

Conflicts of Interest, Vertical Integration, and Regulatory Capture Concerns

in HUD's Offsite Construction Research Program

A Documentary Review of the 2023 Offsite Construction for Housing: Research Roadmap and the 2026 HUD's Past, Present, and Future Role in Accelerating U.S. Offsite Construction for Housing: A Comparative Study and Action Plan

Prepared from primary-source U.S. Department of Housing and Urban Development documents and related public records.

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Sections: Organizational Map · Overlapping Personnel · Funding Structure · ICC-ES Critique · Peer Review by the Entity Under Review · Vertical Integration · Antitrust Concerns · Regulatory Capture · Summary

1. Purpose and Method

This report examines the organizational and personnel relationships surrounding two U.S. Department of Housing and Urban Development (HUD) publications on offsite construction: the 2023 Offsite Construction for Housing: Research Roadmap and the 2026 report HUD's Past, Present, and Future Role in Accelerating U.S. Offsite Construction for Housing: A Comparative Study and Action Plan. Both reports were managed by the National Institute of Building Sciences (NIBS) and authored by principals of MOD X, and both engage directly with the role of the International Code Council (ICC) and its Evaluation Service (ICC-ES) in the offsite-construction regulatory landscape.

Every factual claim in this report is drawn from and cited to primary-source documents: the 2023 Research Roadmap, the 2026 Action Plan, a compilation of ICC-ES references in the Research Roadmap (sourced to Tiny House Alliance USA, itself citing HUD's original PDF and a February 2024 HUD press release), and materials provided directly and cited accordingly.

2. Organizational Map

The table below sets out the five principal organizations involved in producing and being discussed by the two reports, and how each is positioned relative to the others.

Organization	Role in the Two HUD Reports	Funding / Institutional Position
HUD (Office of Policy Development & Research)	Funder and publisher of both the 2023 Research Roadmap and the 2026 Action Plan.	Disbursed the FY23 Offsite Construction and Land Use Reform NOFO (~\$2,998,999 across 10 recipients).
National Institute of Building Sciences (NIBS)	Project manager for both reports; NIBS staff (Kyle Barry, Drew Rouland, Jiqui Yuan, Stephanie Stubbs) facilitated drafting and the stakeholder workshop.	Largest single FY23 NOFO recipient: \$499,878, awarded to design pilot programs and identify barriers to offsite construction.
MOD X	Research authors of both reports (Ivan Rupnik, Ryan E. Smith, Tyler Schmetterer), credited as “Prepared by” on both the 2023 Research Roadmap and the 2026 Action Plan title pages.	Ryan Smith's home institution, Washington State University, separately received \$226,756.05 from the same FY23 NOFO round.

International Code Council (ICC) / ICC-ES / ICC NTA / IAS	ICC representatives participated in the 2023 Research Roadmap through different roles. Cindy Davis, then President of the ICC Board of Directors, served on the Project Technical Committee, while Ryan Colker participated in the stakeholder workshop under the Regulatory topic area. The same document's Executive Summary and Section 3.2 identify the ICC Evaluation Service (ICC-ES) process as a barrier to innovation. Colker and David Tompos are also listed as Project Partners and Peer Reviewers in the 2026 Action Plan's Appendix.	Not a listed FY23 NOFO recipient. ICC-ES is the code-compliance verification body directly discussed in the Research Roadmap as a target for reform; David Tompos currently serves as President of ICC NTA while also overseeing ICC NTA, ICC-ES, and IAS together as EVP of ICC's Conformity Assessment Group. Tompos is a confirmed Peer Reviewer of the 2026 Action Plan.
Modular Building Institute (MBI)	Co-developed the ICC/MBI 1200, 1205, and 1210 offsite-construction standards jointly with ICC — the same co-branded standards that the Research Roadmap's Section 3.1 pull-quote (from then-ICC Board President Cindy Davis) recommends HUD adopt nationwide. Executive Director Tom Hardiman is listed as a Project Partner representing MBI in the 2026 Action Plan's Appendix (p. 76).	Not identified as an FY23 NOFO recipient; MBI standards (ICC/MBI 1200, 1205, 1210) are co-branded with ICC and positioned as the proposed regulatory replacement framework.

