Building America
U.S. Department of Energy
Research Toward Zero Energy Homes

Building America Focus Meeting

Code Challenges with Multi-Family Area Separation Walls

Date/Time: **Monday, Sept. 29, 2014, 10:30 am to 12:30 pm EST**
Location: web meeting

Host: IBACOS, Inc., www.IBACOS.com

Meeting Manager: Armin Rudd, arudd@abtsystems.us

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Agenda

10:30: Opening by Armin Rudd and Duncan Prahl
Explain the reason, purpose, goals and expected outcomes of the meeting

Facilitated open discussion

- Review typical UL 263 (ASTM E119) area separation wall Designs (U336, U347, U373)
- Review the tested conditions and their relevance to field conditions
- Review basic end/perimeter air sealing possibilities with respect to existing approved designs
- Review possibilities for air sealing the entire protected wall (as if it were an exterior wall) through the use of sheathing and sealant
- Review specified approved design options and how they may open the door to other unspecified option possibilities
- Review the history of testing lab letter approvals versus full evaluation reports
- Review the regulatory process: testing, evaluation reports, and code adoption

12:00-12-30: Meeting wrap-up discussion

- What is the best path forward to achieve short-term and long-term improvements?
- What is the level of industry interest in obtaining new approved designs through updated evaluation reports or testing?
- What is needed to achieve universal approvals that could be written into ICC code changes?

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UL Online Certifications Directory
Fire-resistance Ratings - ANSI/UL 263

Design No. U336

June 17, 2014

Exposed to fire from separation Wall side only

Nonbearing Wall Rating — 2 Hr

Finish Rating — 120 Min

Design No. U347

August 18, 2014

Nonbearing Wall Rating — 2 Hr (See Items 4, 4A and 4B)

Finish Rating — 120 Min (See Item 4)

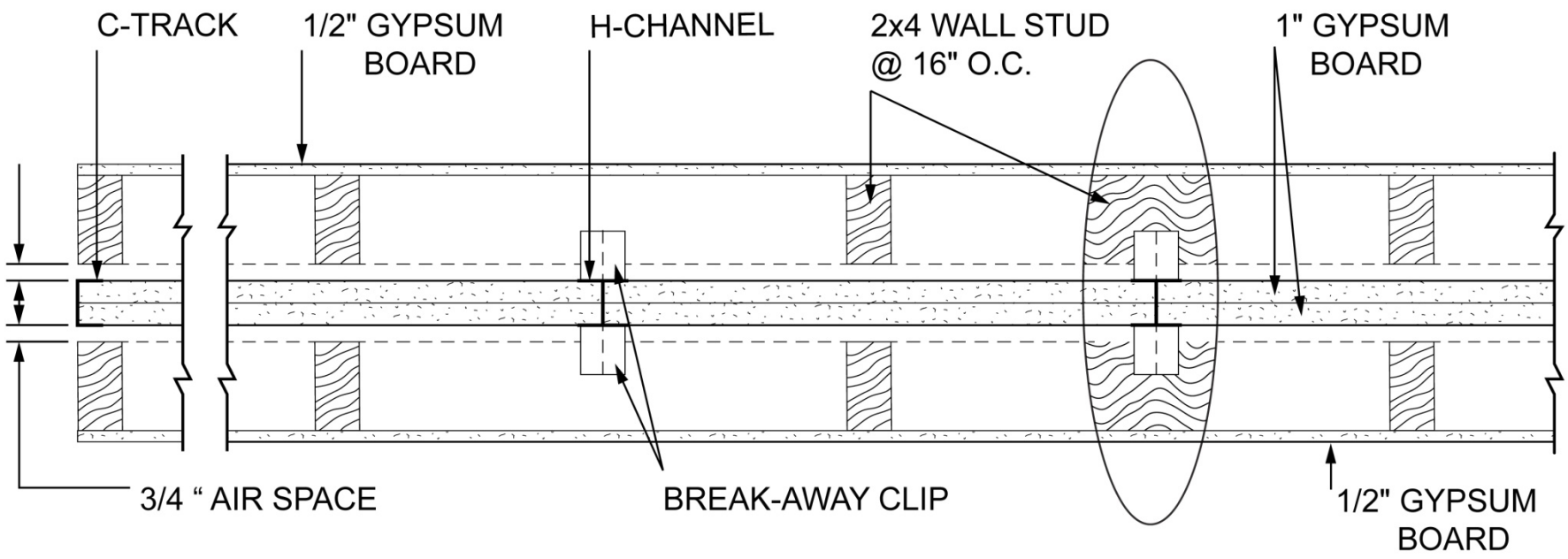
STC Ratings — 61, 69, 70 (See Items 7 - 7B)

