

# Route Access Standard HHN Section Pages H2 - Muswellbrook to Werris Creek

## Applicability

---

ARTC Network Wide

---

SMS

---

## Publication Requirement

---

External Only

---

## Primary Source

## Document Status

| Version # | Date Reviewed | Prepared by                          | Reviewed by  | Endorsed             | Approved               |
|-----------|---------------|--------------------------------------|--------------|----------------------|------------------------|
| 2.0       | Nov 2018      | Manager<br>Procedures<br>Development | Stakeholders | Manager<br>Standards | GM Technical Standards |

## Amendment Record

---

**Amendments to the RAS are published at the following link**

---

[https://www.artc.com.au/uploads/RAS\\_Amendments\\_Register.xlsx](https://www.artc.com.au/uploads/RAS_Amendments_Register.xlsx)

---

### Disclaimer

This document has been prepared by ARTC for internal use and may not be relied on by any other party without ARTC's prior written consent. Use of this document shall be subject to the terms of the relevant contract with ARTC.

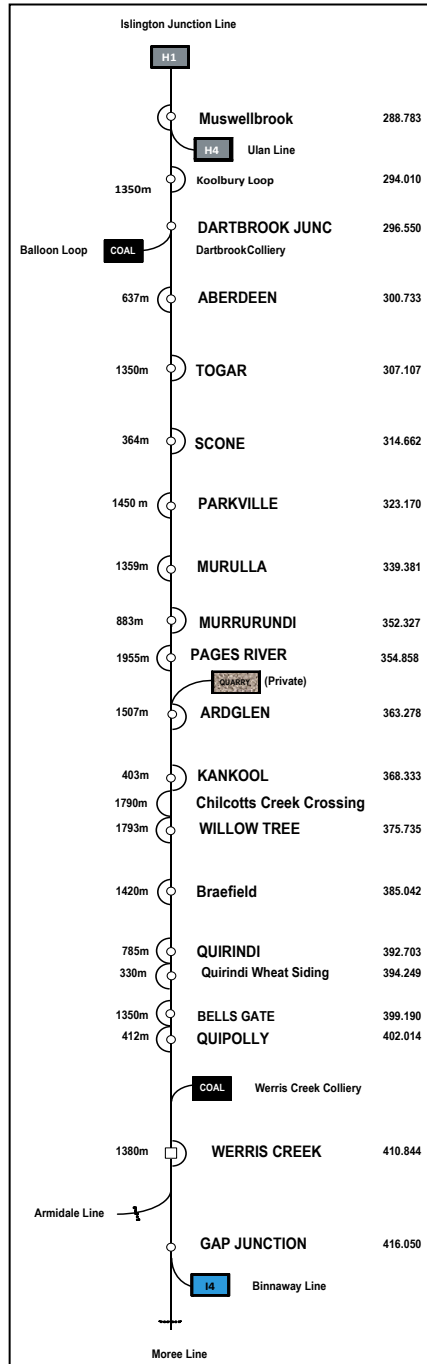
ARTC and its employees shall have no liability to unauthorised users of the information for any loss, damage, cost or expense incurred or arising by reason of an unauthorised user using or relying upon the information in this document, whether caused by error, negligence, omission or misrepresentation in this document.

