RM3P

Travel Decisions Powered by Data

The "Cutting Edge" of RM3P

7th Annual Northern Virginia Transportation Roundtable

Panel 2: NoVA InNoVates

Regional Multi-Modal Mobility Program

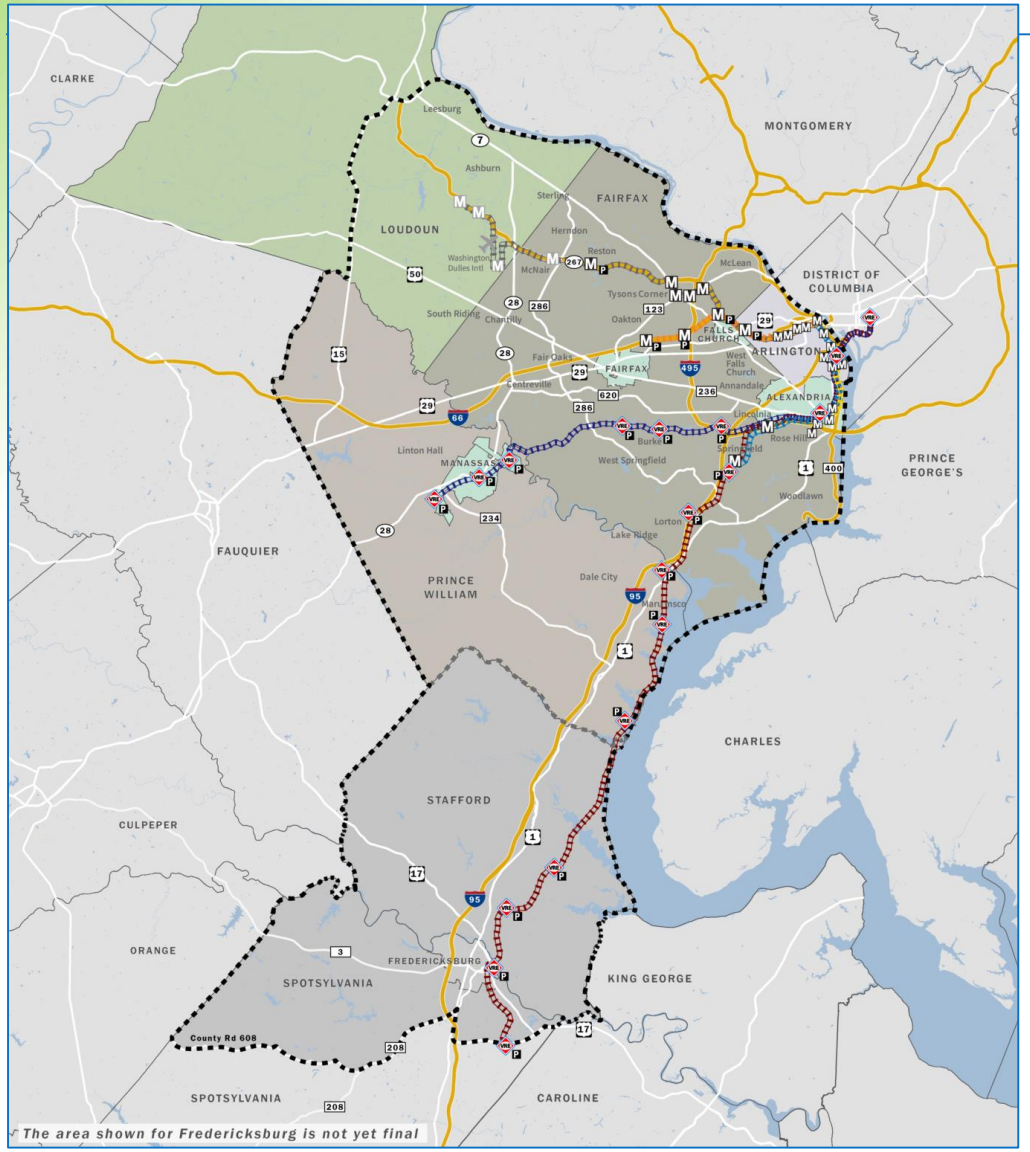
VDOT

DRPT

March 30, 2022

About RM3P

RM3PVirginia.org



Regional Multi-Modal Mobility Program

- A **data-driven** multi-modal mobility program comprising of 4 active projects:
  - Data-Exchange Platform (DEP)
  - AI-Based Decision Support System (AI-DSS)
  - Dynamic Incentivization (DI)
  - Commuter Parking Information System (CPIS)
- Aim to improve **safety, mobility, and reliability**

- Based on Integrated Corridor Management (ICM)
- Strong, **extensive partnership** network
- RM3P Region: reflecting commute travel shed

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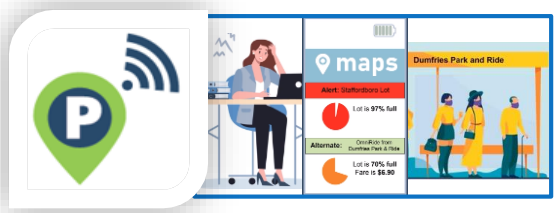
The “Cutting Edge” of RM3P

RM3P is about working together as a community across modes, jurisdictions, and agencies.

