

PennDOT Statewide Signals Meeting

Signal Analytics Session II

JUMP TO EXERCISES

CATT LABORATORY

September 23, 2026

12:45 – 2:15 PM

Agenda

- Introduction to RITIS Signal Analytics
  - Accessing the platform
  - Available tools
- Using Signal Analytics in your workflow
- Hands-on: setting up RITIS Signal Analytics templates
- Exercise 1: Longest Delays Light Night report
- Exercise 2: Data discovery – explore an interesting intersection
- Time for Questions

© UMD CATT Laboratory

What is RITIS Signal Analytics?

- Works in parallel with INRIX Signals IQ
- Works with the same underlying source data
- Provides additional visualization options

INRIX IQ Signal Analytics

- Dashboard
- Analysis for standard dayparts
- Daily/weekly alerts
- Corridor reports

RITIS Signal Analytics

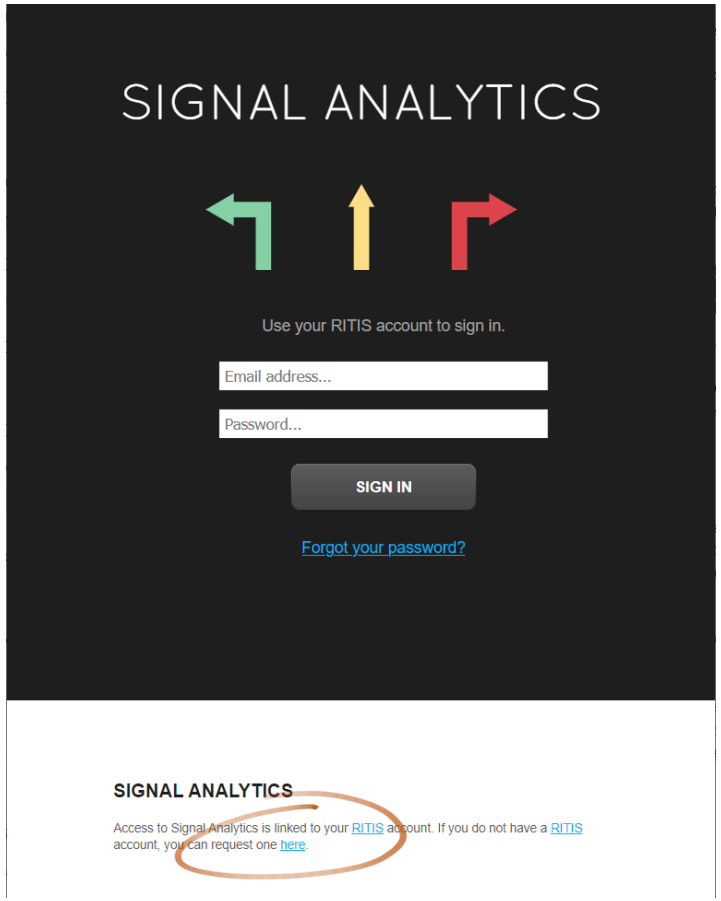


- Deep dive analytics
- Custom date/time ranges
- Data exploration

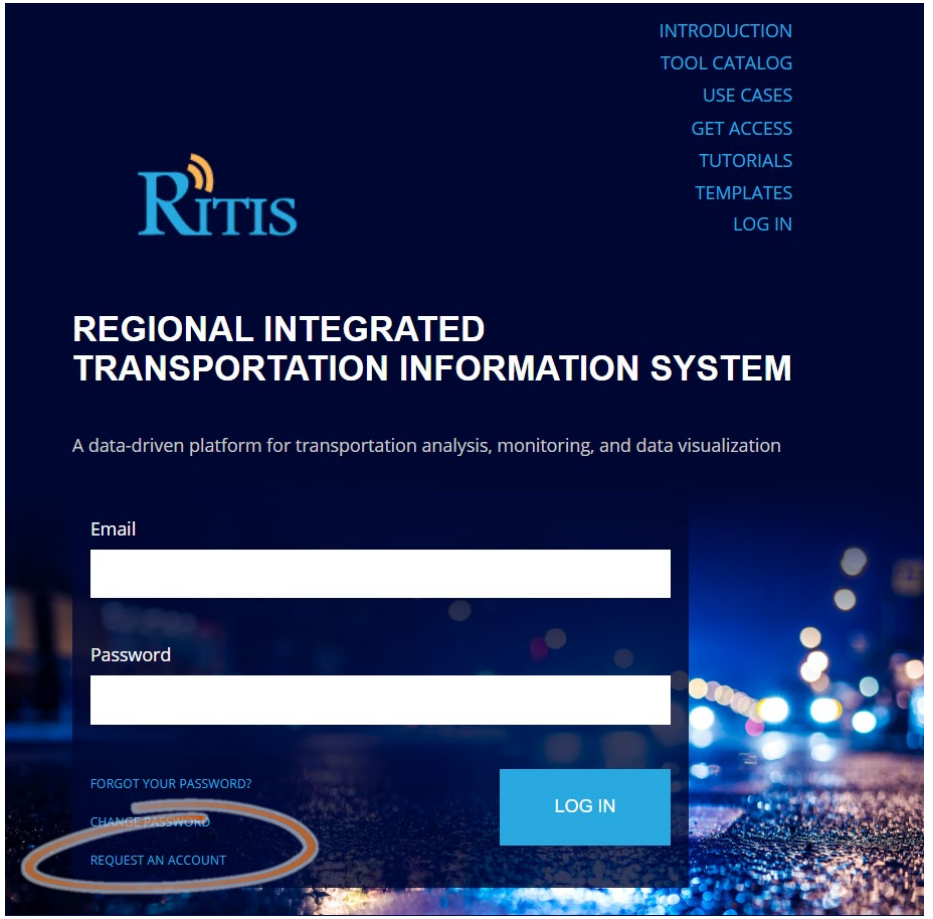
© UMD CATT Laboratory

Accessing RITIS Signal Analytics

https://signals.ritis.org/ OR https://ritis.org/

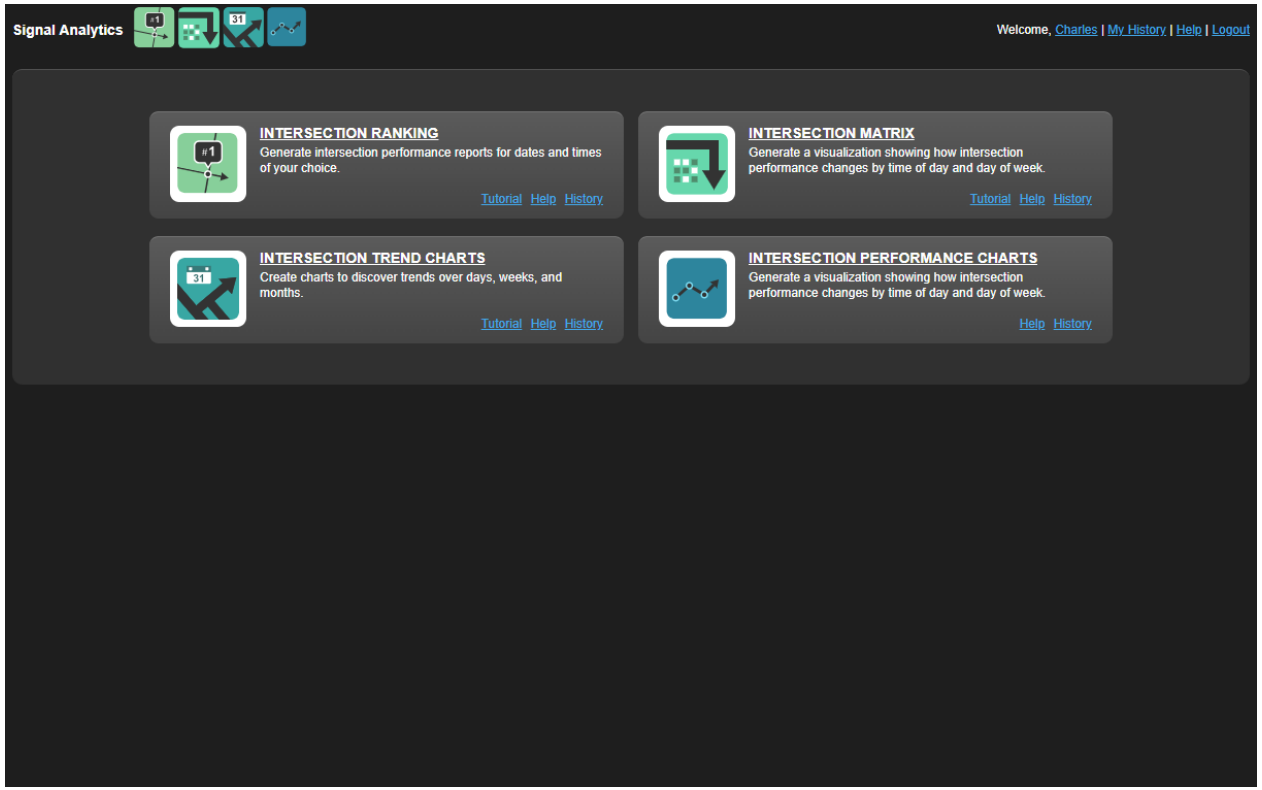


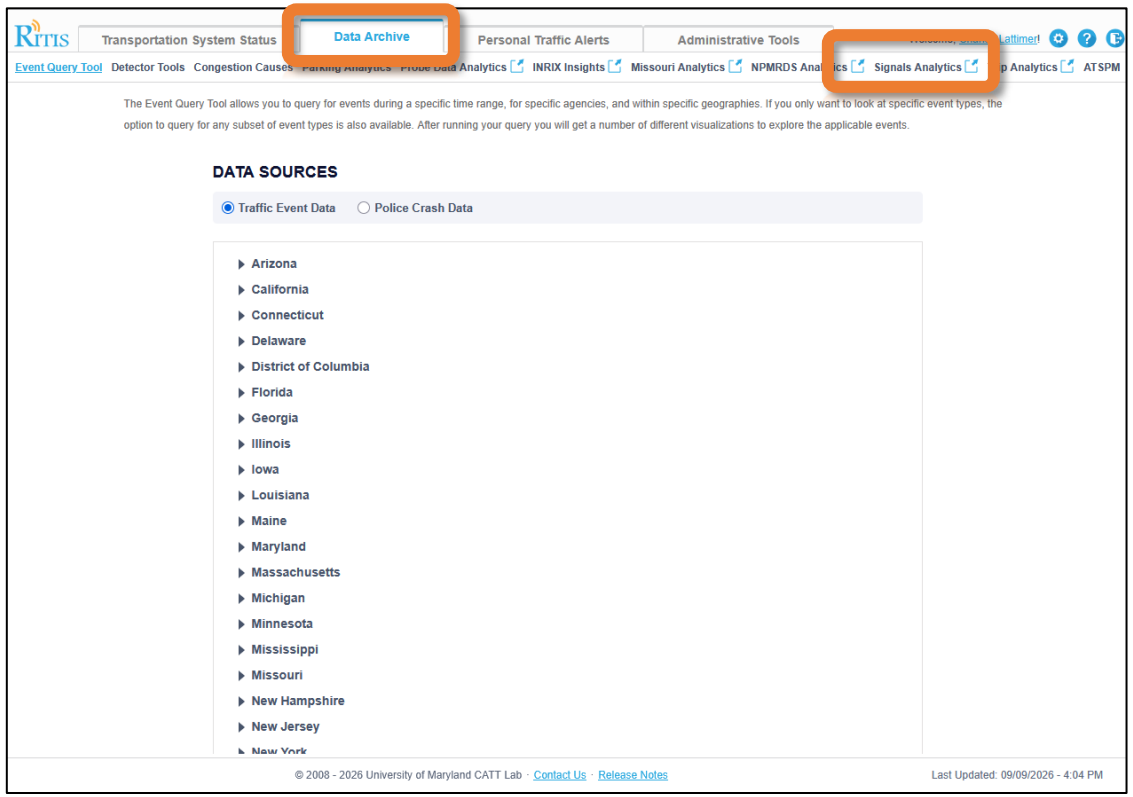
If you don't have a RITIS account, click to request an account



Accessing RITIS Signal Analytics

https://signals.ritis.org/ OR https://ritis.org/





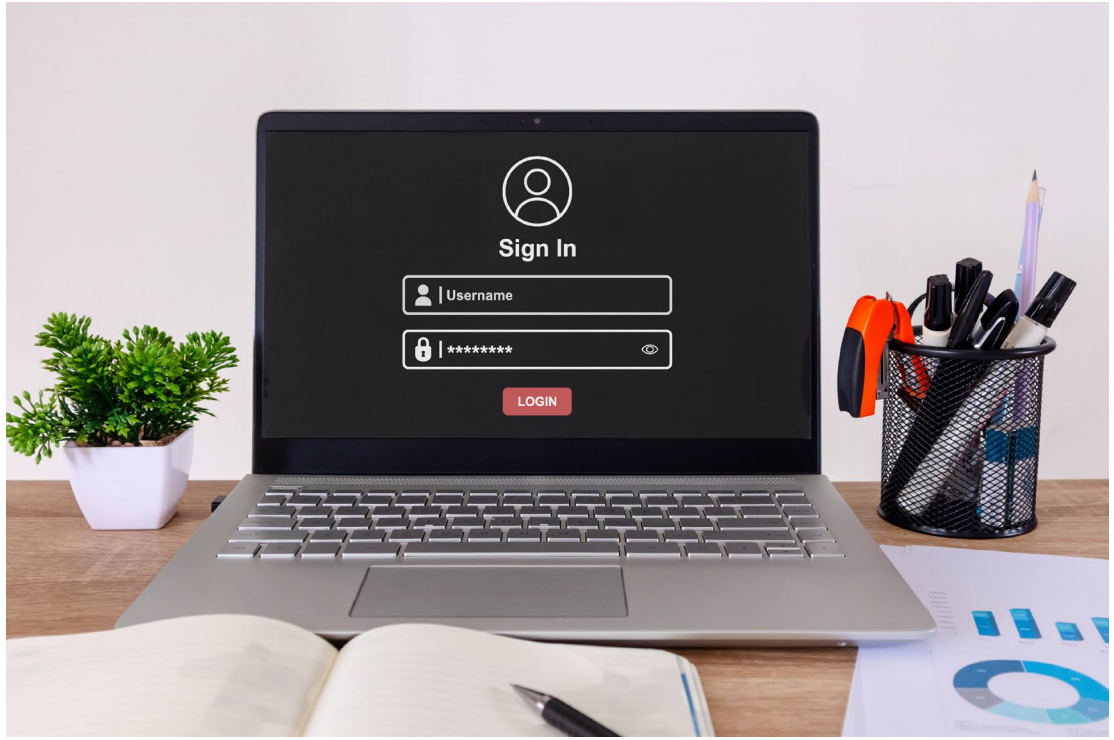
Accessing RITIS Signal Analytics

- Start logging in now!

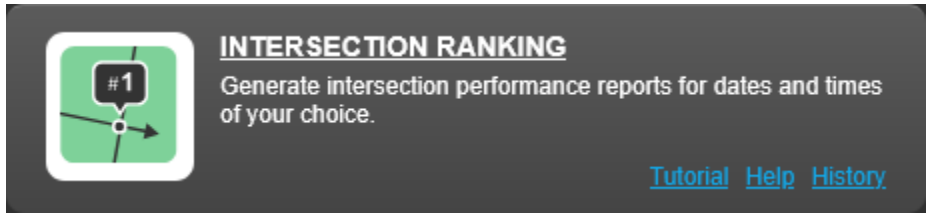
  signals.ritis.org/

- Email support@ritis.org if you need help with your RITIS account

- Hands-on exercise coming later in presentation



Available tools



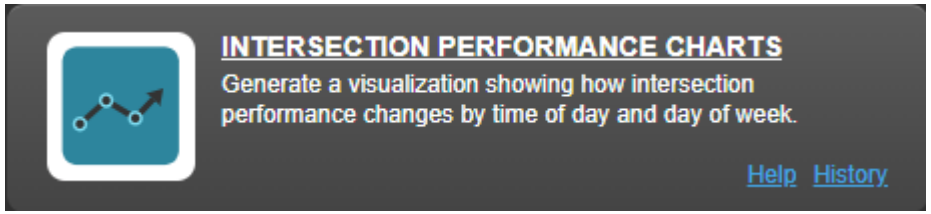
System-level reports: scan for issues across many intersections



Dive deep into individual intersections: visualize performance by time of day and day of week



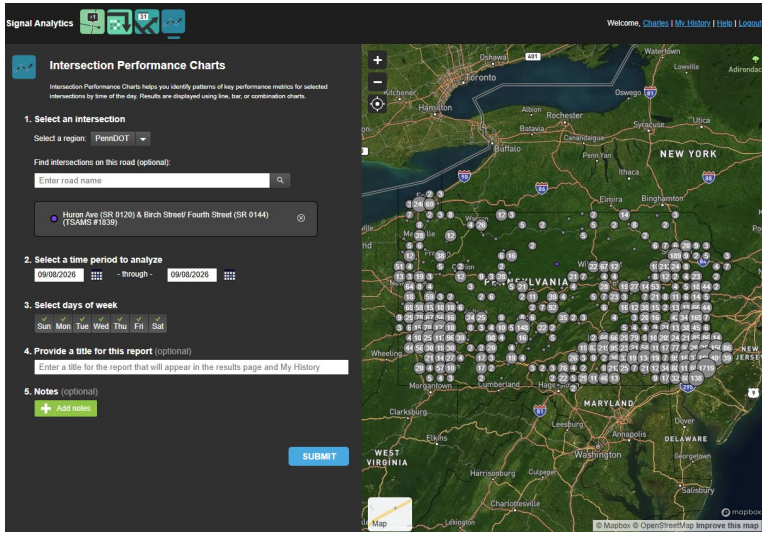
Longitudinal analysis: visualize changes in intersection performance over time

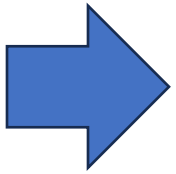


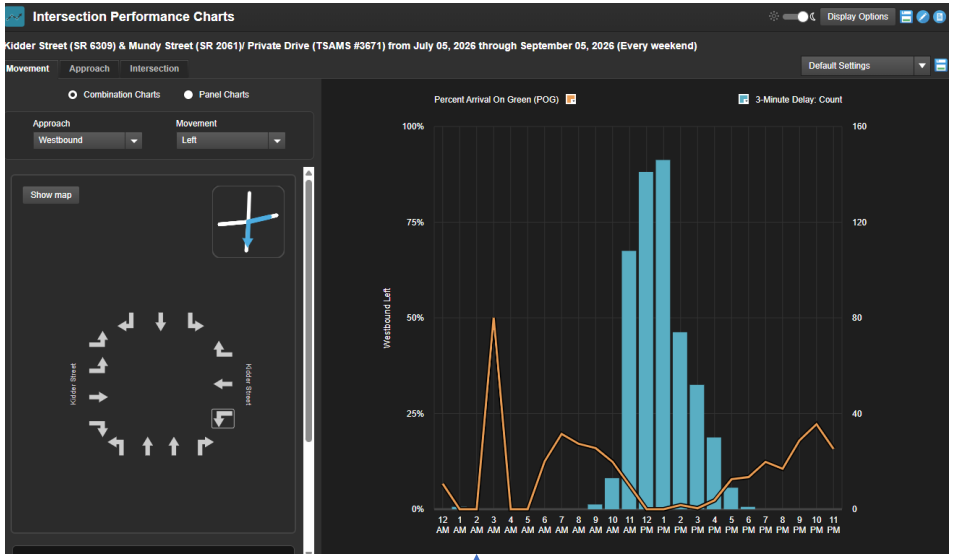
Find daily patterns: Visualize typical time-of-day performance patterns

