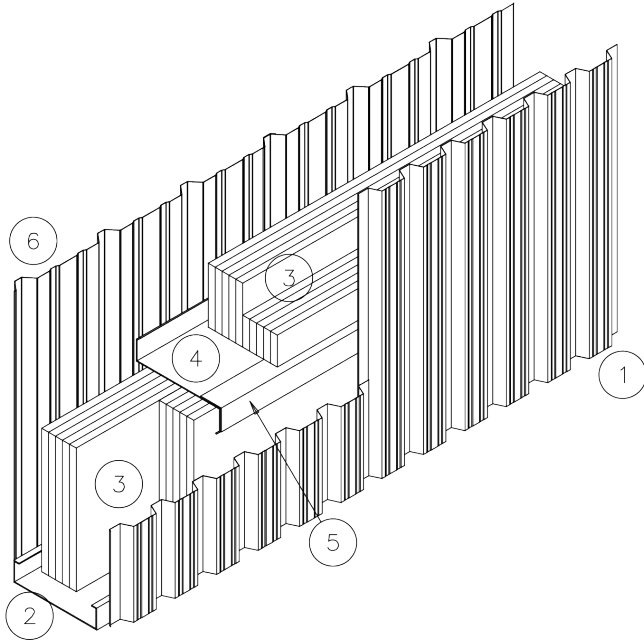


FIREGUARD WALL SYSTEM



LEGEND - NON BEARING WALL

1 HOUR FIRE-RESISTANCE RATING - ULC W605

Equivalent Opening Factor at 2h (F_{EO}) = 0.02

- 1) 26ga (0.46mm) Exterior Cladding
- 2) U Channel
- 3) Mineral Wool Insulation
- 4) 18ga (1.22mm) Girt Structural Support
- 5) Ceramic Fiber Strip
- 6) 24ga (0.61mm) Liner Panel

2 HOUR FIRE-RESISTANCE RATING - ULC W606

- 1) 24ga (0.61mm) Exterior Cladding
- 2) U Channel
- 3) Mineral Wool Insulation
- 4) 18ga (1.22mm) GIRT STRUCTURAL SUPPORT
- 5) Ceramic Fiber Strip
- 6) 24ga (0.61mm) Liner Panel

The Fireguard Wall System is based on a ULC designated non-load bearing fire rated wall system designed with the steel cladding enclosing a mineral wool insulation that provides a 1 or 2 hour fire rated wall. Testing is based on CAN/ULC-S101 Standard Fire Endurance Tests of Building Construction Material.

ONE-HOUR FIRE RATED WALL ASSEMBLY (MEETS ULC DESIGN NO. W605)

- * 26ga (0.46mm) minimum exterior wall panel C/W TEK screws at 12" (305mm) O.C. and stitch screws at 12" (305mm) O.C.
- * Girt structural support minimum 18ga (1.22mm) nominal thickness.
- * Girt spacing of 48" (1220mm) to match mineral wall batt size or to a maximum of 60" (1524mm) O.C.
- * 1/2" (13mm) Ceramic fiber strip located on outside girt face (flange)
- * 24ga (0.61mm) minimum full height liner panel with mastic sealer tape on seam lines and ends, C/W TEK screws at 12" (305mm) O.C. and stitch screws at 12" (305mm) O.C.

TWO-HOUR FIRE RATED WALL ASSEMBLY (MEETS ULC DESIGN NO. W606)

