

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SIMPSON STRONG-TIE COMPANY, INC.
Petitioner

v.

COLUMBIA INSURANCE COMPANY
Patent Owner

Case PGR2024-00050
Patent No. 11,920,339

DECLARATION OF ANDREA T. BARANYK

I, Andrea T. Baranyk, hereby declare as follows:

1. I am currently an architect at Robson Forensic where I am a salaried employee as an Architecture, Construction & Premises Safety Expert. I make this declaration in connection with the above-referenced PGR proceedings on behalf of patent owner Columbia Insurance Company, at the request of Stinson LLP, 7700 Forsyth Blvd, Suite 1100, St Louis, MO 63105-1821.

2. I am a licensed architect in the States of Connecticut, District of Columbia, Florida, Maine, Massachusetts, New Hampshire, Rhode Island, South

Carolina, and Vermont. I am nationally certified as an architect by the National Council of Architectural Registration Boards (NCARB). My education and training include a Bachelor of Science degree in Historic Preservation and a Bachelor of Architecture degree from Roger Williams University, in Bristol, RI. My education included the study of physics, statics and strength of materials, wood, concrete and steel structural design, site and building design, building systems design, and architectural professional practice. I have over twenty-five years of experience in building design, building code research, analysis and compliance, production of architectural construction documents and construction administration. My education, training, and professional experience includes new construction, historic and renovations of existing commercial and multi-family housing, apartments, and mixed-use developments. My experience includes design and field review of fire rated partitions in wood framed multi-family and other types of construction. I am a member of the American Institute of Architects (AIA). My curriculum vitae is provided as an Exhibit.

3. Robson Forensic, Inc. charges for all tasks that I have undertaken in this case and are currently \$525 per hour, subject to change. Robson Forensic, Inc. has or will receive compensation for my services in preparation of this Declaration. Robson Forensic, Inc. and I have no interest in the outcome of the dispute and the

rate of compensation does not affect my opinions or conclusions of this

Declaration.

4. In providing the testimony set out in this declaration, I have reviewed the following:

The Petition
1001: U.S. Patent No. 11,920,339 to Brekke et al. (“the Patent-at-Issue”)
1002 Prosecution History of the Patent-at-Issue
1003 Declaration of W. Andrew Fennell in Support of Petition for Post-Grant Review of U.S. Patent No. 11,920,339
1004 GB Patent App. Pub. No. 2,451,853A (Cullen)
1005 U.S. Patent No. 9,394,680 to Bundy et al. (“Bundy”)
1006 U.S. Patent No. 4,827,684 to Allan (“Allan”)
1007 Japanese Design Patent No. D1213894 to Yamaguchi (Yamaguchi) with attached certified English-language translation
1008 Japanese Application No. 19991014482 to Tsukamoto (“Tsukamoto”)
1009 U.S. Patent No. 4,696,113 to Rice (“Rice”)
1010 U.S. Patent App. Pub. No., 2011/0047806 to Harrison (“Harrison”)
1011 GB Patent App. Pub. No. 2,433,522 to Robinson (“Robinson”)
1012 “Technical Bulletin: Top Flange Joist Hangers Installed on Walls Over Wood Structural Patent Sheathing or Drywall”, Simpson Strong-Tie Company, Inc., published August 2013.
1013 U.S. Patent No. 4,196,556 to Russo (“Russo”)
1014 U.S. Patent No. 9,151,058 to Leathe (“Leathe”)
1015 U.S. Publication No. 2001/0054270 to Rice (“Rice”)
1016 Fire-Rated Assemblies in Commercial Construction (“The Purple Book”), National Gypsum Properties, LLC (November 5, 2013)
1017 GA-600-2012 Fire Resistance Design Manual, 20th Ed., Gypsum Association (June 2012).
1018 2012 International Building Code, International Code Council, June 2011 (“IBC-2012”)
1019 WoodWorks, Four-story Wood-frame Structure over Podium Slab (2010) (“WoodWorks”).
1020 ASTM C1396 Standard Specification for Gypsum Board (2001).
1021 U.S. Patent Application Publication No. 2012/0219785 to Yu et al. (“Yu”).
1022 U.S. Patent No. 3,601,428 to Gilb

