TINY HOMES
As the housing crisis worsens, alternative forms of housing such as tiny homes have the potential to increase the access and affordability of housing here in Santa Barbara and across the country. Tiny homes have many forms, and the connectivity platform being developed by Roots is compatible with any type of housing that can fit in a backyard.

TWO PREVIOUS BUSINESSES
As an Eco-Entrepreneurship project, Roots was tasked with developing a durable, timely, and economically beneficial business model from the ground up. Over the course of the project, the team developed three distinct businesses, all related to the theme of affordable housing.

THE ROOTS ENVIRONMENTAL BENEFIT

The Environmental Benefit of a Roots Customer is

Equivalent to

2.6
3


ACKNOWLEDGEMENTS & REFERENCES
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AN ENTREPRENEURIAL APPROACH

The online platform will connect dwellers and landowners, similar to Airbnb. The unique element of Roots is the compatibility algorithm, which, like a dating app, will ensure matches have lasting success.

Dwellers will be able to search for features such as utility availability, space requirements, lifestyle details, and timing. If a potential match is found, the dweller will submit a profile and a connection will be made.

Customer Profiles
Tiny homes dwellers are typically sought young professionals in the 20s and 30s with impermanent career plans, or couples with grown adult children. The appeal of downsizing and of the minimalist movement is felt most strongly by individuals without children who are interested in the do-it-yourself nature of tiny living.

Business Development
92 in-depth customer and expert interviews
To begin the process of developing a business, the team got out of the classroom to hear from customers. Affordability and stability were highlighted as the key customer pain points.

Platform Functionality
Santa Barbara spatial analysis
County data was analyzed to determine regions of compatibility with the Roots platform. Parameters included land-use code, additional structures, and parcel size.

Landowner survey to gauge interest (n = 52)
14% Of respondents were interested in participating
Reasonable expected rental price
Primary concerns of landowners

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The combined effect of housing type and commuting distance resulted in an environmental impact in units of metric tons of carbon dioxide equivalent.

Business Solution 1
Screened ADU design which would reduce the time to build of these structures. This cost effective solution aimed to provide an alternative housing option to more people.

Business Solution 2
Pre-screened ADU design which would build the time-to-build of these structures. This cost effective solution aimed to provide an alternative housing option to more people.

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Carbon Footprint by Housing Type

**Approach**

- Single Family Dwelling
- Apartment
- Tiny Home

**Housing Type**

- Zone 1
- Zone 2
- Zone 3

**Commuting Distance**

- 30 miles

**Carbon Footprint by Housing Type**

- Single Family Dwelling: 2.45 tons CO2 eq. person/year
- Apartment: 2.12 tons CO2 eq. person/year
- Tiny Home: 1.34 tons CO2 eq. person/year

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