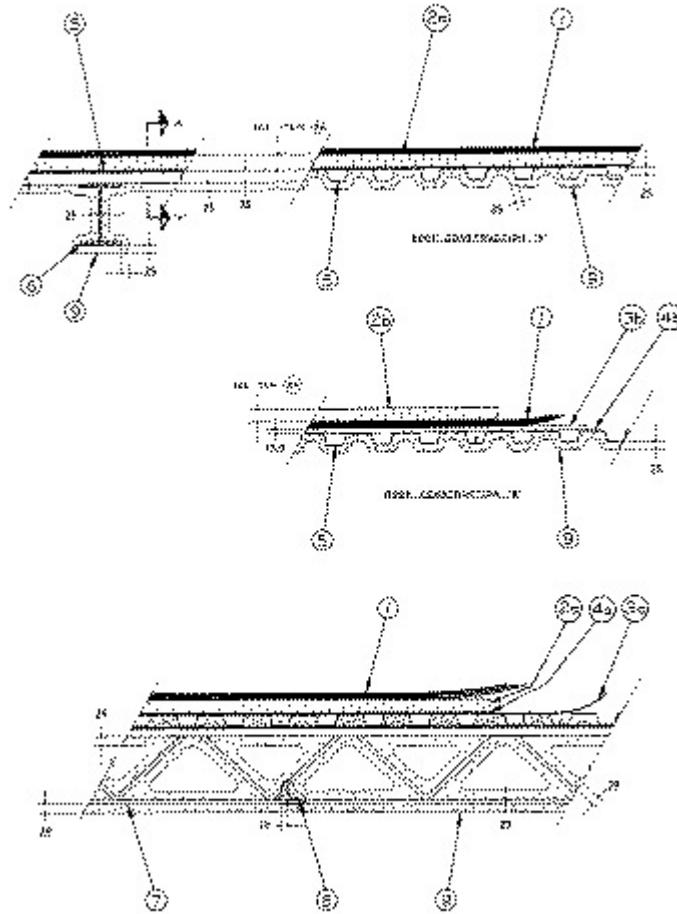


**ULC Design No. R806**  
August 01, 2005  
Unrestrained Assembly Rating - 1 h



**ROOF CONSTRUCTION A**

1A. (i) **Roof Covering** - TGFUC (Guide No. 360 O18). Class A, B or C built-up roof covering, consisting only of felt and asphalt in alternate layers, as specified in the General Information Section under TGFUC (Guide No. 360 O18).

**OR**

(ii) **Roof Covering** - TGFUC (Guide No. 360 O18). Class A built-up roof covering, consisting of Sarnafil G410-1.2 or G441-2.4 roofing membrane, adhered to glass-fibre rigid roof insulation, Item 2A(i), with Sarnacol 2170 adhesive, applied at rate of 2.5 to 10 L/10 m<sup>2</sup>.

**OR**

Class C built-up roof covering, consisting of Sarnafil G442-1.2, G410-1.2 or G441-2.4 roofing membrane loosely laid on glass-fibre rigid roof insulation, Item 2A(i), and surfaced with 15 mm to 40 mm diameter commercial grade gravel, washed and well rounded, applied at a rate of not less than 590 kg/10 m<sup>2</sup>.

As an option, polyester felt weighing 0.3 kg/m<sup>2</sup> (Sarnafelt 400), or 13 mm thick wood fibreboard, 254 kg/m<sup>3</sup> density, or 13 mm (minimum) thick exterior grade plywood, sanded one side, may be used between insulation and roofing membrane.

When these roofing membranes are used, 1200 mm by 2400 mm by 15.9 mm thick gypsum wallboard, 10.3 kg/m<sup>2</sup> minimum area density, must be applied with adhesive to steel roof deck

**SARNAFIL LTD**

**OR**

## ULC Design R806 continued...

- (iii) **Roof Covering** - TGFUC (Guide No. 360 O18). Class A built-up roof covering, consisting of Carlisle Standard EPDM or UltraGuard EPDM roofing membrane loosely laid on glass-fibre rigid roof insulation, Item 2A(i), and surfaced with 20 mm to 40 mm diameter commercial grade gravel, washed and well rounded, applied at a rate of not less than 490 kg/10 m<sup>2</sup>.

**OR**

Class A built-up roof covering, consisting of Carlisle FR EPDM or UltraGuard EPDM roofing membrane 1.5 mm thick, adhered to glass-fibre rigid roof insulation, Item 2A(i), with Carlisle 90-8-30A adhesive, applied at a rate of 5.3 L/10 m<sup>2</sup>. As an option, 13 mm thick wood fibreboard may be used between insulation and roofing membrane.

When these roofing membranes are used, 1200 mm by 2400 mm by 15.9 mm thick gypsum wallboard, 10.3 kg/m<sup>2</sup> minimum area density, must be applied with adhesive to steel roof deck.

**CARLISLE SYNTEC INCORPORATED  
JOHNS MANVILLE INTERNATIONAL INC**

**OR**

- (iv) **Roof Covering** - TGFUC (Guide No. 360 O18). Class A built-up roof covering, consisting of Firestone Standard or Standard Reinforced Rubbergard EPDM roofing membrane, 1.1 to 1.5 mm thick, loosely laid on rigid roof insulation, Items 2A(i), (ii) and (iv), and surfaced with 25 to 38 mm diameter commercial grade gravel, washed and well rounded, applied at a rate of not less than 490 kg/10 m<sup>2</sup>. As an option, 13 mm thick wood fibreboard may be used between insulation and roofing membrane.

When these roofing membranes are used, 1200 by 2400 by 15.9 mm thick gypsum wallboard, 10.3 kg/m<sup>2</sup> minimum area density, must be applied with adhesive to steel roof deck.

**FIRESTONE BUILDING PRODUCTS CO, DIV  
OF FIRESTONE TIRE & RUBBER CO**

**OR**

- (v) **Roof Covering** - TGFUC (Guide No. 360 O18). Class C built-up roof covering consisting of wood fibreboard, base, and cap sheets. One layer of 12.7 mm thick wood fibreboard, 2.6 kg/m<sup>2</sup> minimum area density, back-mopped to glass-fibre or phenolic rigid roof insulation, Items 2A(i) and (iv), with Type 2 or 3 asphalt applied at a maximum rate of 0.67 kg/m<sup>2</sup>. One layer of Elastophene sanded or Elastophene PS base sheet adhered to wood fibreboard with either Type 2 or 3 hot-mopped asphalt applied at a maximum rate of 1.05 kg/m<sup>2</sup>, or Bakor Vapor-Block Adhesive applied at a maximum rate of 1.0 L/m<sup>2</sup>. One layer of Sopralene 180 granules or Sopralene 250 granules cap sheet adhered with either Type 2 or 3 hot-mopped asphalt applied at a maximum rate of 1.2 kg/m<sup>2</sup>. Alternatively, one layer of Sopralene Flam 180 granules or Sopralene Flam 250 granules cap sheet torched to base sheet.

**SOPREMA INC**

**OR**

- (vi) **Roof Covering** - TGFUC (Guide No. 360 O18). Class A built-up roof covering, consisting of one ply of IKO "Glass Type IV, IKO""Glass Type 6", or "IKO No. 25 Glass Base Sheet", hot-mopped with Type 2 or 3 hot-mopping asphalt at a rate of 1.2 kg/m<sup>2</sup> maximum or mechanically fastened with the manufacturer's accepted steel plate and screw fasteners to polyisocyanurate, perlite, fibreglass, wood fibre or polystyrene (covered with wood fibre or perlite) insulation. One ply of ""Modiflex MP-180-SS-Base", "Modiflex MP-180-FS-Base", "Modiflex MF-95-SS-Base", "Modiflex MF-95-FS-Base", hot-mopped with Type 2 or 3 hot-mopping asphalt at a rate of 1.2 kg/m<sup>2</sup> maximum, or "Torchflex TF-95-FF-Base", "Torchflex TF-95-FF 2.2", "Torchflex TP-180-FF-Base", torched to the base or ply sheet (optional). One ply of "Modiflex MP-180-CAP FR" or "Modiflex MF-95-CAP FR" hot-mopped with Type 2 or 3 hot-mopping asphalt at a rate of 1.2 kg/m<sup>2</sup> maximum or "Torchflex TP-180-CAP FR" or "Torchflex TF-95-CAP FR" torched to the base or ply sheet.

**IKO INDUSTRIES LTD**

**OR**

## ULC Design R806 continued...

Class C built-up roof covering, consisting of a minimum 11 mm wood fiber, or 3.2 mm or 4.5 mm "Protectoboard" or "PERMABOARD" mechanically attached, urethane adhesive adhered, or adhered with Type 2 or 3 hot-mopping asphalt at a rate of 1.2 kg/m<sup>2</sup> maximum (optional) to wood fibreboard, glass fibre, mineral fibre, polyurethane, perlite, polyisocyanurate, phenolic, or resol foam roof insulation. One or more plies IKO "Modiflex MF-95-FS Base", IKO "Modiflex MF-95-SS-Base", IKO "Glass Type IV", IKO "Glass Type 6", or "IKO No. 25 Glass Base Sheet" cold adhesive applied with Karnak 81AF SBS Cold Adhesive, Monsey-Bakor MBA Gold Adhesive, Henry Company #403 Cold-Ap Spray Grade Adhesive, or Henry Company #902 Permanent Bond Adhesive at a full coverage rate of 5.68 L /0.61 m<sup>2</sup> or spot attached at a rate of sixty spots per 9.3 m<sup>2</sup>, with spots being 102 mm to 152 mm in diameter, for the first layer and either cold adhesive or heat fused for successive layers. One or more plies of "IKO No. 25 Glass Base Sheet" cold adhesive applied or heat fused (optional). One ply of "Modiflex MP-180-Cap", "Modiflex MP-250-Cap", Modiflex MP-180-Cap FR, "Modiflex MP-180-Cap FR Premium", "Modiflex MF-95-Cap", "Modiflex MF-95-Cap FR", or "Modiflex MF-95-Cap FR Premium", cold adhesive applied or "Torchflex TP-180-Cap", "Torchflex TP-250-Cap", "Torchflex TF-95- Cap", "Torchflex TP-180-Cap FR", "Torchflex TP-180-Cap FR Premium", Torchflex TF-95-Cap FR, or "Torchflex TF-95-Cap FR Premium" heat fused.

### **IKO INDUSTRIES LTD**

- (vii). **Roof Covering** - TGFUC (Guide No. 360 O18). Class C built-up roof covering consisting of wood fibreboard, base, and cap sheets. One layer of 12.7 mm thick wood fibreboard, 2.6 kg/m<sup>2</sup> minimum area density, back-mopped to glass-fibre or phenolic rigid roof insulation, Items 2A(i) and (iv) with Type 2 or 3 asphalt applied at a maximum rate of 0.67 kg/m<sup>2</sup>. One layer of Ruberoid 20 Smooth SCF base sheet adhered to wood fibreboard with either Type 2 or 3 hot-mopped asphalt applied at a maximum rate of 1.05 kg/m<sup>2</sup>, or Bakor Vapor-Block Adhesive applied at a maximum rate of 1.0 L/m<sup>2</sup>. One layer of Ruberoid Mop Granule SCF or Ruberoid Mop Plus Granule SCF cap sheet adhered with either Type 2 or 3 hot-mopped asphalt applied at a maximum rate of 1.2 kg/m<sup>2</sup>. Alternatively, one layer of Ruberoid SBS Heat-Weld Granule SCF or Ruberoid SBS Heat-Weld Plus Granule SCF cap sheet torched to base sheet.

### **GAF MATERIALS CORP**

- 2A. **Rigid Roof Insulation** - CDETC (Guide No. 40 U18.9).

- (i) Glass-fibre boards, 915 mm by 1220 mm by 65 mm minimum thickness (no maximum) when applied with adhesive to vapour barrier or steel deck. The end joints of the boards shall be staggered.

### **OWENS CORNING CANADA INC**

**OR**

- (ii) Polyisocyanurate insulation boards 1200 by 2400 mm minimum size by 43 mm minimum thickness (no maximum). When this insulation is used, 1200 by 2400 by 15.9 mm thick gypsum wallboard, 10.5 kg/m<sup>2</sup> minimum area density, must be applied with adhesive to steel roof deck, and a ballasted roof covering must be employed. Insulation applied in single or multiple layers. Boards to be installed perpendicular to gypsum wallboard direction with end joints staggered 600 mm in adjacent rows. When applied in more than one layer, each layer of board to be offset in both directions from layer below a minimum of 300 mm in order to lap all joints.

### **FIRESTONE BUILDING PRODUCTS CO, DIV**

**OF FIRESTONE TIRE & RUBBER CO**

**IKO INDUSTRIES LTD**

**JOHNS MANVILLE INTERNATIONAL INC**

## ULC Design R806 continued...

**OR**

- (iii) For use with Item 1A(ii) only. Polyisocyanurate insulation boards 1200 by 2400 mm minimum size by 43 mm minimum thickness (no maximum). When this insulation is used, 1200 by 2400 by 15.9 mm thick gypsum wallboard, 10.5 kg/m<sup>2</sup> minimum area density, must be applied with adhesive to steel roof deck, and a ballasted roof covering must be employed. Insulation applied in single or multiple layers. Boards to be installed perpendicular to gypsum wallboard direction with end joints staggered 600 mm in adjacent rows. When applied in more than one layer, each layer of board to be offset in both directions from layer below a minimum of 300 mm in order to lap all joints.

**JOHNS MANVILLE INTERNATIONAL INC**

**OR**

- (iv) Polystyrene foam boards 600 by 1200 mm by 50 mm minimum thickness (no maximum) applied in single or multiple layers with adhesive to 1200 mm by 2400 mm by 15.9 mm thick gypsum board, 9.75 kg/m<sup>2</sup> area density. The end and side joints of both the insulation and gypsum boards shall be staggered. The gypsum board is applied with adhesive to the steel roof deck and the ends of the gypsum board shall be supported by the deck. The top of the insulation boards shall be covered with a layer of wood fibreboard 12.7 mm thick (minimum) adhered to the insulation with adhesive.

**OC CELFORTEC INC**

**OR**

- (v) Polyisocyanurate insulation boards designated "E'NRG'Y 2" or "ISO1" or "Sure-Seal ISO" insulation, minimum 50 mm thick (no maximum), applied in single or multiple layers using mechanical fasteners and/or fully adhered with "Duro Perm Adhesive" applied at a maximum rate of 0.16 kg/m<sup>2</sup> between the insulation layers and on top of the vapor retarder. The "Duro Perm Vapor Retarder" is applied over the steel deck with the adhesive at a rate of 0.33 kg/m<sup>2</sup>. A layer of 12.7 mm thick wood fibreboard may be adhered with Type 3 hot-mopping asphalt at a rate of 1.25 kg/m<sup>2</sup> over the top of the insulation prior to the application of the built-up roof covering materials.

**CARLISLE SYNTEC INCORPORATED  
JOHNS MANVILLE INTERNATIONAL INC**

**OR**

- (vi) Polyisocyanurate insulation boards designated "E" RG'Y 2 or ISO1 insulation, minimum 25 mm thick (no maximum), applied in single layer using mechanical fasteners and/or hot-mopped with Type 3 asphalt at a rate of 1.25 kg/m<sup>2</sup>. When this insulation is used, 15.9 mm thick gypsum board shall be installed over the steel deck with "Duro Perm Adhesive" applied at a rate of 0.33 kg/m<sup>2</sup>. The "Duro-Perm Vapor Retarder" is applied over the gypsum board with the adhesive at a rate of 0.16 kg/m<sup>2</sup>. A layer of 12.7 mm thick wood fibreboard may be adhered with Type 3 hot-mopping asphalt at a rate of 1.25 kg/m<sup>2</sup> over the insulation prior to the application of the built-up roof covering materials.

**JOHNS MANVILLE INTERNATIONAL INC**

- 3A. **Sheathing Material** - CHIZC (Guide No. 40 U18.17V). Vapour barrier applied with adhesive to steel deck, or gypsum board, adjacent sheets overlapped an average of 50 mm.

**BAKOR INC  
IKO INDUSTRIES LTD**

- 4A. **Adhesive** - BYWRC (Guide No. 40 U18.1-1/2). Applied to steel deck, vapour barrier and rigid roof insulation at the rate specified in the manufacturer's listing.

