

### SPECIALIST IN COLD-FORMED STEEL CONSTRUCTION



## A Turnkey solution for all of your CFS projects

VanderWal Homes & Commercial Group Inc. is Canada's leading structural Cold-Formed Steel specialist with over 20 years of experience in the design, fabrication, delivery and install of cold-formed steel components. Our team consists of professional designers and construction experts who thrive on developing framing and building solutions that can be adapted and customized to fit any building project. Our team is dedicated to providing the highest quality Cold-Formed Steel (CFS) framing solutions in the form of CFS Truss Framing Packages, CFS Floor Framing Packages, CFS Panelized Wall Framing Packages, and CFS Construction Accessories. VanderWal Homes & Commercial Group Inc. strives to maintain nationwide presence and is in an unrivalled position to deliver to any location in Canada.

VanderWal Homes & Commercial Group is absolutely committed to our clients, partners and employees.



### SPECIALIST IN COLD-FORMED STEEL CONSTRUCTION

### INTRODUCTION TO CFS

- Cold-Formed Steel (CFS) components are fabricated using hot dipped galvanized sheets and a cold forming process.
- CFS members have been used in buildings, bridges, storage racks, grain bins, car bodies, railway coaches, highway products, transmission towers, transmission poles, drainage products, drainage facilities, various types of equipment and others.
- These types of sections are cold-formed from steel sheet, strip, plate, or flat bar in roll forming machines or by press brake (machine press) or bending operations.

### **ADVANTAGES OF CFS**

- Lightness in weight
- High strength and stiffness
- Ease of prefabrication and mass production
- Fast and easy erection and installation
- Substantial elimination of delays due to weather
- More accurate detailing
- Non shrinking and non-creeping at ambient temperatures
- No formwork needed
- Termite-proof and rot proof
- Uniform quality
- Economy in transportation and handling
- Non combustibility
- Recyclable material

### VanderWal Group

VanderWal Group is Canada's only coast-to-coast Cold-Formed Steel (CFS) framing system specialist. Using the very latest in technology and methodology to deliver the highest quality, precision engineered components, VanderWal Group excels in the design, engineering, fabrication and installation of CFS framing.

VanderWal Group's galvanized CFS framing components are 100% non-combustible, 100% recycled/recyclable material and have a working life of hundreds of years, even under aggressive conditions. It will not crack, shrink, warp or twist and is an inorganic material that will not release toxic off-gasses into the building envelope.

It has multi-story capabilities, the highest strength-to-weight ratio of any typical building material, assists in the accruement of LEED points, and with pre-engineering and prefabrication is erected in a fraction of the time of conventional stick framing.

#### **Cold-Formed Steel Trusses**

Long clear spans – Can comfortably span 25m (80') – Fewer intermediate walls, larger usable coverage and maximum design versatility – any conceivable roof/ceiling profile achievable.

Precision – Design and pre-engineering by experienced truss professionals using latest software.

Pre-fabrications – Trusses pre-fabricated by dedicated professionals in controlled environment.

Roof section hoisting – If space allows roof sections of pre-assembled trusses can be built at grade level and craned into place – saves time, money, manpower and the safety of workers.

Fast dry-in – Project covered in quickly - Interior trades work in comfort regardless of weather.

### **Cold-Formed Steel Wall Panels**

Pre-panelization – Wall panels custom built according to specification - time, labour and cost savings.

Compatibility – Compatible with all standard sheathing/insulation/finish systems.

Optimized design – Eliminate job site errors, reduced waste, and emphasis on precision.

Structural integrity – Components remain square and true, window/doors fit perfectly.

Light weight panels – Reduced stress on foundations and install crews.

#### **Cold-Formed Steel Floors**

Multi-system – CFS trusses, CJoist, Trade-Ready, Megajoist, Hambro, ComSlab floor system and various composite floor systems.

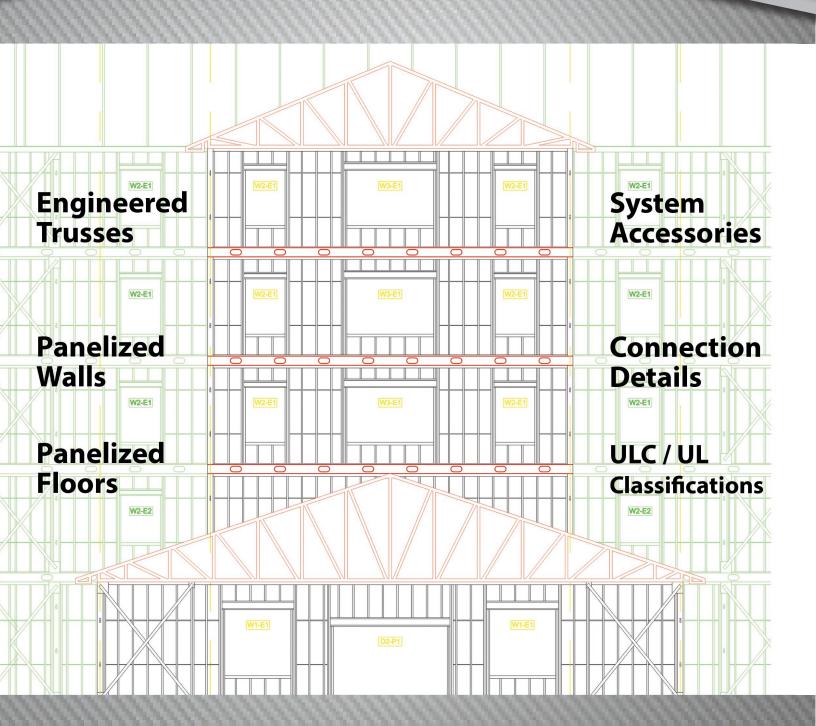
Span capability – Certain applications allow clear span of up to 9m (30').

Cost-effective – Cost effective, lightweight alternative to open-web trusses, bar joist, engineered lumber, cast in place or hollow-core floor assemblies.

Pre-panelization – Where possible, VanderWal Group will pre-panelize floor systems to ensure dimensional integrity and speed of installation.

For full product specifications and ULC/UL reports in English and French visit our website at trusses.ca

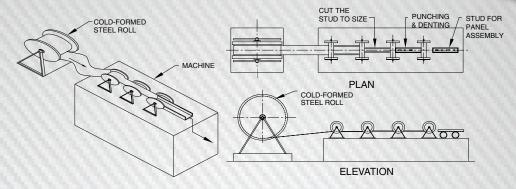




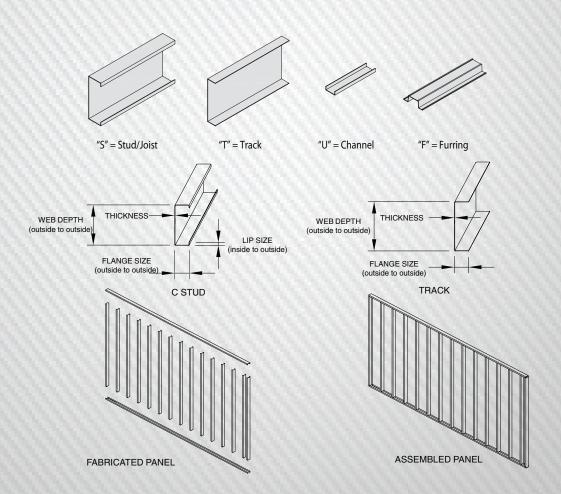
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### METHOD OF MANUFACTURING CFS



