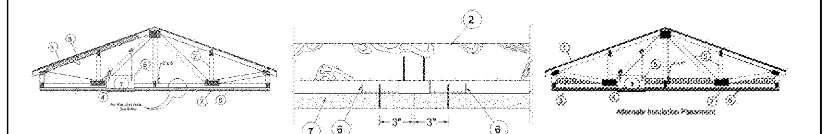
UL DESIGN P547



Design No. P547
April 04, 2019

Unrestrained Assembly Rating —1 Hr.
Finish Rating —22 Min
This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used —See Guide BXUV or BXUV7
Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.
1. Roofing System* —Any UL Class A, B or C Roofing System (TGFU) or Prepared Roof Covering (TFWZ) acceptable for use over nom 15/32 in. thick wood structural panels, min. grade "C–D" or "Sheathing". Nom 15/32 in. thick wood structural panels secured to trusses with No. 6d ringed shank nails. Nails spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Construction adhesive is optional.
2. Trusses —Pitch or Parallel chord trusses, spaced a max of 24 in. OC, fabricated from nom 2 by 4 lumber, with lumber oriented vertically or horizontally. Truss members secured together min.0.0356 in. thick galv steel plates. Plates have 5/16 in. long teeth projecting perpendicular to the plane of the plate. The teeth are in pairs facing each other (made by the same punch), forming a split tooth type plate. Each tooth has a chisel point on its outside edge. These points are diagonally opposite each other for each pair. The top half of each tooth has a twist for stiffness. The pairs are repeated on approximately 7/8 in. centers with four rows of teeth per inch of plate width. Where the truss intersects with the interior face of the exterior walls, the min truss depth shall be 5–1/4 in. with a min roof slope of 3/12 and a min. area in the plane of the truss of 21 sq/ft.
3. Batts and Blankets* —(Optional) —Glass fiber insulation, secured to the wood structural panels with staples spaced 12 in. OC., loosely laid on the back of the gypsum board, or fastened to the trusses with 0.090 in. diam galv steel wires spaced 12 in. OC. Any glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance, having a min density of 0.5 pcf.
3A. Loose Fill Material* —As an alternate to Item 3, any loose fill material bearing the UL Classification Marking for Surface Burning Characteristics, having a min density of 0.5 pcf.
4. Air Duct* —Any UL Class 0 or Class 1 flexible air duct installed in accordance with the instructions provided by the damper manufacturer.
5. Damper* —Nom 20 in. long by 18 in. wide by 2–1/8 in. high, fabricated from galvanized steel. Plenum box maximum size nom. 21 in. long by 18 in. wide by 16 in. high fabricated from either galvanized steel or Classified Air Duct Materials bearing the UL Class 0 or Class 1 rigid air duct material. Installed in accordance with the instructions provided by the manufacturer. Max damper openings not to exceed 180 sq in. per 100 sq ft of ceiling area.
NAILOR INDUSTRIES INC —Types 0755, 0755A, 0756, 0756D, 0757, 0757D, 0757FP, 0757DFP, 0758, 0759, 0760, 0761, 0762, 0763, CRD5, CRD5D, CRD6, CRD6D, CRD6FP, CRD6DFP
SAFE AIR DOWCO —0455, 0455A, 0456, 0456D, 0457, 0457D, 0457–DB, 0457–CB, 0463–FB, 0457–EB, 0463–GB, 0463
5A. Alternate Ceiling Damper* —(Optional) —Max nom area shall be 324 sq in. Max square size shall be 18 in. by 18 in. Rectangular sizes not to exceed 324 sq in. with a max width of 18 in. Max height of damper shall be 14 in. Aggregate damper openings shall not exceed 162 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper. A steel grille (Item 9) shall be installed in accordance with installation instructions.
C&S AIR PRODUCTS —Model RD–521
POTTORFF —Model CFD–521
5B. Alternate Ceiling Damper* —(Optional) —Max nom area shall be 196 sq in. Max square size shall be 14 in. by 14 in. Rectangular sizes not to exceed 196 sq in. with a max width of 26 in. Max height of damper shall be 7 in. Aggregate damper openings shall not exceed 98 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper. A steel grille (Item 9) not to exceed 144 in.2 shall be installed in accordance with installation instructions.
C&S AIR PRODUCTS —Model RD–521–BT
POTTORFF —Model CFD–521–BT
5C. Alternate Ceiling Damper* —(Optional) —Max nom area shall be 256 sq in. with the length not to exceed 24 in. and the width not to exceed 20 in. Max height of damper shall be 17 in. Aggregate damper openings shall not exceed 128 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper. A steel grille (Item 9) shall be installed in accordance with installation instructions.
C&S AIR PRODUCTS —Model RD–521–IP, RD–521–NP
POTTORFF —Models CFD–521–IP, CFD–521–NP
5D. Alternate Ceiling Damper* —For use with min 18 in. deep trusses. Max nom area shall be 144 sq in. with the length not to exceed 14 in. and the width not to exceed 12 in. Max height of damper shall be 17–7/8 in. Aggregate damper openings shall not exceed 74 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper. A steel grille (Item 9) shall be installed in accordance with installation instructions.