Design No. U373

June 17, 2014

Nonbearing Wall Rating - 2 Hr (See Items 4, 4A and 4B)

Finish Rating - 120 Min (See Item 4)



Configuration B

Exposed to fire from either side

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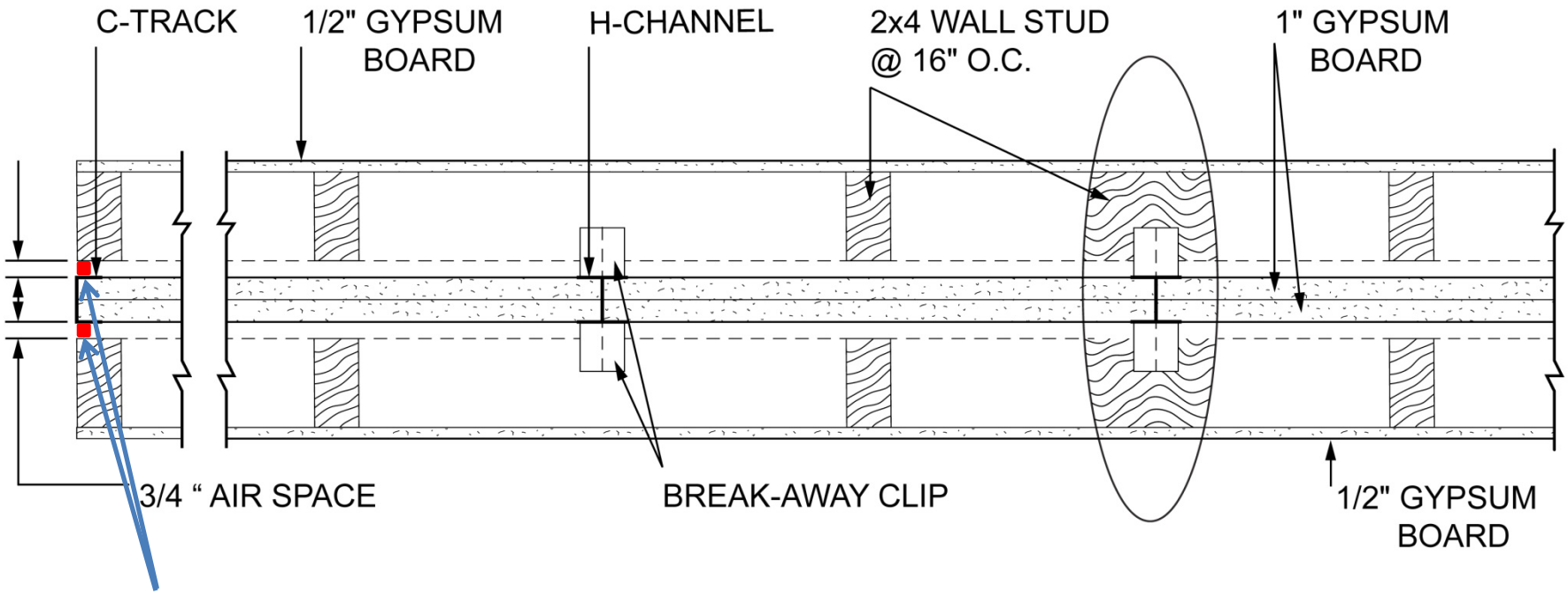

Fireblocking sealant to create air seal at perimeter of gap between area separation wall and protected wall.

Best process for approval?