1023 U.S. Patent No. 3,633,950 to Gilb
1024 U.S. Patent No. 3,752,512 to Gilb
1025 U.S. Patent No. 4,480,941 to Gilb
1026 EP Patent No. 0210744 B1 to Adams (“Adams”)
1027 U.S. Patent Application Pub. No. 2008/0134620 to Contasti (“Contasti”)
1028 Curriculum Vitae of Andrew Fennell
1029 Ferguson, Drywall: Professional Techniques for Great Results, Taunton Press, 2012
1030 U.S. Patent No. 4,261,155 to Gilb (“Gilb’155”)
1031 “Mass Timber and Wood Framing,” Architectural Record Magazine, McGraw Hill Construction, November 2012, pp. 165-169 (“ArchRecord”)
1032 U.S. Patent No. 4,714,372 to Commins (“Commins”)
1033 ASTM C840 Standard Specification for Application and Finishing of Gypsum Board (2001)
1034 2012 International Building Code
1035 Definitions of “plate” and “bounding,” Merriam Webster’s Collegiate Dictionary, Tenth Edition, Merriam-Webster, Inc., 1993
1036 U.S. Patent App. Pub. No. 2005/0155307 to Timony (“Timony”)
1037 U.S. Patent Provisional App. No. 61/922,531 to Brekke et al. (’339 Prov”)
1038 The Gypsum Construction Handbook, Sixth Edition, USG Corporation, Published by John Wiley & Sons, Inc. 2009
1039 Declaration of Sylvia D. Hall-Ellis, Ph.D.
1040 Curriculum Vitae of Sylvia D. Hall-Ellis, Ph.D.
1041 Wayback Machine Screenshot of Architectural Record website (November 12, 2012)
1042 Wayback Machine Screenshot of Architectural Record Continuing Education Website (January 23, 2013)
1043 Wayback Machine Screenshot of Wikipedia Architectural Record Entry (December 5, 2012)
Exhibit 2144 2012 IBC
Exhibit 2145 2000 IBC
Exhibit 2146 FW Hangers Top Mount
Exhibit 2043- Structural Design for Fire Safety
Exhibit 2147 - 1994 Timber Construction Manual
Exhibit 2043 - Structural Design for Fire Safety
Exhibit 2148 - DU-DHU-DHUTF Drywall Hangers
Exhibit 2039 - Fire Ratings of Masonry Walls
Exhibit 2040 - Fire and Concrete Structures

Exhibit 2008 - “Mass Timber and Wood Framing,” Architectural Record Magazine, McGraw Hill Construction, November 2012, pp. 165-169
Exhibit 2038 - 2012 International Building Code - Table 721.1(2)
Exhibit 2039 - Fire Ratings of Masonry Walls
Exhibit 2040 - Fire and Concrete Structures
Exhibit 2041 - Fire Protection and Safety with Concrete
Exhibit 2042 - 2012 International Building Code Definition of Fire Wall
Exhibit 2047 - Wood-Frame House Construction

5. The approach taken for the analysis of this proceeding involving U.S. Patent No. 11,920,339, which is titled “Method of Constructing a Fire-Resistive Wall Assembly,” is based on reliable scientific reasoning and methodology which is accepted by the scientific community. My technical opinions are offered within a reasonable degree of technical and professional certainty, relying on industry principles and practices. The following analyses and opinions are my technical and professional opinions and are subject to change if additional information becomes available.

Hangers in Multifamily, Multilevel Type III & V Residential Wood

Construction

6. Multifamily residential wood-framed construction can include duplexes, townhouses, condominiums, and apartments buildings.

7. Construction types were divided into five categories in the 1927 Edition of the Uniform Building Code (UBC) published in January 1928 by the International

Conference of Building Officials.¹ The construction types were defined as Type I (Fire-resistive), Type II (Heavy Timber), Type III (Ordinary Masonry), Type IV (Metal Frame) and Type V (Wood Frame). Type III construction defined that “partitions, floors and roof framing may be of wood”.² The 1952 UBC defined the construction types based on fire-resistive requirements. Through the 1970s-1990s, construction types were further defined as protected and unprotected. For example, Types III and IV were defined as noncombustible/combustible. The 2000 IBC defined Type III as Protected (III A and Unprotected (III B) and Heavy Timber was redefined into Type IV. Type V remains light wood framed construction, protected or unprotected.

8. Wood framing has historically been used in residential construction, can be cost-effective, and can be erected quickly. Walls are typically constructed on an independent floor system (platform frame system) and floor joists are placed on the top of a top plate of the wall. Podium construction can allow taller residential construction by building a concrete or steel ‘Podium’ base with the wood or light-gage steel framed structure built on top of the podium. The 2021 IBC allows construction of up to five stories high with Type III and up to four stories for Type V for the upper stories. Additional height requires fire resistance ratings. For

¹ <https://archive.org/details/UniformBuildingCode1927/page/n3/mode/2up>

² p.67, <https://archive.org/details/UniformBuildingCode1927/page/n85/mode/2up>

example, for Type IIIA construction, the maximum number of stories can be increased by one when the first floor assembly above the basement has a fire-resistance rating of not less than 3 hours and the floor area is subdivided by 2-hour fire resistance rated fire walls into areas of not more than 3,000 SF³⁹. A truss system is typically used to create large span roof structures without requiring intermediate supporting structures, such as columns along the span. The truss system is a system of wood framed members that are typically arranged in a triangular pattern, or bar joists, and connected with steel plates and can be prefabricated. Engineered wood joists, I-Joists, were developed in 1969 by the Trus Joist Corporation and consist of a top and bottom flange and a web section that creates a high strength in relation to its size and weight. I-Joists can span larger distances and are lightweight in comparison to sawn lumber.

9. Wood joists, trusses, solid sawn lumber, or engineered wood framing systems are attached to the wall frame typically at the top plate. The floor joist is attached at its end into the joist hanger and secured with either nails or screws as recommended by the manufacturer of the hanger. Historically the joist hanger has been butted against the wall framing. Figure 1 illustrates an I-Joist attachment to a wall.

