------|---------------|----------|------------|--|
| G | | | | | |
| F | | | | | |
| E | | | | | |
| D | | | | | |
| C | Amend Drawing Revisions | | | | |
| B | Amend Drawing Revisions | J. Whiteside | 03/06/19 | | |
| A | Issued For Construction | | | | |
| | Revisions/Descriptions | Certification | Date | Microfiled | |

| | | | | | | | | | | |
|--------------|----------------------------|---|--------------------------|--------------|-----------|---|---------------------------------|-----------|------|----------|
| Scales | | CAIRNS REGION | | | | POOLWOOD ROAD ROUNDABOUT | | | | |
| NOT TO SCALE | | CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | LOCALITY PLAN, DRAWING LIST AND SIGNATURE BLOCK | | | | |
| | | CTL CHGE MCO1 0.00-394.314, MCO2 00-450.085 | | | | | | | | |
| | | Reference Points | | | | ENGINEERING CERTIFICATION (RPEQ) | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP | Drawn | ENG. AREA | NAME | SIGNATURE | NO. | DATE |
| | | | | | G Pollard | CIVIL | Original signed by J. Whiteside | | 7746 | 08/03/19 |
| | | Refer Above | | | | | | | | |
| | | Through Chainage from Refer Above | | | | | | | | |

Queensland Government

Job No. 274/20A/559849
Contract No. CN-11204
Drawing No. 811040 C
Series Number 1 of 26
MRR_Detail (02/14)

Last Modified: Jul 29, 2019 - 4:59pm XREFS :-

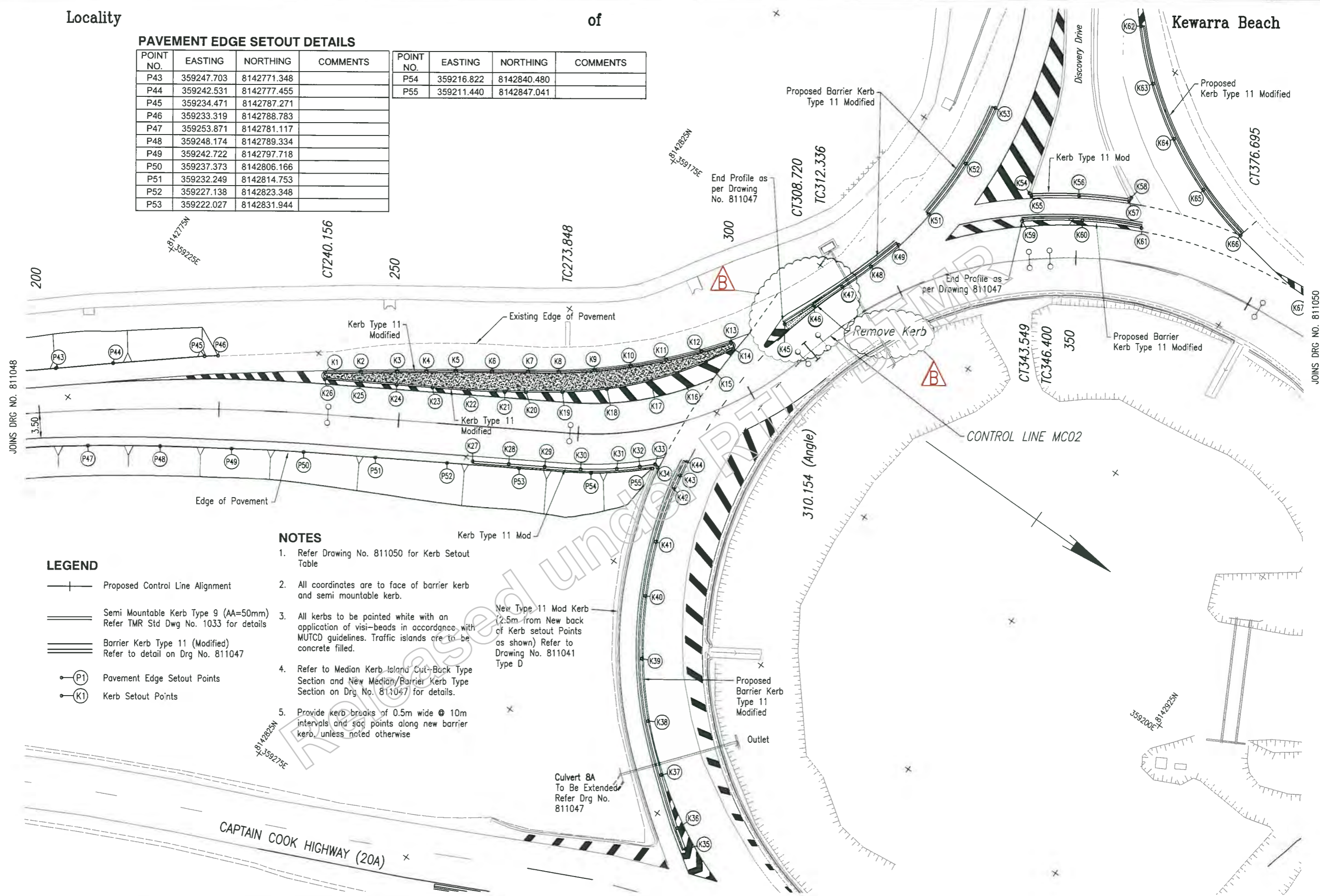
Locality

of

Kewarra Beach

PAVEMENT EDGE SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | COMMENTS | POINT NO. | EASTING | NORTHING | COMMENTS |
|-----------|------------|-------------|----------|-----------|------------|-------------|----------|
| P43 | 359247.703 | 8142771.348 | | P54 | 359216.822 | 8142840.480 | |
| P44 | 359242.531 | 8142777.455 | | P55 | 359211.440 | 8142847.041 | |
| P45 | 359234.471 | 8142787.271 | | | | | |
| P46 | 359233.319 | 8142788.783 | | | | | |
| P47 | 359253.871 | 8142781.117 | | | | | |
| P48 | 359248.174 | 8142789.334 | | | | | |
| P49 | 359242.722 | 8142797.718 | | | | | |
| P50 | 359237.373 | 8142806.166 | | | | | |
| P51 | 359232.249 | 8142814.753 | | | | | |
| P52 | 359227.138 | 8142823.348 | | | | | |
| P53 | 359222.027 | 8142831.944 | | | | | |



LEGEND

- Proposed Control Line Alignment
- Semi Mountable Kerb Type 9 (AA=50mm) Refer TMR Std Dwg No. 1033 for details
- Barrier Kerb Type 11 (Modified) Refer to detail on Drg No. 811047
- Pavement Edge Setout Points
- Kerb Setout Points

NOTES

1. Refer Drawing No. 811050 for Kerb Setout Table
2. All coordinates are to face of barrier kerb and semi mountable kerb.
3. All kerbs to be painted white with an application of visi-beads in accordance with MUTCD guidelines. Traffic islands are to be concrete filled.
4. Refer to Median Kerb-Island Cut-Back Type Section and New Median/Barrier Kerb Type Section on Drg No. 811047 for details.
5. Provide kerb breaks of 0.5m wide @ 10m intervals and sag points along new barrier kerb, unless noted otherwise

New Type 11 Mod Kerb (2.5m from New back of Kerb setout Points as shown) Refer to Drawing No. 811041 Type D

Culvert BA To Be Extended Refer Drg No. 811047

Last Modified: Jul 29, 2019 - 4:58pm XREFS: MCD1AA.dwg, Road_Edge.dwg, Survey.dwg, New_Survey.dwg

| Revisions/Descriptions | Certification | Date | Microfiled |
|---------------------------|---------------|--------|------------|
| A Issued For Construction | | 3/7/19 | |

| Associated Job Nos | Survey Data | Scales |
|--------------------|----------------------------|---|
| | Datum: GDA94 | 0 2 4 6 8 10m |
| Auxiliary Drg Nos | Horiz. Grid: MGA Zone55 | |
| | Height Origin: AHDD | |
| | Survey Books: MR101097-20A | Dimensions shown in metres except where shown otherwise |