Read together, the structure is circular: HUD funds NIBS to manage research that MOD X authors; that research was shaped in part by an ICC-affiliated Project Technical Committee member and additional ICC participation in the stakeholder workshop; the research itself identifies ICC-ES's certification process as a barrier while simultaneously promoting the co-branded ICC/MBI standards as the preferred alternative; and the follow-on 2026 Action Plan — written by the same MOD X team, again managed by NIBS — recommends a new housing-system certification program to address that barrier.

3. Names of Overlapping Personnel

The individuals below appear in documented roles across both reports, based on the title pages, acknowledgments sections, Project Technical Committee (PTC) rosters, and stakeholder-workshop attendee lists of the 2023 Research Roadmap and 2026 Action Plan, updated to reflect subsequently documented roles on a NIBS/MOD X standard-development steering committee and on the National Housing Crisis Task Force's State and Local Housing Action Plan.

Name	Documented Affiliation	Role(s) Across the Two Reports	Peer Reviewer†	Source
Dominic Sims	Former CEO, International Code Council; current member, NIBS Board of Directors	A governance link between ICC and NIBS: led ICC as CEO, now sits on the NIBS Board of Directors — the organization that managed both HUD reports and received the largest single FY23 NOFO award.	—	As reported
John (JC) Hudgison	Senior ICC Board Member; Chair, ICC Emerging Leaders Membership Council; NIBS Board Member; Founding Past Chair, NIBS Off-Site Construction Council; Board Liaison, NIBS Facility Mgmt. & Operations Council	A second, simultaneous board-level link between ICC and NIBS. His Off-Site Construction Council chair role is the same council body Ryan Smith founded and sits on.	—	As reported

Cindy Davis	State of Virginia; ICC President, Board of Directors; former Deputy Director, Division of Building and Fire Regulations, Virginia Department of Housing and Community Development (DHCD)	Research Roadmap Project Technical Committee member and stakeholder-workshop attendee (Regulatory). Served as President of the International Code Council Board of Directors while concurrently holding a senior Virginia regulatory position. Quoted in the 2023 Roadmap (Section 3.1) urging efforts to “yield and remove the patchwork of regulations that is holding the industry back.” Separately, as Deputy Director of Virginia DHCD's Division of Building and Fire Regulations, she led work involving Virginia's statewide building, fire, and related codes; oversaw training and certification of building officials and inspectors; participated in national code development; worked on offsite and modular construction regulation; and helped advance the use of ICC/MBI 1200 and 1205 for factory-built construction. Virginia's Dec. 2023 memo initially omitted ASTM E541, corrected only after challenge (Jul. 2024). Retired after approximately 12 years with Virginia DHCD and more than 35 years in building safety; following retirement, elected to the Virginia Board of Housing and Community Development. Listed in the Action Plan's Project Partner Roles and Contributions appendix under the United States as: Virginia Department of Housing and Community Development — Cindy Davis. Now named as a member of the NIBS/MOD X steering committee guiding a follow-on standard-development initiative.	—	Roadmap, p. 21; Action Plan Appendix (Project Partner Roles and Contributions, United States); Virginia DHCD memoranda; Yahoo Finance, “NIBS, MOD X Launch Initiative”
Ryan Colker	International Code Council	Action Plan Project Partner matrix (entry 6.02): Key Partner, Exchange Delegate, and Peer Reviewer across UK-England, UK-Scotland, Japan, Sweden, and U.S. workshops. Also a 2023 Research Roadmap stakeholder-workshop attendee, topic area “Regulatory.”	✓	Action Plan Appendix, entry 6.02; Research Roadmap, p. 69
David A. Tompos	EVP, ICC Conformity Assessment Group; President, ICC NTA; formerly President & CEO, NTA (2002–2023); formerly Vice-Chair, HUD's Manufactured Housing Consensus Committee (MHCC), various terms since 2010 through 2023	Action Plan Project Partner matrix (entry 6.01): Key Partner, Exchange Delegate, and Peer Reviewer across the same five workshops. Oversees ICC NTA, ICC-ES, and IAS. Former HUD-appointed federal advisor on the MHCC, reappointed Vice-Chair through Dec. 31, 2023; not currently serving.	✓	Action Plan Appendix, entry 6.01; ICC/NTA bio; MHCC reappointment release
Tom Hardiman	Executive Director, Modular Building Institute (MBI)	Listed as Project Partner representing MBI in the 2026 Action Plan Appendix (p. 76). Under Hardiman, MBI jointly developed and co-branded ICC/MBI 1200-series standards with ICC. Also a 2023 Research Roadmap stakeholder-workshop attendee (MBI/MHBA, topic area Advocacy/Trade).	—	Action Plan Appendix, p. 76; Research Roadmap, p. 69