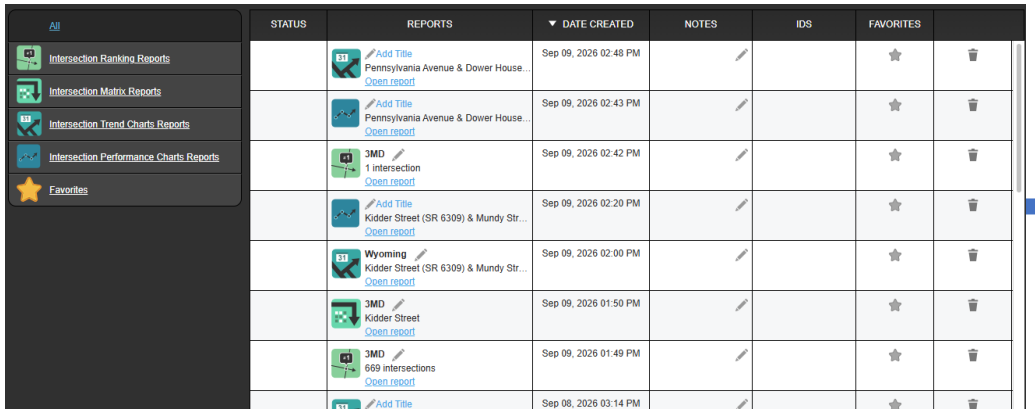
© UMD CATT Laboratory

Submit a query, then view your report







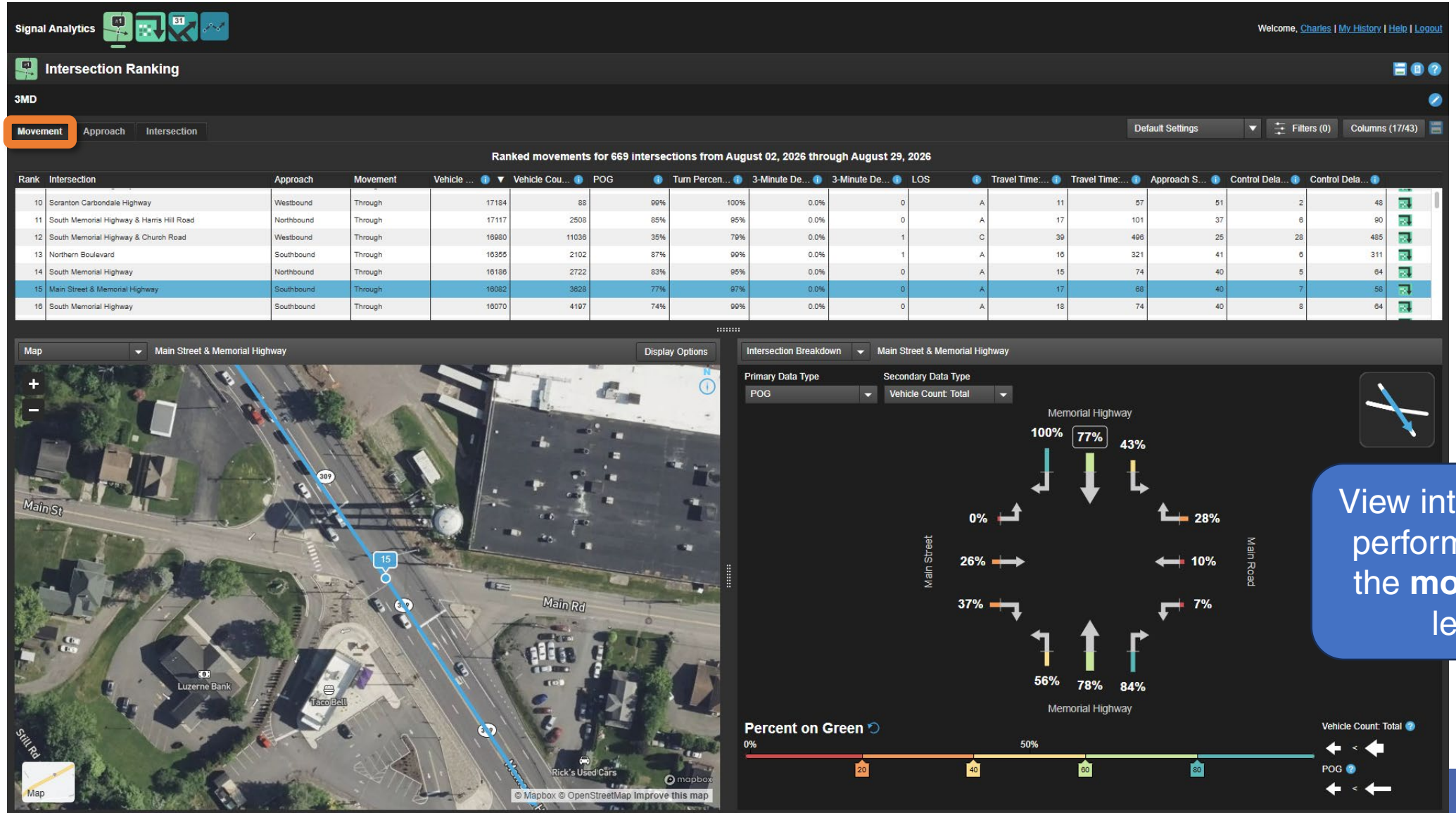


You can also view previous reports from the **My History** page

© UMD CATT Laboratory

Intersection Ranking

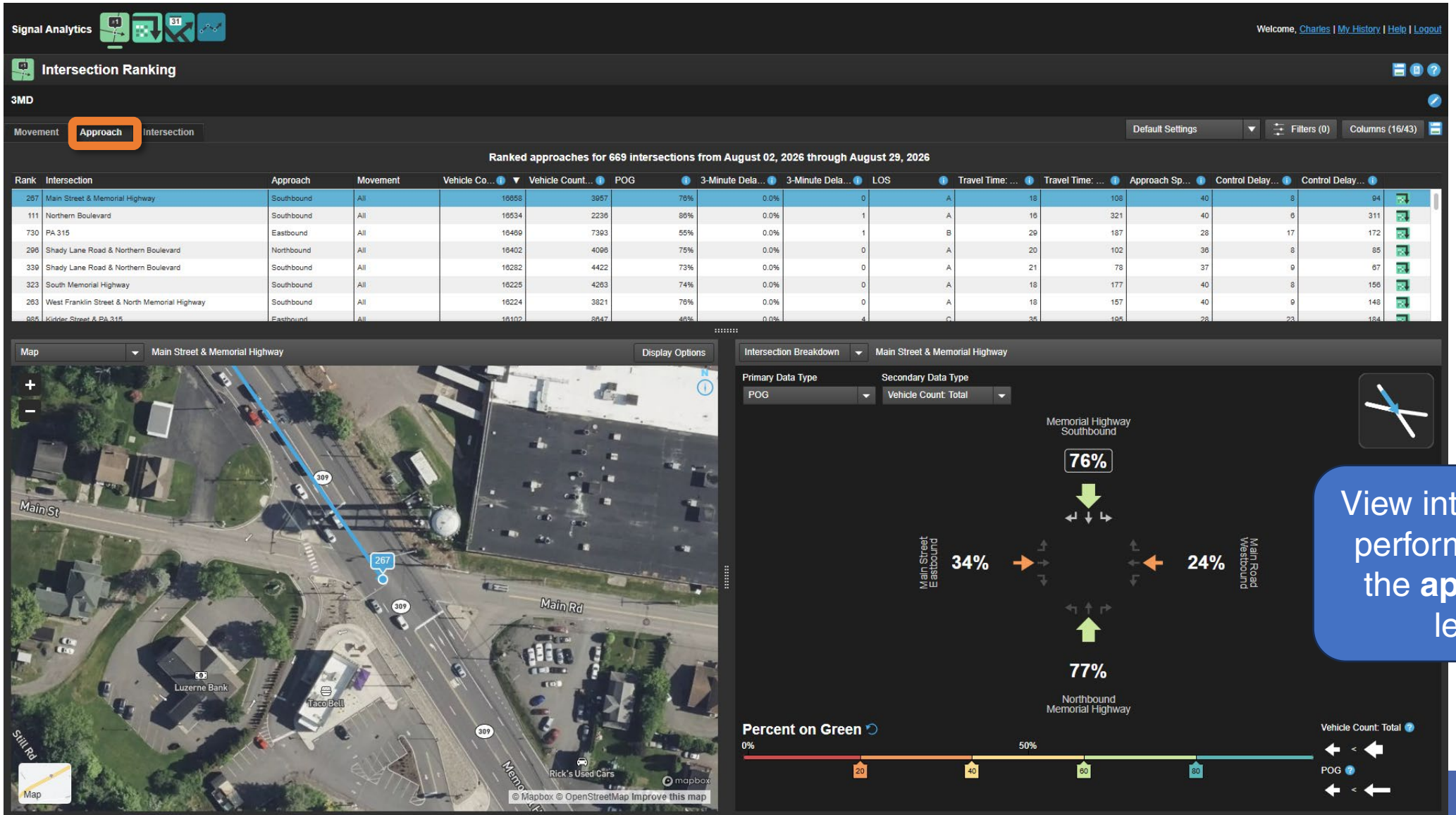
Sort and rank by performance at the **movement** level



View intersection performance at the **movement** level

Intersection Ranking

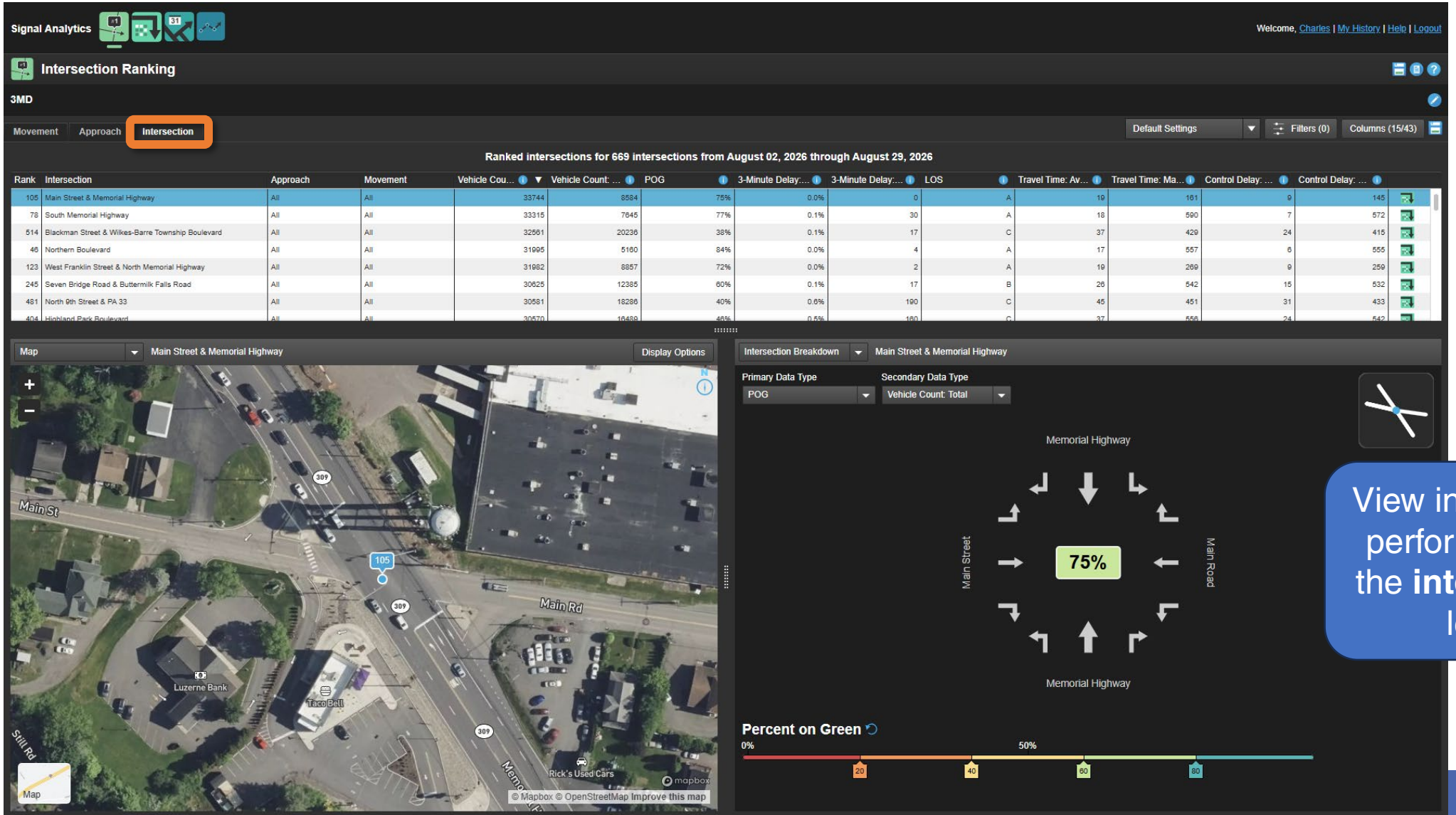
Sort and rank by performance at the **approach** level



View intersection performance at the **approach** level

Intersection Ranking

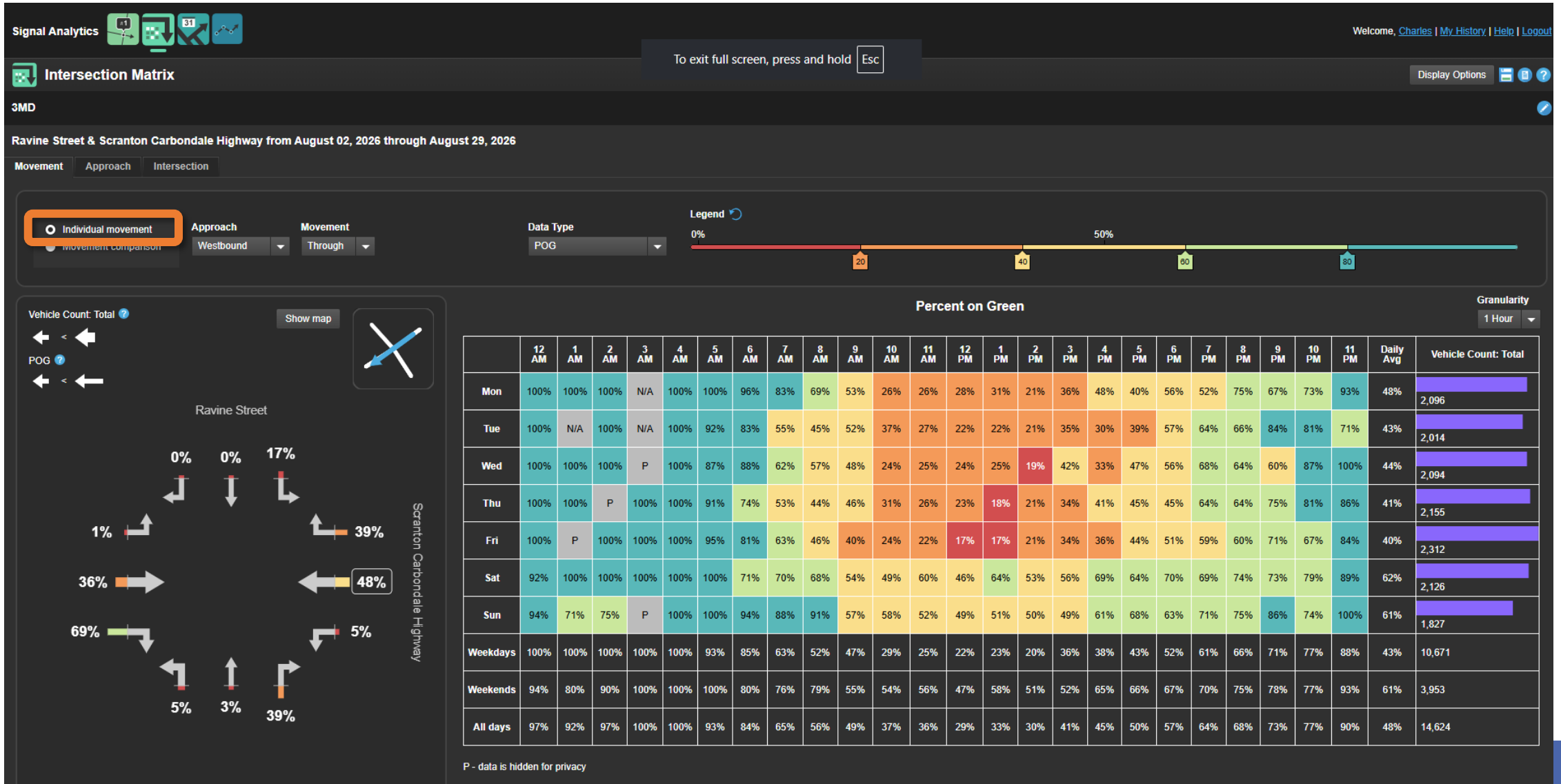
Sort and rank by performance at the **intersection** level



View intersection performance at the **intersection** level

Intersection Matrix

Intersection performance by time of day and day of week (at movement, approach, and overall intersection level)

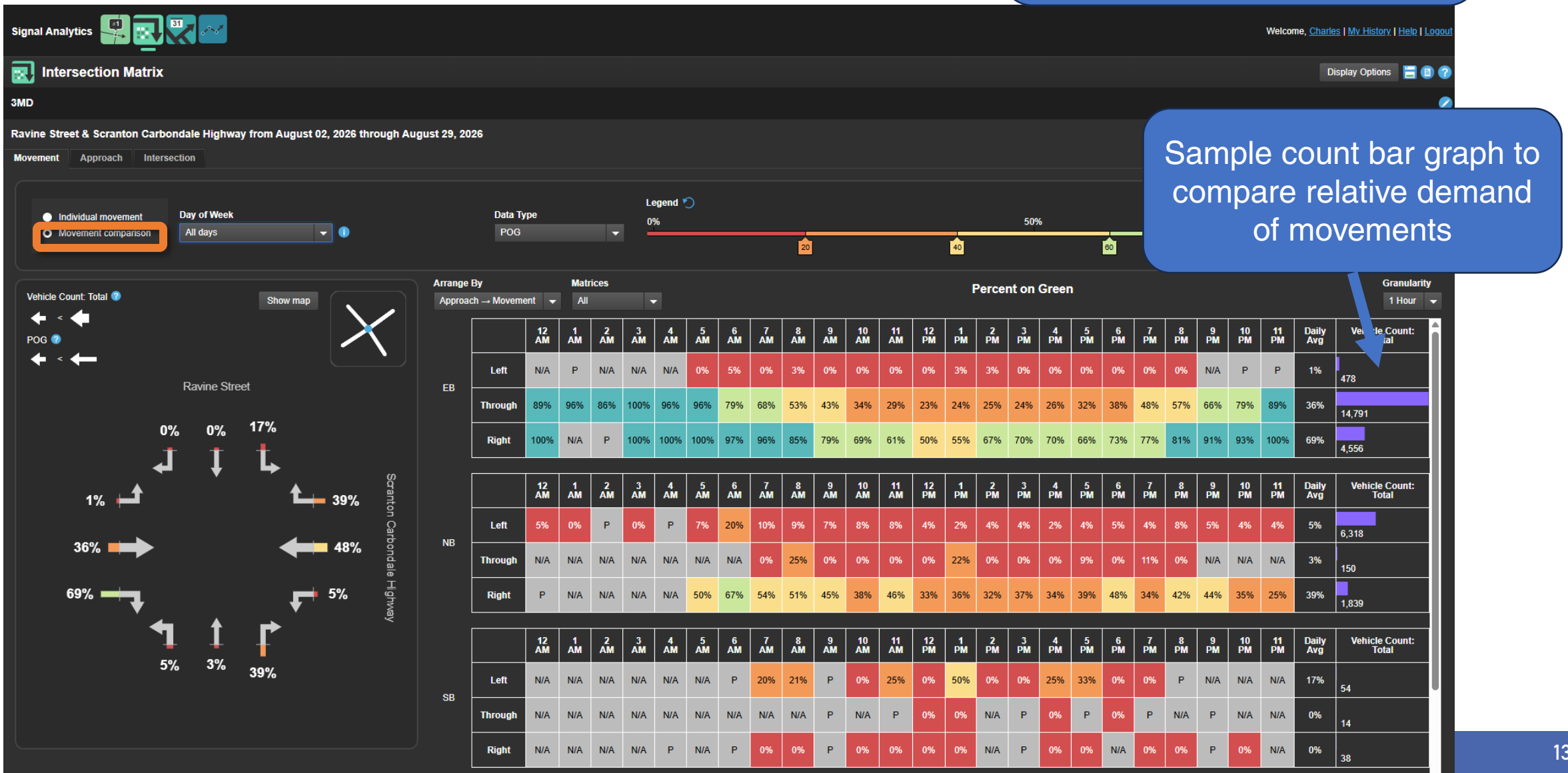


	12 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Daily Avg	Vehicle Count: Total
Mon	100%	100%	100%	N/A	100%	100%	96%	83%	69%	53%	26%	26%	28%	31%	21%	36%	48%	40%	56%	52%	75%	67%	73%	93%	48%	2,096
Tue	100%	N/A	100%	N/A	100%	92%	83%	55%	45%	52%	37%	27%	22%	22%	21%	35%	30%	39%	57%	64%	66%	84%	81%	71%	43%	2,014
Wed	100%	100%	100%	P	100%	87%	88%	62%	57%	48%	24%	25%	24%	25%	19%	42%	33%	47%	56%	68%	64%	60%	87%	100%	44%	2,094
Thu	100%	100%	P	100%	100%	91%	74%	53%	44%	46%	31%	26%	23%	18%	21%	34%	41%	45%	45%	64%	64%	75%	81%	86%	41%	2,155
Fri	100%	P	100%	100%	100%	95%	81%	63%	46%	40%	24%	22%	17%	17%	21%	34%	36%	44%	51%	59%	60%	71%	67%	84%	40%	2,312
Sat	92%	100%	100%	100%	100%	100%	71%	70%	68%	54%	49%	60%	46%	64%	53%	56%	69%	64%	70%	69%	74%	73%	79%	89%	62%	2,126
Sun	94%	71%	75%	P	100%	100%	94%	88%	91%	57%	58%	52%	49%	51%	50%	49%	61%	68%	63%	71%	75%	86%	74%	100%	61%	1,827
Weekdays	100%	100%	100%	100%	100%	93%	85%	63%	52%	47%	29%	25%	22%	23%	20%	36%	38%	43%	52%	61%	66%	71%	77%	88%	43%	10,671
Weekends	94%	80%	90%	100%	100%	100%	80%	76%	79%	55%	54%	56%	47%	58%	51%	52%	65%	66%	67%	70%	75%	78%	77%	93%	61%	3,953
All days	97%	92%	97%	100%	100%	93%	84%	65%	56%	49%	37%	36%	29%	33%	30%	41%	45%	50%	57%	64%	68%	73%	77%	90%	48%	14,624

Intersection Matrix

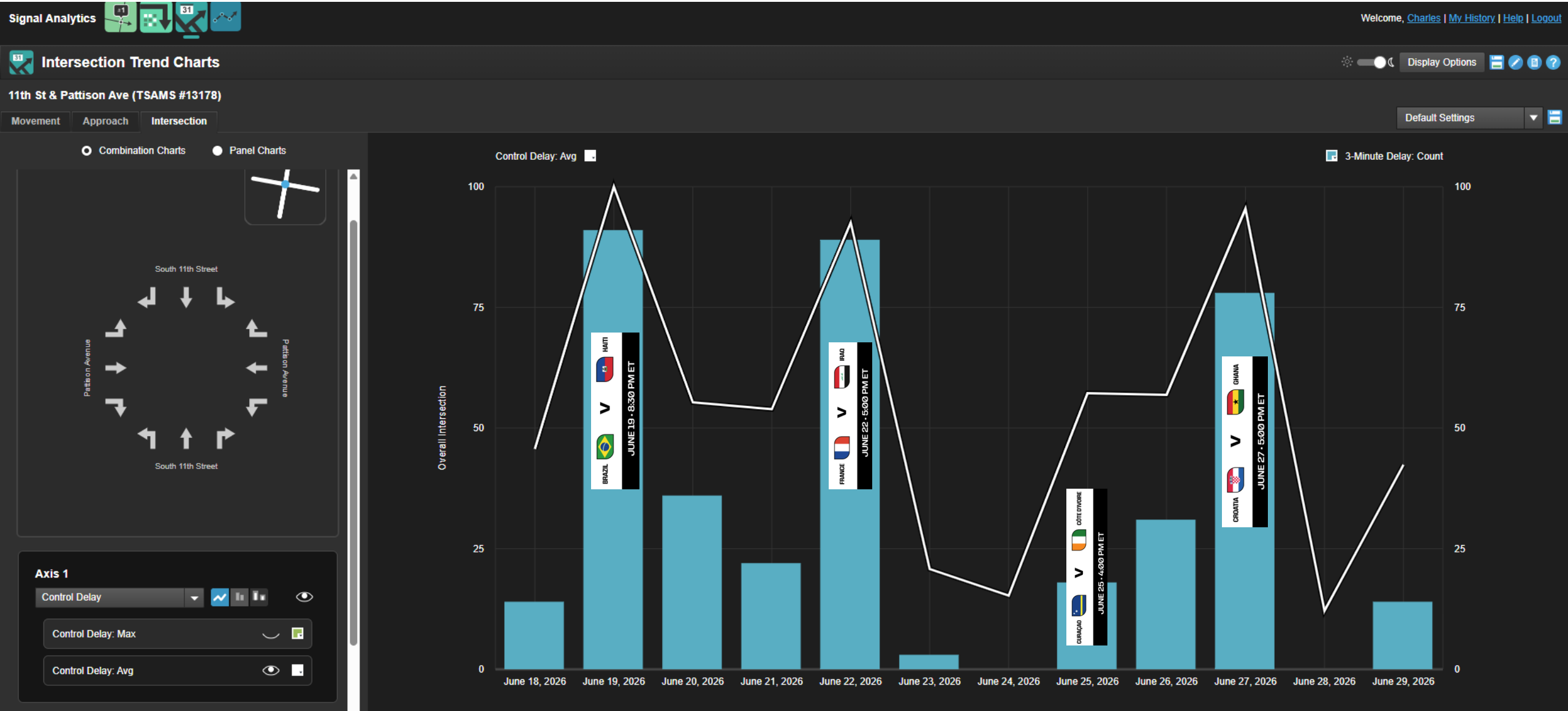
Use the movement comparison option to put similar approaches and movements side-by-side

Sample count bar graph to compare relative demand of movements



Intersection Trend Charts

Higher intersection-wide 3MD during most World Cup matches

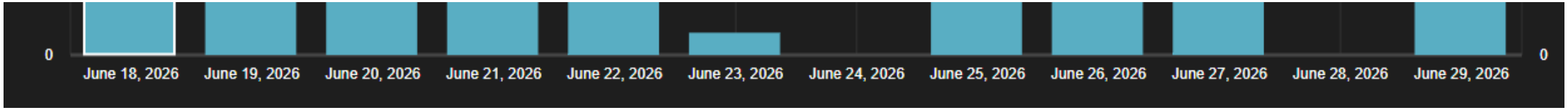


Intersection Trend Charts

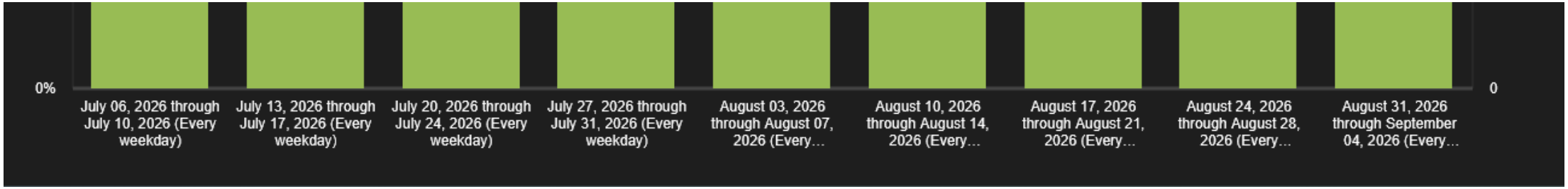
You have many options of time scale to use