**BAKOR INC  
IKO INDUSTRIES LTD**

- 5A **Fasteners, Mechanical** - (not shown) - Glasfast steel screw and plastic plate fastener system installed through rigid roof insulation, sheathing material, gypsum wallboard and steel roof deck

according to manufacturer's instructions. Limited to assemblies having a maximum fire resistance rating of 1 h. Adhesive or asphalt is not required to adhere fastened insulation boards.

- (i) **Fasteners, Mechanical** - "Duro-Lock Roof Fastener System" for use in conjunction with and as specified in Items 2A(v) and (vi).

**ROOF CONSTRUCTION B**

- 1B(i) **Roof Covering** - TGFUC (Guide No. 360 O18). Class A, B or C built-up roof covering, consisting only of felt and asphalt in alternate layers, as specified in the General Information Section under TGFUC (Guide No. 360 O18).

**OR**

- (ii) **Roof Covering** - TGFUC (Guide No. 360 O18). Class A built-up roof covering, consisting of Sarnafil G423 roofing membrane loosely laid on gypsum wallboard, and covered with rigid roof insulation (Item 2b). Rigid roof insulation must then be surfaced with 15 mm to 40 mm diameter commercial grade gravel, washed and well rounded, applied at a rate of not less than 590 kg/10 m<sup>2</sup>. When roofing membrane is used, 1200 mm by 2400 mm by 19 mm thick gypsum wallboard, 12.3 kg/m<sup>2</sup> minimum area density, or two layers of 9.5 mm thick gypsum wallboard, 6.1 kg/m<sup>2</sup> minimum area density, must be applied with adhesive to steel roof deck.

**SARNAFIL LTD**

**OR**

- (iii) **Roof Covering** - TGFUC (Guide No. 360 O18). Class A built-up roof covering, consisting of Carlisle Standard EPDM or UltraGuard EPDM roofing membrane, loosely laid on gypsum wallboard and covered with rigid roof insulation. Rigid roof insulation must then be surfaced with 20 mm to 40 mm diameter commercial grade gravel, washed and well rounded, applied at a rate of not less than 490 kg/10 m<sup>2</sup>. When roofing membrane is used, 1200 mm by 2400 mm by 19 mm thick gypsum wallboard, 12.3 kg/m<sup>2</sup> minimum area density, or two layers of 9.5 mm thick gypsum wallboard, 6.1 kg/m<sup>2</sup> minimum area density, must be applied with adhesive to steel roof deck.

**CARLISLE SYNTEC INCORPORATED  
JOHNS MANVILLE INTERNATIONAL INC**

**OR**

- (iv) **Roof Covering** - TGFUC (Guide No. 360 O18). Class A built-up roof covering, consisting of Firestone Standard or Standard Reinforced Rubbergard EPDM roofing membrane, 1.1 to 1.5 mm thick, loosely laid on gypsum wallboard and covered with rigid roof insulation. Rigid roof insulation must then be surfaced with 25 to 38 mm diameter commercial grade gravel, washed and well rounded, applied at a rate of not less than 490 kg/10 m<sup>2</sup>. When roofing membrane is used, 1200 by 2400 by 19 mm thick gypsum wallboard, 12.3 kg/m<sup>2</sup> minimum area density, or two layers of 9.5 mm thick gypsum wallboard, 6.1 kg/m<sup>2</sup> minimum area density, must be applied with adhesive to steel roof deck.

**FIRESTONE BUILDING PRODUCTS CO, DIV  
OF FIRESTONE TIRE & RUBBER CO**

**OR**

- (v) **Permeable Fabric** - TGFUC (Guide No. 360 O18). A permeable fabric designated Fabrene Type VIE may be loosely laid in one layer on the loose applied rigid roof insulation and covered with 295 kg minimum of crushed or rounded stone per 10 m<sup>2</sup> of roofing area.