Ryan E. Smith, Ph.D.	MOD X, Founding Partner; Univ. of Arizona CAPLA, Director, School of Architecture; Founding Past Chair & Board Member, NIBS Offsite Construction Council; Fellow, MBI; Advisory Board, Ivory Innovations	Author of both the 2023 Research Roadmap and 2026 Action Plan. His NIBS Offsite Construction Council leadership places the reports' lead academic author inside the governance structure of the entity that commissioned and funded his own research. Now named as a NIBS/MOD X steering committee member guiding a follow-on standard-development initiative. Also co-author, with Rupnik and Schmetterer, of Chapter 12 (“Industrialized Housing Delivery in the U.S.”) of the National Housing Crisis Task Force's State and Local Housing Action Plan, which recommends ICC/MBI standards, Housing System Certification, and ICC-ES as a certification pathway.	—	Research Roadmap, pp. ii, 70; Action Plan title page; UA CAPLA bio; Yahoo Finance, “NIBS, MOD X Launch Initiative”; State and Local Housing Action Plan (Nat'l Housing Crisis Task Force, Jun. 2025), Ch. 12
Ivan Rupnik, Ph.D.	MOD X, Founding Partner (co-founded with Ryan Smith, 2018); Associate Professor of Architecture, Northeastern University; Fellow, MBI; Ph.D., Harvard University	Author of both reports. Separately served in 2020 as an expert advisor on a HUD exploratory panel on offsite construction, predating his authorship of both reports. His MBI fellowship parallels Ryan Smith's. Now named as a NIBS/MOD X steering committee member guiding a follow-on standard-development initiative. Also co-author, with Smith and Schmetterer, of Chapter 12 of the National Housing Crisis Task Force's State and Local Housing Action Plan.	—	Research Roadmap, p. ii; Action Plan title page; LinkedIn (as provided); Yahoo Finance, “NIBS, MOD X Launch Initiative”; State and Local Housing Action Plan (Nat'l Housing Crisis Task Force, Jun. 2025), Ch. 12
Tyler Schmetterer, MBA	MOD X, Managing Partner; SkyBuilt LLC; 30+ years' commercial experience in offsite/prefabricated residential construction	Author of both the 2023 Research Roadmap and the 2026 Action Plan (listed “Prepared by” on both title pages). Now named as a NIBS/MOD X steering committee member guiding a follow-on standard-development initiative. Also co-author, with Rupnik and Smith, of Chapter 12 of the National Housing Crisis Task Force's State and Local Housing Action Plan.	—	Research Roadmap, p. ii; Action Plan title page; MOD X bio (as provided); Yahoo Finance, “NIBS, MOD X Launch Initiative”; State and Local Housing Action Plan (Nat'l Housing Crisis Task Force, Jun. 2025), Ch. 12

† ✓ = confirmed “Peer Reviewer” in the Action Plan's Project Partner Roles and Contributions matrix (entries 6.01–6.02). — = not marked Peer Reviewer in that matrix, or role not covered by it.

4. Funding Structure

The funding opportunity that produced these awards was announced by HUD explicitly as a follow-on to the 2023 Research Roadmap:

The NOFO provides up to \$4 million to (1) assess the potential for offsite construction methods to increase housing supply, lower the cost of construction and/or reduce housing expenses for low- and moderate-income owners and renters; and (2) study how reforms to local zoning and other land-use regulations can increase the supply of quality, affordable housing ... This NOFO builds upon the research needs that are identified in the Offsite Construction for Housing: Research Roadmap, which can help overcome the barriers and challenges of offsite construction.

