

A Message from the Executive Director

With the current structural condition of many aging U.S. bridges, rehabilitation projects are as vital as ever. Many structures in our inventory are considered structurally deficient simply because the bridge deck is in need of replacement. The BGFMA is focused on assisting designers and bridge owners to select the best grid deck system available for their application and suggesting construction details that will ensure maintenance-free service.



We are happy to announce the addition of the **American Galvanizers Association (AGA)** as our newest associate member. The AGA and their member companies are a natural fit for the BGFMA with our goal of providing long-lasting galvanized steel grid deck products that are built to stand the test of time.



Mark Kaczinski, P.E.
BGFMA Executive Director

South Grand Island Bridges Rehabilitation:

The **South Grand Island Bridges** carry Interstate 190 over the Niagara River, between Tonawanda and Grand Island, New York. The twin truss arch bridges were opened in 1935 and 1962. New York State acquired the original structure in 1950, and both bridges are currently owned and operated by the **New York State Thruway Authority**.



South Grand Island Bridges

In September 2008 the New York District office of **American Bridge Company** was awarded a \$48 million contract by the New York State Thruway Authority for the rehabilitation of the South Grand Island Bridges. American Bridge typically worked two crews at separate locations on the bridge deck. One crew worked to set six transverse panels between stringers on the truss section, while another worked to set four longitudinal panels between floorbeams on the girder spans. In total, the crews set a little over 2,000 square feet of new bridge deck per night completing the roughly 90,000 square foot project. After installation of the new deck panels the contractor was allowed a full weekend closure to diamond grind the deck and install a 3/4" thick polyester concrete overlay to seal the deck panels and closure pours.



Exodermic Deck being Installed

Chris Hulse, NYS Thruway Project Engineer: *“Things moved along better than expected and we are confident the precast Exodermic™ deck was the best choice. The Exodermic™ deck system has proven to be a very reliable product for the NYS Thruway. It’s durability in combination with light weight design to reduce dead load on the structure should be valuable in extending the life of the bridge”.*

Recent Notable Projects:



Brooklyn Bridge

The **Ambassador Bridge**, **Brooklyn Bridge Approaches**, **Ogdensburg-Prescott Bridge**, and **Walt Whitman Bridge** redecking projects have all come front and center in the last six months using steel grid deck systems. Why? Because grid decks are the most durable and lightweight deck systems available. With the four projects totaling well over a 500,000 square feet it is safe to say the advantages and durability of grid deck systems are also being recognized by bridge owners as well. More bridge owners and designers are realizing these advantages and utilizing grid deck systems on new and rehabilitation projects.

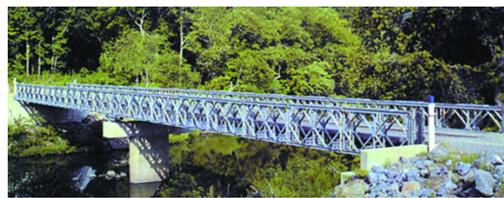
If you think you have a project where a grid reinforced concrete deck may be beneficial, we would be happy to assist you with any design and/or detail questions you may have. The BGFMA can be contacted by phone (**877-257-5499**), or email through our website www.bgfma.org.



Ambassador Bridge

Fabricator Profile – Bailey Bridges, Incorporated:

A 50-year old company, **Bailey Bridges** is an experienced designer and manufacturer of portable “Bailey style” component panel bridges. Additionally, the company designs and manufacturers a complete line of pedestrian and trail bridges in it’s Pioneer Bridges division. While best known for its portable, pedestrian, and trail bridges, Bailey Bridges also offers a complete line of grid products for both fixed and moveable span (non-Bailey) bridges



Component Panel Bridge

plus heavy duty bar gratings for industrial and commercial applications. Bailey’s plant is Major Bridge Fracture Critical Certified for bridge manufacturing by the **American Institute of Steel Construction (AISC)**.



Bailey Bridges is presently completing the purchase of property adjacent to their plant in order to add office space and open over 10,000 square feet of floor space to manufacture steel grid decking. Bailey Bridges has supplied steel grid decking for the **Ben Sawyer Swing Bridge**, Charleston, SC, the **Hanover Bridge**, Pendleton, WV, the **George Sellar Bridge**, Wenatchee, WA, and many others. For more information visit www.baileybridge.com.



A Bridge to the Future:



An updated marketing video entitled “**A Bridge to the Future**” was recently completed which summarizes the history and benefits of concrete filled grid deck products. This video, along with helpful technical information for grid decks can be found on the BGFMA website at www.bgfma.org.

Think GREEN:



There has been a heightened interest over the past decade to promote the use of environmentally friendly and recyclable products - not only in the things we use everyday at home, but also at work. In the design and construction of our highway infrastructure, this would lead us to think of steel - after all it is the most recycled material in the world and we use plenty of it! The steel industry in the US has dramatically improved their processes over the past decade to significantly reduce the amount of waste generated and energy used, while still improving its production. Grid reinforced concrete bridge decks are generally composed of 15-25% steel by weight, which puts them ahead of other deck systems when thinking GREEN.

Grid Facts:

Q: What is the typical production rate for installing prefabricated concrete-filled grid deck panels?

A: Once the contractor gets over the initial learning curve, 750 to 1,000 square feet per day for cast-in-place decks and 1,000 to 2,000 square feet per day for precast decks is not uncommon and can sometimes be surpassed. Production rates are dependent upon several factors including, but not limited to:

- Ease of existing deck removal – is the existing deck composite or non-composite?
- Work periods – uninterrupted work with detours will be more productive than evening closures.
- Scope of work – replacing only interior bays will take less time than full width replacement including barriers.
- Complexity of the bridge geometry – more highly skewed structures will require more field labor.

More Information:

If you would like to receive more information about the features and benefits of grid deck systems, please contact us at **1-877-257-5499** or **bgfma@bgfma.org**. We are also available to make presentations at your office and can offer continuing education credits for professional engineers as a registered provider in New York and Florida.

BGFMA Tradeshow Schedule:

Please visit BGFMA members at our exhibit booth during the following upcoming bridge engineering conferences:

TRB 7th International Bridge Engineering Conference	December 1-3	San Antonio, TX
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