³ 2021 International Building Code, Section 510.5

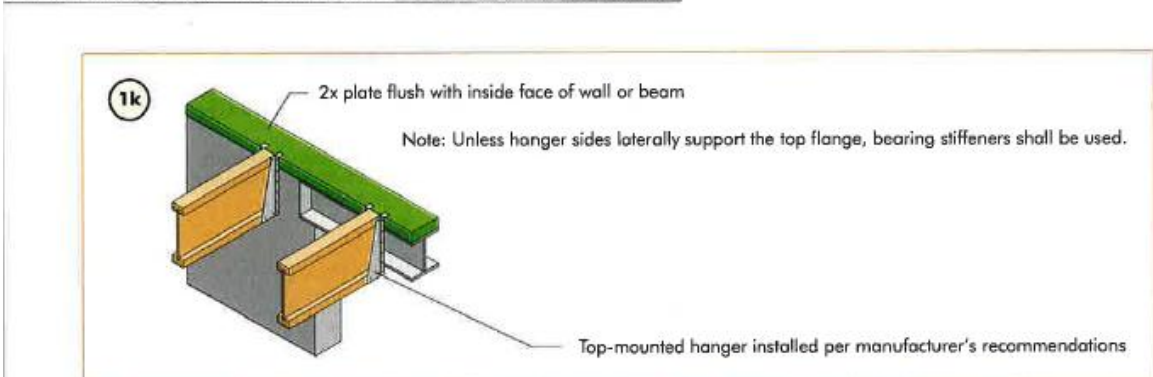


Figure 1: I Joist Details - APA Wood

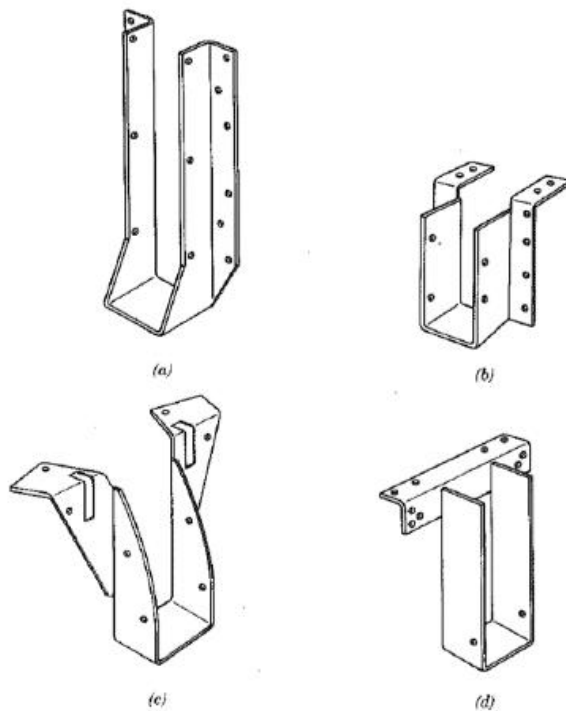


FIGURE 7.29 Typical joist and purlin hanger types. (a) Joist hanger; (b) joist hanger; (c) joist and purlin hanger; (d) joist and beam hanger.

(1994 Timber Construction Manual)

Figure 2 Typical Joist Hangers 1994

10. The general sequence of construction starts with the building foundation, framing for the floors, followed by the subflooring, walls, and the roof. The exterior of the frame is then sheathed, followed by installation of the windows

and doors to create a weather-tight enclosure. The interior of the building is then finished with insulation, drywall, paint, trim, and all other finishes. Drywall should be installed in a controlled environment with an ideal temperature of 50°F-95°F, and a relative humidity of 50%. Temperature and relative humidity will affect the finishing of the drywall with joint compounds. USG provided a technical report on best practices for finishing gypsum panels which noted that “Ideally, all joint compounds should be used at a temperature of 55 °F or higher, otherwise drying times are lengthened and bonding capabilities are reduced. Job delays, joint cracking, and delamination are just a few of the side effects of finishing joint compound in cold conditions.”⁴ Joint finishing compound is a component of creating a fire-resistant assembly. It has long been known, and I have known since my education and the time I began working in the construction industry around 1999 that installation of drywall after the framing is completed and the roof has been installed, is standard practice and avoids damage to drywall from exposure to moisture and side effects of finishing joint compound under humid and wet conditions.

11. Hangers that are used to attach a truss, I-joist, solid sawn lumber, or engineered wood floor framing members are typically U-shaped, as illustrated in

⁴ USG <https://www.usg.com/content/usgcom/en/blog/finishing-gypsum-panels-cold-humid-critical-light.html#:~:text=the%20bottom%20line.-Cold%20Conditions,uneven%20heat%20throughout%20the%20building>

Figure 1, and attach to the supporting structure and transfer the load of the joist to the supporting structure. The hanger must support the weight of the joist and the beam, any structure or other building component that bears on the joist or beam and the live load for that occupancy. For multifamily residential, the floor system is required to meet a uniformly distributed live load of 40 psf for private rooms and corridors and 100 psf for public rooms and the corridors that serve them based on the IBC 2012 Table 1607.1. The joist hangers are sized to match the loading requirements.

12. Joist hangers are designed to resist vertical shear loads, with a fixed/rigid connection to prevent movement at the connection. The joist hanger connection at the supporting structure transfers vertical, horizontal, and moment forces to provide a strong and stable structure. Because of the structural requirements joist hangers must meet, a design using joist hangers would not alter joist hangers or use joist hangers or other hardware that are not explicitly designed to handle all of the required imposed loads for joists as noted above. An example of other hardware that would be inappropriate is hurricane ties, which are only designed to support lateral and uplift forces, not a vertical downward loads or rotational loads around the end of a joist.

