MDOT MPO ANNUAL CONFERENCE

DEVELOPMENT OF THE INTERACTIVE ONLINE WEB MAP FOR THE MEMPHIS URBAN AREA MPO

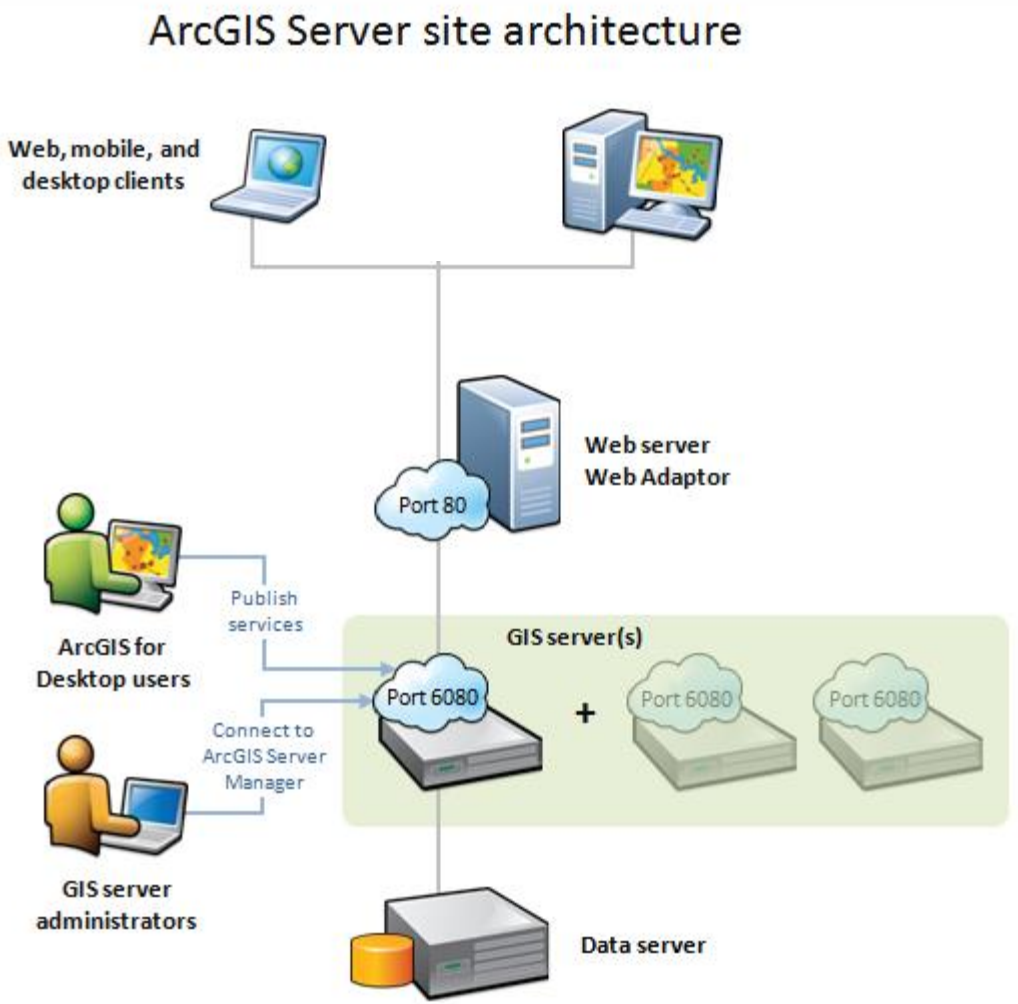
October 29, 2015

Background

- **Increased access for the public and stakeholders regarding transportation projects.**
  - Previously used pdf maps
  - Preparing maps were time consuming
  - Additional costs – staff time, printing, plotting
  - Keeping up with information requests on project locations and funding
  - Seeking improved utilization of available data