#### COLD-FORMED STEEL SECTION PRODUCTION PROCESS DIAGRAM



## SPECIALIST IN COLD-FORMED STEEL CONSTRUCTION

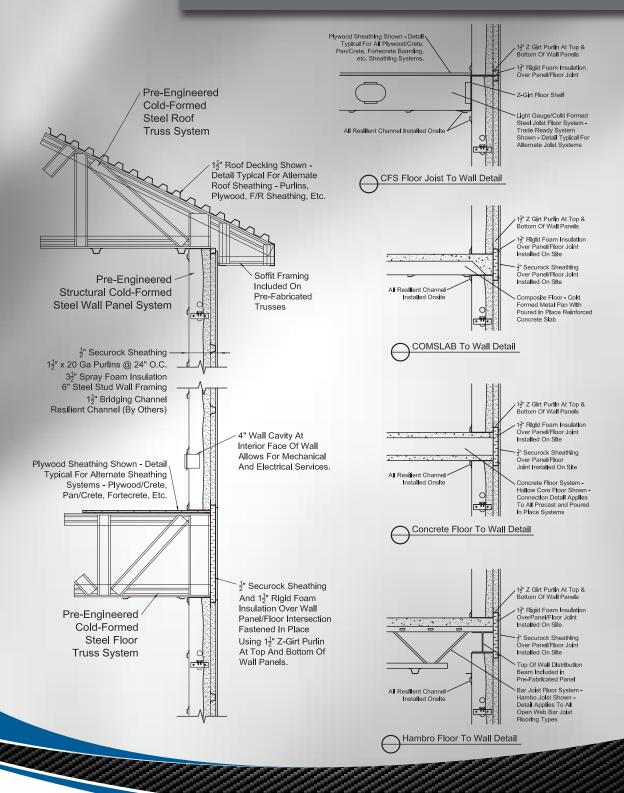


## **Fire Rated Assemblies**

ASSEMBLY TYPE	UL/ULC ASSEMBLY	45 MIN.	1 HR.	1 ½ HR.	2 HR.	NOTES
	W					000000000000000000000000000000000000000
ROOF						
CFS TRUSS	ULC-R500		YES	YES	YES	
	ULC-R501		YES	YES		
	UL-P521		YES	YES	YES	
	UL-P523		YES	YES		
WALL		3333		10000000		
CFS STUD	ULC -U419	YES	YES	YES	YES	
	UL-U423	YES	YES	YES	YES	
	UL-U425	YES	YES	YES	YES	
FLOOR		30000		NAME OF TAXABLE PARTY.		
CFS STUD JOIST	ULC-M511	YES	YES			5/8" PLYWOOD DECK
	ULC-1523		YES			STEEL PAN & CONCRETE
COMSLAB	ULC-D500			YES	YES	
	ULC-F909		YES	YES		
	ULC-F918				YES	
CFS TRUSS JOIST	UL-G540		YES		YES	STEEL DECK & CONCRETE
	UL-L549		YES			WOOD SUBFLOOR
	UL-L565		YES			WOOD SUBFLOOR

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## **Dorchester Terrace Retirement Residence, Dorchester, ON**

- Complete Cold-Formed Steel Wall Panels
- Total Building Area is 95853 sq.ft



# **Burloak Water Treatment Plant,** Oakville, ON

- Architectural truss pattern to simulate waves
- Large eavestrough built onto end of trusses



# Brianza Developments, Brampton, ON

- Two Adjoining Buildings/Roofs
- Building A 4040 sq.ft of single slope trusses
- Building B 7140 sq.ft



## Mariner's Village, Point Edward, ON

- Two crane operations with multiple sections
- Transfer of section from one crane to other in midair



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## River Ridge II Winnipeg, MB

- 4-storey assisted-living facility of 180 suited with almost 200,000 sq.ft of floor space
- Axial load-bearing CFS modular walls and long-span CFS trusses
- Prefabrication shaved weeks off construction schedule



# McCauley Lodge Esquimalt, BC

- 5,000 sq.ft of structural CFS trusses over residential group home
- Prefabrication saved significant amount of time and labour



## **Dockside Waterfront Drive Halifax, NS**

- 17,500 sq.ft of structural CFS trusses
- Waterfront condominiums situated in aggressive coastal environment
- Cold-formed steel ideal choice



## Place De La Gare Sainte-Therese, QC

- 12,500 sq.ft of structural cold-formed steel trusses
- Living space integrated into truss system



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# RCMP Detachment Building, Sylvan Lake, AB

- 16,000 sq.ft of parallel-chord cold-formed steel trusses
- Redesigned from traditional framing reducing construction schedule by weeks



## Moncton Casino - Moncton, NB

- \$90 million casino and multi-use resort complex
- CFS trusses over 20,000 sq.ft of gaming space
- A 128 room hotel and a 1,500 seat palladium/ conference centre



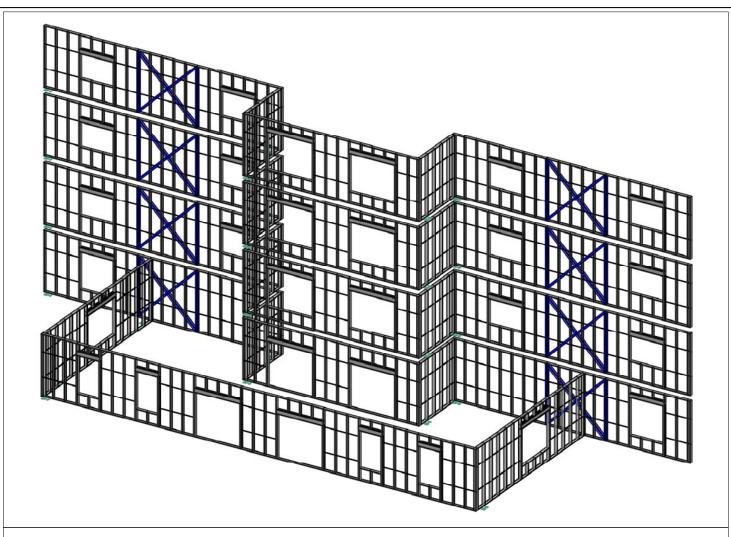
## Rotary Manor, Dawson Creek, BC

- 20,000 sq.ft of structural cold-formed steel trusses
- Pre-fabricated elements a perfect choice for extreme weather location
- Structure water-tight quickly to allow interior trades to word in inclement weather

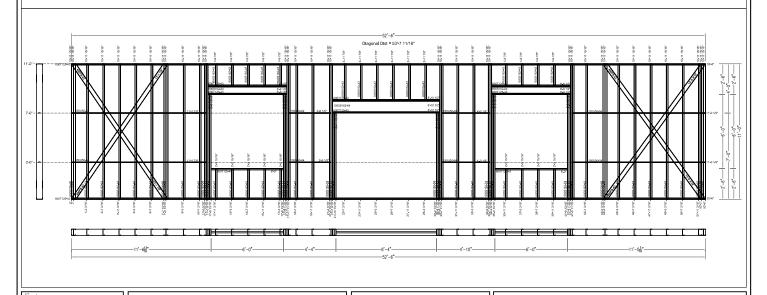


## Motel 6 - Niagara Falls, ON

- 39,700 sq.ft of structural cold-formed steel trusses
- Quickly and successfully erected by local installation crew
- Sloped roof integrates structure with the existing neighbourhood



PRE-ENGINEERED AND PREFABRICATED WALL AND FLOOR PANEL PACKAGES, COMPREHENSIVELY DESIGNED AND FULLY ENGINEERED.



JV

icale: N/A

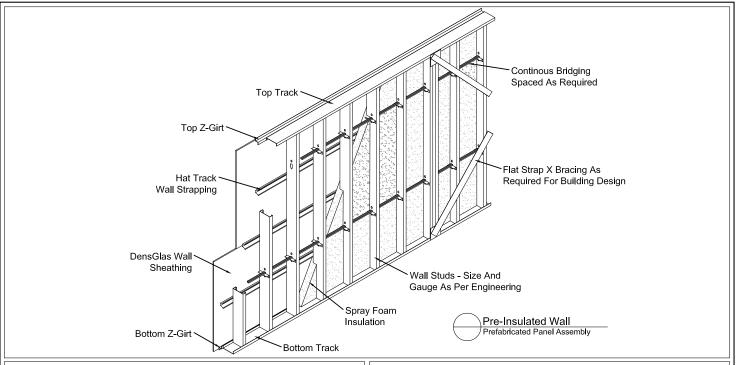
Panelized Wall Detail

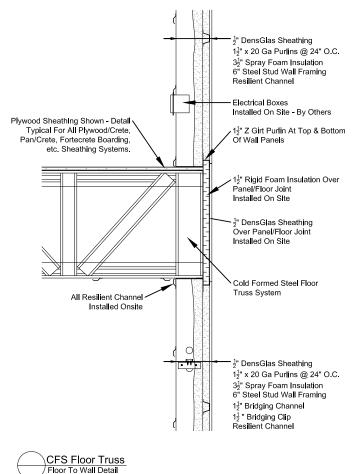
Phone: 1-877-251-6875
Fax: 1-866-873-0360
info@trusses.ca
www.trusses.ca

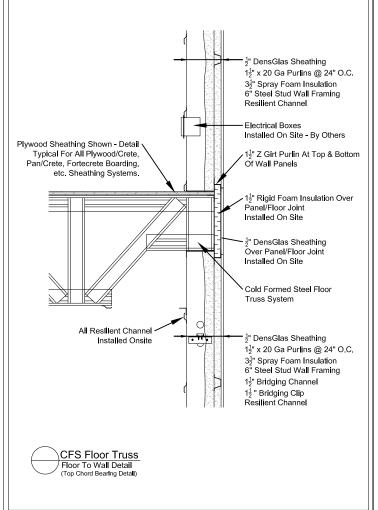


Location:

Standard







Design: JV

Scale: N/A

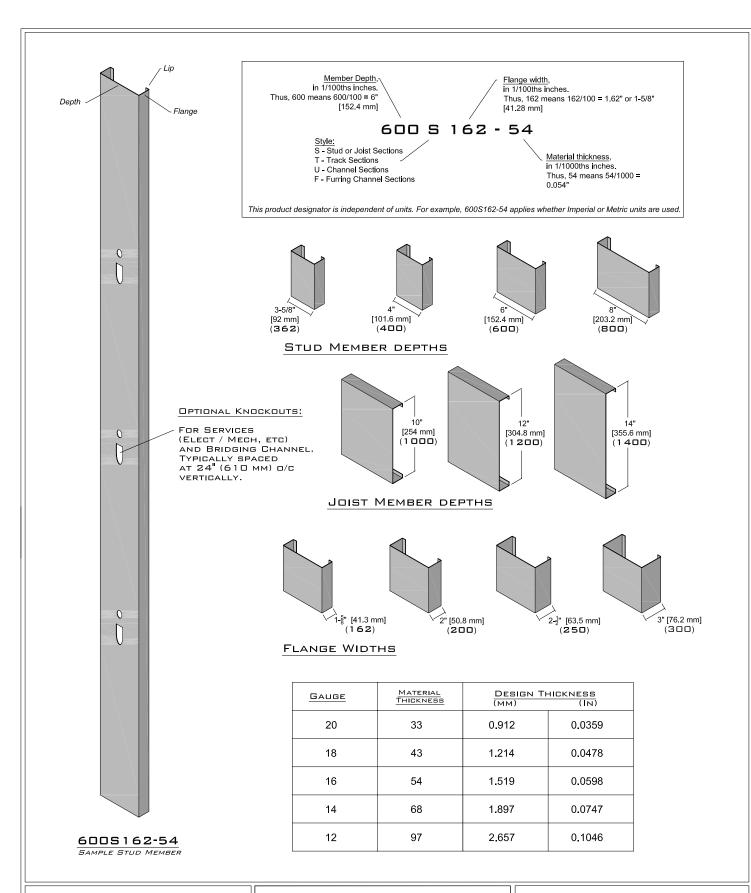
Typical Wall & Floor Systems

Phone: 1-877-251-6875 Fax: 1-866-873-0360 info@trusses.ca www.trusses.ca



Location:

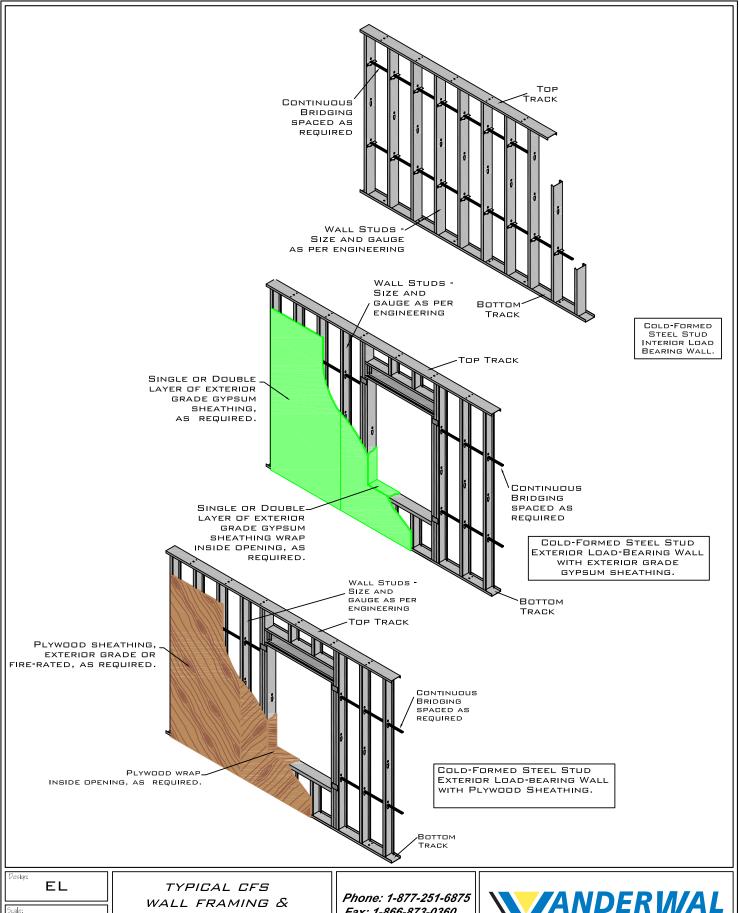
Standard



P: 1-877-251-6875 F: 1-866-873-0360 INFO@TRUSSES.CA



CFS
STUD MEMBERS:
NOMENCLATURE
AND SIZES



N/A

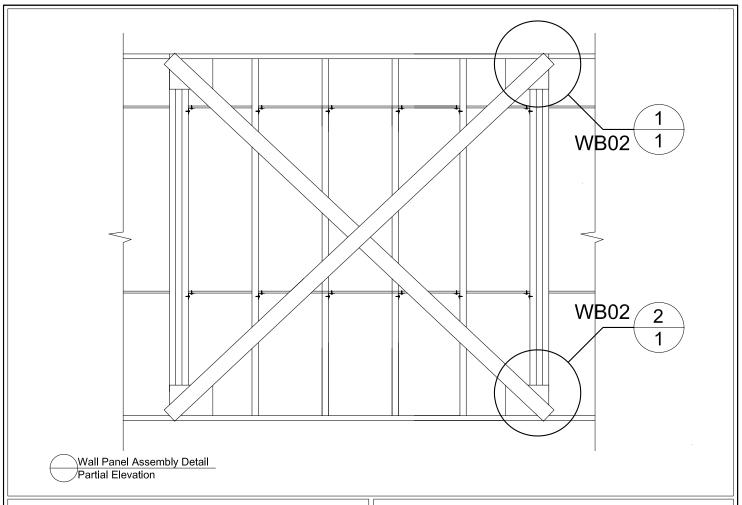
SHEATHING

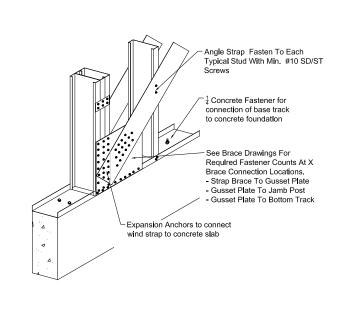
Fax: 1-866-873-0360 info@trusses.ca www.trusses.ca

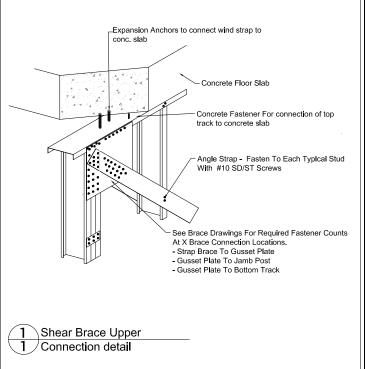


ocation:

STANDARD







Design: **JV** 

Scale: **N/A** 

Location:

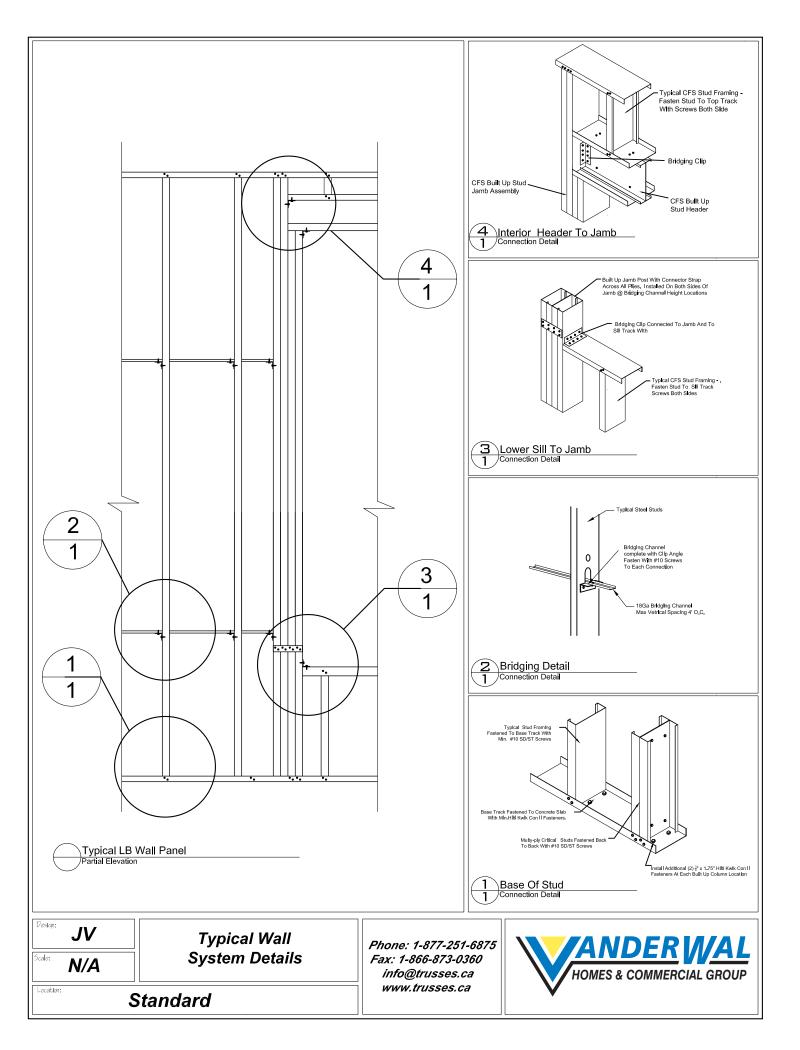
Typical Wall System Details

Standard

\Shear Brace Lower

Connection Detail







## Compatible Floor Systems









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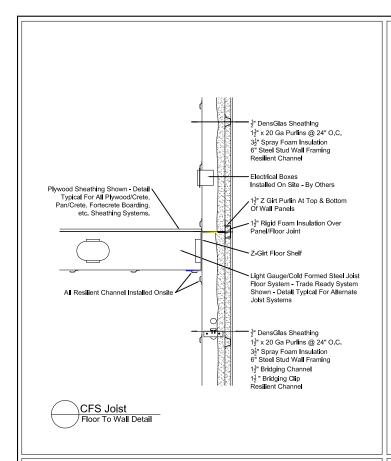
## Compatible Floor Systems

