



ArcelorMittal

# Steel Design

Fall 2007 | VOLUME 39 | NO. 2

**Steel the Material  
of Choice for  
Justice Centre**

**LSF makes winter  
construction  
fast and easy**

**Steel Contributes  
to Environmentally  
Responsible Design  
and Construction**

**Prepainted Steel  
Enhances Utilitarian  
Structure**

**Parks Canada  
awarded LEED®  
Platinum  
Rating**

**DOFASCO™**



## PROJECT SUBMISSIONS

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.

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Cover Photo, Nunavut Justice Centre: Ross Sheppard

# DOFASCO

Our product is steel. Our strength is people.

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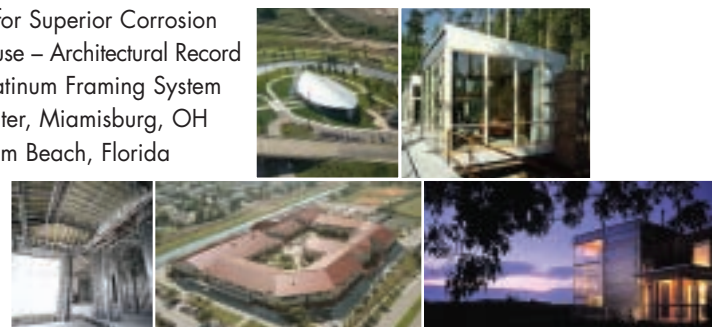
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## NUNAVUT JUSTICE CENTRE – IQALUIT, NU

# Steel the material of choice for Justice Centre

The \$14.6 million Nunavut Justice Centre in Iqaluit, NU, which opened in September 2006, stands as a testament to Inuit art and culture. This showcase of colourful steel and concrete is open and inviting and is in harmony with the natural landscape and environment.

Number Ten Architectural Group and Accutech Engineering North Inc. designed and built the state-

of-the-art facility. Steel was used extensively throughout the facility: for the structural frame; the exterior steel stud walls carrying both wind and cladding loads; interior wall framing and cladding (non-load bearing interior steel stud walls designed as double stud wall systems to ensure acoustical privacy); the roof decking, floors, interior pan stairs and external galvanized stairs;



Interlocking, vertical panels with concealed fasteners in .76mm and .61mm (.0299" and .0239") thicknesses and formed from AZM180 prepainted Galvalume steel coloured QC3659 Grey Berry and QC2624 Silver Metallic, respectively, were used for the main body of the building to provide a refined, smooth appearance.

Photo: Greg Hasiuk



North-east view of the Justice Centre showing the application of the different interlocking and corrugated pre-painted Galvalume and galvanized steel panels.



Photo: Greg Hasiuk

the ramps and railings; and galvanized steel mesh skirting in steel angle frames below the raised main floor.

The building's design, development and the preparation of contract documents started in September 2003 and were done on a very strict schedule in response to building in the Arctic.

Architect Greg Hasiuk emphasizes that steel was the material of choice for a number of reasons. "We were on a very tight budget and steel is affordable," says Greg, adding that its durability, efficient load bearing capacity and

colour range for exterior cladding options were also important considerations. The fact that steel is lightweight was also an essential factor in shipping the material by sealift out of Montreal to the site.

Construction commenced in September 2004 on the two-level, 2,507m<sup>2</sup> (26,986 sq. ft.) building. G.C. North was the General Contractor on the project. "Installation of the steel structure went well," says Dave Gordon, Project Manager, mentioning that the structure was up before November when the site shut down due to weather conditions until

March 2005. The 4,300m<sup>2</sup> (46,285 sq. ft.) steel deck consisted of .91mm and .76mm (.036" and .0299") ZF075 galvaneal steel.

Two main steel cladding profiles were used in the Centre. Arcan Construction Ltd. installed 1,850 sq. m (20,000 sq. ft.) of pre-painted AZM180 Galvalume™ steel and pre-painted Z275 galvanized exterior wall cladding, and 170 sq. m (1,830 sq. ft.) of pre-painted AZM180 Galvalume for the soffits.

"The colours we chose were a direct result of our consultation process with community members, whereby the natural landscape and local artwork were important influences. The vivid royal blue colour is a common colour in Inuit artwork and clothing, while the silver and grey berry colours are reminiscent of the rock and tundra landscapes which reflect the strong northern sun," says Hasiuk.

GypTech Acoustics provided the Z275 galvanized light steel framing studs ranging in size from 63.5mm to 152.4mm (2-1/2" to 6") for both the wind bearing exterior walls, as well as, the non-load bearing interior steel stud walls designed as a double stud wall systems to ensure acoustical privacy. Light gauge steel was also used for the acoustical ceiling. G.C. North installed approximately 1,394m<sup>2</sup> (15,000 sq. ft.) of torch down roof.