Note that firestopping sealant (UL1479/ASTM E814 test), often intumescent foam, is much more expensive (50 times more) and would not likely be used here.

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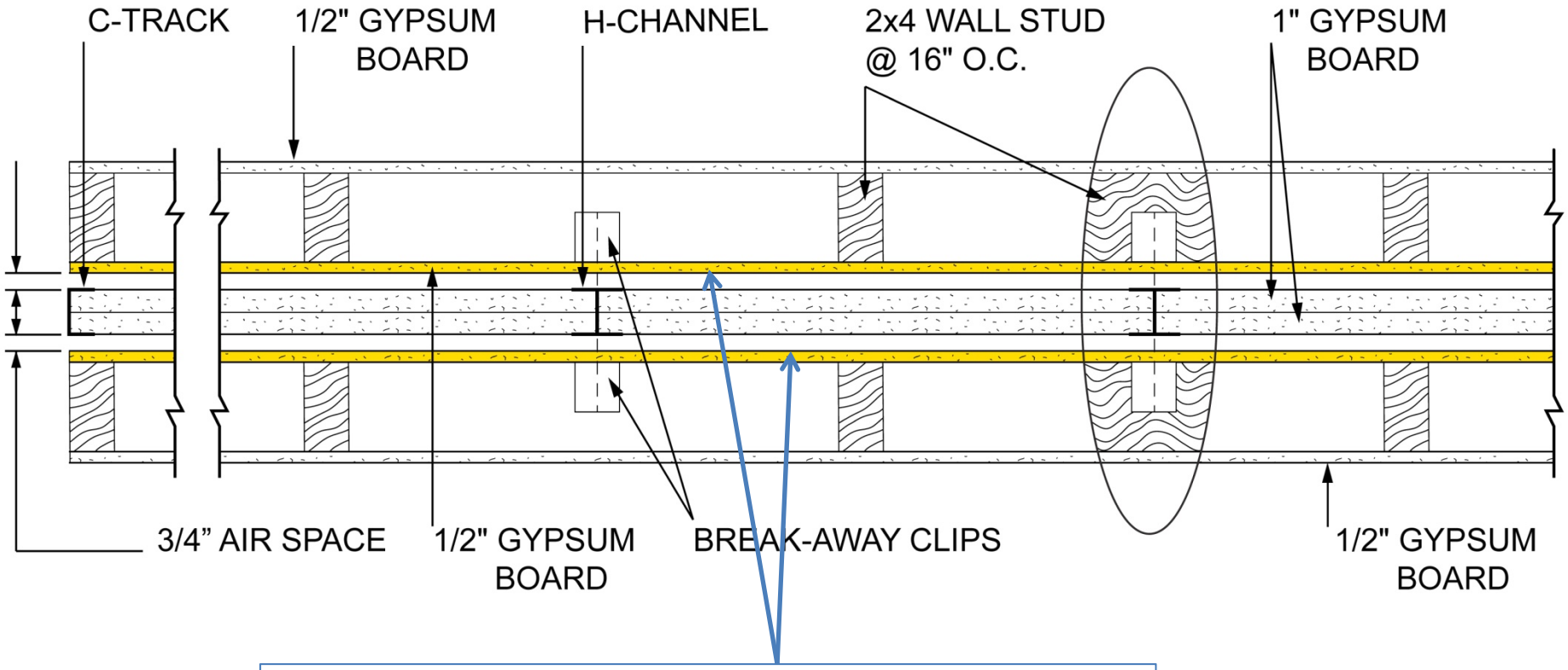

Gypsum on separation wall side of protected wall would allow air sealing the protected wall in the same way as if it were an exterior wall.

Need to allow for proper clip attachment.

Best process for approval?