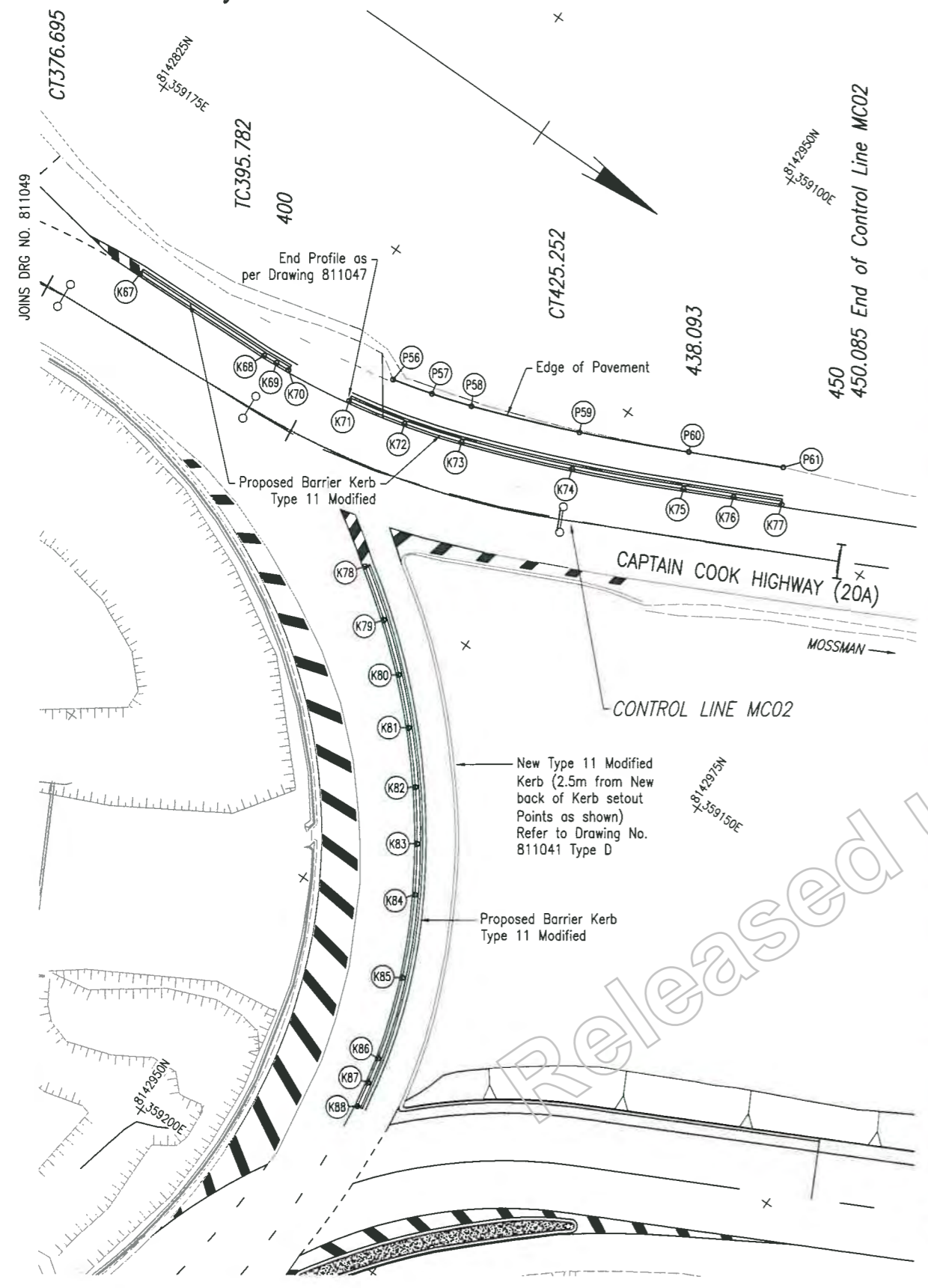
| CAIRNS REGION | | | | |
|--|----------------------------|--------------------------|--------------------------|--------------|
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MCO2 00-450.085 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |
| Through Chainage from Refer Drg No. 811040 For Details | | | | |

| POOLWOOD ROAD ROUNDABOUT PAVEMENT AND KERB SETOUT DETAILS SHEET 2 OF 5 | | | | |
|--|----------------------------------|--------------------------------|-----------|---------------|
| Drawn | ENGINEERING CERTIFICATION (RPEQ) | | | |
| N Buchanan | ENG. AREA | NAME | SIGNATURE | NO. DATE |
| Designed | CIVIL | Original signed by J Whiteside | | 7746 08/03/19 |
| G Pollard | | | | |

| | |
|---------------|------------------------------|
| | Queensland Government |
| Job No. | 274/20A/559849 |
| Contract No. | CN-11204 |
| Drawing No. | 811049 B |
| Series Number | 10 of 26 |
| | MRR Detail (02/14) |

11 Modified

Locality of Kewarra Beach



LEGEND

- Proposed Control Line Alignment
- Semi Mountable Kerb Type 9 (AA=50mm)
Refer TMR Std Drg No. 1033 for details
- Barrier Kerb Type 11 (Modified)
Refer to detail on Drg No. 811047
- Pavement Edge Setout Points
- Kerb Setout Points

NOTES

1. All coordinates are to face of barrier kerb and semi mountable kerb.
2. All kerbs to be painted white with an application of visi-beads in accordance with MUTCD guidelines. Traffic islands are to be concrete filled.
3. Refer to Median Kerb Island Cut-Back Type Section and New Median/Barrier Kerb Type Section on Drg No. 811047 for details.
4. Provide kerb breaks of 0.5m wide @ 10m intervals and sag points along new barrier kerb, unless noted otherwise

PAVEMENT EDGE SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | COMMENTS |
|-----------|------------|-------------|-------------------|
| P56 | 359134.500 | 8142931.348 | START R63.4 |
| P57 | 359133.579 | 8142934.884 | MID PT R63.4 |
| P58 | 359132.455 | 8142938.361 | CC R63.4 & R158.3 |
| P59 | 359128.883 | 8142947.502 | MID PT R158.3 |
| P60 | 359124.751 | 8142956.405 | END R158.3 |
| P61 | 359121.096 | 8142964.001 | |

KERB SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | COMMENTS | POINT NO. | EASTING | NORTHING | COMMENTS |
|-----------|------------|-------------|-------------------|-----------|------------|-------------|-------------------|
| K1 | 359226.612 | 8142802.262 | CC R0.3 & R804.6 | K46 | 359180.137 | 8142852.494 | MID PT R172.34 |
| K2 | 359223.667 | 8142806.303 | | K47 | 359175.675 | 8142854.197 | CC R60.6 & R98.4 |
| K3 | 359220.748 | 8142810.362 | | K48 | 359171.117 | 8142855.852 | MID PT R98.4 |
| K4 | 359218.384 | 8142813.688 | MID PT R804.6 | K49 | 359166.484 | 8142857.280 | END R98.4 |
| K5 | 359216.038 | 8142817.026 | | K51 | 359160.626 | 8142858.193 | START R58.5 |
| K6 | 359213.185 | 8142821.132 | | K52 | 359151.916 | 8142858.429 | MID PT R58.5 |
| K7 | 359210.358 | 8142825.256 | CC R804.6 & R81.2 | K53 | 359143.267 | 8142857.373 | END R58.5 |
| K8 | 359207.915 | 8142828.783 | | K54 | 359150.206 | 8142867.960 | START R0.3 |
| K9 | 359204.850 | 8142832.710 | | K55 | 359150.362 | 8142868.434 | CC R0.3 & R65.2 |
| K10 | 359201.542 | 8142836.449 | MID PT R81.2 | K56 | 359146.564 | 8142873.817 | MID PT R65.2 |
| K11 | 359197.991 | 8142839.997 | | K57 | 359143.149 | 8142879.916 | CC R65.2 & R0.3 |
| K12 | 359194.237 | 8142843.311 | | K58 | 359142.606 | 8142879.906 | END R0.3 |
| K13 | 359190.906 | 8142845.930 | CC R81.2 & R0.3 | K59 | 359153.941 | 8142869.406 | START R61.9 |
| K14 | 359191.431 | 8142846.777 | CC R0.3 & R50.7 | K60 | 359149.116 | 8142876.148 | MID PT R61.9 |
| K15 | 359195.139 | 8142844.704 | | K61 | 359145.235 | 8142883.474 | END R61.9 |
| K16 | 359198.653 | 8142842.332 | | K62 | 359122.421 | 8142867.450 | START R50.7 |
| K17 | 359201.669 | 8142839.926 | MID PT R50.7 | K63 | 359127.990 | 8142873.373 | |
| K18 | 359206.089 | 8142835.619 | | K64 | 359132.541 | 8142880.110 | MID PT R50.7 |
| K19 | 359209.953 | 8142830.807 | END R50.7 | K65 | 359135.957 | 8142887.488 | |
| K20 | 359212.874 | 8142826.678 | | K66 | 359138.151 | 8142895.316 | END R 50.7 |
| K21 | 359214.549 | 8142824.226 | | K67 | 359139.679 | 8142907.727 | |
| K22 | 359217.246 | 8142820.016 | | K68 | 359139.309 | 8142920.824 | START R66.6 |
| K23 | 359219.800 | 8142815.718 | | K69 | 359139.229 | 8142922.068 | MID PT R66.6 |
| K24 | 359222.354 | 8142811.420 | | K70 | 359139.125 | 8142923.311 | END R66.6 |
| K25 | 359224.905 | 8142807.119 | | K71 | 359138.307 | 8142929.236 | START R66.7 |
| K26 | 359213.857 | 8142802.814 | START R0.3 | K72 | 359137.139 | 8142934.405 | MID R66.7 |
| K27 | 359224.916 | 8142826.107 | | K73 | 359135.565 | 8142939.466 | CC R66.7 & R161.6 |
| K28 | 359222.360 | 8142830.404 | | K74 | 359131.918 | 8142948.798 | MID PT R161.6 |
| K29 | 359219.805 | 8142834.702 | | K75 | 359127.700 | 8142957.886 | END R161.6 |
| K30 | 359217.220 | 8142838.982 | | K76 | 359125.736 | 8142961.913 | |
| K31 | 359214.301 | 8142843.039 | | K77 | 359123.852 | 8142965.764 | |
| K32 | 359212.232 | 8142845.469 | | K78 | 359149.433 | 8142938.716 | START R64.7 |
| K33 | 359210.720 | 8142847.060 | START R0.3 | K79 | 359152.337 | 8142942.785 | |
| K34 | 359210.884 | 8142847.568 | END R0.3 | K80 | 359155.547 | 8142946.617 | |
| K35 | 359251.779 | 8142881.080 | | K81 | 359158.858 | 8142950.014 | MID PT R64.7 |
| K36 | 359250.039 | 8142878.493 | START R145.3 | K82 | 359162.805 | 8142953.481 | |
| K37 | 359245.337 | 8142872.438 | MID PT R145.3 | K83 | 359166.810 | 8142956.473 | |
| K38 | 359240.323 | 8142866.640 | CC R145.3 & R55.6 | K84 | 359170.594 | 8142958.888 | CC R64.7 & R51.6 |
| K39 | 359233.761 | 8142860.973 | MID PT R55.6 | K85 | 359177.223 | 8142962.203 | MID PT R51.6 |
| K40 | 359226.397 | 8142856.396 | CC R55.6 & R58 | K86 | 359184.260 | 8142964.534 | CC R51.6 & R63.4 |
| K41 | 359219.409 | 8142853.296 | MID PT R58 | K87 | 359186.506 | 8142965.014 | MID PT R63.4 |
| K42 | 359212.073 | 8142851.141 | CC R58 & R60.5 | K88 | 359188.768 | 8142965.413 | END R63.4 |
| K43 | 359210.005 | 8142850.753 | MID PT R60.5 | | | | |
| K44 | 359207.925 | 8142850.437 | END R60.5 | | | | |
| K45 | 359184.551 | 8142850.667 | START R172.34 | | | | |

