





*Top: The radius corner creates a dramatic effect.* 

Right: Fabricated girts follow the curve of the corner. An 83" radius is shown here.

#### THE STRENGTH OF STEELWAY

As the uses and popularity of steel building systems increase, there is a demand by architects, design builders, and end users for unique architectural design features. Switching from a traditional square corner to a radius corner on a steel building system creates a dramatic effect at minimal cost. Side wall and end walls use typical roll formed girts, while the corner girts are fabricated sections matching the desired radius. In this example, StrucSeal wall cladding is used as it easily follows the curve with minimal panel distortion. Trim details were more challenging to adapt to a curve. For simplicity, base trim was replaced with foam closures. By extending the wall panels above the roof line, traditional gable/eave trim is not required. Instead, a transition trim from the top of the panel to the roof is used. To complete the roof system, crickets are installed in the corners to direct water flow off the roof.

The radius corner is achieved using the same components that make steel building systems quick and easy to erect.









The curved roof has been combined with many other architecture features in this modern recreational facility.





#### THE STRENGTH OF STEELWAY

Steelway's curved roof option offers a nontraditional look for steel building systems. With little or no additional cost, this architectural feature blends the roof line in a gentle radius. The RTL-24 standing seam roof easily follows this radius and offers a superior weather tightness with increased R values over standard roofs. Installation is simplified with the elimination of the ridge cap and the use of standard eave and gable trims. The rafter's top flanges match the architectural curve for a truly unique look, inside and out.



Above: The curve of the roof is also visible from the inside of the building.

Left: The curved roof provides contrast against the straight lines of the entrance.







#### **Mono-Slope Roof**



The curved RTL-24 roof system can accommodate a variety of roof radii from 705 feet to 950 feet in both mono-slope and gable roof styles. The radius of the roof is cut into the top of each web of the rigid frame rafter sections. When the rafter is welded, the top flange follows the curve that was cut into the web. Rigid frame types can be clear-span or with interior columns to economically accommodate larger building widths.

Roof systems will either be fixed or floating at the eaves to accommodate roof panel expansion and contraction. In some cases, our 12" wide floating clip will be used in a portion of the roof to allow a greater thermal expansion range. A specific roof sheet installation process is required with maximum sheet lengths of approximately 48 feet.

All other RTL-24 installation details and seaming requirements remain the same as with our traditional straight sloped roof styles.









The Heron Blue StrucSeal parapet band creates an attractive accent on this Stone Grey StormSeal building.





### THE STRENGTH OF STEELWAY

A Parapet Band is a great option for customers who want to add a unique design feature to their building. This economical solution provides an impressive architectural look to any steel building. In some cases, customers desire the traditional flat roof look of a conventional or hybrid steel building. The Parapet Band allows the building owner to benefit from the low maintenance costs of a steel roof in combination with a flat roof look. The system uses L shaped brackets fastened to the ribs of the RTL-24 standing seam roof using special clamps that eliminate roof penetrations. These brackets create the framework to support the horizontal siding and provide clearance for a standard gutter at the eave. Trim finishes off the edges for a clean and attractive look.

Special clamps attach the support structure to the roof system.





## BEYOND #BOX CHANGING YOUR PERCEPTION OF STEEL BUILDINGS



Above: Composite deck on open web steel joist are used in this large span mezzanine.

Right: Cold formed structural sections can be used for shorter spans.

#### THE STRENGTH OF STEELWAY

Customers often wish to integrate a multi storey office or storage areas into their building. Using the latest 3D engineering and detailing software, this feature can be easily achieved in a steel building system. The mezzanine can be integrated utilizing the existing structural components, such as interior and exterior building columns. The primary supporting framework is formed using larger structural sections for support beams and additional columns. The structure is then completed with either open web steel joist or cold formed structural members. Depending on the use, loading, and building requirements, the floor system can be a variety of materials, including plywood, steel deck, composite steel deck, or precast concrete. The structure of the system, including steel deck and open web steel joist, can be completely designed, detailed and supplied by Steelway for a single source solution.



Create your mezzanine floor using Steelway's CD-156 composite steel deck.





## BEYOND #BOX CHANGING YOUR PERCEPTION OF STEEL BUILDINGS





finished track is fully supported by the building system.

Above: This self supporting running track provides access to the arena seating Right: This beautifully

#### THE STRENGTH OF STEELWAY

Integrating a running track into a recreation facility is a great way to provide additional exercise services and viewing areas for the community with minimal cost to the structure. Typically surrounding the arena seating or elevated above the rink or field, the running track can be self supporting in conjunction with the seating or supported by the building structure. The benefit of supporting the track from the building structure is the creation of an unobstructed area, which maximizes the usable space. Precast concrete slabs are ideally suited for the long spans between the structural members providing extra headroom and reduced sound and vibration. Steel building systems provide the strength and design flexibility to accommodate a variety of running track solutions.