Timescales

Daily



Weekly



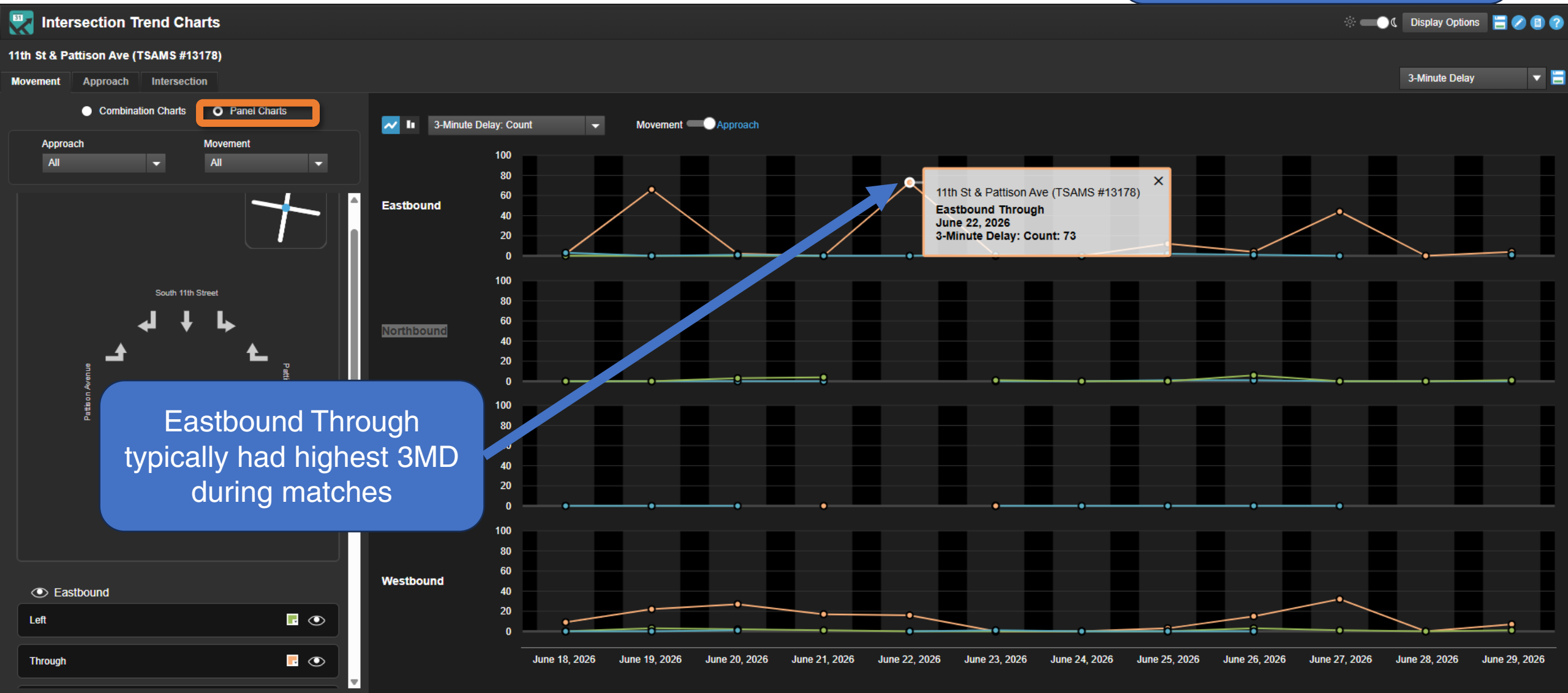
Monthly



© UMD CATT Laboratory

Intersection Trend Charts

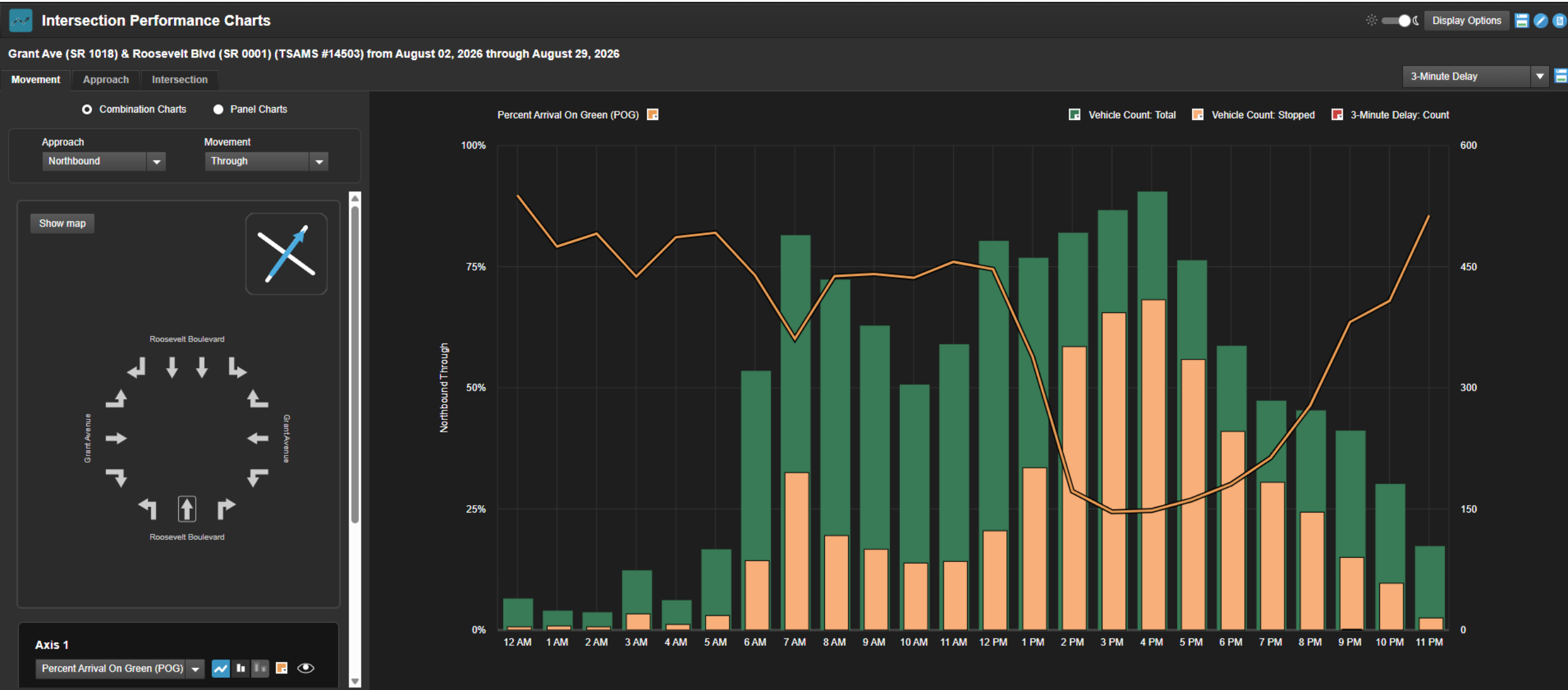
The panel charts option lets you compare all movements at once



Eastbound Through typically had highest 3MD during matches

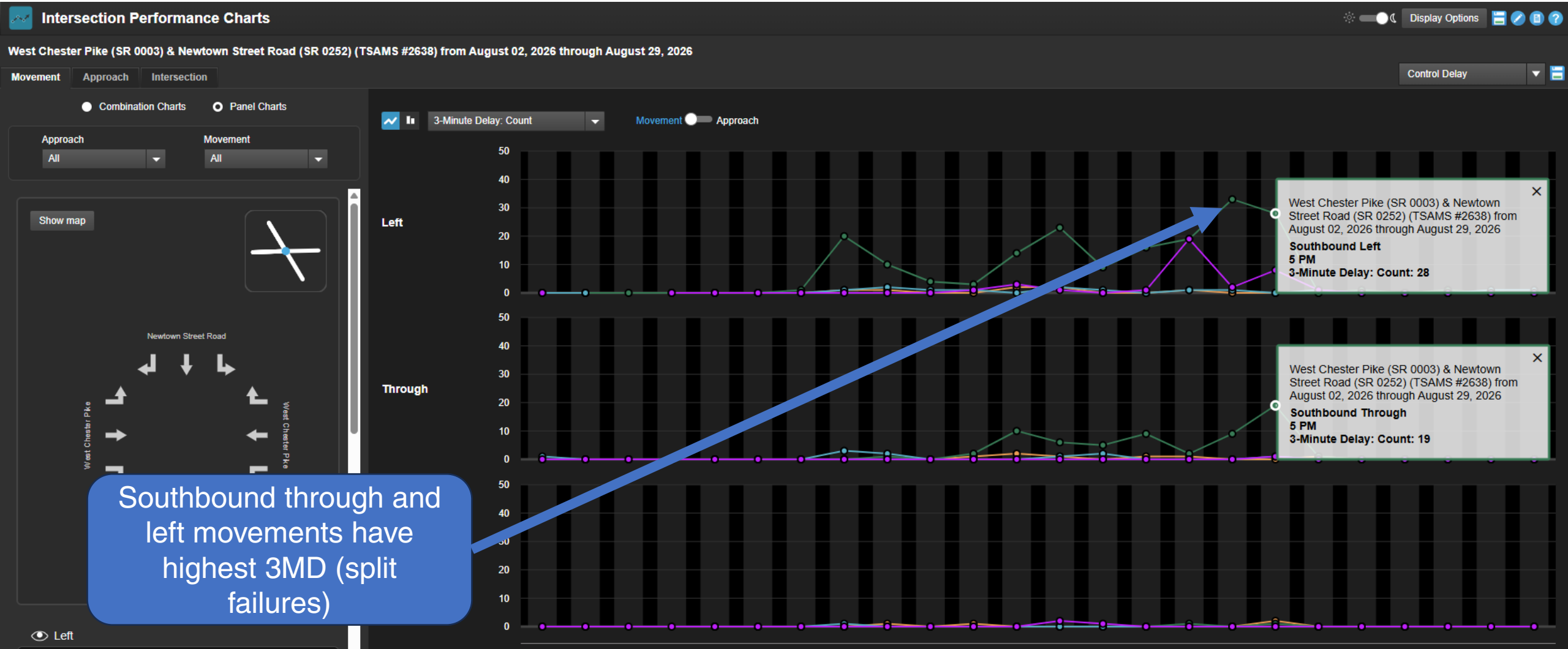
Intersection Performance Charts

Typical time-of-day performance by movement, approach, or overall intersection



Intersection Performance Charts

The panel charts option lets you compare all movements at once



Using Signal Analytics in your workflow

Traditional Signal Timing

Trigger
- Complaints
- 3-5 Year Retiming

Design
- Collect Data
- Design

Implement
- Install
- Fine Tune
- Evaluate

DONE? Wait for next complaint or retiming cycle

Performance-Based Signal Timing

Monitor Signals
- Daily/weekly alerts

Identify Issues
- Look for unexpected changes
- Check on known trouble spots

Develop Fix
- What fixes do the data support?

Deploy fix
- Check the tools—did things improve?
- If not, adjust and try again

Repeat!

Source: adapted from FHWA

Common operations scenarios

Prioritize signal retiming

- **Intersection Ranking:** Rank intersections by control delay, POG, or other relevant metric
- **INRIX Corridors:** identify decreasing corridor performance

Signal timing optimization

- **Intersection Matrix or Intersection Performance Charts:** are there unbalanced split failures (3MD)? How does POG compare with time-of-day plans?
- **Intersection Ranking:** is there lower than expected POG at a minor intersection on a corridor?
- **Intersection Trend Charts:** before/after comparison

Confirming citizen complaints

- **Intersection Matrix:** look for citizen issue by time of day and day of week

Identify maintenance issues

EXERCISE 1

- **Intersection Ranking:** *Longest Delays Late Night* report

Proactively look for issues

EXERCISE 2

- **Intersection Ranking**: scan for issues
- **Data discovery** with other tools

Sample operations workflow

City of Austin Mobility Management Center (MMC)

DAILY

IDENTIFY NEW ISSUES
- *INRIX Signal Analytics*

ACT ON ISSUES AND DOCUMENT THEM

COORDINATE AND MANAGE SCHEDULED ACTIVITIES

SHIFT SUMMARIES
- *Improved coordination/ hand-off and tracking outstanding tasks*

WEEKLY

IDENTIFY TRENDS
- *Top "X" lists of various issue types*
- *Changes in KPIs*

PREPARE FOR WEEK AHEAD
- *Upcoming events*
- *Scheduled work*
- *Major MMC tasks (backlog, etc.)*

MONTHLY

LOOK BACK
- *Identify larger trends*
- *Identify and address any lingering issues*
- *Analyze SRs, WOs*
- *Aggregate metrics for AMD*
- *Share lessons-learned in monthly training*

LOOK FORWARD
- *Upcoming events*
- *Major tasks*
- *Workload needs*

NON-REGULAR

SEASONAL
- *Prepare for Daylight Savings, school calendars*

EVENTS
- *Integrate tasks into Data Tracker*
- *Event Calendar*
- *Pre-Planning*
- *Debrief*
- *Closeout*

WEATHER EVENTS
- *Analyze locations with most frequent issues during storms*

© UMD CATT Laboratory





Hands-on exercises

Hands-on exercise:
Setting up RITIS Signal Analytics Templates

Creating Table Presets



Intersection Ranking

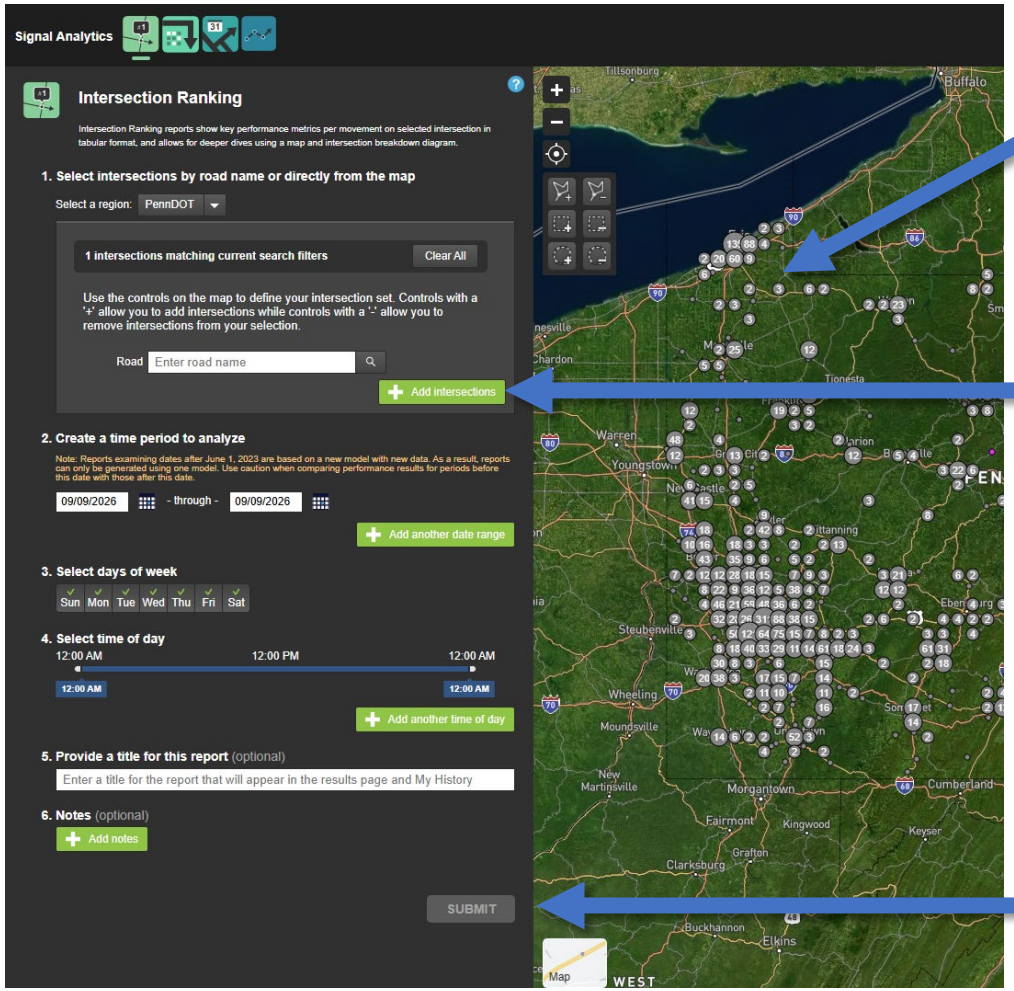
© UMD CATT Laboratory

Table presets

Open/create report to visit report page

Link: https://signals.ritis.org/analytics/intersection-ranking/?uuid=e1be59f6-9bf2-4754-b1bd-4aeda27154bd

If you've never created an Intersection Ranking Report



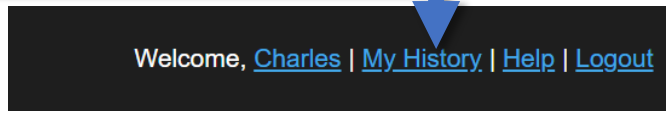
1. Click any intersection on map

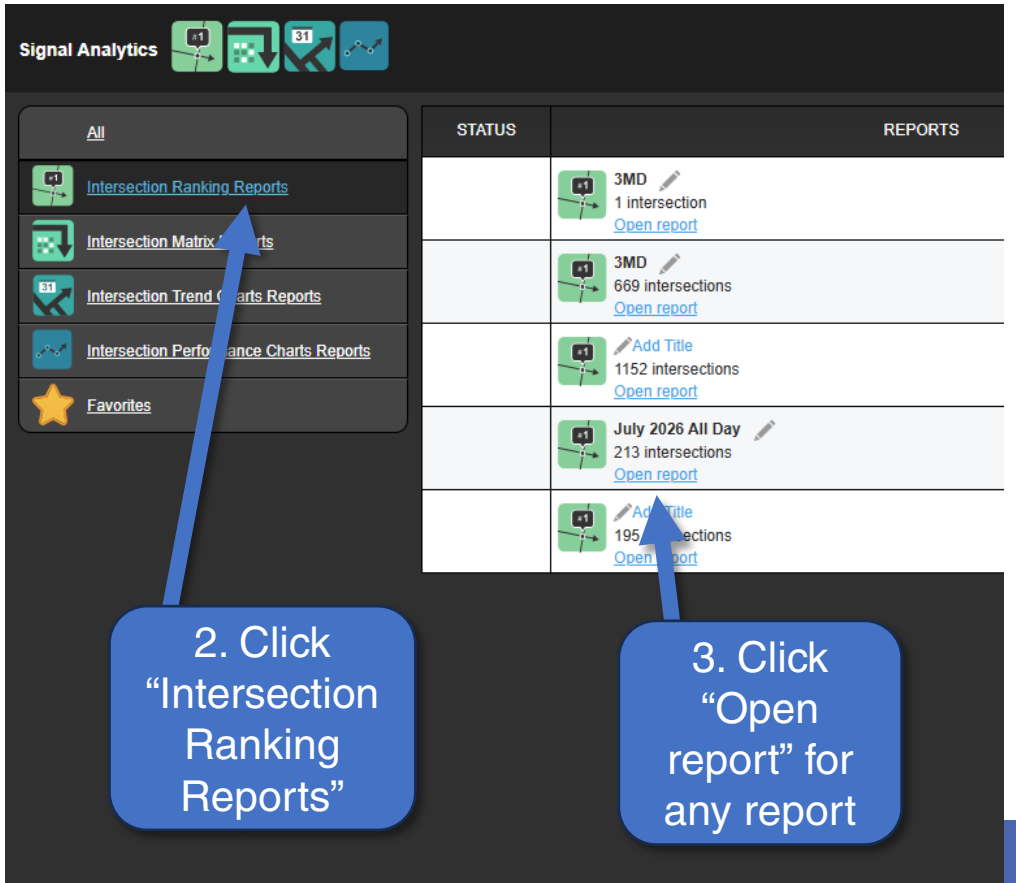
2. Click "Add intersections"

3. Click "SUBMIT"

If you've used the tool before

1. Click "My History"

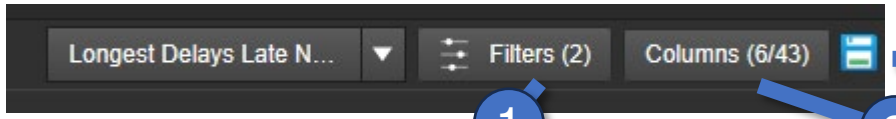




2. Click "Intersection Ranking Reports"

3. Click "Open report" for any report

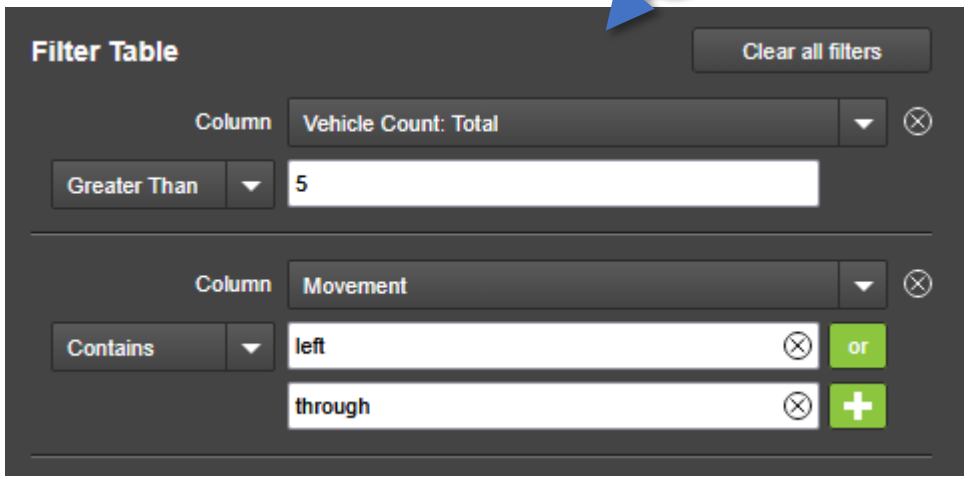
Table Preset #1:
Longest Delays Late Night

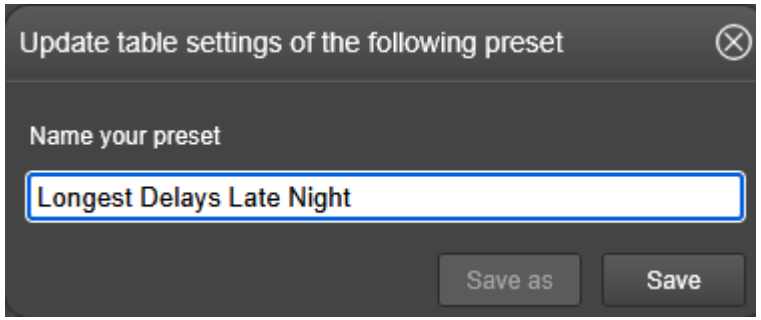


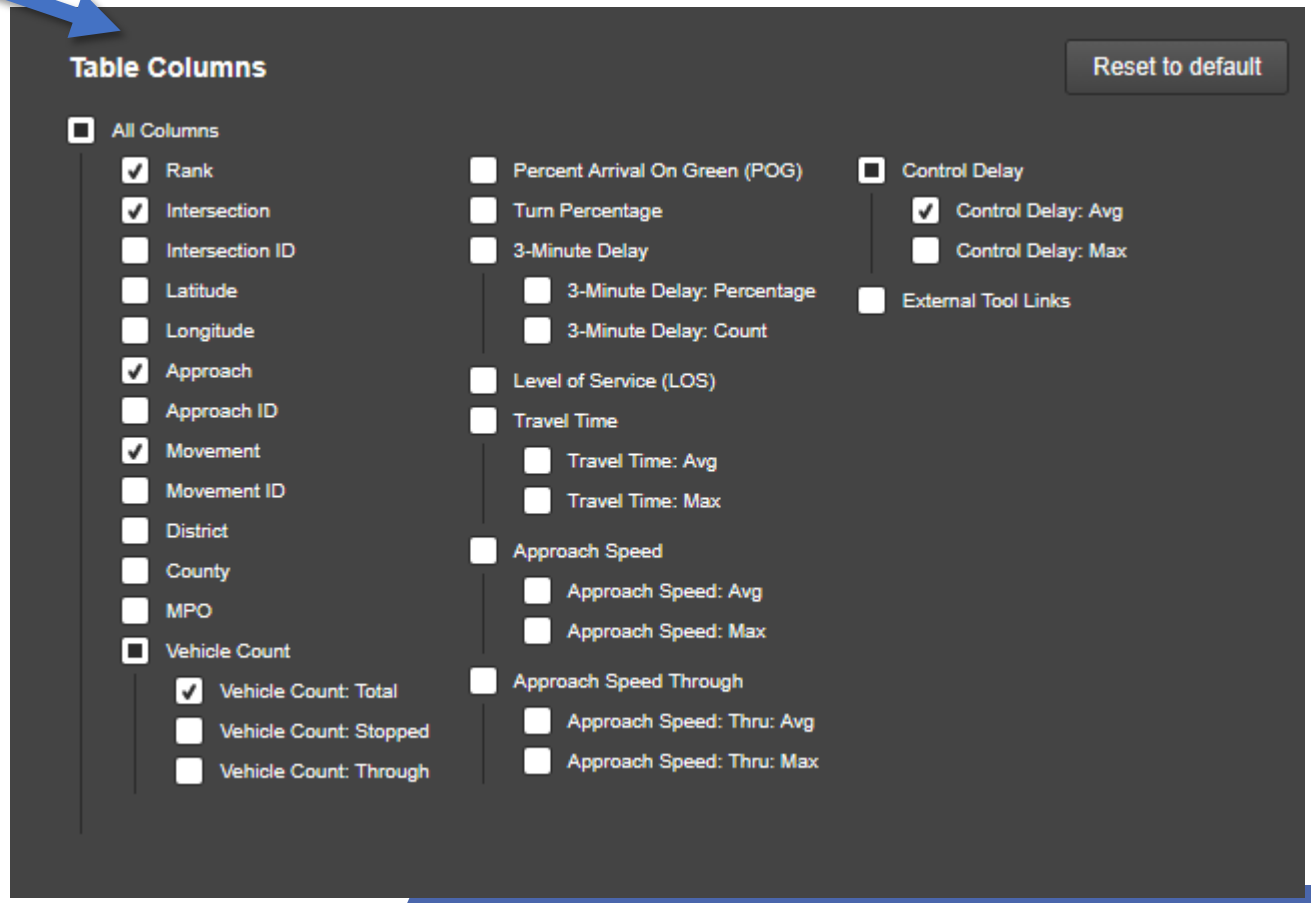
1

2

3







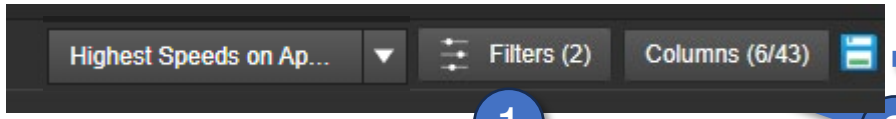
Columns to include:

- Rank
- Intersection
- Approach
- Movement
- Vehicle Count: Total
- Control Delay: Avg

***NOTE**: We filter out right turns and movements with five or fewer vehicles to reduce outliers like Uber/Lyft drivers waiting for their next ride or other atypical driving behavior not related to timing of the signal.*

© UMD CATT Laboratory

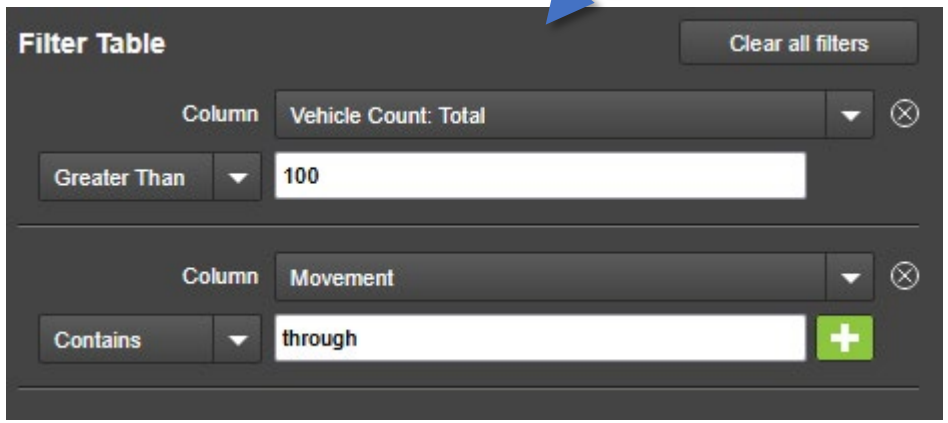
Table Preset #2:
Highest Speeds on Approach

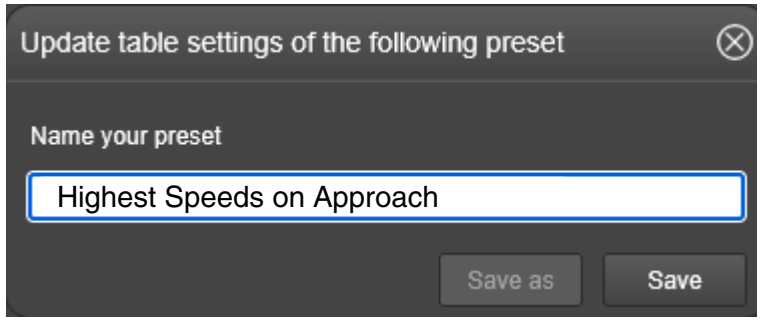


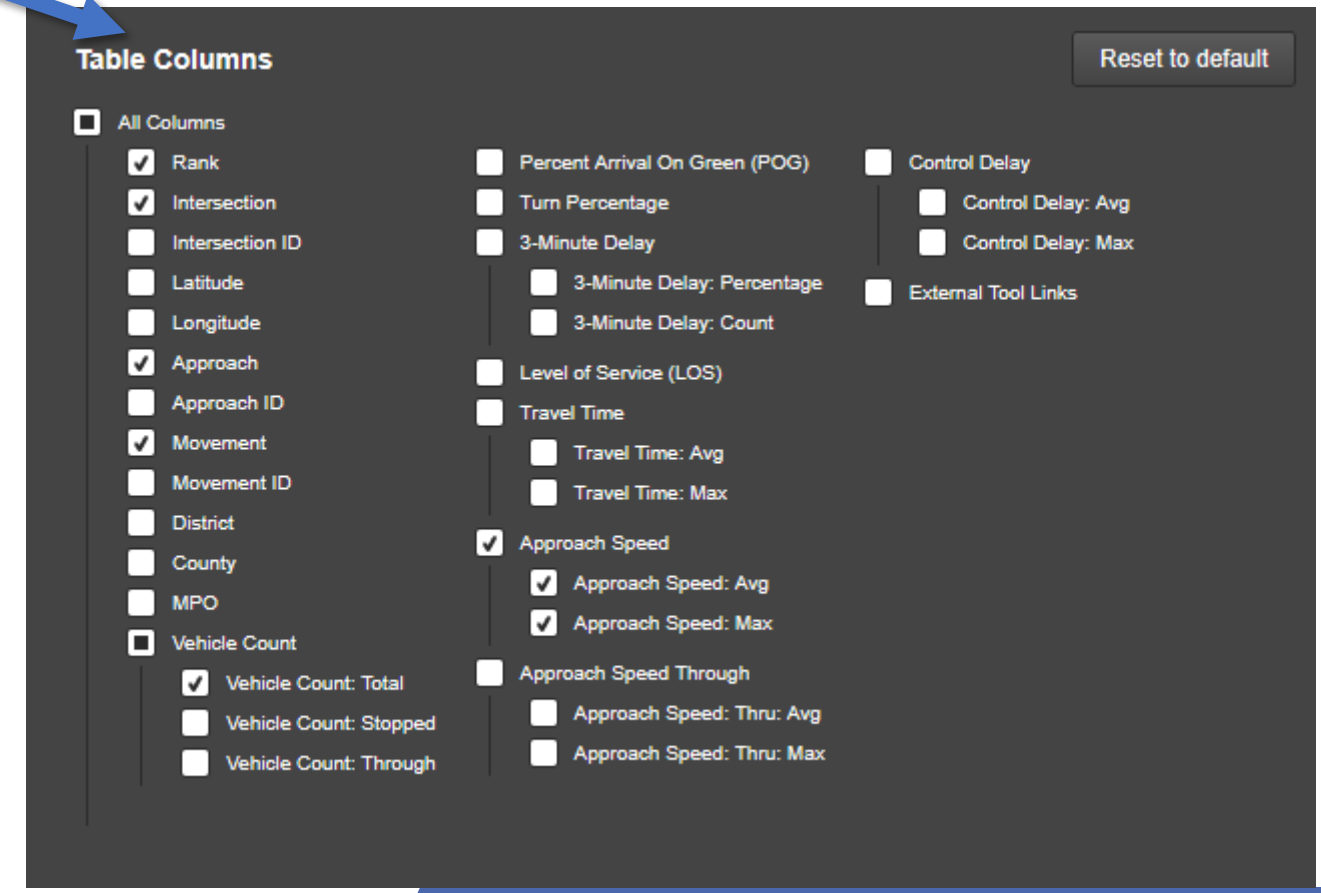
1

2

3







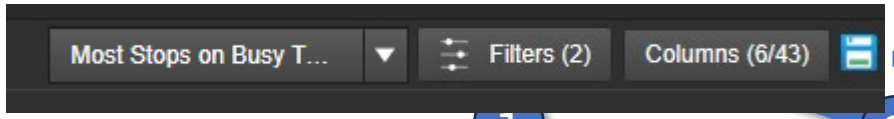
Columns to include:

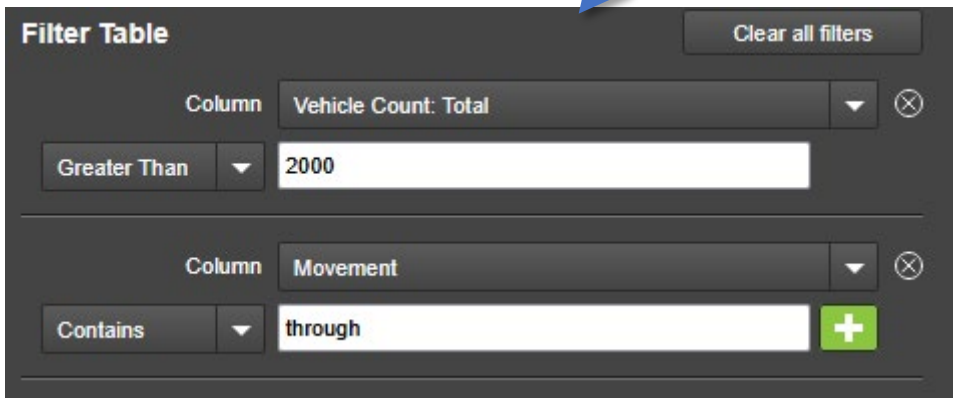
- Rank
- Intersection
- Approach
- Movement
- Vehicle Count: Total
- Approach Speed: Avg
- Approach Speed: Max

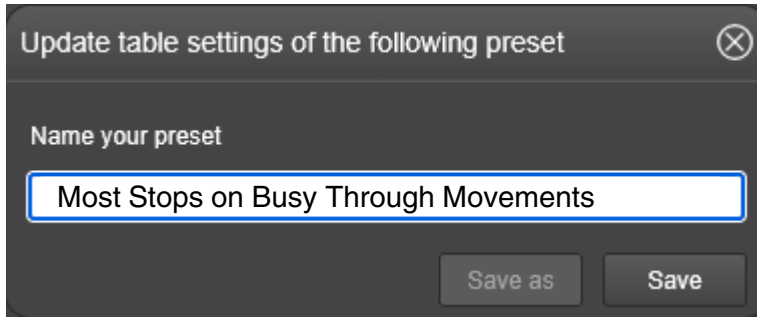
© UMD CATT Laboratory

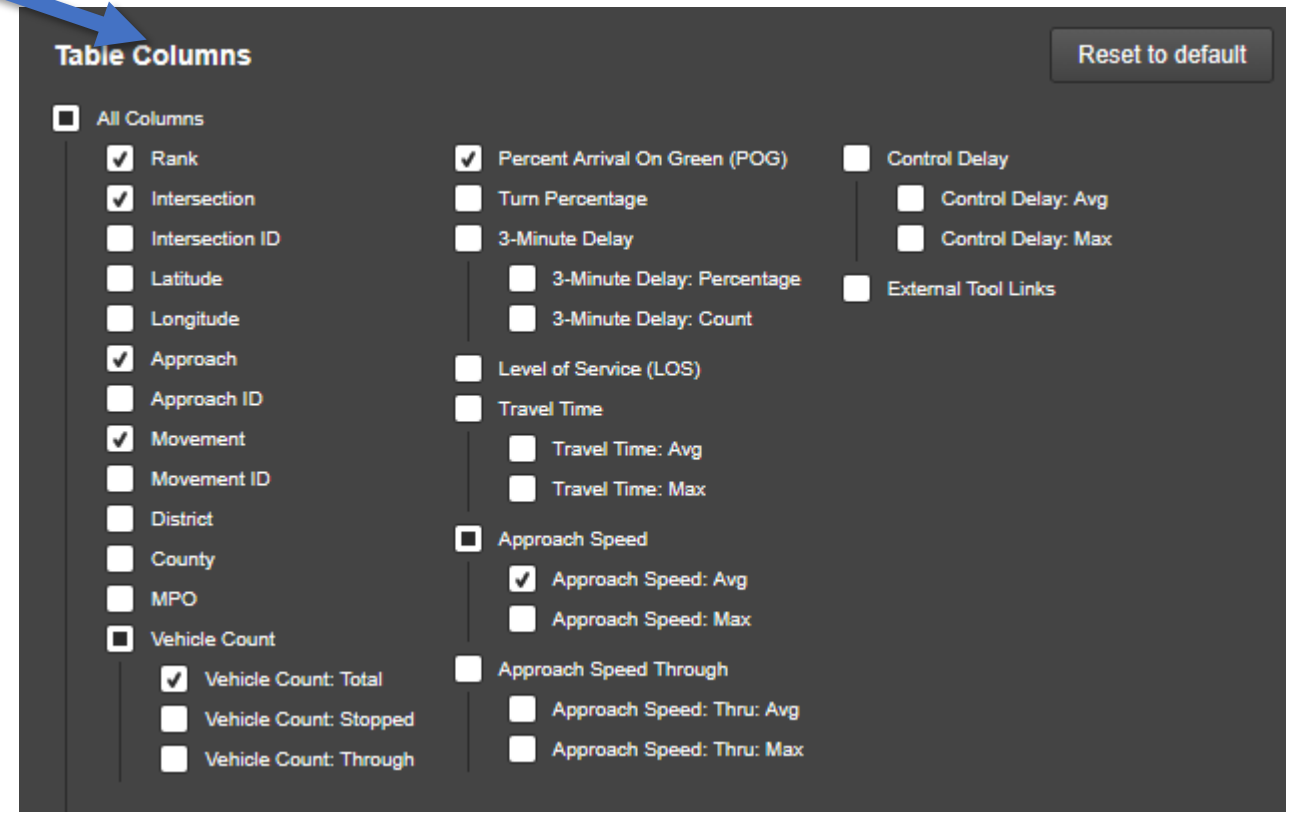
Table Preset #3:

Most Stops on Busy Through Movements









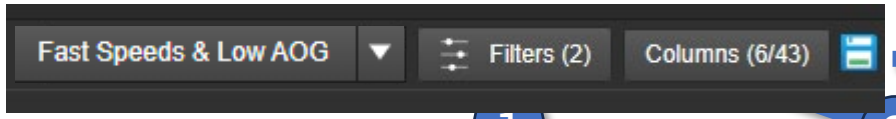
Columns to include:

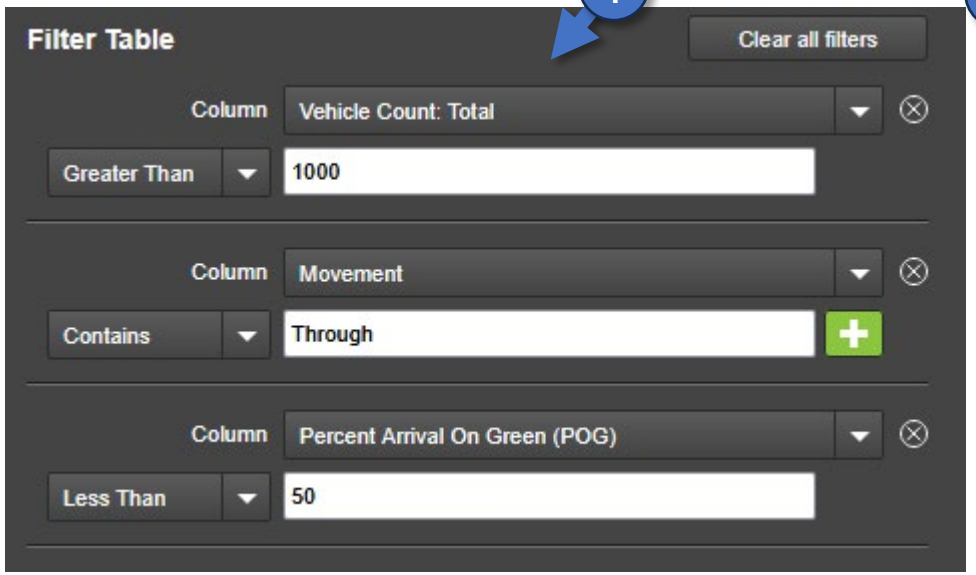
- Rank
- Intersection
- Approach
- Movement
- Vehicle Count: Total
- Percent Arrival on Green (POG)
- Approach Speed: Avg

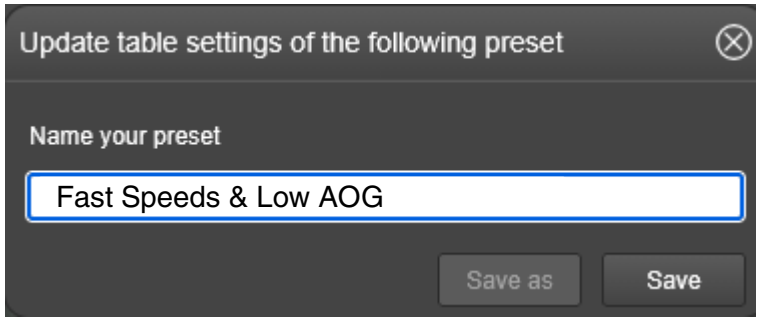
NOTE: *While we suggest showing movements with greater than 2000 observations, you may need to adjust this number up or down depending on your traffic patterns. A densely populated city may need to go higher, a small town may need to go lower.*

© UMD CATT Laboratory

Table Preset #4:
Fast Speeds & Low AOG









Columns to include:

- Rank
- Intersection
- Approach
- Movement
- Vehicle Count: Total
- Percent Arrival on Green (POG
- Approach Speed: Avg

© UMD CATT Laboratory

Hands-on exercise:
Setting up RITIS Signal Analytics Templates

Creating Chart Presets



Intersection Performance Charts



Intersection Trend Charts

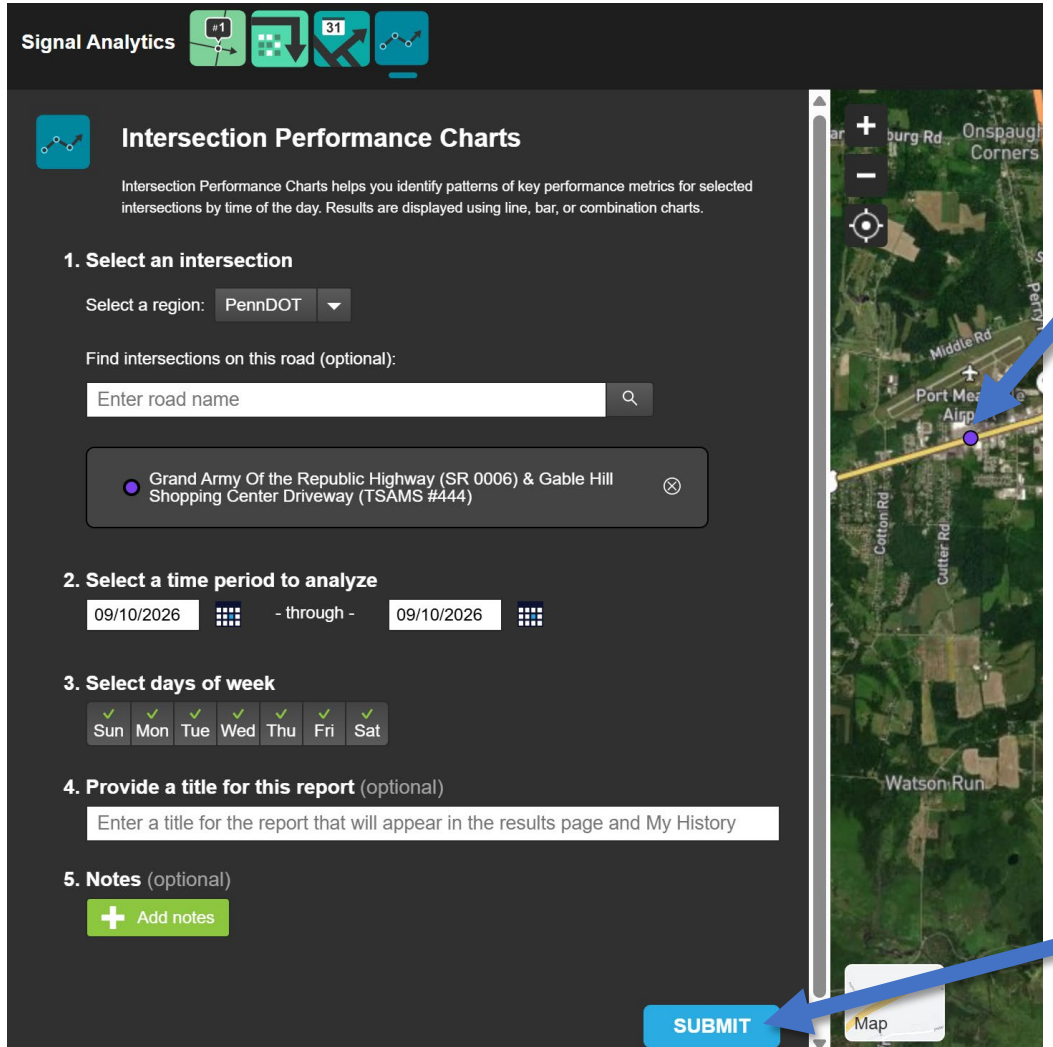
© UMD CATT Laboratory

Chart presets

Open/create report to visit report page

Link: https://signals.ritis.org/analytics/intersection-performance-charts/?uuid=abcc39b6-dc8c-4a07-be9f-55783dd6e899

If you've never created an Intersection Performance Chart

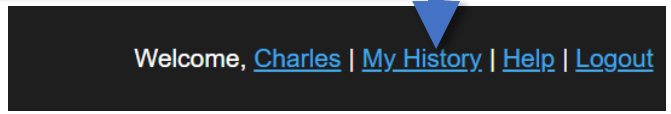


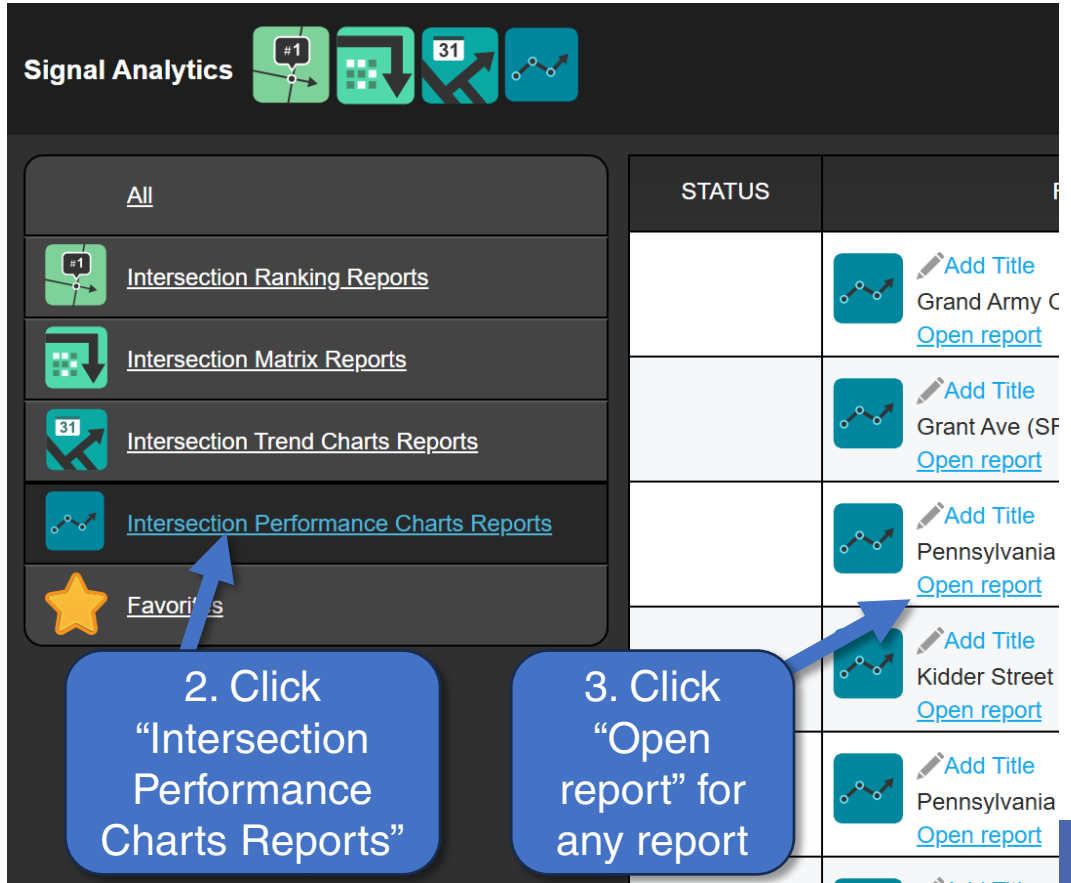
1. Click any intersection on map

2. Click "SUBMIT"

If you've used the tool before

1. Click "My History"

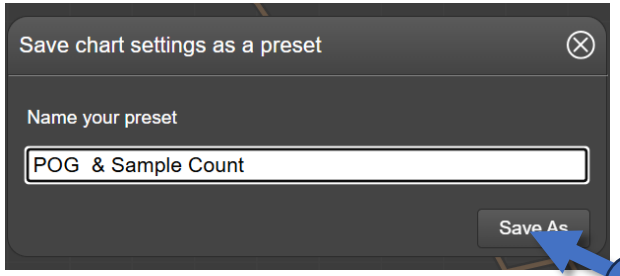




2. Click "Intersection Performance Charts Reports"

3. Click "Open report" for any report

Chart Preset #1:
POG & Sample Count



1 Apply settings to chart

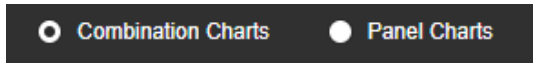
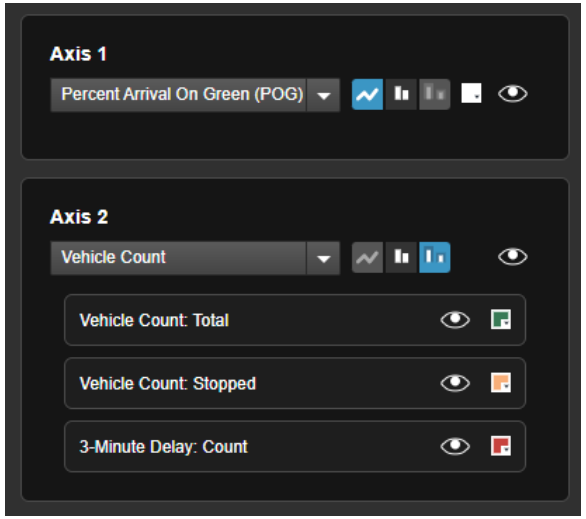


