**Low/Mid-Rise Building Opportunities in North Carolina**

**SITUATION**

As is the case in most states, concrete’s share of floor area compared to steel and wood in North Carolina has decreased over the last several years compared to competing materials. Per Dodge construction data, market share of concrete for low/mid-rise buildings in North Carolina has dropped from 20% to 11% over the last 13 years. Wood has increase from 26% to around 28% and steel has increased from 39% to 40%.

![Graph showing market share of floor area 1-7 stories from 2004 to 2016 for concrete, steel, and wood.]

To combat this loss of market share, the Build with Strength program has four main strategies:

- Direct Project Promotion
- Education
- Advocacy
- Public Affairs and Communications

The following evaluation and recommendations represent NRMCA’s assessment of the current situation in North Carolina and offers some estimate of cost of implementing components of the Build with Strength program. The best approach would be to implement all the strategies presented here. However,
there is no reason why CRMCA couldn’t implement one or two of the strategies (Project Promotion and Education for example) if it were determined that CRMCA does not have the resources to implement the Advocacy component.

**DIRECT PROJECT PROMOTION OPPORTUNITIES**

**Dodge Data**
Using historical Dodge Data, NRMCA determined that concrete construction is cost competitive with wood frame and steel construction in North Carolina:

1-7 Stories 2013-16
One-Family, 2-Family, Apartments, Dormitories, Hotel and Motels

- Concrete $91.22/sf
- Steel $121.02/sf
- Wood $89.22/sf

Concrete is 2.2% increase over wood
Steel is 35.6% increase over wood

**RSMeans**
Using RSMeans for a typical 100,000 square foot apartment building in Charlotte, NRMCA determined that concrete construction is very competitive (within 3%) in North Carolina (see attached cost estimate).

**Dodge Pipeline**
Using Dodge Pipeline, NRMCA evaluated three areas in North Carolina to determine the opportunities for concrete in building construction. The evaluation was based on the following search criteria:

**Search Criteria**

1. Project Value: $10M+
2. Building type: Multi-family Residential (including parking garages)
3. Multi-Residential: Apartments/Condos 4+ Stories; Apartments/Condos 1-3 Stories; Hotel/Motel; Dormitory
4. Stages: Schematic Design
5. State: North Carolina
6. Metropolitan Areas and Counties:
   a. Charlotte
   b. Raleigh-Durham
   c. Greensboro

**Charlotte**

(79) Multi-Residential Projects – Value: $ 1.1B
Apartments/Condos 4+ Stories – 15 Projects
Apartments/Condos 1-3 Stories – 50 Projects
Hotel/Motel – 14 Projects
Dormitory – 0 Projects

Representative Charlotte Area Developments in the Schematic Design Phase

<table>
<thead>
<tr>
<th>OWNER</th>
<th>PROJECT</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZOM Living LLC</td>
<td>Hazel SouthPark Apartments</td>
<td>$78M</td>
</tr>
<tr>
<td>NRP Group</td>
<td>Old Concord Apartments at the Blue Line</td>
<td>$30M</td>
</tr>
<tr>
<td>Southminster Inc.</td>
<td>Southminster Retirement Community</td>
<td>$15M</td>
</tr>
<tr>
<td>Cole Jenest and Stone PA</td>
<td>Robins Park Hotel</td>
<td>$15M</td>
</tr>
</tbody>
</table>

Raleigh-Durham

(55) Multi-Residential Projects – Value: $760m

Apartments/Condos 4+ Stories – 13 Projects
Apartments/Condos 1-3 Stories – 34 Projects
Hotel/Motel – 6 Projects
Dormitory – 2 Projects

Representative Raleigh-Durham Developments in the Schematic Design Phase

<table>
<thead>
<tr>
<th>OWNER</th>
<th>PROJECT</th>
<th>VALUE</th>
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</thead>
<tbody>
<tr>
<td>Milkam Hospitality</td>
<td>Home2Suites</td>
<td>$10M</td>
</tr>
<tr>
<td>Sawmill Development Company</td>
<td>The Sawmill Multifamily Development</td>
<td>$15M</td>
</tr>
<tr>
<td>United Methodist Retirement Homes</td>
<td>Croasdaile Village Retirement Community</td>
<td>$70M</td>
</tr>
<tr>
<td>Casto Southeast Realty Services</td>
<td>The Station Multifamily Development</td>
<td>$25-$50M</td>
</tr>
</tbody>
</table>

Greensboro

(7) Multi-Residential Projects – Value: $133M

Apartments/Condos 4+ Stories – 0 Projects
Apartments/Condos 1-3 Stories – 4 Projects
Hotel/Motel – 2 Projects
Dormitory – 1 Projects

**Representative Greensboro Developments in the Schematic Design Phase**

<table>
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<tr>
<th><strong>OWNER</strong></th>
<th><strong>PROJECT</strong></th>
<th><strong>VALUE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>High Point University</td>
<td>High Point Univ. Residence Hall</td>
<td>$23M</td>
</tr>
<tr>
<td>Trinterra LLC</td>
<td>Residential Development</td>
<td>$25M</td>
</tr>
<tr>
<td>The Carroll Companies</td>
<td>Aloft Hotel</td>
<td>$25M</td>
</tr>
<tr>
<td>South Elm Development Group</td>
<td>Wyndham Hotel</td>
<td>$28M</td>
</tr>
</tbody>
</table>

**Recommendations**

NRMCA and CRMCA and its members should be promoting concrete for low/mid-rise buildings in North Carolina. A concentrated effort should focus on the cities described above. There are some strategic reasons to focus on these locations – there are owners, architects, and builders using ICFs and the geographic concentrations make this targeting more cost-effective.

**Cost:** $0 (NRMCA offers its Concrete Design Center for free)

**In kind:** Members of CRMCA and NRMCA make introductions to developers.

**EDUCATION OPPORTUNITIES**

Education is typically a longer-term strategy and NRMCA has several resources that can support education of decision makers including developers, architects, engineers and builders. Courses include:

- Build with Strength: Value and Innovation (3 hour and 6 hour versions)
- Insulating Concrete Forms for Multi-Family Residential Construction (1 hour)
- Insulating Concrete Forms for Commercial Construction (1 hour)
- Concrete’s Contribution to LEED v4 (1 hour)
- Life Cycle Assessment of Concrete Structures (1 hour)
- The Business Case for Building with Concrete (1 hour)

NRMCA can provide instructors or CRMCA staff and/or members could present.

**Recommendations**
• Sponsor Build with Strength: Value and Innovation 3 hour (1/2-day program) in key markets for winter 2017. NRMCA will help identify architects and engineers in its databases.
  o **Cost:** $3,000 (offer the course for free or small fee. Pay for venue and meal).

• Learn material for the 1 hour ICF for Multi-family Residential Construction course and sponsor lunch and learns for the 5 largest architectural firms in North Carolina who do MF residential work.
  o **Cost:** $2,250 (cost to pay for lunch and learns).

**ADVOCACY OPPORTUNITIES**

The biggest opportunity in North Carolina is in Raleigh which experienced one of the most devastating apartment fires. NRMCA and CRMCA have agreed to pursue local advocacy where applicable.

**Recommendations**

Contact and develop relationships with legislators, firefighters and other allies in Raleigh for potential future advocacy activities.

**PUBLIC AFFAIRS OPPORTUNITIES**

Build with Strength has already been active in North Carolina with an op-Ed published by Caroline Sutton of CRMCA after the Raleigh apartment building fire.

**Recommendations**

Continue to support Project Promotion, Advocacy and Education as needed using mostly existing collateral and media relations messaging, customized for North Carolina as required.

**Cost:** $0 (NRMCA provides this service for free unless there would be an advertising component the cost would be split 50-50)