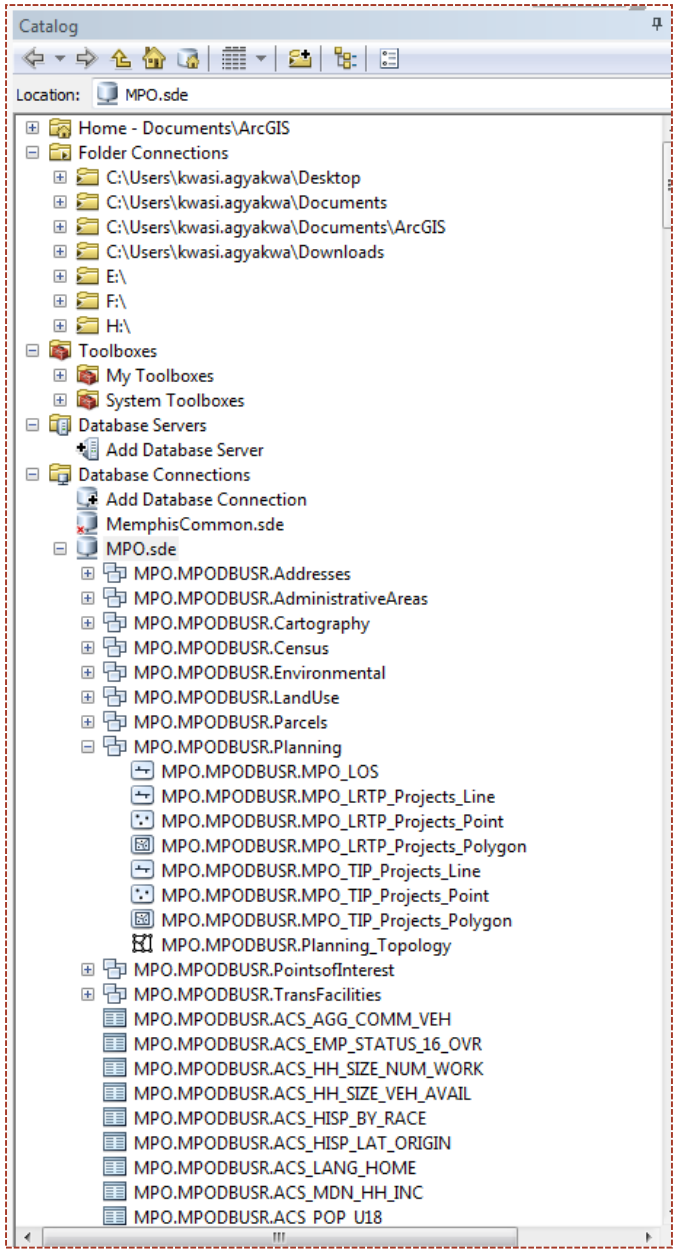
Key Tasks

- Database Design
- Webmap Design
- Publish Webmap
- Update Process



Database Design

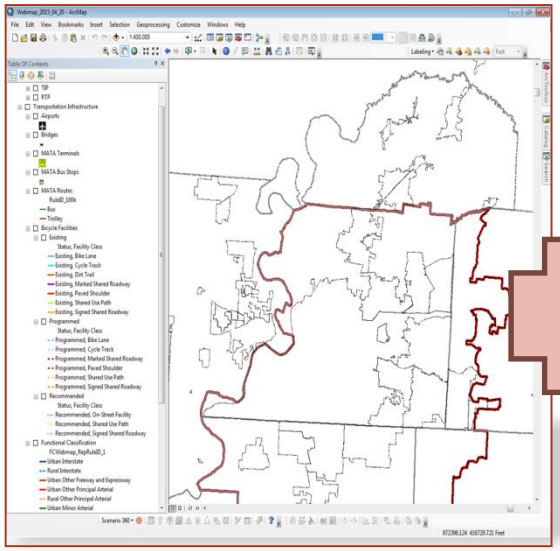
- **Develop a geodatabase with all pertinent MPO data.**
  - **Schema**
  - **Domains**
  - **Relationships**
  - **Representations**
  - **Update Process**