— HUD press release, “HUD Announces Research Grant Opportunity to Study Off-site Construction and Land Use Reforms,” June 15 (quoting Solomon Greene, Principal Deputy Assistant Secretary for PD&R)

HUD's FY23 Offsite Construction and Land Use Reform Notice of Funding Opportunity (NOFO) disbursed \$3,000,000 across 10 recipients, announced in HUD press release 24-036 (February 23, 2024). A separate, concurrent NOFO awarded \$858,261.91 to a single additional recipient (M. Arthur Gensler Jr. & Associates, to study office-to-residential conversions), bringing the combined total to nearly \$4 million across 11 grantees — matching the ceiling described in the original funding announcement quoted above.

The 10 Offsite Construction/Land Use Reform awards:

Recipient	FY23 NOFO Award	Stated Purpose
National Institute of Building Sciences (NIBS)	\$499,878	Partner with six HUD regions to design pilot programs identifying regional barriers to offsite construction; develop a pilot handbook.
University of California, Los Angeles	\$458,340	Study the impact of ADU legalization and production in California on rents and prices, and how legalization changes land values.
University of California, Irvine	\$343,244	Study California's state-level ADU regulatory reforms in the context of affirmatively furthering fair housing (AFFH).
Urban Institute	\$263,874	Use a housing-market forecast model to examine the interplay between local zoning reforms and housing costs and segregation.
Purdue University	\$263,847	Study building codes as a land-use restriction; clarify how proposed IBC/ICC revisions would impact new supply and affordability.
Louisiana State University	\$263,650.42	Life-cycle cost analysis of disaster-resilient affordable housing; improvements to manufacturing/siting of elevated, wind-resilient manufactured homes.
Manufactured Housing Institute	\$263,544.87	Examine the impact of local barriers on the placement of manufactured homes and propose regulatory reforms to address them.
Washington State University	\$226,756.05	Develop and demonstrate modular mass-timber hybrid construction design for more sustainable, affordable, equitable housing.
ADL Ventures	\$219,143	Study the financing of industrialized offsite construction and identify ways to increase the industry's access to capital.
Lehigh University	\$196,722.42	Qualitative survey of ADU ordinances, cataloging best practices, design guidelines, and financial incentives in small-to-medium municipalities.

NIBS — the organization that managed both reports discussed in this document — received the single largest award in that funding round. In other words, the same Research Roadmap that identifies ICC-ES as a barrier was, by HUD's own account, the direct basis for the funding opportunity that then paid NIBS to manage the follow-on research recommending the certification-program remedy.

5. The ICC-ES Critique, as Documented in the 2023 Research Roadmap

The Research Roadmap raises the ICC-ES process as a barrier to innovation in several places, beginning with the Executive Summary:

New Products: Research the obstacles of the current ICC-Evaluation Service (ES) process to develop mechanisms to foster new product development in offsite construction for the housing sector.

— Research Roadmap, p. vi

Section 3.1 opens with a pull-quote from Cindy Davis, then-President of the ICC Board of Directors (now retired), framing ICC/MBI standards as the solution HUD should adopt nationwide:

With the ANSI industry consensus standard by ICC and MBI now available, it seems that HUD could streamline the manufactured home industry, remove unnecessary regulatory barriers, and increase consumer confidence by adopting these standards for all offsite construction. ... This would create a level playing field and remove the patchwork of regulations that is holding the industry back from expanding.

— Cindy Davis, then-President, ICC Board of Directors (now retired); Research Roadmap, p. 21

Section 3.2 discusses the ICC-ES process directly and in the most detail anywhere in the report:

The current ICC Evaluation Service (ES) process and associated cost and time were noted as significant hindrances to fostering innovation, standardization, and competitiveness within the housing industry. ... Obtaining an ICC-ES Report is a process that is both time-consuming and expensive, and participants report that it does not foster innovation or competitiveness for small businesses and inventors, and it further reinforces prescriptive specifications.

— Research Roadmap, pp. 32–34

The report then poses open research questions about ICC-ES's cost and time burden and whether alternatives exist — questions the 2026 Action Plan takes up directly by recommending a new “housing system certification” program as an intermediate-term strategy.

6. Peer Review by the Entity Under Review

ICC representatives David Tompos and Ryan Colker were listed as Project Partners and Peer Reviewers of a HUD-funded report that recommends regulatory and certification approaches in areas where ICC develops codes and standards and could benefit institutionally from broader adoption of those frameworks.