**Fire Walls and Codes Applicable to Multifamily, Multilevel Type III
and V Residential Wood Construction**

13. The International Building Code (IBC) applies to multifamily, and multilevel Type III and V residential construction. The International Residential Code (IRC) applies to one and two-family dwellings. The International Code Council (ICC) released the first edition of the IBC in 2000, and every three years a new edition is released (2003, 2006, 2009, 2012, 2015, 2018, 2021, and 2024). Both the IRC and IBC require fire separations under certain circumstances.⁵

14. For Type III construction, the code requirements for bearing walls for IIIA & IIIB require a 2-hour fire-resistance rating for exterior building elements, from the IBC editions 2000 – 2024.⁶ A fire wall is defined by the International Building Code (2012) as, “*A fire-resistance-rated wall having protected openings, which restricts the spread of fire and extends continuously from the foundation to or through the roof, with sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall.*” The IBC 2012 edition, per section 602.3 defines Type III construction as buildings with non-combustible materials at the exterior walls and interior building elements are of any material permitted by the code. In section 706.4 of the 2012 IBC, for Fire Wall Fire Resistance Ratings, Residential Groups R-3 and R-4 require a minimum of 2-hour rating. The IBC 2000 edition, per section 705.4, Table 705.4 defines the same

⁵ <https://codes.iccsafe.org/content/IBC2024V1.0>

⁶ Exhibit 2000 IBC at 98

minimum Fire Wall Fire Resistance Ratings based on the Use Group occupancy such as Residential (R).⁷ A Fire Wall may be located at an interior separation wall where there is framing on either side or a double 2x4 wall with an airspace that meets the fire separation requirements and is designed to contain a fire on one side of the wall for the specified duration while the other side maintains its structural stability.

15. The IBC 2000 edition, per section 719, Prescriptive Fire Resistance, Table 719.1(2) defines a way to achieve a two-hour rated wall with two layers of 5/8” Type X gypsum wallboard on each side of 2”x4” wood studs at 16” on center.⁸ Wallboard is also commonly referred to as drywall or gypsum board. The fire-resistive drywall product was initially developed in the 1940s and was more widely available and commercially used for its fire-resistance ratings in the 1950s and beyond. As published by the National Gypsum Company, “In 1947, the first wall assembly to achieve a 1-hour rating was constructed...”.⁹ Type X drywall is engineered for fire-resistive applications and must be compliant with ASTM C1396, Standard Specification for Gypsum Board and meet specific requirements when tested using the defined test method in the ASTM Standard, E119 test – Standard Test Method for Fire Tests of Building Construction Materials.

⁷ 2000 IBC p.98

⁸ 2000 IBC p.126

⁹ June 10, 2024 “How Gypsum delivers fire-rated performance”

<https://www.nationalgypsum.com/ngconnects/blog/fire-resistance/science-fire-resistant-drywall-types-testing-safety#:~:text=In%201947%2C%20the%20first%20wall,soffit%20boards%20and%20shaftliner%20panels>

16. In the IBC 2000 edition, section 705.6, Vertical Continuity, fire walls are defined as extending from the foundation to the underside of the roof sheathing, and at the underside of fire-retardant treated wood within 4 feet of each side of the fire wall in Type III building construction.¹⁰ Also, in the same edition, in section 714, Penetrations, subsection 714.3 Fire-resistance-rated walls, the through penetrations must comply with the approved membrane penetration firestop system and restrict the size of each cutout area and limit the total aggregate area of all the openings, as well as limit the size and covering of the annular spaces or gaps around the penetrating item.¹¹ In the 2012 IBC, section 202, by definition, a membrane penetration is “a breach in one side of a floor-ceiling, roof-ceiling or wall assembly to accommodate an item installed into or passing through the breach.” In the 2012 IBC, section 714.3.2 Membrane penetrations, in a maximum 2-hour fire resistance-rated walls and partitions an exception allows for steel electrical boxes that do not exceed 16 Sq.In. in area provided the aggregate area of the openings through the membrane does not exceed 100 Sq.In. of wall area and a maximum of 1/8” gap around the penetration. Though penetration of structural members into shaft enclosures is allowed and they must be protected in accordance with Section 714. Joist hangers are typically spaced from 16”o.c.-24”o.c. while utilities such as

¹⁰ 2000 IBC p.98

¹¹ 2000 IBC p.128

electrical boxes are often spaced as much as 12' apart. The penetrations for each joist hanger in addition to the utility penetrations would risk a non-compliant fire resistance assembly, if the cutout penetrations in the drywall are not properly constructed.

**Features Desired in a Hanger for attaching truss, I-joist, solid sawn
lumber, or engineered wood floor framing members to double wall top
plates or minimum 2-ply 2x solid sawn header fire rated
wood frame walls.**

17. Joist hangers and nails or screws used to attach to the horizontal structural member such as a truss, I-Joist, solid sawn lumber, or engineered floor framing members are designed to resist shear forces attaching to a wall top plates or minimum 2-ply 2x solid sawn header at a fire-rated wood framed wall.