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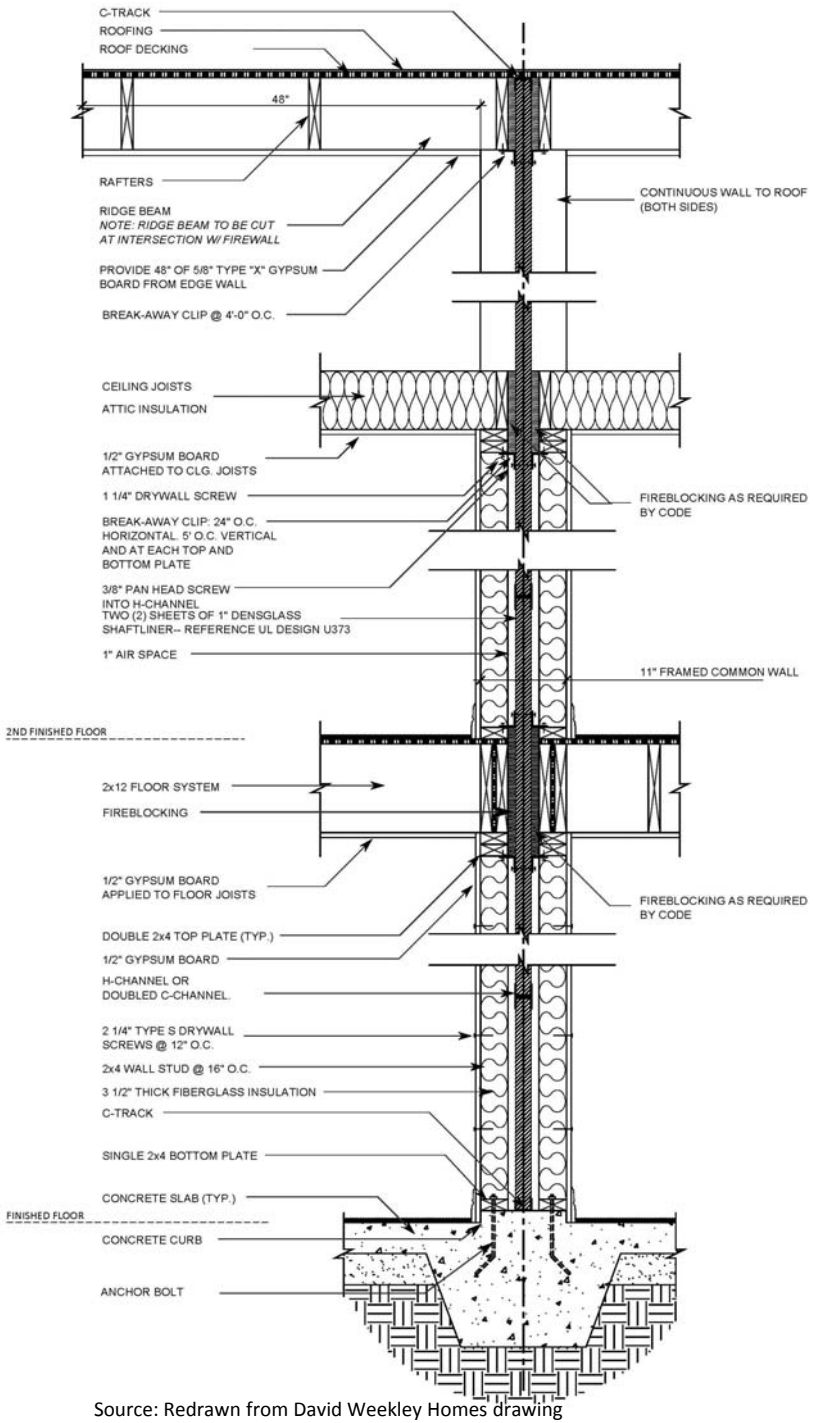