**This document is uncontrolled when printed.**

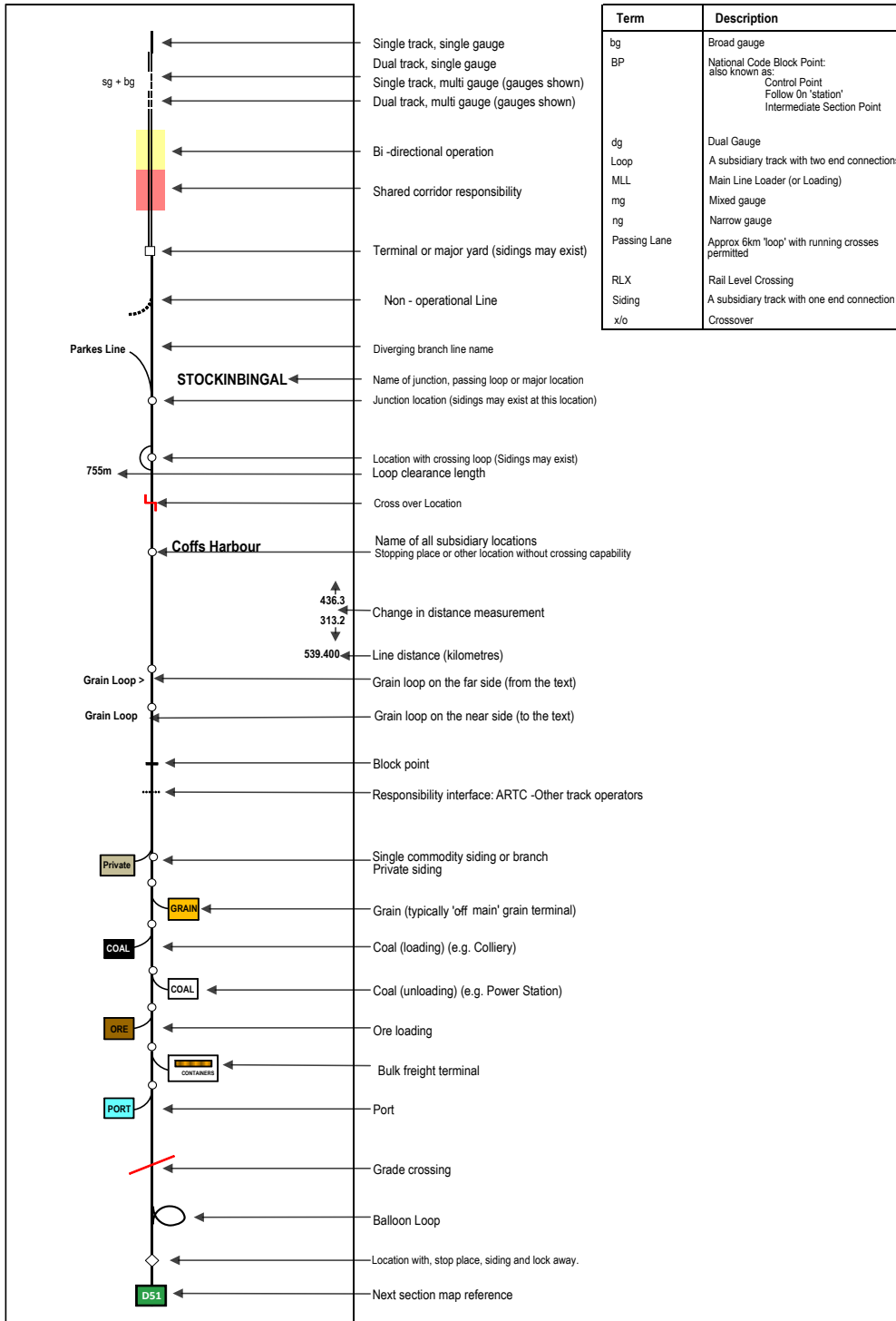
Authorised users of this document should visit ARTC's intranet or extranet ([www.artc.com.au](http://www.artc.com.au)) to access the latest version of this document.

# 1 Muswellbrook to Werris Creek

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.



## 2 Legend



### 3 Route Capacity

| <b>MUSWELLBROOK – WERRIS CREEK</b> |                      |                                   |               |
|------------------------------------|----------------------|-----------------------------------|---------------|
| <b>TRAIN TYPE</b>                  | <b>MAXIMUM SPEED</b> | <b>MAXIMUM AXLE LOAD (TONNES)</b> |               |
|                                    | <b>(KM/H)</b>        | <b>LOCOS</b>                      | <b>WAGONS</b> |
| FREIGHT                            | 115                  | 22.3                              | 19.5          |
|                                    | 100                  | 22.8                              | 21            |
|                                    | 80                   | 23.33                             | 25            |
|                                    | 60                   | 30.0                              | 30            |
| <b>PASSENGER</b>                   |                      |                                   |               |
| XPT                                | 160                  | 19                                |               |
| XPLORER/RAILCAR                    | 145                  | 19                                |               |
| DIESEL HAUL                        | 115                  | 19                                |               |