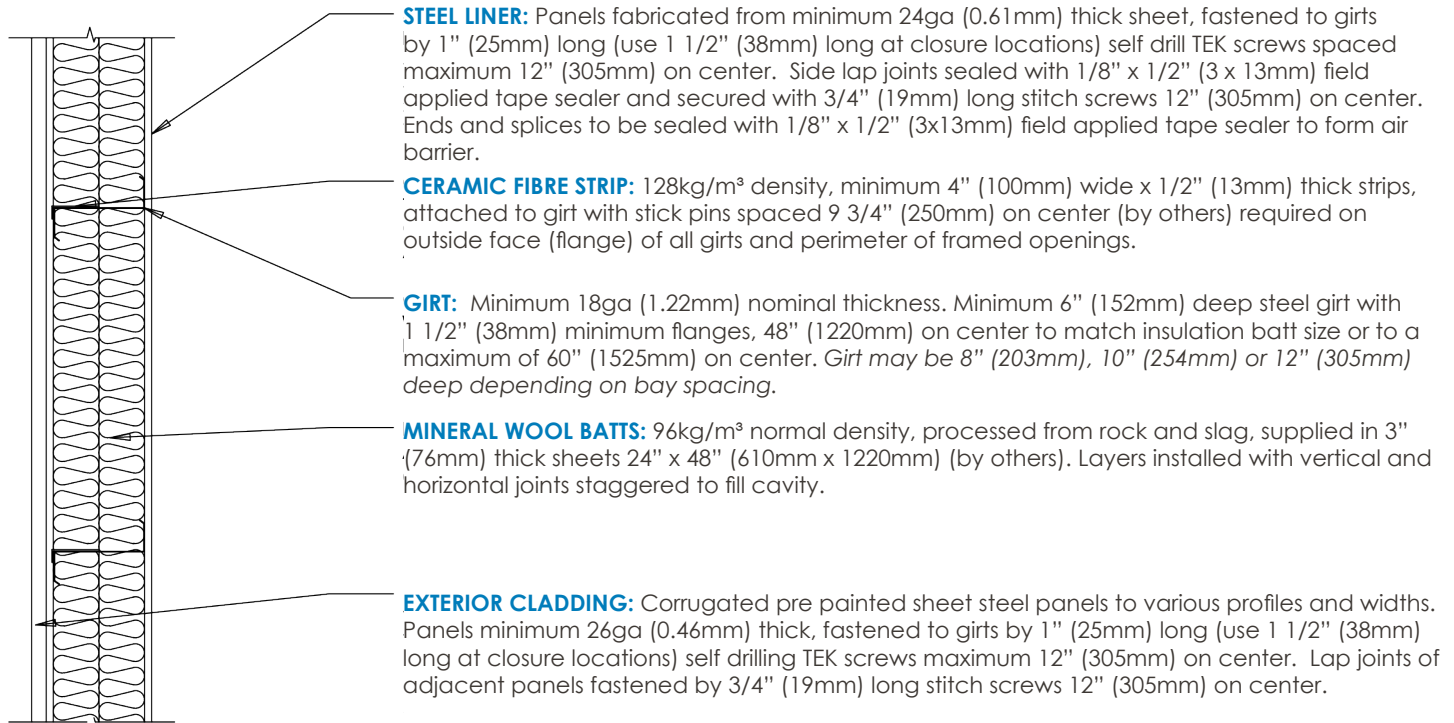
- * 24ga (0.61mm) minimum exterior wall panel C/W TEK screws at 12" (305mm) O.C. and stitch screws at 12" (305mm) O.C.
- * Girt structural support minimum 18ga (1.22mm) nominal thickness.
- * Girt spacing of 48" (1220mm) to match mineral wool batt size or to a maximum of 60" (1524mm) O.C.
- * 1/2" (13mm) Ceramic fibre strip located on outside girt face (flange)
- * 24ga (0.61mm) Minimum full height liner panel with mastic sealer tape on seam lines and ends, C/W TEK screws at 12" (305mm) O.C. and stitch screws at 12" (305mm) O.C.

NOTES:

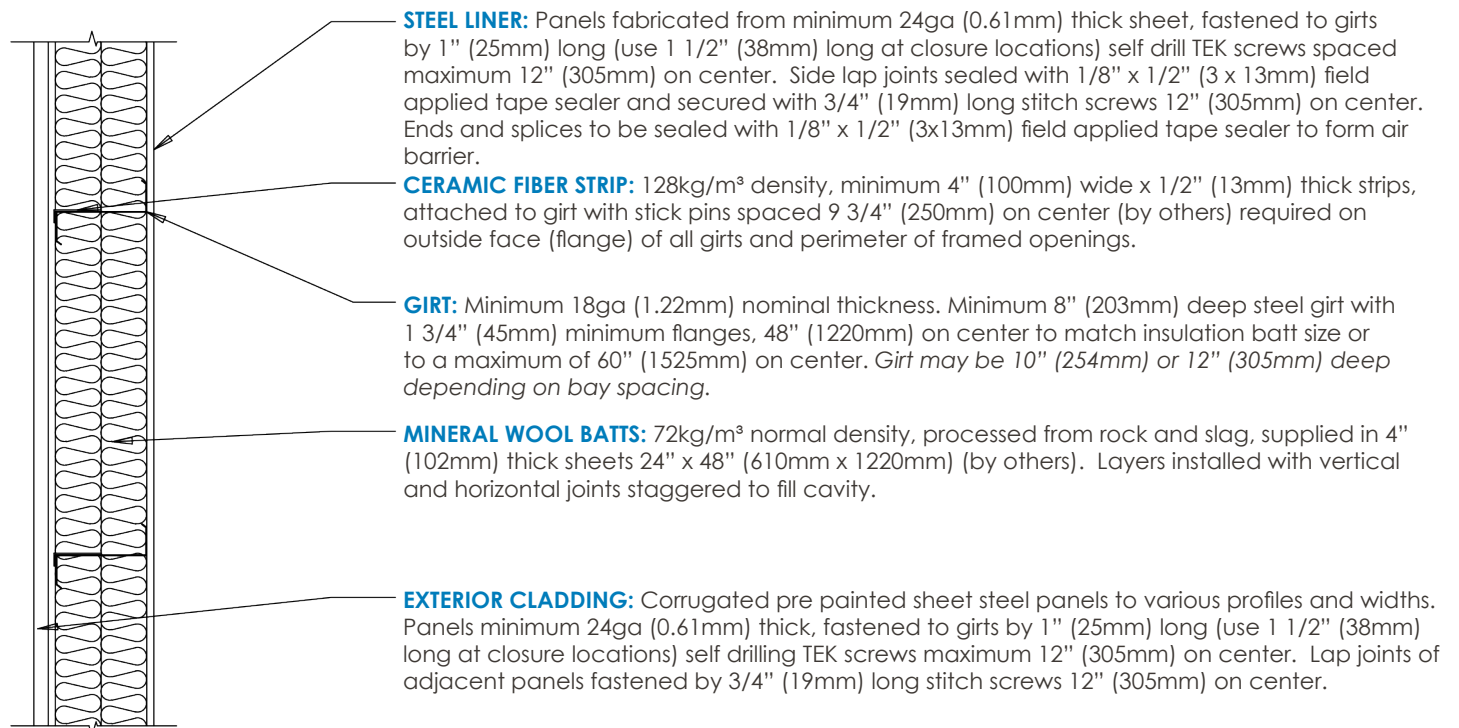
- Design No. W605 1 h can be used with an Equivalent Opening Factor at 2 h (F_{EO}) = 0.02
- See CSSBI FPB-20: Fire Protection Bulletin #20: Fire-Rated Exterior Sheet Steel Walls & FPB-24: Fire Protection Bulletin #24: New (and better) Limiting Distance Requirements in 1995 NBCC, for additional information on Limiting Distance Requirements for NBCC
- Thermal modeling of fire rated assemblies completed - see MH Building Envelope Thermal Bridging Guide, for Zones based on NECB & CSSBI-B20-15 Thermal Transmittance of Insulated Sheet Steel Wall and Roof Assemblies
- See UL Product IQ BXUVC for other assemblies, including: bearing exterior walls; Design No. U418 & U425 and interior partitions; Design No. W610 1h & W611 2h