Chart Layout:
- Combination Charts



Axis 1:
- Percent Arrival on Green (POG)
- Line Chart
- Color: #FFFFFF

Axis 2:
- Vehicle Count
- Bullet Chart

Colors:
- V. C. Total: #2D7C55
- V. C. Stopped: #FFAC75
- 3MD Count: #CF3939



Day/Night Selector:
- Night

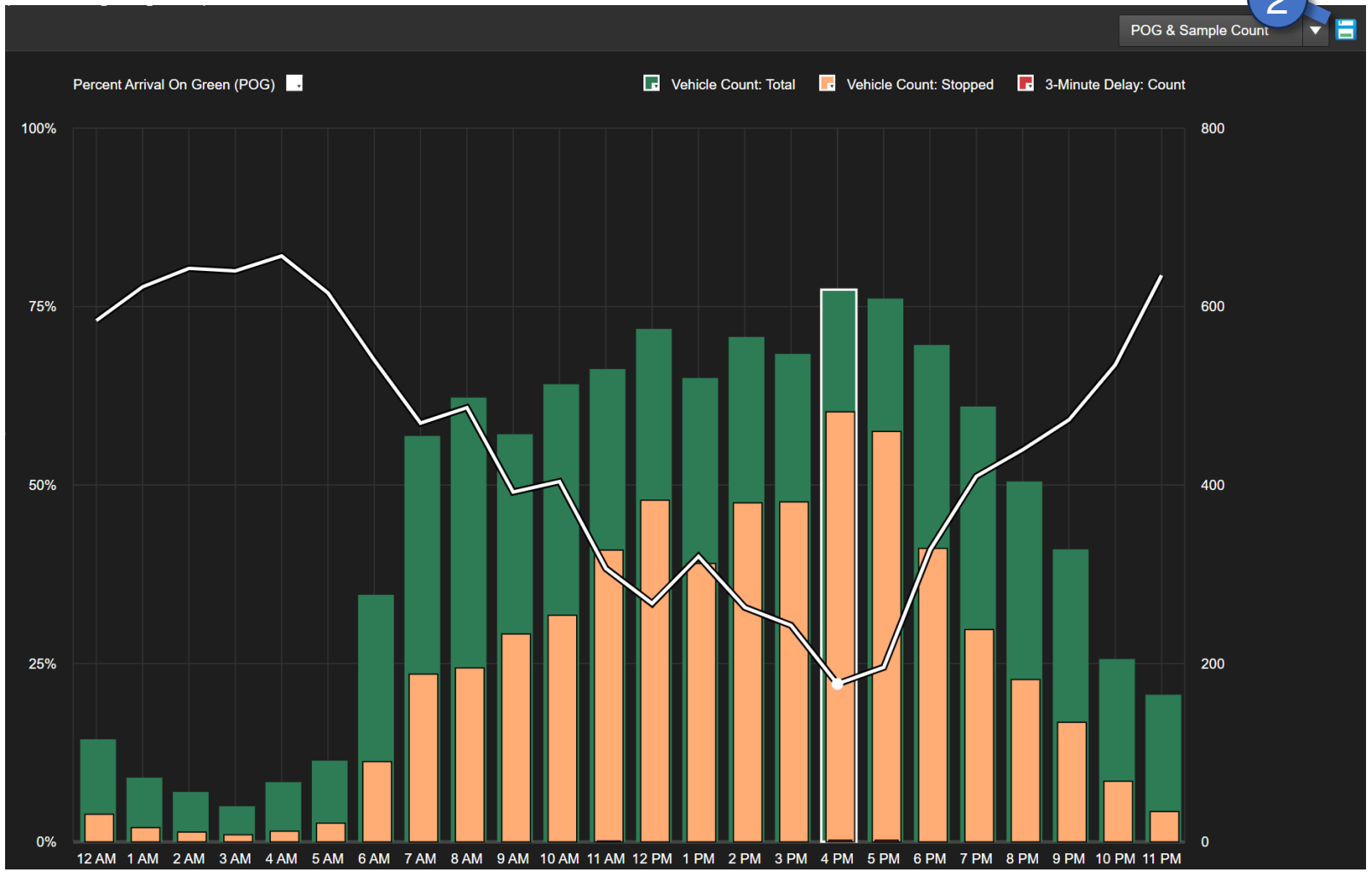
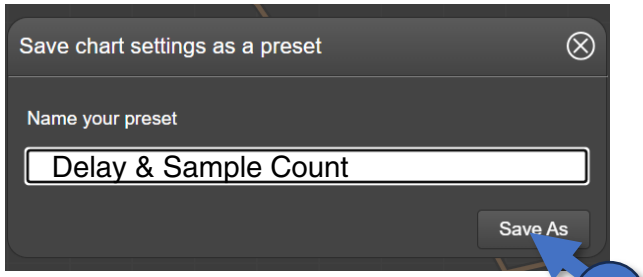


Chart Preset #2:
Delay & Sample Count



1 Apply settings to chart

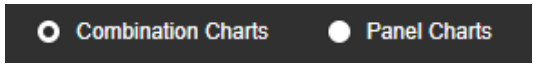
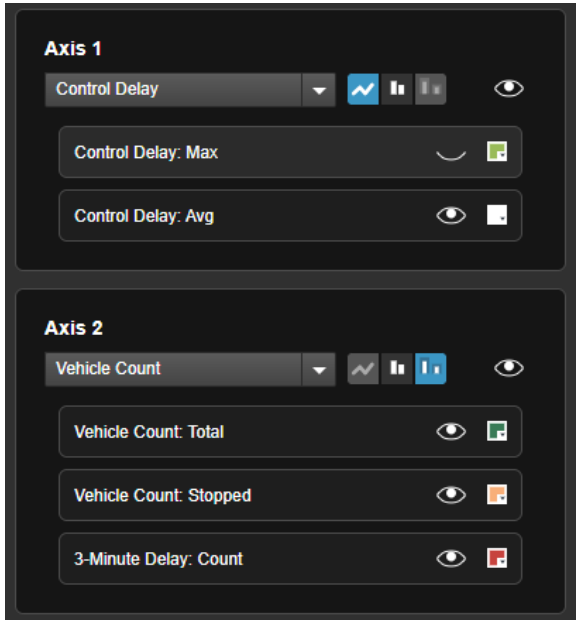


Chart Layout:
- Combination Charts



Axis 1:
- Control Delay
- Line Chart
- Control Delay: Max (HIDDEN)
- Control Delay: Avg (VISIBLE)
  - •Color: #FFFFFF

Axis 2:
- Vehicle Count
- Bullet Chart

Colors:
- V. C. Total: #2D7C55
- V. C. Stopped: #FFAC75
- 3MD Count: #CF3939



Day/Night Selector:
- Night

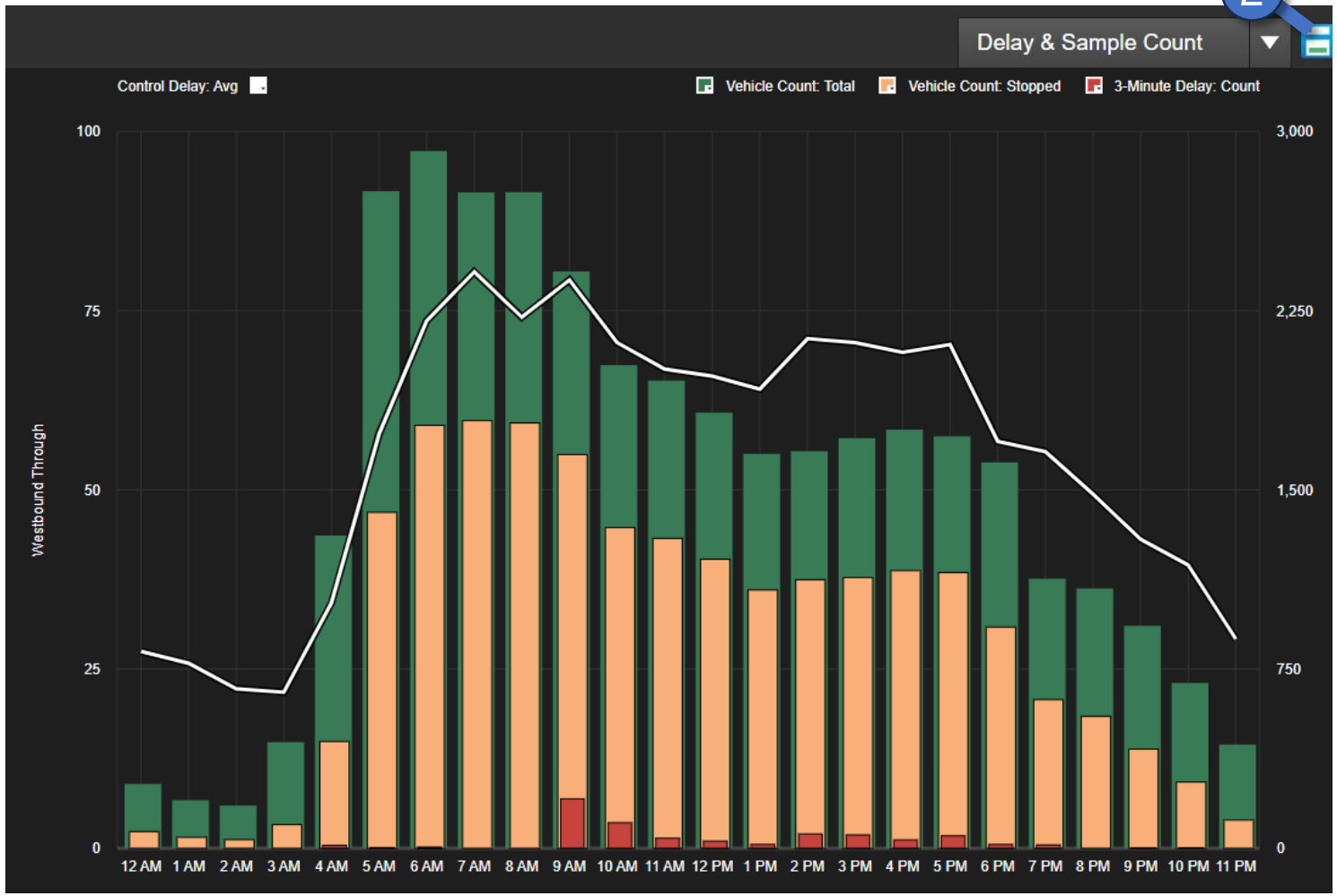


Chart Preset #3:
3-Minute Delay



1 Apply settings to chart

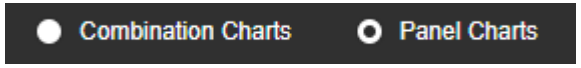
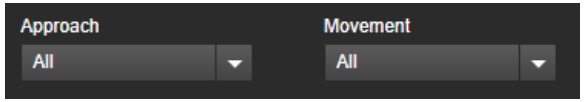
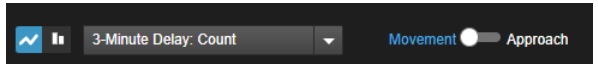


Chart Layout:
- Panel Charts



Approach & Movement:
- Approach: All
- Movement: All



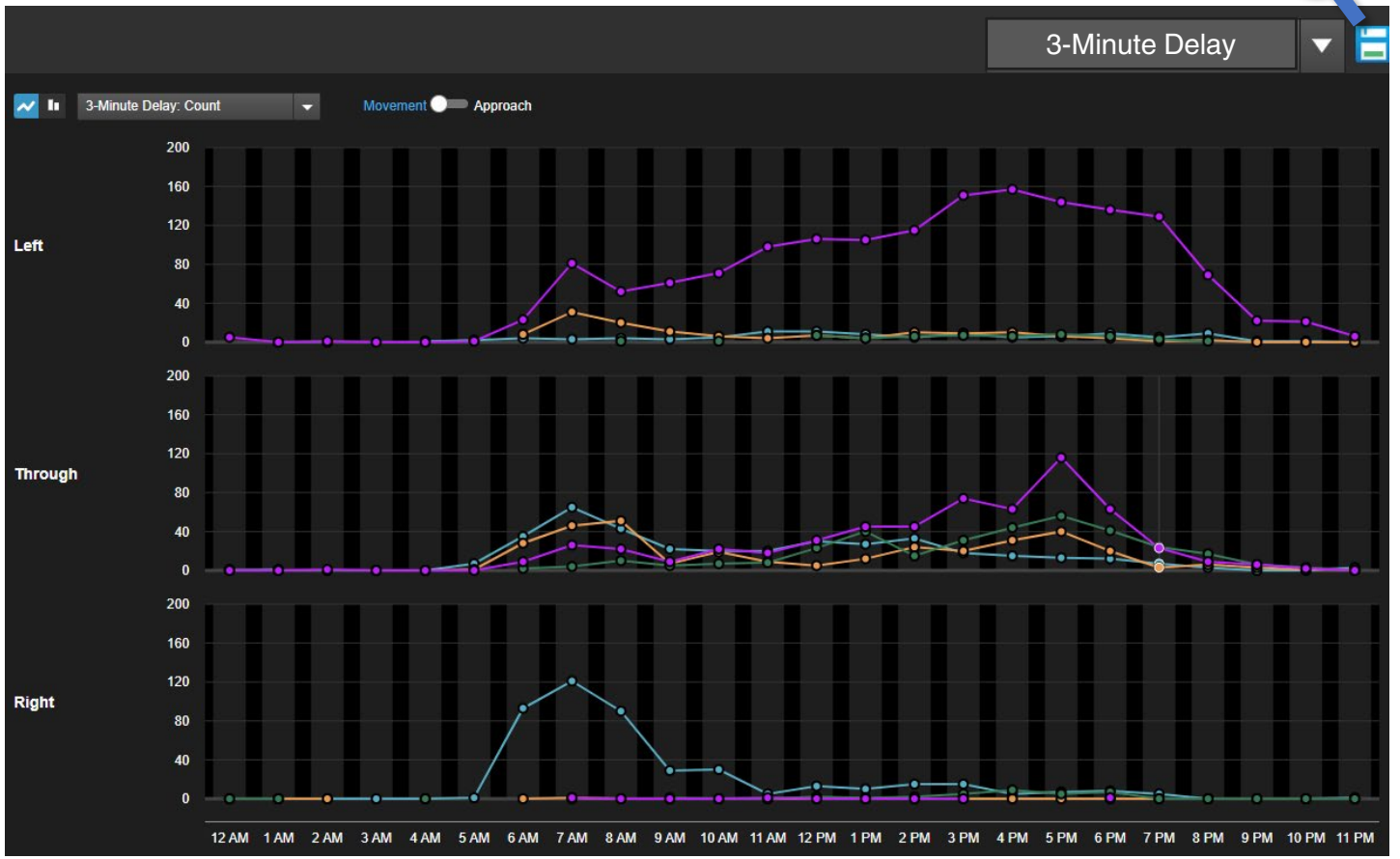
Metric Settings:
- 3-Minute Delay: Count
- Line Chart
- Movement



Day/Night Selector:
- Night



Colors (default values):
- Eastbound: #F0994D
- Northbound: #46B0C4
- Southbound: #2D7C55
- Westbound: #C300FF



© UMD CATT Laboratory

Chart Preset #4:
Control Delay



1 Apply settings to chart

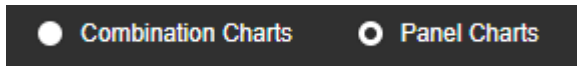
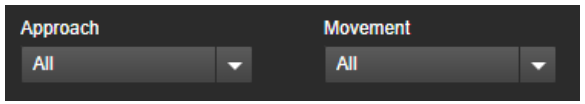


Chart Layout:
- Panel Charts



Approach & Movement:
- Approach: All
- Movement: All



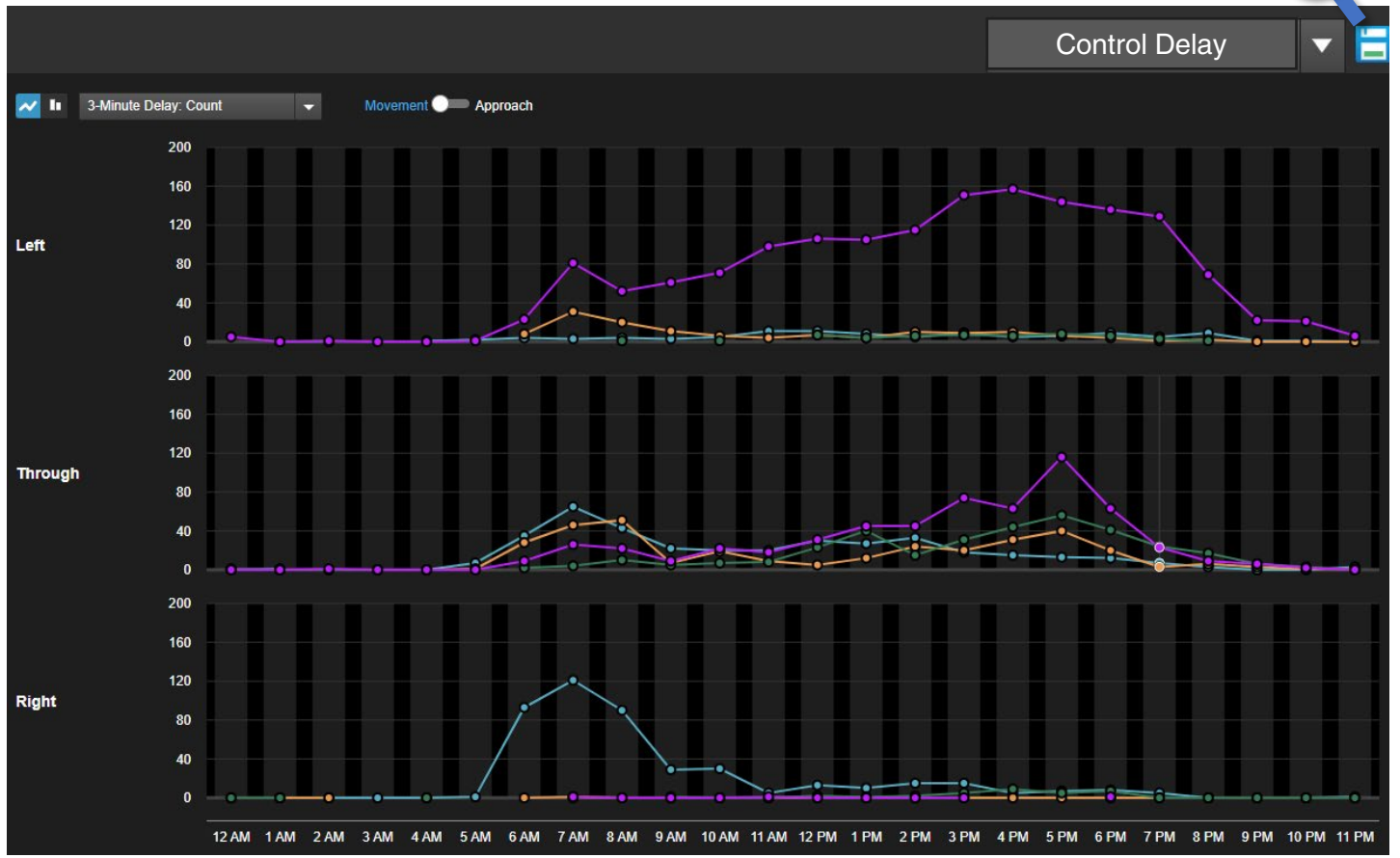
Metric Settings:
- Control Delay: Avg
- Line Chart
- Approach



Day/Night Selector:
- Night



Colors (default values):
- Eastbound: #F0994D
- Northbound: #46B0C4
- Southbound: #2D7C55
- Westbound: #C300FF



Exercise 1: Longest Delay Late Night
Equipment check?



Intersection Ranking

- **Purpose:** During the middle of the night, we expect traffic flow to be light on the major approaches. Because of this, if the signal is running free and if detection is working properly, we expect all movements to be served frequently. If we see long delays, this could be a symptom of stuck detection or could simply be an opportunity to make the late-night timing snappier.



© UMD CATT Laboratory

Exercise 1: Longest Delay Late Night
Equipment check?

Intersection Ranking

Step 1: Build your query

Select a group of signals from your district (50 - 100).

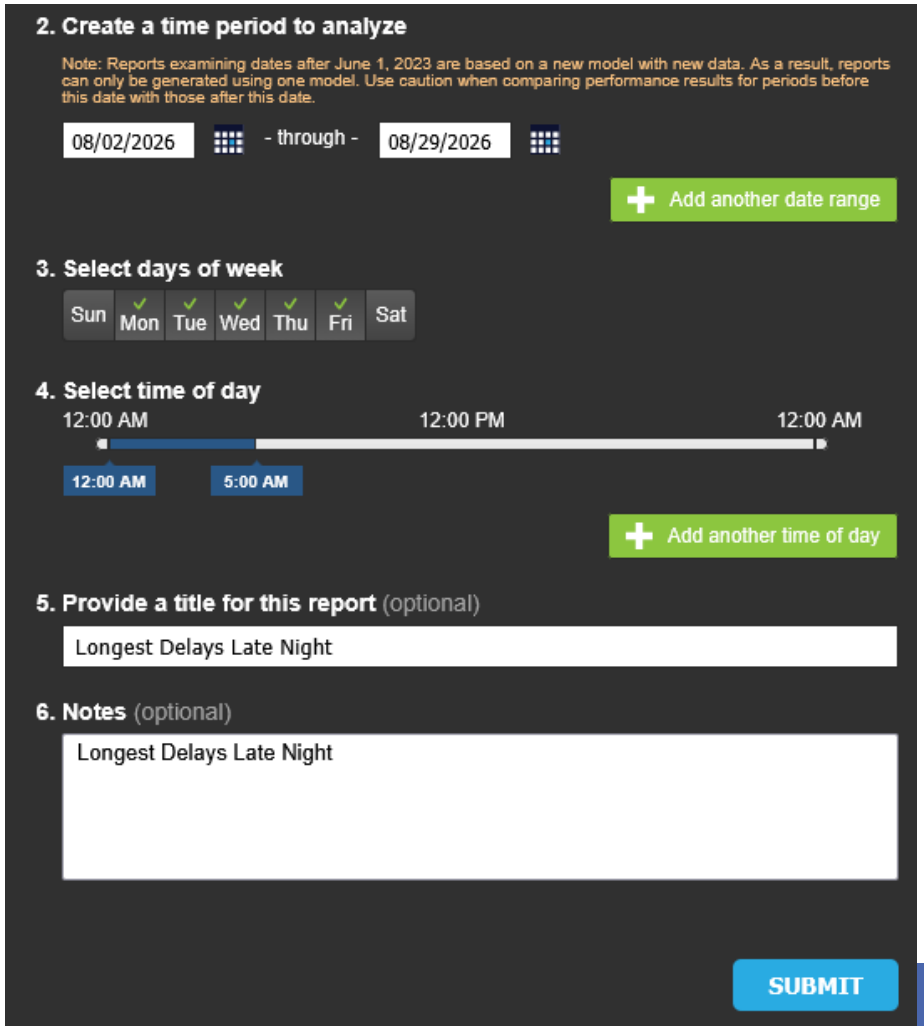
Date range to analyze:
- Select at least the most recent two weeks of data
- Four weeks will give you the most data to work with

Days of Week
- Weekdays Only

Time of day
- 12:00 AM to 5:00 AM

Title or Notes
- Recommend including “Longest Delays Late Night” in either the title or notes.

Click SUBMIT

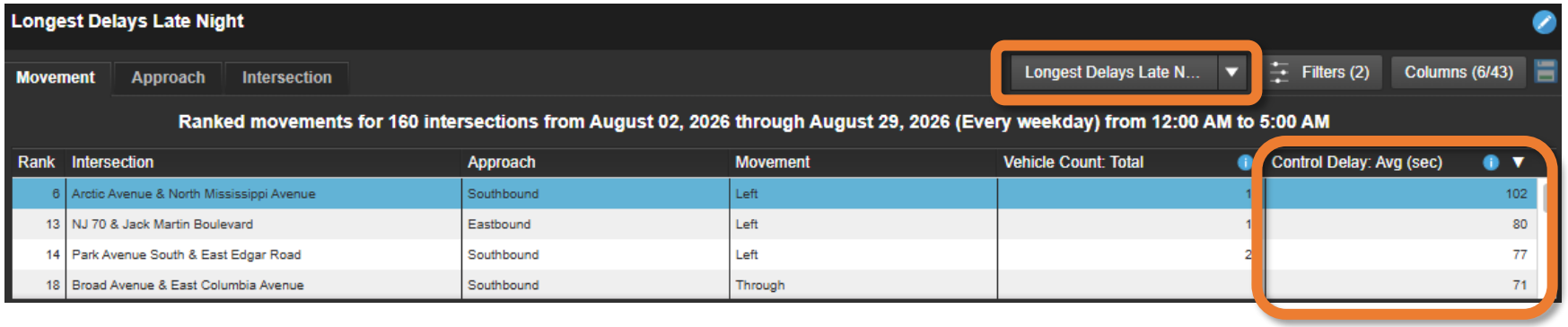


Exercise 1: Longest Delay Late Night
Equipment check?

