The purpose of this report is to inform readers of developing economic conditions impacting the design and construction industry and to provide interim guidance on FMI’s construction put in place forecasts.

The information presented herein was captured between March 15 and April 27 and comprises a combination of secondary and primary sources, including a recent survey of Construction Industry Round Table (CIRT) member firms. CIRT is composed exclusively of leading architectural, engineering and construction firms doing business in the United States.

### Highlights
- FMI’s Q2 forecast revisions will exhibit LOWER construction put in place spending levels.
- EXTENDED ECONOMIC DISRUPTIONS are anticipated due to ongoing regulation/work from home provisions, unemployment and troubles in the O&G industry.
- Across the U.S., the Northeast will experience the largest and broadest near-term construction declines, followed by economic pockets of the West and South.
- Residential, lodging, office, commercial, education and power are all expected to experience ongoing and significant near-term and midterm challenges.

### Key Indicators

<table>
<thead>
<tr>
<th></th>
<th>As of March 2020</th>
<th>As of April 2020</th>
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</thead>
<tbody>
<tr>
<td>Single-Family Housing Starts (000s)</td>
<td>1,037</td>
<td>856</td>
</tr>
<tr>
<td>Multifamily Housing Permits (000s)</td>
<td>527</td>
<td>360</td>
</tr>
<tr>
<td>Initial Jobless Claims (monthly totals)</td>
<td>9.3M</td>
<td>11.2M</td>
</tr>
<tr>
<td>Insured Unemployment Rate (NSA)</td>
<td>1.4%</td>
<td>11.3%</td>
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<tr>
<td>Unemployment</td>
<td>3.5%</td>
<td>4.4%</td>
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<tr>
<td>Construction Unemployment</td>
<td>5.2%</td>
<td>6.9%</td>
</tr>
<tr>
<td>ISM Purchasing Manager’s Index</td>
<td>50.1</td>
<td>49.1</td>
</tr>
<tr>
<td>AIA Architectural Billing Index</td>
<td>53.4</td>
<td>33.3</td>
</tr>
<tr>
<td>WTI Oil Price ($/per barrel)</td>
<td>29.2</td>
<td>12.2</td>
</tr>
</tbody>
</table>

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### Residential
- Single-Family and Multifamily Residential
  - Demand and buyer confidence have receded alongside an abrupt rise in unemployment
  - Expect far fewer housing starts well into 2021; buying and moving activity has stalled across the country

### Nonresidential Buildings
- Lodging, Office and Commercial
  - Revenue per available room (RevPar) is down 52% from March 2019; occupancy rates are down 42%
  - Accelerated shift into suburban markets following trends in residential; lower demand for office space

- Educational
  - Significantly reduced revenues/returns in private K-12 and higher education will directly impact capital plans

- Transportation
  - Travel restrictions and COVID-19 related fear have cut near-term momentum for large-scale investment

- Communication
  - Increased demand for online presence across multiple industries

- Manufacturing
  - Oil prices sit at 21-year lows, dramatically impacting ongoing and planned refining and chemical projects

### Nonbuilding Structures
- Power
  - Oil price collapse will influence restructure within the O&G industry; near-term reductions in capital spending

- Highway and Street and Water/Wastewater
  - States and municipalities are quickly running out of reserves to fund ongoing and planned projects
  - AASHTO expects declines of ~30% in state transportation revenues over the next 18 months

Sources: Census, NAHB, FRED, DOL, BLS, ISM, AIA and OilPrice.com
Geographic Impact on Construction Put in Place
Reported COVID-19 Cases, State Regulations and Initial Jobless Claims

Regulation Limiting Construction Activity and Reported COVID-19 Cases/1,000 People by State

Top 3 States – Share of Total U.S. Total Reported U.S. COVID-19 Cases
New York 30%
New Jersey 11%
Massachusetts 6%

Emergency includes upkeep and safety along with some health care.
Essential includes upkeep and safety along with some residential, infrastructure, public works, energy, health care and communications.