The 7/8" deep .61mm (.0239") pre-painted Z275 galvanized corrugated panels, coloured QC8790 Royal Blue, were used for the building's more colourful feature components. The soffits were .45mm (.0179") thick pre-painted Galvalume steel coloured QC8306 Charcoal.



Photo: Greg Hasiuk

## Design and Construction Team

**OWNER:** Government of Nunavut — Department of Justice and Department of Community & Government Services. 867-975-6131 or 867-975-5421

**ARCHITECT:** Number Ten Architectural Group, Winnipeg 204-942-0981.

**STRUCTURAL, MECHANICAL & ELECTRICAL ENGINEERS:** Accutech Engineering North Inc., Winnipeg 204-944-1555

**GENERAL CONTRACTOR:** GC North Inc., Iqaluit, NU. 867-979-1992

**LANDSCAPE ARCHITECT:** Hilderman Thomas, Winnipeg 204-944-9907

**CIVIL ENGINEER:** Dillon Consulting Ltd., Iqaluit, NU. 867-979-6712

**GEOTECHNICAL:** DST Consulting Engineers, Thunder Bay. 1-800-668-4201

**ACOUSTIC CONSULTANT:** Dan Lyzun & Associates Ltd. 604-988-9871

**WIND & SNOW ANALYSIS:** RWDI Inc., 519-823-1311

**QUANTITY SURVEYORS:** Hanscomb Ltd. 613-234-8089

**EXTERIOR CLADDING & SOFFIT INSTALLER:** Arcan Construction Ltd. 867-874-2303

**STEEL CLADDING SUPPLIER:** Agway Metals Inc. 1-800-268-2083  
Metal-Span Corp. 780-466-6039

**STEEL ROOF DECK SUPPLIER:** Canam Steel through Beauce Atlas Inc. 418-387-4872

**ROOF DECK INSTALLER:** G.C. North Inc. 867-979-1992

**LIGHT STEEL FRAMING & ACOUSTICAL CEILING INSTALLER:** GypTech Acoustics 418-836-5038

**LIGHT STEEL FRAMING SUPPLIER:** Manugypes Inc. 1-800-871-5818

**STEEL SUPPLIER FOR LSF:** Samuel, Son & Co. 1-800-233-6228  
Acier Point-Claire 1-888-332-3331

"The prefinished steel cladding is a proven, affordable and durable system that ensures a virtually maintenance free finish with a long life expectancy".

Greg Hasiuk MAA  
Number TEN Architectural Group

Site Plan –  
Nunavut  
Justice Centre

The intense sunlight in the north creates a nice interactive appearance between the pre-painted steel profiles and colours, which we used both vertically and horizontally.



# LSF makes winter construction



## fast and easy

With temperatures hitting minus 38°C, construction during the winter can present some tough challenges.

But a light steel framing (LSF) panel system proved to be the perfect solution for two hotel projects, in Ontario cottage country and Northern Ontario,

*“The benefits of lightweight steel framing, combined with improvements in engineering and connection detailing, continue to provide builders and developers with superior building solutions.”*

Tom Lehari, President and CEO

Holiday Inn Express in North Bay.

Both projects used LSF, supplied by Bailey Metal Products, for the load-bearing walls, exterior wind bearing walls, steel stair and landing systems. The structural steel, supplied by Gensteel for the

that were being built in the early months of 2007.

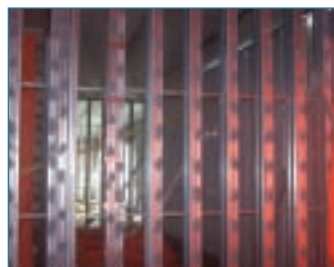
FNA Building Systems Inc. manufactured and erected the LSF panel systems used for the five-storey, 4936m<sup>2</sup> (53,111 sq. ft.) Holiday Inn Express in Huntsville and the 6022m<sup>2</sup> (64,796 sq.ft)

North Bay project and Linesteel (Barrie) for the Huntsville Project, included red iron frames at the ground floor swimming pool and other large span areas. The development also featured a 203mm (8”) pre-cast concrete floor and roof system.

Construction of the new Huntsville hotel, housing 86 suites, began January 4, 2007 and was completed, with roof slabs installed, in five weeks – one floor per week with installation of pre-cast slabs scheduled for every Tuesday per floor level. The 116-suite North Bay project started two weeks later and was also completed in a record five weeks with pre-cast lifts scheduled every Thursday.

