



# T-MOD

A Temporary,  
Rapid-Response  
**Modular Solution**  
for Homeless and  
Transitional Housing



California is in the midst of a housing shortage that is further deepened by homelessness - one of the most critical humanitarian issues of our time. In Los Angeles alone more than 25,000 people sleep on the streets every night.<sup>1</sup> According to Los Angeles Homeless Services Authority (LAHSA), over 66,000 people are experiencing homelessness in LA and the population is ever increasing.<sup>2</sup> Mayor Garcetti has put forth a vision to end homelessness in Los Angeles by the year 2028,<sup>3</sup> and has called upon community and industry leaders to contribute ideas, innovations, and solutions to help meet this goal.

To this end, architecture firm AO and modular manufacturer Horizon North have joined forces to develop a model for the delivery of temporary modular housing that is affordable to build, can be executed quickly, elevates community design, provides quality living, and is replicable amongst a variety of dense, urban sites. Horizon North has successfully executed this same modular solution to combat homelessness in Canada in partnership with the Vancouver Affordable Housing Agency (VAHA), and is working with AO to adapt the program for implementation in California. As the following case study shows, this innovative solution leverages modular construction and provides a mid-range product between tent-like emergency structures and permanent affordable housing, known as ***T-MOD***.

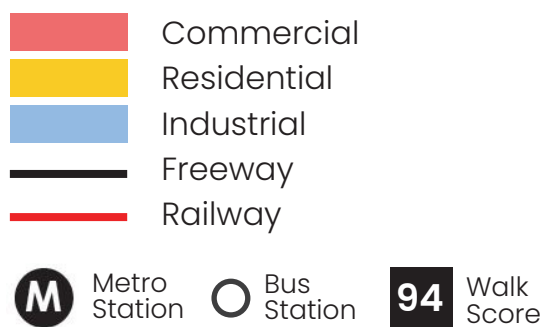
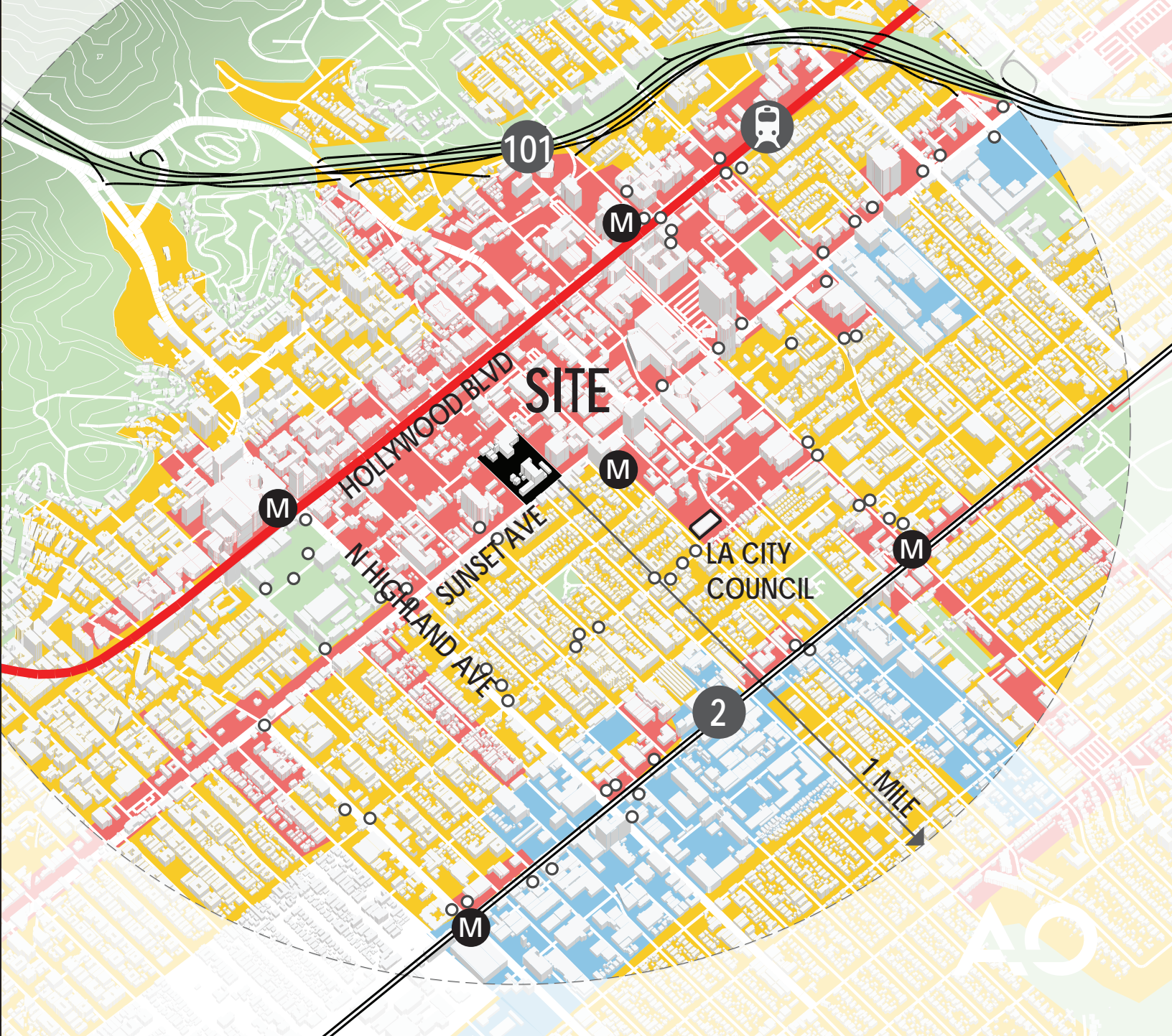
1 <https://www.lamayor.org/ABridgeHome>

