Route Access Condition Notice

15-00015

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Requested By: Mark Reeder
Subject: I2 Benalla to Oaklands Revisions
Effective Period: 04-05-15 – Until Published
Amendment Type: Permanent (to be added to RAS)

Note: Permanent Route Access Condition Notices (RACN) are periodically updated in the ARTC Route Access Standard (RAS), at which time the relevant RACN is withdrawn.

RAS Reference:
Section: I2 & General Information 2.11 Safeworking Systems
Version No.: 1.3
Page/s: All

ARTC Network Location:
Line Section: Benalla to Oaklands
Kms: km - km

Details of RACN: This RACN details an independent review of Benalla to Oakland’s please see below:
AR TC Safeworking Systems

The Network Controller is in charge of day-to-day operational control of safeworking systems. Network Controllers operate from Network Control Centres located at Mile End, Broadmeadow and Junee.

Figure 2.11.1 – AR TC Safeworking Systems
Broadmeadow Network Control Centre

Table 2.11.1.1 Safeworking Systems Operated from Broadmeadow Network Control Centre

<table>
<thead>
<tr>
<th>AREA OF CONTROL</th>
<th>SAFEWORKING SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISLINGTON (INCLUSIVE) – THORNTON (INCLUSIVE)</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
</tr>
<tr>
<td>BLOOMFIELD BRANCH LINE</td>
<td>STAFF AND TICKET (S+T)</td>
</tr>
<tr>
<td>THORNTON (EXCLUSIVE) – SINGLETON (INCLUSIVE) AND TELARAH</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
</tr>
<tr>
<td>MT THORLEY – BULGA – WAMBO BRANCH LINES</td>
<td></td>
</tr>
<tr>
<td>SINGLETON (EXCLUSIVE) – MANGOOLA (EXCLUSIVE) AND ABERDEEN (EXCLUSIVE)</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
</tr>
<tr>
<td>ABERDEEN (INCLUSIVE) – WERRIS CREEK (INCLUSIVE) AND BREEZA (EXCLUSIVE)</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
</tr>
<tr>
<td>MANGOOLA (INCLUSIVE) – GULGONG (EXCLUSIVE) (INCLUDING BALLOON LOOPS)</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
</tr>
<tr>
<td>WERRIS CREEK (GAP) (INCLUSIVE) – TURRAWAN (INCLUSIVE)</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
</tr>
<tr>
<td>TELARAH (EXCLUSIVE) – KEMPSEY (EXCLUSIVE)</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
</tr>
<tr>
<td>KEMPSEY (INCLUSIVE) – ACACIA RIDGE (EXCLUSIVE)</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
</tr>
<tr>
<td>DUBBO / TROY JUNCTION (EXCLUSIVE) – MERRYGOEN (INCLUSIVE)</td>
<td>PHOENIX TRAIN ORDER SYSTEM (PTOS)</td>
</tr>
<tr>
<td>DUBBO / TROY JUNCTION</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
</tr>
<tr>
<td>MERRYGOEN (INCLUSIVE) – GULGONG (EXCLUSIVE)</td>
<td>PHOENIX TRAIN ORDER SYSTEM (PTOS)</td>
</tr>
<tr>
<td>PORT WARATAH AND KOORAGANG TERMINAL AREAS</td>
<td>RAIL VEHICLE DETECTION, YARD WORKING (RVD)</td>
</tr>
<tr>
<td>KOORAGANG TERMINAL AREA</td>
<td>RAIL VEHICLE DETECTION, YARD WORKING (RVD)</td>
</tr>
<tr>
<td>TURRAWAN (EXCLUSIVE) – MOREE</td>
<td>PHOENIX TRAIN ORDER SYSTEM (PTOS)</td>
</tr>
<tr>
<td>GOOBANG JUNCTION (PARKES) (EXCLUSIVE) – NARROMINE (EXCLUSIVE) – DUBBO (EXCLUSIVE)</td>
<td>PHOENIX TRAIN ORDER SYSTEM (PTOS)</td>
</tr>
<tr>
<td>MERRYGOEN (INCLUSIVE) – WERRIS CREEK (GAP) (EXCLUSIVE)</td>
<td>PHOENIX TRAIN ORDER SYSTEM (PTOS)</td>
</tr>
<tr>
<td>MOREE – NORTH STAR</td>
<td>PHOENIX TRAIN ORDER SYSTEM (PTOS)</td>
</tr>
<tr>
<td>CAMURRA – CAMURRA WEST</td>
<td>PHOENIX TRAIN ORDER SYSTEM (PTOS)</td>
</tr>
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</table>