“FNA panelized walls were sheathed with Densglass in the factory and plastic sheeting was installed over the window openings. This enabled each floor level to be heated as soon as the precast

*View of main corridor showing double shear wall assembly with cross bracing in between the two walls. HSS structural steel columns and lintels in main corridor. Erection and installation proceeded prior to main floor slab being poured. The slab was then poured to the underside of the LSF wall panels.*



*View of typical ground floor load bearing wall showing triple stud configuration 1.72mm @ 406mm oc (triple 4” .068” @ 16” oc) in each of the double wall components.*



*Light steel framing panel system (LSF) is easy to install, which has a positive effect on the overall production schedule and was one of the major reasons why it was the material of choice for these two projects.*



*Light steel framing (LSF) panel system proved to be the perfect solution for the two hotel projects during winter construction.*



*After both starting construction in January – the two Holiday Inn Express hotels opened within a month of each other – in Huntsville (far left) on June 1, 2007 and in North Bay (left) on July 1, 2007.*

*Light steel framing systems are a well proven technology for wind-bearing walls and they allow for the structures to be closed in more quickly than competing materials.*



concrete slabs were placed on top,” explains Tom Lehari, President and CEO, FNA Building Systems. “This provided enough heat to allow the slabs to be grouted prior to the next level of FNA wall panel erection. It also meant that other trades could commence work on a per floor basis immediately after the FNA erection.”

Dan Burgess, Chamberlain Construction Services, Construction Managers on the project, comments on the advantage of using steel over other materials. “Steel provides true studs and plumbs and is more stable than wood. For these applications, it was definitely a cleaner, more efficient system than concrete.” Tom Lehari agrees. “FNA’s LSF system eliminated all concrete block with the exception of the elevator shaft.”

Erection of the FNA engineered double wall system, incorporating 92mm (3-5/8”) studs ranging in gauges from 1.73mm to 1.09mm (.068” to .043”) with a common top and bottom track, was completed on a floor level in less time than construction of the elevator shaft on that particular floor. One of the benefits of the double wall system is that shear wall cross bracing was installed between the two wall panels, eliminating coordination problems with electrical and plumbing services and gypsum board installations. FNA’s integrally designed thru bolt system enabled thru bolts to be in place prior to pre-cast slab installation. Once the slabs were placed, the next level of wall

panels, with pre-drilled bolt holes, was simply placed on top and clamped over the bolts which contributed to a streamlining of the erection process and a definite time savings.

### PROJECT DETAILS — LSF Statistics

#### Huntsville

**Total Exterior wind wall:**  
1,044m (3,425 linear feet) of 152.4mm x 1.09mm (6”x.043”)

**Total Load-bearing wall:**  
2,170m (7,120 linear feet) of 92mm x 1.09mm to 1.73mm (3 5/8” x .043” to .068”)

**Total 92mm (3 5/8”) stud material:**  
20,106m (65,965 linear feet)

**Exterior Finish:**  
GROUND FLOOR: masonry veneer with Fero BVT brick ties screwed to steel studs

TYPICAL FLOOR: EIFS system on densglas sheathing

#### North Bay

**Total Exterior wind wall:**  
892m (2,925 linear feet) 152.4mm x 1.09mm (6” x .043”)

**Total Load-bearing wall:**  
2,188m (7,180 linear feet) of 92mm x 1.09mm to 1.73mm (3 5/8” x .043” to .068”)

**Total 152.4mm (6”) stud material:**  
8,479m (27,789 linear feet)

**Total 92mm (3 5/8”) stud material:**  
23,374m (76,685 linear feet)

**Exterior Finish:**  
GROUND FLOOR: masonry veneer with Fero BVT brick ties screwed to steel studs

TYPICAL FLOOR: EIFS system on densglas sheathing

### Design and Construction Team

#### OWNER:

Vrancor Development Corporation

#### ARCHITECT:

Chamberlain Architect Services Limited 905-799-7777

#### CONSTRUCTION MANAGER:

Chamberlain Construction Services Limited 905-631-777

#### CONSTRUCTION SITE MANAGER:

Arbuckle & Associates Construction Management  
416-526-3022

#### LSF PANEL SYSTEM MANUFACTURER AND INSTALLER:

FNA Building Systems Inc. 416-232-9801

#### LSF STAIR SYSTEM MANUFACTURER & ERECTOR:

FNA Building Systems Inc. 416-232-9801

#### LIGHT STEEL FRAMING SUPPLIER:

Bailey Metal Products 1-800-668-2154

#### STRUCTURAL STEEL

**NORTH BAY PROJECT** Gensteel 905-799-3324

**HUNTSVILLE PROJECT** Linesteel (Barrie) 705-721-6677

**PHOTOGRAPHY:** Tom Lehari



# Prepainted Steel

## enhances Utilitarian Structure

**W**indsor Lake Water Treatment Plant (WTP) was one of three WTPs serving the 200,000 people in the urban region of St. John's, Newfoundland. Back in 2001 the need for a boiled water advisory led to the city of St. John's seeking better ways to treat its water. And existing conventional treatment methods would not meet proposed regulatory requirements. A new operating system – a Memcor® continuous microfiltration submerged (CMF-S) system from USFilter – provides a relatively small system footprint, lower capital investment, and annual operating cost savings compared to many similar systems. Backwash recovery units increase

