Steel Bridge Resiliency

Rapid Steel Solutions for Bridge Emergencies

12 February 2026

New Jersey Short Span Steel Bridge Workshop

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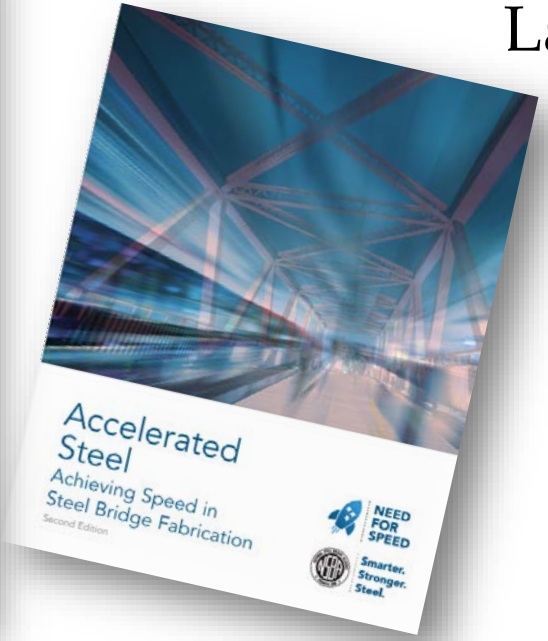
High Steel Structures, LLC, Lancaster PA



What is rapid?

What is typical?

