Spring 2007 | VOLUME 39 | NO.

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## **Steel and Humanism in the Art of Healing**

**Steel and the Medicine Wheel** 

Steel Roofing chosen for Roof Upgrade Prepainted Steel contributes-to Sustainability Objective

Galvalume Plus Steel Roofing Enhances Clear and Bold Building Form

DOFASC

SPRING 2007 VOLUME 39 NO.1



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Do you have a project using sheet steel that you would like to see in *Steel Design*? The editor welcomes submissions of completed buildings-commercial, institutional, industrial, recreational, and residential-using components made from steel, including cladding, steel decking, light steel framing, steel roofing, steel doors, steel ceiling systems and steel building systems.

> The Editor, Steel Design 1039 South Bay Road Kilworthy, Ontario POE 1GO E-mail: markdir@sympatico.ca

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Cover Photo Credit Valley Hospital: Vytas Beniusis



Our product is steel. Our strength is people.



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#### Credit Valley Hospital, Mississauga, Ontario: Steel and Humanism in the Art of Healing

"Steel helped us meet the challenge of creating a building that's effective from a hard-nosed business cost standpoint while creating a significantly higher standard of humanism in the art of healing. It did so by being a very effective building material in terms of quality, cost and appearance." Tye Farrow, Senior Partner in Charge of Design.

#### Pukatwagan School, Manitoba: Steel and the Medicine Wheel

"Steel roofing is very effective in the far north. You can achieve extremely high R values within a steel system, it handles the expansion and contraction you get with -50°C to +30°C temperatures, and of course, it's very low maintenance." *Greg Stewart, Flynn Canada*.



#### Humber Heights Retirement Home, Etobicoke, Ontario Holistic HealthCare Chooses Steel

Healthcare demographics are shifting. Seniors represent an increasingly large proportion of the general population. This presents new and increasing challenges in terms of accommodation and health care. Phases II and III include a 4-storey, 14,864m<sup>2</sup> (160,000 sq.ft.) facility with a 196-bed retirement home for relatively independent seniors and a 42-unit apartment complex for independent seniors.



#### Sussex Health Centre, Town of Sussex, New Brunswick: Steel Roofing chosen for Roof Upgrade

The Sussex Health Centre opened in 1977 and part of the Atlantic Health Sciences Corporation, is a modern 36-bed facility. The goal was to find a product that could be functional, as well as fit in with the remainder of the buildings in the complex.

#### Dr. Peter Centre, Vancouver, British Columbia: Prepainted Steel contributes to Sustainability Objective

The design of the Dr. Peter Centre offered a complex and engaging architectural problem involving the play of urban design issues, restrictive site, a heritage context, a complex building program, sustainability issues and a limited budget.



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Derby, KS • California State University-Humboldt, Arcata, California • Lone Peak Park Pavilion, Sandy, Utah.





### CREDIT VALLEY HOSPITAL, MISSISSAUGA, ONTARIO



here's a new approach to health care at the Credit Valley Hospital Expansion Project in Mississauga. Steel plays an integral role. Phase 1 involved the addition of 29,728m<sup>2</sup> (320,000 sq. ft.), including the Carlo Fidani Peel Regional Cancer Centre, and an Ambulatory Care Centre. Farrow Partnership Architects Inc. of Toronto established three guiding principles that would determine the design objectives:

**Simplicity:** A generous 9m x 12m (29.5'x 39.4') structural grid with steel decking and light steel framing (LSF) provides future adaptability for a rapidly changing health care system. The structural grid utilizes 165,000 metres (50,000 LF) of wind-bearing as well as 2,640,000 metres

(800,000 LF) of non-load bearing, light steel framing. The glue-laminated structure supporting the roof gently bends like tree branches to create the illusion of a tree-lined courtyard.

#### **Blending of departments:**

The new design strengthens department relationships by grouping previously distanced clinics, thus improving operating efficiencies and the effectiveness of capital expenditure.