Step 2: Organize your report data

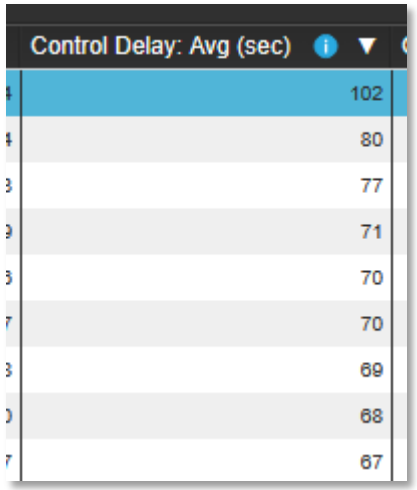
Select Preset:
- Longest Delays Late Night

Sort by Column:
- Control Delay: Avg ▼ (descending)



What to look for

- Look for **average control delay values above 45-60 seconds**.
- In your engineering judgment are these values unexpectedly high? If so, here are some things that could be causing this:
  - Detection issues on movement (broken loop, misaligned video detection, etc.)
  - Stuck pedestrian button on opposing movement
  - Opportunity to improve signal timing (make timing snappier)
  - Other time of day plan issues



Exercise 1: Longest Delay Late Night
Equipment check?

What did you find?



Additional use cases for **Intersection Ranking** are listed in the Appendix of this presentation



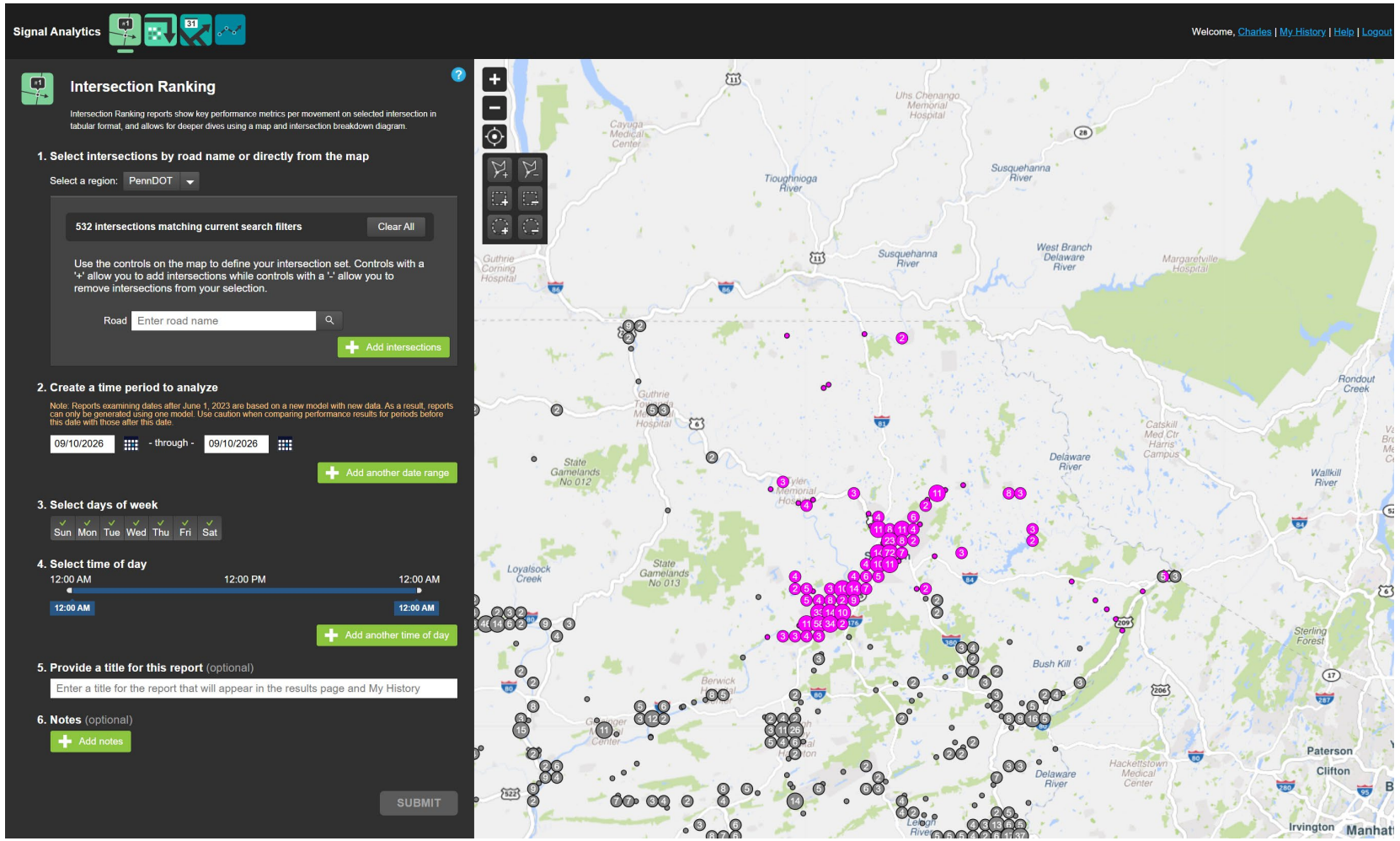
© UMD CATT Laboratory

Exercise #2: Data Discovery

Where are lots of split failures happening?

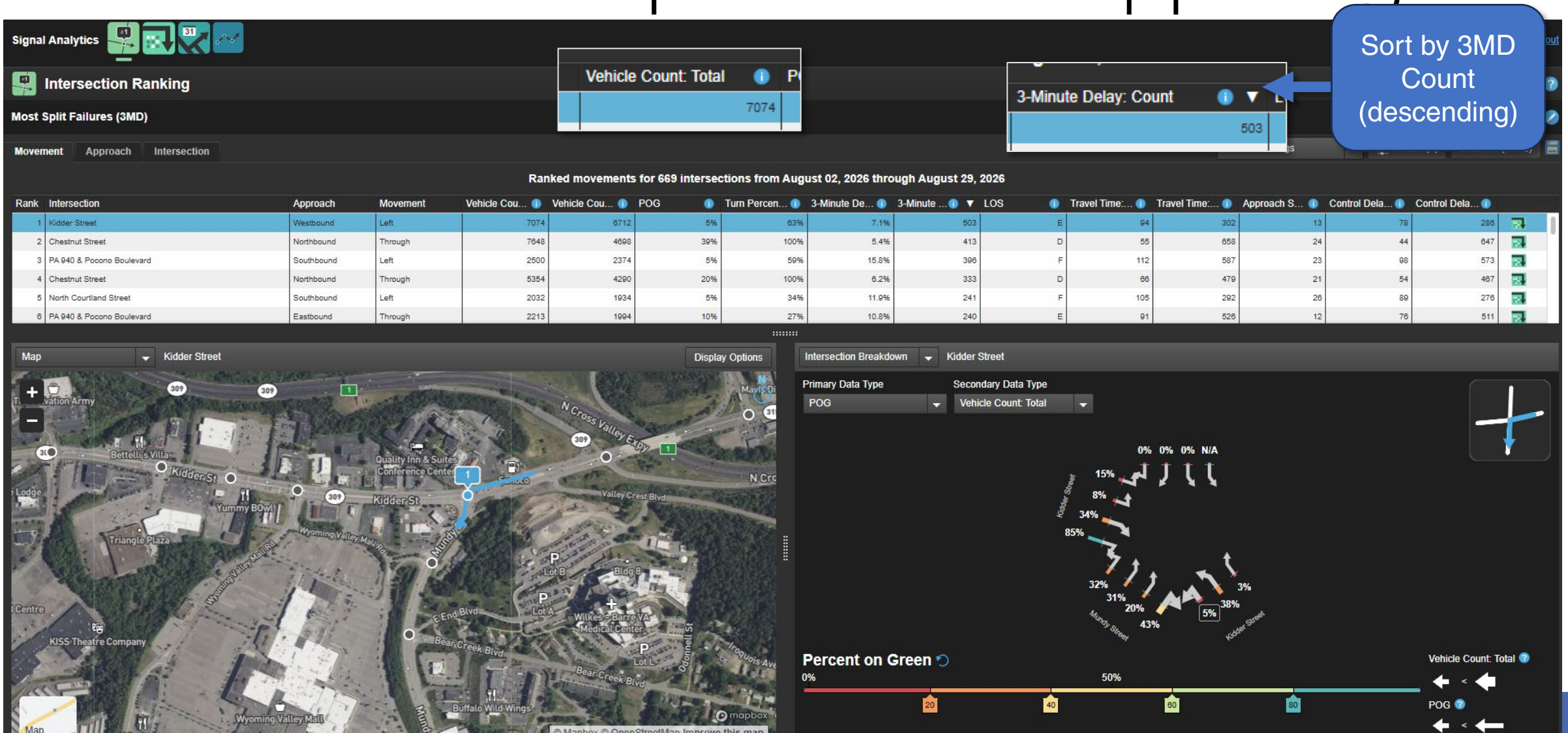
- Start with **Intersection Ranking** to screen intersections in a district
- **Time period**: 4 weeks
- All days of week
- All times

- **Link:** https://signals.ritis.org/analytics/intersection-ranking/?uuid=efa7238c-9033-4e9f-9f66-44a393e8bca2



Exercise #2: Data Discovery

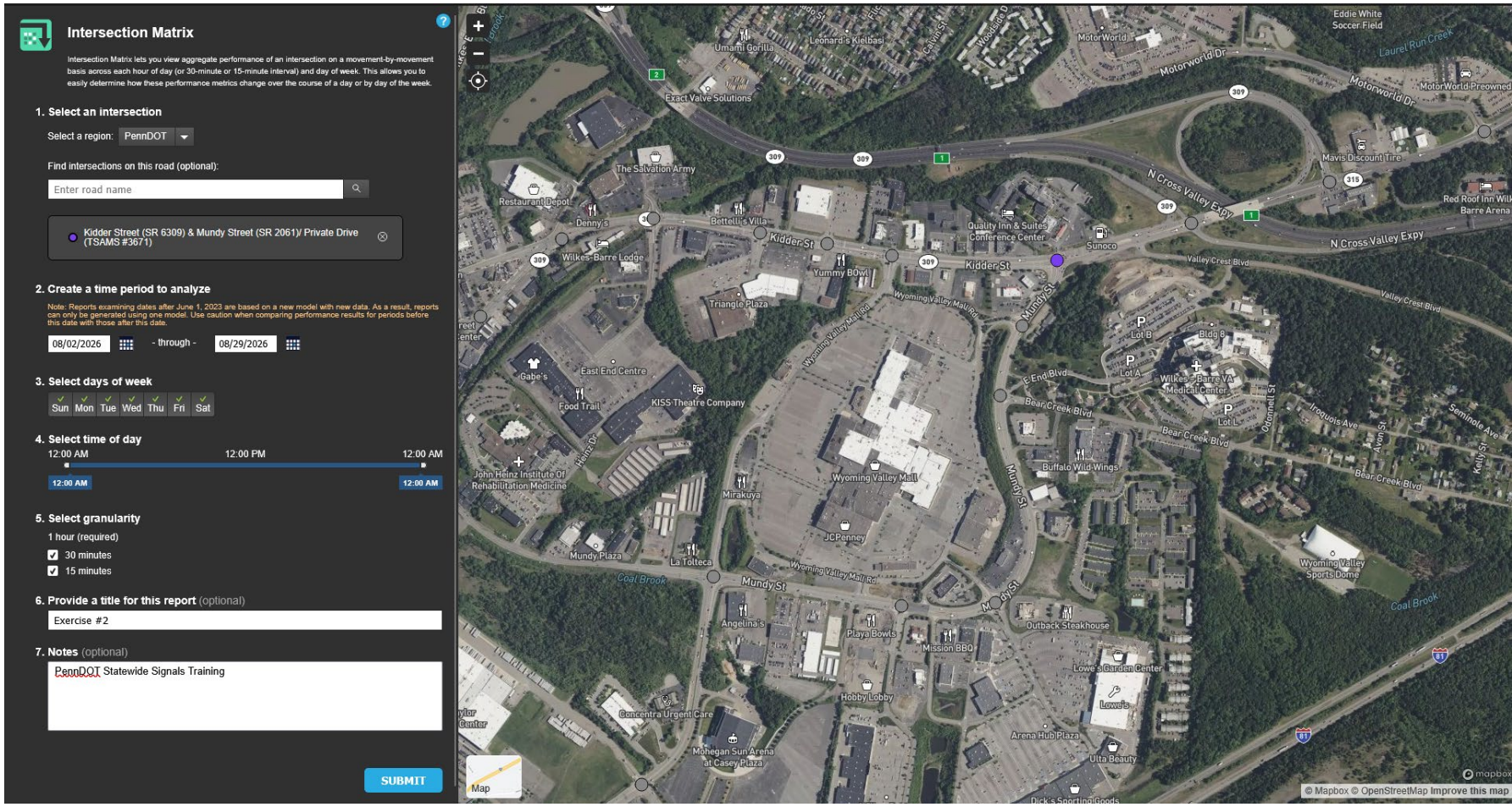
Where are lots of split failures happening?



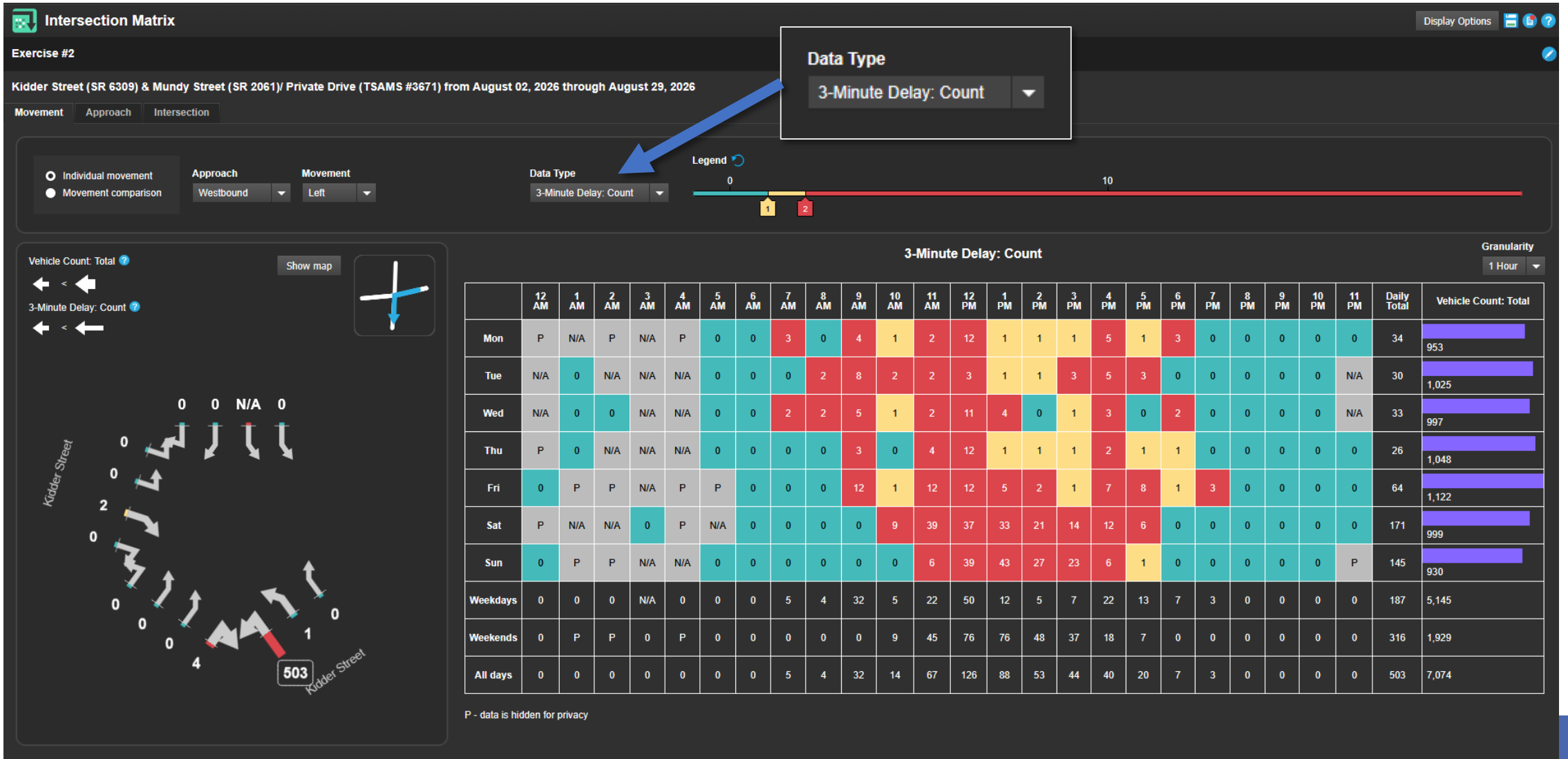
Exercise #2: Data Discovery
When are the split failures happening?

- Switch to **Intersection Matrix** for a deep dive
- **Time period**: 4 weeks
- All days of week
- All times
- 30 minute & 15 minute granularity

- **Link:** https://signals.ritis.org/analytics/intersection-matrix/?uuid=984d530c-7eb7-4933-a022-30e46f85e4c5

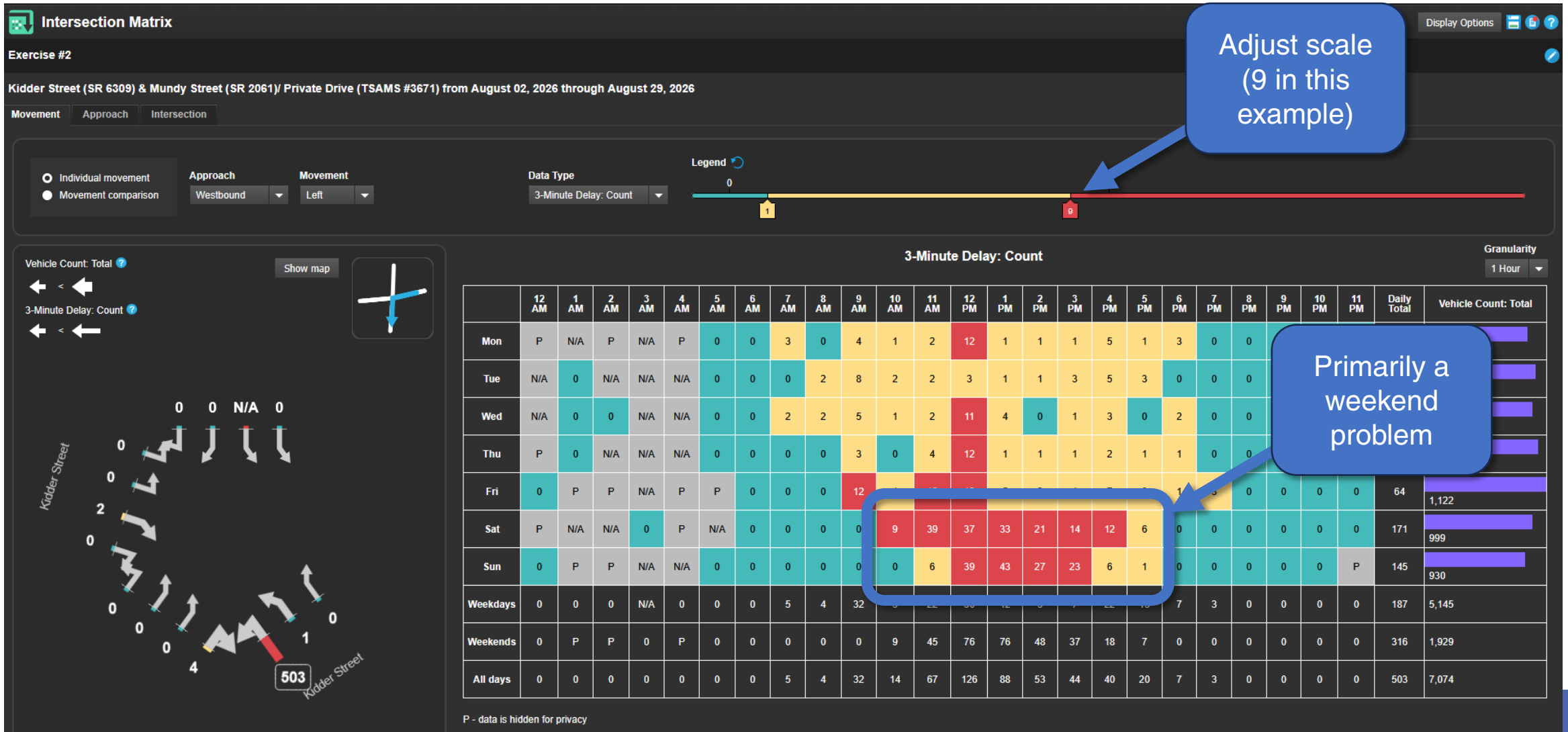


Exercise #2: Data Discovery
When are the split failures happening?



	12 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Daily Total	Vehicle Count: Total
Mon	P	N/A	P	N/A	P	0	0	3	0	4	1	2	12	1	1	1	5	1	3	0	0	0	0	0	34	953
Tue	N/A	0	N/A	N/A	N/A	0	0	0	2	8	2	2	3	1	1	3	5	3	0	0	0	0	0	N/A	30	1,025
Wed	N/A	0	0	N/A	N/A	0	0	2	2	5	1	2	11	4	0	1	3	0	2	0	0	0	0	N/A	33	997
Thu	P	0	N/A	N/A	N/A	0	0	0	0	3	0	4	12	1	1	1	2	1	1	0	0	0	0	0	26	1,048
Fri	0	P	P	N/A	P	P	0	0	0	12	1	12	12	5	2	1	7	8	1	3	0	0	0	0	64	1,122
Sat	P	N/A	N/A	0	P	N/A	0	0	0	0	9	39	37	33	21	14	12	6	0	0	0	0	0	0	171	999
Sun	0	P	P	N/A	N/A	0	0	0	0	0	0	6	39	43	27	23	6	1	0	0	0	0	0	P	145	930
Weekdays	0	0	0	N/A	0	0	0	5	4	32	5	22	50	12	5	7	22	13	7	3	0	0	0	0	187	5,145
Weekends	0	P	P	0	P	0	0	0	0	0	9	45	76	76	48	37	18	7	0	0	0	0	0	0	316	1,929
All days	0	0	0	0	0	0	0	5	4	32	14	67	126	88	53	44	40	20	7	3	0	0	0	0	503	7,074

Exercise #2: Data Discovery
When are the split failures happening?

