

## Route Access Condition Notice

### 15-00034

<b>Distributed To:</b>	ARTC Website
<b>Distribution Date:</b>	17-12-2015
<b>Requested By:</b>	ARTC
<b>Subject:</b>	Enhanced Speed Boards definition
<b>Effective Period:</b>	17-12-2015 – Until Published
<b>Amendment Type:</b>	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Notices (RACN) are periodically updated in the ARTC Route Access Standard (RAS), at which time the relevant RACN is withdrawn.*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:** Section Page Introduction 4 & General Information 4.4.1    **Version No.:** 1.4    **Page/s:** 5 & 31

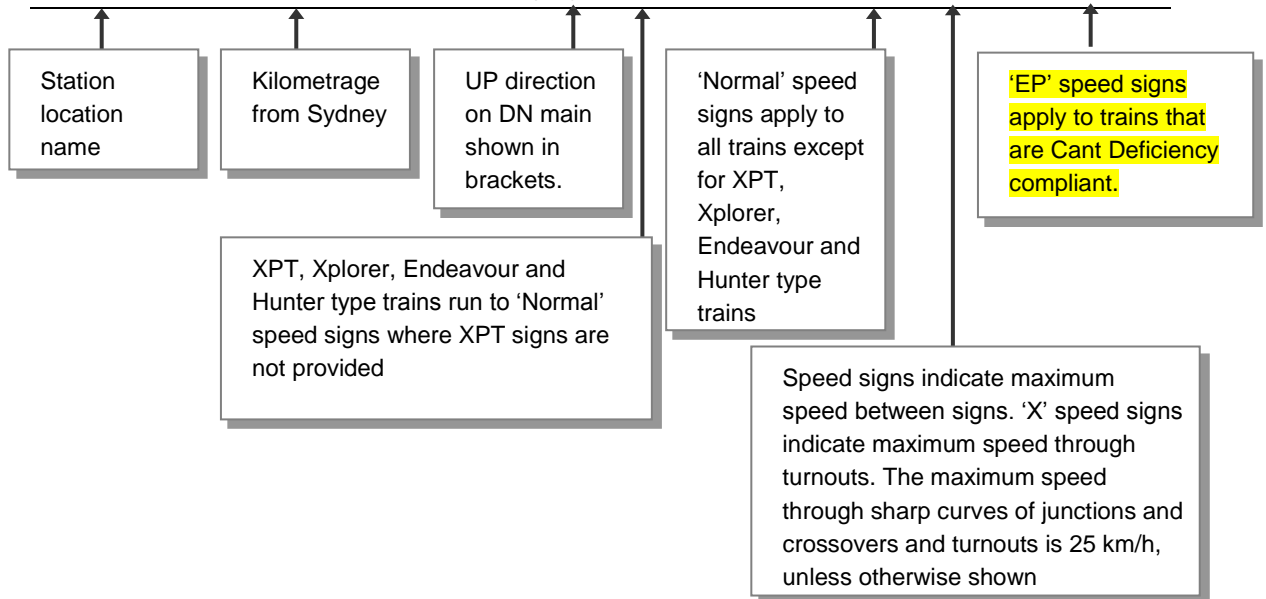
**ARTC Network Location:**

**Line Sections & Kms:** ALL

**Details of RACN:** RACN 1500034 details the changes regarding the operation of EP enhanced performance trains on the ARTC network.  
 Details as below:

## 4 Location of Speed Signs

Location	Kilometrage	Down			Up		
		Normal	XPT	EP	Normal	XPT	EP
Muswellbrook	171.261						
	172.000	-	-		X50	-	
	172.240	115	-		70	-	
	179.530	-	-		115	-	
	179.693	80	-	100	-	-	
	184.350	115	-		80	-	100
	186.885	80	-		-	-	
	193.262	(70)	-		80	-	



Acronym	Description
BB	Bi-Directional Boards on Both Tracks
BDO	Bi-Directional Operation
CLX	Conditional Level Crossing Sign* (NSW)
LX	Level Crossing Sign* (NSW)
OL	On Loop
WLO	When Loop Occupied

\*Only applicable in New South Wales section pages

## 4.4 Train Speed Capacity

The Operator shall establish systems and manage all requirements associated with ensuring the train consist is comprised of locomotives and vehicles rated and loaded to travel at the speeds required in the train schedule.

The speed of any train must not exceed the maximum allowable speed, whichever is lowest, of:

- the speed specified for the train schedule type as set out in Table 2.2.1 –Train speed and Axle Load Limits for ARTC Network Operations
- the lowest maximum speed rating for any locomotive or vehicle in the train consist
- permanent or temporary speed signs displayed trackside
- the speed needed to comply with signal indications, or
- temporary speed restrictions notified by network control.

### 4.4.1 Cant Deficiency / Enhanced Performance Speeds

Cant (superelevation) is the lift applied to the outside rail of a curve to balance the lateral forces experienced by trains, passenger and freight, while travelling around a curve at speed. Equilibrium cant is calculated for a given curve radius and a given speed. Trains travelling at speeds above equilibrium speeds are said to be operating with a cant deficiency (CD). Usually passenger trains operate at up to 110mm CD while freight trains operate at up to 80mm CD.

Where the track is maintained to a higher geometry standard, certain freight trains can operate at Enhanced Performance speeds (EP). The actual cant hasn't changed, the train simply travels faster around curves so has higher CD.

- 'EP' Enhanced Performance speed boards are erected in the corridor and listed in the relevant section pages of RAS for operation by compliant locomotives and wagons.
- All rolling stock within the train consist must be 110mm CD compliant.

**WARNING:** Failure to ensure all rolling stock is 110mm CD compliant can result in wheel unloading and potential derailment.

- The train operator must have systems in place to assure in advance that all rolling stock within the consist is 110mm CD compliant prior to commencement and;
- The train operator must have systems in place to detect non-compliant rolling stock and have processes to either remove the non-compliant rolling stock from the train consist or comply with the 'Normal' freight speeds as listed in the RAS section pages.

Issued By:

*Richard Potts*

Australian Rail Track Corporation

Approved By:

Minor - Manager Standards

NAN Ref (if applicable):