

FHWA Talking Freight Seminar Series

FHWA Freight Intermodal Connectors Study Intermodal Connector Assessment Tool

February 15, 2017

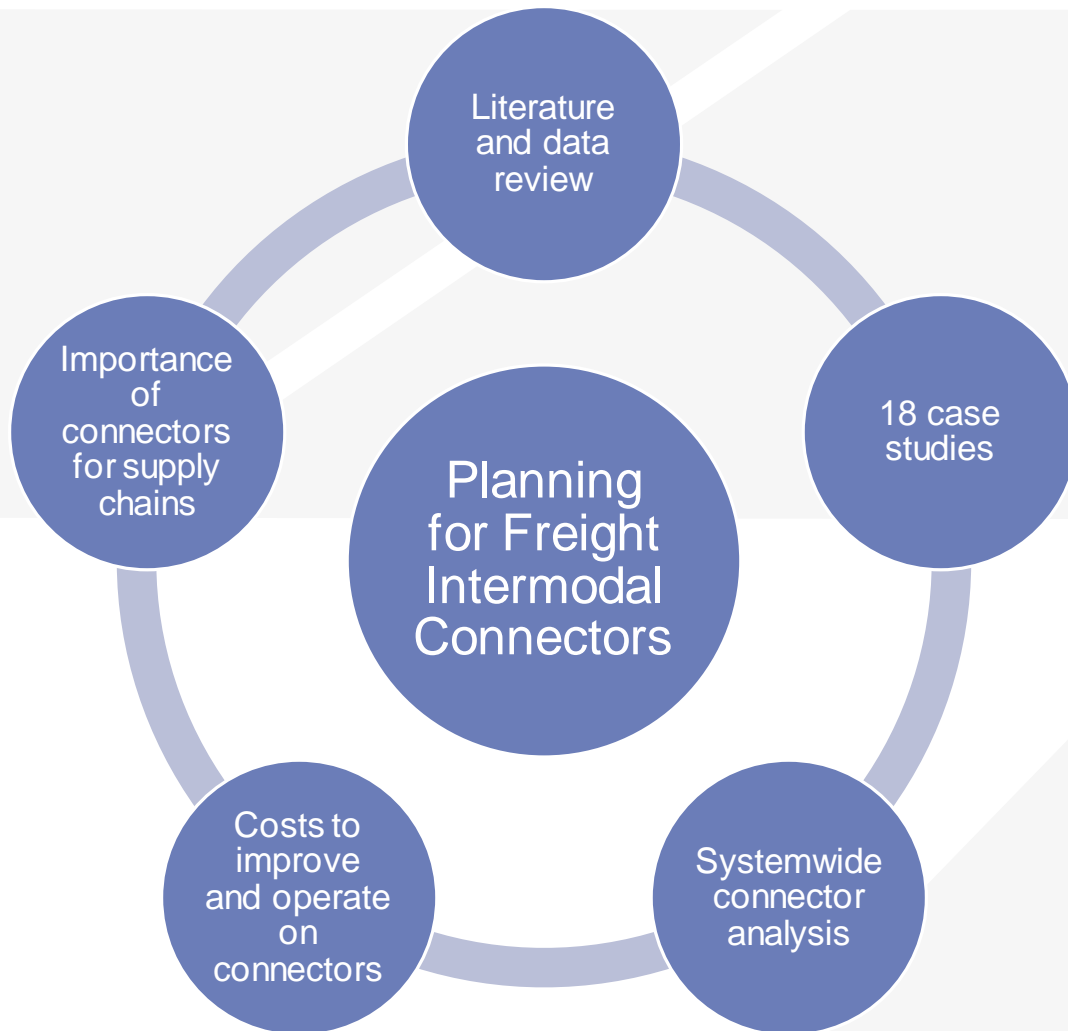
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Overview of Discussion

- Description of overall study
- Consideration of changes to designation criteria
- Freight intermodal connector data quality and availability
- Long-term data program for connectors
- Guidance on intermodal connector planning



Description of Overall Study



- Identify data sources related to freight intermodal connectors
- Estimate trajectory of freight intermodal activity
- Describe use, condition, and performance of freight connectors
- Determine how intermodal connectors are currently incorporated into planning studies
 - » Especially programs and funding sources



Changes to Designation Criteria Considered

- Expanding definition to include truck-truck terminals
- Raising the minimum truck volume threshold from 100 trucks
- Designating routes that connect terminals to the Interstate system
- Developing signage for designated NHS connectors
- Other changes as identified by stakeholder

