Regional STOPS Transit Forecasting Model

TAC Planning

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Simplified Trips-On-Project Software (STOPS)

- FTA-developed platform for transit ridership forecasting
- Data-driven model, calibrated and validated against national transit data
- Local implementation ("incremental STOPS") based on local on-board survey data
- Focus is on understanding current travel patterns based on detailed
  - Survey data
  - Detailed transit schedules
  - Detailed ridership data
- Allows resources to be focused on interpretation of model results

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FTA CIG Program- # of Projects by Method

CIG Report Year (Year of Submission and Review)	FY'16 (2014)	FY'17 (2015)	FY'18 (2016)	FY'19 (2017)	FY'20 (2018)
Local Travel Forecasting Model	10	1	2	4	2
Local Data-Driven Forecasting Model	0	2	1	0	0
STOPS	7	6	6	7	9
Core Capacity*	N/A	4	1	3	0
Warrants*	N/A	3	5	5	0

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Local Implementation

- Past/Ongoing:
  - Gold Line (Metro Transit)
  - Rush Line (Ramsey County)
  - Orange Line Extension (Dakota County)
  - E Line (Metro Transit)

- Upcoming:
  - Riverview (Ramsey County)

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Motivations

- Evolving capability of STOPS

- Need for redundant forecasting capabilities
  - Primary forecasting tool for some projects
  - QA/QC tool for others

- Unify corridor-level approaches:
  - Calibrate model to consistent level of detail throughout system
  - Develop base implementation that can be used in future corridor-level forecasting
  - Validate model on regional scale
  - Provide instructions and tools for updating new project with current data

Work Plan

- Review previous STOPS implementations
  - Summarize findings from local corridor-level projects (Gold Line, Rush Line, Orange Line, E-Line)
  - Summarize knowledge from all known regional STOPS models nationwide
  - Specify proposed model framework
- Model Implementation
- Model Validation
  - Test ability of model to understand known ridership markets, sensitivities
- Base Forecast
  - Base-year and 2040 Build (all TPP-funded transitways)
- Analysis Tools
  - Post-processing to extract meaningful information from model runs
- Documentation and User Guide

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Schedule

- November 2019 – RFP released

- Early-March 2020 – Consultant hired

- Mid-March 2020 – Project kickoff

- Late-Summer 2020 – Project complete

Questions: