Beyond 2012: Recovery in the Construction Market

Nicholas Coppola
Senior Equity Analyst
Thompson Research Group
I. TRG Overview
   • Service Offerings
     ▫ Public company coverage
     ▫ Private consulting projects

II. Where We’ve Been
   • Contraction
     ▫ Impact on non-res, res and public construction
   • Trough
     ▫ Trends as we bounce off bottom

III. Where We Are Going
   • Rebound
     ▫ Timing and slope of the recovery
TRG Overview

Section 1
Who is Thompson Research Group?

- Specialized research firm in the construction industry
- Differentiated by:
  - Deep industry expertise
  - Relationships with industry contacts across value chain including both public and private companies
  - Unique Washington D.C. and state government contact network
- Provide research for institutional investors
- Provide consulting services for private companies
# Public Company Coverage

## Basic Building Materials

<table>
<thead>
<tr>
<th>Ticker</th>
<th>Company name</th>
</tr>
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<tbody>
<tr>
<td>EXP</td>
<td>Eagle Materials</td>
</tr>
<tr>
<td>MLM</td>
<td>Martin Marietta</td>
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<td>TXI</td>
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<td>VMC</td>
<td>Vulcan Materials</td>
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## Construction Equipment

<table>
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<tr>
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<tbody>
<tr>
<td>ASTE</td>
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<td>HEE</td>
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<td>RRR</td>
<td>RSC Holdings</td>
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<td>URI</td>
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## Building Products

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<td>BECN</td>
<td>Beacon Roofing</td>
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<td>IFSIA</td>
<td>Interface</td>
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<td>MHK</td>
<td>Mohawk Industries</td>
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<td>OC</td>
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<td>USG</td>
<td>USG Corp</td>
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## Engineering & Construction

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<td>EME</td>
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<tr>
<td>GVA</td>
<td>Granite Construction</td>
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<td>STRL</td>
<td>Sterling Construction</td>
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## Diversified Industrials

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<td>MG</td>
<td>Mistras Group Inc.</td>
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<tr>
<td>IPGP</td>
<td>IPG Photonics</td>
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</table>
## Service Offerings for Private Companies

<table>
<thead>
<tr>
<th>Service Offerings</th>
<th>Description</th>
</tr>
</thead>
</table>
| Market Assessment | - Estimate market size, analyze industry segmentation, and competitive threats  
- Evaluate value-chain including significant funding sources and growth drivers  
- Interview existing customers and suppliers to determine competitive position |
| Market Expansion | - Research key drivers of potential expansion markets  
- Assess risk/reward and alignment with existing core competencies  
- Identify relevant trends with a differentiated focus on regulatory change |
| Geographic Expansion | - Conduct regional research to determine economic growth outlook  
- Research regional product pricing trends  
- Create road map to identify potential areas of expansion |
| Product Adoption | - Forecast market penetration for relevant products and services  
- Identify current product adoption levels and predict market potential  
- Analyze order qualifying and order winning criteria |
| Policy & Regulatory | - Identify opportunities and threats from the regulatory environment  
- Conduct forward-looking research utilizing proprietary government contacts  
- Sector examples: For-profit education, Highway Construction, Energy, Defense |
The Primary Research Process

- Divide the construction industry into three end-markets
- Leverage industry contacts across the value chain to identify trends
- Publish seven quarterly and one monthly survey
  - Equipment Rental Survey
  - Auction and Appraisal Survey
  - Contractor Survey
  - Surety Survey
  - Aggregate and Cement Survey
  - State DOT Survey
  - Building Products Survey
  - RV Dealer Survey
Where We’ve Been

Section 2
Total Construction

Peak to trough -37.2%
### Current Construction Market Size

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Total Size of US Economy</td>
<td>$13.4 Trillion</td>
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<tr>
<td>Current Construction Spend</td>
<td>$808.9 Billion</td>
</tr>
<tr>
<td>Non-Residential/Residential Spend</td>
<td>$555.4 Billion</td>
</tr>
</tbody>
</table>
Residential Construction

