6-Stall Horse Barn & Manure Storage

TUIRE & PAUL PICKERING
Mono Mills, Ontario

(Reprinted with permission from Dofasco Steel Design, 2006)

DESIGN AND CONSTRUCTION TEAM

Builder:
Post Farm Structures Inc.

Steel Cladding Supplier:
Agway Metals Inc.

Post Farm Structures Inc. of Alma Ontario has completed many commercial and small industrial projects, but as the name suggests specializes in agricultural ones. Established in 1974 by E. John Post, the company has developed as a flourishing family business with sons Herman, Neil, and John Jr. all playing significant roles. This case history features a 6-stall horse barn for Tuire and Paul Pickering of Mono Mills, Ontario.

Begun in May 2005 and completed in June '05 the project comprises one building 36' x 56' with 10' high walls and a further 4' cathedral ceiling. Snow and wind loading is as specified for that area of the province and fire rating does not apply due to the relatively small size of the structure. Designed in-house, the facility did not require the services of an engineer – necessary only for structures >6000sq.ft.

The main challenge with this particular project was the preparatory work involving tricky excavation due to the hilly location. The structure itself involves conventional post & beam framing with all wall and roof cladding and trim steel. Neil Post tell us, "The Pickerings wanted steel cladding rather than competing materials for its low maintenance advantages. Where customers don't specify, we always recommend steel for the roof and walls – not only because of the low maintenance but also durability and appearance. As well, we find it less labour-intensive than wood, with more consistent quality."

The barn roof is fairly high pitch (6/12) with 29 gauge Century Rib profile galvanized steel prepainted QC8330 Heron Blue. Trim is also Heron Blue. The walls are 29 gauge galvanized steel prepainted CQ8021 Beige in the Diamond Rib profile. The structure is a standard horse barn except for an 8' covered porch at the front to accommodate 'sitting out'. The porch has a cream ceiling and blue roof to match the rest of the exterior.

This being a high-moisture environment, ventilation is impotrant. It is achieved here with roof vents and soft vents in the walls. Manually opened windows facilitate a crossbreeze. Walls and ceiling bear standard insulation and Super 6 vapour barrier. Moisture protection for the ceiling is achieved by means of a PVC liner panel attached to the purlins strapping the trusses.

The six horse stalls are 10′ x 12′ with welded stall systems and grilled partitions all finished with 2x6 T&G spruce planking to 8′-0″ high, with the remainder clad with select plywood. They ahve in floor hot water heating with ceramic floors covered with 3/4″ thick rubber mats. Each stall has 36″ x 48″ double hung windows complete with grills. At the ends of the building are 8′ x 8′ double Dutch foors. The barn floor, except for the stalls, is broom-finish concrete. The facility includes an insulated tack storage area. Completing the structure outside the barn is a 12′ x 24′ concrete manure storage with three 4′ high walls and chamfered ends. To complement the facility is an Outdoor Sand Ring, Grand Prix Grass Ring and observation berm.

Canadian Sheet Steel Building Institute
652 Bishop St. N., Unit 2A
Cambridge, ON N3H 4V6
Tel: (519) 650-1285
Fax (519) 650-8081
www.cssbi.ca