C&S AIR PRODUCTS —Model RD–521–90, RD–521–NP90
POTTORFF —Models CFD–521–90, CFD–521–90NP
5E. Alternate Ceiling Damper* —(Optional) —Max plenum box size nom 19 in. long by 19 in. wide and 11–7/8 in. high fabricated from galv steel. Aggregate damper openings shall not exceed 128 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper.
AIRE TECHNOLOGIES INC —Models: CRD model 50 w/Boot, CRD model 50EA w/Boot, CRD model 55 w/Boot, CRD model 55 EA w/Boot
LLOYD INDUSTRIES INC —Model CRD 50–BT, CRD 50–EA–BT, CRD 55–BT, CRD 55 EA–BT
5F. Alternate Ceiling Damper* —(Optional) —Max plenum box size nom 13 in. long by 13 in. wide and 11–7/8 in. high fabricated from galv steel. Aggregate damper openings shall not exceed 50 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper.
LLOYD INDUSTRIES INC —Model CRD 50–BT–6, CRD 50–EA–BT–6, CRD 55–BT–6, CRD 55 EA–BT–6, CRD50–w X–BT–6
5G. Alternate Ceiling Damper* —(Optional) —Max size ceiling outlet in plenum box nom 12 in. long by 12 in. wide. Plenum box fabricated from galv steel. Aggregate damper openings shall not exceed 72 sq in. per 100 sq ft of ceiling area. Installed in accordance with the manufacturers installation instructions provided with the damper.
AIRE TECHNOLOGIES INC —Models: CRD model 50 w/Boot, CRD model 50EA w/Boot, CRD model 55 w/Boot, CRD model 55 EA w/Boot.
LLOYD INDUSTRIES INC —Model CRD 50–95BT, CRD 50–EA–95BT, CRD 55–95BT, CRD 55 EA–95BT
5H. Alternate Ceiling Damper* —(Optional) —Max size ceiling outlet in plenum box nom 16 in. long by 16 in. wide. Aggregate damper openings shall not exceed 128 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper.
CROWN PRODUCTS CO INC —Models CRD50–FGPB–4.2–CP, –6.0–CP, CRD50–FGPB–4.2–EA–CP, –6.0–EA–CP
LLOYD INDUSTRIES INC —Models CRD 50– FGPB–4.2, – 4.2 NI, –6.0, –6.0 NI, CRD50–EA–FGPB–4.2, –4.2 NI, –6.0, –6.0 NI
5I. Ceiling Damper* —(Optional) —For use with min 18 in. deep trusses Max plenum box size nom 15 in. long by 15 in. wide and 11–7/8 in. high fabricated from galv steel. Aggregate damper openings shall not exceed 72 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper.
LLOYD INDUSTRIES INC —Models 45–CRD–LT–BT and 45–CRD–LTD–BT
5J. Ceiling Damper* —(Optional) —Max size ceiling outlet in plenum box nom 10 in. long by 10 in. wide. Plenum box fabricated from galv steel. Aggregate damper openings shall not exceed 50 sq in. per 100 sq ft of ceiling area. Installed in accordance with the manufacturers installation instructions provided with the damper.
LLOYD INDUSTRIES INC —Model 45–LTD–BT–4
5K. Alternate Ceiling Damper* —(Optional) —Max plenum box size nom 19 in. long by 15 in. wide and 11–7/8 in. high fabricated from galv steel. Aggregate damper openings shall not exceed 96 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper.
LLOYD INDUSTRIES INC —Model CRD50–w X–BT
5L. Alternate Ceiling Damper* —(Optional) —Max nom area shall be 324 sq in. Max square size shall be 18 in. by 18 in. Rectangular sizes not to exceed 324 sq in. with a max length of 20 in. and a max width of 22 in. Max height of damper shall be 14 in. Aggregate damper openings shall not exceed 154 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturer's installation instructions provided with the damper. An aluminum or steel grille (item 9) shall be installed in accordance with installation instructions.
UNITED ENERTECH CORP —Type C–S/R–WT or C–S/R–WTP (Max nom area 324 sq. in.) or C–S/R–WTS or C–S/R–WTPS (Max nom area 162 sq. in.)
5M. Alternate Ceiling Damper* —(Optional) —Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 103 sq in. with the length not to exceed 10–1/8 in. and the width not to exceed 10–1/8 in. Aggregate damper openings shall not exceed 52 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille (Item 9) shall be installed in accordance with installation instructions.
PANASONIC CORPORATION, PANASONIC CORPORATION OF NORTH AMERICA —Model PC–RD05C5
5N. Alternate Ceiling Damper* —Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 113 sq in. with the length not to exceed 10–1/8 in. and the width not to exceed 11–1/8 in. Aggregate damper openings shall not exceed 57 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille (Item 9) shall be installed in accordance with installation instructions.
BROAN–NUTONE L L C —Model RDFUWT
5O. Alternate Ceiling Damper* —Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 79 sq in. with the length not to exceed 10 in. and the width not to exceed 7–15/16 in. Aggregate damper openings shall not exceed 40 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A metallic grille (Item 9) shall be installed in accordance with installation instructions.