The Action Plan's own Project Partner Roles and Contributions matrix (entries 6.01–6.02) marks both Ryan Colker and David Tompos — both International Code Council — as Key Partner, Exchange Delegate, and Peer Reviewer, with participation flagged across the UK-England, UK-Scotland, Japan, Sweden, and U.S. workshops (every category checked except Exchange Host).

This means the same organization whose certification arm (ICC-ES) is identified in the 2023 Research Roadmap as a barrier to innovation was, in the 2026 Action Plan, given a formal peer-review role over the research recommending the policy remedy to that barrier. Colker shaped the original 2023 Research Roadmap directly as a stakeholder-workshop attendee under the “Regulatory” topic area; a separate ICC-affiliated pull-quote from then-ICC Board President Cindy Davis opens Section 3.1.

The executive whose review carries the most direct institutional weight is documented in his own ICC/NTA biography:

David A. Tompos, LEED AP BC+D, served as President and CEO of NTA from 2002 to 2023 where he was responsible for the overall strategic vision and direction of the company. David also oversaw all government-related relationships, including NTA's involvement with HUD and State agencies. In his role as Executive Vice President of ICC's Conformity Assessment Group, David is involved with the oversight of and strategic planning for multiple divisions of the International Code Council's family of solutions, which include ICC NTA, ICC-ES and IAS.

— David A. Tompos, ICC/NTA executive biography

Tompos did not merely comment on ICC-ES as an outside reviewer — he oversees it. His peer-review role on a federally funded report examining his own division's certification process is a direct, not adjacent, conflict of interest.

The overlap extends beyond ICC into HUD itself. Tompos is also a former HUD-appointed federal advisor, having served on HUD's Manufactured Housing Consensus Committee (MHCC) — the federal advisory body that studies HUD's manufactured-home construction and safety standards and reports recommendations directly to the HUD Secretary — across various terms since 2010, most recently through a term ending December 31, 2023. He is not currently serving on the MHCC.

7. ICC Is Already Vertically Integrated

The same two HUD documents reviewed here describe ICC as the developer and maintainer of the model building codes most U.S. jurisdictions adopt:

These regional AHJs often adopt model codes that the International Code Council (ICC) developed, including the International Residential Code (IRC) and the International Building Code (IBC).

— Action Plan, p. 41

Structurally, this means ICC sits on both ends of the regulatory chain for offsite and manufactured housing: it sets the standard, and, through affiliated divisions under the same corporate umbrella, it certifies compliance with that standard. That is vertical integration in the plain sense of the term — code author and code enforcer are the same organization — independent of anything either HUD report recommends going forward.

8. The Report Suggests Further Vertical Integration

Against that backdrop, the 2026 Action Plan's central recommended delivery model — Industrialized Home Delivery (IHD) — is itself explicitly defined around vertical integration:

The IHD approach has generated the best results by fully applying manufacturing industry design and management processes by a vertically integrated company offering a turnkey housing product.

— Action Plan, p. 7

In other words, the Action Plan does not merely describe vertical integration as one industry approach among several — it recommends that HUD use federal award criteria to prioritize applicants who practice it, with “additional points” in the award review process for IHD practitioners over conventional project-delivery applicants.

9. Antitrust Concerns With Vertical Integration

The pattern documented above — the same small set of organizations and individuals occupying the roles of (a) federal grant recipient and research manager, (b) report author, (c) subject-matter reviewer from the trade body whose certification process is being critiqued, and (d) prospective administrator of any replacement certification regime — is the kind of structural arrangement that public-integrity and procurement-conflict frameworks are designed to flag for disclosure, even absent evidence of intentional wrongdoing.

- Self-referential review: An ICC representative (Colker) helped shape a federally funded report that characterizes his own organization's certification arm (ICC-ES) as an obstacle to industry competitiveness — and Colker and Tompos then formally peer-reviewed the follow-on Action Plan.
- Direct institutional beneficiary: Tompos's role as EVP of ICC's Conformity Assessment Group places him in direct oversight of ICC NTA, ICC-ES, and IAS — the same certification infrastructure the Research Roadmap identifies as an obstacle.
- A federally appointed advisor reviewing federally funded research on his own sector: Tompos was, through 2023, a HUD-appointed Vice-Chair of the MHCC while also serving as a formal Peer Reviewer of the HUD-funded Action Plan.
- Board-level governance overlap: Dominic Sims and John (JC) Hudgison hold or held senior ICC roles while simultaneously serving on the NIBS Board — NIBS being the organization that managed both HUD reports and received the largest single FY23 NOFO award.
- Repeat-authorship across cause and remedy: The same MOD X/NIBS team that authored the 2023 Research Roadmap identifying ICC-ES as a barrier also authored the 2026 Action Plan recommending the policy fix.
- Concentrated funding: NIBS, the largest single recipient of the FY23 NOFO round, managed both reports.

