Applications of Enterprise GIS in Transportation (AEGIST)
4th Meeting of the AEGIST States

September 19 – 21, 2023

AGENDA

Session ID	Day, Date & Time	Session Name	Session Description
1	Day 1, Sept 19: 8:00 – 8:45 AM	Meeting Goal, Objectives and Work Sessions Setup	Meeting Goal, Objectives & Work Sessions Setup
2	Day 1, Sept 19: 8:45 – 12:00 PM	Enterprise GIS	Review sections in AEGIST Guidebook **Chapter 1**: Enterprise GIS
Day 1 LUNCH: 12 PM – 1:30 PM			
3	Day 1, Sept 19: 1:30 – 3:30 PM	Asset Data Management and Governance	Review AEGIST Guidebook **Chapter 4**: Asset Information Management & Governance
4	Day 1, Sept 19: 3:30 – 4:30 PM	Projects Data Management and Governance	Review AEGIST Guidebook **Chapter 6:** Project Information Management & Governance
5(a)	Day 2, Sept 20: 8:00 – 12:00 PM	Road Network Data Management and Governance	Review AEGIST Guidebook **Chapter 2**: Road Network Data Management & Governance
Day 2 LUNCH: 12 PM – 1:30 PM			
5(b)	Day 2, Sept 20: 1:30 – 3:00 PM	Road Network Data Management and Governance (Continued)	Review AEGIST Guidebook **Chapter 2**: Road Network Data Management & Governance
6	Day 2, Sept 20: 3:15 – 4:30 PM	Multimodal Network	Review AEGIST Guidebook **Chapter 5**: Multimodal Network Data Management & Governance
7	Day 3, Sept 21: 8:00 – 11:00 AM	Intersection	Review AEGIST Guidebook **Chapter 3**: Intersection Data Management & Governance
8	Day 3, Sept 21: 11:00 AM – 12:00 PM	Meeting Wrap-Up	Meeting and AEGIST Outcomes, Next Steps
Day 3 LUNCH: 12 PM – 1:30 PM			

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	Day 1 LUNCH: 12 PM – 1:30 PM		
3	Day 1, Sept 19: 1:30 – 4:30 PM	Road Network Data Management and Governance	Review AEGIST Guidebook **Chapter 2**: Road Network Data Management & Governance
4	Day 2, Sept 20: 8:00 – 9:30 AM	Road Network Data Management and Governance (Continued)	Review AEGIST Guidebook **Chapter 2**: Road Network Data Management & Governance
5	Day 2, Sept 20: 9:45 – 12:00 PM	Intersection	Review AEGIST Guidebook **Chapter 3**: Intersection Data Management & Governance
	Day 2 LUNCH: 12 PM – 1:30 PM		
6	Day 2, Sept 20: 1:30 – 3:30 PM	Asset Data Management and Governance	Review AEGIST Guidebook **Chapter 4**: Asset Information Management & Governance
7	Day 2, Sept 20: 3:30 – 4:30 PM	Projects Data Management and Governance	Review AEGIST Guidebook **Chapter 5**: Project Information Management & Governance
8	Day 3, Sept 21: 8:00 – 10:00 AM	Multimodal Network	Review AEGIST Guidebook **Chapter 6**: Multimodal Network Data Management & Governance
9	Day 3, Sept 21: 10:15 AM – 12:00 PM	Parking Lot Items and Meeting Wrap-Up	Meeting and AEGIST Outcomes, Next Steps
	Day 3 LUNCH: 12 PM – 1:30 PM		

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SESSION 1: MEETING GOAL, OBJECTIVES & WORK SESSIONS SETUP
[DAY 1: 8:00 AM – 8:45 PM]

Session Moderator: Mark Sarmiento (FHWA)

Session Facilitators: Joseph Hausman (FHWA) and Abhishek Bhargava (WSP)

Session Goal: Review AEGIST Objectives, Meeting Objective and Recap Accomplishments

