

Student Name Matthew Jungclaus Student ID *****Doctoral ☐ Degree in Architectural Engineering

Thesis Title:

EMBODIED CARBON EMISSIONS BENCHMARKS OF RESIDENTIAL AND COMMERCIAL
REFERENCE BUILDINGS IN THE UNITED STATES

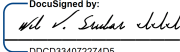
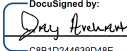
Have you performed research involving human subjects which requires approval from the Institutional Review Board (IRB)? ☐ Yes ☒ No

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Have you used live animals, animal tissue, or observational animal work which requires approval from the Institutional Animal Care and Use Committee (IACUC)? ☐ Yes ☒ No

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Attach the final copy of thesis/dissertation for committee review. While formatting changes may be requested by the Graduate School, the content of the attached document should be final.

**Approvals:**Committee Chair Name Wil V. Srubar IIISignature  Date Signed 4/9/2025
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The final copy of this thesis has been examined by the signatories, and we find that both the content and the form meet acceptable presentation standards of scholarly work in the above-mentioned discipline.