**FABRENE INC**

**OR**

- (vi) **Roof Covering** - TGFUC (Guide No. 360 O18). Class C built-up roof covering consisting of wood fibreboard, base, and cap sheets. One layer of 12.7 mm thick wood fibreboard, 2.6 kg/m<sup>2</sup> minimum area density, back-mopped to Rigid Roof Insulation, Item 2B(iii), with Type 2 or 3 asphalt applied at a maximum rate of 0.67 kg/m<sup>2</sup>. One layer of Elastophene sanded or Elastophene PS base sheet adhered to wood fibreboard with either Type 2 or 3 hot-mopped

## ULC Design R806 continued...

asphalt applied at a maximum rate of 1.05 kg/m<sup>2</sup>, or Bakor Vapor-Block Adhesive applied at a maximum rate of 1.0 L/m<sup>2</sup>. One layer of Sopralene 180 granules or Sopralene 250 granules cap sheet adhered with either Type 2 or 3 hot-mopped asphalt applied at a maximum rate of 1.2 kg/m<sup>2</sup>. Alternatively, one layer of Sopralene Flam 180 granules or Sopralene Flam 250 granules cap sheet torched to base sheet.

### **SOPREMA INC**

#### **OR**

- (vii) **Roof Covering** - TGFUC (Guide No. 360 O18). Class A built-up roof covering, consisting of one ply of IKO "Glass Type IV, IKO "Glass Type 6", or "IKO No. 25 Glass Base Sheet", hot-mopped with Type 2 or 3 hot-mopping asphalt at a rate of 1.2 kg/m<sup>2</sup> maximum or mechanically fastened with the manufacturer's accepted steel plate and screw fasteners to polyisocyanurate, perlite, fibreglass, wood fibre or polystyrene (covered with wood fibre or perlite) insulation. One ply of "Modiflex MP-180-SS-Base", "Modiflex MP-180-FS-Base", "Modiflex MF-95-SS-Base", "Modiflex MF-95-FS-Base", hot-mopped with Type 2 or 3 hot-mopping asphalt at a rate of 1.2 kg/m<sup>2</sup> maximum, or "Torchflex TF-95-FF-Base", "Torchflex TF-95-FF 2.2", "Torchflex TP-180-FF-Base", torched to the base or ply sheet (optional). One ply of "Modiflex MP-180-CAP FR" or "Modiflex MF-95-CAP FR" hot-mopped with Type 2 or 3 hot-mopping asphalt at a rate of 1.2 kg/m<sup>2</sup> maximum or "Torchflex TP-180-CAP FR" or "Torchflex TF-95-CAP FR" torched to the base or ply sheet.

### **IKO INDUSTRIES LTD**

#### **OR**

Class C built-up roof covering, consisting of a minimum 11 mm wood fiber, or 3.2 mm or 4.5 mm "Protectoboard" or "PERMABOARD" mechanically attached, urethane adhesive adhered, or adhered with Type 2 or 3 hot-mopping asphalt at a rate of 1.2 kg/m<sup>2</sup> maximum (optional) to wood fibreboard, glass fibre, mineral fibre, polyurethane, perlite, polyisocyanurate, phenolic, or resol foam roof insulation. One or more plies IKO "Modiflex MF-95-FS Base", IKO "Modiflex MF-95-SS-Base", IKO "Glass Type IV", IKO "Glass Type 6", or "IKO No. 25 Glass Base Sheet" cold adhesive applied with Karnak 81AF SBS Cold Adhesive, Monsey-Bakor MBA Gold Adhesive, Henry Company #403 Cold-Ap Spray Grade Adhesive, or Henry Company #902 Permanent Bond Adhesive at a full coverage rate of 5.68 L /0.61 m<sup>2</sup> or spot attached at a rate of sixty spots per 9.3 m<sup>2</sup>, with spots being 102 mm to 152 mm in diameter, for the first layer and either cold adhesive or heat fused for successive layers. One or more plies of "IKO No. 25 Glass Base Sheet" cold adhesive applied or heat fused (optional). One ply of "Modiflex MP-180-Cap", "Modiflex MP-250-Cap", "Modiflex MP-180-Cap FR", "Modiflex MP-180-Cap FR Premium", "Modiflex MF-95-Cap", "Modiflex MF-95-Cap FR", or "Modiflex MF-95-Cap FR Premium", cold adhesive applied or "Torchflex TP-180-Cap", "Torchflex TP-250-Cap", "Torchflex TF-95- Cap", "Torchflex TP-180-Cap FR", "Torchflex TP-180-Cap FR Premium", "Torchflex TF-95-Cap FR", or "Torchflex TF-95-Cap FR Premium" heat fused.