Outreach to Transportation Agencies

- Seven State Departments of Transportation (DOTs)
 - » Florida, Georgia, Michigan, Minnesota, New York, North Carolina, North Dakota
- Five Metropolitan Planning Organizations
 - » Capital District Transportation Committee
 - » Northeast Ohio Areawide Coordinating Agency
 - » Chicago Metropolitan Agency of Planning
 - » Delaware Valley Regional Planning Council
 - » Mid-American Regional Council

Feedback from Stakeholders

- Expanding definition to include trucktruck terminals
 - » Truck-truck terminals (e.g. freight villages) are growing in number and importance
 - » Defining truck-truck terminals is challenging in terms of both geometry and truck volumes
 - » Mixed opinions on need for NHS connector designation, especially with critical rural/urban corridor designations available
- Raising the minimum truck volume threshold from 100 trucks
 - » 100 trucks per day was deemed as appropriate
 - » Strong desire to find a way to replace truck threshold value with economic importance surrogate
 - » Desire to apply marine cluster exception to other modes



Feedback from Stakeholders

- Little to no interest in other changes
 - » Designating routes that connect terminals to the Interstate system or developing signage for freight connectors
 - » State ownership and operation of all NHS connectors
 - » Dedicated freight connector funding programs
 - » Rescreening existing connectors for eligibility
- Lack of current and accurate data was the most common need for freight intermodal connectors
 - » Truck volumes on connectors in HPMS does not match field data
 - » Many connectors are not yet included in NPMRDS
 - » Publishing private sector terminal operator data can be problematic
 - » More sophisticated metrics desired such as value of goods, cost of delay



FHWA Intermodal Connector Assessment Tool

- Commissioned by FHWA in 2008
- Based on survey information on freight connectors conducted on State DOTs
- 21 data fields across four categories
 - » Identification/ownership
 - » Use – vehicle classification data
 - » Condition – pavement quality, roadway geometric configuration and restrictions
 - » Performance – volume/capacity ratio, crash rates
- Information collected from less than a dozen states



Options for Improving Data Quality

- Truck count data
 - » Make increased data collection on connectors an HPMS requirement
 - » Add current information on truck, auto and train volumes at crossings on connectors
- Speed data
 - » Increase coverage of NHS freight connectors that are included in the NPMRDS data
- Freight Performance Measures Data
 - » Standardize and increase the number of update cycles linking roadway network identification between HPMS and NPMRDS
- Crash data
 - » Require truck-involved and total crash data to be provided for NHS freight connectors