Junee Network Control Centre

Table 2.11.2.1 – Safeworking Systems Operated from Junee Network Control Centre
<table>
<thead>
<tr>
<th>AREA OF CONTROL</th>
<th>SAFEWORKING SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACARTHUR (EXCLUSIVE) – GOULBURN/ JOPPA JUNCTION (EXCLUSIVE)</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
</tr>
<tr>
<td>MOSS VALE (INCLUSIVE) – UNANDERRA (EXCLUSIVE)</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
</tr>
<tr>
<td>COOTAMUNDRA (EXCLUSIVE) – ALBURY (INCLUSIVE)</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
</tr>
<tr>
<td>COOTAMUNDRA (INCLUSIVE) – STOCKINBINGAL (INCLUSIVE)</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
</tr>
<tr>
<td>MACARTHUR - SEFTON JUNCTION - PORT BOTANY</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
</tr>
<tr>
<td>ALBURY (INCLUSIVE) – SOMERTON (EXCLUSIVE)</td>
<td>CENTRALISED TRAFFIC CONTROL (CTC)</td>
</tr>
<tr>
<td>JOPPA JUNCTION (EXCLUSIVE) – JUNEE (EXCLUSIVE)</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
</tr>
<tr>
<td>JUNEE (INCLUSIVE) – ALBURY (EXCLUSIVE)</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
</tr>
<tr>
<td>BENALLA (INCLUSIVE) – OAKLANDS (INCLUSIVE)</td>
<td>PHOENIX TRAIN ORDER SYSTEM (PTOS)(TA20 RULE BOOK VIC)</td>
</tr>
</tbody>
</table>

### Mile End Network Control Centre

Table 2.11.3.1 Safe Working Systems Operated from Mile End Network Control Centre