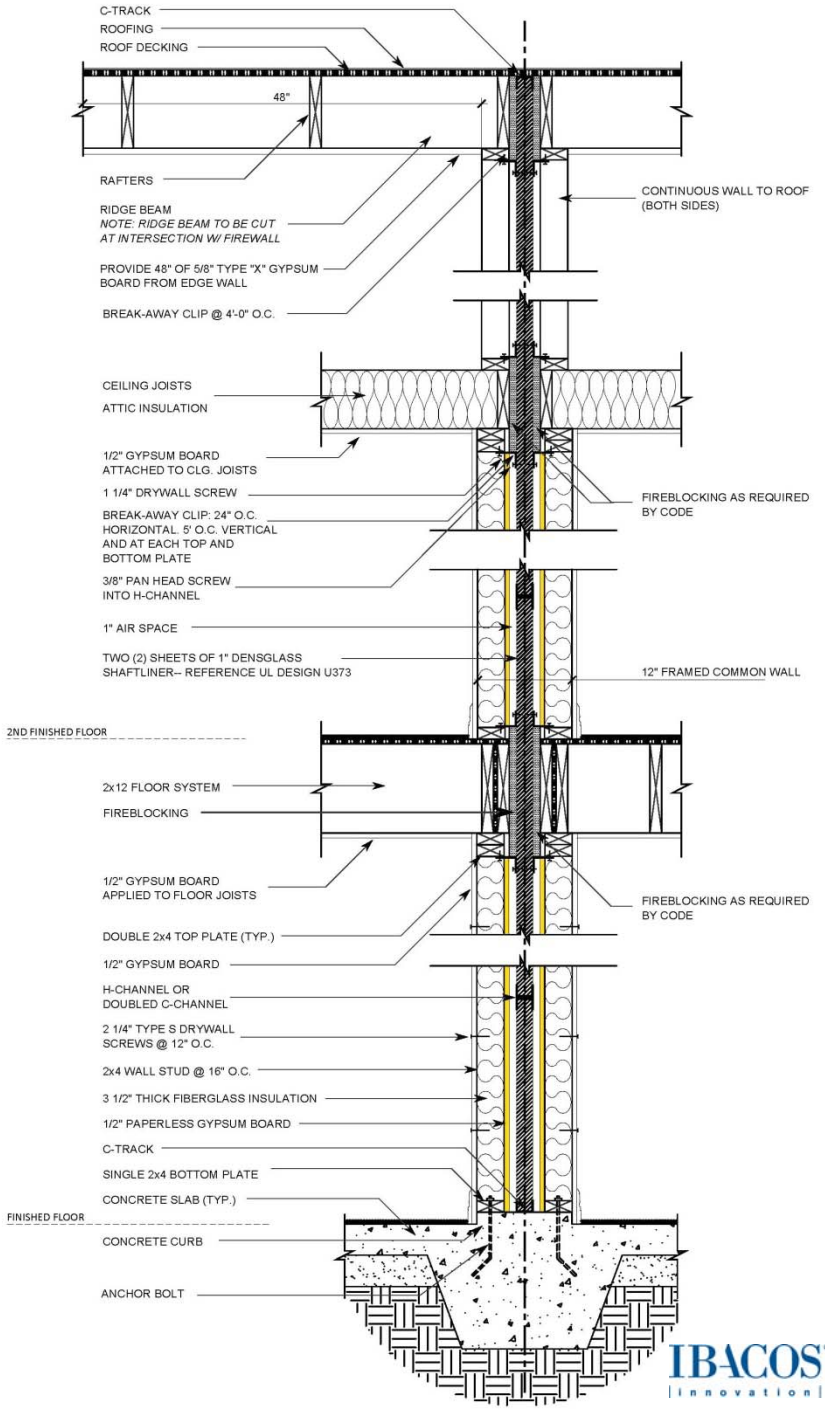
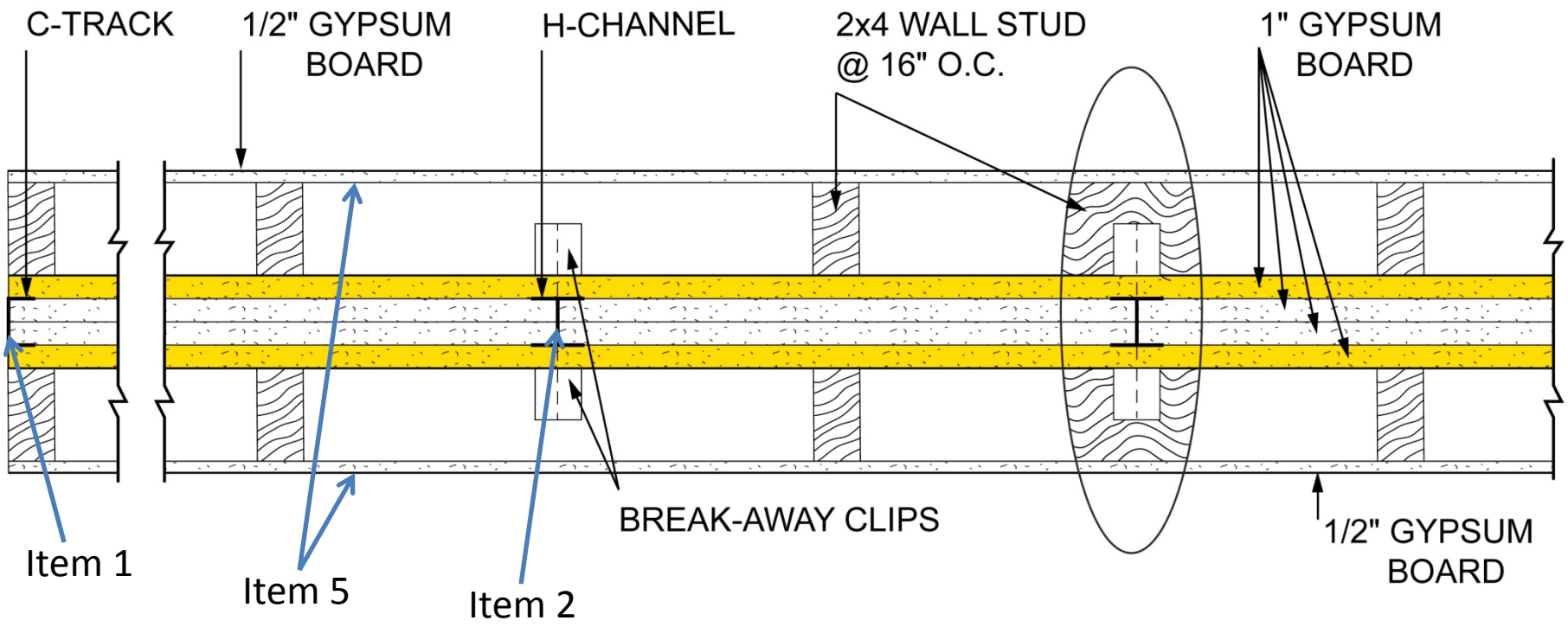