Session Agenda

Guidebook Section	Day, Date & Time	Topic	Objective
	8:00 – 8:20 AM	AEGIST Goals and Objectives	AEGIST Goals and Objectives – Enterprise GIS Guidelines by DOTs Recap: Previous AEGIST Meetings & Accomplishments. AEGIST Updates: Technical Services to PFS States. Meeting Goals and Objectives: Guidebook v2.0 Review
	8:20 – 8:45 AM	Guidebook v2.0	Recap: Guidebook v1. Goals for Guidebook v2.0 Review of Guidebook v2.0: Table of Contents Chapter 1: Enterprise GIS Chapter 2: Road Network Data Management & Governance Chapter 3: Intersections Data Management & Governance Chapter 4: Asset Information Management & Governance Chapter 5: Multimodal Network Data Management & Governance Chapter 6: Project Information Management & Governance

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SESSION 2: ENTERPRISE GIS
[DAY 1, SEPT 19: 8:45 AM – 12:00 PM]

Session Moderator: Mark Sarmiento (FHWA)

Session Facilitators: Erin Lesh (NCDOT) and Abhishek Bhargava (WSP)

Session Goal: Review Sections in **Guidebook Chapter 1:** Enterprise GIS

Session Agenda

Guidebook Section	Day, Date & Time	Topic	Objective
1.1	8:45 – 9:00 AM	Introduction: Enterprise GIS	Review/confirm use of TOGAF and Federal Enterprise Architecture Standards for defining Enterprise GIS.
1.2	9:00 – 9:30 AM	Business Architecture	Review/confirm business use cases to be considered for Geospatial Road Network modeling in LRS
1.3	9:30 – 10:00 AM	Enterprise Geospatial Data Management	Review/confirm Geospatial Data Management Framework including Glossary (Key Terminology)
	10:00 – 10:15 AM	**BREAK**	
1.4	10:15 – 11:15 AM	Enterprise Geospatial Information Systems	Confirm description of geospatial systems of record (sources of truth) and common data environments (CDEs) for analytics. Confirm use of scalable cloud systems (AWS, GCP, Azure) with applications and tools for data integration and engineering
1.5	11:15 – 12:00 PM	Enterprise Geospatial Data Governance	Review/Confirm FHWA Data Governance Framework and feasibility of its use at State DOTs
	12:00 PM – 1:30 PM	**LUNCH**	

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SESSION 3: ASSET DATA MANAGEMENT & GOVERNANCE
[DAY 1, SEPT 19: 1:30 PM – 3:15 PM]

Session Moderator: Justin Clarke (FHWA)

Session Facilitators: Charles McNeel (WVDOT) and Abhishek Bhargava (WSP)

Session Goal: Review Sections in AEGIST **Guidebook Chapter 4:** Asset Data Management & Governance

Session Agenda

Guidebook Section	Day, Date & Time	Topic	Objective
4.1	1:30 PM – 2:30 PM	Asset Data Modeling to create Asset Information Models (AIM)	Align geospatial Asset Information Modeling practice with ISO-19650 Information Modeling standards and terminology. Review/confirm the administration levels associated with Geospatial Asset Data Modeling
4.2	2:30 PM – 3:15 PM	Asset Data Integration and Engineering	Asset Location Data Engineering – Transforming Asset Location Data across LRMs and between LRMs and Geospatial Coordinate Referencing Systems (CRS) Data Models Engineering for Asset Data Querying and Analytics
	3:15 PM – 3:30 PM	**BREAK**	

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SESSION 4: PROJECT DATA MANAGEMENT & GOVERNANCE
[DAY 1, SEPT 19: 3:30 PM – 4:30 PM]

Session Moderator: Justin Clarke (FHWA)

Session Facilitators: Greg Ciparelli (CTDOT) and Abhishek Bhargava (WSP)

Session Goal: Review Sections in **Guidebook Chapter 6:** Projects Data Management and Governance

Session Agenda

Guidebook Section	Day, Date & Time	Topic	Objective
6.2	3:30 PM – 4:00 PM	Project Data Modeling to Create Project Information Models (PIM)	Review/confirm the administration levels associated with development and management of geospatial project information models (PIM). Review/confirm the use of project information models to establish the connection between Building Information Modeling (BIM) and Geospatial Information Systems (GIS).
6.3	4:00 PM – 4:30 PM	Project Data Integration and Engineering	Review/confirm the data integrations between geospatial project, asset, linear referencing, design and construction management systems for development of Project Information Models (PIM) and publication, sharing, reporting and analytics associated with project data.