18. When using a metal hanger to attach structural framing members to a wall it provides a solid, secure connection. Joist hangers limit movement caused by the wood naturally expanding or twisting, with changes in the environment. Joist hangers replace other traditional construction techniques such as placing the joist on top of the beam. In construction of larger projects and heavier load-bearing requirements joist hangers are beneficial for strength and longevity.

19. The joist hanger attaches a typical floor assembly to a wall and as such must maintain the fire resistive rating of the assembly. It is generally understood that

following significant catastrophic fire events, building codes and construction standards develop to increase the safety of occupants. The Structural Design for Fire Safety, published in 2000, indicated that though the design for a rated wall may be provided, the walls “...must be constructed with attention to detail if fire performance is to be ensured.” In constructing fire rated separation walls for multifamily construction, a double layer of Type X drywall is used to assemble a 2-hour rating.¹² The two-hour separation must be designed and constructed to be continuous. The rated floor/ceiling and wall assembly includes the floor joists and joist hanger attachments to the wall. A gap in the fire-rated assembly at the joist and joist hanger attachments can become a path for fire to spread and to compromise the performance of fire-resisting walls, and that a “...dangerous situation can arise if there are interconnected horizontal and vertical concealed spaces, within the building or on the façade.” Use of traditional joist hangers and engineered joists requires special attention to the gypsum board around the joists and gaps created by the webs of engineered joists. Joist hangers and attachments within a fire rated assembly must be tested to meet the assembly requirements, which is the role of UL and FM testing agencies. The installer must ensure proper bearing of the bottom of the joist or truss at the bottom of the hanger seat. In the construction process, to

¹² https://www.jlconline.com/how-to/buildingaccepted-fire-barriers-for-multifamilyhomes_o#:~:text=Condominiums%20and%20apartments%20with%20three,of%20a%20fire%20sprinkler%20system

minimize trade sequence issues, providing a joist hanger that allows for the installation of wall board/drywall after joist hanging, streamlines scheduling, and minimizes the potential for wall penetrations of an attachment/joist hanger to the structure. This limits potential failures in poor workmanship in fire stopping and gap sealant to maintain the fire resistive rating at the joist hanger itself and at gaps caused by the web of engineered joists.

20. The distance between the point where the load (downward force) from the joist/beam is applied to the joist hanger and the point where the joist hanger is connected to the supporting structure is the moment arm. The design of the joist hanger is critical to withstand the forces and moments subjected to it. The joist hanger must resist rotational forces (bending) and can be accomplished by attaching against the structure or in the case of the FWH joist hanger through a structurally designed hanger component.

21. At least as early as 2000 there was a need for a fire wall hanger that addressed each of the following construction needs:

- a. Designed to resist rotational forces but without using the vertical wall structure and drywall as a buttress.
- b. Supports the weight of the joist, and the floor loads as described in previous paragraphs 10-11.

- c. The hanger can be installed prior to drywall being installed, and without a preliminary strip of drywall being installed, thus eliminating the potential moisture and drywall installation issues.
- d. Reduces drywall installation time and allows different sequencing of interior construction and finishes by eliminating any need for drywall installation prior to the building being fully weather-tight.
- e. Eliminates labor required to fit drywall/sheetrock around joists and the need for fire resistant fill such as mineral wool, at the webs of I-joists if the drywall is installed after hangers mounted directly on the vertical structure.
- f. Minimizes cuts, and avoids notching, for attachment of the drywall/sheetrock. Minimizes labor costs and potential failures in fire-stopping and gap sealants necessary to maintain the fire-resistive rating assembly at the joist perimeter and gaps caused by the web of engineered joists.

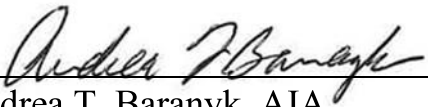
22. As mentioned above, my experience includes design and field review of fire rated partitions in wood framed multi-family, and other types of construction. The industry has attempted to address the above needs, but prior to the introduction of the FWH around 2014, the industry failed to provide a solution.

23. Because of its novel configuration and ability to be installed prior to drywall as recited in the claim method, the FWH joist hanger addresses each of the above stated construction needs. The solution minimizes the cutout in the drywall and thereby provides a better /cost effective solution that minimizes labor and limits the number of errors at the fire resistive membrane, material waste, and time involved.

24. Around 2013, prior to the patented invention, additional effort would have been required to maintain the fire barrier if the drywall was inserted between the hanger and the framed wall so that a portion of the hanger was received in an opening in the drywall. I am not aware of any evidence that, prior to the patented invention in 2013, drywall could be inserted between the hanger and the framed structure so that the drywall was received between a slot between the structure and the joist pocket.

I declare under the penalty of perjury that the foregoing is true and correct.

Executed this 27 day of May, 2025.



Andrea T. Baranyk, AIA

Exhibit

ANDREA T. BARANYK, AIA, NCARB, LEED, CXL
Architect

AREAS OF EXPERTISE

Building Design and Planning: zoning, comprehensive and site planning, historic preservation and adaptive reuse, National Historic Landmarks, sustainable design and construction, multi-family housing, commercial, educational, municipal, community, medical offices, and police & fire facilities.

Building Systems and Equipment: furniture, fixtures, equipment, commercial kitchen equipment, millwork, elevators, mechanical, electrical, and plumbing systems, utilities, fire separations, spray fireproofing, fire protections, and fire alarm devices.