FIREGUARD WALL SYSTEM

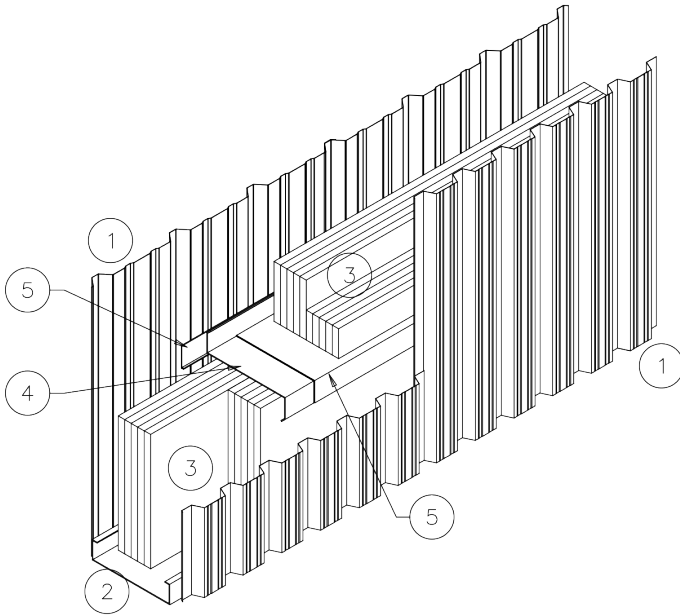
ONE-HOUR FIRE RATED WALL ASSEMBLY (Meets ULC Design No. W605)



TWO-HOUR FIRE RATED WALL ASSEMBLY (Meets ULC Design No. W606)



FIREGUARD INTERNAL PARTITION WALL SYSTEM



LEGEND - NON BEARING INTERIOR PARTITION WALL

1 HOUR FIRE-RESISTANCE RATING - ULC W610

Fire side at either side of partition

- 1) 24ga (0.61mm) Exterior Cladding
- 2) U Channel
- 3) Mineral Wool Insulation
- 4) 18ga (1.22mm) Girt Structural Support
- 5) Ceramic Fiber Strip
- 6) 24ga (0.61mm) Liner Panel

2 HOUR FIRE-RESISTANCE RATING - ULC W611

Fire side at either side of partition

- 1) 22ga (0.76mm) Exterior Cladding
- 2) U Channel
- 3) Mineral Wool Insulation
- 4) 18ga (1.22mm) Girt Structural Support
- 5) Ceramic Fiber Strip
- 6) 22ga (0.76mm) Liner Panel

The Fireguard Wall System is based on a ULC designated non-load bearing fire rated wall system designed with the steel cladding enclosing a mineral wool insulation that provides a 1 or 2 hour fire rated wall. Testing is based on CAN/ULC-S101 Standard Fire Endurance Tests of Building Construction Material.

ONE-HOUR FIRE RATED PARTITION WALL ASSEMBLY (Meets ULC Design NO. W610)

- * 24ga (0.61mm) minimum liner panel with mastic sealer tape on seam lines and ends, c/w TEK screws at 12" (305mm) O.C. and stitch screws at 12" (305mm) O.C.
- * Girt structural support minimum 18ga (1.22mm) nominal thickness.
- * Girt spacing of 48" (1220mm) to match mineral wall batt size or to a maximum of 60" (1525mm) O.C.
- * Ceramic fiber strip installed to envelop the top surface and both girt faces (flanges) of the girt
- * 24ga (0.61mm) minimum liner panel with mastic sealer tape on seam lines and ends, c/w TEK screws at 12" (305mm) O.C. and stitch screws at 12" (305mm) O.C.

TWO-HOUR FIRE RATED PARTITION WALL ASSEMBLY (Meets ULC Design NO. W611)

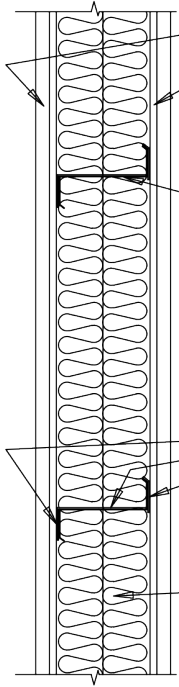
- * 22ga (0.76mm) minimum liner panel with mastic sealer tape on seam lines and ends, c/w TEK screws at 12" (305mm) O.C. and stitch screws at 12" (305mm) O.C.
- * Girt structural support minimum 18ga (1.22mm) nominal thickness.
- * Girt spacing of 48" (1220mm) to match mineral wool batt size or to a maximum of 60" (1525mm) O.C.
- * Ceramic fiber strip installed to envelop the top surface and both girt faces (flanges) of the girt
- * 22ga (0.76mm) minimum liner panel with mastic sealer tape on seam lines and ends, c/w TEK screws at 12" (305mm) O.C. and stitch screws at 12" (305mm) O.C.

