Low/Mid-Rise Building Opportunities in South Carolina

SITUATION

As is the case in most states, concrete’s share of floor area compared to steel and wood in South Carolina has decreased over the last several years when compared to competing materials. Per Dodge construction data, market share of concrete for low/mid-rise buildings in South Carolina has remained relatively steady over the last 13 years averaging about 17%. Wood has increased slightly over that same period from 20% to around 24% and steel has increased from 42% to 48%.

To address this market share loss, the Build with Strength program has four main strategies or components:

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

The following evaluation and recommendations represent NRMCA’s assessment of the current situation in South 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 could not implement only 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 in South Carolina:

4-7 Stories 2013-16
Apartments, Dormitories, Hotel and Motels

- Concrete $104.35/sf
- Steel $113.99/sf
- Wood $114.05/sf

Concrete is 9% decrease over wood
Steel is <1% decrease over wood

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

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

Research Criteria
1. Project Value: $1M+
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: Pre-Design, Development Planning, Schematics
5. State: South Carolina
6. Metropolitan Areas and Counties:
   a. Charleston
   b. Columbia
   c. Greenville
   d. Myrtle Beach

Charleston
(73) Multi-Residential Projects – Value: $ 1.7B
Apartments/Condos 4+ Stories – 23 Projects
Apartments/Condos 1-3 Stories – 12 Projects
Hotel/Motel – 36 Projects
Dormitory – 2 Projects

**Largest Charleston Developments in the Design Phase**

<table>
<thead>
<tr>
<th>OWNER</th>
<th>PROJECT</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bennett Hospitality</td>
<td>Patriots Point Waterfront Development</td>
<td>$400-$500M</td>
</tr>
<tr>
<td>The Beach Company</td>
<td>Sargeant Jasper Mixed Use Development</td>
<td>$75-$100M</td>
</tr>
<tr>
<td>Seamon Whiteside &amp; Associates</td>
<td>Maybank Gathering Place Apartments</td>
<td>$25-$50M</td>
</tr>
<tr>
<td>The Beach Company</td>
<td>The Parks Apartments</td>
<td>$25-$50M</td>
</tr>
</tbody>
</table>

**Columbia**

(61) Multi-Residential Projects – Value: $1.2B
Apartments/Condos 4+ Stories – 13 Projects
Apartments/Condos 1-3 Stories – 31 Projects
Hotel/Motel – 7 Projects
Dormitory – 10 Projects

**Largest Columbia Developments in the Design Phase**

<table>
<thead>
<tr>
<th>OWNER</th>
<th>PROJECT</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Army Corps of Engineers</td>
<td>Barracks Southeast Region</td>
<td>$495M</td>
</tr>
<tr>
<td>Clayco/CRG Acquisitions LLC</td>
<td>The Edge Student Apartments</td>
<td>$70M</td>
</tr>
<tr>
<td>Hughes Development/Lennar Commercial</td>
<td>Family Apartments at Bull Street Commons</td>
<td>$25-$50M</td>
</tr>
<tr>
<td>University of South Carolina</td>
<td>Campus Village Student Housing</td>
<td>$25-$50M</td>
</tr>
</tbody>
</table>

**Greenville**

(88) Multi-Residential Projects – Value: $512M
Apartments/Condos 4+ Stories – 9 Projects
Apartments/Condos 1-3 Stories – 63 Projects
Hotel/Motel – 11 Projects
Dormitory – 5 Projects

**Largest Greenville Developments in the Design Phase**

<table>
<thead>
<tr>
<th>OWNER</th>
<th>PROJECT</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Wall Real Estate</td>
<td>East Park at Stone Apartments</td>
<td>$15-$25M</td>
</tr>
<tr>
<td>Monarch Ventures</td>
<td>Prive at Upstate Apartments</td>
<td>$15-$25M</td>
</tr>
<tr>
<td>Centennial American Properties LLC</td>
<td>Camperdown Apartment Complex</td>
<td>$15-$25M</td>
</tr>
<tr>
<td>Tryon Federal Bank</td>
<td>The Groves at Berry Creek</td>
<td>$15-$25M</td>
</tr>
</tbody>
</table>

**Myrtle Beach**

(36) Multi-Residential Projects – Value: $290.2M

Apartments/Condos 4+ Stories – 9 Projects
Apartments/Condos 1-3 Stories – 17 Projects
Hotel/Motel – 9 Projects
Dormitory – 1 Project

**Largest Myrtle Beach Developments in the Design Phase**

<table>
<thead>
<tr>
<th>OWNER</th>
<th>PROJECT</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LStar</td>
<td>Grand Dunes North Development</td>
<td>$150M</td>
</tr>
<tr>
<td>Aspen Heights of Austin</td>
<td>Aspen Heights Student Housing</td>
<td>$30M</td>
</tr>
<tr>
<td>Vermex Hotels LLC</td>
<td>Wyndham Hotel</td>
<td>$15-$25M</td>
</tr>
<tr>
<td>Joanne DeKind</td>
<td>Big Top Resort</td>
<td>$10-$25M</td>
</tr>
</tbody>
</table>

**Recommendations**

There is no reason why NRMCA and CRMCA and its members should not be promoting concrete for low/mid-rise buildings in South Carolina. Nor should the cities targeted be limited. There are some strategic reasons to focus on Charleston – there is a developer and installer already using ICFs, and Myrtle Beach – hotels, motels and condos are prime for ICF along the hurricane prone Atlantic coast.