#### Humanism in the art of healing:

Besides the 'science of healing' there is also an 'art of healing' that addresses hitherto overlooked and underestimated issues such as stress and other psychological factors now known to impact the



The steel for the exterior walls of the building consists of 2,694m<sup>2</sup> (29,000 sq. ft.) of prepainted steel coloured QC6074 Tan and 130m<sup>2</sup> (1400 sq. ft.) of QC2624 Metallic Silver, with 1,765m<sup>2</sup> (19,000 sq. ft.) of L-800R-C ZF075 Grade A galvanneal wall liner in various gauges.

"Steel helped us meet the challenge of creating a building that's effective from a hard-nosed business cost standpoint while creating a significantly higher standard of humanism in the art of healing. It did so by being a very effective building material in terms of quality, cost and appearance."

Tye Farrow, Senior Partner in Charge of Design

The ZF075 galvanneal roof deck is clearly visible from the courtyard below and provides positive distractions for patients and visitors.



While the structural grid utilizes 165,000 metres (50,000 LF) of wind-bearing and 800,000 LF of non-load bearing .92mm to .46mm (.036" to .018") galvanized and Galvalume steel light steel framing, the entire perimeter of the new building employs 1.9mm to 1.22mm (.075" to .048") galvanized wind bearing steel studs.

healing process and a patient's ultimate wellness.

The entire perimeter of the new building employs 1.9mm to 1.22mm (.075" to .048") galvanized and Galvalume wind bearing steel studs, and .92mm to .46mm (.036" to .018") galvanized and Galvalume steel studs were used throughout the interior of all four storeys.

The exterior walls of the building are clad in a combination of steel panels and jumbo over-sized brick. The steel comprised 2,694m<sup>2</sup> (29,000 sq. ft.) of profile AD-300-R .92mm (.036") prepainted steel coloured QC6074 Tan and 130m<sup>2</sup> (1,400 sq. ft.) of profile AD-300-R .92mm (.036") prepainted QC2624 Metallic Silver, with 1,765m<sup>2</sup>







A simple structural grid system with steel decking and light steel framing (LSF) provides future adaptability by partitioning within the grid system itself.

The majority of the steel roof deck is unpainted .76 mm (,0299") Galvanneal ZF075.

(19,000 sq. ft.) of L800R-C unpainted ZF075 Grade A, galvanneal, covered with drywall, wall liner in various gauges. Standing seam roofing (SSR) of 3,437.3 m<sup>2</sup> (37,000 sq. ft.) of Tradition 150-4, .92 mm (.036") prepainted steel coloured QC6074 Tan and QC2624 Metallic Silver was also used to 'disguise' the mechanical plant penthouse units which are quite extensive to meet the needs of a major hospital. The penthouse SSR panels were curved down to meet the façade to create the visual impression of a chimney and fireplace.

The ZF075 galvanneal steel roof decking comprised 800m<sup>2</sup> (8,600 sq. ft.) of .92mm (.036") RD-306 profile and 548m<sup>2</sup> (5,900 sq. ft.) of .76mm (.0299") RD-938 profile decking.

Tye Farrow concludes, "recent studies show that an abundance of light aids the learning and healing processes. Our design brings daylight down into the heart of the building. As well, in the interior of the main Gathering Space, the ceilings are painted acoustic steel deck and have been left exposed. Its profile creates a 'rhythm' of light and shadow and looks absolutely fantastic."

FOOTNOTE: Farrow Partnership Architects Inc. were selected from close to 150 teams, to receive one of eight research grants by the Ontario Hospital Associations Change Foundation. Farrow are using the new Credit Valley Hospital facilities to research staff-client outcomes relating to satisfaction and wait times, in order to determine the metrics involved and their role in Evidence-Based Design.



#### **Design and Construction Team**

**ARCHITECT:** Farrow Partnership Architects Inc. 416-979-3666

**STRUCTURAL ENGINEERS:** Halsall Engineers/Consultants 416-487-5256

**MECHANICAL & ELECTRICAL ENGINEERS:** Rybka Smith & Ginsler 416-398-6020

QUANTITY SURVEYOR: Helyar 416-204-1100

CONSTRUCTION MANAGER: PCL Construction Canada Inc. 905-276-7600

SCHEDULING: Project Control Group 416-203-1010

STEEL ROOF, CLADDING, LINER AND ROOF DECKSUPPLIER:Vicwest1-877-484-8778INSTALLER:Vicwest1-877-484-8778 andFlynn Canada905-671-3971

LIGHT STEEL FRAMING (LSF) SUPPLIER: Bailey Metal Products 1-800-668-2154

LIGHT STEEL FRAMING INSTALLER: Downsview Drywall Contracting 905-660-0048

**PHOTOGRAPHY:** Vytas Beniusis

Spring

# Steel and the Medicine Wheel



"Steel roofing is very effective in the far north. You can achieve extremely high R values within a steel system, it handles the expansion and contraction you get with -50°C to +30°C temperatures, and of course, it's low maintenance."