## 4 Special Access Conditions

### 4.1 Locomotives with axle load >22.8t and wagons with axle load > 25t

All locomotives with a gross mass greater than 137t (22.8 tal) must enter and exit Willow Tree Loop at a speed no greater than 20km/h.

Locomotives with axle load >22.8t and wagons with axle load > 25t are not permitted to use:

- Werris Creek Yard (Main Line to 105pts, Main North West Line, Goods Loop and NW Loop remain OK to use)
- Quirindi Loop (Main Line remains OK to use)
- Quipoly Loop (Main Line remains OK to use)

### 4.2 Bank Locomotive Working (Willow Tree - Ardglen)

The following conditions apply for loaded trains between Willow Tree and Ardglen. This is the current accepted and approved ARTC practice but operators may develop their own alternative safe practices:

- Trains with 20 to 40 tonnes gross mass vehicles in the trailing 1000 tonnes, one bank locomotive may power; trains with 40 to 60 gross mass tonne vehicles in the trailing 1000 tonnes, two bank locomotives may power; trains with vehicles of minimum mass 60 tonne gross mass in the trailing 1000 tonnes, three bank locomotives may power. When three locomotives are used for banking, loading in front of the trailing 1000 tonnes must not comprise any vehicles with less than 15 tonnes of loading whose individual deck lengths exceed 23.7 m whilst they are attached to vehicles less than 14.6 m in length.
- The automatic coupling lifter on the leading bank locomotive must be locked in the open position by means of the approved latching device.
- The air hoses are not to be connected between the train and the bank locomotives.
- An adaptor will be fitted on the rear vehicle to accommodate the flashing tail light other than in auto coupler knuckle.

Method of operation:

An operator shall follow the procedure below unless they have sufficient and adequate alternative operational procedures that have been developed by the application of a risk based methodology and independently verified by an appropriately qualified organisation.

1. The train shall be stopped at the allocated marker signs in the Up refuge loop at Willow Tree and remain with the automatic brake applied.
2. Bank locomotives shall compress against the rear of the train standing in the loop.
3. The bank locomotive driver shall notify the train driver by radio when ready to assist.

4. The train driver shall notify the bank locomotive driver when the starting signal is cleared and the train is ready to proceed.
5. When acknowledgement is received, the train driver shall release the automatic brakes and the bank locomotives shall commence pushing.
6. The train driver shall begin throttling up. When the load metre registers approximately 400 amps, the train driver shall release the locomotive brakes and allow the train to proceed.
7. The maximum speed when assisted from the rear must not exceed 50 km/h. Only the driver shall control the speed of the train between Willow Tree and Ardglen.
8. Signal indicators en route shall be relayed by the train crew to the bank locomotive driver.
9. Upon arrival at Ardglen, the bank locomotives shall only assist the train to such distance as will allow the bank locomotives to stop and remain inside the Ardglen Up starting signals, being on either the Main or Loop line.
10. In the event of bank locomotives failing to release from the rear of the train at Ardglen, the train may proceed to Murrurundi where bank locomotives are to be detached. The bank locomotive driver shall notify the train driver of the circumstances when clear of Ardglen tunnel.
11. The trailing load for marshalling restriction purposes behind the rear train locomotive is calculated as the train load, less the sum of the full sectional loads for the operational bank locomotives (for the section Willow Tree to Ardglen).

In the event of failure, the train must be cleared from the section on the authority of a Special Proceed Authority. Should the bank locomotive(s) be required to return to Willow Tree with a portion of the load, this operation must be completed on the authority of a separate Special Proceed Authority.