Peak to Trough -65.9%
Starts/Permits Near Trough

**Total Housing Starts**

- Peak to trough: -77.3%

**Total Housing Permits**

- Peak to trough: -79.0%
Non-Residential Construction

Peak to Trough -27.5%
Non-res by Category YOY

<table>
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<tr>
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<tr>
<td>Total Non Res</td>
<td>-6.9%</td>
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<td>-0.1%</td>
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<td>-0.5%</td>
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<td>7.6%</td>
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<td>-29.5%</td>
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<td>-23.8%</td>
<td>-23.3%</td>
<td>-17.8%</td>
<td>-15.7%</td>
<td>-12.8%</td>
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<td>-9.4%</td>
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<tr>
<td>Office</td>
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<td>-5.3%</td>
<td>-7.0%</td>
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<td>12.1%</td>
<td>12.0%</td>
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<td>12.7%</td>
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<td>3.8%</td>
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<td>-4.8%</td>
<td>-1.3%</td>
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<td>-6.4%</td>
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<td>-24.6%</td>
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<td>-12.5%</td>
<td>-18.7%</td>
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<td>Public safety</td>
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<td>11.4%</td>
<td>11.4%</td>
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<tr>
<td>Amusement and recreation</td>
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<td>-14.9%</td>
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<td>-9.5%</td>
<td>-10.3%</td>
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<td>Transportation</td>
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<td>Power</td>
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<td>19.7%</td>
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<td>5.4%</td>
<td>12.9%</td>
<td>24.0%</td>
<td>22.1%</td>
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<tr>
<td>Highway and street</td>
<td>-2.1%</td>
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<td>-6.9%</td>
<td>-8.3%</td>
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<td>-6.6%</td>
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<td>-0.1%</td>
<td>1.8%</td>
<td>0.5%</td>
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<tr>
<td>Sewage and waste disposal</td>
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<td>-8.9%</td>
<td>-8.0%</td>
<td>-10.9%</td>
<td>-14.0%</td>
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<td>-14.3%</td>
<td>-16.1%</td>
<td>-6.8%</td>
<td>-2.7%</td>
<td>2.0%</td>
<td>4.2%</td>
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<tr>
<td>Water supply</td>
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<td>-9.9%</td>
<td>-13.8%</td>
<td>-18.1%</td>
<td>-11.7%</td>
<td>-10.8%</td>
<td>-9.8%</td>
<td>-9.1%</td>
<td>-9.9%</td>
<td>-8.9%</td>
<td>-7.4%</td>
<td>-7.0%</td>
</tr>
<tr>
<td>Conservation and development</td>
<td>18.4%</td>
<td>11.7%</td>
<td>11.5%</td>
<td>-10.2%</td>
<td>0.5%</td>
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<tr>
<td>Manufacturing</td>
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<td>-26.5%</td>
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<td>13.3%</td>
<td>20.5%</td>
<td>23.6%</td>
<td>47.1%</td>
<td>41.4%</td>
<td>40.3%</td>
</tr>
</tbody>
</table>

- Increases in 8 of 16 categories in February
  - Manufacturing, Power, Public Safety, Healthcare, Commercial, Sewage and waste disposal, Educational and Highway and Street
What's wrong with the American recovery?

“I don't think we're about to move into a double dip, so to speak, but we're certainly growing at a subnormal rate. And statistically the reason is very simple.

Construction, which in every other recovery since 1949 has been extraordinary, positive, and very supportive of the economy, has barely moved.”