overall plant recovery to 99.6 percent. In concert with that, the architect's challenge was to design a functional structure that was both economical and relatively pleasing visually for a building of this kind. Stan Hampton, of Hampton Architect Inc., tells us "The \$27-million project comprised a main facility housing the offices and water treatment plant, and an ancillary building containing generators and electrical switch gear. For durability, economics and especially for appearance, I used prepainted Galvalume™ steel for much of the exterior. We used a flat 2-ply modified system for the flat roof. Then, taking advantage of the fact that the office building nestling in the 'L' is single storey, we used angled Aqua Jewel QC3649

prepainted Galvalume steel roof cladding to provide a nice slope and a splash of colour that a building like this wouldn't normally have." The Valu-Clad liner panels used for the interior are prepainted galvanized coloured Regent Grey QC8730, in the 8000 Series paint system. Stan Hampton went on to say that he often works with sheet steel as he likes steel products and finds them easy to work with. Similarly, Barry Imhoff of Hampton Ventures

who installed the cladding says the project went smoothly from his point of view despite the extensive use of horizontal cladding and mitered corners. He adds, "I'm pleased to say our crews were up to the challenge."

**Prepainted Galvalume and galvanized steel cladding in this project:**

**Horizontal Wall Cladding (main building)**  
1115m² (12,000 sq.ft.) of .76mm (.299") prepainted AZM150 Galvalume, QC195 Arctic White, 10000 Series paint system, panel profile S-308-SB

**Roof Cladding (office building)**  
715m² (7,700 sq.ft.) of .61mm (.0239") prepainted AZM150 Galvalume, QC3649 Aqua Jewel, 10000 Series paint system with batten-clad profile panel

**Highlight Panels (main building tower & end wall)**  
279m² (3000 sq.ft.) of .61mm (.0239") prepainted AZM150 Galvalume, QC3234 Copper in the Metallic Series (a 4-coat Kynar based paint system)

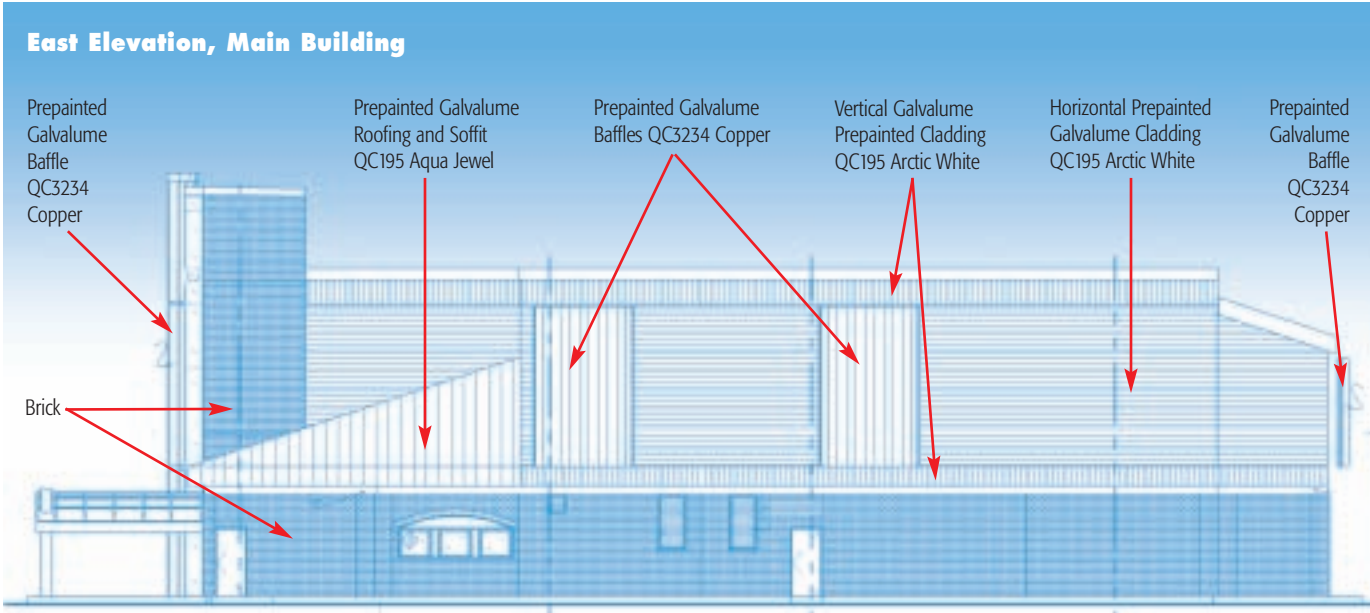
**Valu Clad Liner Panels**  
622m² (6,700 sq.ft.) of .61mm (.0239") prepainted galvanized, QC8730 Regent, 8000 Series paint system.