### 4.3 Grade Control Valve Operation

Grade control valves shall be set to the EX position on all wagons of all trains travelling in the Hunter Valley region with the following exceptions:

Sections of track requiring use of grade control valves:

- Down – Ardglen to Kankool
- Up – Ardglen to Murrurundi

Note: When traversing the above sections of track:

- Grade control valves shall be placed in the IP position only on loaded vehicles (i.e. those with empty/load valves in the loaded position).
- Vehicles without load compensation shall operate in the EX position unless the mass of the vehicle is 20 tonnes or more, in which case the grade control valve shall be placed in the IP position.

- At least 50 per cent of the tonnage of the loaded vehicles must have operational grade control valves.

## 5 Location of Speed Signs

| MUSWELLBROOK – WERRIS CREEK |           |             |               |               |               |               |
|-----------------------------|-----------|-------------|---------------|---------------|---------------|---------------|
| LOCATION                    | TRACK     | KILOMETRAGE | DOWN          |               | UP            |               |
|                             |           |             | NORMAL        | XPT           | NORMAL        | XPT           |
| MUSWELLBROOK                |           | 288.783     |               |               |               |               |
|                             | UP MAIN   | 288.850     | 50            | 55            | 70            | 75            |
|                             | UP MAIN   | 288.910     |               |               |               |               |
|                             | MAIN      | 289.068     |               |               |               |               |
|                             | MAIN      | 289.077     |               |               |               |               |
|                             | MAIN      | 289.400     |               |               | 50            | 55            |
|                             | MAIN      | 289.670     | 105           | 115           |               |               |
|                             | MAIN      | 291.590     |               |               | 105           | 115           |
|                             | MAIN      | 292.050     | 90            | 95            |               |               |
|                             | MAIN      | 292.670     |               |               | 90            | 95            |
|                             | MAIN      | 292.900     | 115           | 160           |               |               |
|                             | MAIN      | 293.210     | X70 (370 PTS) | X70 (370 PTS) |               |               |
|                             | DOWN LOOP | 293.325     | 70            | 70            | X70 (370 PTS) | X70 (370 PTS) |
| KOOLBURY                    |           | 294.102     |               |               |               |               |
|                             | DOWN LOOP | 294.690     | X70 (371 PTS) | X70 (371 PTS) | 70            | 70            |
|                             | MAIN      | 294.740     |               |               | 115           | 160           |
|                             | MAIN      | 294.820     |               |               | X70 (371 PTS) | X70 (371 PTS) |
|                             | MAIN      | 295.110     | 80            | 95            |               |               |
|                             | MAIN      | 295.430     | 100           | 110           | 80            | 95            |
| DARTBROOK COAL JUNCTION     |           | 296.530     |               |               | 100           | 110           |
|                             | MAIN      | 296.549     |               |               |               |               |
| DARTBROOK COAL JUNCTION     | MAIN      | 296.830     | 115           | 160           |               |               |
|                             |           | 300.733     |               |               |               |               |
| ABERDEEN                    | MAIN      | 301.900     |               |               | 115           | 160           |
|                             | MAIN      | 302.200     | 110           | 125           |               |               |
|                             | MAIN      | 302.627     |               |               | 110           | 125           |
|                             | MAIN      | 302.897     | 115           | 160           |               |               |
|                             | MAIN      | 306.020     | X50 (51 PTS)  | X50 (51 PTS)  |               |               |
|                             | DOWN LOOP | 306.140     | 50            | 50            | X50 (51 PTS)  | X50 (51 PTS)  |
|                             | MAIN      | 306.970     |               |               | 115           | 160           |
| TOGAR                       |           | 307.107     |               |               |               |               |