Nine to twelve months

Two to three years

Shop Planning

Welding Procedures

- *Need approval*
- *May need testing*

Shop Drawings

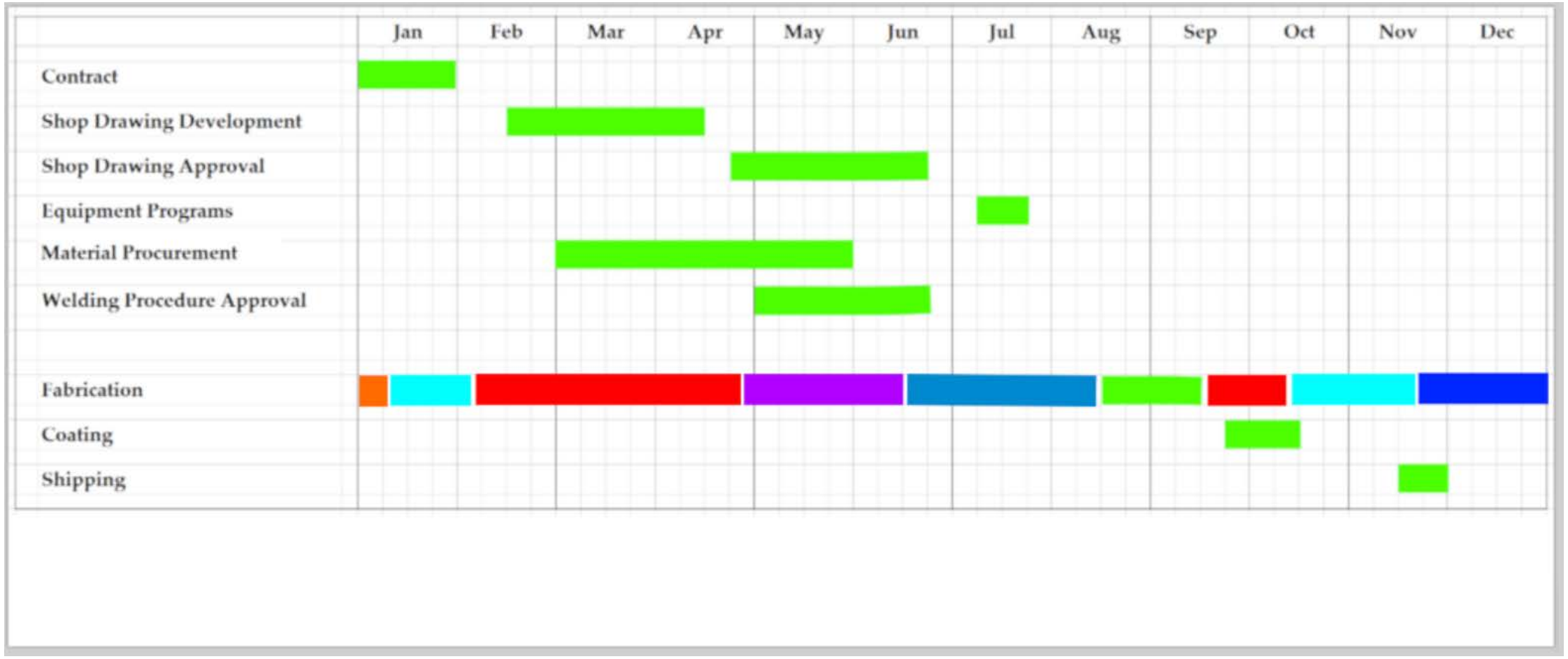
Materials

Workflow

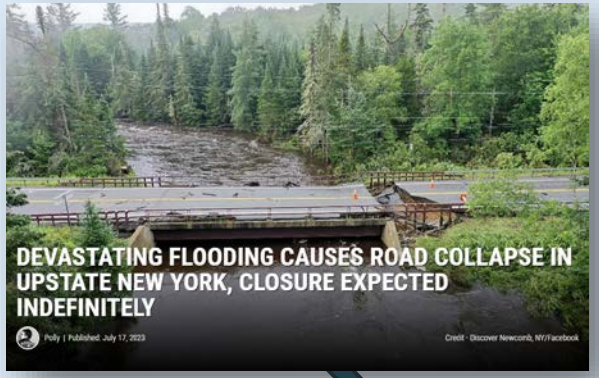
Typical Project Schedule

Essentials

- Approved shop drawings
- Materials
- Approved welding procedures
- Capacity



Rapid Steel



11 weeks

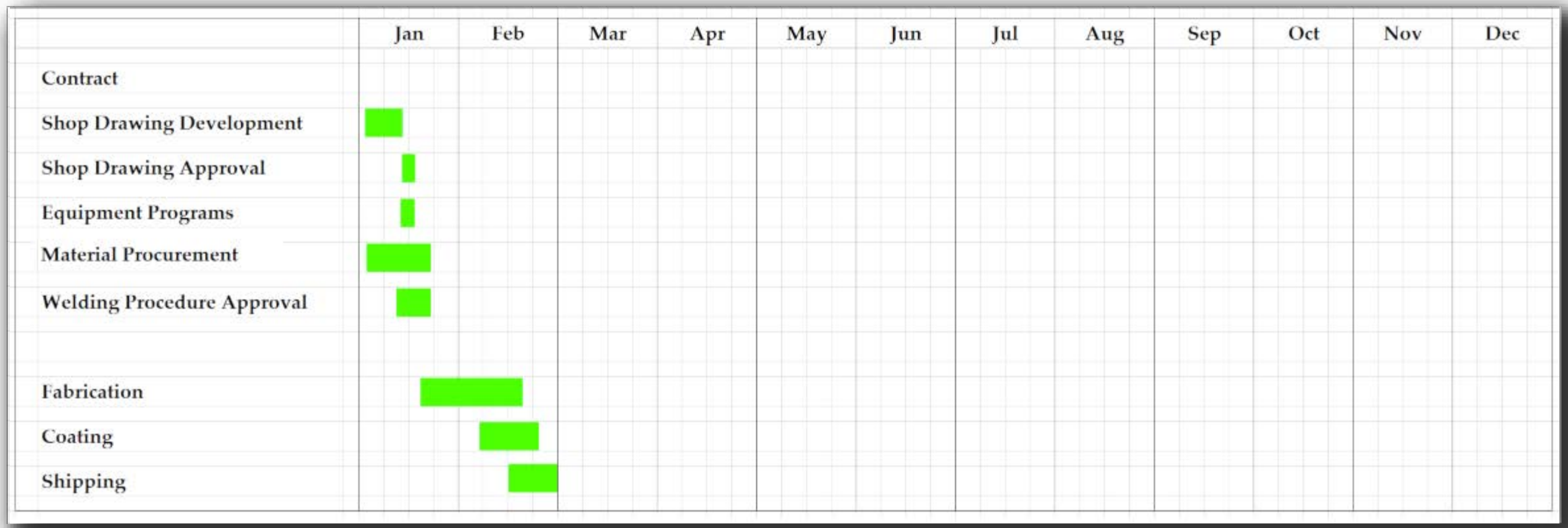
4 months

4 months

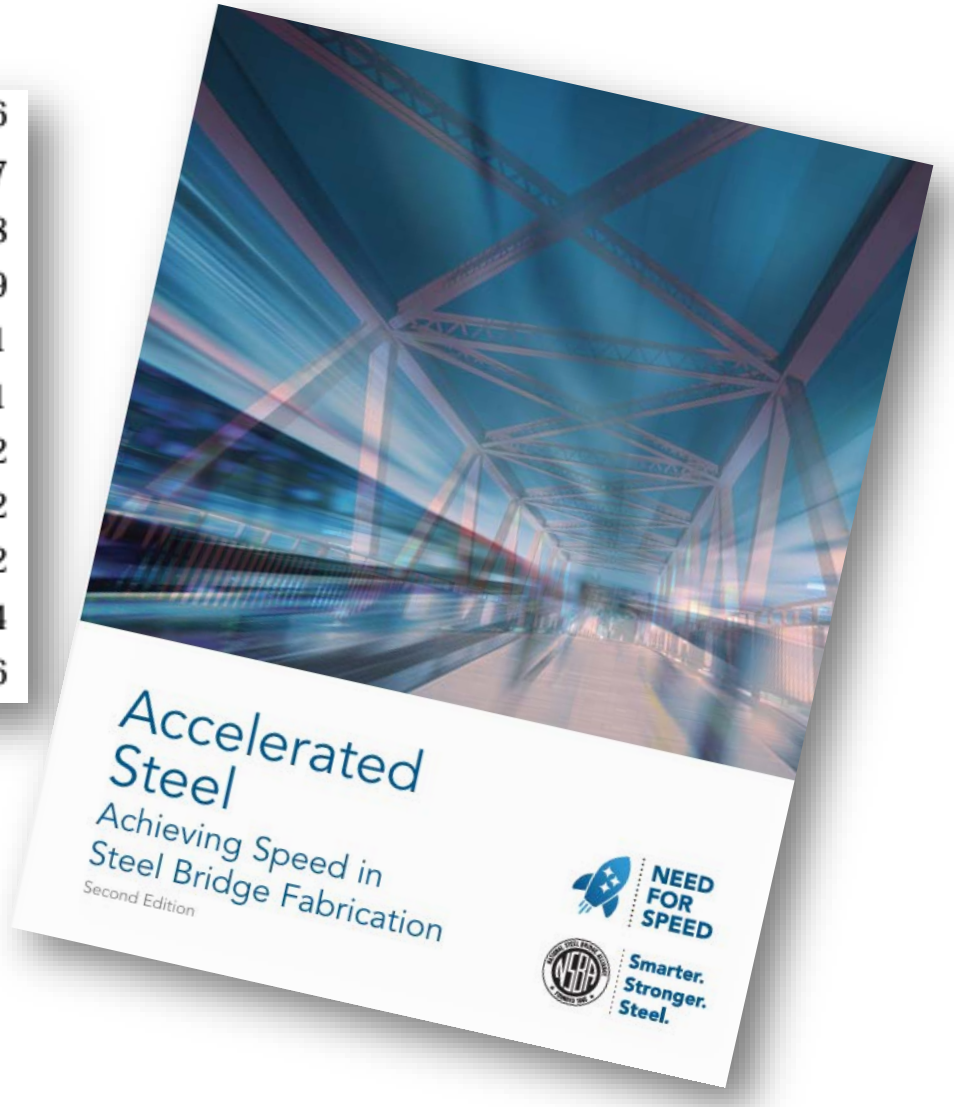
6 weeks

7 months

If you want to go fast …



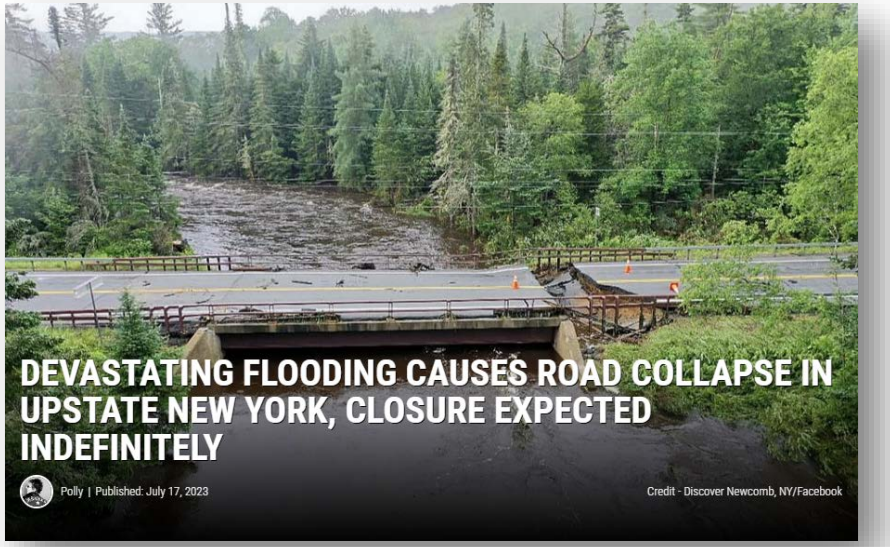