"For economics, durability and especially appearance I used prepainted Galvalume for much of the exterior".

Stan Hampton, Hampton Architect Inc.

**Prepainted AZM150 Galvalume steel, QC195 Arctic White in the 10000 Series paint system was used for the horizontal wall cladding. Prepainted AZM Galvalume steel, coloured QC3640 Aqua Jewel in the 10000 Series paint system for the sloped roof and QC3234 Copper for the side and tower baffles**

**The mitered corners of the horizontal Arctic White wall cladding, as seen here and on page 10, together with the finished soffit of the sloped Aqua Jewel roof and the matching trim items give the water treatment plant a pleasing clean and crisp appearance.**







*The end wall and front tower baffles are clad with prepainted Galvalume steel in the 10000 Series QC3234 Copper.*

## Design and Construction Team

**OWNER:** City of St. John's

### PRIME CONSULTANTS & ENGINEERS:

Newfoundland Design Associates Limited 709-726-4490

**ARCHITECT:** Hampton Architect Inc. 709-739-7906

**GENERAL CONTRACTOR:** Allied Constructors 709-754-4367

**WATER FILTRATION SYSTEM:** CH2MHILL 416-499-9000

**STEEL ROOFING & CLADDING INSTALLER:** Hampton Ventures Division of Hampton Holdings Inc. 1-877-834-9293

### STEEL ROOFING & CLADDING SUPPLIER:

Roll Form Group 1-800-233-6228

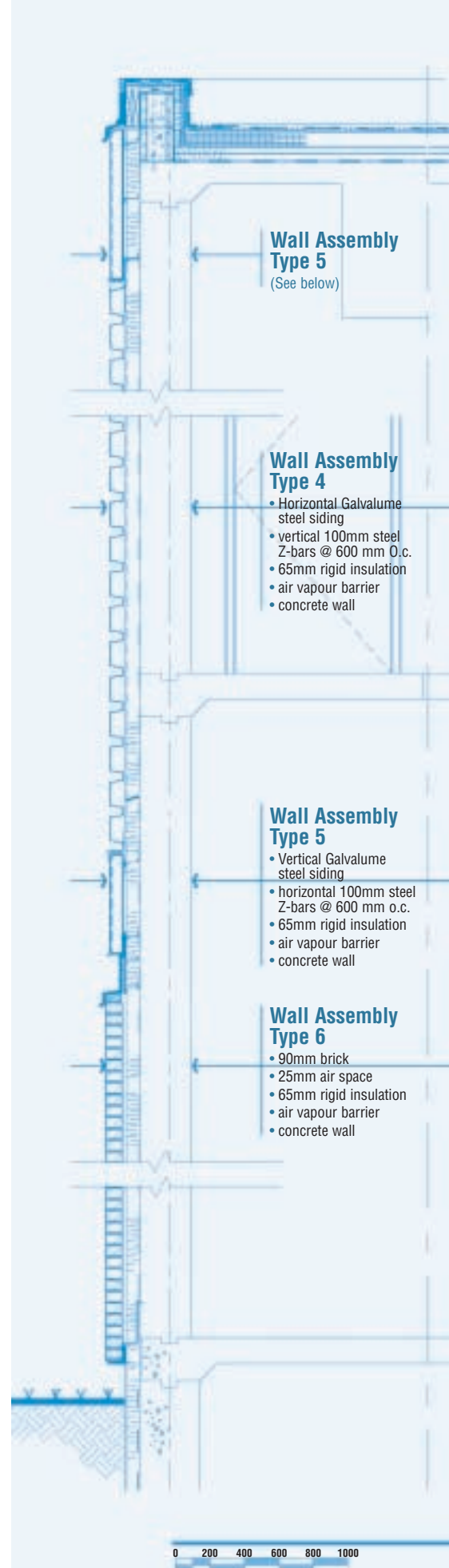
**STEEL ROOF DECK:** Canam 506-857-3164

**SITE WORK:** Rock Construction 709-895-2745

**LANDSCAPING:** Clearway Contracting Ltd. 709-895-2999

### STRUCTURAL AND MISCELLANEOUS METAL:

Land & Sea Welding Inc. 709-596-6484



**Wall Assembly Type 5**  
(See below)

**Wall Assembly Type 4**

- Horizontal Galvalume steel siding
- vertical 100mm steel Z-bars @ 600 mm O.C.
- 65mm rigid insulation
- air vapour barrier
- concrete wall