| MUSWELLBROOK – WERRIS CREEK |           |             |              |              |              |              |
|-----------------------------|-----------|-------------|--------------|--------------|--------------|--------------|
| LOCATION                    | TRACK     | KILOMETRAGE | DOWN         |              | UP           |              |
|                             |           |             | NORMAL       | XPT          | NORMAL       | XPT          |
|                             | DOWN LOOP | 307.507     | X50 (52 PTS) | X50 (52 PTS) | 50           | 50           |
|                             | MAIN      | 307.610     |              |              | X50 (52 PTS) | X50 (52 PTS) |
|                             | MAIN      | 307.720     | 115          | 160          |              |              |
|                             | MAIN      | 308.557     |              | 120(LX)      |              | 160(LX)      |
|                             | MAIN      | 308.662     |              | 160(LX)      |              | 120(LX)      |
|                             | MAIN      | 311.680     |              |              | 115          | 160          |
|                             | MAIN      | 311.980     | 115          | 120          |              |              |
|                             | MAIN      | 312.140     |              |              | 115          | 145          |
|                             | MAIN      | 312.576     | 80           | 80           |              |              |
|                             | MAIN      | 313.160     |              |              | 110          | 110          |
|                             | MAIN      | 313.460     | 75           | 80           |              |              |
|                             | MAIN      | 313.980     |              |              | 75           | 85           |
|                             | MAIN      | 314.180     | X25 (51 PTS) | X25 (51 PTS) |              |              |
|                             | MAIN      | 314.278     | 50           | 55           |              |              |
|                             | UP LOOP   | 314.356     | 25           | 25           | X25 (51 PTS) | X25 (51 PTS) |
| SCONE                       |           | 314.662     |              |              |              |              |
|                             | UP LOOP   | 314.750     | X25 (52 PTS) | X25 (52 PTS) | 25           | 25           |
|                             | MAIN      | 314.810     |              |              | X25 (52 PTS) | X25 (52 PTS) |
|                             | MAIN      | 315.335     |              |              | 50           | 55           |
|                             | MAIN      | 315.450     | 115          | 160          |              |              |
|                             | MAIN      | 317.091     |              | 120(LX)      |              | 160(LX)      |
|                             | MAIN      | 317.191     |              | 160(LX)      |              | 120(LX)      |
|                             | MAIN      | 320.000     |              |              | 90           | 160          |
|                             | MAIN      | 321.500     |              |              | 115          | 160          |
|                             | MAIN      | 321.540     | X50 (51 PTS) | X50 (51 PTS) |              |              |
| PARKVILLE                   |           | 321.660     |              |              |              |              |
|                             | UP LOOP   | 321.677     | 50           | 50           | X50 (51 PTS) | X50 (51 PTS) |
|                             | UP LOOP   | 323.090     | X50 (52 PTS) | X50 (52 PTS) | 50           | 50           |
|                             | MAIN      | 323.170     |              |              | X50 (52 PTS) | X50 (52 PTS) |
|                             | MAIN      | 323.500     |              |              | 115          | 160          |
|                             | MAIN      | 323.590     |              | 120(LX)      |              | 160(LX)      |
|                             | MAIN      | 323.694     |              | 160(LX)      |              | 120(LX)      |
|                             | MAIN      | 327.230     |              | 120(LX)      |              | 160(LX)      |
|                             | MAIN      | 327.330     |              | 160(LX)      |              | 120(LX)      |
|                             | MAIN      | 327.760     |              |              | 115          | 135          |
|                             | MAIN      | 328.060     | 105          | 115          |              |              |
|                             | MAIN      | 330.540     |              |              | 105          | 115          |
|                             | MAIN      | 330.830     | 95           | 105          |              |              |



