# **ITS Implementation Tools and Resources**

## MnDOT ITS Systems Engineering Website (http://www.dot.state.mn.us/its/systemsengineering.html)

- FHWA Implementation Memo (http://www.dot.state.mn.us/its/docs/fhwaimplementationmemo.pdf)
- Highway Project Development Process (HPDP) ITS (<u>http://dotapp7.dot.state.mn.us/edms/download?docId=1598710</u>)
- ITS Checklists & Systems Engineering Documents
  - Class A-1 and Class A-2 (Programmatic ITS Applications)
  - Class B-1 (Freeway Traffic Management Applications)
  - Class B-2 (Arterial Traffic Management Applications)
  - Class C (Large/Complex Projects)

## Minnesota Statewide Regional ITS Architecture (2018)

- http://www.dot.state.mn.us/its/projects/2016-2020/itsarchitecture.html
- Implementation Volume ITS Initiatives and Project Concepts for Implementation
   (http://www.dot.state.mn.us/its/projects/2016-2020/itsarchitecture/implementation-volume.pdf)

## MnDOT Project Scope Guidance and Tools (<u>http://www.dot.state.mn.us/pm/scope.html</u>)

- Project Scoping Report
- Scoping Worksheets
- Project Charter, Transportation Project
- Risk Guidance and Tools
- Cost Estimating and Budget: Cost Guidance
- Project Management Plan Template

- Program Evaluation Document
- Planning Lists
- Project Planning Report
- Project Change Request Form
- Quality Scoping Document Timeline
- Early Notification Memo

## FHWA and MnDOT Stewardship & Oversight Agreement

(https://www.fhwa.dot.gov/federalaid/stewardship/agreements/mn.pdf)

### MnDOT State Aid Manual (http://www.dot.state.mn.us/stateaid/manual.html)

### Federal Regulations and Guidelines

- Federal Register 23 CFR Parts 655 and 940
  - o <a href="http://ops.fhwa.dot.gov/its\_arch\_imp/docs/20010108.pdf">http://ops.fhwa.dot.gov/its\_arch\_imp/docs/20010108.pdf</a>
  - o http://ops.fhwa.dot.gov/its arch imp/docs/fta-pol.pdf
- US DOT RITA/ITS Joint Program Office (<u>http://www.its.dot.gov/</u>)
- FHWA ITS Architecture Implementation Program (<u>http://www.ops.fhwa.dot.gov/its\_arch\_imp/</u>)

### **Systems Engineering Resources**

- FHWA Systems Engineering for ITS (<u>http://www.ops.fhwa.dot.gov/publications/seitsguide/index.htm</u>)
- Systems Engineering Guidebook for ITS (<u>http://www.fhwa.dot.gov/cadiv/segb/</u>)
- A Guide to Configuration Management for ITS (<u>https://rosap.ntl.bts.gov/view/dot/37371</u>)
- Model Systems Engineering Documents for Adaptive Signal Control Technology (ASCT) Systems (<u>http://ops.fhwa.dot.gov/publications/fhwahop11027/index.htm</u>)