


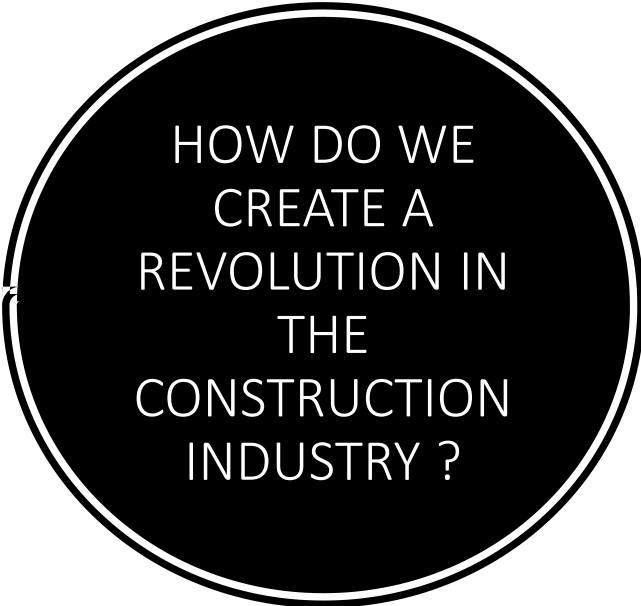
Introduction:

- Jason Landry
- 25 Years in the Engineering and Modular Industry Experience
- 11 years as Director of Engineering at Modular Manufacturer
- Past 4-1/2 years as a Consultant for the Modular Industry
- Expertise in the Design, Engineering, Inspection, and Overall Completion of Modular Buildings



MASS PRODUCTION TECHNOLOGIES FOR MULTIFAMILY DEVELOPMENT

2019 MAINE AFFORDABLE
HOUSING CONFERENCE
AUGUSTA, MAINE
OCTOBER 1, 2019



HOW DO WE
CREATE A
REVOLUTION IN
THE
CONSTRUCTION
INDUSTRY ?

MASS PRODUCTION AND
CUSTOMIZATION

LET ME SHOW YOU MY FAVORITE EXAMPLE THAT
DEMONSTRATES MASS PRODUCTION AND
CUSTOMIZATION TO THE HIGHEST LEVEL

FORD F-150



BEST SELLING TRUCK IN THE UNITED STATES FOR 42 YEARS
BEST SELLING VEHICLE IN THE UNITED STATES FOR 33 YEARS

Why Is This A Great Example of Mass Production and Customization?



XL



XLT



LARIAT



KING RANCH



PLATNIUM



LIMITED



RAPTOR



SO HOW DOES THE
CONSTRUCTION INDUSTRY
CREATE MASS PRODUCTION
AND CUSTOMIZATION?



STANDARDIZATION



CUSTOMIZATION



EDUCATION



INOVATION

STANDARDIZATION

1. Design

- Standard Kitchens
- Standard Bathrooms
- Standard MEP /utility closets

2. Engineering

- Structural Designs
- HVAC Systems

3. Details

- Accessibility items
- Fire rated assemblies
- Cross sections

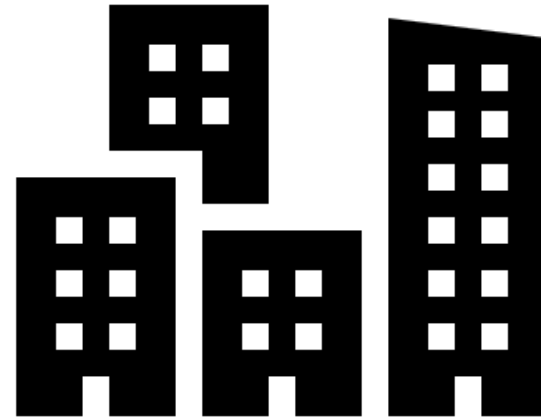
4. Products

- Plumbing fixtures
- Electrical Fixtures

CUSTOMIZATION

1. Options / Trim Packages

- Affordable / Standard / Luxury
- Technology Packages
- Energy Packages



2. Exterior and common areas

- Encourage the architect to focus on the exterior and the common spaces. These are the areas that are most visible to the public and the architect of record can focus on them. Let the MM focus on the unit layouts for they have built them many times.

EDUCATION

1. Developers
2. Design Professionals
3. Contractors /sub-contractors
4. Collaborative Learning



One approach I used to learn the most that I could was to ask the people the were finishing my designs...the factory workers in the MM factory or the sub-contractors on site. They were more than willing to give me constructive criticism and help me understand how to design better so that it was easier for them to construct.

INOVATION

1. How to produce more product
2. How to develop new methods and materials
3. How does the construction industry embrace technology



Why Does Modular Production Lend Itself To Mass Production & Customization ?



Modular Production and Mass Production and Customization:

Mass Production

- Assembly Line Process
- Standard Parameters – Box widths, lengths, heights, framing, MEP
- Standard Materials

Customization

- Trim levels – Affordable, Standard, Luxury
- Option packages, Tech or “Green” packages
- Ability to supply the client with any option they want (almost)– knowing that it comes with a cost premium

Standard Modular Design Elements – Custom Elements



Summary:

The construction industry **NEEDS** to implement the use of technology and mass production to become more efficient and productive

- Labor shortages will drive this change
- Education will help point us in the right direction
- Technology will aid in the growth of the mass production



THANK YOU
FOR MORE INFORMATION
PLEASE CONTACT ME AT
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