



A CASE STUDY ON THE FEASIBILITY OF SHIPPING CONTAINER HOMES AS HOUSING FOR DISASTER VICTIMS



Abstract:

This case study is designed to examine the feasibility and possible implementation of modified steel shipping container units as temporary housing relief for victims of natural disasters. This study focuses on an on-going shipping container home being constructed in Santa Rosa, CA as well as previously conducted research on this type of unconventional construction. Ultimately, based on my findings and personal experience with this project, this method of construction has proven to be an efficient way to build temporary housing in an affordable and expedited manor. This project shows that with further research and education, this type of construction could prove to be a very effective alternative for people displaced by disasters.



- Wildfires wiped out more than 8,400 structures, scorching 250 square miles of land.
- Caused over \$13.5 billion in damages.
- Displaced some 31,000 people in Sonoma/Napa.
- Deemed most destructive wildfire in CA history.

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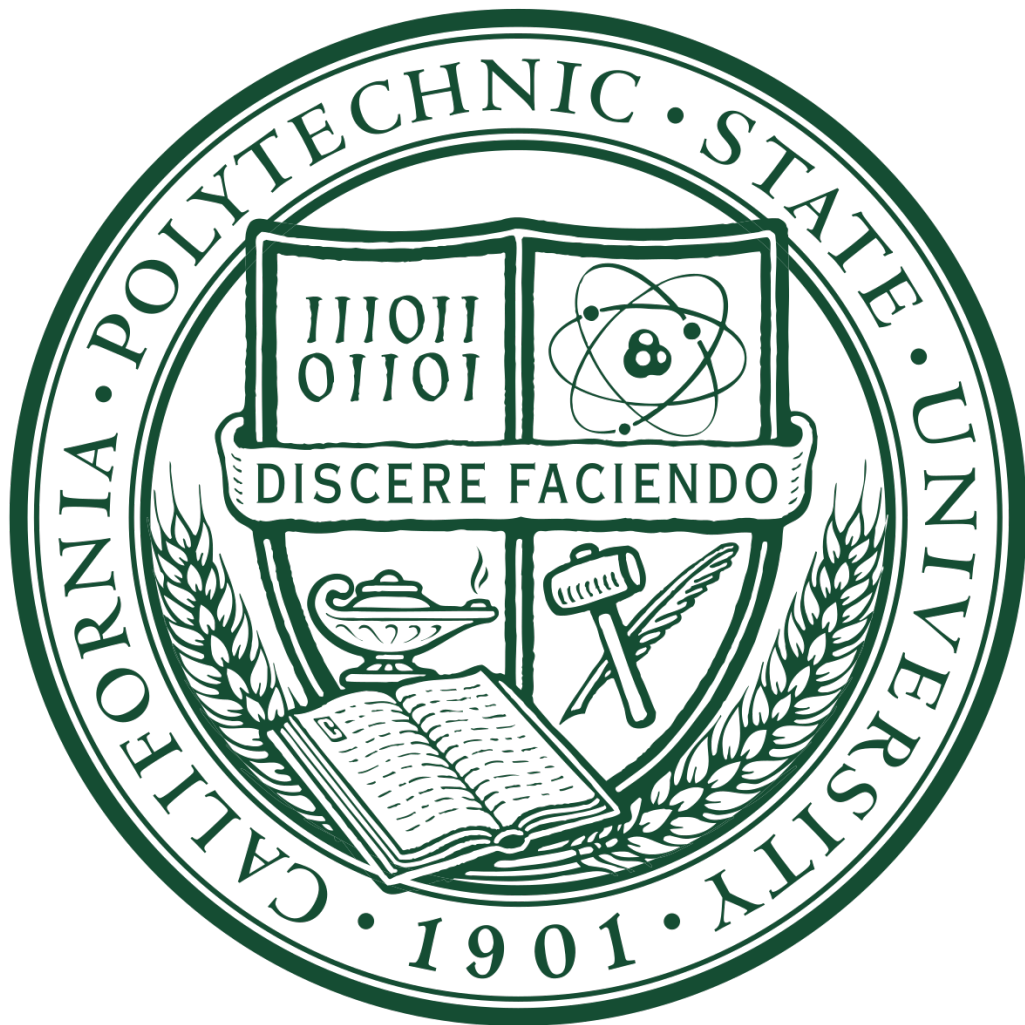
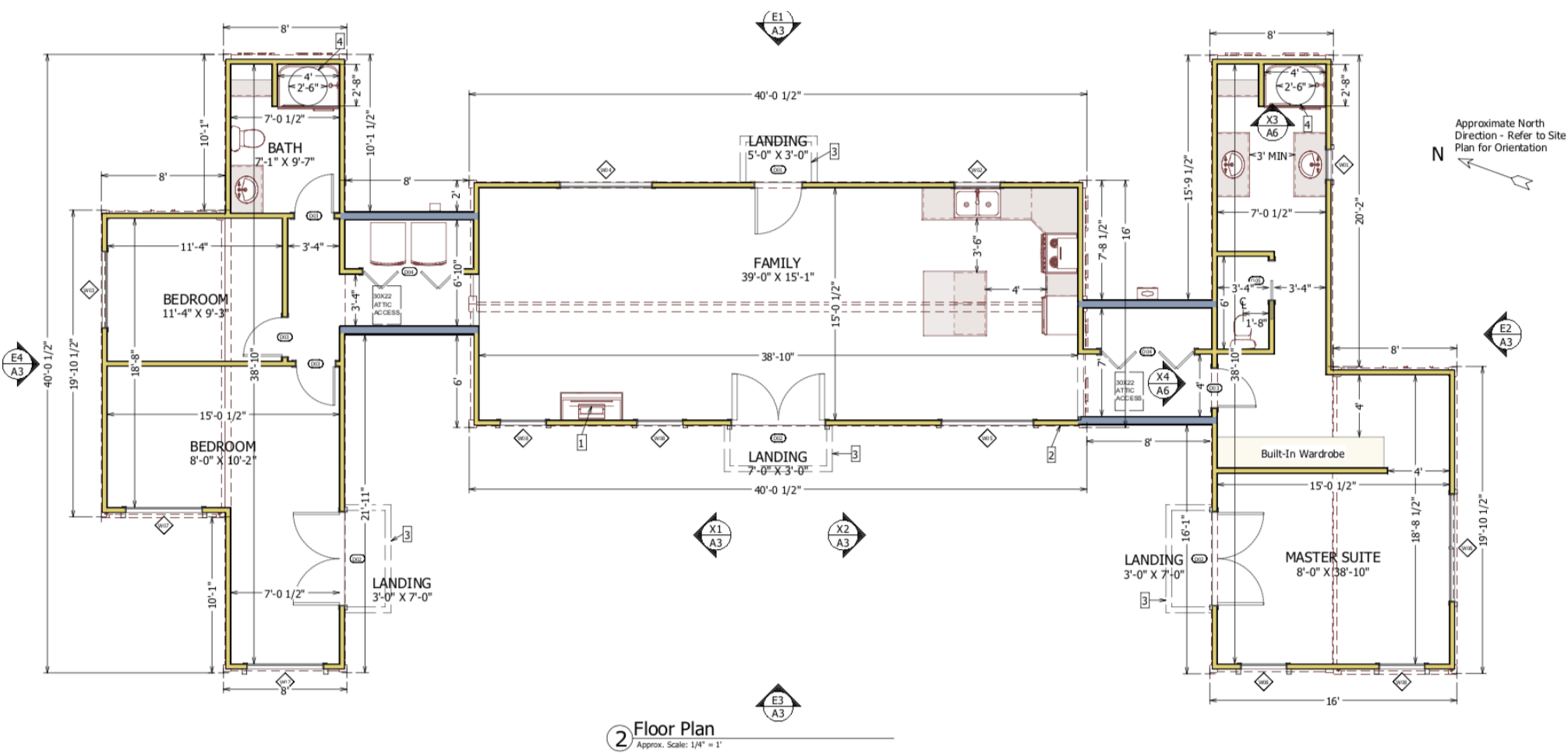
Project Information:

Location - Santa Rosa, CA
Project Size - 1,600 Square Feet
Length of Project - 5 months
Estimated Cost - \$115,000
Actual Cost -

Front Elevation



Plan View



Pros:

- The use of shipping containers in construction allows for a more expedited time-line and can reduce cost of labor overall
- They can be built as modular units, therefore allowing them to be moved in order to provide housing for people in different areas.
- This form of construction is often cheaper and cost effective than traditional ground-up building

Cons:

- Hold-ups in city/county permitting offices due to somewhat unusual nature of container homes
- Can make running utilities through the interior of the home slightly more difficult and limited

Realistic Price for a single 60' Unit
= ~ \$36,000 (\$75/SF)