- Alan Greenspan, Businessweek, June 2011
What does Wall Street think about the construction industry?
Cyclical Industry

S&P 500 vs. S&P Global Industrials Index
GDP vs. Non-res PIP
State of the Economy

- US GDP
- Real Personal Consumption
- DJIA
- Industrial Production
- Capacity Utilization
- Employment
US GDP, 2005 - 2011 in billions of chained 2005 dollars

Only grew $103B or 0.8% over the last four years.
GDP - The Long View
Uncertainty = Slow Recovery

Sources of Uncertainty

- European debt crises
- Presidential election
- Higher Taxes
- Regulatory
- Weak state finances
- Persistent unemployment
- Rising healthcare costs
- Raw material increases
- China slowing economy to avoid overheating
GDP – Uncertainty Persists

Growth?

- Exports modestly better, but still a trade deficit
- Previously offset other declines, but starting to roll-over
- Limited visibility hampering corporate spending
- Muted recovery in demand due to still weak household balance sheets and unemployment

GDP = private consumption + investment + government spending + (exports − imports)
Consumer Has Made Progress

Real Personal Consumption

Dow Jones Industrial Average

$170B or 1.8% over peak

94.3%
Households Over-levered

Total Credit Market Instruments – Balance Sheet of Households & Non-Profits
Industrial Production

Industrial Production

Bottomed in June 2009, showing a recovery

Industrial Capacity Utilization
Employment - Trends Are Better

**Initial Jobless Claims**

- Jan-07: 200,000
- Jan-08: 300,000
- Jan-09: 400,000
- Jan-10: 500,000
- Jan-11: 600,000
- Jan-12: 700,000

**Unemployment Rate**

- May-07: 2.0%
- May-08: 4.0%
- May-09: 6.0%
- May-10: 8.0%
- May-11: 10.0%

* Defined as someone who does not have a job, has actively looked for work in the past four weeks, and is currently available for work
Civilian Employment Ratio

1. Adds all persons marginally attached to the labor force, plus total employed part time for economic reasons

2. Proportion of the country’s working age population employed
Still down 2.2MM jobs or 28.2% from peak
This Ain’t Our First Recession

Recession Stats

- U.S. has experienced 10 recessions from 1946-2006
- Average length of recessions ranged from 6 months to 16 months, overall averaging 10.5 months
- The 2007-09 recession was the longest in post-war period – 18 months
- 8 million jobs lost – 2 million in construction alone

GDP Growth: 1923-2009

ABC Backlog Index

National Backlog Average
Q1 2009 - Q4 2011

©Associated Builders and Contractors, Construction Backlog Indicator
Q1’12 Contractor Survey

Positive Signs Emerging

• Still conservative, but incrementally more positive
• Bidding activity picking up
  ▫ Construction activity picking up from trough levels
• Margins down significantly from peak, but bouncing off the bottom
• 2012 backlog outlook modestly better
• Pull-forward demand from positive weather yet to be determined
• Fewer fleet managers purchasing equipment
• More equipment rental
• While we are seeing incremental improvement in construction, the BIG caveat is that performance is region and sector specific.

Better performing areas include the following:
- Energy
- Data centers
- Healthcare
- Multi-family
- Repair and remodel
- Gulf coast
- TX, ND

Areas of weakness include the following:
- Public construction
  - Highway
  - Water (i.e., filtration, treatment, supply plants, water pipelines/tunnels, pump stations, storage tanks/towers)
  - Transportation (i.e., runways and terminals, rail and mass transit, marinas, dry docks, maritime freight terminals)
  - Conservation and Development (i.e., irrigation facilities, non-power dams, locks, gates, retaining walls, dredging)
- CA, NV, AZ, FL
Q1’12 Surety Survey

- Despite the incremental improvement in demand, contractors balance sheets remain depressed
  - Contractors chock full of low/no margin backlog won throughout the downturn
  - Uptick in number of accounts not passing financial tests
- Credit environment still tight
- Bonding requirements more stringent
- Larger contractors better positioned to survive current market conditions with better balance sheets and greater pricing discipline
- Fewer contractor failures than anticipated thus far. We continue to hear feedback that contractor failures are expected in the near-term.
- Contractors are renting more
Q1’12 Auction/Appraisal