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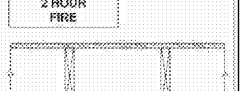
BROAN–NUTONE L L C —Models RDJ1 and RDH
5P. Alternate Ceiling Damper* —For use with min 18 in. deep trusses. Max nom area shall be 349 sq in. Max overall length and width shall not exceed 18–11/16 in. by 18–11/16 in. with max 16 in. by 16 in. register opening. Aggregate damper openings shall not exceed 175 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper. A steel grille (Item 9) shall be installed in accordance with installation instructions.
MIAMI TECH INC —Model Series RxCRD, RxCRDS or RxCRPD
5Q. Alternate Ceiling Damper* —For use with min 18 in. deep trusses Max plenum box size nom 19 in. long by 19 in. wide and 11–7/8 in. high fabricated from galv steel. Aggregate damper openings shall not exceed 128 sq in. per 100 sq ft of ceiling area. Damper installed in accordance with the manufacturers installation instructions provided with the damper.
METAL–FAB INC —Models MSCD–HC and MRCD–HC
5R. Alternate Ceiling Damper* —Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 87 sq in. with the length not to exceed 9 in. and the width not to exceed 9–11/16 in. Aggregate damper openings shall not exceed 44 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille (Item 9) shall be installed in accordance with installation instructions.
BROAN–NUTONE L L C —Model RDMWT
5S. Alternate Ceiling Damper* —Ceiling damper & fan assembly for use with min 18 in. deep trusses. Max nom area shall be 87 sq in. with the length not to exceed 9 in. and the width not to exceed 9–11/16 in. Aggregate damper openings shall not exceed 44 sq in. per 100 sq ft of ceiling area. Damper shall be installed in combination with one of the fan models described in, and in accordance with, the manufacturer's installation instructions provided with the damper. A plastic grille (Item 9) shall be installed in accordance with installation instructions.
BROAN–NUTONE L L C —Model RDMWT2
5T. Alternate Ceiling Damper* —(Optional, To be used with Air Duct Item 4) —Max nom 21 in. long by 18 in. wide, fabricated from galvanized steel. Plenum box max size nom 21 in. long by 18 in. wide by 14 in. high (inner dimension) fabricated from either galvanized steel or min 1 in. thick Listed Duct Board bearing the UL Listing Marking having a min R–Value of 4.3. Installed in accordance with the instructions provided by the manufacturer. Max damper openings not to exceed 180 sq in. per 100 sq ft of ceiling area.
GREENHECK FAN CORP —Model CRD–1WT
5U. Alternate Ceiling Damper* —(Optional, To be used with Air Duct Item 4) —Max nom 12 in. long by 12 in. wide with an 8 in. diameter damper, fabricated from galvanized steel. Installed in accordance with the instructions provided by the manufacturer. Max damper openings not to exceed 72 sq in. per 100 sq ft of ceiling area.
GREENHECK FAN CORP —Model CRD–2WT
5V. Alternate Ceiling Damper* —(Optional. To be used with Air Duct Item 4.) For use with min 18 in. deep trusses. Max 12 in. diameter damper and insulated register box assembly. The maximum size of the register box assembly is nom. 20 in. long by 20 in. wide and 4 in. high fabricated from galv steel. The aggregate area of the register opening(s) through the ceiling membrane shall not exceed 128 sq in. per 100 sq ft of ceiling area. Damper assembly installed in accordance with the manufacturers installation instructions.
AIRE TECHNOLOGIES INC —Model 57IB.
5W. Alternate Ceiling Damper* —(Optional. To be used with Air Duct Item 4.) For use with min 18 in. deep trusses. Max 20 in. long by 16 in. wide by 4 in. high rectangular damper with plenum box assembly. The maximum outer dimensions of the plenum box assembly is 23–1/2 in. long by 19–1/2 in. wide and 17 in. high fabricated from 6pcf, 1–1/2 to 2 in. thick Knauf Air Duct Board M*. The aggregate area of the register opening(s) through the ceiling membrane shall not exceed 160 sq in. per 100 sq ft ceiling area. Damper assembly installed in accordance with the manufacturers installation instructions.
AIRE TECHNOLOGIES INC —Series 58.
5X. Alternate Ceiling Damper* —(Optional. To be used with Air Duct Item 4.) For use with min 18 in. deep trusses. Max 14 in. long by 14 in. wide and 18 in. high ceiling damper with boot or box assembly, fabricated from galv steel. The aggregate area of the register opening(s) through the ceiling membrane shall not exceed 98 sq in. per 100 sq ft of ceiling area. Damper assembly installed in accordance with the manufacturers installation instructions.
AIRE TECHNOLOGIES INC —Model 51 w/Boot.
5Y. Damper* —(Optional, to be used with Air Duct Item 4) For use with min 18 in. deep trusses. Max nom 11–1/8 in. long by 13–5/8 in. wide, fabricated from galvanized steel. Installed in accordance with the instructions provided by the manufacturer. Max damper openings not to exceed 76 sq in. per 100 sq ft of ceiling area.
GREENHECK FAN CORP —Model CRD–310WT
6. Furring Channels —Resilient channels formed of 25 MSG galv steel, spaced 16 in. OC, installed perpendicular to trusses. Channels secured to each truss with 1–1/4 in. long Type S steel screws. Channels overlapped 4 in. at splices. Channels oriented opposite at wallboard butt joints (spaced 6 in. OC) as shown in the above illustration. When Batts and Blankets (Item 3) are loosely laid on the back of gypsum boards, channels are spaced a maximum of 12 in. OC. perpendicular to trusses.
