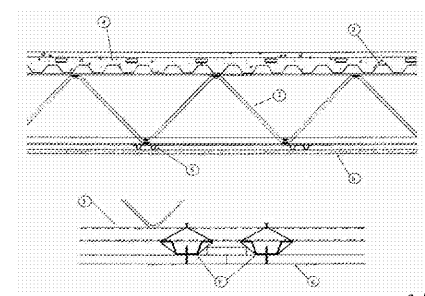


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UL DESIGN G554



Design No. G554
 May 09, 2016
 Restrained Assembly Rating - 2 Hr.
 Unrestricted Assembly Rating - 1-1/2 Hr.
 Unrestricted Beam Rating - 2 Hr.

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 5A, Section 1.1.1.1). Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification Mark (such as Canada), respectively.

1. Structural Steel Members* — Min. 10 in. deep composite joists fabricated from hot-rolled tees and angles used for the chords and circular rod for the webs. Top chord tee shall have a minimum area of 1.34 sq. in. Bottom chord angles shall have a minimum area of 0.434 sq. in. Circular rods sized as required for the load. Minimum rod diameter is 1/2". Joints spaced a max of 54 in. OC.

2. Steel Form Units — Min. 1-3/16 in. deep non-composite fluted steel deck, 24 gauge, hot-dip galvanized steel. Deck secured to the joists with #10 x 3/4 in. self-tapping screws or 3/4 in. puddle welds.

3. Welded Wire Fabric — (Not shown) — #6-W2, 1/W2, #4 x 8/6 (C3).

4. Normal or Lightweight Concrete — Carbonate aggregate concrete, 145 lbs./cu. ft. unit weight, 4000 psi compressive strength. Lightweight concrete, expanded shale, clay or slate aggregate, 145 lbs./cu. ft. unit weight, 4000 psi compressive strength. Min. total thickness is 3-3/4 in.

5. Furring Channels — Furring channels, 7/8 in. high by 2-3/8 in. wide base and 1-1/2" wide at the face, formed from 26 MSG galv. steel, installed perpendicular to the steel joists. Double rows of furring channels spaced 4 in. apart shall be located 24 in. OC. Channels secured to bottom chords of joists with double strands of 18 gauge wire. Joints of furring channels overlapped min. of 8 in. and secured to each other with double strands of 18 gauge wire 1-1/4 in. from each end of the overlap. Wires crossed at x-joints at each connection.

6. Gypsum Board — One layer of nom 5/8" thick burlap-reinforced wide boards, installed with long dimensional parallel to trusses. Butt joints to be centered between the double furring channels and offset a min. of 1/2" between adjacent rows. Attached to each furring channel using 1-5/8 in. long type 5 bugle-head screws. Screws spaced 2 in. on center longitudinally between and 8 in. OC in the field. Butt joints backed with 3" wide strip of gypsum board. Gypsum board secured in place with self-drywall screws located 3/8 in. from the butt joint, 4 in. off each longitudinal edge, and spaced 8 in. OC.

7. Recessed Lights, Recessed Light — (Optional) — Max. four fixtures per 100 sq. ft. of ceiling area. Fixtures consist of a frame-in kit and reflector trim. Frame-in kit consists of 19 in. by 19 in. galvanized steel plate with 6-13/16 in. diameter hole, extendable mounting bars, a junction box and socket housing. Reflector trim consists of 7-1/2 in. diameter aluminum reflector, 5-1/2 in. diameter Fresnel lens and 6-1/2 in. aluminum lens bezel. Overall depth of installed fixture is 7-1/4 in. and the fixture weight is 4.5 lbs. Fixtures screw attached with two screws from each mounting bar into the furring channel. Damper shall be screw attached to the additional framing with two screws.

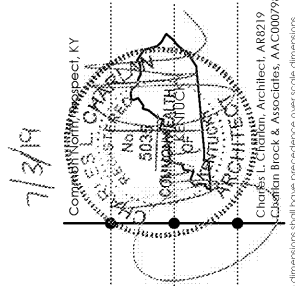
8. Exhaust Fan and Damper Assembly* — (Optional) — Max. one combination exhaust fan and fire rated damper assembly per 100 sq. ft. of ceiling area. Units shall be interconnected and supported within the ceiling plenum. Dimensions of the ceiling penetration shall not exceed 12 in. by 14-1/4 in. Gross weight of the assembly shall not exceed 15.0 lbs. Assembly to be supported from the joist or floor assembly above per the manufacturer's installation instructions. Additional framing shall be provided between the furring channels to box out the penetration location. Damper shall be screw attached to the additional framing with two screws.

9. Joint System — (Not shown) — 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.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively. Last Updated on 2016-05-09

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