**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. In addition, we have a unique opportunity in Charleston with a developer building a large multi-family apartment building. They also have a subcontracting company who installs ICFs. We could bring individual developers to the site to show them how ICFs are installed to educate them on the business case for ICFs.

Recommendations

- Sponsor Build with Strength: Value and Innovation 3 hour (1/2-day program) in Charleston for fall 2017. NRMCA will help identify architects and engineers in its databases.
  - 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 South Carolina who do MF residential work.
  - Cost: $2,250 (cost to pay for lunch and learns).

ADVOCACY OPPORTUNITIES

This analysis was prompted by the news of a CLT manufacturing plant in South Carolina. Upon closer investigation, it appears Roseburg Forest Products' plant planned for Chester, SC is going to produce laminated veneer lumber (LVL), not CLT. Web searches don’t turn up much, but nothing else on their website indicates that it’s CLT, nor do they make it. What they do make is structural beams/framing and laminated plywood (some of which is used for concrete forms). Roseburg characterizes it as an entirely new product to the area, which it is to some extent. Though it’s some distance from the Southeast, there’s a CLT plant opening in Dothan, Alabama, owned by International Beams so there is reason to be concerned over competition from CLT.
There have not been any large apartment fires in South Carolina to trigger a reaction from the public or fire fighters. There was an apartment fire in Charleston in a smaller, older apartment building in July 2017. But with larger fires in cities in around the Carolinas (Raleigh, NC for example) and recent ordinances in Atlanta suburbs that limit wood frame construction, there could be incentive for Charleston or other large city to consider similar legislation.

Coastal South Carolina is susceptible to hurricane wind loading and that might suggest advocating for a resilient appendix in the state building code.

South Carolina adopts the 2015 I-Codes except for 2009 IECC (not as favorable to ICFs as the 2015 IECC). The SC Building Code Council adopts the codes at the state level and submits regulations for legislative review. Local governments are mandated to enforce the codes, but there is also a provision that allows jurisdictions to opt out if the governmental entity can’t support the effort through permit fees. This provision has not been widely used. Local governments may also propose to amend the code locally for climatological or physical reasons only and the Building Code Council must approve.

<table>
<thead>
<tr>
<th>Model Code</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBC</td>
<td>2015</td>
</tr>
<tr>
<td>IECC</td>
<td>2009</td>
</tr>
<tr>
<td>IFC</td>
<td>2015</td>
</tr>
<tr>
<td>IFCG</td>
<td>2015</td>
</tr>
<tr>
<td>IMC</td>
<td>2015</td>
</tr>
<tr>
<td>IPC</td>
<td>2015</td>
</tr>
<tr>
<td>IRC</td>
<td>2015</td>
</tr>
</tbody>
</table>

Here are the modifications to the most recent SC codes.

**Affordable Housing Advocates:** CRMCA may need to partner with Affordable Housing Advocates before the Homebuilders create opposition with them. The question should be "Has rent gone down in the past 10 years since the changes to the International Building Code (that caused these problems with wood-framed combustible buildings) were implemented/adopted?"

**Cost of Concrete vs. Wood Construction:** There is good news here. Dodge data shows that the cost of concrete construction is very competitive with wood and steel construction meaning that we might be able to easily convince stakeholders that non-combustible construction will not increase cost.

4-7 Stories 2013-16
Apartments, Dormitories, Hotel and Motels

- Concrete $104.35/sf
- Steel $113.99/sf
- Wood $114.05/sf

Concrete is 9% decrease over wood
Steel is <1% decrease over wood

4-7 Stories 2013-16
All Residential and Commercial

- Concrete $179.33/sf
- Steel $174.28/sf
- Wood $390.58/sf

Concrete is 54% decrease over wood
Steel is 55% decrease over wood

Insurance Industry: Insurance companies have a vested interest in making buildings more resilient. But it is strongly recommended to meet with local/state insurance associations and their members to bring them fully onto our side; because in other states the builders have literally threatened individual insurance companies that, if they became involved, builders would switch insurance companies punitively.

Fire Service (professional/uniformed, volunteer, union, chiefs, fire marshal(s), etc.): CRMCA should try to obtain support from the Fire Service BEFORE beginning fire safety legislation. That way, this doesn't look like an industry battle, but rather one centered on occupant life safety and fire fighter welfare.

Unions/Labor: CRMCA should approach steel and Iron Workers, Sheet Metal Workers, Carpenters, Pipe and Sprinkler Fitters, Union-based Builder Groups/Associations, Chambers of Commerce, etc. to form a partnership. They have been strong advocates of fire safety legislation in other cities and states.

Other Coalition Partners: Steel, Masonry, etc. - "non-combustible building products"

Opposition: Homebuilders, BOMA, NAIOP, Developers, American Wood Council, etc.

Recommendations

- Continue to monitor South Carolina for pro-CLT/wood bills or regulations and oppose.
  - Cost: $0 (use CRMCA existing lobbyist with support from NRMCA)

PUBLIC AFFAIRS OPPORTUNITIES

Build with Strength has already been active in South Carolina. In May BWS hosted a developer’s roundtable at the site of 17 South in Charleston attended by 60+ developers to learn about ICF construction. BWS will continue to promote concrete buildings with a focus on ICFs in South Carolina using footage and intelligence gathered at this event. A Letter to the Editor, signed by Caroline Sutton, was also published in the Charleston Post & Courier focusing on CLT construction. BWS public affairs will continue to encourage media coverage of ICF construction, respond to developments in the market place and create location-specific collateral for use by local teams.

Recommendations
Continue to support Project Promotion, Advocacy and Education as needed using mostly existing collateral and media relations messaging, customized for South 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)