

## **StarTrack**

### **Suggested Installation Procedure**

#### **Preliminary Subsurface Investigation (Optional)**

Prior to removal of ties and ballast, soil samples shall be taken by a recognized soil testing laboratory and through laboratory analysis, sufficient data is collected to evaluate the depth of excavation and thickness of base required.

#### **Subgrade Preparation**

Rails, ties, asphalt, ballast, and sub ballast will be removed from an area comprising the length of the crossing plus 15' on each end and 10' wide (13' wide for HD) to a minimum depth of 12" below precast modules, or as determined above. If any areas of pumping or other indications of instability are encountered, they shall be undercut as required and backfilled with compacted base course material.

The resulting subgrade shall be scarified and compacted to 95% of its peak dry density. Drainage tile shall then be installed in a trench area, surrounded by open graded stone or filter fabric.

The entire excavated area and sides shall be lined with an approved fabric equal in performance characteristics to "TYPAR" style 3401.

The base course material shall be applied in 4" lifts compacted to 98% of peak dry intensity. The leveling course (1-1/2" maximum thickness) shall be carefully screeded to the grade shown. Screeded surface to be within +/- 1/4" of grade. Fill and compact entire excavation. See StarTrack's "StarTrack Base Options" for other acceptable subgrade procedures.

#### **Module Placement**

Modules shall be placed on the resulting base as snug as possible to one another and to within +/- 1/4" in alignment, utilizing lifting hardware provided. Sika 1A and T-Strip sealant shall be applied as shown on the drawing details. Should any screeded surface irregularity become evident during placement of modules, the module shall be removed and the surface corrected.

#### **Placing and Fastening of Rail**

Rail shall then be placed along StarTrack modules on both sides and all rail splicing completed, making sure all polyethylene pads are in place.

After laying rail into blockout groove, start rail installation by centering rail between a set of shoulders, inserting nylon insulators, and then pull the clips into place over the insulators with the pandrol puller or other acceptable methods. Repeat this process throughout the crossing, then connect rail to track rail by normal methods. If necessary, adjust final alignment by moving modules with rail jacks or backhoe.

#### **Placing of Rail Groove Filler**

Install rubber rail groove filler according to StarTrack's rail Groove Filler Installation Instructions for StarTrack Rubber Inserts.

#### **Final Completion**

Surface the adjacent track construction with new 10' switch ties in the transition area. Install signal wiring in conduit if required. Apply T-Strips to joints as required.

Clean all debris from excavation and pave alongside, up to and flush with module. Apply asphalt at ends of crossing to provide a 5' transition from tie surface to module surface (optional). If asphalt is used for rail groove filler, run locomotive across to cut flangeway.

Remove all construction debris from site and leave completed crossing in a clean condition. Package and ship loaned lifting hardware to plant (freight prepaid.)