Last Modified: Jul 29, 2019 - 4:32pm XREFS: MC01A.dwg, Road_Edges.dwg, Survey.dwg, New_Survey.dwg

| | | | | |
|------------------------|-------------------------|---------------|------|------------|
| G | | | | |
| F | | | | |
| E | | | | |
| D | | | | |
| C | | | | |
| B | Change In Kerbing | | | |
| A | Issued For Construction | | | |
| Revisions/Descriptions | | Certification | Date | Microfiled |

| | | |
|--------------------|------------------------|---|
| Associated Job Nos | Survey Data | Scales |
| | Datum GDA94 | 0 5 10 15 20m |
| Auxiliary Drg Nos | Horiz. Grid MGA Zone55 | |
| | Height Origin AHDD | |
| Survey Books | MR101097-20A | Dimensions shown in metres except where shown otherwise |

| | | | | |
|--|----------------------------|--------------------------|--------------------------|--------------|
| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MC02 00-450.085 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |
| Through Chainage from Refer Drg No. 811040 For Details | | | | |

| | | | |
|--|----------------------------------|--------------------------------|-----------|
| POOLWOOD ROAD ROUNDABOUT PAVEMENT AND KERB SETOUT DETAILS SHEET 3 OF 5 | | | |
| Drawn | ENGINEERING CERTIFICATION (RPEQ) | | |
| N Buchanan | ENG. AREA | NAME | SIGNATURE |
| Designed | CIVIL | Original signed by J Whiteside | |
| G Pollard | | | |
| | NO. | DATE | |
| | 7746 | 08/03/19 | |

| | |
|--------------------|----------------|
| | |
| Job No. | 274/20A/559849 |
| Contract No. | CN-11204 |
| Drawing No. | 811050 B |
| Series Number | 11 of 26 |
| MRR_Detail (02/14) | |

Locality

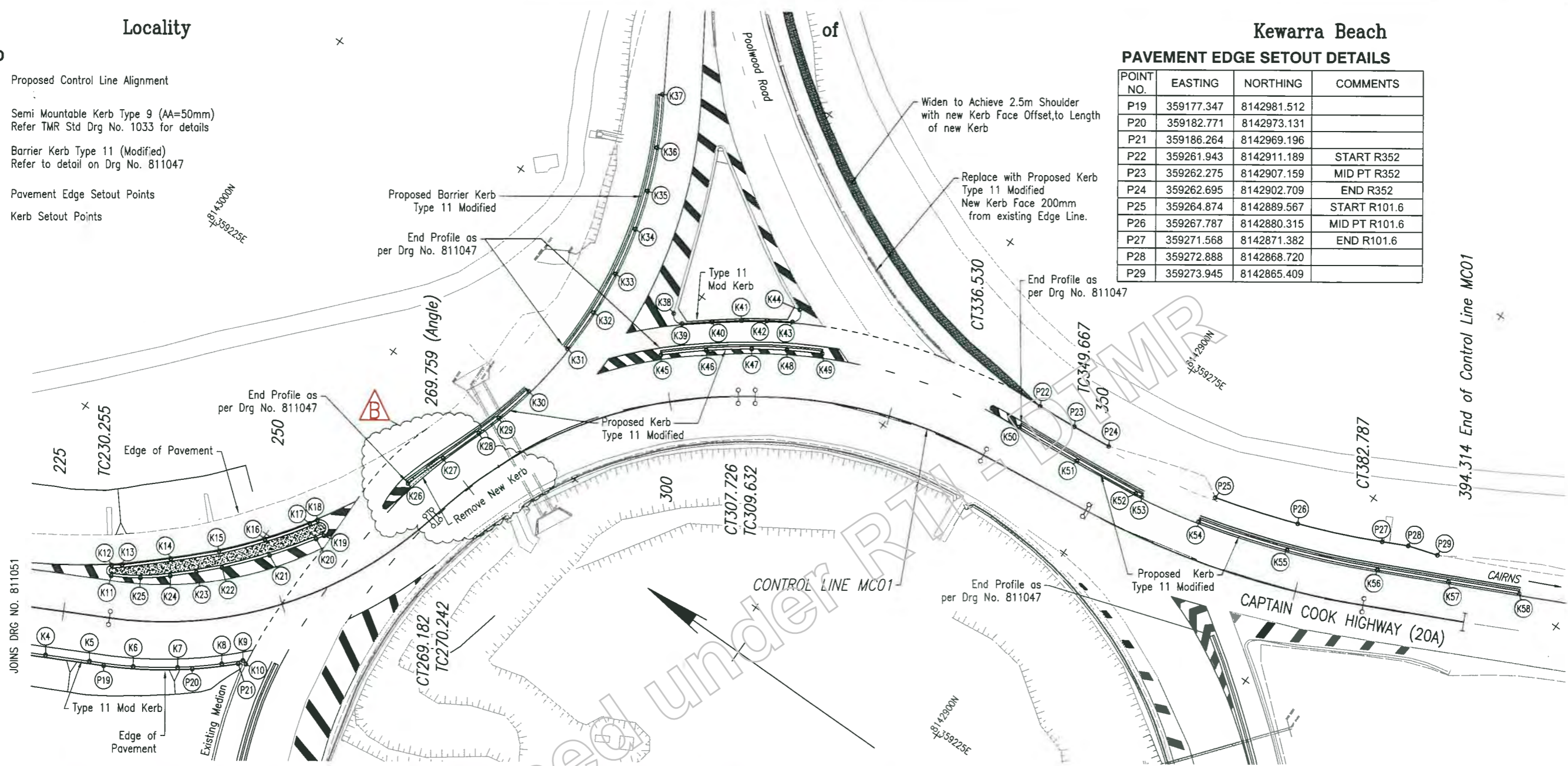
Kewarra Beach

LEGEND

- Proposed Control Line Alignment
- Semi Mountable Kerb Type 9 (AA=50mm)
Refer TMR Std Drg No. 1033 for details
- Barrier Kerb Type 11 (Modified)
Refer to detail on Drg No. 811047
- Pavement Edge Setout Points
- Kerb Setout Points

PAVEMENT EDGE SETOUT DETAILS

| POINT NO. | EASTING | NORTHING | COMMENTS |
|-----------|------------|-------------|---------------|
| P19 | 359177.347 | 8142981.512 | |
| P20 | 359182.771 | 8142973.131 | |
| P21 | 359186.264 | 8142969.196 | |
| P22 | 359261.943 | 8142911.189 | START R352 |
| P23 | 359262.275 | 8142907.159 | MID PT R352 |
| P24 | 359262.695 | 8142902.709 | END R352 |
| P25 | 359264.874 | 8142889.567 | START R101.6 |
| P26 | 359267.787 | 8142880.315 | MID PT R101.6 |
| P27 | 359271.568 | 8142871.382 | END R101.6 |
| P28 | 359272.888 | 8142868.720 | |
| P29 | 359273.945 | 8142865.409 | |