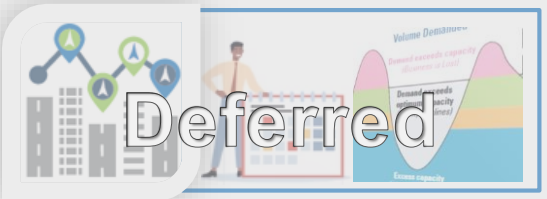
- Regional matrix project management
- Agile management under a solid organization framework
- Agile development – implement rapidly and incrementally
- Data-driven
- Multi-modal incident response
- “Recruit” commuters as part of real-time transportation solutions



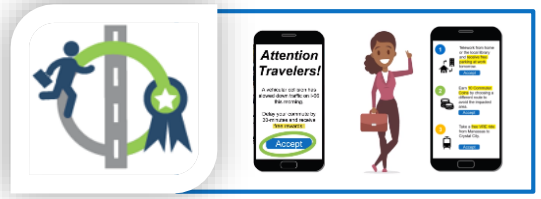
Commuter Parking Information System

AI-Based Decision Support System (AI-DSS)

Data-Exchange Platform



Multi-Modal Analytical Planner (MMAP) System



Dynamic Incentivization (DI) System

Data-Exchange Platform

https://RM3P.RITIS.org/

Approach

- Build on existing platform – RITIS
- **Hybrid agile** development process
- **Project initiation** – sufficient to begin development quickly
- **Six epics** – 3 months each
  - Launch during development
  - Rolling data discovering

Development Outcome

- Scalable data storage and exchange
- Capture, process, and exchange real-time and historic multi-modal travel conditions
- Harmonize data and made available via APIs
- Build in API Authentication

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DEP harnesses transportation data to support improved responses and multi-modal decision-making both by public agencies and commuters.

Decision Support System

Approach

- **Hybrid agile** development process
  - Allow maximum flexibility within fixed boundaries
  - Multiple releases
- Walk, run before flying
- SaaS – technology trend
- Encourage innovation
- Encourage vendor to supplement additional data

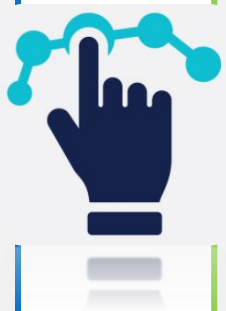
Development Outcome

- AI prediction – proactive, rather than reactive, in incident response
- Multi-modal & multi-agency response
- Trigger to dynamically incentivize travelers – reduce demand on transportation networks
- Agency interface is adapted to agencies' capabilities

Dynamic Incentivization

Approach

- **Hybrid agile** development process
- Encouraged to make use of an existing app as the primary solution app
- Consumer focus –
  - Maximize user adoption and engagement
  - Driven by consumer desires and project goals
- Aim for financial sustainability over time



Development Outcome

- Comprehensive programs –
  - Dynamic – real-time, incentive offers
  - Challenges – short-term
  - Loyalty – long-term
- Consumer Choices –
  - System architecture to allow multiple app providers to access the incentive solutions
  - Progress towards incentive goals will accrue in a single place in the back-end
- Ecosystem: 1+1 > 2
  - Business rules to complement existing TDM programs
  - Partner with and leverage existing TDM programs' extensive employer outreach framework

Commuter Parking Information System

Approach

- DaaS contract model - a turnkey service and a broad license for using and sharing of the data
- Require customized real-time data collection
- Real-time occupancy data collection – encourage infrastructure-free or infrastructure -light technique
- Accept real-time parking lot status
- Independent data validation
- Allow contract piggybacking

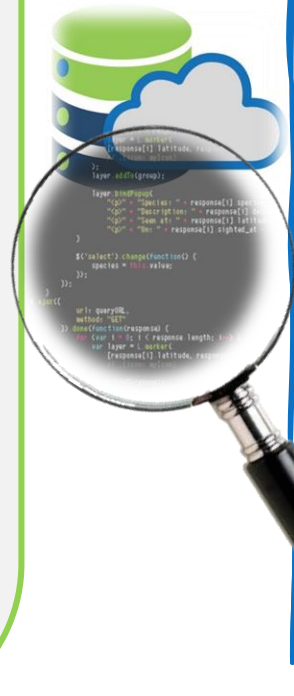
Development Outcome

- All parking data that commuters need
- Focus on producing and disseminating data to agencies and third-party providers
- Parking data is consistent across the region

Join the RM3P Community

Agencies Now and Later

- Share your data with & use data from DEP
- Share your support of RM3P
- Join the DSS response community
- Co-promote the DI apps
- If your agencies own/operate commuter parking lots:
  - Make vendor access easy
  - Leverage RM3P parking contract for collecting data from more lots



Third-Party Providers

- Use data made available from the DEP and turn it into valuable information for your users
  - Include parking & bike share as part of a complete trip options
  - Include commuter lots to your parking related apps
  - Possibility is endless
  - Let's talk!

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THANK YOU

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