• Equipment values trending higher
  ▫ Early cycle categories (i.e., dozers, excavators) doing relatively better

• Expectations for 2012 calls for further improvement
  ▫ Tight supply of late-model equipment pushing prices upward
  ▫ Used demand higher due to Tier IV regulations
  ▫ Equipment demand supported by secular growth story in emerging markets and incrementally better construction activity domestically

• Contractors are renting more, and are also signing up for shorter leases
Q1’12 Rental Survey

- Equipment utilization and rate continuing to trend upward
- Expectations call for further improvement in 2012
- Secular shift occurring
  - Lack of visibility
  - Bonding
  - Severe delay of capex
  - Traveling further to work
  - Aggressive bidding
  - Tight credit environment likely to continue
- Capital constraints benefitting larger companies
- More rental house closures occurring
United Rentals Performance

URI Stock Performance
Feedback at TRG’s Core13 States

• General Fund Revenue collections fell in December for the 3rd consecutive month after 14 consecutive increases. Still down meaningfully from prior highs.
  ▫ Sources of improvement include consumers beginning to spend again and a long-term outlook for historically low interest rates
  ▫ Unemployment continues to be a major concern
• Fuel tax collections increased 3.2% YOY after four consecutive declines
  ▫ Fuel efficiency and unemployment remain issues
• State contacts expect more of the same.
• Survey of state DOTs indicated a 4.4% budget decrease for our core 13 states this fiscal year
## Construction Employment by State

### 10 Largest Drops Peak to Trough

<table>
<thead>
<tr>
<th></th>
<th>State</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nevada</td>
<td>-66.5%</td>
</tr>
<tr>
<td>2</td>
<td>Arizona</td>
<td>-55.2%</td>
</tr>
<tr>
<td>3</td>
<td>Florida</td>
<td>-53.6%</td>
</tr>
<tr>
<td>4</td>
<td>Delaware</td>
<td>-48.7%</td>
</tr>
<tr>
<td>5</td>
<td>Idaho</td>
<td>-45.6%</td>
</tr>
<tr>
<td>6</td>
<td>California</td>
<td>-42.4%</td>
</tr>
<tr>
<td>7</td>
<td>South Carolina</td>
<td>-41.7%</td>
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<tr>
<td>8</td>
<td>Utah</td>
<td>-39.5%</td>
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<tr>
<td>9</td>
<td>Michigan</td>
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<tr>
<td>10</td>
<td>Georgia</td>
<td>-37.6%</td>
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### 10 Biggest Rebounds Trough to Peak

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<th>Percentage</th>
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<tr>
<td>1</td>
<td>North Dakota</td>
<td>54.1%</td>
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<tr>
<td>2</td>
<td>Minnesota</td>
<td>11.4%</td>
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<tr>
<td>3</td>
<td>West Virginia</td>
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<tr>
<td>4</td>
<td>Iowa</td>
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<td>5</td>
<td>New Hampshire</td>
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<td>Indiana</td>
<td>9.4%</td>
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<tr>
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<td>Maryland</td>
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<td>Montana</td>
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<td>9</td>
<td>Arizona</td>
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<tr>
<td>10</td>
<td>Vermont</td>
<td>6.9%</td>
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### 10 Smallest Drops Peak to Trough

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<tbody>
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<td>-10.9%</td>
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<td>Pennsylvania</td>
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<td>9</td>
<td>Iowa</td>
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<tr>
<td>10</td>
<td>Kansas</td>
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### 10 Weakest Rebounds Trough to Peak