| MUSSWELLBROOK – WERRIS CREEK |         |             |              |              |              |              |
|------------------------------|---------|-------------|--------------|--------------|--------------|--------------|
| LOCATION                     | TRACK   | KILOMETRAGE | DOWN         |              | UP           |              |
|                              |         |             | NORMAL       | XPT          | NORMAL       | XPT          |
|                              | MAIN    | 331.308     |              |              | 95           | 105          |
|                              | MAIN    | 332.130     | 115          | 120          | 95           | 105          |
|                              | MAIN    | 338.330     | X50 (51 PTS) | X50 (51 PTS) |              |              |
|                              | UP LOOP | 338.408     | 50           | 50           | X50 (51 PTS) | X50 (51 PTS) |
|                              | MAIN    | 338.560     |              |              | 115          | 120          |
|                              | MAIN    | 338.825     | 95           | 105          |              |              |
| MURULLA                      |         | 339.400     |              |              |              |              |
|                              | MAIN    | 339.610     |              |              | 95           | 105          |
|                              | UP LOOP | 339.827     | X50 (52 PTS) | X50 (52 PTS) | 50           | 50           |
|                              | MAIN    | 339.910     | 100          | 110          | X50 (52 PTS) | X50 (52 PTS) |
|                              | MAIN    | 340.520     |              |              | 100          | 110          |
|                              | MAIN    | 340.820     | 95           | 100          |              |              |
|                              | MAIN    | 342.160     |              |              | 95           | 100          |
|                              | MAIN    | 342.460     | 115          | 135          |              |              |
|                              | MAIN    | 342.990     |              |              | 115          | 135          |
|                              | MAIN    | 343.995     |              |              | 115          | 135          |
|                              | MAIN    | 344.290     | 100          | 110          |              |              |
|                              | MAIN    | 344.810     |              |              | 100          | 110          |
|                              | MAIN    | 345.110     | 115          | 135          |              |              |
|                              | MAIN    | 346.550     |              |              | 115          | 135          |
|                              | MAIN    | 346.850     | 110          | 120          |              |              |
|                              | MAIN    | 347.277     |              |              | 110          | 120          |
|                              | MAIN    | 347.600     | 115          | 145          |              |              |
|                              | MAIN    | 349.850     |              |              | 115          | 145          |
|                              | MAIN    | 350.138     | 115          | 125          |              |              |
|                              | MAIN    | 350.490     |              |              | 115          | 125          |
|                              | MAIN    | 350.790     | 115          | 145          |              |              |
|                              | MAIN    | 351.486     | X40 (51 PTS) | X45 (51 PTS) |              |              |
|                              | MAIN    | 352.230     |              |              | 115          | 145          |
| MURRURUNDI                   |         | 352.327     |              |              |              |              |
|                              | MAIN    | 352.530     | 70           | 85           |              |              |
|                              | MAIN    | 352.562     |              |              | X40 (52 PTS) | X45 (52 PTS) |
|                              | MAIN    | 352.750     |              |              | 70           | 85           |
|                              | MAIN    | 353.850     | X50 (51 PTS) | X50 (51 PTS) |              |              |
|                              | MAIN    | 353.950     | 75           | 80           |              |              |
|                              | UP LOOP | 353.950     | 50           | 50           | X50 (51 PTS) | X50 (51 PTS) |
| PAGES RIVER                  |         | 354.858     |              |              |              |              |
|                              | MAIN    | 355.180     |              |              | 75           | 80           |