The unobstructed area under the running track provides more space for the athletic field below.









Above: This office and manufacturing facility are both steel building systems that incorporate insulated metal panels.

Right: Insulated metal panels provide a clean interior in this soccer facility.

#### THE STRENGTH OF STEELWAY

The flexibility of a steel building system allows for the easy integration of a variety of building envelope types. Insulated metal panels are a common choice for certain specialty applications. These panels feature two layers of light gauge metal with either a foam or a mineral wool insulation core. They range in thickness from 2" to 6" and widths from 24" to 42". Changes to the building system are minimal and all the design and detailing is handled by Steelway. The insulated panels can be installed on the wall or roof and used in combination with other materials such as block or glazing. Steelway will source and supply the panels for maintaining the single source benefit that steel building systems provide.



Glass, concrete, and insulated metal panels have been combined on this modern sports facility.











#### THE STRENGTH OF STEELWAY

Above: The geometry of the concrete wall panels is balanced with the glass on this recreation facility. Right: Precast concrete is used in conjunction with insulated metal panels and glass for a custom look.

The vast array of available building envelope materials ensures a look only limited by one's imagination. Precast concrete panels allow for flexible aesthetics by varying colour, texture, and geometry. This freedom of architectural expression allows building owners to create a truly custom look. By using insulated concrete panels, consisting of two layers of reinforced concrete separated by foam insulation, the building can maintain high levels of thermal efficiency. Steel building systems can be easily designed to accept precast concrete wall systems, which can also be used in combination with other building materials.

Concrete wall panels are used in conjunction with steel cladding in this soccer complex.









#### THE STRENGTH OF STEELWAY

A traditional steel building system has tapered columns that are vertical on the outer side and tapers toward the inside of the building. The functionality and aesthetics of the building can be greatly changed when reversing this standard. By reversing the taper, a gently sloping exterior wall is created. With this scenario, the building is wider at the eave line than it is at the base line. This can be emphasized by contrasting cladding or other accent pieces. A more dramatic change is created by placing the reverse tapered columns on the outside of the building, which leaves the interior free of obstructions. This is often used in sports venues and loose material storage buildings, such as sand and salt storage. To withstand weathering from the elements, the exterior columns can be galvanized or coated with high performance paint.

Above: Contrasting cladding emphasizes the sloped exterior wall created by reversing the taper of the columns.









Above: The horizontal siding is used in combination with brick and accent trim on this recreation facility.

*Right: Contrasting accent bands follow the lines of the horizontal siding.* 

#### THE STRENGTH OF STEELWAY

Typically steel siding is installed vertically but the look of a building can be dramatically changed by installing it in non-traditional ways. Steel cladding can be installed horizontally or even on an angle to produce a more custom architectural look. The structure of the building still uses standard rigid frames, purlins, and girts, while additional secondary structural members are installed between the girts to support the panels. In the featured example, the siding is installed horizontally with sheet ends that are lapped for a continuous look. Alternatively the sheet ends can be hidden using downspouts or a transition or cap trim. Horizontal or angled siding can be mixed with vertical siding or other material for a truly custom look.



A cap trim is used to cover the end of the sheet while providing a visual break in the horizontal lines.









Above: Accent bands fastened to the surface are combined with two different coloured wall panels.

*Right: Angle and elevation changes in the accent band create a unique look.* 

#### THE STRENGTH OF STEELWAY

Contrasting colours and lines are an easy way to enhance the look of any building. Steelway has many standard accent bands that can add an attractive architectural feature to your project. These accent bands can be applied to new construction or existing buildings. Standard accent bands are easily installed by screwing the band to the wall claddingand can be fastened to almost any panel profile. For even greater impact, optional bands are available that are flush or recessed to the wall cladding. These more complicated installations involve stopping and restarting the wall panel. This type of installation generally requires additional structural steel to support the panel ends. Accent bands can also be used in the transition between finishes, such as metal cladding to masonry. The length of the band, as well as the installed height and angle are only limited by your creativity.



A custom accent band is used in the transition from masonry to steel cladding.



Steelway offers a selection of standard accent bands in a variety of styles, widths and colours. These bands are fastened to the surface of the exterior wall cladding and can be used on new or existing buildings. If you require a profile that is not shown, custom accent bands are easily designed and manufactured.





#### **DESIGN IDEAS**

- Use an accent band as a transition between different exterior finishes, such as steel cladding and masonry.
- Combine a horizontal accent band with a vertical accent wall panel.
- Join vertical and horizontal accent bands.
- Match the accent band and the wall colour for a subtle look.
- Use multiple accent bands and different colours.

# **ACCENT**BANDS

Part M264	
Width	Depth
12″	1/2″
Features Three high ribs and two low ribs	
Part	M266
Width	Depth
12″	1 1/4″
Features Raised centre with depressed reveal line	
Dart M260	





\* M270 is used in conjunction with M265 for multiple colour installations.