2 <https://www.lahsa.org/news?article=726-2020-greater-los-angeles-homeless-count-results&ref=hc>

3 2019 State of the City Address: <https://www.youtube.com/watch?v=kXCbcgXbDOc>




4 A Bridge Home Program: <https://eng.lacity.org/blog/bridge-home-program>





This comparative case study examines the potential of the **T-MOD** building system as implemented on a compact site in Hollywood. The site, located at 1533 Schrader Boulevard, is part of the *A Bridge Home* program which currently provides 72 beds for formerly homeless residents in a Sprung Structure - a temporary, tensioned fabric building.<sup>4</sup>

***T-MOD proposes a mid-range, affordable solution that balances cost, construction, and quality of life for residents.***

	<b>Sprung</b> 	<b>T-MOD</b> 	<b>Traditional</b> 
STRUCTURE			
Site Acreage	0.5 ac	0.5 ac	0.5 ac
Density	36 du/ac	168 du/ac	168 du/ac
Beds/units	72	84	84
Personal Space/Unit Size	48 sf	305 sf	305 sf
Structure Size	7,200 sf	32,970 sf	32,970 sf
Structure Stories	1	3	3
Common Space	Admin Trailer Outdoor Eating	1,230 sf	1,230 sf
Building Type	Tensioned Fabric	Volumetric Modular	Wood-framed
Restrooms	Communal   600 sf 3 showers 5 toilets	Private 84 restrooms	Private 84 restrooms
BUILDING EFFICIENCY			
Cost per sf.	\$564	\$275	\$350*
Total Construction Cost	\$4.06 M	\$9.06 M	\$11.54 M*
Delivery	Delivered 3 weeks from order date	Delivered 6-8 weeks from order date	NA
Foundation	Elevated Concrete Foundation	Relocatable Foundation	Elevated Concrete Foundation
Factory Manufacturing Timeline	2 months (building envelope)	2 months	NA
Overall Construction Timeline	4 months	4 months	12-16 months
Approval to Move-In Timeline	7 months	8 months	24-30 months
Flexibility to Relocate	Yes	Yes	No
Acoustics	Very little acoustic treatment	Standard	Standard

\*Estimated costs based on similar affordable development in LA

Currently, programs like *A Bridge Home* provide temporary homeless housing solutions in tensioned fabric structures with semi-private sleeping conditions. While these structures achieve the goal of providing beds to get people off the street, AO and Horizon North's **T-MOD** solution proposes buildings constructed of modular components that have the benefit of elevating the community design, while remaining temporary and cost effective, and promising faster delivery than traditional construction.