Favoring vertical integration as federal policy, reviewed by an already-vertically-integrated incumbent, raises the classic antitrust concern of a dominant structure using the regulatory process to entrench itself against smaller, non-integrated competitors.

10. When Federal Agencies Partner With Trade Associations: The Danger of Regulatory Capture

Regulatory capture describes a pattern in which an agency tasked with regulating an industry comes to serve the interests of that industry rather than the public it is meant to protect — often not through corruption, but through the ordinary mechanics of who gets consulted, who drafts the technical language, and whose expertise the agency comes to rely on by default.

HUD, lacking in-house staff with deep offsite-construction and code-compliance expertise, funded an outside research process (NIBS/MOD X) to study the field. That process, in turn, drew its technical expertise substantially from the same trade association (ICC) whose existing certification regime was the subject under study — including giving ICC representatives a Peer Reviewer role, not merely a stakeholder-input role, on the resulting Action Plan.

11. Summary

Two HUD-funded reports on offsite construction — a 2023 Research Roadmap and a 2026 Action Plan — were both managed by NIBS and authored by the same three MOD X principals. The 2023 Research Roadmap, shaped in part by an ICC-affiliated Project Technical Committee member and additional ICC participation in the stakeholder workshop, identifies ICC's own Evaluation Service (ICC-ES) as a significant barrier to innovation and cost-competitiveness in offsite housing construction. Two ICC representatives, including the executive who directly oversees ICC-ES, then served as formal Peer Reviewers on the 2026 Action Plan — the same document that proposes a new housing-system certification program as the policy remedy. NIBS was simultaneously the largest recipient of the FY23 federal funding round that supported this research program.

This structure — the same organizations and individuals positioned across research funding, authorship, subject-matter review, and prospective implementation of the resulting policy recommendation — is documented directly in the reports' own acknowledgments sections, PTC rosters, workshop attendee lists, and Project Partner Roles and Contributions matrix. It follows a pattern consistent with regulatory capture and warrants disclosure and further scrutiny.

12. A Third HUD-Funded Engagement: Breakthrough Regional Pilots

In 2024, HUD funded a follow-on initiative — HUD Breakthrough Regional Pilots: Growing Offsite Construction for Housing Through Regional Pilot Projects — led by MOD X in partnership with NIBS, the same author/manager pairing behind the 2023 Research Roadmap and 2026 Action Plan discussed above. Six Regional Pilot Partners are developing Regional Action Plans and localized pilot programs, to be compiled into a HUD Breakthrough Pilot Handbook for national dissemination. HUD's funding for this project is the same \$499,878 FY23 NOFO award to NIBS documented in Section 4, above.

Table. Participating Regional Pilot Partners

HUD Region	Regional Partners / Region
II. Northeast	Metropolitan Area Planning Council; City of Boston, Mayor's Office of Housing, Neighborhood Housing Development & Housing Innovation Lab — Greater Boston, MA
III. Mid-Atlantic	Virginia Department of Housing and Community Development (DHCD) — Commonwealth of Virginia
V. Midwest	Construction Revolution — Minneapolis–Saint Paul Metro Area, MN
VIII. Intermountain West	Ivory Innovations — Wasatch Front, UT
IX. West	UC Berkeley Turner Center and Turner Labs — California
X. Pacific Northwest	Housing Development Consortium of King County and Seattle, Community Partners — Washington State

Strategic Pilot Partners supporting the project across all six regions are named as the Harvard Joint Center for Housing Studies, the International Code Council (ICC/NTA), and Ivory Innovations.

