

RAISE, ALIGN, AND SURFACE TURNOUT

**\*\*From Rutland - Leicester FRT11(024)  
Rutland - Burlington VTRY(5)**

xx. DESCRIPTION. This work shall consist of raising, aligning, and surfacing turnout(s) at the location(s) indicated in the Contract Documents or as directed by the Engineer.

xx. MATERIALS. Tie plugs shall be new and shall meet the material requirements of the Specification entitled: Chapter 30, Section 3.1.5 Tie Plugs, AREMA Manual - current edition.

Track spikes or lag screws shall be new, of the size and type indicated in the Contract Documents, and shall meet the material requirements of the Specification entitled: Chapter 5, Section 2.1 Soft-Steel Track Spikes and Lag Screws, AREMA Manual - current edition.

Ballast shall meet the requirements of Chapter 1, Sections 2.3 Materials and 2.4 Property Requirements, AREMA Manual -current edition.

xx. CONSTRUCTION REQUIREMENTS. The turnout section, when completed, shall be raised in conformance with the track profile as indicated in the Contract Documents, and the limits specified herein, or as directed by the Engineer.

The turnout shall be raised in 2" maximum nominal lifts unless otherwise approved by the Engineer.

(a) Turnout Alignment. Turnout alignment, when completed, shall be in conformance with the following:

(1) The deviation of the mid-offset from a 62' line shall not be more than 3/4" for tangent track and 5/8" for curved track.

(b) Turnout Surface. Turnout surface, when completed, shall be in conformance with the following:

(1) The runoff in any 31 feet of rail at the end of a raise shall not be more than 3/4".

(2) The deviation from uniform profile on any rail at the mid-ordinate of a 62' chord shall not be more than 3/4".

(3) Deviation from zero cross level at any point shall not be more than 3/4".

(4) The difference in cross level between any two points less than 62' apart shall not be more than 3/4".

(c) Track Grade. No superelevation through the timber area shall be performed. Track grade, when completed, shall conform to FRA Standards for Class 3 Track as defined in 49 CFR 213 - TRACK SAFETY STANDARDS.

(d) Track and Switch Surfacing Equipment.

- (1) All equipment to be used in the alignment and surfacing operation shall be a Harsco Mark IV Tamper, Jackson 6900 Tamper, Plassar American Continuous Action Tamper (CAT) or approved equal capable of automatic lift, level, and alignment of tangent and curved track, as well as turnouts.
  - (2) Work shall be performed so that the turnout will maintain alignment and surface after tamping. The tamper used for this operation shall be a squeeze-type, vibratory tamper.
  - (3) All dressing of switches and track shall be completed by utilizing a ballast regulator to distribute the stone ballast in sufficient quantity for tamping track and restoring the ballast section.
  - (4) Upon completion, the turnout section shall have all the various type plates bear fully on the timbers and the rail, switch points, and frog base bear fully on the plates. No portion of the various plate shoulders, or stone or any foreign material, shall be permitted under the base of rail, switch points, frog, or guardrails.
  - (5) All timbers shall receive not less than two (2) separate insertions of the squeeze-type, vibratory tamper.
  - (6) Switch stand or switch machine head block timbers must be tamped completely to the end of the timber.
- (e) Track Spikes and Lag Screws. Any track spikes or lag screws damaged or in the Engineer's opinion not functioning as intended during the raising, aligning, and surfacing operation shall be repaired in the following manner:
- (1) The bent spikes or lag screws shall be removed, and the resulting hole shall be plugged with a treated tie plug of a size sufficient to completely and tightly fill the hole. The new spike or lag screw shall then be driven.
- (f) Ballast. Ballast shall be dressed with the stone flush with the top of timber and cribs shall be full. Guard rail flange, switch point, frog flangeway and switch point rod area's shall be cleaned and dressed to allow component parts to function properly. Tie cribs that contain the switch rods must be kept open to provide drainage and prevent build up of snow and ice.
- (g) General. After all turnout surfacing work has been completed, the Contractor shall check and make any adjustments necessary to turnout gage, frog guard rail facing limits, switch point adjustment, switch stand, and connecting rod tension.

Graphite or other lubricant approved by the Engineer shall be applied to all switch plates after cleaning.

Contractor shall tighten all loose joints and frog bolts by mechanical means.

xx. METHOD OF MEASUREMENT. The quantity of Special Provision (Raise, Align, and Surface Turnout) of the type specified to be measured for payment will be the actual number of turnouts aligned and surfaced in the complete and accepted work.

xx. BASIS OF PAYMENT. The accepted quantity of Special Provision (Raise, Align, and Surface Turnout) of the type specified will be paid for at the Contract unit price per each. Payment will be full compensation for furnishing all materials, labor, tools, equipment, and incidentals necessary to complete the work.

Furnishing and installing ballast will be paid separately under the appropriate Contract item(s).

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
900.620 Special Provision (Raise, Align, and Surface Turnout)(No. <b>XX</b> Turnout)	Each