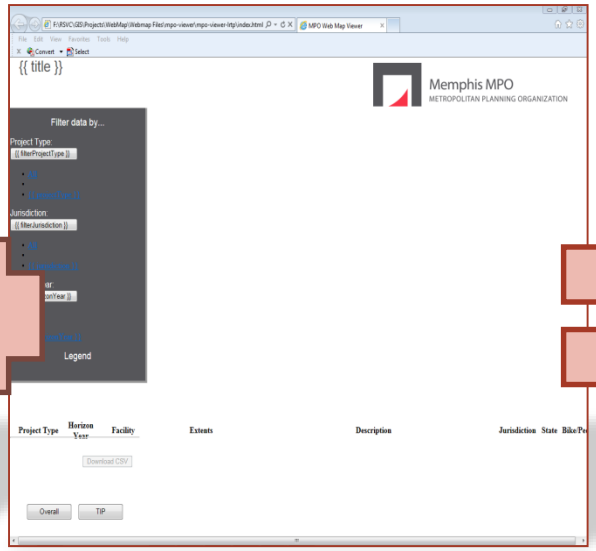
Webmap Design

- **Design and Prepare Webmap files.**

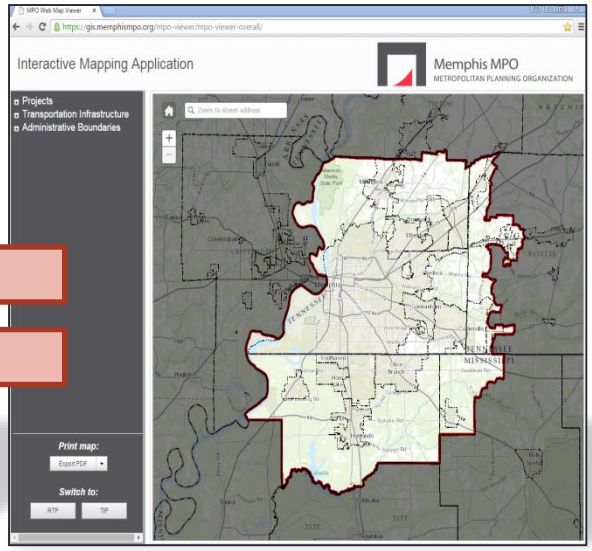
ArcGIS map document



HTML & Coding



Webmap

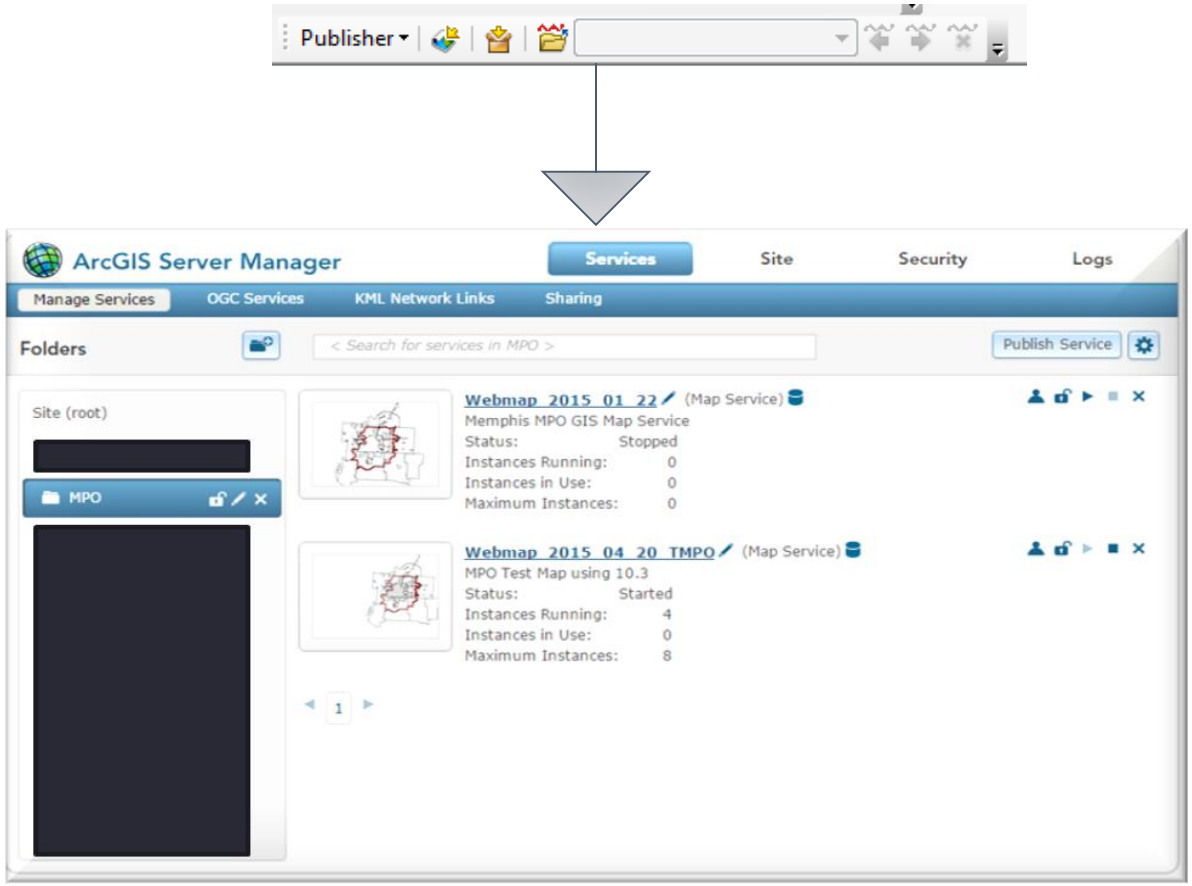