13. What the Pilots Omit: ASTM E541, CES, and the Virginia Case

The two HUD publications reviewed above omit an existing federal history that already addressed the same regulatory problem: Operation Breakthrough, Project LEAP, the Coordinated Evaluation System (CES), and ASTM E541. Instead of acknowledging or evaluating that established framework, the Research Roadmap and Action Plan recommend ICC/MBI standards and ICC services as the path forward.

Virginia adopted ICC/MBI 1200 and 1205. Its December 2023 implementation memorandum directed Compliance Assurance Agencies toward the ISO-based accreditation provisions in ICC/MBI 1205, while omitting ASTM E541 — even though ASTM E541 remained in Virginia's own regulations. Only after the omission was challenged did Virginia issue a July 2024 clarification stating that ASTM E541 would also be considered.

14. Teresa Payne

Teresa Payne served at HUD for approximately 28 years, including as Administrator and later Deputy Assistant Secretary of the Office of Manufactured Housing Programs. That office administers the federal manufactured-housing program and regulates an industry represented nationally by the Manufactured Housing Institute (MHI).

Teresa Payne — HUD to MHI Timeline

- Approximately 28 years at HUD: Teresa Payne served in several positions at HUD, including Administrator and later Deputy Assistant Secretary for the Office of Manufactured Housing Programs.
- February 8, 2024: Payne participated in the MOD X workshop at HUD headquarters conducted as part of the development of HUD's offsite-construction Action Plan.
- Workshop role: MOD X included Payne in its combined list of “HUD workshop participants and project Key Partners.”
- Research process: MOD X presented intermediary research findings and collected information from attendees through thematic breakout sessions and live interviews.
- Use of workshop information: MOD X stated that the information would be collected, analyzed, synthesized, and presented to HUD. The workshops would provide the basis for the final report and proposed national strategy.
- May 2025: MHI announced that Payne had joined the organization as Vice President of Policy.
- May 19, 2025: The Manufactured Housing Association for Regulatory Reform announced that it had filed a Freedom of Information Act request seeking HUD records concerning Payne's departure, outside contacts regarding her MHI employment, and post-employment ethics.

Sources for the Teresa Payne Timeline

- **Approximately 28 years at HUD; appointed Deputy Assistant Secretary for Manufactured Housing:**
[MHI — New HUD Deputy Assistant Secretary for Manufactured Housing](#)
 This confirms HUD's appointment of Payne and describes her prior HUD experience.
- **Earlier position as Administrator of HUD's Office of Manufactured Housing Programs:**
[HUD — Manufactured Housing Consensus Committee Meeting Minutes](#)
 HUD identifies her as “Administrator of the Office of Manufactured Housing Programs.”
- **February 2024 workshop at HUD headquarters:**
[HUD — The Future Is Modular: HUD and MOD X's Offsite Construction Workshop and Tours](#)
 HUD confirms that NIBS and MOD X organized the workshop at HUD headquarters, where MOD X presented its findings and participants joined breakout discussions.
- **MOD X's identification of Teresa Payne among the workshop participants and project Key Partners:**
[MOD X LinkedIn post — February 14, 2024](#)
 The post names Teresa Payne and explains that information collected during the breakout sessions would be analyzed, synthesized, and presented to HUD as part of the project.
- **Additional participant account of the February 2024 workshop:**
[Helena Lidelöw LinkedIn post](#)
 This account describes the workshop's discussions concerning building codes, performance-based regulation, industrialized construction, and international approaches.

- **May 2, 2025 announcement of Payne's appointment as MHI Vice President of Policy:**

[Housing Alert — MHI announcement reproduced by MortgageFlex](#)

It states that former HUD Deputy Assistant Secretary Teresa Payne was appointed MHI's Vice President of Policy and would lead its policy team.

- **Current confirmation of her MHI position:**

[MHI — Meet MHI in Biloxi](#)

MHI identifies Teresa Payne as its Vice President of Policy.

15. MHARR Requests HUD Records Concerning Teresa Payne's Departure

On May 19, 2025, the Manufactured Housing Association for Regulatory Reform (MHARR) announced that it had filed a Freedom of Information Act request with HUD concerning Teresa Payne's departure from the agency and her subsequent employment as Vice President of Policy for the Manufactured Housing Institute.