KERB SETOUT DETAILS

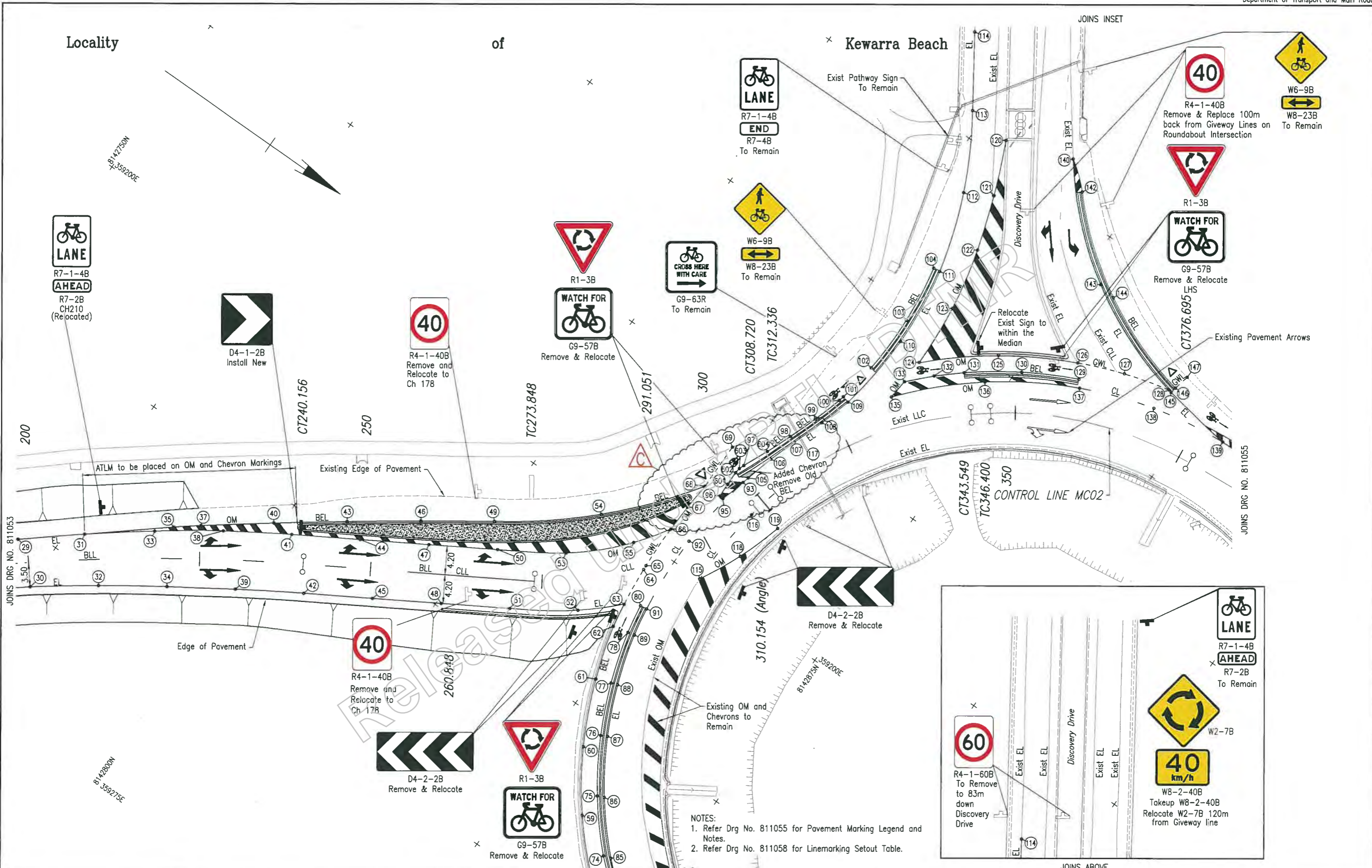
| POINT NO. | EASTING | NORTHING | COMMENTS | POINT NO. | EASTING | NORTHING | COMMENTS | POINT NO. | EASTING | NORTHING | COMMENTS | POINT NO. | EASTING | NORTHING | COMMENTS |
|-----------|------------|-------------|-------------------|-----------|------------|-------------|-------------------|-----------|------------|-------------|-----------------|-----------|------------|-------------|---------------|
| K1 | 359167.859 | 8143000.680 | | K18 | 359204.596 | 8142971.190 | CC R07.7 & R0.95 | K35 | 359256.217 | 8142961.903 | | K52 | 359260.075 | 8142897.205 | CC R355 & R65 |
| K2 | 359170.008 | 8142996.478 | | K19 | 359203.595 | 8142969.575 | CC R0.95 & R99.6 | K36 | 359260.829 | 8142963.827 | | K53 | 359260.186 | 8142896.416 | END R65 |
| K3 | 359172.285 | 8142992.026 | | K20 | 359202.781 | 8142970.084 | CC R99.6 & R65.4 | K37 | 359266.075 | 8142966.741 | END R49.2 | K54 | 359261.575 | 8142889.573 | START R104.8 |
| K4 | 359174.561 | 8142987.574 | | K21 | 359198.264 | 8142973.328 | MID PT R65.4 | K38 | 359246.695 | 8142951.542 | START R0.9 | K55 | 359264.646 | 8142879.617 | MID PT R104.8 |
| K5 | 359176.837 | 8142983.123 | | K22 | 359194.040 | 8142976.943 | CC R65.4 & R81.8 | K39 | 359246.298 | 8142950.110 | CC R0.9 & R178 | K56 | 359268.692 | 8142870.015 | END R104.8 |
| K6 | 359179.219 | 8142978.728 | | K23 | 359191.970 | 8142979.064 | MID PT R81.8 | K40 | 359248.388 | 8142947.486 | MID PT R178 | K57 | 359272.209 | 8142862.699 | |
| K7 | 359182.007 | 8142974.579 | | K24 | 359183.911 | 8142981.195 | CC R81.8 & R25.6 | K41 | 359250.429 | 8142944.822 | CC R178 & R62.4 | K58 | 359275.726 | 8142855.385 | |
| K8 | 359185.193 | 8142970.729 | | K25 | 359187.819 | 8142983.803 | MID R25.6 | K42 | 359252.071 | 8142942.462 | MID PT R62.4 | | | | |
| K9 | 359186.872 | 8142968.983 | START R0.3 | K26 | 359213.857 | 8142965.159 | START R844.4 | K43 | 359253.602 | 8142940.027 | CC R62.4 & R0.9 | | | | |
| K10 | 359186.704 | 8142968.473 | END R0.3 | K27 | 359218.450 | 8142963.536 | MID PT R844.4 | K44 | 359255.201 | 8142940.110 | END R0.9 | | | | |
| K11 | 359186.085 | 8142986.661 | START R0.6 | K28 | 359223.046 | 8142961.822 | CC R844.4 & R48.7 | K45 | 359242.050 | 8142950.066 | START R74 | | | | |
| K12 | 359187.094 | 8142987.302 | CC R0.6 & R77.3 | K29 | 359225.746 | 8142961.004 | MID PT R49.2 | K46 | 359245.396 | 8142946.178 | MID PT R74 | | | | |
| K13 | 359187.820 | 8142986.368 | CC R77.3 & R186.8 | K30 | 359230.139 | 8142959.931 | END R49.2 | K47 | 359248.467 | 8142942.066 | CC R74 & R59.2 | | | | |
| K14 | 359191.531 | 8142982.282 | MID PT R186.8 | K31 | 359236.552 | 8142959.107 | START R49.2 | K48 | 359250.657 | 8142938.716 | MID PT R59.2 | | | | |
| K15 | 359195.362 | 8142978.308 | CC R186.8 & R63.5 | K32 | 359241.549 | 8142959.051 | | K49 | 359252.615 | 8142935.226 | END R59.2 | | | | |
| K16 | 359199.445 | 8142974.816 | MID PT R63.5 | K33 | 359246.527 | 8142959.502 | | K50 | 359258.654 | 8142912.259 | START R355 | | | | |
| K17 | 359203.809 | 8142971.682 | CC R63.5 & R97.7 | K34 | 359251.919 | 8142960.579 | MID PT R49.2 | K51 | 359259.285 | 8142904.724 | MID PT R355 | | | | |

NOTES

1. All coordinates are to face of barrier kerb and semi mountable kerb.
2. All kerbs to be painted white with an application of visi-beads in accordance with MUTCD guidelines. Traffic islands are to be concrete filled.
3. Refer to Median Kerb Island Cut-Back Type Section and New Median/Barrier Kerb Type Section on Drg No. 811047 for details.
4. Provide kerb breaks of 0.5m wide @ 10m intervals and sag points along new barrier kerb, unless noted otherwise