Publish Webmap

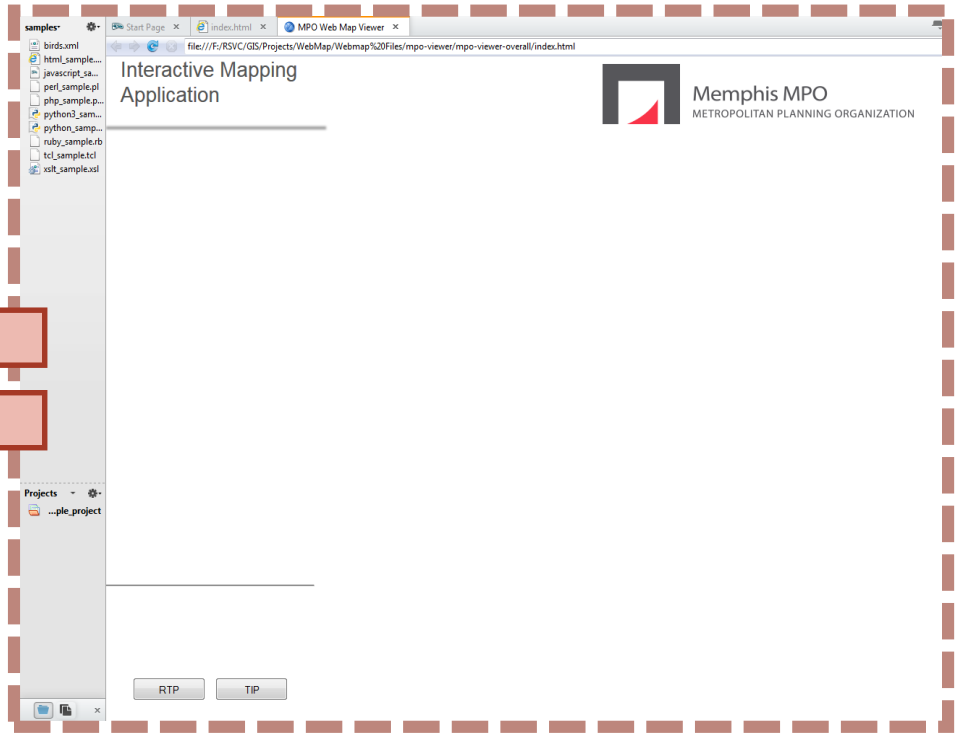
Coordinate with IT Staff

- Geodatabase/ArcGIS Server Connection Properties
- Security Certificates
- Test Site
- Publish Webmap