Greg Stewart, Flynn Canada

ocated over 800 km north of Winnipeg, Pukatawagan has a population of around 2000 and is home to the Mathias Columb Cree First Nation. When the decision was made to build a new school, AGB Architecture Inc. was hired to design it. Principals Andrew Bickford and Dorothy Taylor have extensive experience working with aboriginal communities and are familiar with the colour principles, symbols, and philosophy important in aboriginal cultures.

Planning the design for this 5,388m<sup>2</sup> (58,000 sq. ft.) school was based on the community's input including its interpretation of the Medicine Wheel, its heritage and its traditional healing. The location of the classrooms by student age was determined by the north, south, east, west cardinal points. Plus, as Dorothy Taylor points out, "Schools in isolated northern communities play many roles. They don't close at 4pm and are home to community gatherings and events, and provide links with the rest of the world. In times of adversity, like flooding or extreme temperatures, they become the place of refuge.They must be safe havens, and only





The one storey structure with classrooms built around a central gymnasium utilizes over 6,600m<sup>2</sup> (72,000 sq. ft.) of prepainted Galvalume<sup>™</sup> standing seam roof coloured QC8330 Heron Blue.



"Thanks to computerization, very complex architectural concepts can be achieved with steel and, though flown in piece-by-piece like a giant jigsaw puzzle, everything fits!" Andrew Bickford, AGB Architecture Inc.

steel construction with simplified maintenance and mechanical systems can provide this."

Thus the 1-storey structure with classrooms built around a central gymnasium comprises 'red steel' framing and insulated steel roofing system and paneling including decking and sub-girt system. Due to the limited time frame for delivering materials (6-8 weeks), the project was completed over a two-year time span with the roofing installed through very harsh winter conditions.

Flynn Canada Ltd., who have completed numerous projects in remote

northern locations, supplied and installed their Accu-Steel<sup>™</sup> standing seam roofing system – in this case approximately 6,668m<sup>2</sup> (72,400 sq.ft.) of 0.61mm (.0239") prepainted Galvalume<sup>™</sup> SSR coloured QC8330 Heron Blue. The pan width is 406mm (16") and seam height is 38mm (1-1/2") c/w two layers of 76.2 mm (3") Roxul RXL 60 insulation, engineered subgirt system complete with 25.4mm (1") thermal spacer, ice and water shield membrane and 25.4mm (1/2") exterior gyproc. Flynn also installed .91mm (.036") ZF075 galvanneal roof deck and .76mm (.0299") Z275 galvanized floor deck from Roll Form Group, totaling around 12,634m<sup>2</sup> (136,000sq.ft.)

Andrew Bickford concurs and adds, "The materials had to be shipped in a 6-8 week time frame and have the ability to sit outside for up to a year before use. Steel can handle that and is the most economical for long spans relative to shipping weights".

The prepainted Galvalume material for wall, fascia and soffit panels consisted of 827m<sup>2</sup> (8,900 sq. ft) of 0.76mm (.0299") P-12R panels coloured QC8273 Bone White and 0.61mm (.0239") P-156S panels coloured QC8330 Heron Blue.











"Schools in isolated northern communities play many roles, they don't close at 4 pm and are home to community gatherings and events, with day care, dental offices and teacher residence facilities."

#### **Design and Construction Team**

ARCHITECT: AGB Architecture Inc. 204-940-3800

GENERAL CONTRACTOR: Penn-Co Construction Canada (2003) Ltd. 204-326-1341

**ROOFING INSTALLER:** Flynn Canada Ltd. 905-671-3971

**ROOFING STEEL SUPPLIER:** Roll Form Group 1-800-233-6228

PHOTOGRAPHY: Gerry Kopelow

## **Holistic Health Care** chooses Structural Wind-bearing Cold Formed Sections (CFS):

1.097mm( 0.0432" ) galvanized.