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SESSION 5(a): ROAD NETWORK DATA MANAGEMENT & GOVERNANCE
[DAY 2, SEPT 20: 8:00 AM – 12:00 PM]

Session Moderator: Thomas Roff (FHWA)

Session Facilitators: Sam Coldiron (OKDOT) and Abhishek Bhargava (WSP)

Session Goal: Review Sections in **Guidebook Chapter 2:** Road Network Data Management & Governance

Session Agenda

Guidebook Section	Day, Date & Time	Topic	Objective
2.2	8:00 AM – 10:00 AM	Road Network Data Modeling	Review/confirm essential elements of a geospatial road network data model – centerlines, routes, junctions, calibration points, route segments. Also, review/validate data attributes, including recommendations for temporality and metadata. Review/confirm administration levels associated with Routes data modeling elements – linear referencing methods (LRMs), Route Identification, Divided-Undivided Highways, Concurrent Routes, Network Gaps.
	10:00 – 10:15 AM	**BREAK**	
2.3	10:15 AM – 11:00 AM	Road Network Data Integration & Engineering	Review/confirm guidelines documented for: - NG911/Local Roads data integration - Digital As-Builts Roads data integration - Federal Lands Management Agency data integration - Open and Proprietary roads data integration
2.5	11:00 AM – 12:00 PM	Road Network Data Reporting and Analytics	Road Network Data Reporting and Analytics - HPMS, MIRE, ARNOLD and NRN - Roads Data Quality - Road Network Referencing Methods - Routability and Connectivity
	12:00 PM – 1:30 PM	**LUNCH**	

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SESSION 5(b): ROAD NETWORK DATA MANAGEMENT & GOVERNANCE
[DAY 2, SEPT 20: 1:30 PM – 3:00 PM]

Session Moderator: Thomas Roff (FHWA)

Session Facilitators: Will Thoman (ITD) and Abhishek Bhargava (WSP)

Session Goal: Review Sections in **Guidebook Chapter 2:** Road Network Data Management & Governance

Session Agenda

Guidebook Section	Day, Date & Time	Topic	Objective
2.4	1:30 – 2:15 PM	Road Network Data Sharing/Provisioning and Publication	Review/confirm Road Network Publication Data Models for DOT Stakeholders, Internal and External (State Transportation Agencies, Federal Agencies, Private Sector) using enterprise geodatabase, data warehouse and data lake.
2.6	2:15 – 3:00 PM	Road Network Data Governance	Review/Confirm the Linear Referencing System Data Governance System Tools – Data Use Patterns, Data Catalog, Data Life Cycle, Applications Catalog, Applications Communications Diagram, Object Types, Data Dictionary, Interface Catalog (Information Exchange Manuals).
	3:00 – 3:15 AM	**BREAK**	

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SESSION 6: MULTIMODAL ROUTE NETWORK DATA MANAGEMENT & GOVERNANCE
[DAY 2, SEPT 20: 3:15 PM – 4:30 PM]

Session Moderator: Carol Tan (FHWA)

Session Facilitators: Justin Brunetti (CTDOT) and Abhishek Bhargava (WSP)

Session Goal: Review Sections in **Guidebook Chapter 5:** Multimodal Route Network Data

Session Agenda

Guidebook Section	Day, Date & Time	Topic	Objective
5.2	3:15 – 3:45 PM	Multimodal Network Data Modeling	Review/confirm the administration levels associated with the Multimodal Network data modeling for: Pedestrian, Bicycle, Rail and Trail Networks
5.2	3:45 – 4:30 PM	Multimodal Network Data Integration and Engineering	Review/confirm the data sources, data integration and engineering approaches for building multimodal network data models.