<table>
<thead>
<tr>
<th>AREA OF CONTROL</th>
<th>SAFEWORKING SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTTENHAM (EXCLUSIVE) – NEWPORT (DUAL GAUGE)</td>
<td>AUTOMATIC BLOCK SIGNALLING (ABS)</td>
</tr>
<tr>
<td>(BROOKLYN – NEWPORT, BROAD GAUGE, CONTROLLED BY V-LINE)</td>
<td></td>
</tr>
<tr>
<td>NEWPORT (STANDARD GAUGE) – LAVERTON LOOP (INCLUSIVE)</td>
<td>AUTOMATIC BLOCK SIGNALLING (ABS)</td>
</tr>
<tr>
<td>GHERINGHAP (EXCLUSIVE) – MAROONA (EXCLUSIVE)</td>
<td>CENTRALISED TRAFFIC CONTROL (CTC)</td>
</tr>
<tr>
<td>MAROONA – PYRENEES (INCLUSIVE)</td>
<td>CENTRALISED TRAFFIC CONTROL (CTC)</td>
</tr>
<tr>
<td>MOONEE PONDS (ARTC INTERFACE) &amp; APPLETON / SWANSTON DOCKS - SIMS ST JUNCTION - WEST FOOTSCRAY JUNCTION – TOTTENHAM</td>
<td>AUTOMATIC BLOCK SIGNALLING (ABS)</td>
</tr>
<tr>
<td>TOTTENHAM – SOMERTON (EXCLUSIVE)</td>
<td>CENTRALISED TRAFFIC CONTROL (CTC)</td>
</tr>
<tr>
<td>TARCOOLA (EXCLUSIVE) – COOK – WEST KALGOORLIE (EXCLUSIVE)</td>
<td>TRAIN ORDER WORKING (TOW MANUAL SA)(ARTC CODE OF PRACTISE)</td>
</tr>
<tr>
<td>SPENCER JUNCTION (EXCLUSIVE) – TARCOOLA</td>
<td>CENTRALISED TRAFFIC CONTROL (CTC)</td>
</tr>
<tr>
<td>TARCOOLA - NORTHGATE</td>
<td>TRAIN ORDER WORKING (TOW MANUAL SA)(ARTC CODE OF PRACTISE)</td>
</tr>
<tr>
<td>DRY CREEK NORTH JUNCTION – CRYSTAL BROOK</td>
<td>CENTRALISED TRAFFIC CONTROL (CTC)</td>
</tr>
<tr>
<td>Route Description</td>
<td>Traffic Control (CTC)</td>
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<tr>
<td>-------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>CRYSTAL BROOK (EXCLUSIVE) – COONAMIA</td>
<td>CENTRALISED TRAFFIC CONTROL (CTC)</td>
</tr>
<tr>
<td>COONAMIA – STIRLING NORTH (EXCLUSIVE)</td>
<td>CENTRALISED TRAFFIC CONTROL (CTC)</td>
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<tr>
<td>STIRLING NORTH – SPENCER JUNCTION</td>
<td>CENTRALISED TRAFFIC CONTROL (CTC)</td>
</tr>
<tr>
<td>PORT AUGUSTA - WHYALLA</td>
<td>TRAIN ORDER WORKING SA (TOW MANUAL SA)(ARTC CODE OF PRACTISE)</td>
</tr>
<tr>
<td>CRYSTAL BROOK – BROKEN HILL (EXCLUSIVE)</td>
<td>AUTOMATIC BLOCK SIGNALLING (ABS)</td>
</tr>
<tr>
<td>MILE END – DRY CREEK NORTH</td>
<td>CENTRALISED TRAFFIC CONTROL (CTC)</td>
</tr>
<tr>
<td>DRY CREEK JUNCTION – PELICAN POINT</td>
<td>CENTRALISED TRAFFIC CONTROL (CTC)</td>
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<tr>
<td>WOLSELEY – MILE END (EXCLUSIVE)</td>
<td>CENTRALISED TRAFFIC CONTROL (CTC)</td>
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<tr>
<td>MAROONA – PYRENEES LOOP (EXCLUSIVE)</td>
<td>CENTRALISED TRAFFIC CONTROL (CTC)</td>
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<tr>
<td>PYRENEES LOOP – DIMBOOLA LOOP (INCLUSIVE)</td>
<td>CENTRALISED TRAFFIC CONTROL (CTC)</td>
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<tr>
<td>DIMBOOLA LOOP (EXCLUSIVE) - WOLSELEY</td>
<td>CENTRALISED TRAFFIC CONTROL (CTC)</td>
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<tr>
<td>BROKEN HILL YARD</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
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<tr>
<td>BROKEN HILL (EXCLUSIVE) – GOOBANG JUNCTION (EXCLUSIVE)</td>
<td>TRAIN MANAGEMENT AND CONTROL SYSTEM (TMACS)</td>
</tr>
<tr>
<td>GOOBANG JUNCTION YARD</td>
<td>RAIL VEHICLE DETECTION (RVD)</td>
</tr>
<tr>
<td>GOOBANG JUNCTION (EXCLUSIVE) – STOCKINIBINGAL (EXCLUSIVE)</td>
<td>TRAIN MANAGEMENT AND CONTROL SYSTEM (TMACS)</td>
</tr>
<tr>
<td>ALBION (INCLUSIVE) – TULLAMARINE (DUAL GAUGE) - JACANA (INCLUSIVE) (BROAD GAUGE)</td>
<td>CENTRALISED TRAFFIC CONTROL (CTC)</td>
</tr>
<tr>
<td>MAROONA – PORTLAND (INCLUSIVE)</td>
<td>TRAIN ORDER WORKING (TOW MANUAL VIC) (TA20 RULE BOOK)</td>
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</tbody>
</table>
I2 – Benalla to Oaklands

NB: These line maps are indicative only and should be reviewed in conjunction with the legend on page 3. For more detailed map information refer to the ARTC website.
# I2 Route Capacity

## BENALLA - OAKLANDS

<table>
<thead>
<tr>
<th>TRAIN TYPE</th>
<th>MAXIMUM SPEED (KM/H)</th>
<th>MAXIMUM AXLE LOAD (TONNES)</th>
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<tr>
<td>FREIGHT</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>70</td>
<td>20.6</td>
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<tr>
<td></td>
<td>55</td>
<td>21.8</td>
</tr>
<tr>
<td>PASSENGER</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>XPT/RAILCAR</td>
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<td>N/A</td>
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<tr>
<td>XPLORER</td>
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<tr>
<td>DIESEL HAUL</td>
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<td>N/A</td>
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Note: Route capacity applies where vehicle characteristics and conditions permit.