Construction Materials Failures/ Property Damage: building envelope, water intrusion, door, window and hardware, site and circulation issues, parking and loading areas, walking surfaces and access, building maintenance and repairs, industry standards and quality issues; steel, concrete, conventional wood framing, light gauge steel framing, heavy timber.

Building / Site Safety: stairway, tread and landing design, guardrails, handrails and balusters, ramps, grading, entrances and wayfinding, means of egress and assembly spaces, walking surface safety, slip, trip and fall incidents, hazards, lighting, and warnings.

Accessibility: Americans with Disabilities Act, accessibility standards, site accessibility, building accessibility, ramps and accessible routes, areas of refuge.

Contracts/Construction Claims: Construction defects, deficiencies and delay claims, contractual obligations, and disputes under various types of project delivery methods, adequacy of construction documents, industry standards and quality issues.

Building Codes: zoning and construction codes, ordinance and standards violations, accessibility codes and standards, historic variance, special use and conditional use.

Professional Practice and Standards: programming, design, construction documents, specifications, project management and administration. Owner-Architect Agreements, General Conditions, Construction Management, errors and omissions, change order analysis, RFI process, submittal review, construction phasing, construction administration, project coordination, inspections, interpreting contract performance, enforcement of contract provisions, punch lists, substantial completion, and closeout procedures.

ANDREA T. BARANYK, AIA, NCARB, LEED, CXLT
Architect

PROFESSIONAL EXPERIENCE

2025 to **Robson Forensic, Inc.**

Present *Associate*

Provide technical investigations, analysis, reports, and testimony toward the resolution of matters including construction defects, construction disputes, specification and maintenance of building materials, premises liability issues, slip, trip and fall issues, code compliance, accessibility, stairs, handrails, guards, warnings, wayfinding, and other issues involving the built environment.

2015 to **Northeast Collaborative Architects, LLC**

Present *Principal/Owner - WBE firm since 2018*

2015-present

- Project programming including space planning, budgeting, zoning and building code review, schedule and cost of construction estimates, and as-built surveys for existing construction to be altered or adapted.
- Project management including internal budgeting, staff management, responses to requests for proposals through contracts with owners, management of design, design development, detailing, specification writing, production of contract documents, and construction administration.
- Prepare existing building surveys to document building conditions to include review of the finishes, space dimensions, building envelope, stairs, egress, code, accessibility, historic features, and change of use impacts.
- Analyze accessibility and building code requirements.
- Create and maintain the project schedules including fast-track and occupied building construction projects.
- Assist the client during the bidding/procurement process by preparing bidder requirements documents, responding to contractor questions and providing an opinion on contractors bid costs.
- Develop architectural technical specifications for materials and products associated with the project including floor finishes, walls, ceilings, stairs, furniture, fixtures and equipment.
- Analyze and coordinate design, code, local district, and historic restrictions.
- Provide design coordination with civil, mechanical, electrical, plumbing, and other subconsultants as part of the design and construction administration process.
- Coordinate with local and state building department, historic, and accessibility authorities for variances and overall project approvals.
- Reviewed the contractor's submittals for conformance with the design intent, code requirements, and applicable standards during construction administration.
- Assess design cost estimates and develop options for alternates and allowances for projects during the design phase.

ANDREA T. BARANYK, AIA, NCARB, LEED, CXL
Architect

- Provide value engineering and scope adjustments as a response to client needs and review of cost proposals from consultants and contractors.
- Facilitate the project as the initial decision maker and administer directives based on the project scope contracted to ensure compliance with contract documents.
- Participate in on-site and office construction administration - contractor site meetings, RFI's, review shop drawings, and changes in the Work.
- Develop technical solutions to challenges and unforeseen conditions during the construction process.
- Review contractor proposals for changes in the scope of work and assess the cost change proposals.
- Provide observation field reports of the contractor's progress work and formal inspections of finished work.
- *Project Types:* public & private schools, multi-family housing, apartments, mixed-use, assisted living, offices, public-safety, community, town halls, retail, restaurant, municipal and state facilities, and healthcare facilities.
- *Construction and Project Experience:* Millwork, interior finishes, lighting, acoustic requirements, building conditions assessments, accessibility including ramps and elevator improvements. New construction, interior renovations, additions and historic adaptive reuse and restorations.
- *Special expertise:* historic preservation, historic building conditions assessments and adaptive reuse projects.

Project Manager

2011-2015

- Managed teams and assigned project tasks among staff in multiple offices.
- Developed and maintained the design schedule with the principal in charge
- Documented building conditions to include existing conditions such as finishes, space dimensions, stairs, exits.
- Analyzed the accessibility and code requirements for the project.
- Wrote architectural project specifications, prepared meeting minutes.
- Reviewed the contractor's submittals for conformance with the design intent, code requirements, and applicable standards during construction administration.
- Provided oversight, direction and coordination of the architectural and engineering drawings and specifications.
- Communicated with local and state building department, historic, and accessibility authorities for variances and overall project approvals.
- *Project Types:* higher education, multi-family housing, apartments, mixed-use, retail, restaurants, historic conditions assessments, medical offices, commercial and community facilities.