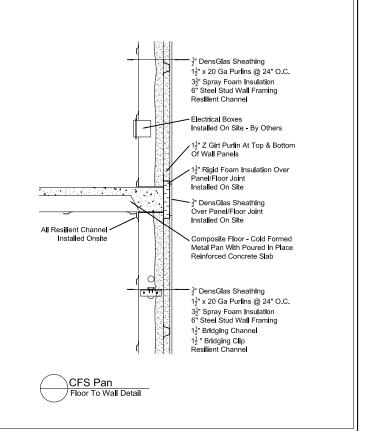


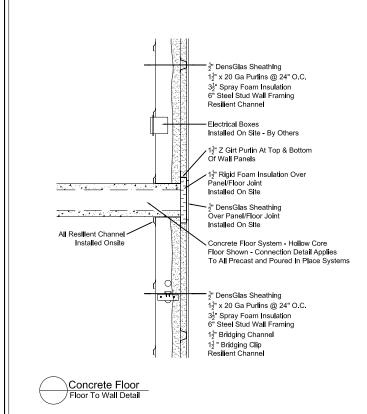


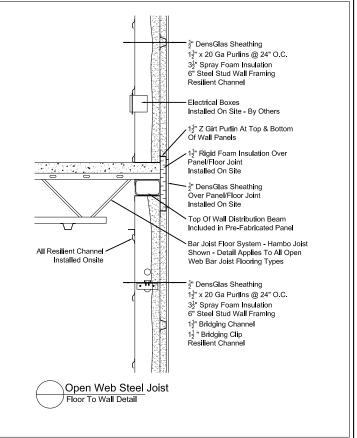


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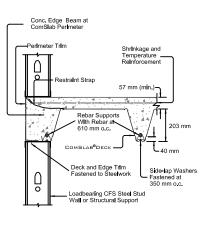
JV
5cale: N/A

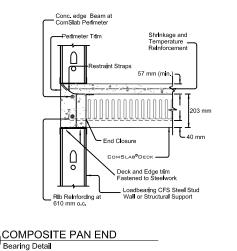
Location:

Typical Floor Systems

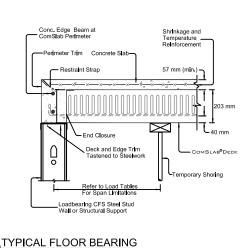
Standard







COMPOSITE PAN EDGE
Bearing Detail



Top Flange of Deck Fastened to Top of end Closure Using 1 Self-Orling Fastener Per Pitch (typical)

Shrinkage and Temperature Tethforcement

Specified by Design

Top Flange of Deck Fastened to Top of end Closure Using 1 Self-Orling Fastener Per Pitch (typical)

Stell Plate
Welded to WF Beam

WIDE FLANGE BEAM

Bearing Detail

Conc. Floor Beam at Interior Bearing Location

Shrinkage and Temperature Reinforcement

203 mm Find Closure

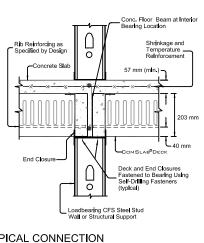
End Closure

End Closures
Fastened to Bearing Using

Deck and End Closures
(Typical)

Loadbearing CFS Steel Stud

Wall or Structural Support



SLAB DIRECTION CHANGE

Interior Bearing Detail

Installation Detail

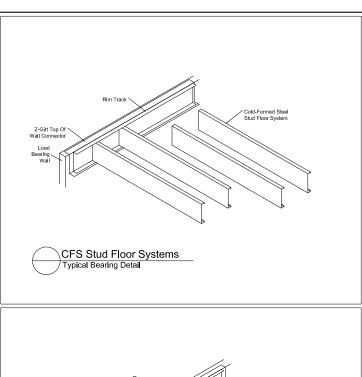
TYPICAL CONNECTION
Interior Bearing Detail