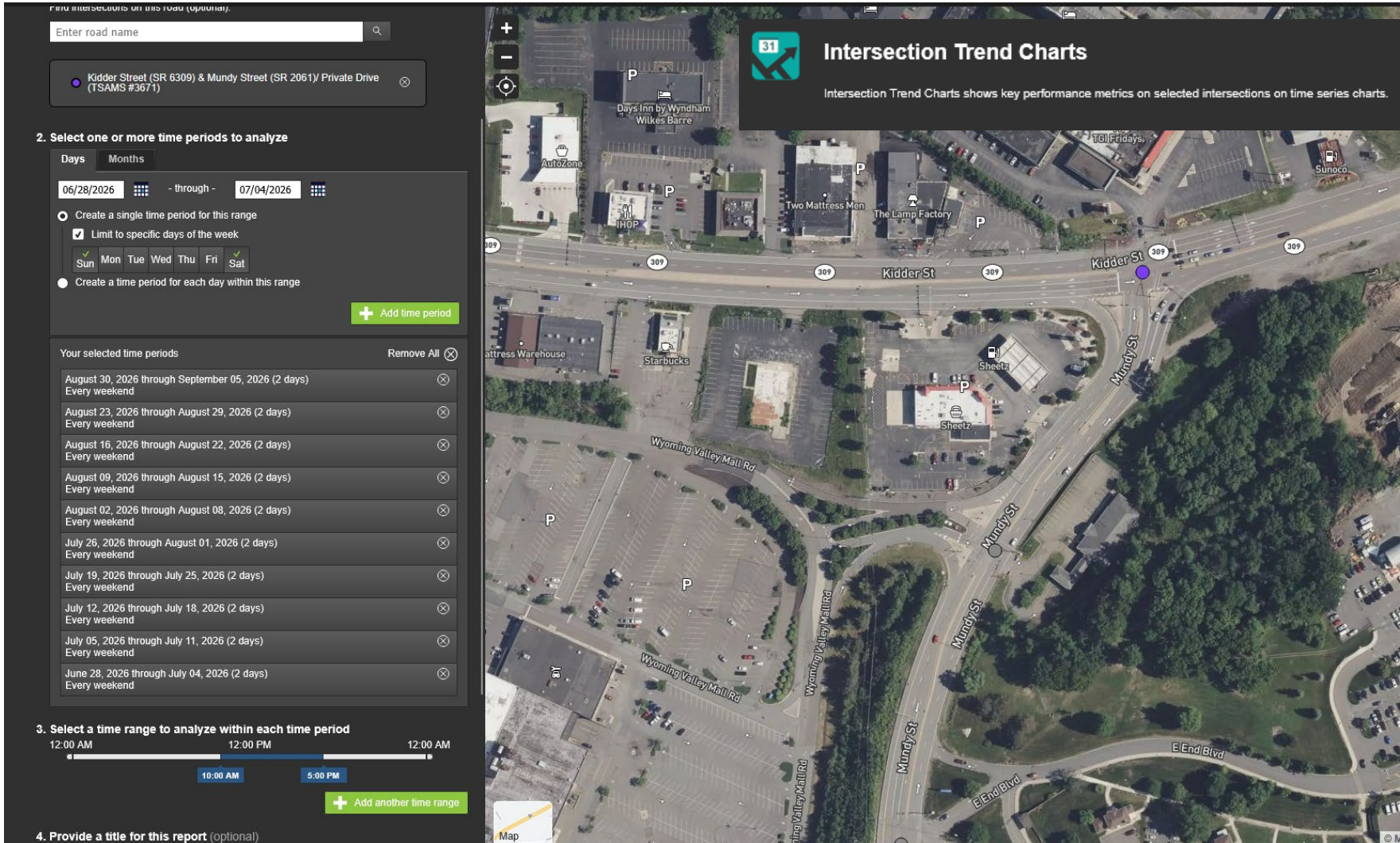


	12 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Daily Total	Vehicle Count: Total
Mon	P	N/A	P	N/A	P	0	0	3	0	4	1	2	12	1	1	1	5	1	3	0	0					
Tue	N/A	0	N/A	N/A	N/A	0	0	0	2	8	2	2	3	1	1	3	5	3	0	0	0					
Wed	N/A	0	0	N/A	N/A	0	0	2	2	5	1	2	11	4	0	1	3	0	2	0	0					
Thu	P	0	N/A	N/A	N/A	0	0	0	0	3	0	4	12	1	1	1	2	1	1	0	0					
Fri	0	P	P	N/A	P	P	0	0	0	12									1		0	0	0	0	64	1,122
Sat	P	N/A	N/A	0	P	N/A	0	0	0	0	9	39	37	33	21	14	12	6	0	0	0	0	0	0	171	999
Sun	0	P	P	N/A	N/A	0	0	0	0	0	0	6	39	43	27	23	6	1	0	0	0	0	0	P	145	930
Weekdays	0	0	0	N/A	0	0	0	5	4	32									7	3	0	0	0	0	187	5,145
Weekends	0	P	P	0	P	0	0	0	0	0	9	45	76	76	48	37	18	7	0	0	0	0	0	0	316	1,929
All days	0	0	0	0	0	0	0	5	4	32	14	67	126	88	53	44	40	20	7	3	0	0	0	0	503	7,074

Exercise #2: Data Discovery
How often are the split failures happening?

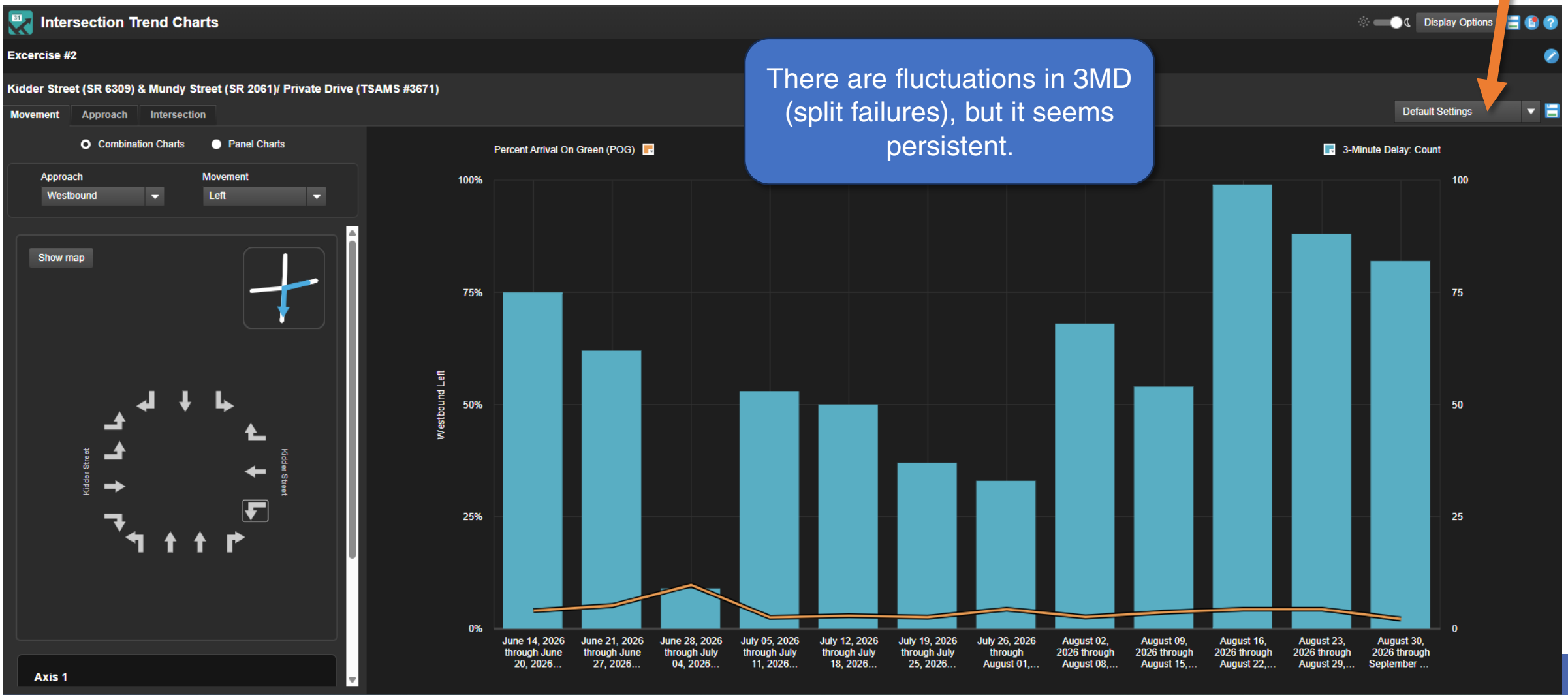
- Switch to **Intersection Trend Charts** for a weekly history
- **Time period**: up to 12 weeks
- Weekends
- 10:00 AM to 5:00 PM

- **Link:** https://signals.ritis.org/analytics/intersection-trend-charts/?uuid=239bb3a7-b173-4ca2-b3be-d7ba6d71df46



Exercise #2: Data Discovery
How often are the split failures happening?

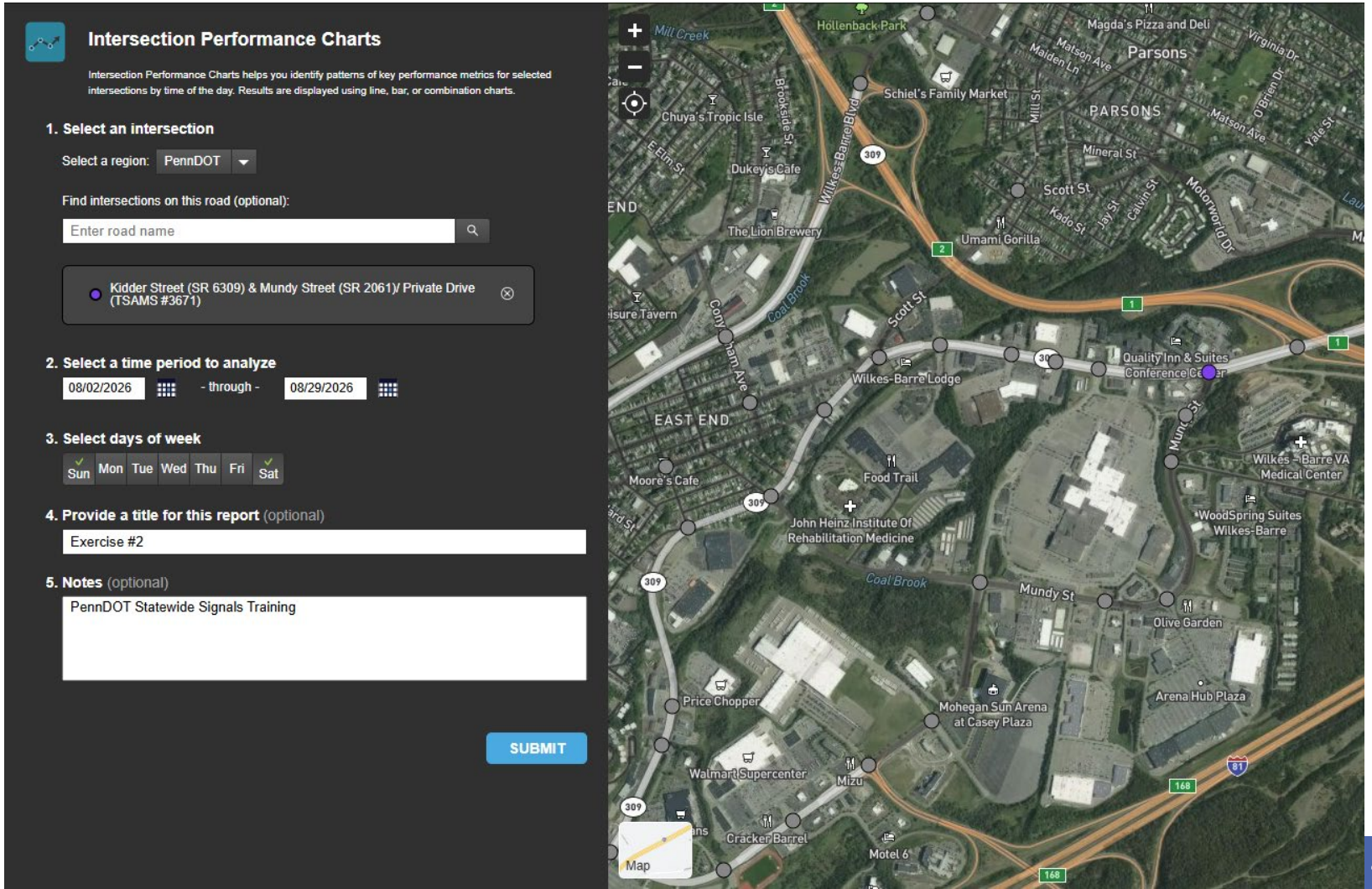
Default Settings



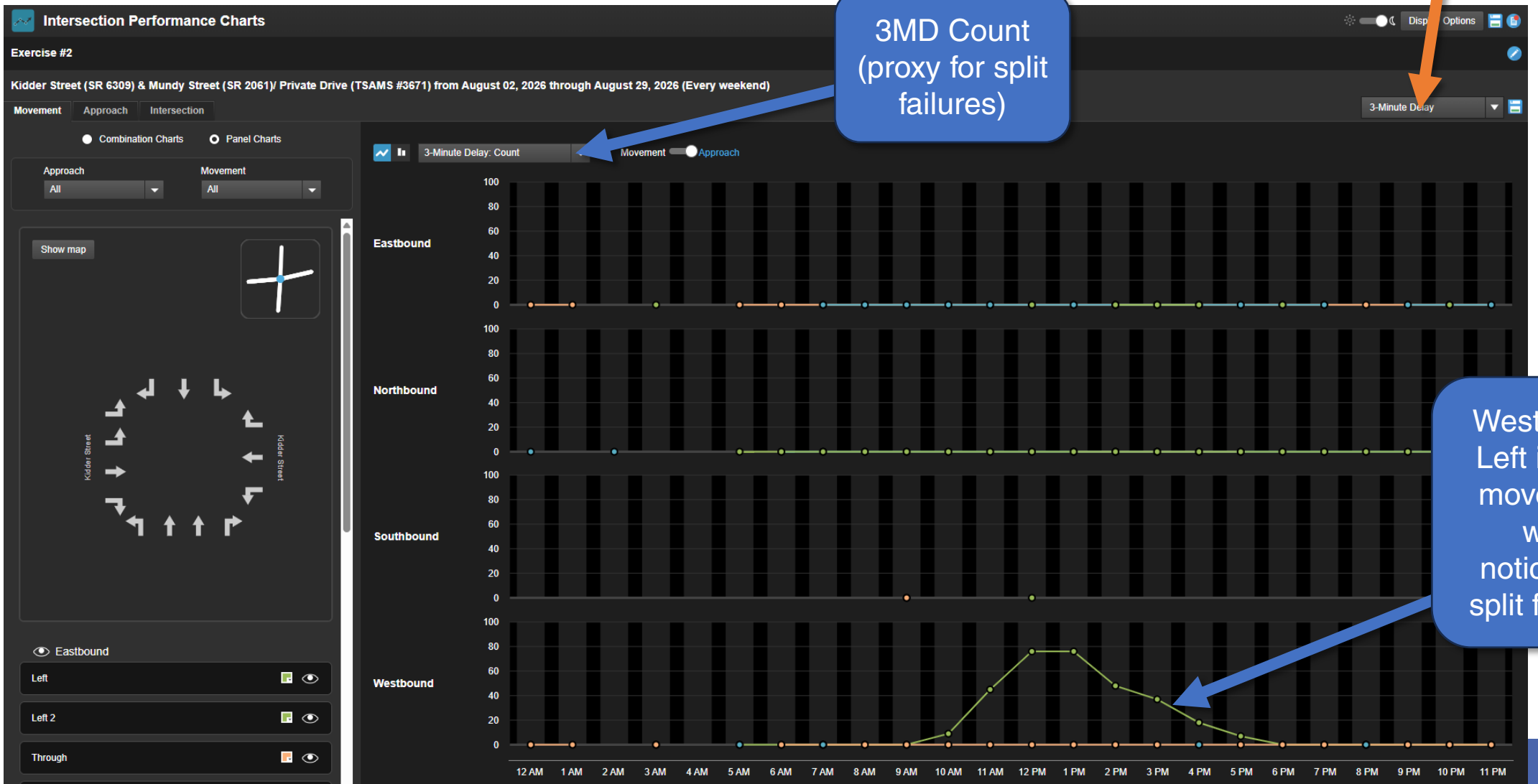
Exercise #2: Data Discovery
Which movements are affected?

- Switch to **Intersection Performance Charts** for average daily performance
- **Time period**: 4 weeks
- Weekends

Link: https://signals.ritis.org/analytics/intersection-performance-charts/?uuid=4aa4bf23-3b31-4b4b-a519-b0e2d9daf9e2



Exercise #2: Data Discovery
Which movements are affected?

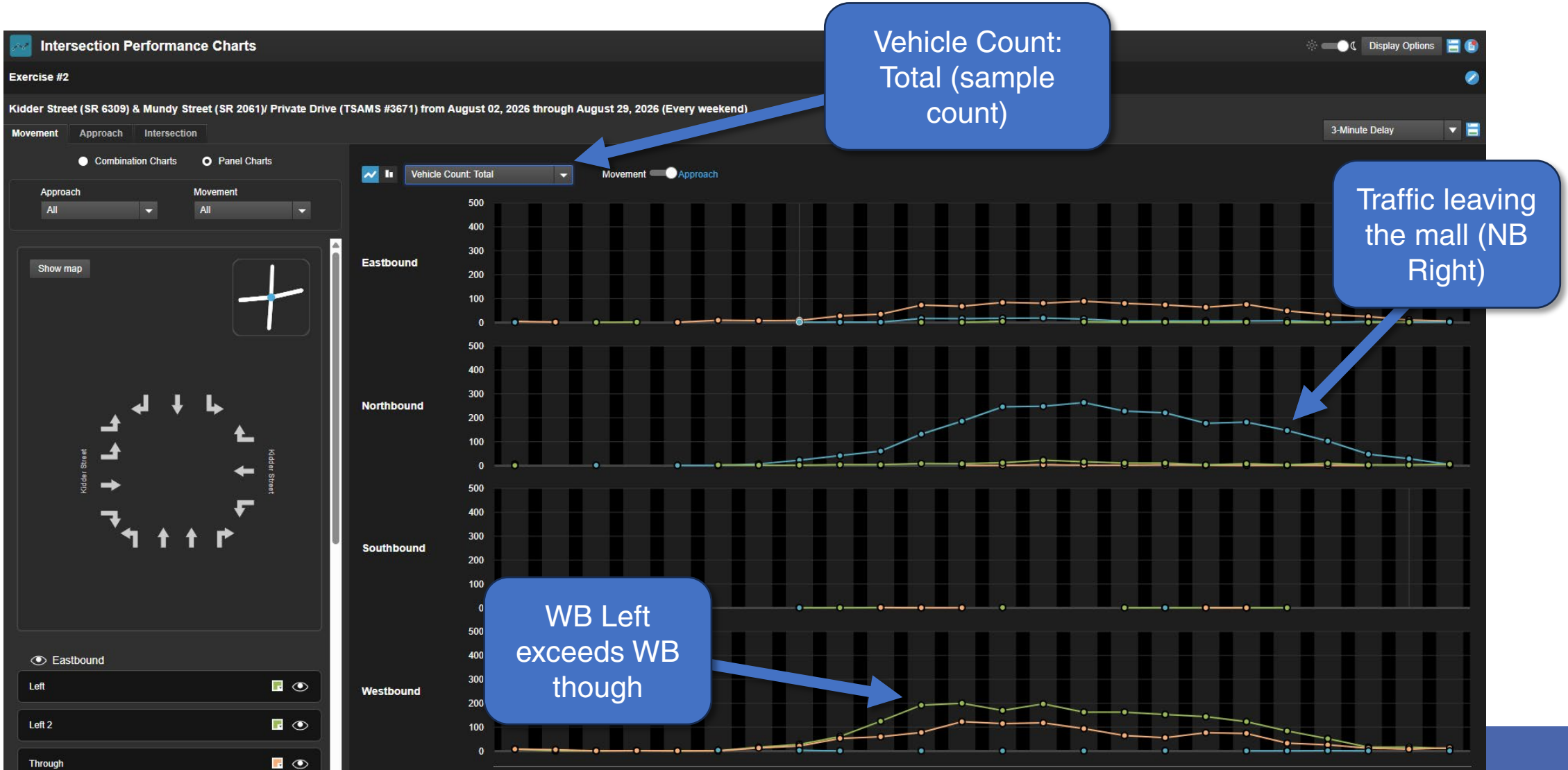


3-Minute Delay preset

3MD Count (proxy for split failures)

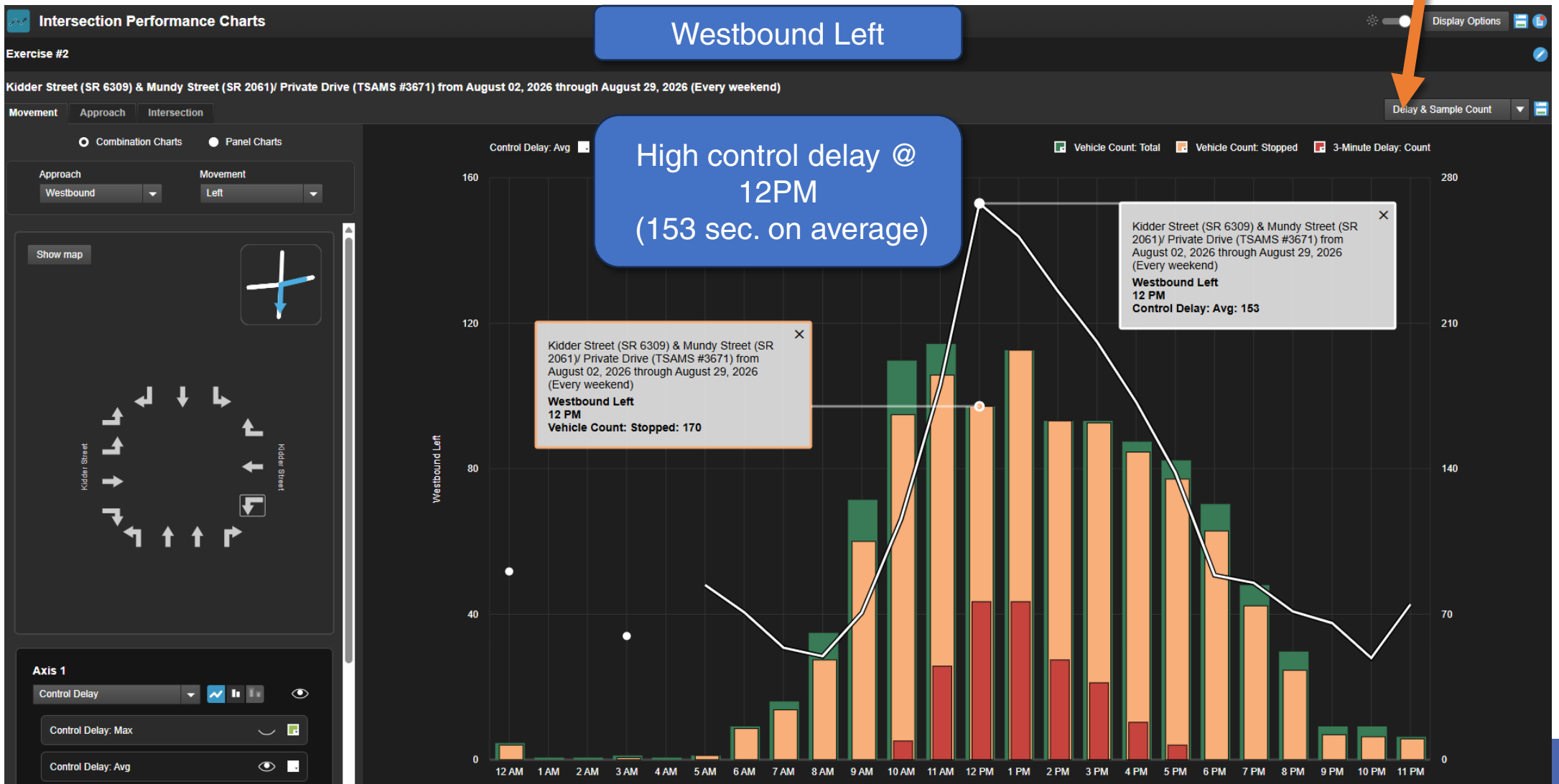
Westbound Left is only movement with noticeable split failures

Exercise #2: Data Discovery
Which movements are affected?



Exercise #2: Data Discovery
Which movements are affected?

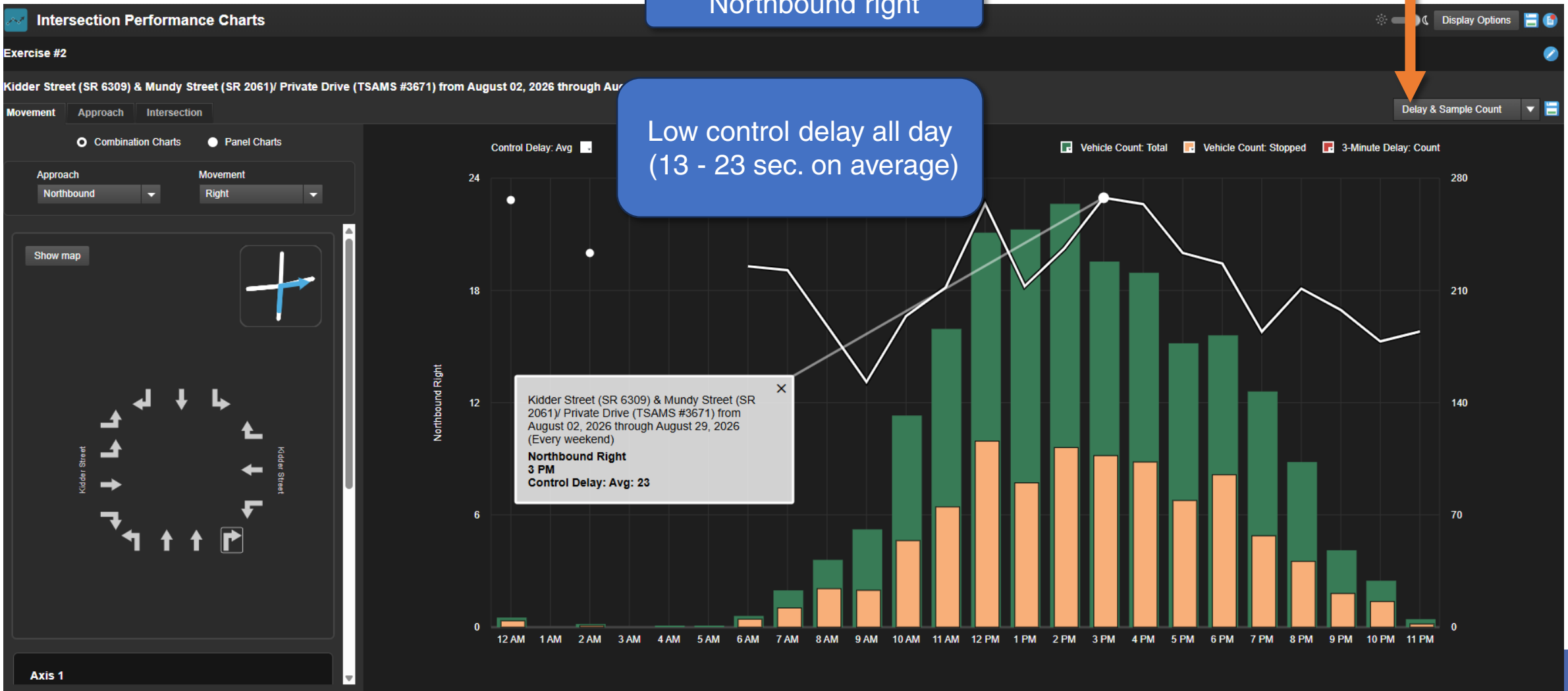
Delay & Sample Count preset



Exercise #2: Data Discovery
Which movements are affected?

