

# Industrialized Construction

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# Industrialized Construction

## The application of manufacturing principles to the built environment.

#### Design

Projects can be designed with standardized repeatable, configurable products, assemblies and systems enabling data reuse and standardized processes



#### Construction

Labor is transferred to more controlled factory environments where safety and productivity can be continuously improved by manufacturing standardized products and applying automation



#### Manufacturing

Subcontractors and BP&F have line of sight into demand pipelines of more standardized products enabling better factory utilization and more productivity



ROADMAP TO FUTURE

### Key processes and teams are siloed under traditional construction.

Autodesk will lead the way in connecting them

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#### Design and Make on Al-powered clouds

Imagine a world where design and make happen simultaneously, fueled by the limitless power of the cloud and AI. This means faster innovation, fewer errors, and more sustainable outcomes



#### Digital and physical

We're moving beyond just visualizing designs. We're stepping into them, experiencing them, and operating them in immersive, virtual environments.



#### **Construction and Manufacturing**

The lines between construction and manufacturing are blurring. Buildings are becoming more like complex products, assembled from prefabricated components, with a level of precision and efficiency previously unseen.



## Industrialized Construction

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Design and make are connected throughout the project and product lifecycle





Prefabrication PHYSICAL OUTPUT

A methodology of product manufacture and fabrication away from the jobsite



#### Productization

#### STANDARDIZATION

The application of standardized, repeatable and configurable products or "kits of parts"



#### DfMA

#### CONFIGURATION

Rules based building design process based on productization and enabling prefabrication INFORMED DESIGN

# The transformation will enable continuous improvement

Connecting product and project data on our platform improves project outcomes and increases predictability



## Improving AECO workflows with Industrialized Construction

Industrialized Construction requires a 'Left Shift' approach



## Improving AECO workflows with Industrialized Construction

Idealized IC workflow needs to span both AECO and MFG tools



## Example customer workflow

Existing Customer Workflows are broken



## Enabling collaboration across AECO & MFG

Autodesk tools and platform can bridge the gap



## Informed Design connects AECO & MFG

#### Current Workflow for Informed Design

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# Evolution of Industrialized Construction Technology





## Learn more about Informed Design





Download our White paper here

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