6A. Steel Framing Members* —(Not Shown) —As an alternate to Item 6.
a. Furring Channels —Formed of No. 25 MSG galv steel, 2–3/8 in. wide by 7/8 in. deep, spaced 16 in. OC perpendicular to wood structural members. When insulation, Items 3 or 3A is applied over the furring channel/gypsum panel ceiling membrane, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire near each end of overlap.
b. Steel Framing Members* —Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 48 in. OC, and secured to the bottom chord of alternating trusses with one No. 8 x 2–1/2 in. coarse drywall screw through center grommet. When insulation, Items 3 or 3A is applied over the furring channel/gypsum panel ceiling membrane, the clip spacing shall be reduced to 24 in. OC and secured to consecutive trusses. Furring channels are friction fitted into clips. Adjoining channels are overlapped as described in Item a. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self–tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw at each flange of the channel. Additional clips required to hold furring channel that supports the gypsum board butt joints as described in Item 7.
PLITEQ INC —Type Genie Clip
6B. Steel Framing Members* —(Not Shown) —As an alternate to Item 6.
a. Furring Channels —Formed of No. 25 MSG galv steel, 2–5/8 in. wide by 7/8 in deep, spaced 16 in OC, perpendicular to wood structural members. When insulation, Item 3 or 3A is applied over the furring channel/gypsum panel ceiling membrane, the furring channel spacing shall be reduced to 12 in. OC. Channels secured to trusses as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galv steel wire near each end of overlap.
b. Steel Framing Members* —Used to attach furring channels (Item a) to the trusses (Item 2). Clips spaced at 48" OC and secured to the bottom of the trusses with one 2 in. Coarse Drywall Screw with 1 in. diam washer through the center hole. Furring channels are then friction fitted into clips. As an alternate, ends of channels are overlapped 6" and tied together with double strand of No. 18 AWG galvanized steel wire. Additional clips are required to hold the gypsum butt joints as described in item 7.
STUDCO BUILDING SYSTEMS —RESILMOUNT Sound Isolation Clips – Type A237R
7. Gypsum Board* —Nom 5/8 in. thick, 48 in. wide, installed with long dimension perpendicular to resilient channels with 1 in. long Type S screws spaced 12 in. OC and located a min of 5/8 in. from side joints and 3 in. from the end joints. At end joints, two resilient channels are used, extending a min of 6 in. beyond both ends of the joint. When Insulation (Items 3 or 3A) are loosely laid on the back of the gypsum boards, gypsum boards shall be secured to resilient channels with 1 in. long Type S bugle head screws spaced a maximum of 8 in. OC. and located a min. of 5/8 in. from side and end joints. When Steel Framing Members (Item 6A) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long No. 6 Type S bugle–head steel screws spaced 12 in. OC in the field of the board. Screw spacing is reduced to 8 in. OC when insulation is applied over the furring channel/gypsum panel ceiling membrane. Gypsum board butted end joints shall be staggered minimum 16 in. within the assembly. At the gypsum board butt joints, each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 6 in. on each end. These additional furring channels shall be attached to underside of the truss with Genie clips as described in Item 6A. Screw spacing along the gypsum board butt joint shall be 6 in. OC.
When Steel Framing Members (Item 6B) are used, one layer of nom 5/8 in. thick, 4 ft wide gypsum board is installed with long dimensions perpendicular to furring channels. Gypsum board secured to furring channels with nom 1 in. long Type S bugle–head steel screws spaced 8 in. OC in the field of the board. Gypsum board butted end joints shall be staggered minimum 48 in. and centered over main furring channels. At the gypsum board butt joints, each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 3 in. on each end. The two support furring channels shall be spaced approximately 3 in. in from end joint. Screw spacing along the gypsum board butt joint and along both additional channels shall be 8 in. OC. Additional screws shall be placed in the adjacent section of gypsum board into the aforementioned 3 in. extension of the extra butt joint channels as well as into the main channel that runs between. Butt joint furring channels shall be attached with one RESILMOUNT Sound Isolation Clip at each end of the channel.
CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C —Type LGFC–C/A
8. Finishing System —(Not Shown) —Vinyl, dry or premixed joint compound, applied in two coats to joints and screw–heads; paper tape, 2 in. wide, embedded in first layer of compound over all joints. As an alternate, nom 3/32 in. thick veneer plaster may be applied to the entire surface of gypsum wallboard.
9. Grille —(Not Shown —Required where indicated in Items 5 – 5L) —Steel grille, installed in accordance with the installation instructions provided with the ceiling damper.
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