ANDREA T. BARANYK, AIA, NCARB, LEED, CXLT
Architect

2009 to **DiLeonardo International**
2011 *Project Manager*

- Coordinated communication between production staff, interior designers, and principals for national and international clients.
- Oversight of the production staff and interior designers for each project.
- Maintained and developed schedules and team members across multiple offices including Rhode Island, China, Dubai, and the Philippines.
- Developed architectural details and materials specifications.
- Direct communication with manufacturers' representatives to develop material selections to meet the code requirements for all finishes including flooring and wall surfaces.
- *Project types:* high-end hospitality design details for hotels, restaurants, and resorts.

1999 to **Moser Pilon Nelson Architects**
2009 *Architectural Designer*

- Schematic design, design development, and space programming
- A design mediator/problem solver coordinating the work of the architects and engineers.
- Worked on all phases of design including review of contractor's shop drawings and product submittals to meet the design intent during the construction administration phase.
- *Project Types:* educational, healthcare, offices.

PROFESSIONAL CREDENTIALS

Registered Architect: Connecticut, District of Columbia, Florida, Maine,
Massachusetts, New Hampshire, Rhode Island, South Carolina, Vermont
Certified by the National Council of Architectural Registration Boards (NCARB)
Certified XL Tribometrist
LEED Green Associate
Qualified as a Historic Architect per the U.S. Department of the Interior and National
Park Service Guidelines

EDUCATION

B.A., Architecture, Roger Williams University, 2002
B.S., Historic Preservation, Roger Williams University, 1999
Certificate of Entrepreneurship, 10,000 Small Businesses, Community College of
Rhode Island, 2019

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Continuing Education:

ADA and ANSI A117.1 Design Standards for Vertical Lifts and Limited Use/Limited Application Elevators, March 2025
RI Municipal Training, RI Local Officials Training: 2024/25 Annual Update, March 2025
Lightweight Insulating Concrete Roof Decks: Florida Applications and the Florida Building Code, October 2024
Designing Glazing for Wind-Borne Debris Protection, October 2024
Design Essentials for Architectural Metal Roof and Wall Panel Systems, October 2024
8th Edition (2023) FBC and ASCE 7-2 Wind Loads and Window and Door Design Wind Pressure Calculator, October 2024
Sustainability + Wellness: Their Impact on the Built Environment, October 2024
Advanced FBC: 8th Edition (2023) Fair Housing vs Florida Accessibility Code, October 2024
PVC Roofing Materials, October 2024
Solutions for Large Openings in Wind Borne Coastal Areas, October 2024
The Impact of Florida HB 837 Requiring Minimum Security Requirements and CPTED Assessments, October 2024
Controlling Moisture in Masonry, October 2024
Developing Masonry Structures to Meet the 8th Edition (2023) FBC, October 2024
Advanced FBC: 8th Edition (2023) Architectural Acoustic Requirements in the code, October 2024
High-Performance and Low Maintenance Railing, September 2024
From Code Compliance to Fire Safety: Maximizing the Potential of Foam Plastic Insulation in Building Envelope Design, September 2024
Daylight Design with Diffused, Highly Insulated and Sustainability, September 2024
PVC101 - The Benefits & Uses of Cellular PVC Trim, September 2024
Rooftop Snow Retention Solving the Mystery with the Facts, September 2024
Exploring the Connection Between Net Positive, Carbon Neutrality, and the Water-Energy Nexus, August 2024
Designing for Sound Control: Effective, GREEN, Principles and Practices, April 2024
The Importance of Space. Rainscreen Technology in Residential Building Design, April 2024
Reviving The Lost Art of Moldings, April 2024
Lath Selection & Specification to Enhance Stucco, April 2024
High-Performance Glass and Aluminum Building Envelopes, April 2024
Designing for Moisture Protection in Concrete Masonry Walls, April 2024
RI Commercial Energy Code Commercial Building Commissioning, April 2024
How to Design with Structural Thermal Breaks, April 2024
Advanced Training - 7th Edition FL Accessibility Code Updates, March 2024
Failure Is Not an Option: Air Barrier Continuity Strategies for Storefront & Curtain Wall Systems, March 2024
Below-Grade & Blindside Waterproofing, March 2024
Deep Dive Into Low-Slope Asphaltic Roof Systems, February 2024
Introduction to Entrance Flooring Systems, February 2024
MgO Underlayment Panels in Multifamily Buildings, February 2024