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</tr>
<tr>
<td>2</td>
<td>Georgia</td>
<td>0.0%</td>
</tr>
<tr>
<td>3</td>
<td>Hawaii</td>
<td>0.0%</td>
</tr>
<tr>
<td>4</td>
<td>Nevada</td>
<td>0.0%</td>
</tr>
<tr>
<td>5</td>
<td>New Mexico</td>
<td>0.0%</td>
</tr>
<tr>
<td>6</td>
<td>Rhode Island</td>
<td>0.0%</td>
</tr>
<tr>
<td>7</td>
<td>Florida</td>
<td>0.2%</td>
</tr>
<tr>
<td>8</td>
<td>Mississippi</td>
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</tr>
<tr>
<td>9</td>
<td>Alaska</td>
<td>0.7%</td>
</tr>
<tr>
<td>10</td>
<td>New Jersey</td>
<td>1.0%</td>
</tr>
</tbody>
</table>
Revenue Outlook

Lower federal and state spending
- Austerity a focus politically
- Highway Bill – flat at best

Muted recovery in residential and non-residential
- Shadow inventory overhangs housing
- Slowing rates of household formation
- Persistent unemployment
- Parts of non-residential remain overbuilt

General lack of visibility
- Environmental regulations continue to change
- Demand continues to fluctuate
- European debt woes
- Slowing Chinese economy

Continued Tepid Recovery
## TRG Construction Forecast

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012E</th>
<th>2013E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>248,706</td>
<td>244,391</td>
<td>268,602</td>
<td>295,463</td>
</tr>
<tr>
<td>YoY Change</td>
<td>-1.9%</td>
<td>-1.7%</td>
<td>8.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Non-Residential</td>
<td>384,375</td>
<td>382,924</td>
<td>410,651</td>
<td>447,747</td>
</tr>
<tr>
<td>YoY Change</td>
<td>-21.1%</td>
<td>-0.4%</td>
<td>7.2%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Public</td>
<td>167,974</td>
<td>157,173</td>
<td>153,478</td>
<td>156,595</td>
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<tr>
<td>YoY Change</td>
<td>1.7%</td>
<td>-6.4%</td>
<td>-2.4%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Total</td>
<td>801,055</td>
<td>784,488</td>
<td>832,731</td>
<td>899,805</td>
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<tr>
<td>YoY Change</td>
<td>-11.5%</td>
<td>-2.1%</td>
<td>6.1%</td>
<td>8.1%</td>
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</tbody>
</table>

### Better Performing Sectors
- Power Generation
- Healthcare
- Data Centers
- Manufacturing – in some geographies
- Energy
Secular Shifts in Market Structure

- Energy efficiency
  - LEED certification for new buildings
- Modular vs. traditional flooring
  - Easier to install and maintain
- Growing composite use
  - Displacement material – science/economics are converging
- Building Information Modeling
  - Improve cost effectiveness of building
- Shale gas, domestic drilling and fracking
  - Needs additional infrastructure to support
  - Big pipeline projects
Cost Structure Transformation

- **Asset light**
  - Less asset ownership and more use of rental
  - Give up fixed leverage in up-cycle to better manage swings of down-cycle
- **Increased outsourcing to “variabilize” cost structure**
  - Line item evaluation of capital spend, now seeing even in maintenance budgets
  - Example: Armstrong World Ind. – outsourcing forklift fleet to a rental company
- **Production efficiency**
  - New capital purchases to improve efficiencies
  - On-going Lean transformation to improve throughput
- **Energy efficiency**
  - Look for ways to lower energy costs in an NPV positive manner
- **Materials substitute**
  - Recycled Asphalt Pavement
  - Fly Ash for concrete
  - Alternatives for key minerals (titanium oxide, rare earth, etc.)
Forced Capital Investment

- Still in early innings of an equipment replacement cycle
- Many companies delayed and neglected maintenance capital spend during downturn
- Near cessation of capital spending setting up meaningful pent-up demand
- Could see supply chain constraints as demand begins to flow through
Q&A
Nicholas Coppola
Senior Analyst
ncoppola@thompsonresearchgroup.com
615.891.6204