### **IKO INDUSTRIES LTD**

- (viii). **Roof Covering** - TGFUC (Guide No. 360 O18). Class C built-up roof covering consisting of wood fibreboard, base, and cap sheets. One layer of 12.7 mm thick wood fibreboard, 2.6 kg/m<sup>2</sup> minimum area density, back-mopped to rigid roof insulation, Item 2B(iii), with Type 2 or 3 asphalt applied at a maximum rate of 0.67 kg/m<sup>2</sup>. One layer of Ruberoid 20 Smooth SCF base sheet adhered to wood fibreboard with either Type 2 or 3 hot-mopped asphalt applied at a maximum rate of 1.05 kg/m<sup>2</sup>, or Bakor Vapor-Block Adhesive applied at a maximum rate of 1.0 L/m<sup>2</sup>. One layer of Ruberoid Mop Granule SCF or Ruberoid Mop Plus Granule SCF cap sheet adhered with either Type 2 or 3 hot-mopped asphalt applied at a maximum rate of 1.2 kg/m<sup>2</sup>. Alternatively, one layer of Ruberoid SBS Heat-Weld Granule SCF or Ruberoid SBS Heat-Weld Plus Granule SCF cap sheet torched to base sheet.

### **GAF MATERIALS CORP**

**ULC Design R806 continued...**

- 2B. **Rigid Roof Insulation** - CDETC (Guide No. 40 U18.9).
  - (i) Foamed plastic in boards 600 by 1200 mm by 50 mm minimum thickness (no maximum).

**DOW CHEMICAL CANADA INC**

**OR**

- (ii) Polystyrene foam boards 600 by 1200 mm by 50 mm minimum thickness (no maximum).

**OC CELFORTEC INC**

- 3B.(i) **Gypsum Wallboard** - CKNXC (Guide No. 40 U18.23). 15.9 mm thick supplied in 1200 mm wide sheets. Installed perpendicular to steel roof deck with end joints on crests of deck, staggered 600 mm and offset from steel roof deck sidelap joints. Secured to crests of steel roof deck with adhesive.

**G-P GYPSUM CORP, SUB OF  
GEORGIA-PACIFIC CORP**

- (ii) **Gypsum Board** - In lieu of Item 3B(i), 15.9 mm thick gypsum board of minimum density 9.8 kg/m<sup>2</sup> supplied in sheets nominally 1200 mm by 2400 mm may be used.

- 4B. **Adhesive** - BYWRC (Guide No. 40 U18.1-1/2). Applied to steel deck and gypsum board at the rate specified in the manufacturer's listing.

**BAKOR INC  
IKO INDUSTRIES LTD**

- 5. **Steel Roof Deck** - Fluted steel deck, minimum 0.76 mm thick galvanized steel, nominally 38 mm deep and 915 mm width. Attached to joists and beam with 20 mm diameter plug welded at 150 mm OC. The interlocking flanges of the adjacent units to be button-punched together on 350 mm centres.

- 6. **Beam** - W200x31, minimum size.

- 7. **Joist** - 250 mm deep, open-web steel joist 8.8 kg/m minimum size designed in accordance with the relevant provisions of Part 4 of the National Building Code of Canada, spaced 1525 mm OC.

- 8. **Bridging** - Designed in accordance with the relevant provisions of Part 4 of the National Building Code of Canada.

- 9. **Spray-Applied Fire-Resistive Material (see table below)** - CHPXC (Guide No. 40 U18.6). Applied with or without adhesive to steel surfaces to final untamped thicknesses as shown in table. Tamping is optional. Fibre to have a minimum average density of 165 kg/m<sup>3</sup> with a minimum individual value of 145 kg/m<sup>3</sup>. For method of density determination, refer to General Information Section under heading "Fire Resistance Ratings". Steel surfaces must be clean and free of dirt, loose scale and oily deposits.

**A/D FIRE PROTECTION SYSTEMS INC**

Location	Min Protection Thickness, mm
Deck	25
Joists	29
Beam	25
Bridging	19