GYPSUM ASSOCIATION - DESIGN FC5725

GA FILE NO. FC 5725	GENERIC	2 HOUR FIRE

WOOD FLOOR, WOOD JOISTS, GYPSUM WALLBOARD, RIGID FURRING CHANNELS

Base layer 5/8" type X gypsum wallboard applied at right angles to 2 X 10 wood joists 24" o.c. with 1 1/4" Type W drywall screws 12" o.c. Second layer 5/8" type X gypsum wallboard applied at right angles to joists with 2" Type W drywall screws 12" o.c. Second layer joints offset 24" from base layer joints. Third layer 5/8" type X gypsum wallboard applied at right angles to joists with 2 1/2" drywall screws 12" o.c. Third layer joints offset 12" from second layer joints. Hat-shaped rigid furring channels 24" o.c. applied at right angles to joists over third layer with two 2 1/2" long Type W drywall screws at each joist. Face layer 5/8" type X gypsum wallboard applied at right angles to furring channels with 1" Type S drywall screws 12" o.c. Wood joists supporting 3/4" T & G edge plywood floor applied at right angles to joists with 8d nails 6" o.c. at joints and 12" at intermediate joists. **Ceiling provides two-hour fire-resistance protection for wood framing.**



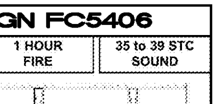
Approx. Ceiling Weight: 12 psf
Fire Test: UL R4024, 00NK28548, 4-27-01, UL Design L556