Last Modified: Jul 29, 2019 4:51pm XREFS: MC01A.dwg; Road_Edges.dwg; Survey.dwg; New_Survey.dwg

| | | | | | | | | | | | | |
|---|--------------------|-------------------------|-------------------------|---|---|--|--|----------------------------------|---|--|--|---|
| G F E D C B Change In Kerbing A Issued For Construction | Associated Job Nos | Survey Data | Scales 0 2 4 6 8 10m | CAIRNS REGION | | | | POOLWOOD ROAD ROUNDABOUT | | | | Job No. 274/20A/559849 Contract No. CN-11204 Drawing No. 811052 B Series Number 13 of 26 MRR_Detail (02/14) |
| | Auxiliary Drg Nos | Datum: GDA94 | | CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | PAVEMENT AND KERB SETOUT DETAILS | | | | |
| | | Horiz. Grid: MGA Zone55 | | CTL CHGE MC01 0.00-394.314 | | | | SHEET 5 OF 5 | | | | |
| | | Height Origin: AHDD | | Reference Points | | | | ENGINEERING CERTIFICATION (RPEQ) | | | | |
| Revisions/Descriptions | Certification | Date | Microfiled | Survey Books: MR101097-20A | Dimensions shown in metres except where shown otherwise | | | | Preceding RP: [] Dist. to start of job (km): [] From start to end of job: [] From end to Following RP: [] Following RP: [] | Drawn: N Buchanan Designed: G Pollard | ENG. AREA: CIVIL NAME: Original signed J Whiteside SIGNATURE: [] NO.: 7746 DATE: 08/03/19 | |



NOTES:
 1. Refer Drg No. 811055 for Pavement Marking Legend and Notes.
 2. Refer Drg No. 811058 for Linemarking Setout Table.

Last Modified: Jul 29, 2019 4:50pm
 XREFS: MCD1A.dwg, Road_Edges.dwg, Survey.dwg, New_Survey.dwg
 G:\CAD\DESIGN\Projects\214\20A\559849_Roundabouts\Poolwood Rd\Autocad\811053-811055_Line Marking_MC02 Rev C.dwg

| | | | |
|------------------------|----------------------------------|--------------------|----------------------------|
| G | | Associated Job Nos | Survey Data |
| F | | | Datum: GDA94 |
| E | | | Horiz. Grid: MGA Zone55 |
| D | | Auxiliary Drg Nos | Height Origin: AHDD |
| C | Pavement Marking at Kerb Changes | | Survey Books: MR101097-20A |
| B | Amended Signage | J.W | 3/6/19 |
| A | Issued For Construction | | |
| Revisions/Descriptions | | Certification | Date |
| | | | Microfiled |

| | |
|---|--|
| Scales | |
| 0 2 4 6 8 10m | |
| Dimensions shown in metres except where shown otherwise | |

| | | | |
|--|----------------------------|--------------------------|--------------------------|
| CAIRNS REGION | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | |
| CTL CHGE | | MC02 00-450.085 | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP |
| | | | Following RP |
| Refer Drg No. 811040 For Details | | | |
| Through Chainage from Refer Drg No. 811040 For Details | | | |

| | | | |
|--|--------------------------------|-----------|---------------|
| POOLWOOD ROAD ROUNDABOUT PAVEMENT MARKING AND SIGNS SHEET 2 OF 6 | | | |
| ENGINEERING CERTIFICATION (RPEQ) | | | |
| ENG. AREA | NAME | SIGNATURE | NO. DATE |
| CIVIL | Original signed by J Whiteside | | 7746 08/03/19 |

| | |
|--------------------|----------------|
| | |
| Job No. | 274/20A/559849 |
| Contract No. | CN-11204 |
| Drawing No. | 811054 C |
| Series Number | 15 of 26 |
| MRR_Detail (02/14) | |

Locality x

Kewarra Beach



R4-1-60B
To Relocate 109m along
Trinity Beach Road from
existing position



R4-1-40B
Remove & Relocate 100m
back from Giveway Lines
on Roundabout Intersection.



R7-1-4B
END
R7-4B
To Remain



W2-7B
W8-2-40B
Takeup W8-2-40B
Relocate W2-7B 120m
from Giveway line



R2-3LB
To Remain



R1-3B
G9-57B
Remove & Relocate
LHS



R1-3B
G9-57B
To Remain



G9-63R
To Remain



R1-3B
G9-57B
Remove & Relocate



D4-1-2B
Install New



G9-63R
To Remain



R7-1-4B
END
R7-4B
To Remain



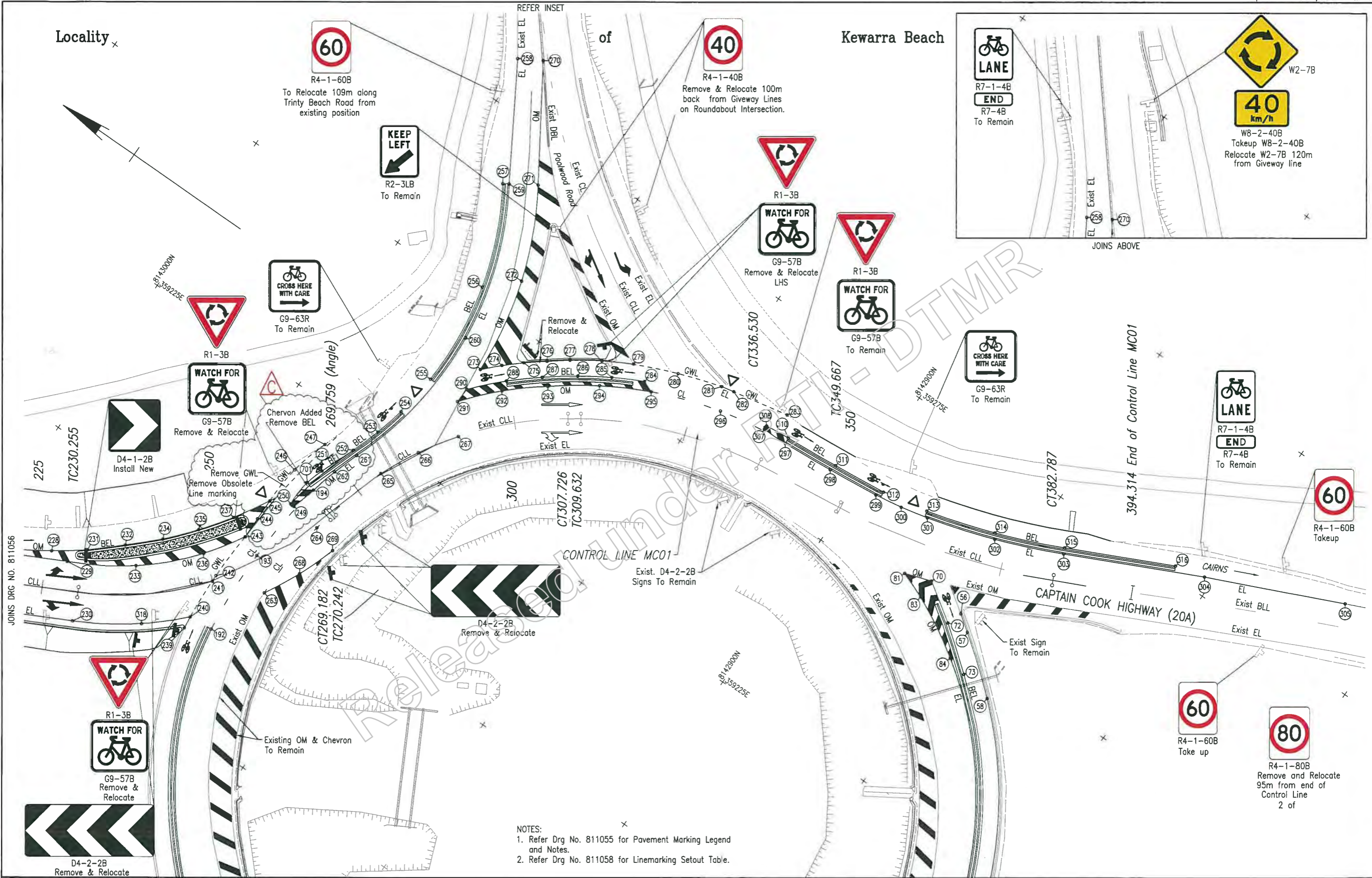
R4-1-60B
Takeup



R4-1-60B
Take up



R4-1-80B
Remove and Relocate
95m from end of
Control Line
2 of

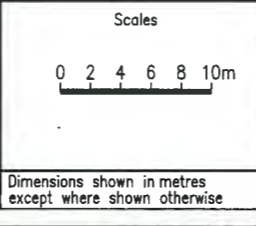


- NOTES:
1. Refer Drg No. 811055 for Pavement Marking Legend and Notes.
 2. Refer Drg No. 811058 for Linemarking Setout Table.