7.8 Emergency Project Playbook



NSBA Emergency Project Playbook

1. Recognize that fabricated steel can readily be procured in a matter of weeks

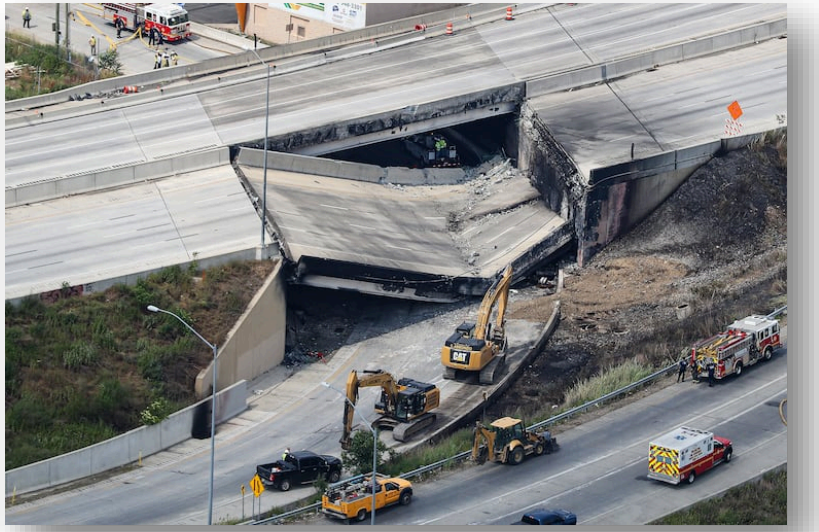
NSBA Emergency Project Playbook

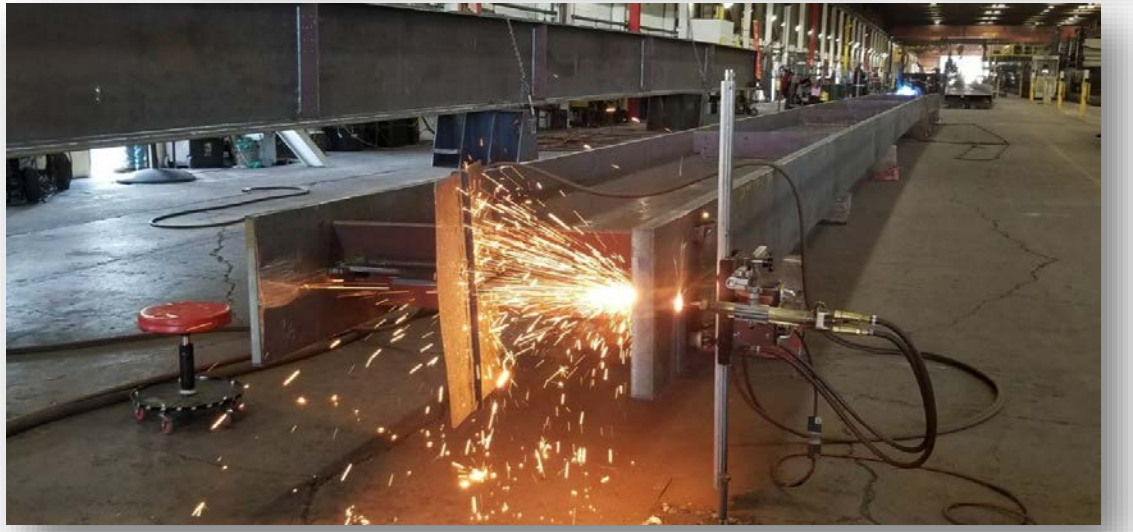


2. Form a partnership with a fabricator as quickly as possible.

NSBA Emergency Project Playbook

3. Collaborate with the fabricator to determine how best to procure the main material needed for the project.





Options

- mill – plate / shape
- other project
- other fabricator
- owner

NSBA Emergency Project Playbook