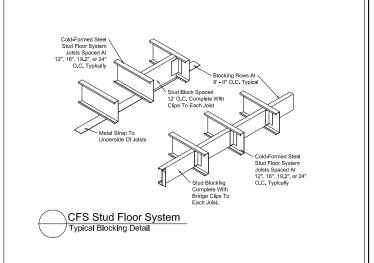


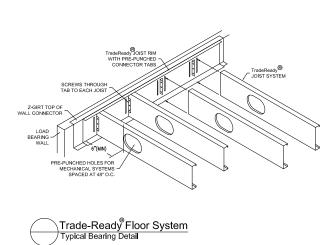
ComSlab<sup>®</sup>Floor System

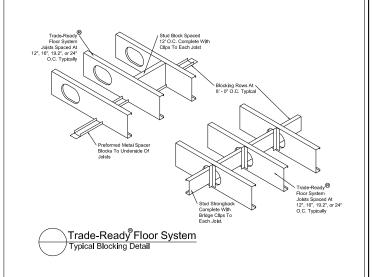
www.bmp-group.com

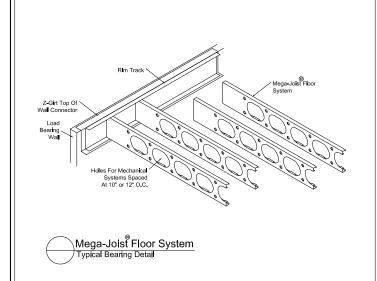


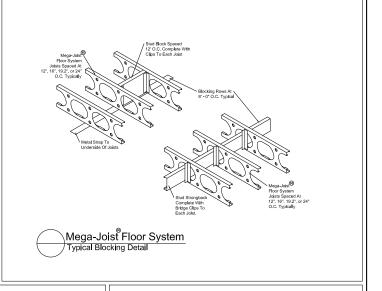












JV

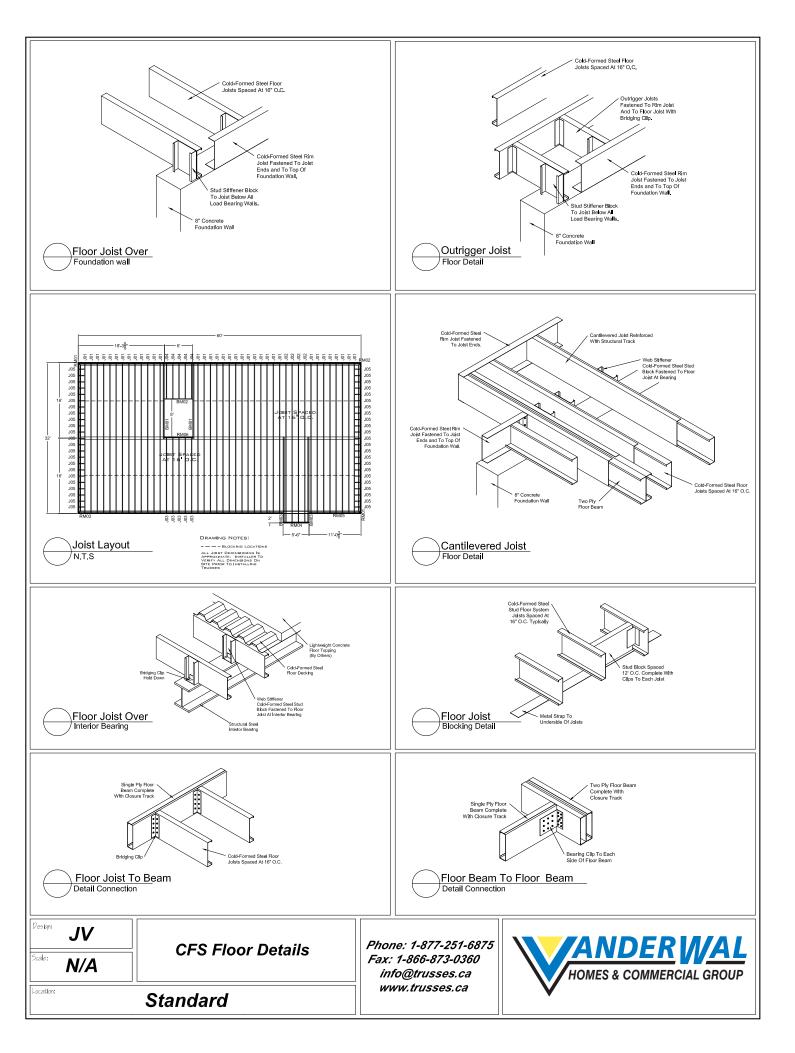
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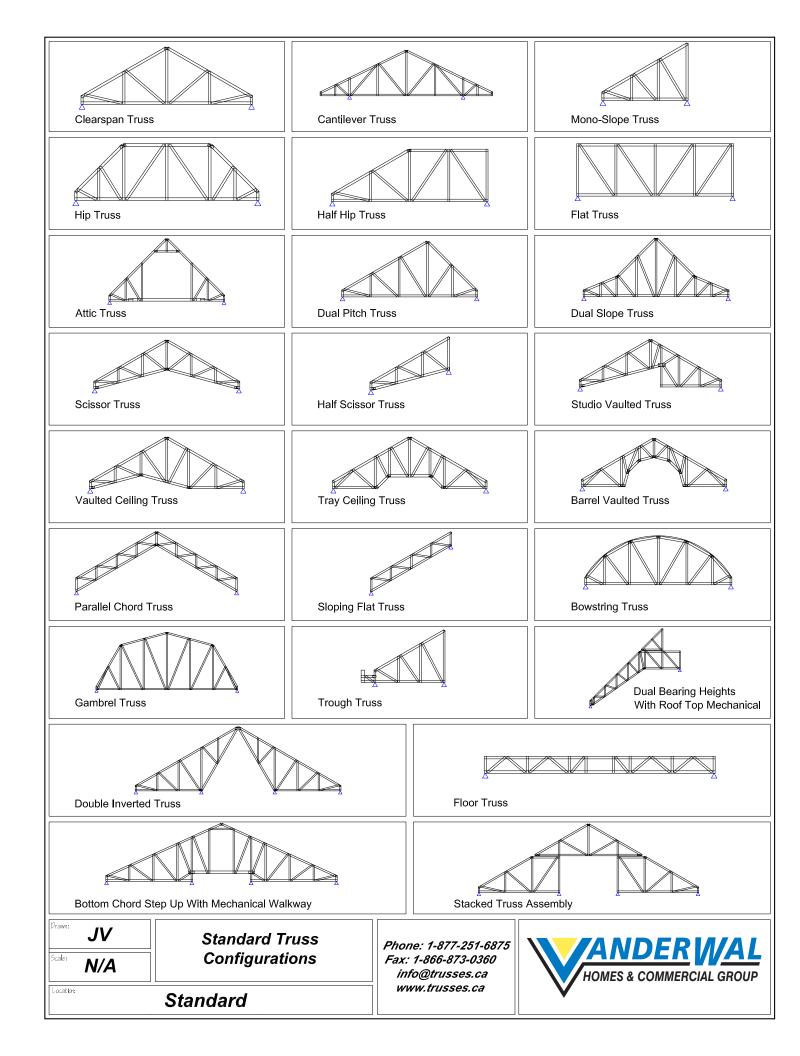
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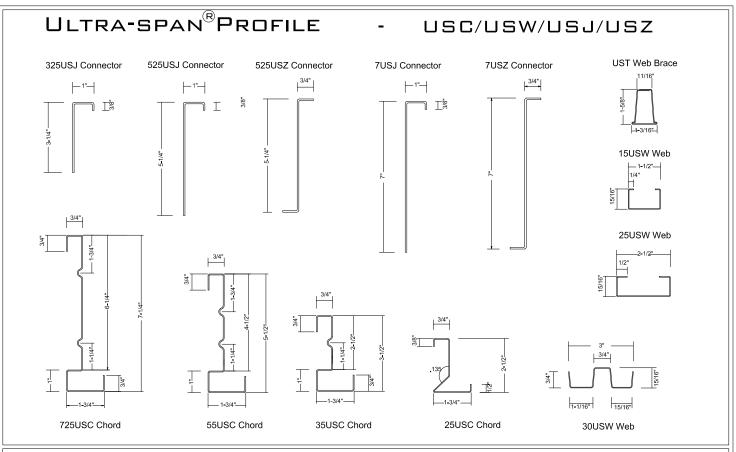
CFS Joist Floor Systems