GYPSUM ASSOCIATION - DESIGN FC5406

GA FILE NO. FC 5406	GENERIC	1 HOUR FIRE	35 to 39 STC SOUND

WOOD JOISTS, GYPSUM WALLBOARD

Base layer 5/8" type X gypsum wallboard applied at right angles to 2 x 10 wood joists 24" o.c. with 1¼" Type W or S drywall screws 24" o.c. **Face** layer 5/8" type X gypsum wallboard or gypsum veneer base applied at right angles to joists with 1⅞" Type W or S drywall screws 12" o.c. at joints and intermediate joists and 1½" Type G drywall screws 12" o.c. placed 2" back on either side of end joints. Joints offset 24" from base layer joints. Wood joists supporting ½" plywood with exterior glue applied at right angles to joists with 8d nails. **Ceiling provides one hour fire resistance protection for framing, including trusses.**



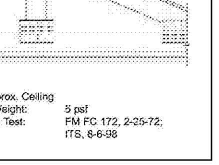
Approx. Ceiling Weight: 5 psf
Fire Test: FM FC 172, 2-25-72; ITS, 8-6-98
Sound Test: Estimated

GYPSUM ASSOCIATION - DESIGN RC2602

GA FILE NO. RC 2602	GENERIC	1 HOUR FIRE

WOOD TRUSSES, GYPSUM WALLBOARD

Base layer 5/8" type X gypsum wallboard applied at right angles to wood roof trusses 24" o.c. with 1¼" Type W or S drywall screws 24" o.c. **Face** layer 5/8" type X gypsum wallboard or gypsum veneer base applied at right angles to trusses with 1⅞" Type W or S drywall screws 12" o.c. at joints and intermediate trusses and 1½" Type G drywall screws 12" o.c. placed 2" back on either side of end joints. Joints offset 24" from base layer joints. Wood trusses supporting ½" wood structural panels applied at right angles to trusses with 8d nails. Appropriate roof covering. **Ceiling provides one hour fire resistance protection for trusses.**



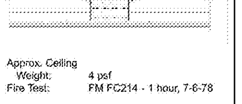
Approx. Ceiling Weight: 5 psf
Fire Test: FM FC 172, 2-25-72; ITS, 8-6-98

GYPSUM ASSOCIATION - DESIGN FC5512

GA FILE NO. FC 5512	GENERIC	1 HOUR FIRE

GYPSUM BOARD, PARALLEL CHORD WOOD TRUSSES

CEILING: **Base** layer ½" type X gypsum wallboard or gypsum veneer base applied perpendicular to wood trusses 24" o.c. with 1¼" Type S drywall screws 24" o.c. **Face** layer ½" type X gypsum wallboard or gypsum veneer base applied perpendicular to trusses with 1⅞" Type S drywall screws 12" o.c. and 1½" Type G drywall screws 12" o.c. placed 3" back from either side of end joints. Joints offset 24" from base layer joints.
TRUSSES: Chord and web members fabricated from 2 x 4 lumber with 20 gage steel connector plates having a minimum tooth length of 5/16". Plate design values based upon a safety factor of 4. Trusses have a minimum depth of 12".
FLOORING: 19/32" T & G plywood with exterior glue applied at right angles to top of trusses with 6d common nails 6" o.c. Plywood end joints staggered 48".



Approx. Ceiling Weight: 4 psf
Fire Test: FM FC214 - 1 hour, 7-6-78

FIRE RATED ASSEMBLY GUIDE - HORIZONTAL

CONSTRUCTION TYPE/LOCATION - RATING	ASSEMBLY	SHEET No.	IIC REQUIRED BY CODE
TYPICAL FLOOR / CEILING SYSTEM - 1 HOUR	U.L. L528	A8.22-A8.23	50
TYPICAL ROOF / CEILING SYSTEM - 1 HOUR	U.L. P547	A8.21	N/A
FLOOR / CEILING SYSTEM AT INTERIOR CORRIDOR - 1 HOUR	G.A. FC5406	A8.21	N/A
TYPICAL FLOOR / CEILING SYSTEM AT BALCONY - 1 HOUR	G.A. FC5512	A8.21	N/A
TYPICAL ROOF / CEILING SYSTEM AT BALCONY - 1 HOUR	G.A. RC2602	A8.21	N/A
TYPICAL ROOF / CEILING SYSTEM AT SHAFT - 2 HOUR	UL L556	A8.23	N/A

Common North, Prospect, KY

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Lyric at Norton Commons
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FIRE RATED ASSEMBLIES
HORIZONTAL RATINGS

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