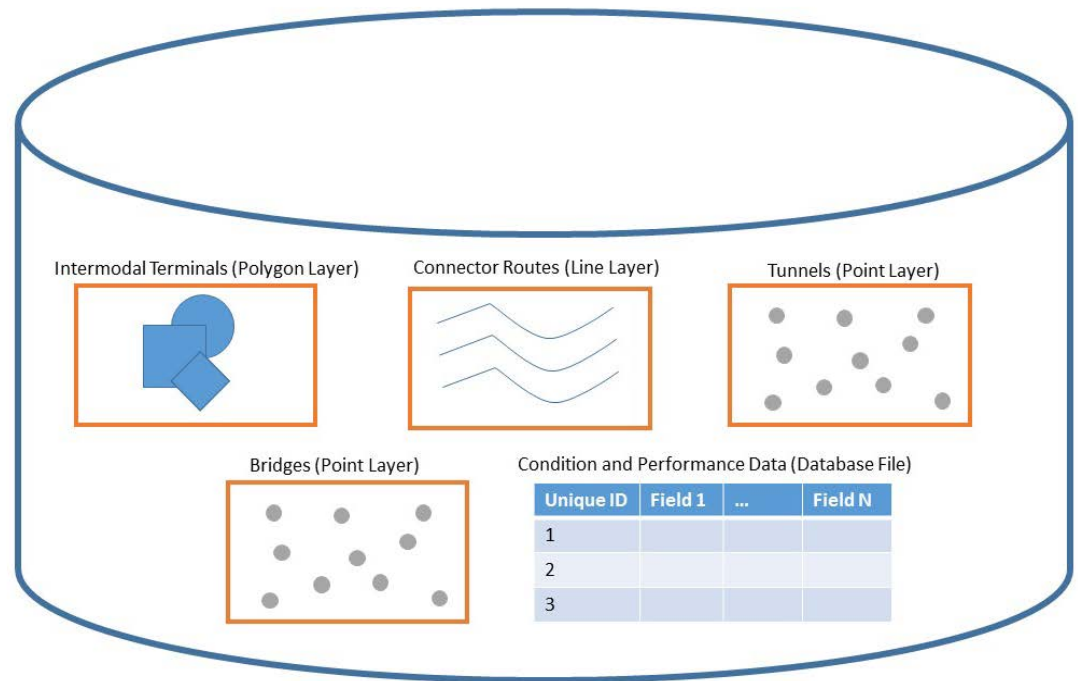


Options for Improving Data Quality

- Origin-destination data
 - » Can be obtained through gate survey or truck GPS data
- Supply chain data
 - » Most easily obtained from interviews of terminal operators, shippers, and carriers
 - » Expanding options to obtain this data from freight transaction data

Potential Schematic for a Stand-Alone Database

- 34 data fields identified
 - » 23 critical data fields
- Expands upon fields in existing ICAT database
- Considers available formats for data and compatibility across formats



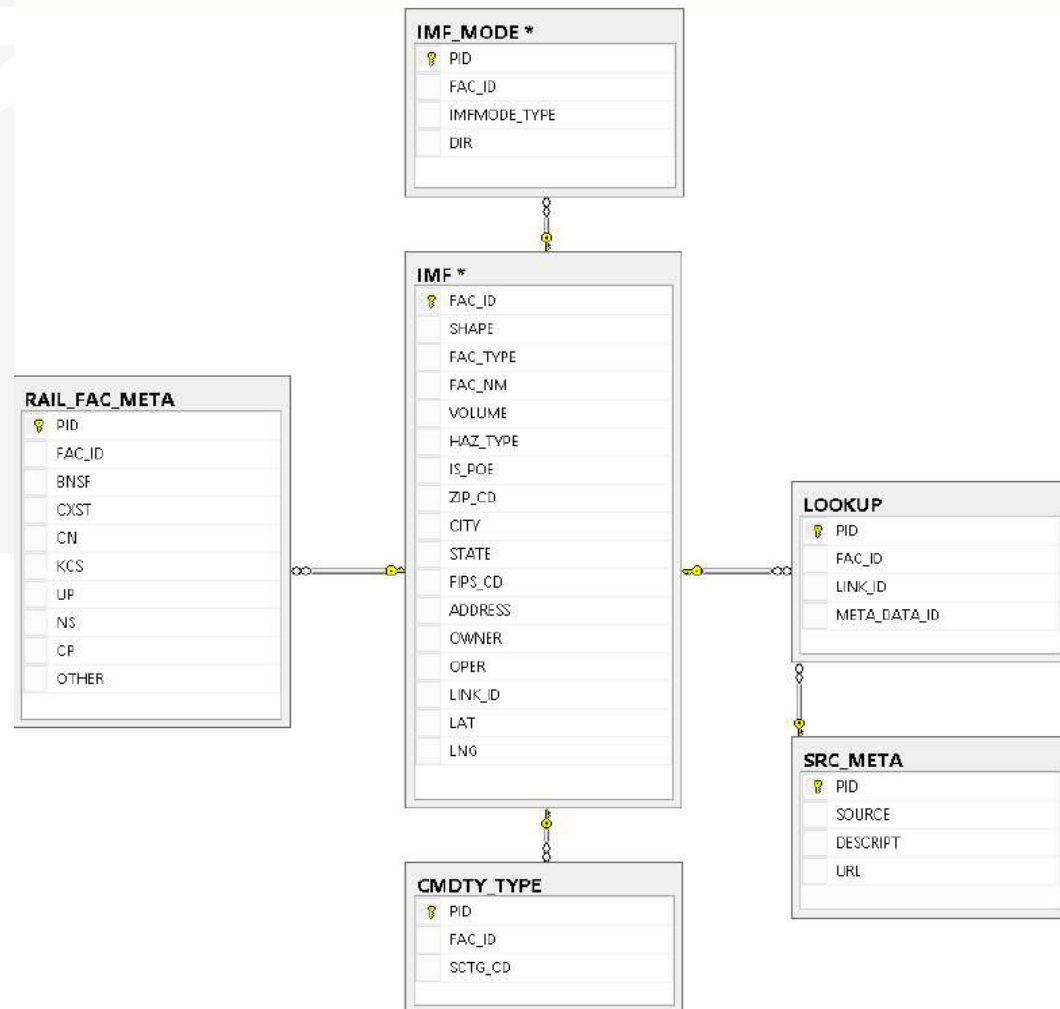
Supporting IMX Planning Through Existing Databases

