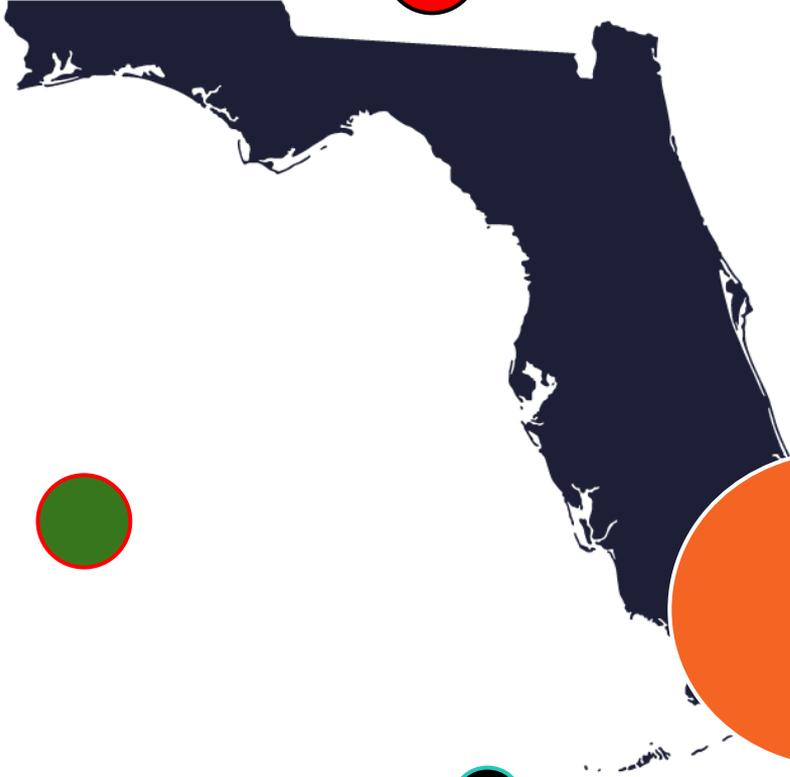
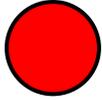

The Aggregate Shortage

Mark Musselman • 11.30.2022



Sources



..with Problems

- The Lake Belt
- Georgia
- Canada
- Mexico
- Bahamas



The Lake Belt

*The Lake Belt
supplies 60%
of Florida's
coarse
aggregate
(54M tons)*

The Good

- Connected to CSX and FEC rail network
- Used in concrete, asphalt, and as a road base
- The hardest rock in Florida*

The Bad

- Trucking availability
 - Limited rail access
 - Operating at capacity
 - Located between densely populated South Florida and the Everglades
-

Georgia

Pros

- Granite formed north of the coastal plane is a safe and durable asphalt stone
- North Georgia has virtually unlimited reserves and production capability
- Absorbs less asphalt

Cons

- Granite must be railed in to be cost effective
 - Granite is heavy
-

Georgia Cons Continued

- Florida connects to North Georgia quarries via CSX and Norfolk Southern
 - After covid layoffs, both networks have struggled with unions since the Summer
 - Rail strike likely averted by legislation passed in House this morning
 - Currently shipping between 7-15 days later than same time last year
 - The cost to ship has risen \$2-\$5/ton due to fuel
 - CSX and NS need to hire people to fix problem, have not had success yet
-

Canada

The Good

- After NAFTA passed in 1993, Florida began seriously using Nova Scotian Granite
- This material is supplied from a very large and capable mine

The Bad

- Nova Scotia is cold
 - Prices have gone up \$3-\$8/ton due to MGO increase
-

Mexico

The Good

- The Calica Quarry in Mexico supplies 25 million tons to the Gulf Coast and East Coast
- Material is suitable for base and concrete

The Bad

- The Calica Quarry was shut down in May over a water quality issue in Quita Roo.
 - Uncertainty has frozen capital investments
 - Loss of concrete stone has increased demand on granite
-

Solutions

Accept the Fact that
Construction Projects will
Cost More and Last Longer

Hondouras

The Good

- Tampa has received Honduran stone for years.
- Only recently has it improved enough to be used in asphalt

The Bad

- This is solely a replacement of Calica stone currently
- Far behind production capability of Calica
 - 45-60%*



New Brunswick

The Eh...

- Gabbro plays have been attempted in Tampa and Jacksonville over the years
- Two producers believe they have developed ability to ship FDOT stone. One has started shipping but not certifying

The Bad

- New Brunswick is also cold
 - Nova Scotia is running out this year, not forever
 - Pricing needs to increase to see more shipments come from NB*
-

Innovation

Use Less Aggregate

- Use state of the practice pavement designs
- Take advantage of additive technologies

Reuse Aggregate

- Allow as much RAP as possible (up to 50%)
- Use crushed concrete as aggregate

Use Inferior Aggregate

- Supplement aggregate with bauxite, etc to insure safety
-



Florida Asphalt Specifications for Counties & Municipalities

Coming December 2022

Florida Asphalt Expo

December 12-14th, Orlando, FL





floridaridesonus.org