## BENALLA – OAKLANDS – CLASS OF LOCOMOTIVE AND PERMITTED SPEEDS (KMH)

<table>
<thead>
<tr>
<th>TYPE</th>
<th>MAXIMUM SPEED (KM/H)</th>
<th>H,P,T</th>
<th>CPH</th>
<th>HPC</th>
<th>NPF</th>
<th>NTC</th>
<th>SPRINTER/</th>
<th>V-LOCITY</th>
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</thead>
<tbody>
<tr>
<td>FREIGHT</td>
<td>55</td>
<td>70</td>
<td>70</td>
<td>65</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FREIGHT</td>
<td>30</td>
<td>70</td>
<td>70</td>
<td>65</td>
<td>-</td>
<td></td>
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</table>

**BENALLA AND YARRAWONGA EXCEPT OVER BOSSEY CREEK OVERFLOW BRIDGE AT 239.170KM BETWEEN ST JAMES AND TUNGAMAH**

**YARRAWONGA RIVER BRIDGE 260.545 -261.330KM**

**YARRAWONGAAND 318.481KM**

By 30
I2 Location of Speed Signs

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>KILOMETRAGE</th>
<th>DOWN</th>
<th>UP</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NORMAL</td>
<td>XPT</td>
</tr>
<tr>
<td>BENALLA</td>
<td>196.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>YARRAWONGA</td>
<td>259.900</td>
<td></td>
<td></td>
</tr>
<tr>
<td>YARRAWONGA (YARD)</td>
<td>260.170</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>WARRAGOON</td>
<td>282.300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RENNIE</td>
<td>291.300</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WANGAMONG</td>
<td>313.100</td>
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<td></td>
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</table>

Speeds can be found at


I2 Pedestrian Crossings

<table>
<thead>
<tr>
<th>NAME AND KMS OF NEAREST STATION</th>
<th>LEVEL CROSSING</th>
<th>DISTANCE (KM)</th>
<th>TYPE</th>
<th>LOCATION NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENALLA – 195.251</td>
<td>DELATITE SHIRE BYPASS ROAD</td>
<td>200.074</td>
<td>FL</td>
<td>EY2000</td>
</tr>
<tr>
<td>YARRAWONGA – 259.862</td>
<td>KATAMATITE – YARRAWONGA ROAD</td>
<td>256.478</td>
<td>FL</td>
<td>EY2564</td>
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<tr>
<td></td>
<td>MURRAY VALLEY HIGHWAY</td>
<td>259.590</td>
<td>FL</td>
<td>EY2595</td>
</tr>
<tr>
<td>RENNIE – 291.254</td>
<td>RIVERINA HIGHWAY</td>
<td>294.462</td>
<td>FL</td>
<td>EY2946</td>
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BB  BOOM BARRIERS  NSW  R.I.C DISTANCE FROM SYDNEY
CC  CRIB CROSSING  PB  PEDESTRIAN CROSSING
FL  FLASHING LIGHTS  PG  PEDESTRIAN GATES
SG  STANDARD GAUGE  T-  EQUIPPED WITH TELEPHONE COMMUNICATION
IG  INTERLOCKING GATES  VIC  VICTORIAN BROAD GAUGE
I2 Operational Restrictions

The Benella to Oaklands route is a designated freight line and as such has no heritage and/or passenger services are permitted to operate on this line without prior permission from the ARTC Operations Manager North/South Corridor.

Issued By: Richard Potts
Australian Rail Track Corporation

Approved By: Minor - Manager Standards

NAN Ref (if applicable):