

## **1.0 RAILROAD GRADE CROSSING SURFACES APPENDIX**

It is essential that the crossing surface provide a smooth crossing for vehicles. The crossing surface shall be maintained at an elevation level with or slightly (not more than ¼" inch) above the top of the rails. Additionally, there shall be a smooth transition between the crossing surface and the adjoining pavement.

### **1.1 Concrete**

#### **Century Group, Inc**

Built of concrete and high tensile steel reinforcement, the Century crossing have been installed in ports, military and mining facilities where extra heavy loads are present on a daily basis.

Century Group produces the following crossings:

- Lightrail Transit Crossing
- Lagtype Crossing
- Custom
- Pedestrian Crossing
- Lagless Crossing

Details of these products can be found at the following link.

<http://www.centurygrp.com/crossings.asp>

#### **OMNI Grade Crossing Systems**

OMNI Products, Inc., manufacturers pre-cast concrete crossing systems. Details of these products can be found at the following links.

Concrete Crossings:

## Embedded Concrete Rubber

OMNI's Embedded Concrete-Rubber (ECR) grade crossing system is the latest generation of OMNI's patented single-component, concrete-rubber design. ECR is designed with the rubber flange seal molded into the face of the steel clad, steel reinforced concrete panels.

<http://www.omnirail.com/ecr.html>

## Improved Concrete

The OMNI Improved-Concrete system incorporates OMNI rubber RailGuard panels with precast concrete panels. The steel-framed, steel-reinforced concrete panels are designed to handle heavy highway traffic, as well as heavy truck traffic.

<http://www.omnirail.com/improved.html>

## Tracast™

The OMNI TraCast™ grade crossing design is a system of pre-cast concrete modules with a minimum compressive strength of 6,000 psi. Elastic fasteners are used to secure the rail to the base of the rail troughs. The module design eliminates the use of ties and ballast.

<http://www.omnirail.com/tracast.html>

## **OldCastle Precast**

Oldcastle precast manufactures the Startrack railroad grade crossing surface. Details of this product can be found at the following link.

[http://www.oldcastleprecast.com/Oldcastle\\_Precast/Products/Transportation/transportation\\_product.asp?ProductID=78](http://www.oldcastleprecast.com/Oldcastle_Precast/Products/Transportation/transportation_product.asp?ProductID=78)

STAR-TRACK has certain attributes:

- No cross ties (ties settle and deteriorate)

- Permanence and abrasion resistance of high-strength concrete (6,000 psi concrete)
- Ease of installation- you'll have a minimum of downtime
- Access to rail without disturbing the crossing
- Re-use elsewhere in the event of abandonment
- Utilization on all crossings; heavy, fast, auto & truck traffic
- Only two pieces are required for a standard road crossing.
- Availability of custom versions for use with extra heavy loads extreme environments, at turnouts and for spillage containment.

## **1.2 Rubber**

### **HiRAIL Corporation**

HiRail provides rubber grade crossing systems:

HiRAIL®: Full-depth rubber grade crossings, can reduce crossing maintenance, even under severe traffic load conditions. The HiRAIL® system is proven to withstand constant pounding of heavy truck traffic and continuous rail shipments around busy industrial sites. When the track in the grade crossing requires maintenance, the interlocking pads fit securely together without shims or lag screws and can be easily removed and reinstalled.

<http://www.hirail.com>

PedeStrail®: complements any grade crossing, and it offers a durable, slip resistant crossing surface that's perfect for pedestrian and cyclist traffic. It meets the requirements of the Americans with Disabilities Act.

<http://www.hirail.com/pedestrail.html>

HiRAIL RS® Rail Seal: rail seal is made specifically for asphalt crossings. It fits snugly against the rail on both gauge and field sides, sealing out moisture and debris that can lead to asphalt deterioration and signalling problems.

<http://www.hirail.com/railseal.html>