**Wall Assembly Type 5**

- Vertical Galvalume steel siding
- horizontal 100mm steel Z-bars @ 600 mm o.c.
- 65mm rigid insulation
- air vapour barrier
- concrete wall

**Wall Assembly Type 6**

- 90mm brick
- 25mm air space
- 65mm rigid insulation
- air vapour barrier
- concrete wall

## THE SEMIAHMOO LIBRARY & RCMP DISTRICT OFFICE, SURREY, B.C.

# Steel contributes to Environmentally Responsible Design and Construction

*The Semiahmoo Library and RCMP Facility is a handsome, efficient, high quality building representing the responsible use of public funds for the benefit of the whole community.*

The United States Green Building Council recognized the Semiahmoo Library and RCMP District Office located in Surrey, British Columbia with a Leed™ Silver Certification in January 2004. It has earned accolades for its environmentally responsible design, cost effective construction, quick and efficient erection and its aesthetically pleasing features that express openness and strength. And steel contributed to its success on all counts.

The dual-purpose facility, developed by the City of Surrey, houses the South Surrey RCMP District Office on the 929m<sup>2</sup> (10,000 sq. ft.) lower floor and the Semiahmoo Library on the 1858m<sup>2</sup> (20,000 sq. ft.) double height space above. It features a welcoming, comfortable library, an information resource centre, bright and colourful children's area and study spaces to meet a

variety of needs for individuals and groups.

Musson Cattell Mackey Partnership was the Architect-of-Record, responsible for the construction documents and administration, and Darrell J. Epp Architect Ltd. was the Design Architect for this design build project led by contractor Norson Construction.

Ivory Interiors Ltd. supplied the .46mm (.018") steel studs, ranging in height from 2.74m to 7.62m (9 ft. to 25 ft.). The lightweight OWSJ structural steel system supplied by Haney Iron Works was used for the second floor. The steel deck was installed by Rite-Way Metals. Vicwest supplied the .76mm (.0299") ZF075 exposed galvaneal steel deck profile. The exposed deck is painted white.

"We needed something which could meet our very stringent budget concerns and could be erected quickly. Steel seemed the logical choice."

Darrell Epp, Design Architect

## Design and Construction Team

### ARCHITECT OF RECORD:

Musson Cattell Mackey Partnership  
604-687-2990

**DESIGN ARCHITECT:** Darrell J. Epp Architect Ltd. 604-926-7935

**STRUCTURAL CONSULTANT:** Weller Smith Bowers 604-294-3753

**MECHANICAL CONSULTANT:** Vel Engineering 604-687-1802

**ELECTRICAL CONSULTANT:** Flagel Lewandowski Ltd. 604-525-4601

**LANDSCAPE ARCHITECT:** Perry+Associates 604-738-4118

### GENERAL CONTRACTOR:

Norson Construction 604-986-5681

**STRUCTURAL STEEL FRAME:** Haney Iron Works 604-463-7844

**STEEL DECK INSTALLER:** Rite-Way Metals Limited 604-584-7500

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

**LIGHT STEEL FRAMING & DRYWALL INSTALLER:** Ivory Interiors Ltd. 604-418-4766

**STEEL ROOF DECK:** Vicwest 1-800-661-6936

**PHOTOGRAPHY:** Bob Matheson



*The .76mm (.0299") ZF075 exposed galvaneal steel deck and framing was used for its non combustibility — which could be painted and used as a finished material without being heavy and ponderous and still provide an element of visual interest.*



# Operations Centre awarded LEED® Platinum rating

**P**latinum rating by the Canada Green Building Council for its vision and achievement with the successful completion of this 1050m<sup>2</sup> environmentally friendly facility. This is the first building to be awarded with a Platinum rating in Canada, and is the first Federal Government facility to follow through with Public Works and

Government Services Canada's commitment to LEED Gold or higher for new buildings. According to Ron Kato, project architect for Larry McFarland Architects, "the project didn't need any special technologies, it largely used off-the-shelf products, proven technology and local design and construction resources". Ron goes on to state, "it excelled in all the point categories, leading to the Platinum rating". The sustainable design vision developed for this project was to demonstrate how, in the isolated island ecology of the Gulf Islands National Park Reserve, a building can be designed to respond to its site and environment

to minimize dependence on outside sources of energy and its impact on the environment. The building features a striking new aesthetic, with a form and materials that sensitively responds to its local microclimate, materials and community setting. Interior finishes are minimized by allowing exposed structural materials to be the finishes where possible. The building exterior is clad with Western Red Cedar and 548m<sup>2</sup> (5,900 sq. ft.) of .61mm (.0239") prepainted Galvalume steel coloured QC6067 Slate Blue in Vicwest's CL938 profile. The roof for the Centre consisted of built-up torch on and .61mm (.0239") unpainted galvanized standing seam roof cladding.

