

iTRAM Presentation to TRB SWM Subcommittee



Rob Schiffer, Metro Analytics

January 6, 2021

- *Metro Analytics* – prime, overseeing model refinements, leading validation, base year socioeconomic data and network updates
- *Alliance Transportation Group* – sub, led update of trip generation, trip distribution, adding auto occupancy, time-of-day assignment
- *Michael Baker* – sub, leading update of traffic counts and 2018 conditions, conversion to TransCAD 8, and updating model GUI
- *Quetica* – sub, leading disaggregation of FAF trip tables for base and future year conditions

- *Phase I: SWOT Workshop*
 - Identified priorities relative to budget
 - Key decisions made (e.g., base year, future year, zone system)
- *Phase II: Implementation of Model Update*
 - GROUP I. Model Algorithm & Software Refinements
 - GROUP II. Network, Demographic, Zonal Input Development
 - GROUP III. Freight/Truck Model Refinements
 - GROUP IV. Calibration, Validation, and Post Processing
 - GROUP V. GUI and Enhanced User Applications
 - GROUP VI. Documentation and Project Management

Current Status of Model Update

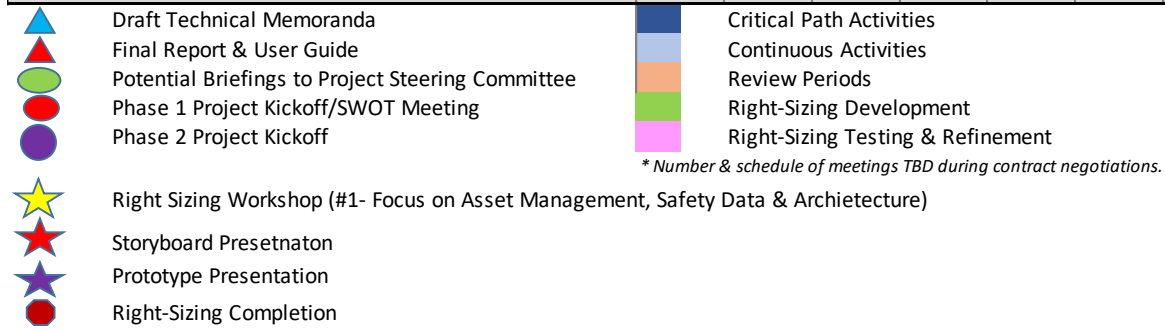
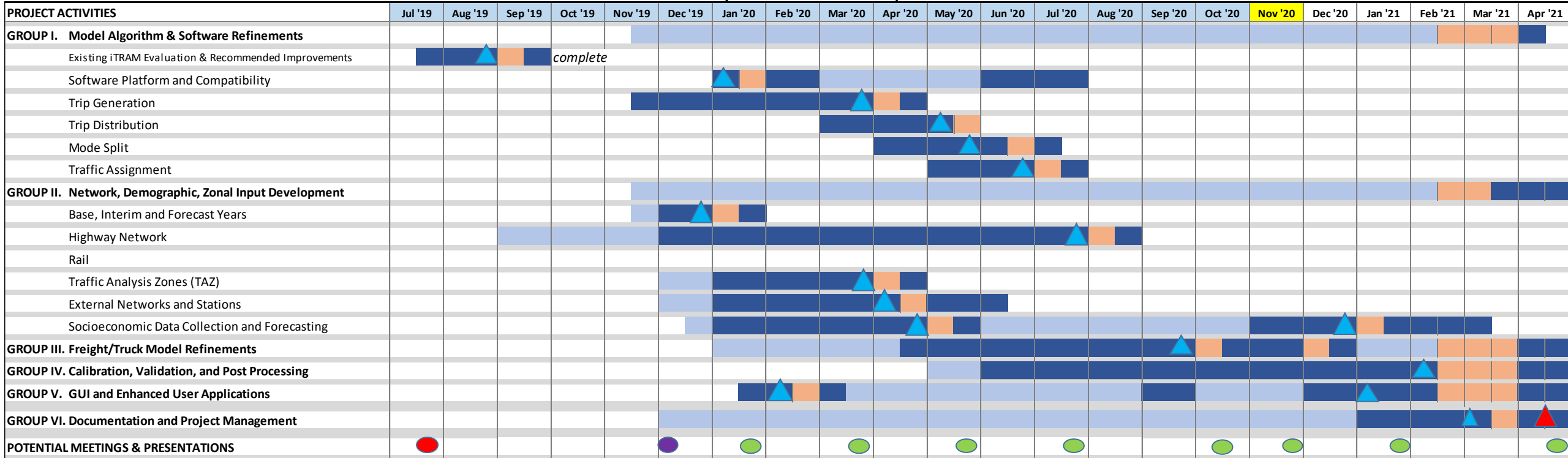


- *Networks* – reviewed each centroid connector, added Nationwide FAF Interstates, updated counts and road widenings from 2010 to 2018
- *Trucks* – replaced QRFM approach with disaggregated FAF matrices
- *Externals* – removed through trips except those from FAF flows
- *Trip Generation* – rates updated to reflect NHTS 2017 Midwest Region
- *Trip Distribution* – updated trip attraction rates per NCHRP 716
- *Auto Occupancy* – new step converting person trips to vehicle trips
- *Trip Assignment* – added 4-period time-of-day assignments
- *Post Processing* – added metrics not previously included for validation
- *Model Validation* – in progress; 19 runs completed to date