Recent Jobless Claims / Employment by State and 2019 Construction Put in Place (CPiP) by Metropolitan Area

Top 3 States – Share of Total U.S. Jobless Claims
California 14%
Pennsylvania 6%
New York 6%

Top 3 States – Share of Total U.S. CPiP $ (2019)
California 13%
Texas 12%
Florida 7%

Sources: FMI and DOL
Data Sourced April 27, 2020
Construction Industry Round Table
Biweekly Current Issues Survey — Summary Results

The Construction Industry Round Table (CIRT) is composed exclusively of approximately 125-130 CEOs from the leading architectural, engineering and construction firms doing business in the United States. CIRT is an organization that is uniquely situated to represent the richly diverse and dynamic design/construction community.

During the week of April 11-17, CIRT members were questioned regarding observed changes in demand for design and construction services since March 1, along with their organization’s response. In summary, the below illustrates that private sectors of the industry, including lodging, commercial and office, have been hit hard, both in terms of revenue and schedule impact. Not surprisingly, the impact is identified largely as the combined effect of our current economic climate, imposed state regulations on construction activity and a general decline in labor productivity.

Since March 1, 2020

Identify where you have seen changing demand for design and construction services. (Select all that apply)

- Projects postponed or halted due to shifting owner and/or economy-related demand dynamics: 67%
- Projects postponed or halted due to state and local restrictions: 63%
- Decline in labor productivity: 57%
- Projects canceled due to shifting owner and/or economy-related demand dynamics: 33%
- Limited availability of supporting resources: 24%
- Projects postponed or halted due to resource availability: 17%
- Other: 4%

How have the various economic disruptions impacted 2020 year-end design and construction for each of the following sectors:

<table>
<thead>
<tr>
<th>REVENUES</th>
<th>SCHEDULES</th>
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<tbody>
<tr>
<td>Percent Change</td>
<td>Months Extended</td>
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</table>

<table>
<thead>
<tr>
<th>Sector</th>
<th>-100%</th>
<th>-50%</th>
<th>0%</th>
<th>50%</th>
<th>Unchanged</th>
<th>1-3</th>
<th>3-6</th>
<th>6-12</th>
<th>Indefinitely</th>
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<tbody>
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<td>Commercial</td>
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Average Response
Response Range
CIRT members were asked what actions their organization had taken in response to economic disruptions originally in March 18th-March 27th, and then again April 11th-April 17th. The largest differences seen in comparing those findings were the share of organizations reducing staff or overhead (+21%) and those extending project schedules (+19%). Over time, fewer organizations are postponing business meetings and/or limiting business development. “Other” responses include a mix of hiring freezes, delayed salary adjustments and pay reductions.

How has your organization responded to the convergence of those economic disruptions (e.g., COVID-19, depressed oil prices and market volatility)? (Select all that apply)

- Limited business travel
- Limited staff exposure on-site and/or in office
- Postponed spending decisions
- Postponed business meetings
- Extended project schedules
- Reduced staff and overhead
- Limited business development efforts
- Postponed spending decisions
- Deferred commitments to future work
- Other

Survey dates: March 18-27, April 11-17

Have you begun the process of furloughing or reducing staff?

- Yes 40%
- No 31%
- Not Yet 29%

Of those who answered YES:

- 50% targeted hourly wage staff in the reduction, and 39% reported that the process included everyone. (Leaving only 11% whom did not report cutting hourly wage staff.)
- Those hourly wage staff cuts represent:
  - An average of 17% of all respondents’ hourly wage staff.
  - The median reported value is 10%, the maximum reported value was 66%, and the lowest at just 1%.

As part of the CARES Act passed in Congress, the federal government will be expanding or adding $600 to the weekly unemployment insurance (UI) payments for four months. (The estimate is about $23.15 per hour across the nation, irrespective of local prevailing hourly wage rates.)

Do you believe this will cause concerns or problems for you in terms of putting pressure on increasing hourly wage rates permanently?

- Yes 18%
- No 39%
- Not Sure 43%

When asked if this was a major problem in getting people back to work, 44% of respondents said NO, 30% said YES, while the remaining 26% were unsure.