Other heavy gauge Cold Formed Sections (CFS): 0.84mm (0.0332") galvanized.

Non-load bearing Light Steel Framing (LSF): 0.46mm(.018"). galvanized.

> **Interior Stud Spacing:** 400mm & 600mm (15.75" & 23.62").

Floor Span: 8m & 11m (26.25 ft. & 36.09 ft. ).

**Interior Walls:** Light Steel Framing (LSF) & Drywall.

#### **Building Envelope:**

Sprayed insulation on exterior sheathing (non-combustible), sprayed insulation serving as air/vapour barrier. Brick, stone veneer and stucco finish, with steel stud back-up (no batt insulation), drywall interior.

ealth care demographics are shifting. Seniors represent an increasingly large proportion of the general population. This presents new and increasing challenges in terms of accommodation and health care. Oakwood Retirement Communities Inc. of Kitchener, Ontario specializes in creating retirement communities in a 'village' setting. Oakwood currently has seven such locations across the province, each with the name 'The Village of...' This article looks at one nearing completion: The Village of Humber Heights in Etobicoke.

Humber Heights has three phases. Phase I, already completed, houses the 192-bed Long-Term Care facility whose construction comprised load-bearing masonry with non-load-bearing (NLB) steel studs. However, the contractor and now project manager Van-Del Contracting Ltd., found masonry too time consuming, especially with winter construction involved, and recommended to Oakwood that



ABOVE AND RIGHT: Phases II & III incorporate red iron framing, 1.097mm (0.0432") galvanized structural wind-bearing cold formed sections (CFS).



East Elevation. Partially finished east wall, with exposed south wall showing red iron framing, 1.097mm (0.0432") galvanized structural wind-bearing CFS sections.



Light steel framing is not only a well proven technology for wind-bearing walls, but it also allowed for the structure to be closed in more quickly than competing materials.





ABOVE: North Elevation. Exterior walls are brick, stone veneer with stucco finish, wind bearing steel framing and drywall interior. Non-combustible sprayed insulation on exterior sheathing serves as the air/vapour barrier.

LEFT: North-East Corner. Cold formed sections (CFS) were chosen for speed of erection and availability.

steel be used. Comparisons were made between steel, load-bearing masonry, and reinforced concrete frame. Oakwood agreed with Van-Del and Phases II and III, beginning September 2005 and scheduled for completion in August 2007 incorporate red iron and wind-bearing structural cold formed steel (CFS) framing for exterior walls and NLB light steel framing (LSF) for the interior walls and false roof trusses. Roof parapets are structural CFS sections with a hollow core flat roof. Flooring is also hollow core slab.

Phases II and III include a 4-storey 14,864m<sup>2</sup> (160,000 sq.ft.) facility with a 196-bed retirement home for relatively independent seniors and a 42unit apartment complex for independent seniors.

#### **Design and Construction Team**

#### **OWNER:**

Oakwood Retirement Communities Inc. 519-571-1873

#### **ARCHITECTS:**

Carson Woods Architects & Planners 416-923-2775

STRUCTURAL ENGINEERS: MTE Consultants Inc. 519-743-6500

GENERAL CONTRACTOR: Van-Del Contracting Ltd. 519-743-4133

CSF & LSF FRAMER & DRYWALL: System Drywall & Acoustic 905-707-0825

LIGHT STEEL FRAMING (LSF) SUPPLIER: Bailey Metal Products 1-800-668-2154 Although the entire 3-phase complex is designed like a traditional village with a Main Street and village square, it is in fact an indoor facility providing comfort in all weather conditions.

Regarding weather conditions for construction, Martin Corpeno of Carson Woods Architects & Planners comments, "We hadn't worked with LSF as a structural component before but it was easy and quick to work with and construction was completed during the fall-winter season ready for enclosure in the spring. The only complication from our point of view was fire rating in the basement parking lot where we had to put concrete around the steel columns both for fire rating and impact protection purposes. However, in the four floors above, steel columns and beams were much smaller than concrete for the same load"

LSF was cut on-site as there were too many custom shapes for panelizing to be feasible. But the architect and general contractor agree that steel still had an advantage over competing materials in terms of erection time and the speed and availability of trades.

