

## **DESIGN REQUIREMENTS MANUAL**

CI-0802

**TAB 8: HEAVY RAIL** 

Trackwork

## **Turnout Headblock Ties**

Long ties supporting the switch machine shall be dapped in accordance with Figure and pre-treated before delivery and installation.

# **Road Crossing Ties**

In road crossings install 9'-0" long CN grade #1 treated hardwood ties. Tie spacing to be 18" on centers unless specified otherwise by the crossing surface material manufacturer.

#### **Concrete Ties**

Prestressed, monobloc concrete ties should be used on any new track construction that has a limited number of turnouts, bridges & road crossings which require timber tie construction. The use of concrete ties on curves having a radius less than 875 m, (2°-00'), is encouraged. CWR must be used with concrete ties. Install concrete ties at 0.610 m centres. Timber ties must be used in road crossings, special trackwork and for transition approaches to bridges. Concrete ties with special inserts are available where Bridge Guard Rails must be installed in concrete tie territory. See Figure for concrete tie dimensions.

## **BALLAST**

## **Specification**

Track ballast shall conform to CN 12-20C Class 1 crushed rock ballast for new construction and maintenance projects on main line corridors, as described in the Canadian National Railways Specification CN 12-20C.

For all other track locations (other than main line corridors) CN 12-20C Class 2 crushed rock ballast is to be specified.

Independent laboratory testing of ballast material is to be provided to confirm CN 12-20C Class 1 and Class 2 standards are met.