

JOINTED RAIL

****From Berlin STP 2935(1)
Berlin NH STP 2938(1)
Berlin NH STP 2947(1)**

- xx. DESCRIPTION. This work shall consist of removing existing rails, and furnishing and installing replacement rails at locations shown in the Contract Documents or as directed by the Engineer.
- xx. GENERAL REQUIREMENTS. It is intended that the proposed relay jointed rail (105DY) be used as a transition rail between the existing jointed rail (85AS) and the proposed new welded rail (115RE) as shown in the Contract Documents or as directed by the Engineer.
- xx. MATERIALS. Relay rail shall be subject to inspection and acceptance by the Engineer. Each rail section shall be ultrasonically tested to verify no internal rail defects, and shall have an attached label with certification information. Relay rail shall be free of shelly spots, head checks, corrugations, bends or kinks, and any other visual defects. Relay rail will not be acceptable if the wear exceeds the following limits from its original dimension:
- (a) Vertical head wear: 1/8 inch
 - (b) Horizontal head wear: 1/8 inch
 - (c) End batter: 1/8 inch
 - (d) Base and web thickness: 1/16 inch
 - (e) Head flow: 1/8 inch

Relay rail shall be in standard rail sections of 39 feet in length. Relay rail shall have bolt holes drilled at the point of manufacture.

- xx. CONSTRUCTION REQUIREMENTS. The Contractor shall remove joint bar bolts, spikes, rail anchors, and any other rail holding devices in a workmanlike manner which does not damage any existing materials. Flame cutting of bolts will be permitted providing the joint bars and rails are not damaged.

The shoulder of a tie plate shall be set to bear firmly against the rail base. Under no circumstances shall a shoulder be under the rail base. With double shoulder canted tie plate, the cant of the plate shall be downward to the gape of the rail. The Contractor shall not mix canted and flat tie plates.

Any material damaged or lost due directly to the Contractor's operations shall be replaced by the Contractor at no expense to the Owner.

The replacement rail shall be installed in accordance with the following requirements:

- (a) Any mismatch rail ends which exceed 1/8 inch either vertically or horizontally shall be corrected. Mismatches may be corrected by changing joint bars and bolts, by being "built-up" with weld material on the offending rail, or by substituting a different piece of rail.
- (b) Rail shall be spiked to standard track gage, and gaging shall be performed at least at every third (3rd) tie. In the event the rail abutting the replacement rail is not at standard gage, gaging shall be performed for a sufficient length to provide a smooth transition.
- (c) Spikes are to be driven perpendicular to the tie surface. Spikes which are bent while being driven shall be discarded and replaced. If a spike is removed, the tie shall be properly plugged before a new spike driven.
- (d) New rail anchors shall firmly grip the bottom of the rail to which they are applied to provide longitudinal rail restraint. Rail anchors shall not be installed at ties which support rail joints, where they will interfere with bond wire, boot legs, insulated joints, and other signal or track appliances, or within 2 inches from the edge of any weld to prevent nicks or gouges within the heat affected zones of the welds. Rail anchors shall be applied in the pattern as shown in AREMA Chapter 5, Section 5.4. Each tie within 200 feet of the edge of a bridge, turnout, welded rail, and grade crossing shall be box anchored.

xx. METHOD OF MEASUREMENT. The quantity of Special Provision (Jointed Rail) of the type specified to be measured for payment will be the number of meters (linear feet) installed in the complete and accepted work.

xx. BASIS OF PAYMENT. The accepted quantity of Special Provision (Jointed Rail) of the type specified will be paid for at the Contract unit price per meter (linear foot).

Payment will include removing existing rail, tie plates, joint assemblies, spikes, and anchors; furnishing, transporting, distributing, handling, and installing the materials specified, including jointed rail, tie plates, spikes, and other miscellaneous materials; gaging rail as necessary and as required; and for furnishing all labor, tools, equipment, and incidental necessary to complete the work.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.640 Special Provision (Jointed Rail)	Meter (Linear Foot)