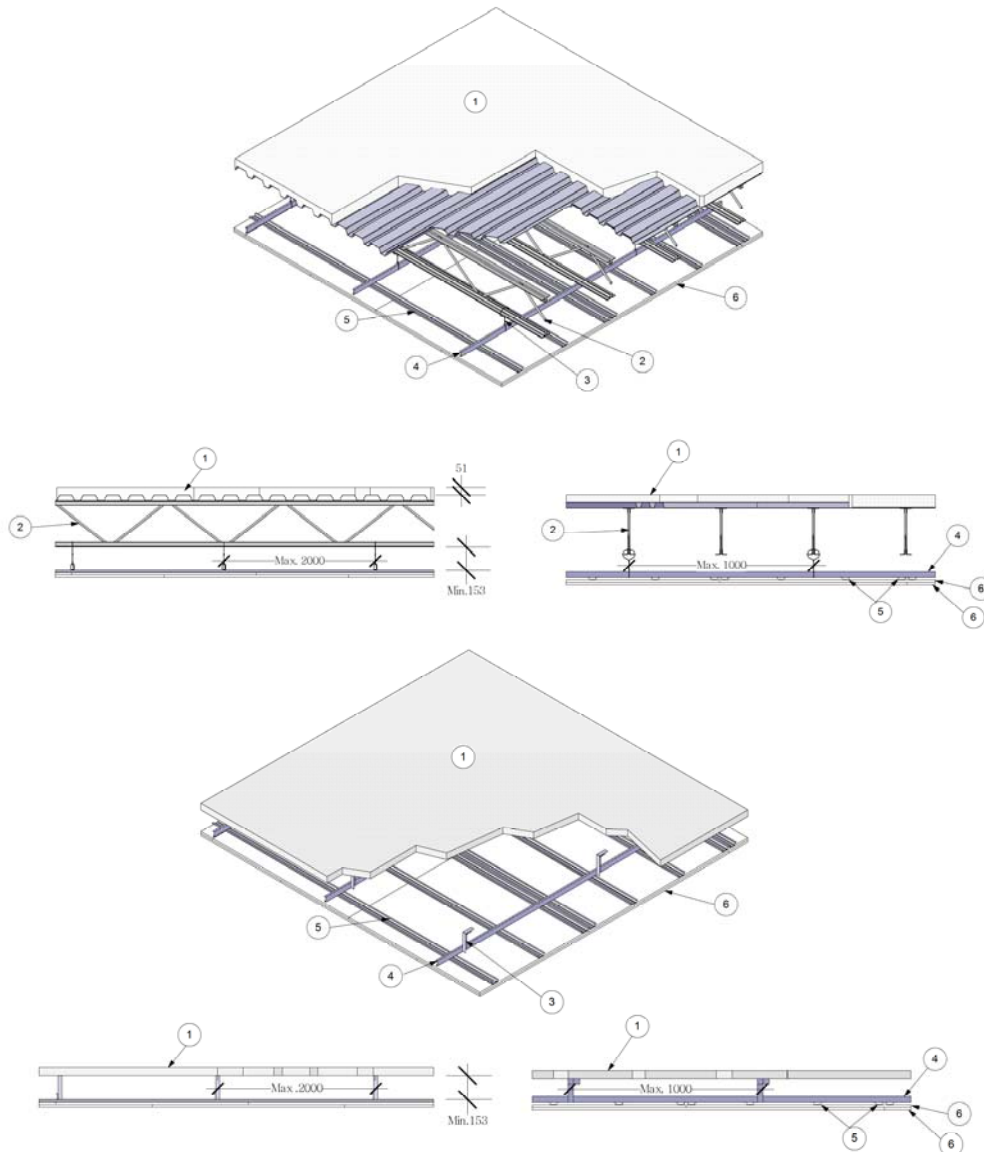**Knauf, LLC**
Design Number KL/GBF 180-02
Non-Combustible Floor Ceiling Assembly
Knauf Fire Resistant Gypsum Board
ASTM E119
Restrained or Unrestrained Fire Resistance Rating: 3 hr

Dimensions above are in mm.

