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**Developments in Steel Bridge Data
Modeling for Interoperability**

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Developments in Steel Bridge Data Modeling for Interoperability

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Introduction (cont.)

DEVELOPING INDUSTRY STANDARDS FOR INTEROPERABILITY APPROACH

A TOP-DOWN APPROACH

REQUIRES CONSIDERATION OF THE “**BIG PICTURE**” OF THE ENTIRE STEEL BRIDGE LIFECYCLE.

SET OF DATA EXCHANGES OCCURRING THROUGHOUT THE LIFECYCLE MUST BE AT LEAST NAMED AND LOCATED IN A MAP DEPICTING THE LIFECYCLE “**PROCESS MAP**”

Introduction (cont.)

DEVELOPING INDUSTRY STANDARDS FOR INTEROPERABILITY APPROACH

A BOTTOM UP APPROACH

START WITH ONE PARTICULAR SUCH DATA EXCHANGE AND DEVELOPS THROUGH A GROUP CONSENSUS PROCESS, THE DICTIONARY, AND THE SCHEMA OF DATA ITEM TO POPULATE THAT DATA EXCHANGE.

THIS APPROACH DEFINES IN EXPLICIT DETAIL THE DATA ITEMS NEEDED TO POPULATE **ONE PARTICULAR DATA EXCHANGE**

Collaboration Efforts

- AASHTO/NSBA Steel Collaboration Task Groups:
 - TG15: Data Modeling for Interoperability
 - TG10: Erection
 - TG1: Detailing

TG15, TG10, TG1 are working towards performing a collaboration wide formal balloting of the process map and data dictionary.

Process map and DD used for the ballot is being refined based on the information Delivery Manual defined for the FHWA project “ Bridge Data file protocols for Interoperability and life Cycle Management.

Collaboration Efforts

- A Joint AASHTO/NSBA subcommittee named TG10/TG15 was formed to facilitate the use of BrIM in Bridge Erection.
- The Joint subcommittee The subcommittee was able to determine and identify the bridge data needed to permit interoperability for intergrated design and erection.

Collaboration Efforts

- Erection Exchange Documents G15.10.1, G15.10.2
 1. Process Model Development for Erection
 2. Erection Process Map.
 3. Erection Data Dictionary.

Current Developments

Several task groups within the Steel Bridge Collaboration are actively working and conducting Bottom Up efforts toward developing guidelines in support of increased interoperability.

Two key Exchanges

1. TG10/TG15 WG: handoff(s) involving General Contractor, Erector, Design Engineer (EOR)
2. TG1/TG15 WG: Designer (EOR) to detailer data exchange

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Thank You

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