Publish Webmap



Publish Webmap



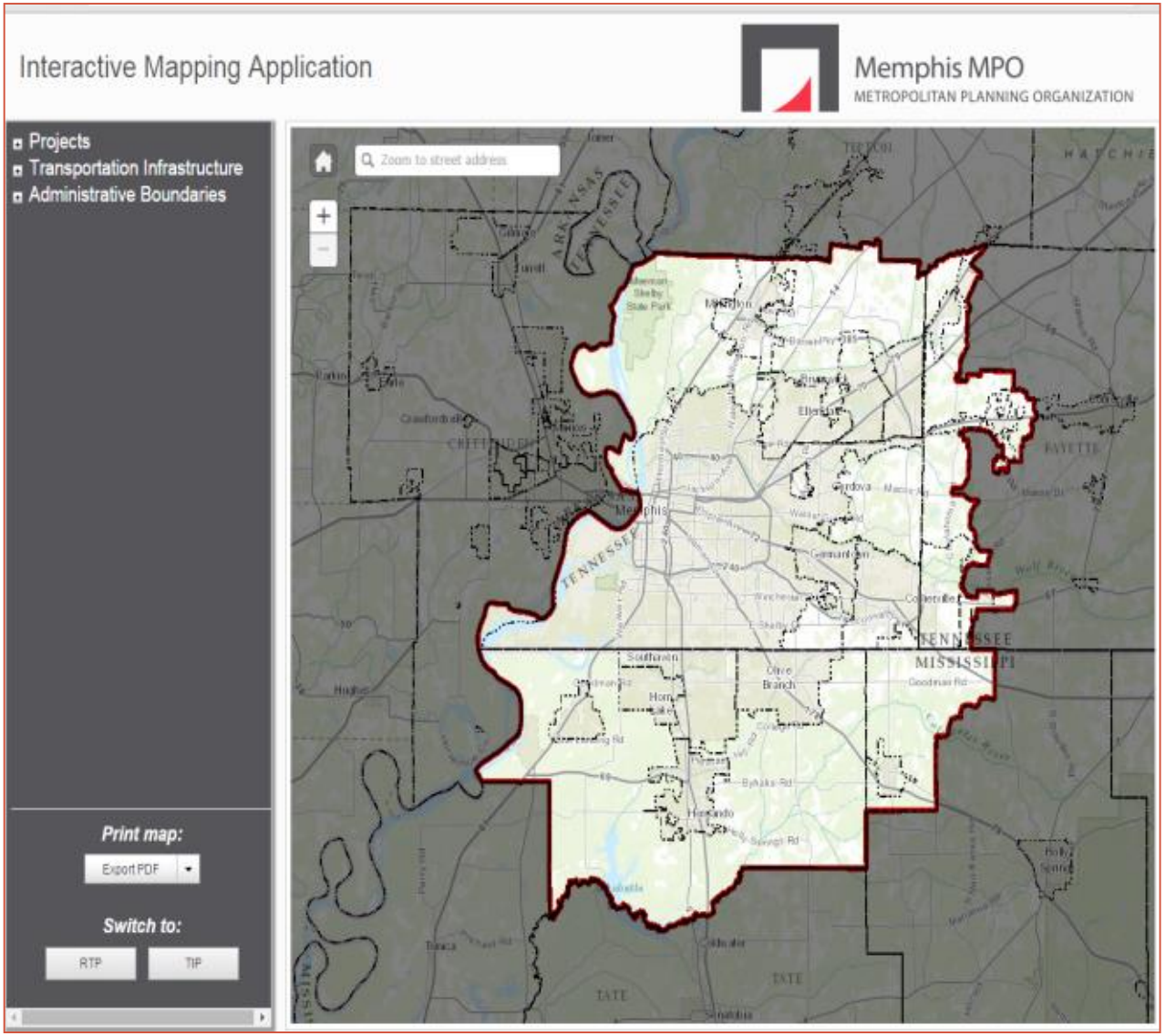
Update Process

- **Data: Any edits to the data appear in real time.**
- **Web: Several files are used to update the map itself and the tools and functions of the webmap.**