Standard

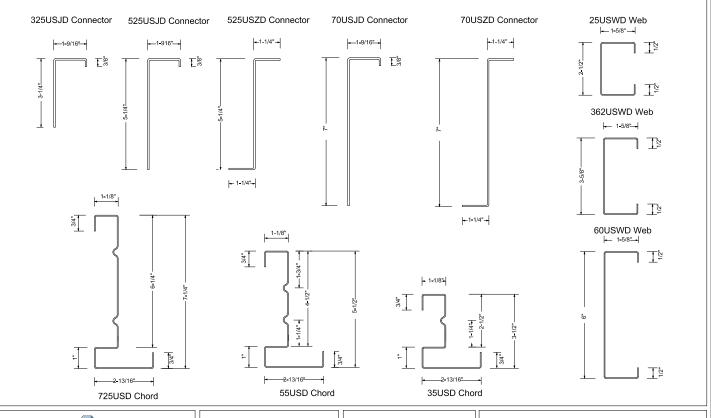








## Ultra-span<sup>®</sup> Deluxe Profile - usd/uswd/usjd/uszd

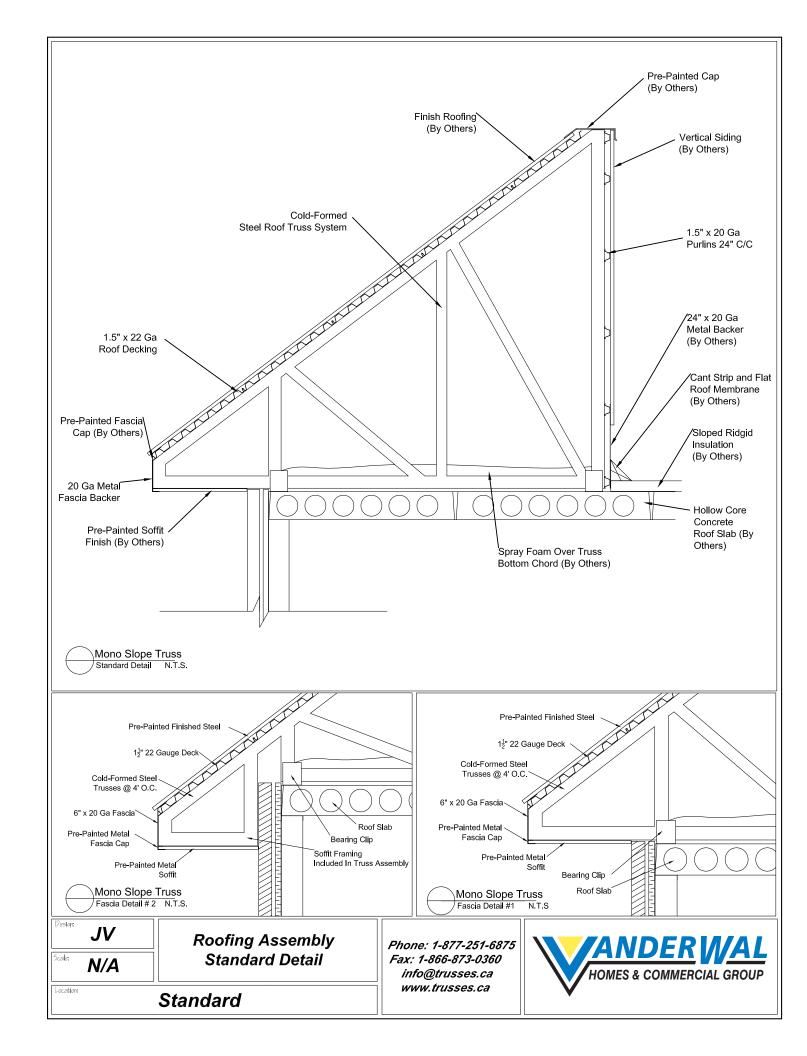


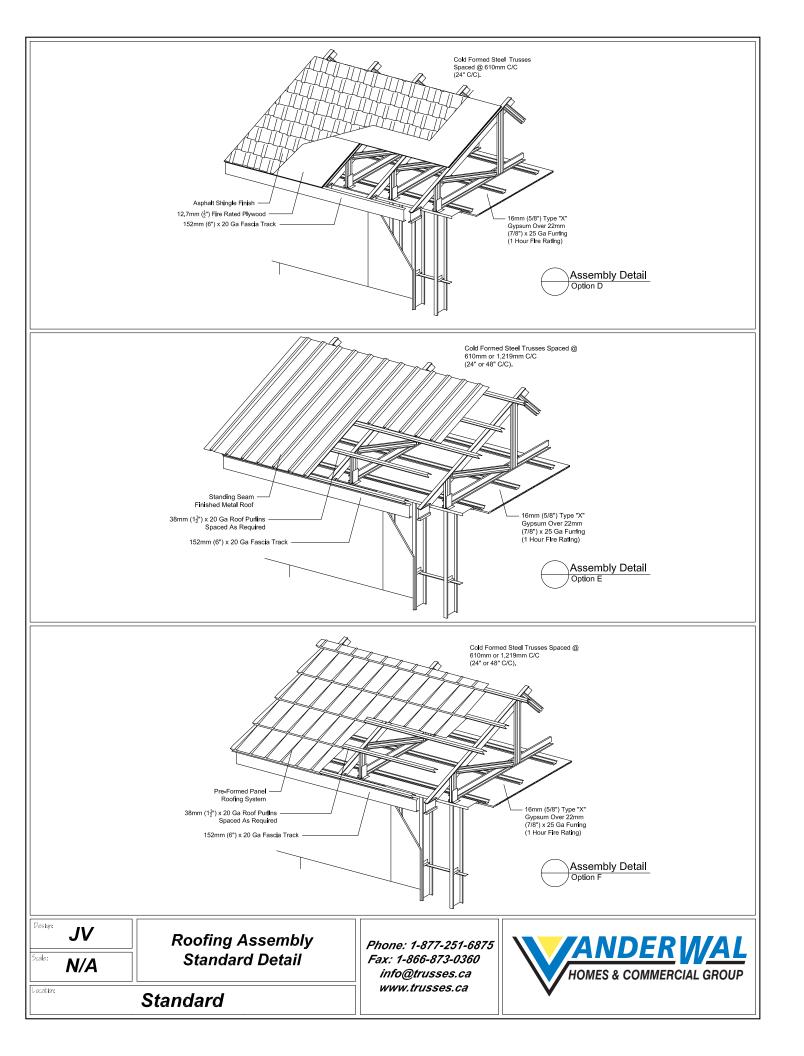


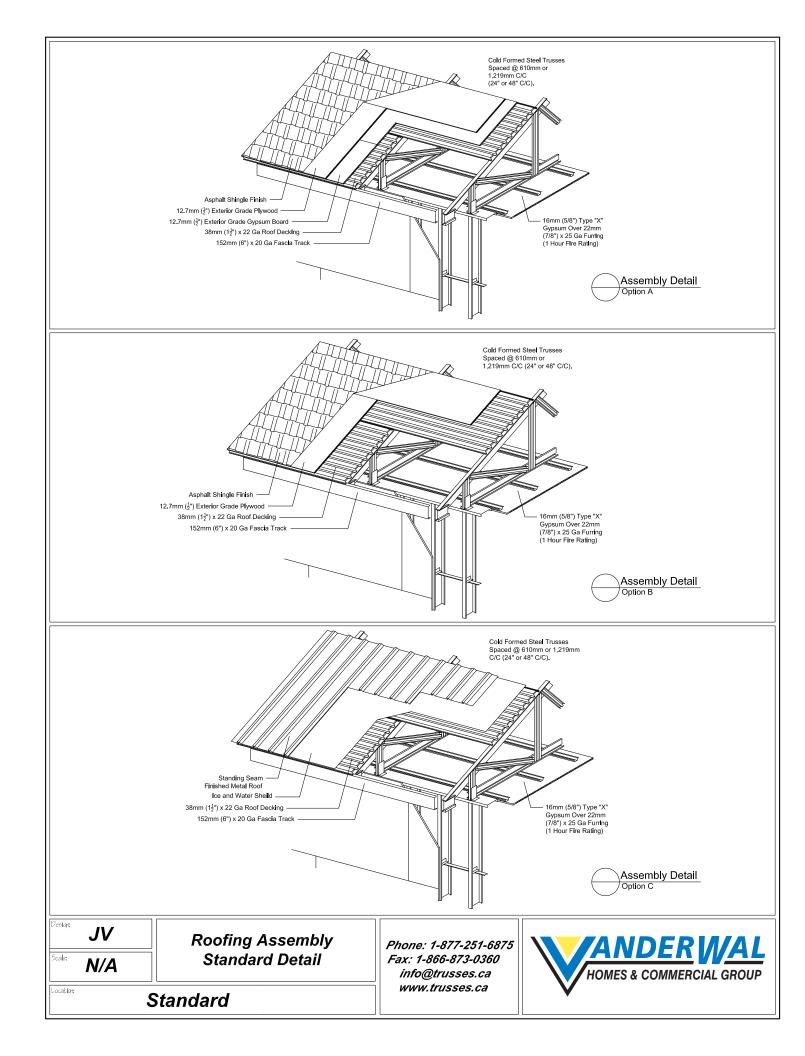
## Truss Material Profiles

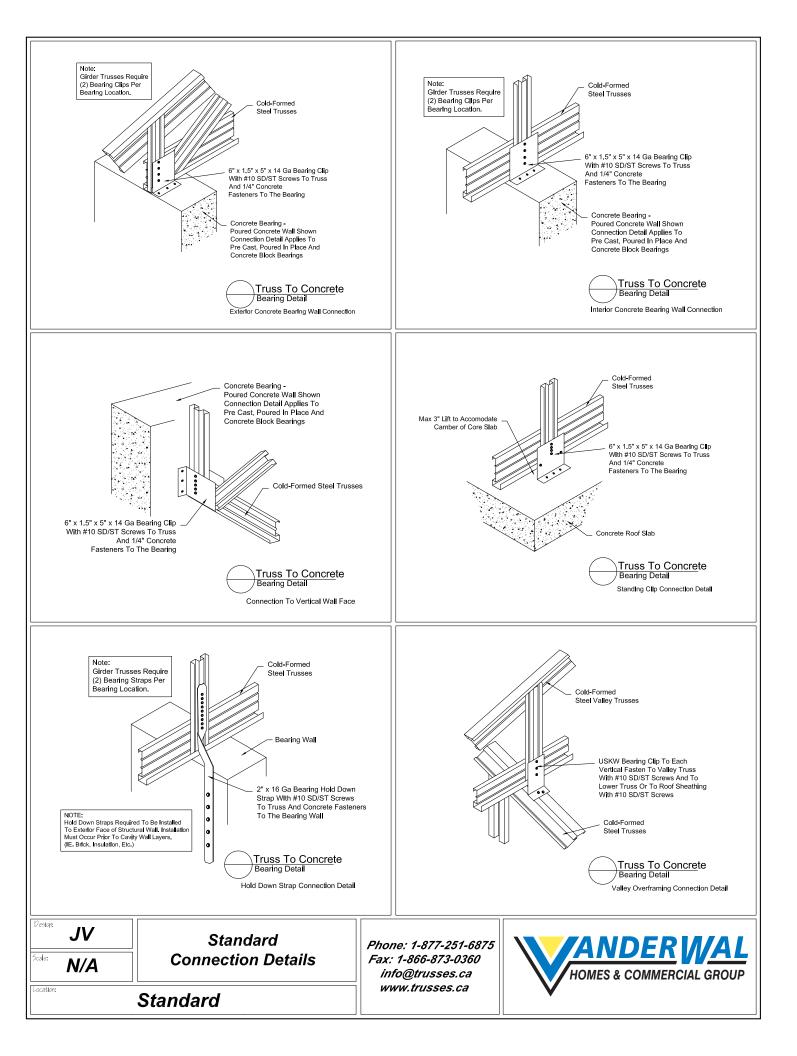
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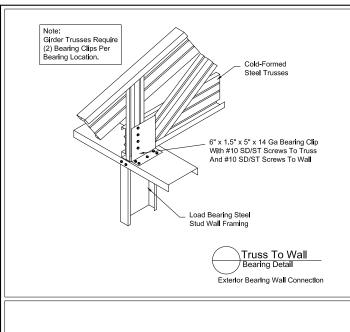