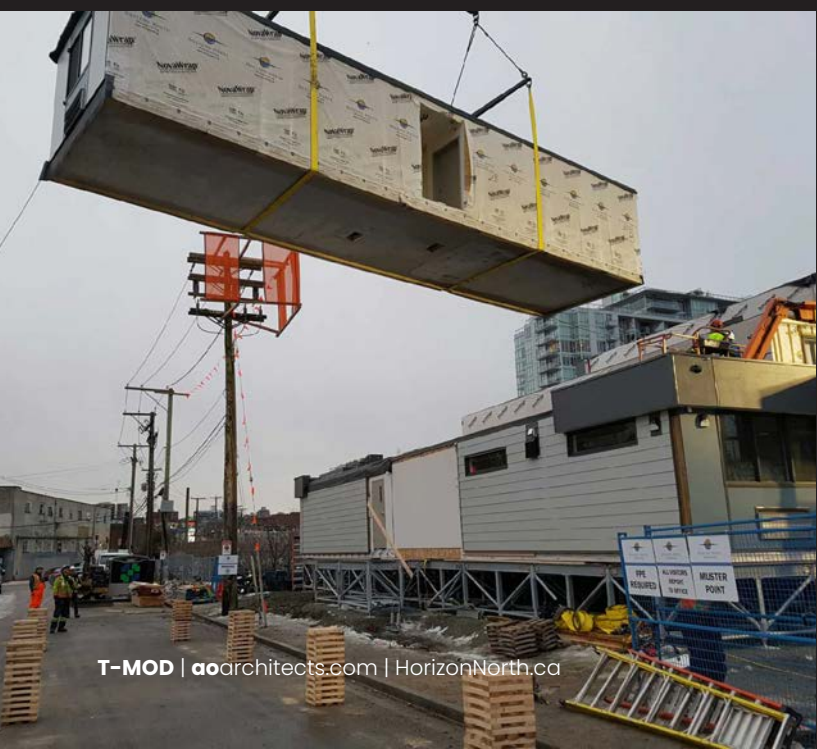
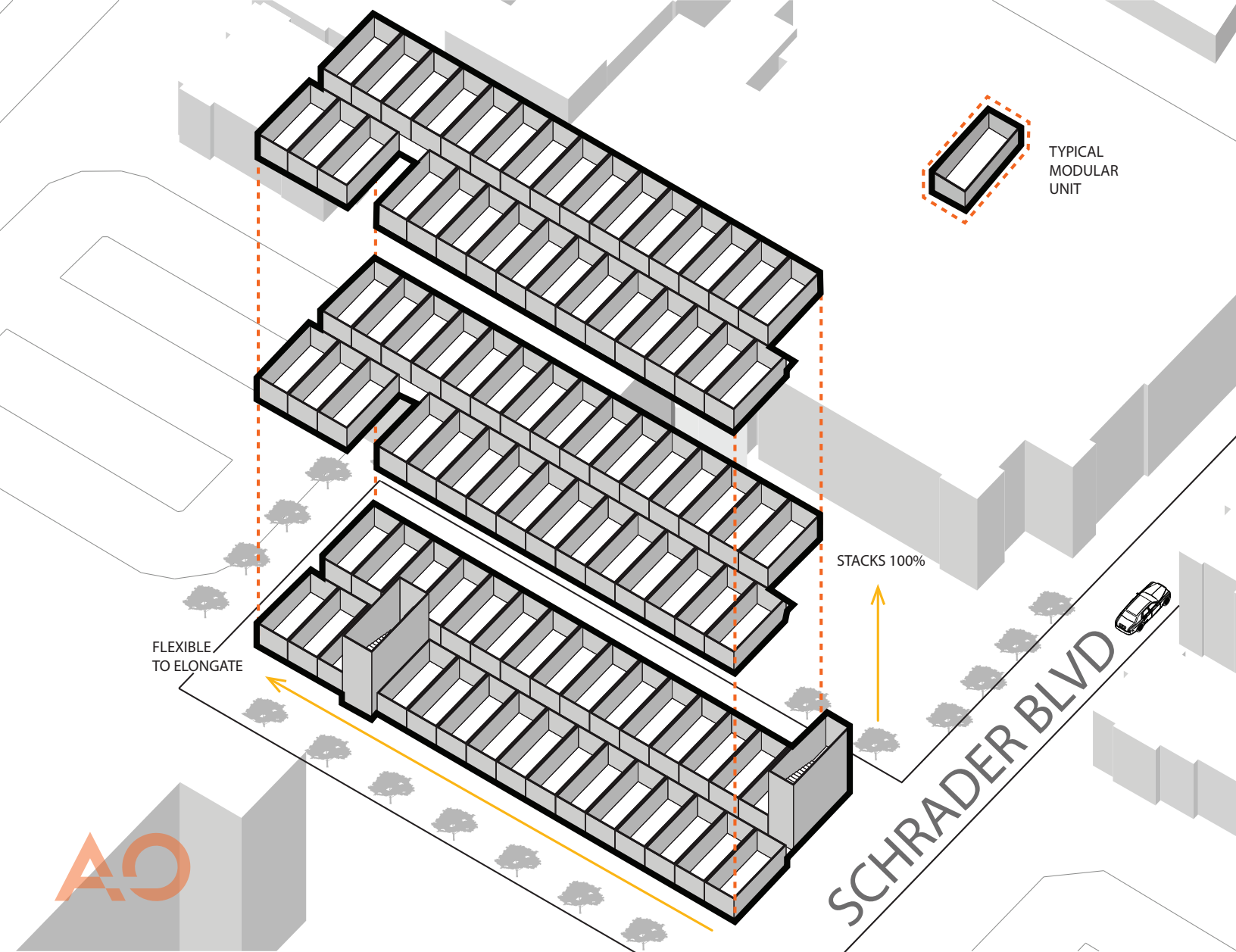