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SESSION 7: INTERSECTIONS DATA MANAGEMENT & GOVERNANCE
[DAY 3, SEPT 21: 8:00 AM – 11:30 AM]

Session Moderator: Sarah Pascual Weissman (FHWA)

Session Facilitators: Carol Tan (FHWA) and Abhishek Bhargava (WSP)

Session Goal: Review Sections in **Guidebook Chapter 3**: Intersections Data Management & Governance

Session Agenda

Guidebook Section	Day, Date & Time	Topic	Objective
3.2	8:00 – 9:00 AM	Intersection Data Modeling	Review/confirm modeling approaches for Intersection types: At-Grade Intersections, Continuity Intersections, Median-Cut Intersections, Interchanges
3.3	9:00 – 10:00 AM	Intersection Data Integration and Engineering	Integrating and engineering intersection data from traffic and safety systems in the State, local agencies, third-party data sources, open data sources, crowdsourced data systems
	10:00 – 10:15 AM	BREAK	
3.5	10:15 – 11:30 AM	Intersection Data Reporting and Analytics	Model Inventory of Roadway Elements (MIRE)

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SESSION 8: INTERSECTIONS DATA MANAGEMENT & GOVERNANCE
[DAY 3, SEPT 21: 11:30 AM – 1:30 PM]

Session Moderator: Joseph Hausman (FHWA)

Session Facilitators: Abhishek Bhargava (WSP)

Session Goal: Key Take-Aways on Guidebook v2

Session Agenda

Guidebook Section	Day, Date & Time	Topic	Objective
	11:30 AM – 12:00 PM	**Meeting Wrap-Up**	Summarize Opportunities for Guidebook Improvement
	12:00 PM – 1:30 PM	**LUNCH**	

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State DOT Attendees List

ID	Agency	Name
1	Arizona Department of Transportation	Sage Donaldson
2	Arizona Department of Transportation	Sara Thompson
3	California Department of Transportation	Aaron Ott
4	California Department of Transportation	Chingsou (Keith) Chervunkong
5	Connecticut Department of Transportation	Greg Ciparelli
6	Connecticut Department of Transportation	Justin Brunetti
7	Florida Department of Transportation	Eric Brickner
8	Florida Department of Transportation	Jared Causseaux
9	Georgia Department of Transportation	Eric Conklin
10	Georgia Department of Transportation	Mechell Salter
11	Idaho Department of Transportation	Nicole Hanson
12	Idaho Department of Transportation	Will Thoman
13	Kansas Department of Transportation	Chase Null
14	Kansas Department of Transportation	Kevin Koester
15	Massachusetts Department of Transportation	Charles Major
16	Massachusetts Department of Transportation	David DiNocco
17	New Mexico Department of Transportation	Christian Ovalle
18	New Mexico Department of Transportation	John Baker
19	North Carolina Department of Transportation	Erin Lesh
20	North Carolina Department of Transportation	Ryan Koschatzky
21	North Dakota Department of Transportation	Runick Fru
22	North Dakota Department of Transportation	Stephanie Weiand
23	Ohio Department of Transportation	Ian Kidner
24	Ohio Department of Transportation	Vikki Hankus
25	Oklahoma Department of Transportation	Alexander Couch
26	Oklahoma Department of Transportation	Samuel Coldiron
27	Pennsylvania Department of Transportation	Matt Long
28	Tennessee Department of Transportation	David Lee
29	Tennessee Department of Transportation	John Hicks
30	Washington State Department of Transportation	Elizabeth Lanzer
31	Washington State Department of Transportation	Masao Matsuoka
32	West Virginia Department of Transportation	Charles McNeel
33	West Virginia Department of Transportation	Aaron Ferrari