| MUSWELLBROOK – WERRIS CREEK                      |                  |             |              |              |              |              |              |
|--|------------------|-------------|--------------|--------------|--------------|--------------|--------------|
| LOCATION   | TRACK            | KILOMETRAGE | DOWN         |              | UP           |              |              |
|  |                  |             | NORMAL       | XPT          | NORMAL       | XPT          |              |
| ARDGLEN TUNNEL<br>START<br>ARDGLEN TUNNEL<br>END | MAIN             | 355.480     | 115          | 120          |              |              |              |
|  | UP LOOP          | 355.760     | X50          | X50          | 50           | 50           |              |
|  | MAIN             | 355.865     |              |              | X50 (52 PTS) | X50 (52 PTS) |              |
|  | MAIN             | 356.610     |              |              | 115          | 135          |              |
|  | MAIN             | 356.910     | 55           | 60           |              |              |              |
|  | MAIN             | 362.294     | 60           | 65           | 55           | 60           |              |
|  |                  |             | 362.329      |              |              |              |              |
|  |                  |             | 362.816      |              |              |              |              |
|  |                  | MAIN        | 363.020      | X25 (51 PTS) | X25 (51 PTS) |              |              |
|  |                  | DOWN LOOP   | 363.094      | 40           | 45           | X25 (51 PTS) | X25 (51 PTS) |
|  |                  |             | 363.278      |              |              |              |              |
|  | ARDGLEN          | MAIN        | 363.280      |              |              | 60           | 65           |
| ARDGLEN QUARRY<br>JUNCTION                       | MAIN             | 363.580     | 55           | 60           |              |              |              |
|  |                  | 363.933     |              |              |              |              |              |
|  | DOWN LOOP        | 364.643     | X40 (52 PTS) | X45 (52 PTS) | 40           | 45           |              |
|  | MAIN             | 364.807     |              |              | X40 (52 PTS) | X45 (52 PTS) |              |
|  | MAIN             | 366.060     |              |              | 55           | 60           |              |
|  | MAIN             | 366.360     | 50           | 55           |              |              |              |
|  | MAIN             | 367.010     |              |              | 50           | 55           |              |
|  | MAIN             | 367.310     | 60           | 65           |              |              |              |
| KANKOOL  |                  | 368.333     |              |              |              |              |              |
|  | MAIN             | 368.440     |              |              | 60           | 65           |              |
|  | MAIN             | 368.740     | 80           | 85           |              |              |              |
|  | MAIN             | 370.120     |              |              | 80           | 85           |              |
|  | MAIN             | 370.420     | 70           | 80           |              |              |              |
|  | MAIN             | 370.860     |              |              | 70           | 80           |              |
|  | MAIN             | 371.160     | 105          | 115          |              |              |              |
|  | MAIN             | 371.220     | X50 (51 PTS) |              |              |              |              |
|  | UP LOOP          | 371.330     | 50           |              | X50 (51 PTS) |              |              |
|  | MAIN             | 371.590     |              |              | 105          | 115          |              |
|  | MAIN             | 371.890     | 115          | 120          |              |              |              |
| CHILLCOTTS<br>CREEK                              |                  | 372.300     |              |              |              |              |              |
|  | UP LOOP          | 373.280     | X50 (52 PTS) |              | 50           |              |              |
|  | MAIN             | 373.280     |              |              | 115          | 120          |              |
|  | MAIN             | 373.395     | X50 (53 PTS) |              | X50 (52 PTS) |              |              |
|  | ENGINE<br>SIDING | 373.505     |              |              | X50 (53 PTS) |              |              |

