

MC READY MAY 21, 2018

DIG DEEP GO PRO



MC***READY***

Going **PRO**

michiganconstruction.com/goingpro



TODAY'S AGENDA

- 1) THINGS IN PLAY
- 2) SCHEDULE
- 3) TODAY'S



THINGS IN PLAY

HANGING IN THERE

TEAM 2 ROCKS!

- Thanks for hanging in there.
- Keep the commitment – dig deep.



SCHEDULE

A lot happening

MC READY CONST MGMT (MAY 16 - JUNE 15)



Classroom (Mondays & Fridays)

- @MCA Training Center
3130 Pinetree Road
- 10AM – 2:30PM



Hands-On Lab Experience (Wednesdays)

- @Lansing Makers Network
2400 W. St. Joseph St
- 10AM – 2:30PM



TEAM 2 - SCHEDULE

MOVING AROUND



Wednesday, May 23
Resume Workshop @CAMW!
9AM – 11AM



Wednesday, May 23
Hands-On Experience Orientation
@LansingMakersNetwork
Noon – 2:30PM



Friday, May 25
Heavy Equipment Experience
@AISHETI
8:30AM – 3:00PM

TEAM 2 - WEEK OF MAY 26

MOVING AROUND

-  Monday, May 27 - OFF
-  Tuesday, May 28
Introduction to Concrete
@MCA Training Center
10:00AM – 2:30PM
-  Wednesday, May 29
Hands-On Experience
@LansingMakersNetwork
10:00AM – 2:30PM
-  Thursday, May 30
Introduction to Concrete
@MCA Training Center
10:00AM – 2:30PM
-  Friday, June 1
MCR Intro to Const Mgmt
@MCA Training Center
10:00AM – 2:30PM

MICHIGAN CONSTRUCTION SECTORS



RESIDENTIAL

The residential sector builds, remodels, and maintains the buildings where we all live. Approximately 50 percent of residential builders construct new homes or apartments. Remodeling, service, and maintenance comprise the remaining 50 percent of activity in this sector.



COMMERCIAL

The commercial sector builds, remodels, and maintains the buildings where we work, learn, heal, and worship. Also known as nonresidential building construction, the commercial sector represents approximately one-third of overall construction spending on a national level.



INFRASTRUCTURE

The infrastructure sector builds and maintains roads, bridges, water and sewer systems, and other critical public works. Infrastructure workers truly change the world by providing the essential services we humans rely on.



INDUSTRIAL

The most specialized of the subsectors, industrial workers build complex buildings and facilities all around the globe. Power plants, chemical plants, and refineries are built by the industrial construction sector.

TODAY'S PROJECT HIGHLIGHT

La Sagrada Familia
Barcelona, Spain



OBJECTIVES

- Identify and describe the different types of construction.
- List examples of projects for each type of construction.
- Understand the scope and scale of each sector.



INTRODUCTION

- The Construction Industry is composed of generally five different types of construction projects.
 1. Residential
 2. Commercial
 3. Institutional
 4. Industrial
 5. Civil

*According to NEF CIT

RESIDENTIAL

Almost everybody lives somewhere!



RESIDENTIAL

- ❑ Residential Construction is typically thought of as the construction or renovation of one or two family homes.
- Residential construction also include multi-family building complexes such as:
 - <4 Stories



RESIDENTIAL

- ❑ Residential Contractors maybe a small company consisting of only one employee business or a large company with many employees.
 - Small residential companies have a low volume type of business.
 - Large residential companies have millions of dollars worth of construction annually.



RESIDENTIAL

- Residential construction has definite characteristics whether they are small or large construction companies operating them
 - They have very stiff competition.
 - They have low profit margins.
 - They have high numbers of bankruptcies due to the high number of contractors in this sector.



OTHER SUB-SECTORS/COMPETITION



DIY



Handyman



Moonlighting



COMMERCIAL

Your are in one now.

Building Types

 Commercial construction includes many different types of buildings such as:

- Office buildings
- Shopping Centers
- Malls
- Sports Complexes
- Hotels
- Restaurants



TYPES OF OWNERS

 Commercial construction have three primary types of project owners.