➤ Build from the ground up based on existing data in several sources

- » HPMS
- » NPMRDS
- » Crash data
- » BTS GeoSpatial Tool

➤ Effort focused on linking information together

- » Potentially synchronizing over time



Source:

Supporting IMX Planning Through Existing Databases (continued)

➔ BTS GeoSpatial database has the potential to allow for additional fields

- » Station type (origin, destination, transload)
- » Terminal type
- » Handling activity (loading, unloading)

Site_Name	CITY	STATE	PADD	STATION_TY	FACILITY_T	HANDLING
Agnew Crude Terminal	Oklahoma City	OK	2	Transload	Terminal	Loading
Albany Terminal	Albany	NY	1	Transload	Terminal	Unloading
Albany Terminal	Albany	NY	1	Transload	Terminal	Unloading
Albuquerque Terminal	Albuquerque	NM	3	Origin	Terminal	Unloading
Ardmore Terminal	Ardmore	OK	2	Transload	Terminal	Loading
Bakersfield Refinery	Bakersfield	CA	5	Destination	Refinery	Unloading
Bakken Oil Express	Dickinson	ND	2	Origin	Terminal	Loading
Bakken Oil Express	Dickinson	ND	2	Origin	Terminal	Loading
BakkenLink Rail Hub	Fryburg	ND	2	Origin	Terminal	Loading
Baltimore Transload Terminal	Baltimore	MD	1	Destination	Terminal	Unloading
Barnhart Terminal	Barnhart	TX	3	Origin	Terminal	Loading
Basin Transload (aka Zap Terminal)	Beulah	ND	2	Origin	Terminal	Loading
Baton Rouge Refinery	Baton Rouge	LA	3	Destination	Refinery	Unloading
Bayway Refinery	Linden	NJ	1	Destination	Refinery	Unloading
Bayway Refinery	Bayway	NJ	1	Destination	Refinery	Unloading
Black Run Rail Facility	Frazeysburg	OH	2	Origin	Terminal	Loading
Black Thunder Terminal	Gillette	WY	4	Transload	Terminal	Loading
Borger Terminal	Borger	TX	3	Transload	Terminal	Unloading
Brownfield Terminal	Brownfield	TX	3	Origin	Terminal	Unloading
Brownsville Terminal	Brownsville	TX	3	Transload	Barge	Unloading
Carleton Terminal	Carleton	OK	2	Transload	Terminal	Loading
Casper Crude to Rail Terminal	Casper	WY	4	Transload	Terminal	Loading
Catlettsburg Refinery	Catlettsburg	KY	2	Destination	Refinery	Unloading
Centane Rail Loading Terminal	Carlsbad	NM	3	Transload	Terminal	Loading
Cherry Point Terminal	Ferndale	WA	5	Destination	Refinery	Unloading
Cheyenne Crude Terminal	Cheyenne	WY	4	Transload	Terminal	Loading
Cheyenne Logistics Hub	Cheyenne	WY	4	Transload	Terminal	Loading
Chickasaw Terminal	Chickasaw	AL	3	Destination	Barge	Unloading
COLT Hub	Epping	ND	2	Origin	Terminal	Loading
Columbus Terminal	Columbus	ND	2	Origin	Terminal	Loading
Corpus Christi Refinery	Corpus Christi	TX	3	Destination	Refinery	Unloading

Source:

Recommended Intermodal Connector Database

- Stand-alone and using existing data options compared across several dimensions
 - » Accuracy
 - » Accessibility
 - » Ease of future updates
 - » Maintenance requirements
- Using existing data options found to be more feasible



Guidance on Intermodal Connector Planning

- Ongoing task to review state freight planning guidelines and identify locations for consideration of intermodal connector planning
- Link to state freight plan guidance

<https://www.federalregister.gov/documents/2016/10/14/2016-24862/guidance-on-state-freight-plans-and-state-freight-advisory-committees>

- Example #1 – Critical rural and urban freight corridors
- Example #2 – Inventory of facilities with freight mobility issues



Next Steps

- Complete technical memo on guidance for planning related to freight connectors
- Develop final report highlighting findings from all subtasks
- Project completion projected for mid-June 2017



Questions and Comments

For additional information, contact:

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