| MUSSWELLBROOK – WERRIS CREEK |         |             |              |              |              |              |
|------------------------------|---------|-------------|--------------|--------------|--------------|--------------|
| LOCATION                     | TRACK   | KILOMETRAGE | DOWN         |              | UP           |              |
|                              |         |             | NORMAL       | XPT          | NORMAL       | XPT          |
|                              | MAIN    | 373.580     | 115          | 115          |              |              |
|                              | MAIN    | 375.000     |              |              | 115          | 115          |
|                              | MAIN    | 375.345     |              |              |              | 140          |
|                              | MAIN    | 375.350     | X45 (51 PTS) | X45 (51 PTS) |              |              |
|                              | UP LOOP | 375.515     | 40           | 45           | X40 (51 PTS) | X45 (51 PTS) |
| WILLOW TREE                  |         | 375.735     |              |              |              |              |
|                              | MAIN    | 376.440     | 105          | 120          | 115          | 120          |
|                              | MAIN    | 377.335     | 115          | 115          | 105          | 120          |
|                              | UP LOOP | 377.335     | X50 (52 PTS) | X50 (52 PTS) | 50           | 50           |
|                              | MAIN    | 377.462     |              |              | X50 (52 PTS) | X50 (52 PTS) |
|                              | MAIN    | 379.460     |              |              | 115          | 150          |
|                              | MAIN    | 379.760     | 115          | 135          |              |              |
|                              | MAIN    | 380.000     |              |              | 115          | 135          |
|                              | MAIN    | 380.160     | 115          | 160          |              |              |
|                              | MAIN    | 382.818     |              |              | 115          | 160          |
|                              | MAIN    | 384.251     | X50 (51 PTS) |              |              |              |
|                              | UP LOOP | 384.380     | 50           |              | X50 (51 PTS) |              |
| BRAEFIELD                    |         | 385.000     |              |              |              |              |
|                              | UP LOOP | 385.756     | X50 (52 PTS) |              | 50           |              |
|                              | MAIN    | 385.830     |              |              | X50 (52 PTS) |              |
|                              | MAIN    | 386.297     |              | 120(LX)      |              | 160(LX)      |
|                              | MAIN    | 386.397     |              | 160(LX)      |              | 120(LX)      |
|                              | MAIN    | 387.267     | 115          | 160          |              |              |
|                              | MAIN    | 387.963     |              | 120(LX)      |              | 160(LX)      |
|                              | MAIN    | 388.063     |              | 160(LX)      |              | 120(LX)      |
|                              | MAIN    | 388.920     |              |              | 115          | 160          |
|                              | MAIN    | 389.220     | 95           | 100          |              |              |
|                              | MAIN    | 390.557     |              |              | 95           | 100          |
|                              | MAIN    | 390.860     | 85           | 95           |              |              |
|                              | MAIN    | 391.300     |              |              | 85           | 95           |
|                              | MAIN    | 391.600     | 95           | 110          |              |              |
|                              | MAIN    | 391.920     |              |              | 95           | 110          |
|                              | MAIN    | 392.220     | 115          | 135          |              |              |
|                              | MAIN    | 392.280     | X40 (51 PTS) | X45 (51 PTS) |              |              |
| QUIRINDI                     |         | 392.703     |              |              |              |              |
|                              | MAIN    | 393.415     |              |              | X40 (52 PTS) | X45 (52 PTS) |
| QUIRINDI GRAIN SIDING        |         | 394.523     |              |              |              |              |
|                              | MAIN    | 397.160     |              |              | 115          | 135          |

| MUSWELLBROOK – WERRIS CREEK      |                    |             |               |               |              |              |
|----------------------------------|--------------------|-------------|---------------|---------------|--------------|--------------|
| LOCATION                         | TRACK              | KILOMETRAGE | DOWN          |               | UP           |              |
|                                  |                    |             | NORMAL        | XPT           | NORMAL       | XPT          |
|                                  | MAIN               | 397.460     | 110           | 115           |              |              |
|                                  | MAIN               | 398.250     | X50 (51 PTS)  | X50 (51 PTS)  |              |              |
|                                  | UP LOOP            | 398.400     | 50            | 50            | X50 (51 PTS) | X50 (51 PTS) |
| BELLS GATE                       |                    | 399.252     |               |               |              |              |
|                                  | UP LOOP            | 400.151     | X50 (52 PTS)  | X50 (52 PTS)  | 50           | 50           |
|                                  | MAIN               | 400.255     |               |               | X50 (52 PTS) | X50 (52 PTS) |
|                                  | MAIN               | 400.520     |               |               | 110          | 115          |
|                                  | MAIN               | 400.820     | 115           | 155           |              |              |
| QUIPOLLY                         |                    | 402.014     |               |               |              |              |
|                                  | MAIN               | 408.300     | 105           | 105           | 115          | 150          |
|                                  | MAIN               | 409.207     | X25 (101 PTS) |               |              |              |
|                                  | MAIN               | 409.320     |               |               | 65           | 65           |
| WERRIS CREEK<br>COAL JUNCTION    |                    | 409.470     |               |               |              |              |
| WERRIS CREEK<br>SOUTH SIGNAL BOX |                    | 409.635     |               |               |              |              |
|                                  | MAIN               | 410.495     | X25 (105 PTS) | X25 (105 PTS) |              |              |
|                                  | NORTH WEST<br>MAIN | 410.758     | 35            | 35            |              |              |
| WERRIS CREEK                     |                    | 410.844     |               |               |              |              |