



NORTH AMERICA'S LARGEST 3D-PRINTED STRUCTURE

# ICON and TMD Unveil 3D-printed Barracks to House Women & Men During Military Training in Texas

**AUSTIN, TX, August 16, 2021 –**

The Texas Military Department (TMD) has partnered with Austin-based construction technologies company, ICON, to design and 3D-print an innovative training barracks at the Camp Swift Training Center in Bastrop, TX. As the largest 3D printed structure in North America, the 3,800 sq.-ft. building is set to house up to 72 soldiers or airmen at their primary facility while they train for missions in Texas or overseas marking these the first soldiers in the world to live in 3D-printed barracks.

"Guardsmen from all over Texas come to Camp Swift to train and to mobilize for deployments," said Col. Zebadiah Miller, Director of Facilities, Texas Military Department "The printed barracks will not only provide our Soldiers a safe and comfortable place to stay while they train, but because they are printed in concrete, we anticipate them to last for decades."

This marks the first project underway for ICON with the Texas Military Department and is a result from a SBIR Strategic Fund Increase (STRATFI) contract through the AFVentures to which TMD contributed funds. TMD and AFWERX, the USAF in-house innovation incubator, sought out to create barracks of the future by using construction scale 3D printing technology.

The 3D-printed barracks, designed by Logan Architecture and structural engineering by Fort Structures,, is the latest project using ICON's next generation Vulcan construction system and proprietary material to deliver sustainable and resilient housing that is longer-lasting than traditional buildings. ICON's proprietary technology provides a new option for the U.S. Military to leverage commercial additive manufacturing to produce safe, strong and energy efficient structures at speed and with design freedom for our soldiers at home and overseas.

"It is an honor for the ICON team to work alongside TMD, AFWERX and the Defense Innovation Unit to have created these resilient, energy efficient 3D-printed barracks that soldiers can now call home during their training," said Evan Loomis, co-founder of ICON.



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"ICON continues our missional work to deliver dignified, resilient shelter for social housing, disaster-relief housing, market-rate homes, and now, homes for those serving our country. We are scaling this technology across Texas, the U.S., and eventually the world. This is the beginning of a true paradigm shift in homebuilding."

This innovative technology intends to deliver military barracks at an increased speed compared to traditional construction and will replace temporary barracks that are beyond their intended lifespan with more efficient permanent structures. The 3D printing process is being evaluated for suitability as an expeditionary solution to enable printing of facilities in forward deployed locations, potentially reducing time, cost and construction risks.

"Texas has become a technological center of gravity within the nation," said Maj. Gen. Tracy Norris, Adjutant General of Texas. "TMD is proud to be a conduit for introducing these innovative solutions into the military community."

The National Guard is on the front lines of Humanitarian Assistance and Disaster Relief missions. This technology has the potential at scale to build structures faster and at a cost savings compared to traditional methodologies. It will enable the U.S. Military to build infrastructure that will support local communities to rebuild faster from natural disasters.

To commemorate the unveiling of the first-ever 3D-printed Barracks, The Texas Military Department and ICON held a ribbon cutting ceremony on August 16, 2021 with a host of Government Officials and members of the Texas Military Department. Soldiers in training will begin to inhabit the new 3D-printed Barracks beginning Fall 2021.

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### PROJECT PARTNERS:

- Partner: Texas Military Department
- Partner: AFWERX and Air Force Civil Engineer Center (AFCEC)
- Construction and Technology: ICON
- Architecture: Logan Architecture
- Structural Engineering: Fort Structures