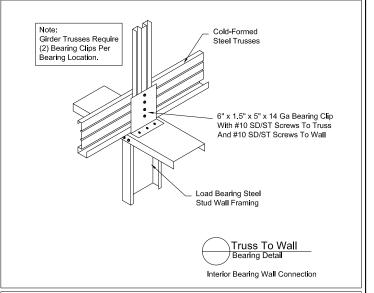


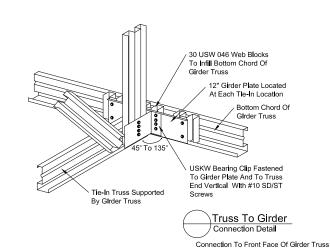


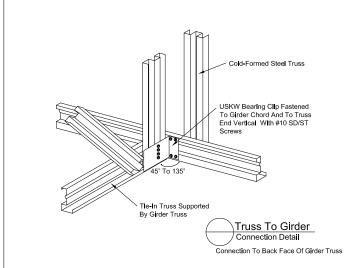


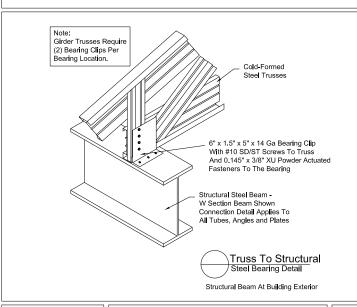


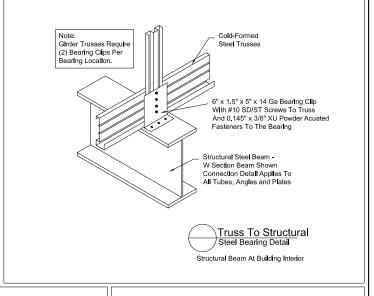












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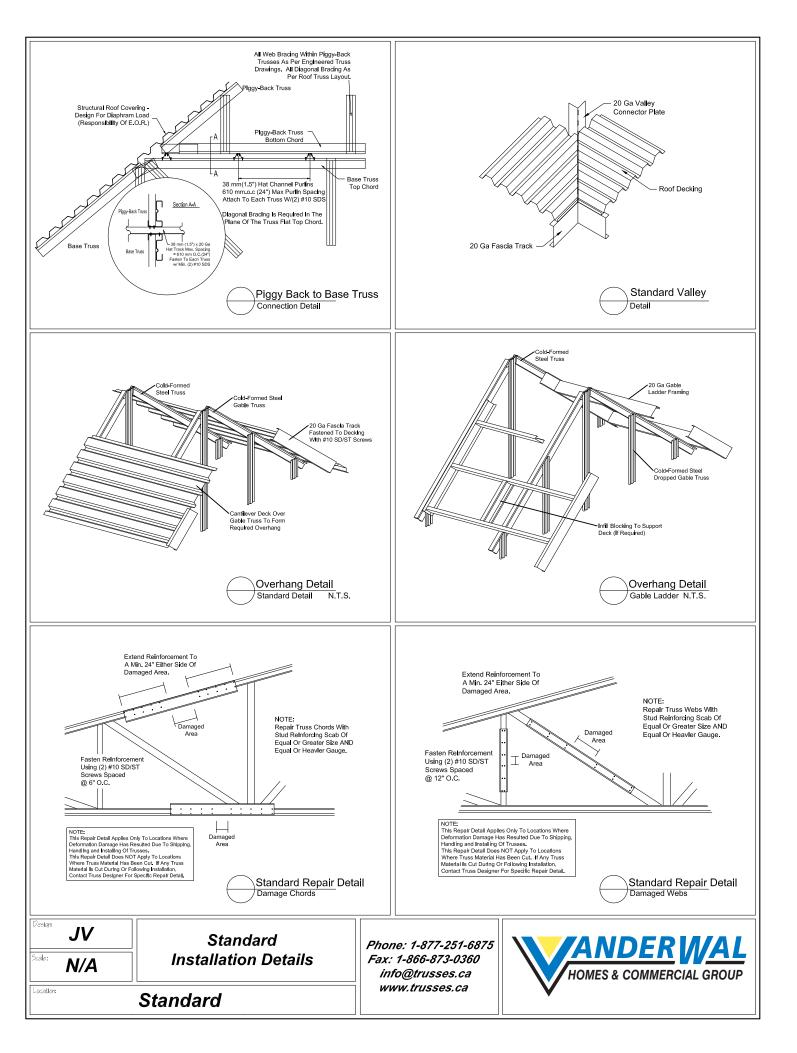
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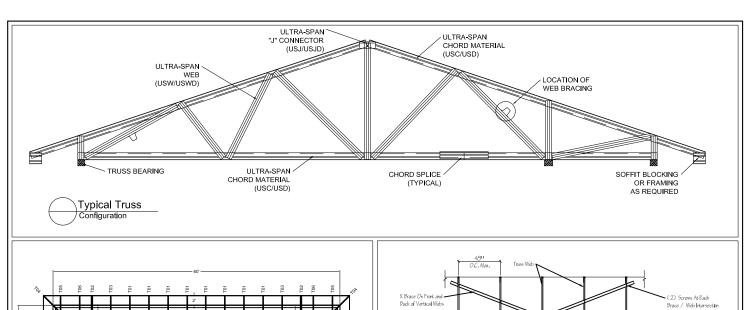
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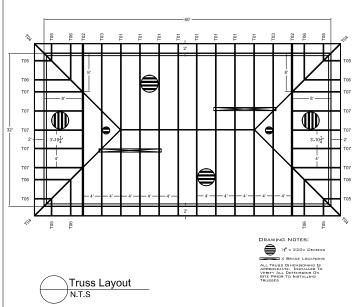
Standard Connection Details

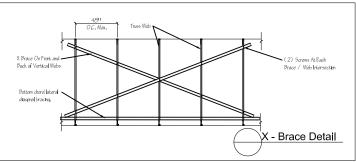
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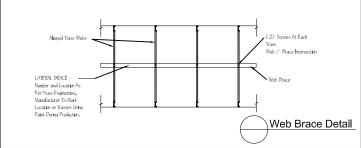


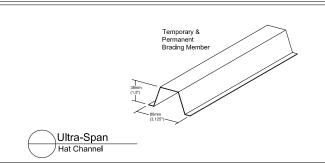


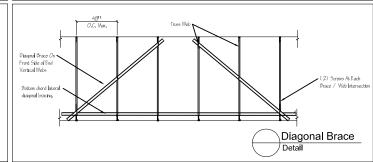


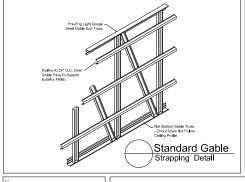


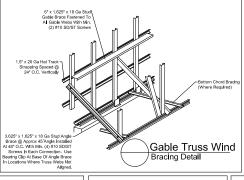


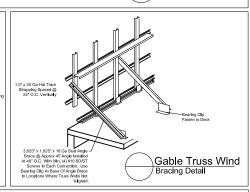












Scale: N/A

Location:

Roofing Assembly Bracing Details

Standard



## TRUSS DRAWING

All dimensions (Imperial Units) are shown as feet-inches-sixteenth inches example: 5-3-8 = 5 feet 3 and 8/16 inches Top row - individual panel lengths Member to member connection requirements are displayed above Bottom row - accumulative distance and below the TRUSS PLOT. The member connected is reference by a beginning joint and ending joint. ex. B-P: The first letter represents the joint where the connection is being made. Then number following is the number of fasteners required for the connection. Aegis reference number ex. B-P:12 -- 12 fasteners are required to connect member B-P at joint B Truss Type ROOF TRUSS # DTY (1664 = 286), All Saver Ave #19-46 DS B-Q-12, P-E-14, P-E-14, V-K-11, K-L-14, Q-B-20 B-P-12, C-P-2, B-0-3, D-P-3, E-0-3, F-M-3, F-0-3, G-M-3, B-L-3, B-M-3, H-L-3, E-M-3, H-L-3, H 32-1-0 560 1052 9844 45/11-4 HGB 7.00x10USZ14 5.00 12 G н LOADING Standard load applied to the design G.Snow - Ground Snow Load TCLL - Top Chord Live Load O K TCDL - Top Chord Dead Load 55USC035 x 24 BCLL - Bottom Chord Live Load CSI BCDL - Bottom Chord Dead Load Maximum Combined Stress Index for the Top Chord (TC), Bottom Chord (BC) and Webs (WB) of all load cases SCREW VALUE. (#18-16 TES) 035 24315 046 41915 857 51315 073 51915 CONNECTORS USJ14: I= Invent D= Double V= Vertical R= Revers SPACING 4-0-0 980 980 0.88 0.87 0.98 **BOCA/NSI** TCDL BCLL BCDL 15.0 0.0 10.0 STEEL SECTION
TOP CHORD 55 USC 046 45 "Except"
B-Q 30 USW 057 45, J-K 30 USW 057 45
BOT CHORD 55 USC 025 46
WESS 30 USW 068 45 "Except"
B-P 30 USW 057 45, D-O 30 USW 035 45
F-M 30 USW 057 45, H-M 30 USW 035 45
J-L 30 USW 057 45 BRACING TOP CHORD Sheathed or 2-9-9 on center purify specing, except end verticals.