1. CONCRETE FLOOR ASSMEBLY: Use a floor assembly consisting of a concrete floor assembly with a min. continuous thickness of 51mm (2 in.)

2. NON-COMBUSTIBLE JOIST OR STRUCTURAL SUPPORT: Use any steel joist, structural steel support or concrete

beam. Bottom of structural supporting elements shall be spaced a min. of 153mm (6 in.) from the bottom of the Main Channels (Item 4).

3. HANGERS: Use one of the following hanger systems. All hangers shall be cut long enough to allow a min. of 6 in. from the lowest protected structural member or floor section as applicable to the top of the Hat Furring Channel (Item 4). Hangers must be installed with a max. spacing of 1200 mm along the length of the Main Channel (Item 4):

   A. L-Angle: Install L-Angle to concrete floor assembly or to non-combustible joist using the appropriate method as follows.
      i. Attach L-Angle to structural member with min. two Knauf LN 4.2 x 13 wafer head screws or equivalent or other appropriately sized screw of greater size when required.
      ii. Attach two L-Angles with a min. of two Knauf LN screw to create a 90 degree angle at the ends of the two L-Angles. Attach one leg of the 90 degree angle to the floor assembly or structural member.

   B. Steel Wire (optional): Install min. 12 GA steel wire with a min. of one wrap around the bottom chord of structural member as applicable.

4. MAIN CHANNEL: Install min. 1.37 mm thick, 38 mm wide and 12.5 mm deep main channels spaced max. 1000 mm on center (oc). Joints in Main Channel shall overlap min. 660 mm to L-Angle or Steel Wire using the appropriate attachment methods as follows:

   A. Attach L-Angle (Item 3A) using two Knauf LN screws or equivalent. L-Angle shall be positioned to be flush with the bottom of the Main Channel.

   B. Wrap the steel wire (Item 3B) around the Main Channel using a min. of one wrap.

5. CERTIFIED COMPANY: Knauf, LLC.

CERTIFIED PRODUCT: Steel framing members

MODEL: Hat Furring Channel 67/22/0.5/3000

HAT FURRING CHANNEL: Attach Knauf Hat Furring Channel (0.5 mm thick, 57 mm wide, 22 mm deep) hat shaped channel perpendicular to Main Channel (Item 4) spaced max. 407 mm oc (16 in.) using two Knauf LN 4.2 x 13 wafer head screws or equivalent. At locations of butt joints in the gypsum board, install two Hat Furring Channels side by side. Joints in hat furring channel shall overlap a min. of 407mm (16 in.)

6. CERTIFIED COMPANY: Knauf, LLC.

   CERTIFIED PRODUCT: Type X Gypsum Board

   MODEL: Knauf GW-TX

   GYPSUM BOARD: Install two layers of 15.9 mm (5/8 in.) Knauf GW-TX Type X gypsum board. Attach base layer of gypsum board to the Hat Furring Channel (Item 5) using 25mm (1 in.) fine thread Type S screws spaced 203mm (8 in.) oc. Perimeter screws shall be space nominal 1 in. from the gypsum board edges. Attach face layer of gypsum board perpendicular to Hat Furring channels using 41mm (1-5/8 in.) fine thread Type S screws spaced 203mm (8 in.) oc. Install face layer with long edge joints offset 610 mm from the long edge joints of the base layer. Perimeter screws shall be space nominal 1 in. from the gypsum board edges

7. CERTIFIED COMPANY: Knauf, LLC.

   CERTIFIED PRODUCT: Joint Compound

   MODEL: Readygips Multi-Purpose Joint Compound

   JOINT TAPE AND COMPOUND – (Not Shown) Apply a level 2 finish of self-adhering Knauf Joint Tape and Knauf Readygips multi-purpose joint compound: Apply tape to face layer of gypsum board

(Item 3) at all gypsum board joints. Apply joint compound in two coats to all exposed fastener heads and gypsum board joints.