"We can advise architects and engineers regarding design options and software specifically for designing with steel. We can show builders how to complete projects faster and reduce costs by using sheet steel, and, in some cases, we can provide technical support before and during projects".

#### SUSSEX HEALTH CENTRE, TOWN OF SUSSEX, NB

 T
 he Sussex Health Centre, opened in 1977, is a modern 36 bed facility and is part of the Atlantic Health Services
 1. The Sussex Health Centre, opened in 1977, is a modern 36 bed facility and is part of the Atlantic Health Services

Corporation. The on-site service serves a population of approximately 30,000, and is supported by access to medical specialists at the Saint John Regional Hospital.

The original roof had to be replaced as it had posed many challenges over the years. The goal was to find a product that could be functional, as well as fit in with the remainder of the buildings in the complex. A previous roofing upgrade to other areas of the building complex using asphalt shingles was not a choice, as the design was challenging due to code restrictions with the use of combustible materials in the substructure, however, the overall look of the buildings was to remain consistent. Reroofing began in January 2005 and ended in March.



Both steel roofing and asphalt shingles were considered, but due to problems in the past, with with the combination of the roofing design and these materials, steel roofing was selected.

- 1. The Sussex Health Centre is part of the Atlantic Health Sciences Corporation, which administers the overall health services for Region 2 of the NB Department of Health.
- 2. The roof structure was upgraded to accommodate the new design and the existing roof was replaced with 1580m<sup>2</sup> (17,500 sq. ft.) of Dura-Loc



**Roofing Systems' Shadowline granular coated Galvalume steel** panels in the Briarwood finish.

3. The .46mm (.0179") Galvalume panels measure 401.5mm x 1,200mm (15.81" x 47.25") and have a Briarwood variegated finish and were installed on metal battens.

#### **Design and Construction Team**

#### **OWNER:**

Department of Health, Province of New Brunswick

ARCHITECT: Department of Supply and Services, Province of New Brunswick

ENGINEERS: R. A. Lawrence Engineering Ltd. 506-634-8259

#### ROOFING INSTALLER: Latouche Roofing, Charters Settlement, NB 506-470-4320

ROOFING SUPPLIER: The Roofing Connection, Dartmouth, NS 902-468-7043

ROOFING MANUFACTURER: Dura-Loc Roofing Systems Ltd. 888-224-3541

#### **DR. PETER CENTRE, VANCOUVER, B.C.**

### Nelson Par

# Prepainted Steel contributes to

he design of the Dr. Peter Centre offered a complex and engaging architectural problem involving the play of urban design issues, restrictive site, a heritage context, a complex building program, sustainability issues and a limited budget.

The project has been described as 'a superb addition to the West End's social and physical landscape'.

Located in a 4-acre city block of restored heritage houses in the West End of Vancouver, the objective of the Centre is to provide the necessary supportive environment for the residents and daycentre participants, and also to contribute to the larger community.

The building structure for the 2,787m<sup>2</sup> (30,000 sq.ft.) four storey Centre, which is attached to and incorporates an existing heritage house, is cast in place concrete. Galvalume and galvanized light steel framing of .75mm and .45mm (.0239" and .0179") is used for all exterior infill walls as well as the interior partitions. The building is clad with 920m<sup>2</sup> (10,000 sq. ft) of prepainted Galvalume in two profiles and colours both 10000 Series. One is .61mm (.0239") thick coloured Medium Bronze QC 2899 with a 25.4mm (1") standing seam, while the other is Champagne QC3263 with a 12.7mm (1/2") corrugation. 112m<sup>2</sup> (1200 sq. ft) of the Champagne is used on the roof.

Although there is a brick base to the building the client wanted to avoid an institutional appearance and any reference to the brick clad hospital across the street. The prepainted Galvalume cladding was chosen as a cost efficient material which would allude to the horizontal cladding of the neighboring heritage houses.