HTML
CSS
Javascript
Field Names
Data Displayed
Fonts
Hyperlinks
Symbology

Overall Webmap

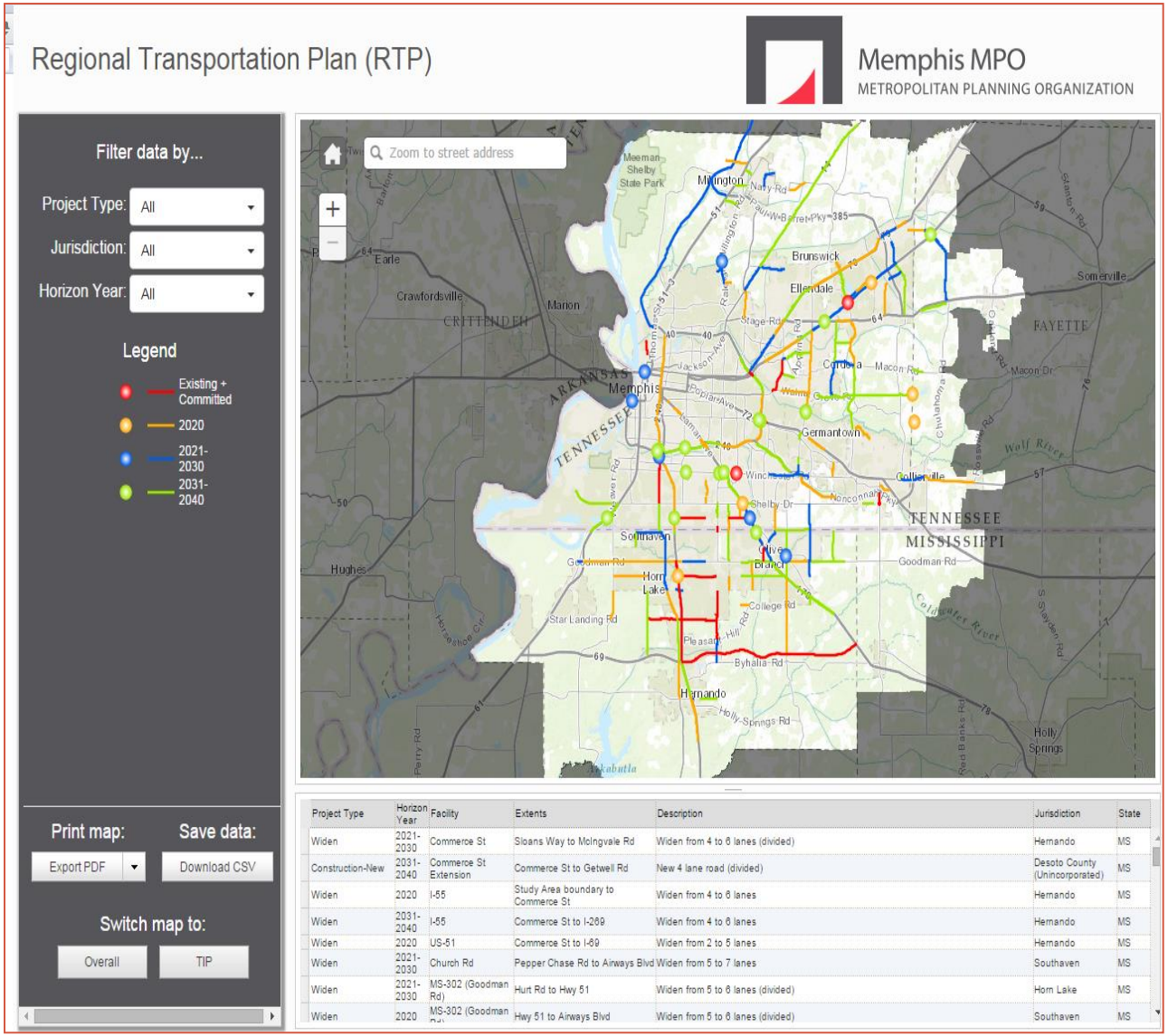
- General map showing transportation features, boundaries and projects.



https://gis.memphismpo.org/mpo-viewer/mpo-viewer-overall/

Regional Transportation Plan (RTP)