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Color and Design Vision 2024 Culture of Care, January 2024
The Evolution of Tile, January 2024
Six Steps to Sustainability: Green Building Strategies for Commercial Restrooms,
January 2024
A Holistic Approach to Windows in Sustainable Design, December 2023
Innovative Design Applications Using Advanced Fire Rated Glazing Technology,
December 2023
Rainscreen Systems Made Easy, December 2023
Brick Replacement and Restoration, November 2023
Window Code Fundamentals, October 2023
Looking Back & Designing Forward: Adaptive Reuse for a Future Climate, September
2023
Controlling LEDs to Meet Customer Expectations, September 2023
Glass: Select The Option for Your Project, September 2023
Seismic Design of Masonry Structures, September 2023
Specifying Sustainable Concrete, July 2023
Thermoplastic Technology in Architectural Railing Systems, May 2023
Precast Concrete Stair Treas and Landings, May 2023
How Surface Color and Design Affect our Physical, Mental, and Social Well-Being,
April 2023
Redwood Lumb er Attributes, Applications & Environmental Benefits, April 2023
Mineral Wool IMPs: Sustainable, Fire-Resistant Construction, April 2023
Adaptive Reuse as a Mechanism to Achieve Net Zero Carbon, April 2023
Maximizing Water Efficiency for Sustainable Restroom Design, February 2023
Risk Management with Reality Capture, January 2023
Managing Sound in the Wide Open Spaces, December 2022
The Cascading Consequences of Non-Compliance in WRBs, December 2022
Emerging Trends in High-Performance Building Enclosures, December 2022
Polyiso Continuous Insulation: The Next Generation Air & Moisture Barrier, November
2022
Making Land Use Decisions, November 2022
Conducting Effective Public Meetings, October 2022
Energy Efficient Windows in Commercial and Residential Applications: Capital City
Charter School (DC), October 2022
Automatic Entrance Systems Overview, August 2022
Paint 101: Fundamentals of Architectural Paint and Coating Technology, August 2022
Beautifying Concrete, July 2022
Acoustic Performance in Buildings: Meeting the Standards, April 2022
Optimizing Daylight in Different Buildings, April 2022
Commercial Flooring from a New Point of View, April 2022
What is Underfoot Matters, April 2022
Keeping Up with the Latest Ceramic Tile and Natural Stone Trends, April 2022
The Pos-COVID Workplace, April 2022
Architects Who Walk the Walk, April 2022
Architecture and Emotions: Designing for a Healthier Built Environment, April 2022

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Design at the Heart of Health and Well-Being, April 2022
Silicone Coatings: An Alternative to Ceramic Frit for Spandrel Glass, March 2022
10 KPIs Your Architecture Firm Needs to Track for Maximum Project Profitability, March 2022
RI Commercial Stretch Code, January 2022
Growing Revenue without Adding Headcount, September 2021
Fire-Rated Glazing: Safe, Beautiful & Environmentally Sustainable Design in the Modern Architectural Landscape, September 2021
How Sustainable is Wood? August 2021
Zero Energy Buildings - RI Commercial ZEB and RI Stretch Code, August 2021
RI Code/ URI Fascitelli Center for Advanced Engineering, July 2021
PVC Roofing Materials - Performance, Construction, Functionality, July 2021
Daylighting by Design, March 2021
Code Recognized Magnesium Oxide (MgO) Panels Applications for Acoustic and Fire Rated Systems, February 2021
Glazing Strategies for Sound Control, February 2021
The New Normal and the Fight Against Surface Contaminants, December 2020
Benefits, Compliance Options and Updates to the RI Green Buildings Act, November 2020
Glazing Strategies for Sound Control, October 2020
Embrace the Chaos – How AEC Firms Can Reduce Risk and Flourish Through Recessionary Cycles, October 2020
Holistic Firm Management: Operational Insights in Service Towards a Work-Life Balance, October 2020
Best Practices for Repointing Masonry, September 2020
Design & Detail of Reinforced Hollow Clay Masonry, September 2020
Fair Housing vs Florida Accessibility Code FBC –Accessibility: Who, What, When, Where & How 7th Edition (2020) Advanced Class, September 2020
Wind Mitigation, September 2020
Virtual World of Glass, September 2020
PICP System Design and Construction, September 2020
Utilizing Energy Efficient Details for Specifying Masonry Wall Systems, September 2020
MEP/FP Systems Design, September 2020
DESIGN FOR A NEW ERA - Healthcare and Work Spaces Beyond 2020, July 2020
Climate Resilience and the Public Realm, July 2020
Specifying Commercial Wood Floors, July 2020
Installing Fenestration in Exterior Insulated Walls, June 2020
Drainage & Drying in the Exterior Wall, June 2020
The Evolution of Architectural Glass and High-Performance Coatings 2, June 2020
Forensic Engineering for Historic Properties, June 2020
Light and Wellness, June 2020
Fire-Rated Glass & Framing Solutions for Healthcare Facilities, May 2020
Labor Shortage Solution: Specifying A Factory-Made Roofing Membrane, May 2020
Ceiling Systems for High Performing Schools, May 2020

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Continuous Insulation, April 2020
Single-Ply Roofing Technology, April 2020
Influence of Design on the Learning Environment, April 2020
Architectural Acoustics, April 2020
Architectural Resin Solutions for Light, Color & Pattern, April 2020
Designing Interior Space with Indirect Lighting, April 2020
Comparative Study of Wood and Aluminum Windows in Commercial Buildings, April 2020
Design Principles for Rainscreen Wall Systems, April 2020
Building Envelope Science Fundamentals & Key Concepts, April 2020
Important but Often Overlooked and Misunderstood Contract Clauses, April 2020
Paint 201: High Performance Coatings for Commercial Spaces, April 2020
What Architects and Firms Need to Know About the Federal Coronavirus Stimulus Plan, April 2020

PROFESSIONAL MEMBERSHIPS

American Institute of Architects
National Trust for Historic Preservation
Mercy High School, Middletown, CT, Board of Trustees Member
Town of Richmond, RI, Planning Board, Vice Chair
Town of Richmond, RI, CHARIHO School Building Committee, Chair