Last Modified: Jul 29, 2019 - 4:49pm XREFS: MCO1A.dwg; Road_Edge.dwg; Survey.dwg; New_Survey.dwg

| | | | |
|------------------------|----------------------------------|---------------|------------|
| G | | | |
| F | | | |
| E | | | |
| D | | | |
| C | Pavement Marking at Kerb Changes | | |
| B | Moved Signs | J.W | 03/06/19 |
| A | Issued For Construction | | |
| Revisions/Descriptions | | Certification | Date |
| | | | Microfiled |

| | |
|--------------------|-------------------------|
| Associated Job Nos | Survey Data |
| | Datum: GDA94 |
| Auxiliary Drg Nos | Horiz. Grid: MGA Zone55 |
| | Height Origin: AHDD |
| Survey Books | MR101097-20A |



| | | | | |
|--|----------------------------|--------------------------|--------------------------|--------------|
| CAIRNS REGION | | | | |
| CAPTAIN COOK HIGHWAY (CAIRNS - MOSSMAN) | | | | |
| CTL CHGE MC01 0.00-394.314 | | | | |
| Reference Points | | | | |
| Preceding RP | Dist. to start of job (km) | From start to end of job | From end to Following RP | Following RP |
| Refer Drg No. 811040 For Details | | | | |
| Through Chainage from Refer Drg No. 811040 For Details | | | | |

| | | | | |
|--|----------------------------------|--------------------------------|-----------|---------------|
| POOLWOOD ROAD ROUNDABOUT PAVEMENT MARKING AND SIGNS SHEET 5 OF 6 | | | | |
| Drawn | ENGINEERING CERTIFICATION (RPEQ) | | | |
| N Buchanan | ENG. AREA | NAME | SIGNATURE | DATE |
| Designed | CIVIL | Original Signed by J Whiteside | | 7746 08/03/19 |
| G Pollard | | | | |

| | |
|--------------------|----------------|
| | |
| Job No. | 274/20A/559849 |
| Contract No. | CN-11204 |
| Drawing No. | 811057 C |
| Series Number | 18 of 26 |
| MRR Detail (02/14) | |