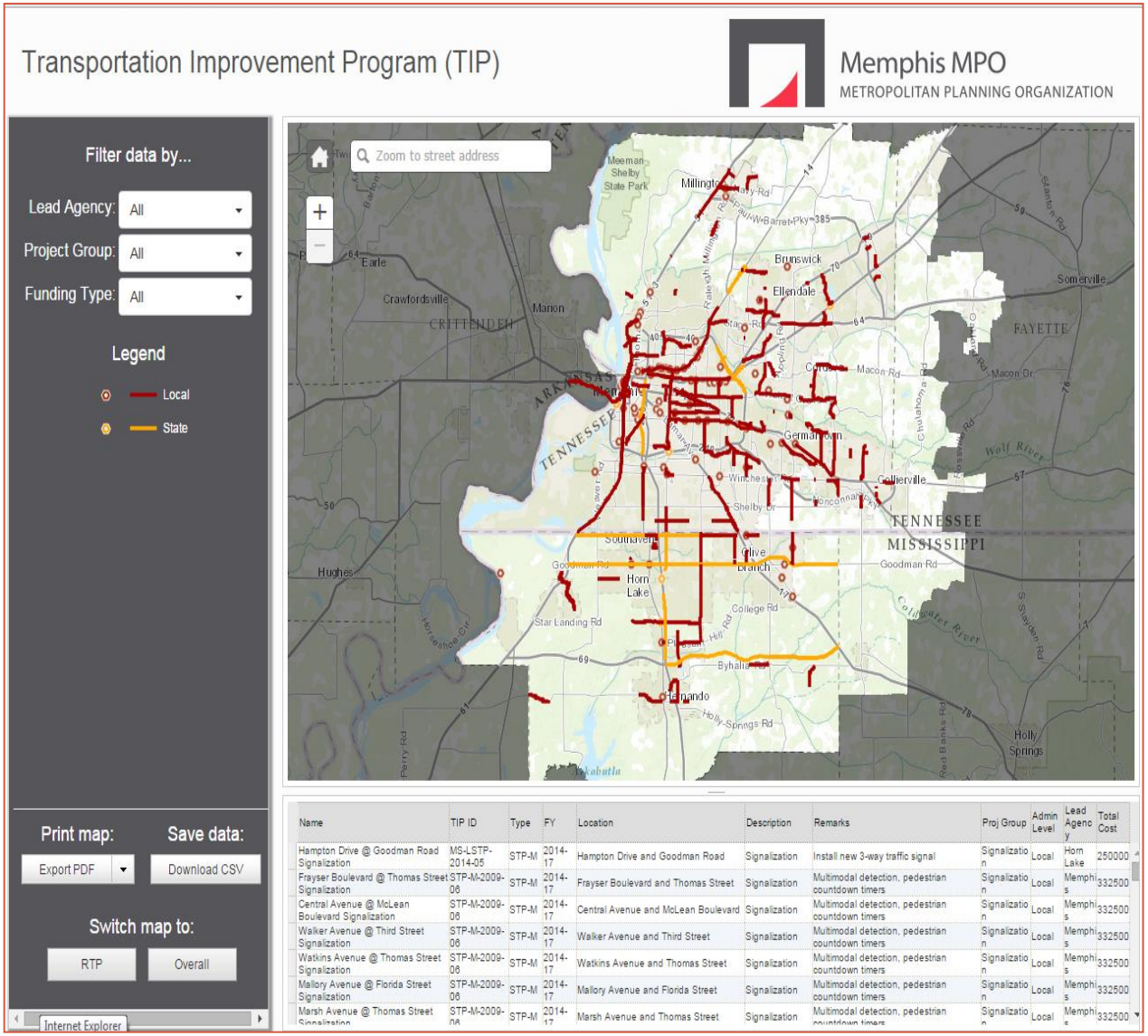
- Map showing RTP projects.
  - Sort/query by:
    - Project Type
    - Jurisdiction
    - Horizon Year
  - Export a pdf
  - Download project list ".csv"



https://gis.memphismpo.org/mpo-viewer/mpo-viewer-lrtp/

Transportation Improvement Program(TIP)

- Map showing TIP projects.
  - Sort/query by:
    - Project Group
    - Lead Agency
    - Funding Type
  - Export a pdf
  - Download project list ".csv"
  - Use a hyperlink to access TIP page for more info.



https://gis.memphismpo.org/mpo-viewer/mpo-viewer-tip/

Feedback

"This is a great step in the right direction."

Collierville Planner

"This is a useful and interesting application. Thank you for making it available."

TDEC

Consultants Love It!

Conclusion and Next Steps….

- Stakeholders can now access information quicker
- Improved efficiency
- Informed Citizens

- Can be used to create maps for various topics (Freight)
- Accessibility on mobile devices
- Potentially create web forms that allow clients to update data (public comments, project updates etc.)

Contact Information

Kwasi Agyakwa
Transportation Planner
Memphis MPO
125 North Main St., Suite #450
Memphis, TN 38103
Office: (901) 576-7189
Kwasi.Agyakwa@memphistn.gov