– **Private Individuals**

- William Beaumont Hospital
- Champs Pet Foods

– **Corporations**

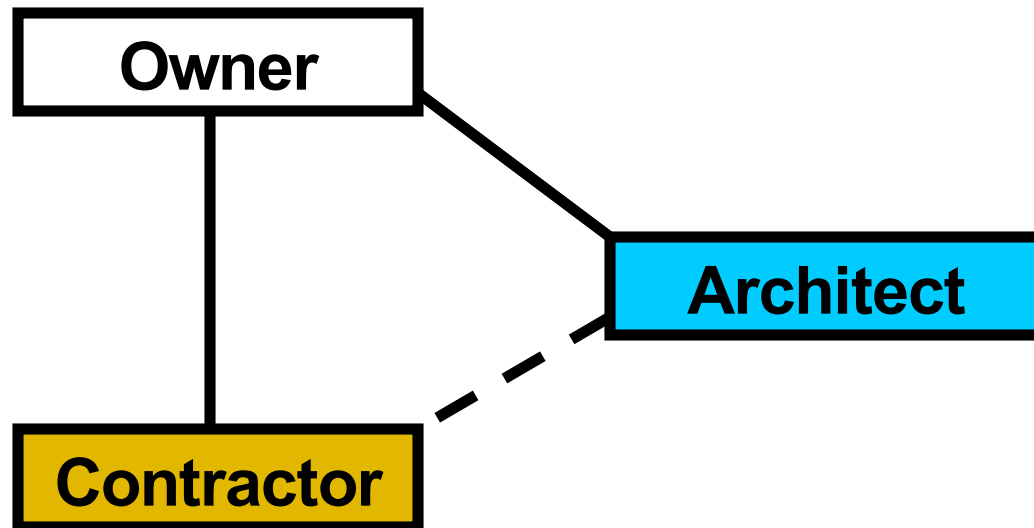
- Chrysler Corporation
- Niowave

– **Governmental Agencies**

- Capital Building
- City of Lansing

CONTRACTUAL PARTIES

- The typical contractual parties involved in commercial projects are the Owner, Contractor and Architect.



PROJECTS

 Classified into three different sizes.

- Small
- Medium
- Large

 Project size based on:

- Complexity of construction.
- Yearly dollar volume of work completed.
- The number of workers required.

OWNERS

 Institutional construction projects are typically constructed for either the government or a private owner.

– **Governmental Owners:**

- Schools
- Colleges
- Correctional facilities
- Courthouses


– **Private Owners:**

- Hospitals

Institutional

Large organizations.

HIGH STANDARDS



The standards required for the design and construction of different institutional projects may differ between the projects, even if the facility serve the same purpose.

- They may require higher design standards and special installation methods.

- Example: Healthcare facilities in the state of Michigan must meet criteria from the Minimum Standards of Construction and Equipment for Hospital and Medical Care Facilities.

- [https://www.michigan.gov/lara/0.4601.7-154-10575_17394_80018_80023---.00.html](https://www.michigan.gov/lara/0,4601.7-154-10575_17394_80018_80023---.00.html)

Industrial

The most complex of project types.

PROJECT TYPES

 Industrial construction includes the following types of facilities:

- Manufacturing Facilities

- Mark IV Industries – Big Rapids, Michigan

- Processing Plants

- Kellogg's Cereal – Battle Creek, Michigan

- Power Generating Plants

- Davis-Besse - Oak Harbor, Ohio

- Factories

- Ford Truck Assembly – Louisville, Kentucky



OWNERS

 Industrial construction projects are typically constructed for either the a corporation or a private owner.

- The projects are distinguishable by:
 - Their complex installations.
 - Specialized equipment to be installed.
 - The size of the project is generally large in scale.



ENGINEERS

 Industrial projects are generally designed by a registered Professional Engineer.

- Architects are not the main design entity, unlike commercial and institutional



Civil

Earthworks

PROJECT TYPES

 Civil construction projects includes projects of:

- Sewage and Water Treatment Plants
- Roads and Bridges
- Dams, Tunnels and Railroads
- Mass Transit
- Underground Utility Work
- Land reclamation projects




OWNERS

 Civil construction projects are typically constructed for governmental agencies such as:

- Cities
- Counties
- States
- Federal Agencies



ENGINEERS

 Civil projects are generally designed by a registered Professional Civil or Structural Engineer.

- Architects rarely have an active role in civil construction.

 Civil construction projects typically utilize large quantities of one specific material.

– Examples?

CAREER OPTIONS

 Various areas within the industry one can find employment in construction.

- Entrepreneur
- Management
- Design
- Skilled Trades
- Sales or Marketing
- Manufacturing/Supply/Distribution





Management Professionals

Executive Management

Construction Managers

Project Managers

Construction Estimators

Superintendents

Project Engineers/Contract
Administrators

Energy Managers



Design Professionals

Architects

Design
Architects

Architectural
Technicians

Specification
Writers

Engineers

Structural

Mechanical

Electrical

Civil

Energy

Interior
Designers

Landscape
Architects



Construction Skilled Trades

Carpenters

Electricians

Plumbers

Ironworkers

Glaziers

Etc.

UNION DEFINED

 19 Categories



<http://miconstructioncareers.org>

CONSTRUCTION TERMS

-  Civil Construction
-  Commercial Construction
-  Industrial Construction
-  Institutional Construction
-  Owner
 - Private, Corporate, Government Agencies
-  Architect
-  Designers
 - Professional Engineers, Interior Designers, etc
-  Contractor
-  Subcontractor
-  Vendor



MICHIGAN
CONSTRUCTION

MICHIGAN CONSTRUCTION FOUNDATION

2937 Atrium Drive, Suite 200

Okemos, MI 48864

www.MichiganConstruction.com

info@michiganconstruction.com

(844) 200 - 4838