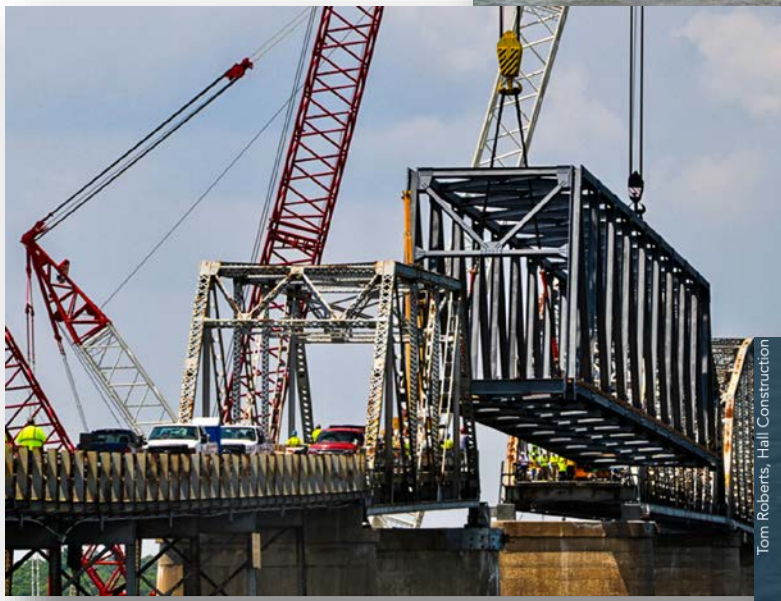
4. Collaborate with the fabricator in design.

NSBA Emergency Project Playbook

5. Facilitate rapid shop drawing approval.

NSBA Emergency Project Playbook

6. Support changes in typical fabrication practices to facilitate speed.



Tom Roberts, Hall Construction

NSBA Emergency Project Playbook

1. Recognize that steel can be available in a matter of weeks
2. Form a partnership with a fabricator as soon as possible
3. Collaborate with the fabricator regarding material procurement
4. Collaborate with the fabricator in design
5. Facilitate rapid shop drawing and welding procedures approval
6. Support changes in typical fabrication practices

Professional Development Questions

1. Although is usually take about nine months to get a typical steel bridges, in an emergency situations, you can get steel in as few as [answer is “a”]
   a. Two to three weeks
   b. Six weeks
   c. Two to three months
2. True or false: in emergency situations, shop drawings are not necessary [answer is false]
3. True of false: in emergency situations, it is recommended that the fabricator be allowed to weld without welding procedures [answer is false]