- Project highlights include:**
- Outstanding energy cost savings of 75% with an energy intensity savings of 49%
  - Incorporation of renewable photovoltaic electricity generation;
  - Use of an ocean-based heat pump system to provide heating and domestic hot water;
  - Commitment to certified green power greatly exceeding LEED Credit requirements;
  - Exceptional indoor water use efficiency with over 60% reduction of potable water use, a rainwater collection system for marine washwater and sewage conveyance, and,
  - Extensive application of products and practices to improve the indoor environmental quality for occupants



The interior of the building is planned around a central atrium lit by north-facing clerestorey windows highlighting the exposed inclined glulam structure, exposed steel deck and visually connecting the open floor areas.



The building form features a sawtooth roof meant to symbolize the rock ledges that characterize much of shoreline found in the Gulf Islands. Each facade has been designed to respond to its orientation. Western Red Cedar and prepainted Galvalume steel cladding are the exterior finishes.

Interior finishes are minimized by allowing exposed structural materials to be the finishes where possible. Concrete floors are exposed, except within workstations and offices. Exposed (.036") .91mm ZF075 galvanneal steel deck ceilings predominate.



## Design and Construction Team

**OWNER:** Parks Canada

**ARCHITECT:** PRIME CONSULTANT,  
**LEED CONSULTANT:** Larry McFarland Architects Ltd. 604-733-1115

**STRUCTURAL ENGINEER:** CWMM Consulting Engineers 604-731-6584

**MECHANICAL ENGINEERS:** Stantec Consulting Inc. 604-696-8000

**ELECTRICAL ENGINEERS:** Robert Freundlich & Associates Ltd. 604-685-3634

**CIVIL ENGINEER:** 1st Team Engineering Ltd. 250-478-8383

**ENERGY ENGINEER:** EnerSys Analytics Inc. 604-552-0700

**COST CONSULTANT:** James Bush & Associates Ltd. 604-535-5800

**LANDSCAPE ARCHITECT:** Phillips Farevaag Smallerberg 604-736-5168

**CONTRACTOR:** Leducor Special Projects 250-477-1831

**COMMISSIONING AGENT:** BC Buildings Corporation 250-952-8500

**ENVIRONMENTAL ADVISER:** Public Works and Government Services Canada

**BUILDING SCIENCE PROFESSIONAL:** Read Jones Christoffersen Ltd. 250-386-7794

**GEOTECHNICAL ENGINEER:** Thurber Engineering Ltd. 604-684-4384

**ENVIRONMENTAL SURVEILLANCE AND COMPLIANCE:** Parks Canada 888-773-8888

**PREPAINTED GALVALUME STEEL SUPPLIER:** Vicwest 1-877-484-8778

**CLADDING INSTALLER:** S. Turning Sheet Metal and Construction 250-413-5923

**STEEL DECK SUPPLIER:** Mercury Metals Ltd. 604-946-5316

**STEEL DECK INSTALLER:** CamAir-Systems Ltd. 250-287-4939

**ROOFING INSTALLER:** Johnson Bros. Roofing 1-866-321-7663

**PHOTOGRAPHY:** Derek Lepper 604-760-9910



## The Steel Product of Choice for Superior Corrosion Resistance



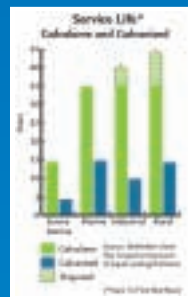
Galvalume™ is the fastest growing steel product in North America. It combines the best protective qualities of aluminum and zinc. In fact, it has proven its superior building performance in extended field testing in a diverse range of corrosive environments.

Galvalume offers these advantages over galvanized at no extra cost on a per square foot basis:

- At least twice the corrosion resistance of traditional galvanized coatings of similar thickness under the same exposure conditions.
- Excellent protection of cut edges.
- Exceptional heat reflectivity, resulting in lower energy load on buildings and improved interior comfort.
- A distinctive appearance, with a smooth, fine spangle and silvery metallic finish.
- High temperature resistance.

The superior corrosion resistance of Galvalume has been proven by actual exposure tests and confirmed through extensive field evaluations of real buildings. Atmospheric tests were conducted over 36 years in the USA and 17 years in Canada. The tests covered a variety of environments ranging from rural to severe marine. An inspection for 30 year old Galvalume roofs confirmed that they are still in excellent condition and are projected to last 40 or more years before requiring major maintenance.