MHARR requested HUD records concerning:

- Payne's departure from HUD
- External contacts she may have had concerning her departure and new MHI position
- The timing and circumstances surrounding her move to MHI
- HUD records addressing the ethical requirements associated with the post-federal employment of a policy-level regulator

Source: [MHARR — FOIA of Teresa Payne-Related HUD Records, May 19, 2025](#)

16. Sources

[Offsite Construction for Housing: Research Roadmap](#). U.S. Department of Housing and Urban Development, Office of Policy Development and Research, 2023. (Cited in this report as "Research Roadmap.")

[HUD's Past, Present, and Future Role in Accelerating U.S. Offsite Construction for Housing: A Comparative Study and Action Plan](#). U.S. Department of Housing and Urban Development, Office of Policy Development and Research, 2026. (Cited in this report as "Action Plan.")

ICC-ES References in HUD's Offsite Construction Research Roadmap. Compilation by Tiny House Alliance USA, citing the 2023 Research Roadmap and HUD press release 24-036 (Feb. 23, 2024).

HUD Press Release 24-036, "HUD Awards Nearly \$4 Million to Study Innovative Ways to Boost Housing Supply Including Office-to-Residential Conversions," Feb. 23, 2024 (quoting HUD Secretary Marcia L. Fudge and Solomon Greene).

HUD press release, "HUD Announces Research Grant Opportunity to Study Off-site Construction and Land Use Reforms," June 15 (NOFO announcement quoting Solomon Greene; archived Jan. 2, 2025).

David A. Tompos, executive biography, International Code Council / NTA (as provided).

ICC NTA press release, Nappanee, Indiana, announcing David Tompos's reappointment as Vice-Chairperson of HUD's Manufactured Housing Consensus Committee, effective January 1, 2021 (as provided).

International Code Council / Modular Building Institute (ICC/MBI). ICC/MBI 1200-2021 Standard for Off-Site Construction: Planning, Design, Fabrication, and Site Installation. Referenced throughout the 2023 Research Roadmap and 2026 Action Plan.

HUD Breakthrough Regional Pilots: Growing Offsite Construction for Housing Through Regional Pilot Projects. Program overview materials, MOD X / National Institute of Building Sciences (as provided).

Ivory Innovations, organizational self-description (as provided).

Ivan Rupnik, Ph.D., LinkedIn profile and MOD X biography (as provided).

Tyler Schmetterer, MBA, MOD X biography (as provided).

“HUD-Supported Breakthrough Regional Pilots Summit Charts a Scalable Path Forward for Offsite Construction and Housing Supply,” PR Newswire (as provided).

Virginia Department of Housing and Community Development, implementation memoranda on ICC/MBI 1205 and ASTM E541 compliance-assurance pathways (December 2023; July 2024 clarification) (as provided).

Metropolitan Area Planning Council (MAPC), HUD PRO Housing grant materials for the Greater Boston regional off-site-construction strategy, October 2024 (as provided).

“NIBS, MOD X Launch Initiative,” Yahoo Finance:

<https://finance.yahoo.com/news/nibs-mod-x-launch-initiative-214100223.html>

State and Local Housing Action Plan, National Housing Crisis Task Force (June 2025), Chapter 12, “Industrialized Housing Delivery in the U.S.: Recommendations for State and Local Governments” (by Ivan Rupnik, Ryan E. Smith, and Tyler Schmetterer of MOD X, with Benjamin Preis and Lauren Leonard).

MHI — New HUD Deputy Assistant Secretary for Manufactured Housing:

<https://www.manufacturedhousing.org/news/new-hud-deputy-assistant-secretary/>

HUD — Manufactured Housing Consensus Committee Meeting Minutes (Nov. 19, 2020):

https://www.hud.gov/sites/dfiles/Housing/documents/MHCCRegulatorySCMeeting11_19_2020

HUD — “The Future Is Modular: HUD and MOD X's Offsite Construction Workshop and Tours,” PD&R Edge:

<https://www.huduser.gov/archives/portal/pdredge/pdr-edge-international-philanthropic-022024.html>

MOD X LinkedIn post, February 14, 2024, identifying workshop participants and project Key Partners:

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<https://www.linkedin.com/posts/helena-lidelow>

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<https://mortgageflex.com/housing-alert/>

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Janet Thome, President, Tiny House Alliance USA.