

# R.T. Patterson Company, Inc.

## Engineers and Consultants

### CLIENT

Sterling Steel Company, LLC  
Sterling, IL

### PROJECT

New Remote Billet Yard

### PROJECT SCOPE

Installation of a new Billet Yard with a 95-foot span, 284-foot length, 35-foot height outdoor runway and a 25-ton capacity crane. The Billet Yard is used to unload and to store billets produced at the continuous caster. The billets are staged while waiting for demand and storage space at the existing Rod Mill Billet Yard.

### RTP SCOPE OF WORK

RTP accomplished the following:

R. T. Patterson Co., Inc. (RTP) provided several site plan option drawings and chose with Sterling Steel Company, LLC an optimal layout to minimize the need to relocate underground utilities, multiple railroad tracks in the area, and to provide the most efficient process for unloading, storing, and reloading billets. Previously, railcars were loaded with billets and were staged on tracks prior to being moved to the Rod Mill Billet Yard as needed. Reduced laydown areas at the Rod Mill Billet Yard required additional storage and this remote yard.

RTP provided engineering for piling, pile caps, structural steel, utilities, DC electrical supply, AC electrical supply, lighting, safety lines, crane runway access, etc.



### RTP SCOPE OF WORK - Continued

RTP supplemented recommendations from a 3<sup>rd</sup> party geotechnical firm and provided solutions to account for large soil surcharges on runway foundations due to poor soil conditions overloaded with piles of billets.

The runway design includes a 60-foot span between support columns to accommodate three railroad tracks aligned to accept rail cars coming from and going into the continuous caster and for the reloading of rail cars headed to the Rod Mill. The yard is positioned to allow for a future 150-foot extension ending just short of a plant roadway.

The foundations, structural steel, and the electrical supply equipment were all sized to accept a future second 25-ton capacity crane.