For more detailed and extensive information, write to or call Ken de Souza at Dofasco. Telephone 1-800-363-2726 Ext. 3997 or e-mail: ken\_desouza@dofasco.ca ■



## The Bailey Platinum Framing System

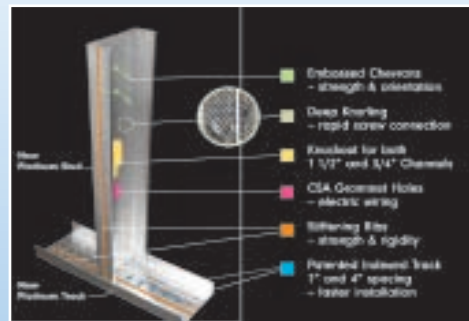
Bailey Metal Products Limited introduced a revolutionary new product to the Building Industry – the **Bailey Platinum Framing System**. This newly engineered stud and track wall framing system enhances the existing Bailey Framing System.

The basic elements of the existing Bailey Framing System (steel thickness, profile, knock out locations, size, etc.) remain unchanged. The new Platinum System incorporates a number of unique features and patented enhancements to improve speed of installation, strength and performance.

- DEEP KNURLING** for excellent screw connection and retention.
- FIRE RATING** for all applications.



- PATENTED INDEXED TRACK** for "built-in" measurement.



- STIFFENING RIBS** for superior strength.

Interchangeable with all existing Bailey systems. As such it meets and/or exceeds all Engineering, Fire Rating and Code requirements and can therefore be installed with no concern regarding construction or code requirements.

Go to: [www.bmp-group.com](http://www.bmp-group.com) ■

## New CSSBI Labeling Program Launched



The CSSBI Labeling Program has officially been launched! This program is designed to assure the consumer that the product they have purchased adheres to the strict standards for quality as established by the recognized authority on sheet steel, the Canadian Sheet Steel Building Institute.

All products produced by CSSBI members must meet recommended minimum requirements, as stated in the various product standards. Acceptable products are easily identified through a prominently branded CSSBI label featured on the product packaging.

All CSSBI members have been providing quality sheet steel building products for many years. This new program will help the consumer determine if the supplier is a member of the CSSBI and is therefore purchasing a quality product.

For more information on sheet steel building products and a list of CSSBI members, visit [www.cssbi.ca](http://www.cssbi.ca) ■

## Roosevelt Middle School, Palm Beach, Florida

The school's Loc-Seam standing seam roof is manufactured from .76mm (.0299") 50,000Psi prepainted AZM150Galvalume steel with a Kynar 500 finish coloured

Terra Cotta. The Loc-Seam panel sidelaps have a factory applied mastic. Designer – Advanced Roofing. Metal Architecture, April/06 ■



## Villa-Lucy, Port Townsend, Washington State



Seattle architect Anthony Pellecchia built his first weekend house in a 6-acre natural setting of fir, cedar, madrona and alder forest, on a bluff overlooking the waters of the Strait of Juan de Fuca, situated in the Pacific Ocean off the coast of Washington. The 130m² (1,400 sq. ft.) house sits on a steel frame so that the sloped ground below it is largely untouched. The roof is corrugated Galvalume coated steel.

Architectural Record, July/06 ■

## Chesapeake Boathouse, Oklahoma City

The 1354m² (14,578 sq. ft.) boathouse is located on the Oklahoma River. The project was designed as a metaphor for a rowing shell and includes a reflecting pool wrapping two sides of the structure.

The boathouse has a steel building systems pre-engineered steel frame and a white standing-seam steel roof. The walls are translucent polycarbonate, so that the dramatic night lighting will create the sense that the building is floating above water. Elliott + Associates Architects.

Metal Architecture, March/06 ■



## Elevator Bay House Kingston, Ontario

Situated at the edge of Lake Ontario in Kingston, surrounded by provincially designated parkland along a commuter corridor at the old city limit, the Elevator Bay House stands to demonstrate the change in land use along Lake Ontario from industrial to residential. Clad in galvanized steel and Douglas Fir the house is both urban loft and country cottage. (For more details, see Steel Design Vol. 1, 2004, pg. 8). Designed by Jason Emery Groen.

Architectural Record – Residential Showcase, April 20/07 ■



## Boise State University Boise, Idaho

Completed in March 2006, the indoor football practice facility features 96,000 sq. ft. of BattenLok architectural standing seam roofing, manufactured from .61mm (.0239") Galvalume steel with a Sea Mist PVDF finish. The 406mm (16")-wide panels were curved to a 53.6m (176') lay down. Hummel Architects, Boise, ID

Metal Architecture, September/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:

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[markdir@sympatico.ca](mailto:markdir@sympatico.ca)





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