The project was designed to address sustainability issues such as: site conservation, reduced energy conservation, indoor air quality and appropriate use and reuse of materials. It succeeds in meeting both the heritage requirements as well as those of a modern facility.





This view show the two prepainted Galvalume profiles, with the 19.5mm (3/4") Medium Bronze QC2899 standing seam on the stair towers and the 12.7mm (1/2") Champagne QC3263 corrugated on the bay projections.

5m

2m



The view from Nelson Park shows the entrance to the facility and the neighbouring restored and renovated heritage house which is incorporated into the project. The projecting bay is clad with 12.7mm (1/2") corrugated prepainted Galvalume coloured Champagne QC3263.

# sustainabili





#### **Design and Construction Team**

**OWNER:** Dr. Peter AIDS Foundation 604-608-1874

**ARCHITECT:** Neale Staniszkis Doll Adams Architects 604-669-1926

**STRUCTURAL ENGINEER:** John Bryson & Partners 604-685-9533

**MECHANICAL ENGINEERS:** DEC Design 604-525-3341

**ELECTRICAL ENGINEERS:** RADA 604-263-7232 "We are constantly looking for durable, environmentally responsible and cost

environmentally responsible and cost effective cladding systems to add to our palette of materials. Steel cladding has a significant recycled content and it is recyclable. That, coupled with its low maintenance, light weight and large selection of colours, makes it a desirable material."

Larry Adams, Neale Staniszkis Doll Adams Architects

ABOVE: View from NE corner of Thurlow and Comox Streets.

LEFT: SE corner view. The prepainted Galvalume cladding was chosen as a cost efficient material.

GENERAL CONTRACTOR: Stuart Olson Contractors Inc. 604-273-7765

STEEL CLADDING SUPPLIER: Vicwest 1-877-484-8778

STEEL CLADDING INSTALLER: Lam Metal 604-430-3233

LIGHT STEEL FRAMING SUPPLIER: Bailey Metal Products 1-800-668-2154

LIGHT STEEL FRAMING INSTALLER: Celtic Contractors 604-294-6611

PHOTOGRAPHY: Derek Lepper 604-760-9910

### **The Last Word in Steel News**



#### **Carlinville School, Illinois**

The school's design reflects the predominantly rural area in which the Carlinville School is located. Christner Inc. of St. Louis, Montana, specified two types of steel roofing, steel wall panels and steel soffit panels, for the exterior of the school in Carlinville. All of the products were formed from .61mm (.0239") Galvalume Plus coated steel.

For the school's 7,896m<sup>2</sup> (85,000 sq. ft.) main roof, a structural standing seam roofing was utilized. The faux silo is topped with an architectural batten seam product. Exposed fastening corrugated panels were used in combination with other materials for the school's exterior walls. According to the designers, "steel components satisfied our goals, and provided the type of life-cycle performance sought by the project team members".

Metal Architect, March/05 📕

#### Ship Loader Voisey's Bay, Labrador

It should be pointed out that the nickel, copper and cobalt ore ship loader shown in the article on Voisey's Bay, Steel Design, No. 2, 2006, was completely designed by EMS-TECH Inc. in Belleville, Ontario, and was fabricated by G.J. Cahill at Bull Arm in Newfoundland.



#### The Potomac Club at Lansdowne, Virginia

An old barn on a dairy farm was renovated to serve as the heart of this project. The design objective was to breathe new life into the barn by designing an addition that complemented the original structure and country landscape. The existing barn had a deteriorating tin roof. To continue the original look, 2,398m<sup>2</sup> (25,816 sq. ft) of architectural standing seam roof panels in .76mm (.0299") prepainted steel with a Green PVDF finish were installed

As the roof configuration has multiple slopes, the architect specified continuous length panels from eaves to ridge. The simple panel configuration



made detailing around dormers, valleys and roof-mounted equipment easier. Dietze Construction Group, Chantilly, VA, was the general contractor and Michael L. Oxman and Associates Ltd., the Architect.

Metal Architect May/06



#### Starfire Sports Soccer Complex, Tukwila, Washington

This facility was constructed using a multispan rigid frame steel building system in the form of a lean-to and mezzanine.