## FUTURE-FORWARD QUALITY LIVING

With elevated design that blends seamlessly with the urban fabric and community setting, **T-MOD** provides improved living conditions to create the fresh start that is needed for those experiencing homelessness.

Off-site manufacturing of the modules minimizes on-site construction time and disruption for neighbors, while reducing overall waste for the project. The relocatable foundation allows for future movement of the units in order to accommodate permanent development or address needs elsewhere in the city.





## FLEXIBLE, FAST & EFFECTIVE

The scalable approach and integrated design process involving a variety of stakeholders has resulted in fast-tracked design development, municipal permitting and construction timelines. This method has consistently resulted in an average build and delivery time of four months from date of order. Further, *T-MOD* retains its effectiveness and replicability on a variety of site conditions making it an ideal solution for urban infill and compact sites.

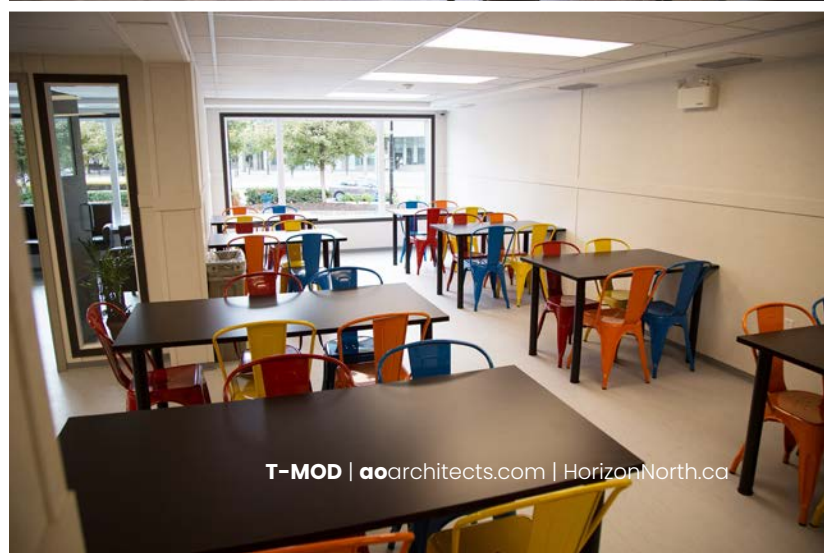




## A PROVEN SOLUTION

Working with a tried and tested formula that has been continuously improved with operator and stakeholder feedback, AO and Horizon North have developed a flexible, scalable solution derived from baseline designs and a library of suite options.

**T-MOD** offers an affordable mid-range solution for housing people affected by homelessness. The rapid response schedule ensures a fresh start for those who need it months ahead of traditional construction, with no compromises to building design or quality. It is a temporary, flexible, proven solution with immense potential to make a positive, lasting impact on California's homeless housing crisis.



Homelessness won't be solved overnight, but it is up to all of us to leverage our expertise, lend resources, and work together to uplift our communities and provide paths to housing for those in need.



### About AO

AO is an architectural services firm with 13 distinct design studios serving the entire commercial real estate spectrum, including Multifamily, Modular, and Transit-Oriented Developments (TODs). AO's Modular studio comprises an experienced team of architects and designers specializing in prefab and 3D volumetric modular developments. The team is currently overseeing more than 20 modular assignments for market-rate, affordable, senior, and transit-oriented developments.

To learn more about AO Modular visit [www.aoarchitects.com/projects/modular](http://www.aoarchitects.com/projects/modular)

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HORIZON NORTH

### About Horizon North

Horizon North is a leader in the modular construction industry, offering award winning modular commercial solutions to clients looking for uncompromised quality, sustainability and innovation. Currently, Horizon North has successfully completed more than 1,450 affordable modular housing units in partnership with public and private agencies in Canada that have informed the T-MOD system. The firm specializes in using sophisticated technology and industry leading design software to prefabricate modules of various sizes, in a factory controlled environment.

To learn more about Horizon North visit [www.horizonnorth.ca/modular-construction](http://www.horizonnorth.ca/modular-construction)

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