| POINT NO | EASTING | NORTHING | COMMENTS | POINT NO | EASTING | NORTHING | COMMENTS | POINT NO | EASTING | NORTHING | COMMENTS | POINT NO | EASTING | NORTHING | COMMENTS | POINT NO | EASTING | NORTHING | COMMENTS |
|----------|------------|-------------|-------------------|----------|------------|-------------|---------------------|----------|------------|-------------|------------------------|----------|------------|-------------|-------------------------|----------|------------|-------------|-----------------------------|
| 1 | 359383.338 | 8142671.985 | | 63 | 359209.225 | 8142847.544 | START R89 | 130 | 359148.453 | 8142875.745 | MID PT R64.5 | 200 | 359096.764 | 8143108.364 | | 262 | 359217.586 | 8142963.560 | MID PT R57.4 |
| 2 | 359386.939 | 8142677.987 | | 64 | 359203.466 | 8142847.006 | | 131 | 359153.323 | 8142868.899 | CC R64.5 & R62.7 | 317 | 359096.332 | 8143101.903 | START R291 | 263 | 359197.496 | 8142961.898 | START R64.4 & R49 |
| 3 | 359373.921 | 8142677.526 | | 65 | 359202.801 | 8142846.968 | MID PT R89 | 132 | 359156.232 | 8142865.605 | MID PT R62.7 | 201 | 359102.572 | 8143100.225 | | 264 | 359209.570 | 8142961.027 | MID PT R64.4 |
| 4 | 359377.420 | 8142683.589 | | 66 | 359196.353 | 8142846.859 | CC R89 | 133 | 359159.365 | 8142862.523 | END R62.7/START R62.15 | 202 | 359108.742 | 8143092.357 | | 265 | 359221.268 | 8142957.913 | CC R64.4 & R49.9 |
| 5 | 359364.412 | 8142682.908 | END R646.5 | 67 | 359192.400 | 8142847.023 | MID PT R89 | 135 | 359162.279 | 8142862.232 | END R62.15/START R62.6 | 203 | 359109.116 | 8143083.022 | MID PT R291 | 266 | 359226.861 | 8142955.182 | MID PT R49.9 |
| 6 | 359367.808 | 8142689.029 | END R653.5 | 68 | 359188.459 | 8142847.362 | END R79.2 & R89 | 136 | 359152.672 | 8142872.191 | MID PT R62.6 | 204 | 359115.262 | 8143084.775 | | 267 | 359232.070 | 8142951.775 | END R49.9 |
| 7 | 359338.066 | 8142697.526 | START R293.5 | 69 | 359181.514 | 8142847.421 | | 137 | 359145.489 | 8142884.017 | CC R62.6 & R61.2 | 205 | 359122.054 | 8143077.436 | | 268 | 359202.704 | 8142959.267 | MID PT R49 |
| 8 | 359341.462 | 8142703.647 | START R286.5 | 70 | 359254.301 | 8142883.396 | | 138 | 359141.719 | 8142894.555 | MID PT R61.2 | 206 | 359128.754 | 8143070.242 | | 269 | 359208.148 | 8142957.281 | END R49 |
| 9 | 359329.406 | 8142702.526 | | 72 | 359250.694 | 8142878.033 | START R146 | 139 | 359139.932 | 8142905.602 | END R61.2 & R51.6 | 207 | 359123.339 | 8143065.199 | END R291 | 270 | 359283.610 | 8142972.714 | |
| 10 | 359332.804 | 8142708.650 | | 73 | 359245.942 | 8142871.914 | MID PT R146 | 140 | 359118.776 | 8142864.149 | START R51.23 & R20 | 208 | 359135.685 | 8143062.801 | | 271 | 359268.442 | 8142963.033 | START R53.3 |
| 11 | 359320.921 | 8142707.818 | | 74 | 359240.872 | 8142866.056 | CC R146 & R59.4 | 142 | 359121.958 | 8142867.961 | CC R20 & R50 | 209 | 359130.155 | 8143057.881 | | 272 | 359255.682 | 8142957.071 | MID PT R53.3 |
| 12 | 359324.326 | 8142713.953 | | 75 | 359234.243 | 8142860.335 | MID PT R59.4 | 143 | 359131.451 | 8142877.897 | MID PT R51.23 | 210 | 359142.433 | 8143055.422 | | 273 | 359241.806 | 8142954.663 | END R53.3/START R51.2 |
| 13 | 359312.622 | 8142713.395 | | 76 | 359226.773 | 8142855.689 | CC R59.4 & R58.9 | 144 | 359131.940 | 8142880.450 | MID PT R50 | 211 | 359136.904 | 8143050.503 | | 274 | 359244.086 | 8142952.423 | MID PT R51.2 |
| 14 | 359316.039 | 8142719.548 | | 77 | 359219.679 | 8142852.543 | MID PT R58.9 | 145 | 359138.348 | 8142895.278 | END R51.23 | 212 | 359148.854 | 8143047.756 | | 275 | 359246.222 | 8142950.045 | CC R51.2 & R177.9 |
| 15 | 359304.517 | 8142719.252 | | 78 | 359212.244 | 8142850.359 | CC R58.9 & R61.3 | 146 | 359137.474 | 8142895.449 | END R50 | 213 | 359143.316 | 8143042.831 | | 276 | 359248.309 | 8142947.424 | MID PT R177.9 |
| 16 | 359307.951 | 8142725.428 | | 80 | 359208.032 | 8142849.644 | END R61.3 | 147 | 359135.233 | 8142895.984 | | 214 | 359154.909 | 8143039.799 | | 277 | 359250.348 | 8142944.763 | CC R177.9 & R55 |
| 17 | 359296.617 | 8142725.382 | | 81 | 359252.963 | 8142887.244 | START R49.7 | 149 | 359139.474 | 8142902.098 | START R103.3 & R51.6 | 215 | 359149.349 | 8143034.857 | | 278 | 359252.941 | 8142940.920 | MID PT R55 |
| 18 | 359300.074 | 8142731.588 | | 83 | 359251.529 | 8142863.394 | CC R49.7 & R57.3 | 151 | 359138.879 | 8142907.704 | END R103.3 | 216 | 359160.643 | 8143031.606 | | 279 | 359255.201 | 8142936.872 | CC R55 & R79.5 |
| 19 | 359288.930 | 8142731.778 | | 84 | 359246.737 | 8142874.800 | MID PT R57.3 | 152 | 359139.692 | 8142914.815 | | 217 | 359154.910 | 8143026.549 | | 280 | 359257.818 | 8142930.774 | MID PT R79.5 |
| 20 | 359292.416 | 8142738.018 | | 85 | 359240.545 | 8142867.152 | CC R57.3 & R55.7 | 153 | 359138.510 | 8142920.790 | START R65.8 | 218 | 359166.093 | 8143023.224 | | 281 | 359259.910 | 8142924.498 | END R79.5 |
| 21 | 359281.466 | 8142738.431 | | 86 | 359233.851 | 8142861.289 | MID PT R55.7 | 155 | 359138.327 | 8142923.262 | END R65.8 | 219 | 359159.969 | 8143017.924 | | 282 | 359260.287 | 8142922.643 | |
| 22 | 359284.988 | 8142744.712 | | 87 | 359226.305 | 8142856.573 | CC R55.7 & R57.9 | 156 | 359139.506 | 8142920.938 | START R67 | 220 | 359171.146 | 8143014.595 | | 283 | 359261.966 | 8142914.386 | |
| 23 | 359274.232 | 8142745.335 | | 88 | 359219.341 | 8142853.484 | MID PT R57.9 | 157 | 359138.292 | 8142930.369 | MID PT R67 | 221 | 359164.603 | 8143009.064 | | 284 | 359254.057 | 8142934.129 | START R60 |
| 24 | 359277.798 | 8142751.661 | | 89 | 359212.031 | 8142851.336 | CC R57.9 & R60.3 | 158 | 359135.753 | 8142939.533 | CC R67 & R161.8 | 222 | 359175.751 | 8143005.719 | | 285 | 359251.807 | 8142938.348 | MID PT R60 |
| 25 | 359267.238 | 8142752.482 | | 91 | 359207.901 | 8142850.635 | CC R60.3 & R64 | 159 | 359132.102 | 8142948.877 | MID PT R161.8 | 223 | 359176.613 | 8143004.033 | | 286 | 359249.123 | 8142942.524 | CC R60 & R74.9 |
| 26 | 359270.854 | 8142758.857 | | 92 | 359196.318 | 8142850.071 | MID PT R64 | 160 | 359127.879 | 8142957.976 | END R161.8 | 224 | 359169.158 | 8143000.161 | | 287 | 359246.020 | 8142946.680 | MID PT R74.9 |
| 27 | 359258.533 | 8142762.102 | END R293.5 | 93 | 359184.823 | 8142851.607 | END R64 | 161 | 359121.458 | 8142970.990 | | 225 | 359180.303 | 8142996.816 | | 288 | 359242.636 | 8142950.611 | CC R74.9 & R43.3 |
| 28 | 359264.166 | 8142766.291 | | 95 | 359188.416 | 8142850.543 | CC R51.5 & R0.3 | 162 | 359137.520 | 8142929.090 | START R66 | 226 | 359173.711 | 8142991.258 | | 290 | 359238.343 | 8142954.640 | END R43.3/START R53.3 |
| 29 | 359252.130 | 8142769.760 | | 96 | 359188.334 | 8142849.960 | CC R0.3 & R63.9 | 163 | 359136.366 | 8142934.198 | MID PT R66 | 227 | 359182.013 | 8142995.015 | START R77.2 | 291 | 359236.135 | 8142954.742 | END R53.3/START R47.6 |
| 30 | 359256.776 | 8142775.154 | END R286.5 | 97 | 359182.748 | 8142850.283 | CC R3.5 & R97.58 | 164 | 359134.811 | 8142939.198 | CC R66 & R160.8 | 228 | 359184.810 | 8142990.625 | MID PT R77.2 | 292 | 359241.109 | 8142950.323 | MID PT R47.6 |
| 30 | 359256.779 | 8142775.150 | | 98 | 359175.408 | 8142853.443 | END R97.58 | 165 | 359131.182 | 8142948.484 | MID PT R160.8 | 229 | 359184.856 | 8142987.912 | | 293 | 359245.418 | 8142945.253 | CC R47.6 & R58.7 |
| 31 | 359245.959 | 8142777.291 | | 99 | 359171.257 | 8142854.960 | MID PT R97.6 | 166 | 359126.980 | 8142957.538 | END R160.8 | 230 | 359178.263 | 8142982.354 | | 294 | 359249.809 | 8142939.138 | MID PT R58.7 |
| 32 | 359250.892 | 8142783.239 | | 100 | 359167.042 | 8142856.289 | END R97.6 | 167 | 359123.133 | 8142965.413 | | 318 | 359183.652 | 8142973.951 | | 295 | 359253.383 | 8142932.512 | CC R58.7 & R54.6 |
| 33 | 359239.686 | 8142785.434 | | 101 | 359166.285 | 8142856.467 | END R56 | 168 | 359144.436 | 8142941.436 | | 231 | 359187.897 | 8142986.432 | CC R77.2 & R186.7 | 296 | 359256.898 | 8142922.621 | MID PT R54.6 |
| 34 | 359245.294 | 8142791.525 | | 102 | 359160.496 | 8142857.402 | START R57.15 | 169 | 359145.386 | 8142938.540 | | 232 | 359191.605 | 8142982.350 | MID PT R186.7 | 297 | 359258.455 | 8142912.239 | END R54.6/CC R48.8 & R346.5 |
| 35 | 359237.654 | 8142787.343 | START R100 | 103 | 359151.929 | 8142857.637 | MID PT R57.15 | 170 | 359147.380 | 8142941.225 | | 233 | 359190.457 | 8142979.394 | | 298 | 359259.086 | 8142904.702 | MID PT R346.5 |
| 37 | 359235.189 | 8142790.451 | CC R100 & R808.3 | 104 | 359143.424 | 8142856.589 | END R57.15 | 171 | 359146.207 | 8142935.383 | START R51 | 234 | 359195.032 | 8142978.380 | CC R186.7 & R63.4 | 299 | 359259.882 | 8142897.181 | CC R346.5 & R64.8 |
| 38 | 359233.936 | 8142793.613 | | 105 | 359183.846 | 8142851.848 | CC R51.6 & R60.9 | 173 | 359148.768 | 8142939.161 | CC R51 & R65.5 | 235 | 359199.507 | 8142974.894 | MID PT R63.4 | 300 | 359260.554 | 8142893.131 | MIDPT R64.8 |
| 39 | 359239.861 | 8142799.920 | | 106 | 359179.752 | 8142852.974 | MID PT R60.9 | 174 | 359153.212 | 8142945.150 | | 236 | 359197.126 | 8142972.357 | | 301 | 359261.482 | 8142889.131 | CC R64.8 & R105 |
| 40 | 359228.768 | 8142799.000 | | 107 | 359175.747 | 8142854.383 | CC R60.9 & R98.7 | 175 | 359155.309 | 8142950.595 | MID PT R65.5 | 237 | 359203.863 | 8142971.766 | START R97.6 | 302 | 359264.528 | 8142879.357 | MID PT R105 |
| 41 | 359228.622 | 8142802.084 | | 108 | 359171.174 | 8142856.043 | MID PT R98.7 | 176 | 359163.992 | 8142955.425 | | 239 | 359186.704 | 8142968.473 | START R31 | 303 | 359268.512 | 8142869.927 | END R105 |
| 42 | 359234.612 | 8142808.431 | | 109 | 359166.524 | 8142857.477 | CC R98.7 & R58.15 | 177 | 359170.188 | 8142959.577 | CC R65.5 & R52.7 | 240 | 359188.482 | 8142968.707 | CC R31 & R81.3 | 304 | 359277.460 | 8142851.318 | |
| 43 | 359222.461 | 8142807.633 | MID PT R808.3 | 110 | 359154.926 | 8142858.702 | MID PT R58.15 | 178 | 359176.771 | 8142962.881 | MID PT R52.7 | 241 | 359194.545 | 8142969.403 | | 305 | 359285.886 | 8142832.466 | |
| 44 | 359223.505 | 8142810.675 | | 111 | 359143.317 | 8142857.587 | CC R58.15 & R63.8 | 179 | 359183.750 | 8142965.235 | CC R52.7 & R64.2 | 242 | 359195.493 | 8142969.066 | MID PT R81.3 | 307 | 359258.373 | 8142915.901 | CC R48.8 & R0.3 |
| 45 | 359229.501 | 8142817.026 | | 112 | 359131.918 | 8142853.885 | MID PT R63.8 | 181 | 359188.643 | 8142966.203 | END R64.2 | 243 | 359202.509 | 8142968.818 | CC R81.3 & R67.1 | 308 | 359258.970 | 8142915.936 | CC R0.3 & R59 |
| 46 | 359216.268 | 8142816.348 | | 113 | 359121.414 | 8142848.114 | END R63.8 | 182 | 359146.562 | 8142934.032 | START R50.5 | 244 | 359205.675 | 8142968.827 | MID PT R767.1 | 310 | 359259.352 | 8142912.310 | CC R59 & R354.4 |
| 47 | 359218.394 | 8142819.270 | | 114 | 359111.882 | 8142841.810 | | 184 | 359149.600 | 8142938.607 | CC R50.5 & R64.5 | 245 | 359208.828 | 8142968.819 | END R767.1/START R28.29 | 311 | 359260.018 | 8142904.404 | MID PT R354.4 |
| 48 | 359224.371 | 8142825.653 | | 115 | 359199.904 | 8142854.469 | START R56.2 & R50.7 | 185 | 359153.980 | 8142944.510 | | 246 | 359214.555 | 8142968.455 | MID PT R28.29 | 312 | 359260.861 | 8142896.515 | END R354.4 |
| 49 | 359210.192 | 8142825.145 | CC R808.3 & R79.2 | 116 | 359187.955 | 8142855.322 | MID PT R56.2 | 186 | 359158.996 | 8142949.869 | MID PT R64.5 | | | | | | | | |

Memorandum

Our ref
Your ref
Date 21 January 2019

To [redacted] N/R High Risk Roads (HRR) Project
Team

Subject Meeting 2:00pm 21 January 2019 CCH HRR approach to Poolwood Road roundabout upgrade

Present: [redacted] N/R Principal Engineer (DGH)
[redacted] N/R Communications Support Officer (JW)
[redacted] N/R Senior Communications Officer (EN)
[redacted] N/R Project Manager (KB)
[redacted] N/R Project Manager (CW)
[redacted] N/R Cairns Bicycle User Group (CBUG) (BM)
[redacted] N/R Cairns Bicycle User Group (CBUG) (ST)

Summary- CBUG are happy with the overall design, with some minor suggestions. The group support separation of traffic to cyclists and agree these works should go ahead.