On the 5,858m<sup>2</sup> (63,000 sq. ft.) roof, Slate Gray coloured, .61 mm (.0239") Galvalume steel doublelok structural standing seam roof panels were installed on 1/2:12, 1:12



and 2:12 slopes. The walls are clad with 3,159m<sup>2</sup> (34,000 sq. ft.) of .45mm (.0179'') Galvalume steel exposed-fastener ribbed

panels in Spruce and Classic Green PVDF. Carlson Architects, Seattle, Washington.

Metal Architect, May/06

#### Now available on line – Dofasco Prepainted Steel Colours

Easy web access to Colour Palette for Dofasco's Prepainted Steel

The selection of colours available for Prepainted Steel is now available on the Dofasco website. Sixty-eight colours are shown in the 8000+ Series, 10000 Series, Metallic and Elite Series paint systems. Other custom colours can be developed for new projects. The format allows designers and specifiers to cut and paste colours from this Palette on to your roofing or cladding application.

Also available on the website are the Quality and Performance specifications covering these paint systems.

ed Steel is ight colours Metallic

www.dofasco.ca - Products & Markets - Pre-painted Products - Colour Cards

#### Terminal 30, Seattle, Washington

The Terminal 30 Cruise Ship Passenger building, a 3,545m<sup>2</sup> (90,454 sq. ft.) structure in Seattle, is the departure facility for passengers aboard cruise ships operated by Holland America. It was designed by Seattle-based OTAK using a steel building framing system. There were a number of reasons for the steel building system's use on the project. For starters, the choice provides for a tremendous amount of interior flexibility. That was important for a building designed with two functions in mind: luggage handling and passenger processing. Another consideration was the poor quality of the soil at the site. By using a steel building system with clearspan capabilities, the overall weight of the structure, as well as the number of footings, was kept to a minimum.

Metal Architect, April/06



#### Derby City Hall, Derby, Kansas

In order to meet their deadline dates, the municipality of Derby City and their design/build team utilized building systems construction for their new city hall.

The 1,802m<sup>2</sup> (19,400 sq. ft). building was constructed with an atrium lobby and a 465m<sup>2</sup> (5,000 sq.ft.) upper level for future office expansions.

The systems utilized included the Widespan structural system with

open web trusses and a Galvalume Plus standing seam steel roof system. The roof assembly has 152.4mm (6") of fiberglass insulation and the walls incorporate a 101.6mm (4") thermal barrier of the same material. City officials were pleased with the results and adopted the same approach to a subsequent fire station in the town.

Metal Architect, March/06





#### California State University-Humboldt Arcata, California

Approximately 836m<sup>2</sup> (9,000 sq. ft.) of 0.61mm (.0239") thick steel panels, with an Ultra Cool Colonial Red Kynar 500 finish for energy savings, were installed on the multiple barrel roofs of the HSU student recreation centre. PR Plus P Architects & Planners.

Metal Architect, May/06



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#### Lone Peak Park Pavilion Sandy, Utah

Design appeal and desired durability were the reasons designer ASWN Architecture, Salt Lake City, selected prepainted Galva-lume standing seam roofing in a PVDF finish for this recreation and meeting centre. In total 557m<sup>2</sup> (6,000sq. ft.) of 0.61mm (.0239") standing seam roofing with a separate snap- on batten was installed, which resulted in the aesthetically pleasing bold look the designer desired.

Metal Center News, February/06

#### EDITORIAL INQUIRIES

#### We would like to hear from you!

If you have comments about this issue or a project you would like to see in an upcoming issue of Steel Design, please send a description of the project, include photographs, to:

> The Editor, Steel Design 1039 South Bay Road Kilworthy, ON POE 1G0 Or email: markdir@sympatico.ca













# Build on Success from to top bottom

Designing and building with Dofasco steel makes sense in today's world. Consider the bottom line. Consider the environment. And consider quality.

Steel provides the most desirable and cost-effective combination of design flexibility and strength. Dofasco steel has industry leading recycled content and is the only steel recognized by Environment Canada's Environmental Choice Program.

Light steel framing, cladding, roofing. Superior performance from the inside out.

DOFASCO

Asthma.ca Asthma Society of Canada