Source: Redrawn from David Weekley Homes drawing



10. Gypsum Board* — As an alternate to Item 5 - Min 5/8 in. thick, min. 6 in. wide batten strips, applied on both sides of Steel Studs (Item 2) and horizontal back to back Steel Track (Item 1). Min. 5/8 in. thick, min. 3 in. wide batten strips applied on both sides of single Steel Track (Item 1) at perimeter of assembly. Batten strips secured to studs with 1-1/4 in. long Type S steel screws spaced 12 in. OC. Batten joints shall be butted tight to form a closed joint. As an option, entire sheet of gypsum board may be used in lieu of the battens. Clip placement as in item 6, 6A, 6B, or 6C.

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IBC, Section 718.2.1 Fireblocking Materials

718.2.1 Fireblocking Materials
Fireblocking shall consist of the following materials:

1. Two-inch (51 mm) nomioallumber.
2. Two thicknesses of I-inch (25 mm) nominal lumber with broken lap joints.
3. One thickness of 0.719-inch (18.3 mm) wood structural panels with joints backed by 0.719-inch (18.3 mm) wood structural panels.
4. One thickness of 0.75-inch (19.1 mm) particleboard with joints backed by 0.75-inch (19 mm) particleboard.
5. One-half-inch (12.7 mm) gypsum board.
6. One-fourth-inch (6.4 mm) cement-based millboard.
7. Batts or blankets of *mineral wool, mineral fiber of other approved materials installed in such a manner* as to be securely retained in place.
8. Cellulose insulation installed as tested for the specific application.

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What level of approval certification is needed to move forward?

- Evaluation Report based on engineering judgment
- Evaluation Report based on new testing

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THANK YOU FOR ATTENDING!

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