DGH, JW, KB, EN and CW met BM and ST at the TMR office, 15 Lake Street, Cairns.

JW- opened the meeting and explained that TMR was planning for safety upgrades at Poolwood Road roundabouts along the Captain Cook Highway as part of the High-Risk Roads (HRR) program. The purpose of the meeting was for feedback to be provided on our draft plan, so we can take these into consideration for our final plan.

EN- Shared what TMR has planned for significant projects within Cairns for cyclists.

DGH- The HRR program is a staged approach, along the Captain Cook Highway, needed because of safety concerns. We will look to apply the same philosophy of Poolwood roundabout at other roundabouts on CCH to increase safety for cyclists and motorists.

ST- We are appreciative of the request to come in. It is good TMR have consulted with CRC.

BM- The concrete needs to be thicker. Where the lane goes from two to one is the worst spot for cyclists. Is there the possibility for grade separation?

DGH- We may look in future, but this option can be cost prohibitive. Grade separation is always our preferred option.

KB- Explained how concrete will be placed and current issues that are experienced by cyclists-which TMR is aware of and will be fixing under this project.

BM- Machans is an example of where it is working right. Could you tidy up and bring back where concrete is currently placed. I believe surface treatments are the way to go. Each leg should have the option to go off the side if not confident. Green paint on road would be good.

BM- There is an issue with northbound and attempting to turn into Kewarra Beach. We like the keep right signage that is in place on roundabouts.

CW- The off-road will be extended to 2.5 metres, which will provide more space for manoeuvres and bike usage.

DGH we will come back to you with a concept drawing that you can release to your members for feedback.

JW- How would you like to be kept informed during this process?

BM- Happy to be contacted at any time.

N/R

Communications Support Officer

Released under RTI-DPMR

Memorandum

Our ref
Your ref
Date 21 January 2019

To [Redacted] N/R High Risk Roads (HRR) Project
Team

Subject Meeting 10:00am 22 January 2019 CCH HRR approach to Poolwood
Road roundabout upgrade

Present: [Redacted] N/R Communications Support Officer (JW)
[Redacted] N/R Senior Communications Officer (EN)
[Redacted] N/R Project Manager (KB)
[Redacted] N/R Project Manager (CW)
[Redacted] N/R Cairns Cycling Club (CCC) (MP)
[Redacted] N/R Cairns Cycling Club (CCC) (TK)

Summary- CCC are happy with the overall design, with some minor suggestions. The group believe this is a positive move forward and will be welcomed by bicycle users.

JW, KB, EN and CW met MP and TK at the TMR office, 15 Lake Street, Cairns.

JW- opened the meeting and explained that TMR was planning for safety upgrades at Poolwood Road roundabouts along the Captain Cook Highway as part of the High-Risk Roads (HRR) program. The purpose of the meeting is for feedback to be provided on our draft plan, so we can take these into consideration for our final plan.

EN- Shared what TMR has planned for significant projects within Cairns for cyclists.

CW- The HRR program is a staged approach, along the Captain Cook Highway (CCH). This is needed because of safety concerns. We will look to apply the replicate Poolwood with other roundabouts on CCH. How does your cycling group tend to ride?

TK- Racing group, however we have some commuters within our group

MP- Some of the existing treatments are problematic. Concrete barriers are potentially dangerous for vehicles. I like the idea of separated traffic from cyclists. I do believe the concrete is not aligned and not in the right location.

MP- If I was slower I would like concrete. If you are going 30kms an hour or faster, you need more skill. It is hard to give way whilst looking for traffic and navigating.

TK- On the weekends we meet at Villa Romana and use both the lane and the bike lane. We average 40-60 riders on these rides. The current concrete alignment doesn't give flow when riding.

Agree that the speed sign should move back and the proposed gives more of a flow. This looks good.

KB- We are looking to change driver behaviours and slow down cars when approaching the roundabout. We are planning semi mountable kerbs on cyclist's side and a 2.5 metre shoulder.

MP- I don't think rails are necessary on the side. The road would need a little widening to keep cyclists away from kerb as you turn. The side isn't mirrored, so would need more shoulder to look safely. Use barriers to encourage people to look without creating a crash hazard.

MP- It is good to know the other roundabouts will be looked at, as there are the same issues at the others. We see this all as a positive. Some cyclists are scared to use roundabout so having a safer option to take would be good. We support a slight deviation of bike path to get off road. Is there the option to use the culvert?

TK- This is a positive move and will be welcomed.

CW- Once we have incorporated your feedback will come back to you with a concept drawing that you can release to your members for feedback.

JW- How would you like to be kept informed during this process?

MP- Happy to be contacted by email.

N/R

Communications Support Officer

Memorandum

Our ref
Your ref
Date 21 January 2019

To [redacted] N/R High Risk Roads (HRR) Project
Team

Subject Meeting 9.30am 18 January 2010 CCH HRR Endeavour Road
intersection upgrade

Present: [redacted] N/R Principal Engineer (DGH)
[redacted] N/R JW Senior Communications Officer (JW)
[redacted] N/R KB Project Manager (KB)
[redacted] N/R CBRE, Manager of Clifton Village Shopping Centre on
behalf of Indigenous Business Australia. (KP)

DGH, JW and KB met KP at the CBRE offices, 15 Lake Street, Cairns.

Summary: The property manager understands the need to close the entry point into the service station off the Captain Cook Highway but is seeking an upgrade to the Elford Street intersection to compensate. She has money to contribute to the upgrade if it can be done. She wants any works to be done in tandem so as not to adversely affect customers and wants to work with TMR for the best outcome.

DGH opened the meeting and explained that TMR was planning for safety upgrades at key intersections along the Captain Cook Highway as part of the High-Risk Roads (HRR) program.

KP I can see why you want to get rid of it (entry from CCH into service station directly after lights) but the Elford St intersection isn't coping with the load already there. It's the only access road into the shopping centre.

DGH It's (HRR program) a staged approach, along the Captain Cook Highway, needed because of safety concerns.

KP I've had Bransfords on the phone. They are not happy. They would lose business. We will fight this unless we can get an upgrade to Elford Street intersection. If we can create something there that creates easy flow there, then I will support it (the entry closure) but the tenant will fight it.

DGH We need to look at parking configurations.

KP Traffic count is quite high actually. This is one of the best (highest turnover) Coles in Cairns. I feel like I can sell this if we can upgrade the intersection.

DGH Anything we do at Elford Street will need to be in tandem with Cairns Regional Council (CRC).

KP We manage the whole area for IBA. I've got a little bit of money to improve the entrance. We could widen it. The tree is an issue (A large melaleuca (paper bark) growing on the corner of the parking area near Elford Street). It needs removing. We have commenced actions for removing the tree.

DGH: We are talking with CRC about pedestrian access and so on in this area. The network had grown up. We have legacy issues with development that used be suitable, but populations and volumes have grown.

KP Requested a diagram or concept map to be able to send owner.

DGH and KB: We will check to see if we can release it and get back to you.

KP Will you be upgrading the bike path (Poolwood to Endeavour)? Then we will upgrade our cycle facilities as well.

DGH We will be upgrading the bike paths within the next two to two and a half years.

KP If it (Elford Street intersection) goes ahead, can it be done before the other entrance is cut out. We need to maintain good sales for everyone and not put off our shoppers and customers and thus maintain good shopping habits.

KP Once we get the final plan of what's happening, we can sit down together with Bransfords and talk through this. I will support you. There's also some opportunities for IBA to create boat parking for Bransfords customers to access.

DGH we will come back to you with a concept drawing then an outline of timelines and when upgrade talks will begin with CRC.

N/R

Senior Communications Officer