NOTES:

- See UL Product IQ BXUVC for other assemblies, including; Design No. W605 1h & W606 2h for exterior walls, Design No. W447 for 1h & 2h Interior Drywall Partitions

FIREGUARD INTERNAL PARTITION WALL SYSTEM

ONE-HOUR FIRE RATED PARTITION WALL ASSEMBLY (Meets ULC Design No. W610)



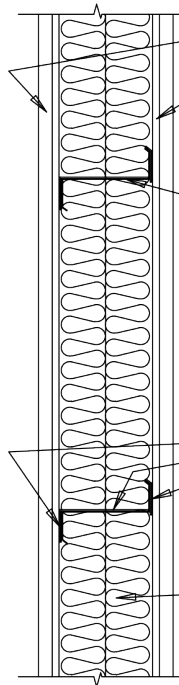
LINER PANEL: Corrugated pre painted sheet steel panels to various profiles and widths. Panels minimum 24ga (0.61mm), fastened to girts by 1" (25mm) long (use 1 1/2" (38mm) long at closure locations) self drill TEK screws spaced maximum 12" (305mm) on center. Side lap joints sealed with 1/8" x 1/2" (3 x 13mm) field applied tape sealer and secured with 3/4" (19mm) long stitch screws 12" (305mm) on center. Ends and splices to be sealed with 1/8" x 1/2" (3x12mm) field applied tape sealer to form air barrier.

GIRT: Minimum 18ga (1.22mm) nominal thickness. Minimum 6" (152mm) deep steel girt with 1 1/2" (38mm) minimum flanges, 48" (1220mm) on center to match insulation batt size or to a maximum of 60" (1525mm) on center. Girt may be 8" (203mm), 10" (254mm) or 12" (305mm) deep depending on bay spacing.

CERAMIC FIBER STRIP: 128kg/m³ density, 1/2" (13mm) thick strips, attached to girt with stick pins spaced 9 3/4" (250mm) on center (by others) required to be installed to envelop the top surface and on both faces (flanges) of all girts and perimeter of framed openings.

MINERAL WOOL BATTS: 96kg/m³ normal density, processed from rock and slag, supplied in 3" (76mm) thick sheets 24" x 48" (610mm x 1220mm) (by others). Layers installed with vertical and horizontal joints staggered to fill cavity.

TWO-HOUR FIRE RATED PARTITION WALL ASSEMBLY (Meets ULC Design No. W611)



LINER PANEL: Corrugated pre painted sheet steel panels to various profiles and widths. Panels minimum 22ga (0.76mm), fastened to girts by 1" (25mm) long (use 1 1/2" (38mm) long at closure locations) self drill TEK screws spaced maximum 12" (305mm) on center. Side lap joints sealed with 1/8" x 1/2" (3 x 13mm) field applied tape sealer and secured with 3/4" (19mm) long stitch screws 12" (305mm) on center. Ends and splices to be sealed with 1/8" x 1/2" (3x12mm) field applied tape sealer to form air barrier.

GIRT: Minimum 18ga (1.22mm) nominal thickness. Minimum 8" (203mm) deep steel girt with 1 3/4" (45mm) minimum flanges, 48" (1220mm) on center to match insulation batt size or to a maximum of 60" (1525mm) on center. Girt may be 10" (254mm) or 12" (305mm) deep depending on bay spacing.

CERAMIC FIBER STRIP: 128kg/m³ density, 1/2" (13mm) thick strips, attached to girt with stick pins spaced 9 3/4" (250mm) on center (by others) required to be installed to envelop the top surface and on both faces (flanges) of all girts and perimeter of framed openings.

MINERAL WOOL BATTS: 72kg/m³ normal density, processed from rock and slag, supplied in 4" (102mm) thick sheets 24" x 48" (610mm x 1220mm) (by others). Layers installed with vertical and horizontal joints staggered to fill cavity.