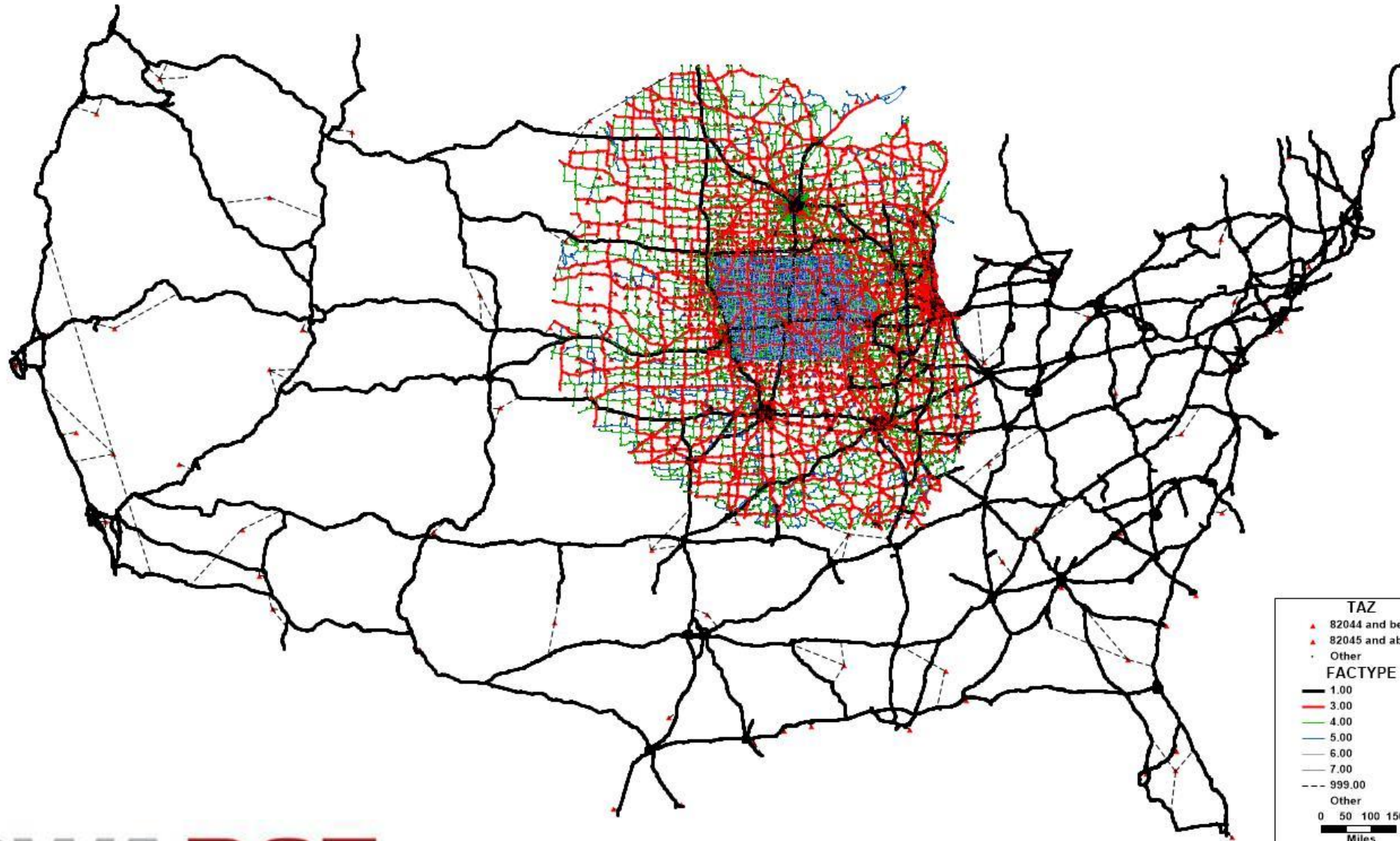
- *Participation in NCHRP 20-44 Right-Sizing Implementation*
 - Task RS-1. Sensitivity to Alternative Economic Futures/Growth Rates
 - *Use existing iTRAM to test alternative employment scenarios*
 - Task RS-2: Computation and Mapping of User Benefits
 - *Quantify and map benefits of network investment scenarios*
 - Task RS-3: Incorporation of Highway and Bridge Condition Variables
 - *Include anticipated pavement and bridge conditions in network attributes*
 - Task RS-4: Post-Processors for Exploratory Right-Sizing Applications
 - *Tools for trip length assessment, high-cost/low volume road assessment, and capacity threshold assessment*
- *Work on statewide plan anticipated in late Spring 2021 using iTRAM*

Current Schedule

Revised Project Schedule - iTRAM Update



Questions/Comments



TAZ

- ▲ 82044 and below
- ▲ 82045 and above
- Other

FACTYPE

- 1.00
- 3.00
- 4.00
- 5.00
- 6.00
- 7.00
- - - 999.00
- Other

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