BOT CHORD Rigid ceiling directly applied or 5-10-0 on center baseing 1 Row at midpt D-P, D-O, H-M, H-L BRACING specifies the Top Chord, Bottom Chord and Web bracing requirements FORCES (b) Maximum Compression Force
TOP CHORD B-Q=4789, A-B=89, B-C=5302, C-D=5365, D-E=5814, E-F=5834, F-6=5845, G-H=5827, H-I=5356, I-J=5362, J-K=4820
BOT CHORD P-Q=431, C-P=4319, I-D=4383, I-M=5827, K-I=23
WESS B-P=4859, C-P=997, D-P=-1046, D-C=365, E-C=1008, F-C=1921, F-M=1524, G-M=1013, H-M=359, H-I=1098, I-L=1034, J-L=5236 NOTES
1) This hase has been checked for unbalanced loading conditions.
2) This hase has been designed for the loads generated by 80 right winds at 35 ft above ground tevel located 1 mi from the hundrane occarriente. ASCE 7-98 components and chedding eaternal pressure coefficients for fine extenior (2) zone and 5.0 pcf top chord and 5.0 pcf bottom chord dead load are being used. The design assumes occupancy category II, tensin especial C and intervial pressure coefficient condition I. The building dimensions are 50 ft by 44 II. If each verticate exist, the left is exposed and the right is not exposed. If carried everticate exist, the left is exposed and the right is not exposed. It carried everticate exist, they are not exposed to while. If proclass codst, they are not exposed to while. The stand DOL linercase is 1.33 3) Provide mechanical commention (by others) of iruss to bearing plate capable of withstanding 1616 ib uplift at joint Cl and 1223 ib uplift at joint K. LOAD CASE(S) Standard FORCES shown reflect the maximum compression force in the member from all load cases REACTIONS: Joint location of the support / bearing size entered/ bearing material entered



Truss Drawing

Standard









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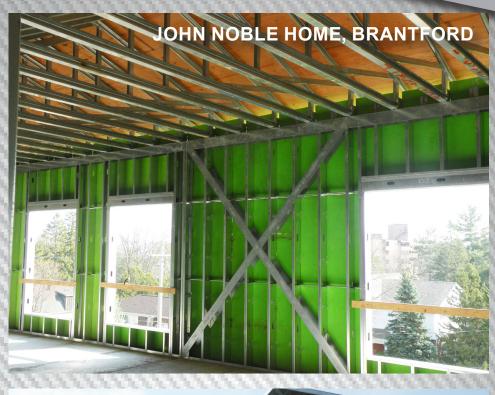
## **HOMEWOOD SUITES, OAKVILLE**





## SPECIALIST IN COLD-FORMED STEEL CONSTRUCTION







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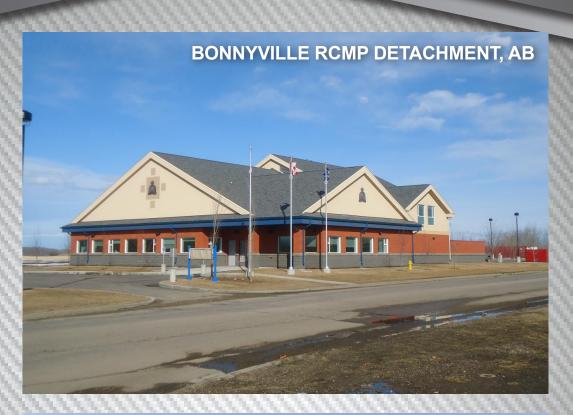






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# COLUMBARIUM, ROCHESTER, MICHIGAN, USA





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# TRILLIUM RETIREMENT VILLAGE, STRATHROY





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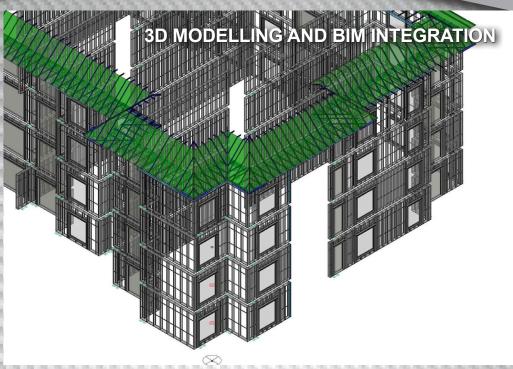






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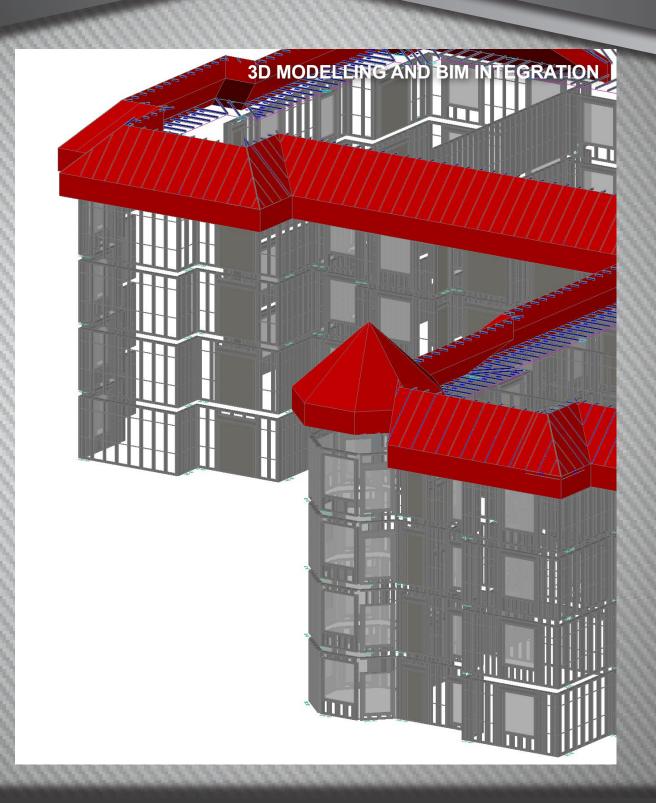






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# PANELIZED PRE-INSULATED COLD-FORMED STEEL STRUCTURES

NON-COMBUSTIBLE CONSTRUCTION
BUILDING SIZES STARTING FROM 6M<sup>2</sup>
CLEAR SPANS UP TO 25M (80<sup>1</sup>-0<sup>11</sup>)



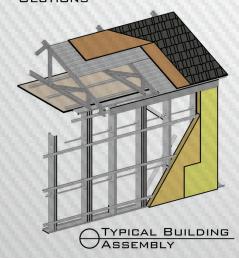


FULLY INSULATED PACKAGES AVAILABLE.

- PRE-INSULATED WALL PANELS WITH UP TO R40 RATING
- INSULATED CEILINGS UP TO R60 RATING.
- CUSTOM DESIGNED INSULATED FLOOR PACKAGES

INCORPORATE OPENINGS OF ANY SIZE AND TYPE:

- Doors
- WINDOWS
- LOUVRES
- HATCHES
- EXPLOSION RELIEF PANELS
- OVERHEAD DOORS
- REMOVABLE ROOF/WALL SECTIONS



CUSTOM DESIGNED TO ACCOMMODATE ANY TYPE OF FOUNDATION.

- SLAB ON GRADE
- FOUNDATION WALLS
- BEARING PILES
- CAISSON COLUMNS

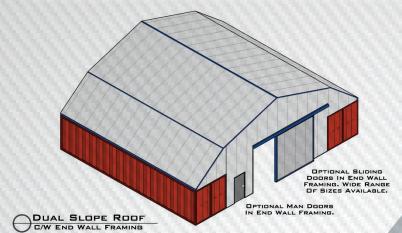
#### IDEAL FOR:

- VGENERATOR SHELTERS
- **▼PUMP HOUSES**
- VSTORAGE UNITS
- **▼MECHANICAL BUILDINGS**
- **▼COMPLETE INDUSTRIAL FACILITIES**

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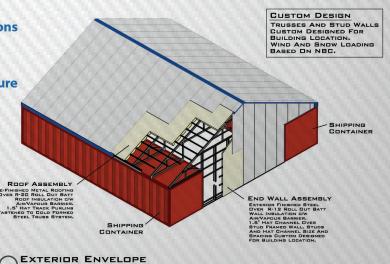


# **MOVEABLE NON-PERMANENT STORAGE SOLUTIONS**



END WALL FRAMING CAN BE PROVIDED WITH ANY CONTAINER BUILDING MODEL. OPENINGS IN END WALL FRAMING CAN BE CUSTOM DESIGNED TO SUIT ANY APPLICATION. Container Buildings unique storage solutions are ideal for mobile companies, remote locations or any application where a permanent structure footing is undesired or unnecessary. Recycled shipping containers mated to galvanized, 100% recycled/recyclable CFS framing make for a rigid structure that is fully transportable as and when your business needs to move. Using powerful software suites, ContainersBuildings can design and engineer according to your specific requirements.

- **▼** All metal construction 100% non-combustible
- Fully engineered structure with all connections and bracing
- No foundation classed as temporary structure
- Green product recycled material
- Lockable storage at both sides
- No concrete to pour
- Durable painted metal roof
- **V** Fully installed



ASSEMBLY DETAIL

#### SPECIALIST IN COLD-FORMED STEEL CONSTRUCTION



# Build it with steel.



VanderWal Group is a leading fabricator/supplier specializing in steel structures ranging from industrial and commercial to custom projects for the agricultural, community, and retail industries.

As an authorized supplier of Nucor Building Systems, VanderWal Group is able to offer you a wide array of building solutions that are custom designed to your specific needs, yet cost-effective, efficient, and faster to erect than conventional construction methods.

Contact us today to find out how we can save you time and money on your next project.



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