Delay & Sample Count preset

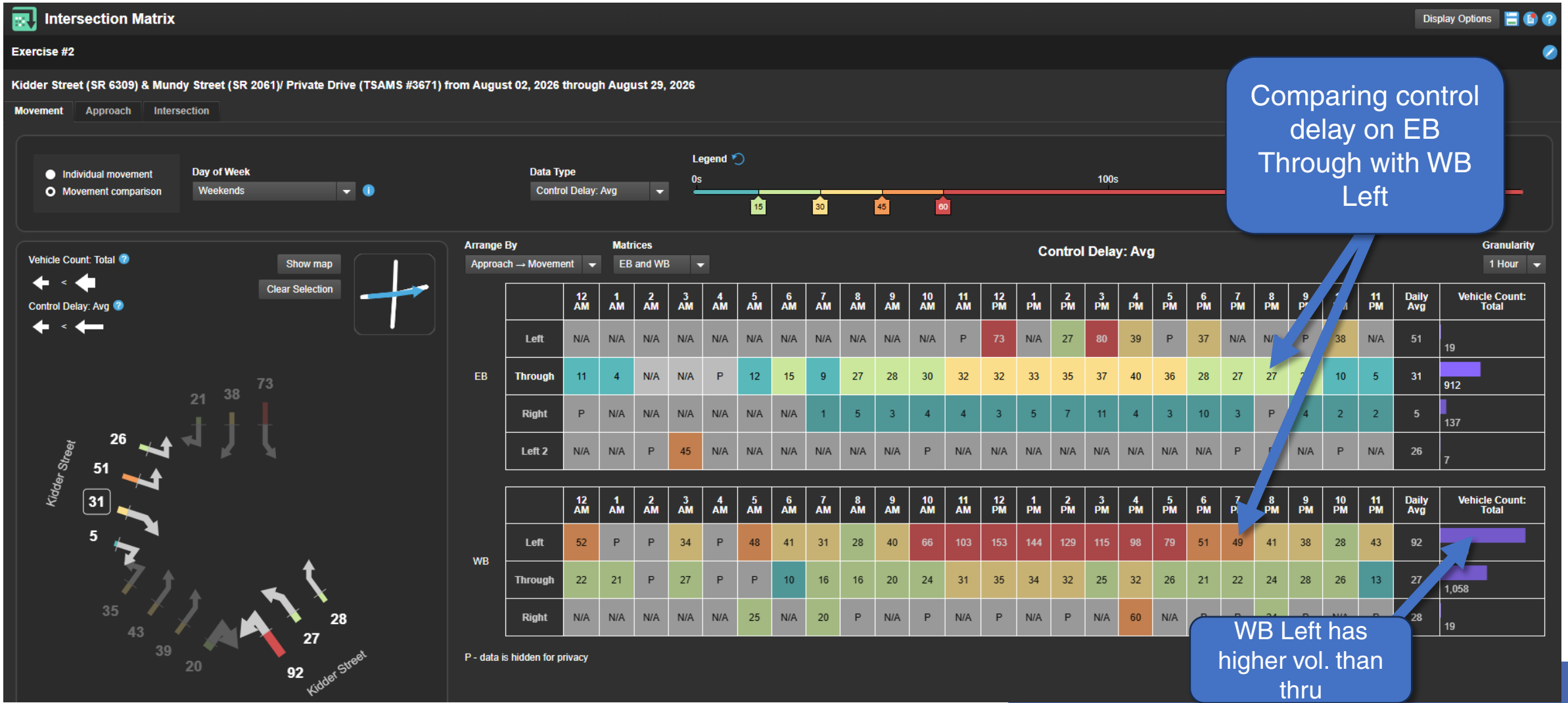
Northbound right



Low control delay all day (13 - 23 sec. on average)

Exercise #2: Data Discovery
How do movements compare?

Link: https://signals.ritis.org/analytics/intersection-matrix/?uuid=984d530c-7eb7-4933-a022-30e46f85e4c5



		12 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Daily Avg	Vehicle Count: Total
EB	Left	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P	73	N/A	27	80	39	P	37	N/A	N/A	P	38	N/A	51	19
	Through	11	4	N/A	N/A	P	12	15	9	27	28	30	32	32	33	35	37	40	36	28	27	27		10	5	31	912
	Right	P	N/A	N/A	N/A	N/A	N/A	N/A	1	5	3	4	4	3	5	7	11	4	3	10	3	P	4	2	2	5	137
	Left 2	N/A	N/A	P	45	N/A	N/A	N/A	N/A	N/A	N/A	P	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	P		N/A	P	N/A	26	7

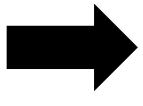
		12 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Daily Avg	Vehicle Count: Total
WB	Left	52	P	P	34	P	48	41	31	28	40	66	103	153	144	129	115	98	79	51	49	41	38	28	43	92	
	Through	22	21	P	27	P	P	10	16	16	20	24	31	35	34	32	25	32	26	21	22	24	28	26	13	27	1,058
	Right	N/A	N/A	N/A	N/A	N/A	25	N/A	20	P	N/A	P	N/A	P	N/A	P	N/A	60	N/A							28	19

A sample data discovery flowchart
Used for Exercise #2



Intersection Ranking

Where are things happening?

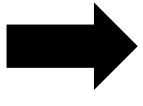




Intersection Matrix

When are things happening?

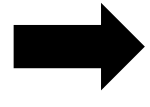
How do movements compare?





Intersection Trend Charts

How often have things been happening?





Intersection Performance Charts

Which movements are affected?

© UMD CATT Laboratory

Exercise 2: Data exploration

What did you find?

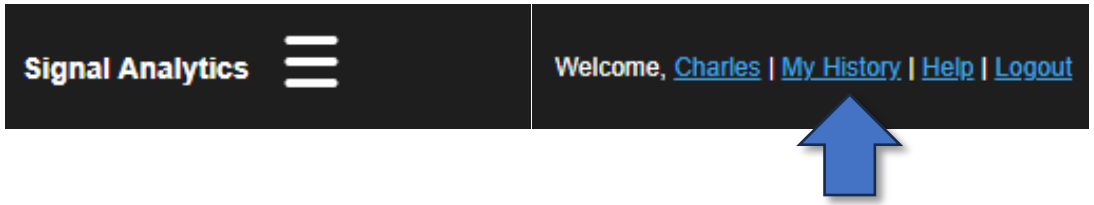


Lattimer@umd.edu

© UMD CATT Laboratory

Additional resources

Visit our **help page:**
https://signals.ritis.org/analytics/help/



Contact our **support team:**
signal-support@ritis.org

© UMD CATT Laboratory





Questions?

Charles R. Lattimer, PE, PMP
CATT Lab
Lattimer@umd.edu

CATT LABORATORY

PennDOT Statewide Signals Training
September 23, 2026 | 12:45 – 2:15 PM

Appendix

Bonus exercises

- Highest Speeds on Approach
- Most Stops on Busy Through Movements
- Fast Speeds & Low AOG

© UMD CATT Laboratory

Exercise #3: Highest Speeds on Approach
Safety check

Intersection Ranking

Purpose: Speeding, especially accelerating through yellow intervals, can be dangerous driving behavior. In areas with high approach speeds, you may want to confirm that you have adequate clearance intervals or consider implementing timing patterns to discourage speeding, like “rest on red.” This report can also be useful for correlation assessment with crash patterns.



© UMD CATT Laboratory

Exercise #3: Highest Speeds on Approach

Safety check

Intersection Ranking

Building your query

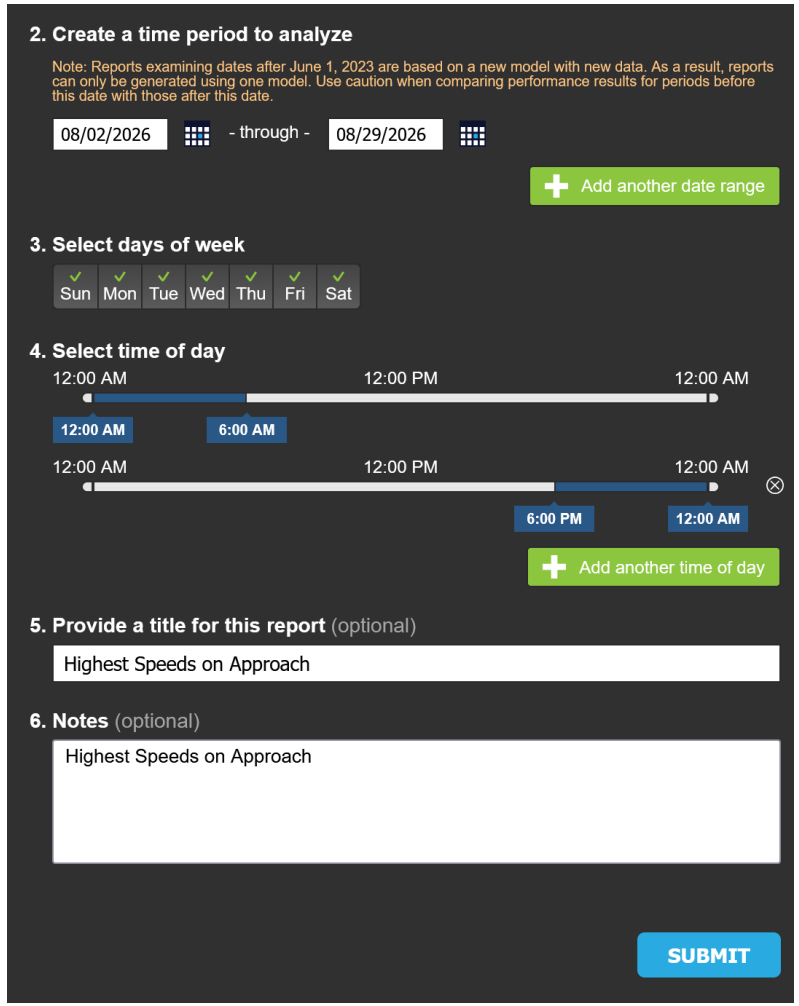
Date range to analyze:
- Select at least the most recent two weeks of data
- Four weeks will give you the most data to work with

Days of Week
- All Days

Time of day
- 12:00 AM to 6:00 AM
- 6:00 PM to 12:00 AM

Title or Notes
- Recommend including “Highest Speeds on Approach” in either the title or notes.

Click SUBMIT



Exercise #3: Highest Speeds on Approach

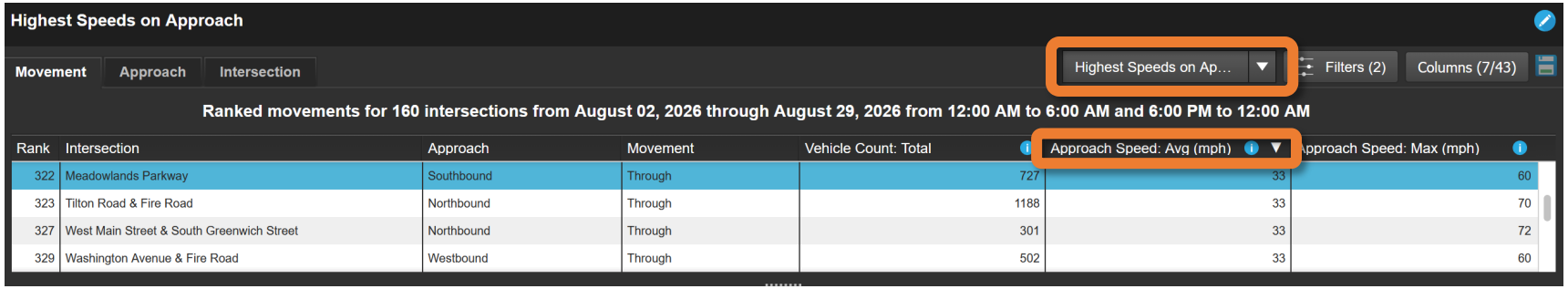
Safety check

Intersection Ranking

Organizing your report data

Select Preset:
- Highest Speeds on Approach

Sort by Column:
- Approach Speed: Avg ▼ (descending)



Rank	Intersection	Approach	Movement	Vehicle Count: Total	Approach Speed: Avg (mph) ▼	Approach Speed: Max (mph)
322	Meadowlands Parkway	Southbound	Through	727	33	60
323	Tilton Road & Fire Road	Northbound	Through	1188	33	70
327	West Main Street & South Greenwich Street	Northbound	Through	301	33	72
329	Washington Avenue & Fire Road	Westbound	Through	502	33	60

What to look for

- Look for **average approach speeds that exceed the posted speed limit**.
- Look at Approach Speed: Max to get a feel for some top-end speeds approaching the intersection.
- In your engineering judgment, are there any approaches where you might want to consider adjusting the yellow-red clearance intervals?

Approach Speed: Avg (mph) ▼	Approach Speed: Max (mph)
53	87
50	87
50	65
50	85
50	87

© UMD CATT Laboratory

Exercise #4: Most Stops on Busy Through Movements

Progression check

Intersection Ranking

Purpose: If you're trying to achieve good progression, it's good to monitor the arrival on green performance of your busiest movements. This report focuses on the busiest through movements and lets you see which ones might be lagging behind.



© UMD CATT Laboratory

Exercise #4: Most Stops on Busy Through Movements
Progression check

Intersection Ranking

Building your query

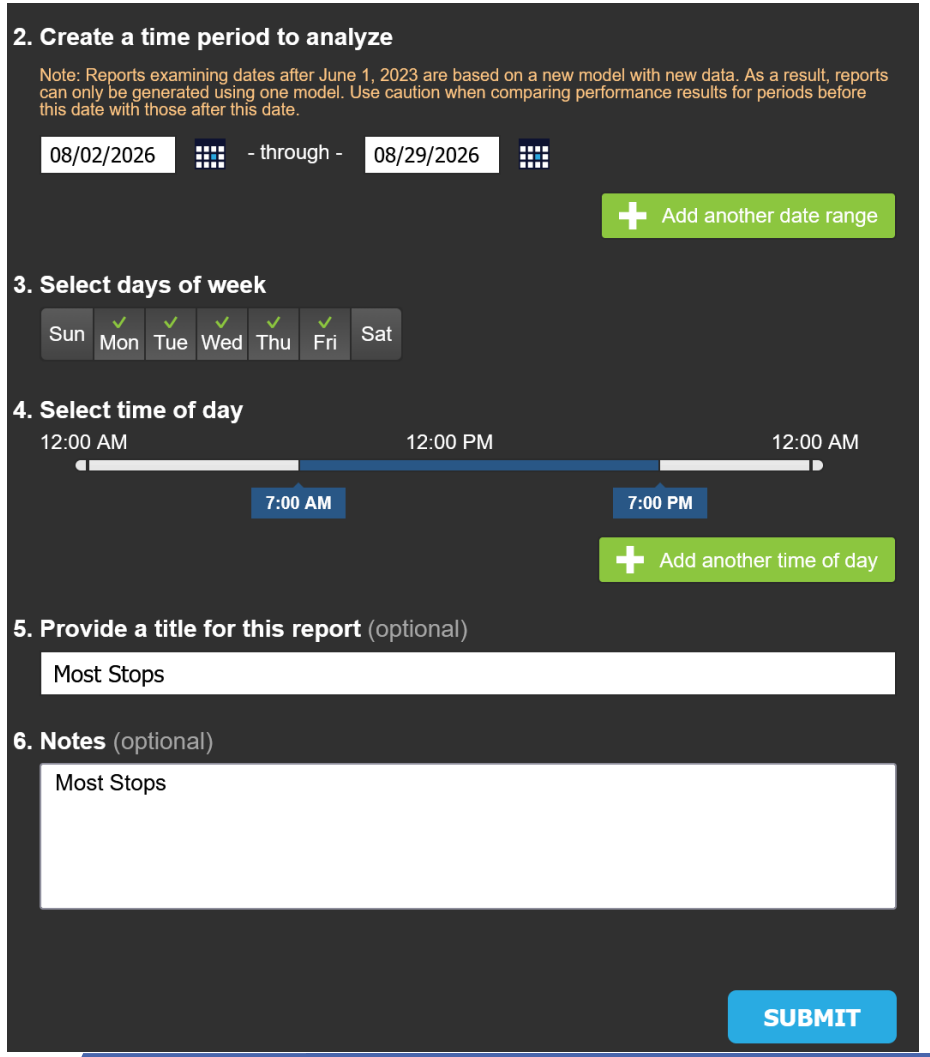
Date range to analyze:
- Select at least the most recent two weeks of data
- Four weeks will give you the most data to work with

Days of Week
- Weekdays

Time of day
- 7:00 AM to 7:00 PM

Title or Notes
- Recommend including “Most Stops” in either the title or notes.

Click SUBMIT



© UMD CATT Laboratory

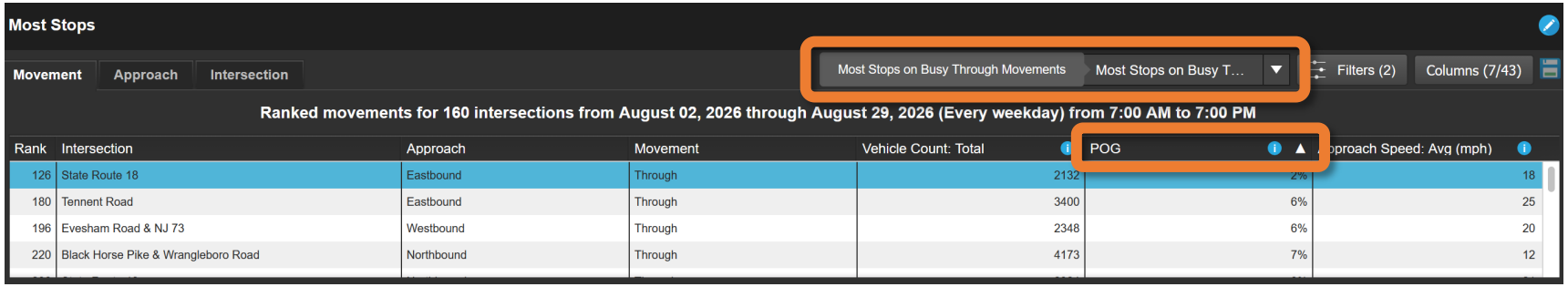
Exercise #4: Most Stops on Busy Through Movements
Progression check

Intersection Ranking

Organizing your report data

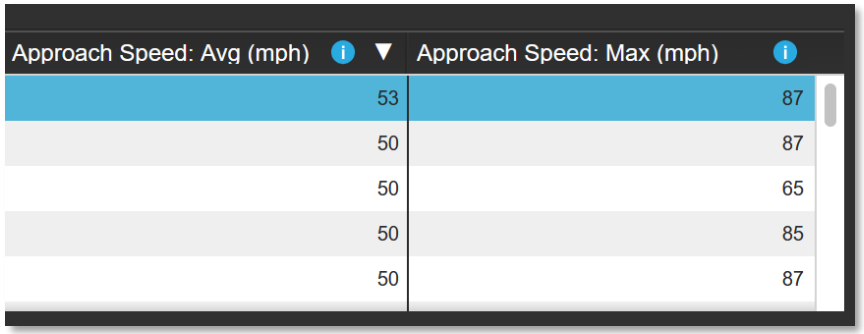
Select Preset:
- Most Stops on Busy Through Movements

Sort by Column:
- POG ▲ (ascending)



What to look for

- Look for the lowest POG, **especially movements with POG below 40%.**
- How does the volume and POG of this approach compare with the others at the intersection? See if there is an opportunity to adjust the allocation of green time.
- How does the POG compare with upstream and downstream intersections on the same corridor? See if there is an opportunity for offset optimization.



© UMD CATT Laboratory

Exercise #5: Fast Speeds & Low AOG

Safety check

Intersection Ranking

Purpose: Intersections with lots of stops and high approach speeds can suggest locations where drivers may be engaging in risky behavior to “beat the light,” potentially increasing the risk of red light running and rear-end crashes. These intersections may benefit from signal timing improvements to increase AOG, plus other potential intersection safety treatments.



Exercise #5: Fast Speeds & Low AOG

Safety check

Intersection Ranking

Building your query

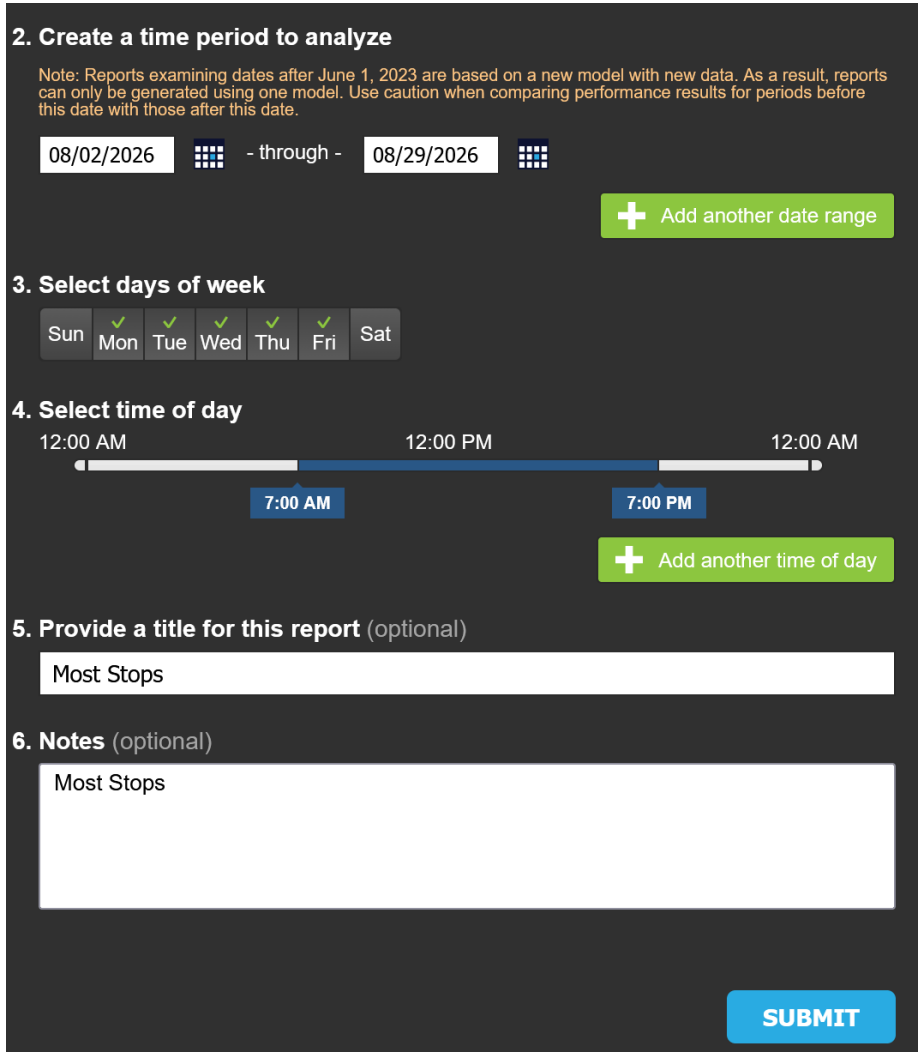
Date range to analyze:
- Select at least the most recent two weeks of data
- Four weeks will give you the most data to work with

Days of Week
- All days

Time of day
- All times

Title or Notes
- Recommend including “Fast Speeds & Low AOG” in either the title or notes.

Click SUBMIT



© UMD CATT Laboratory

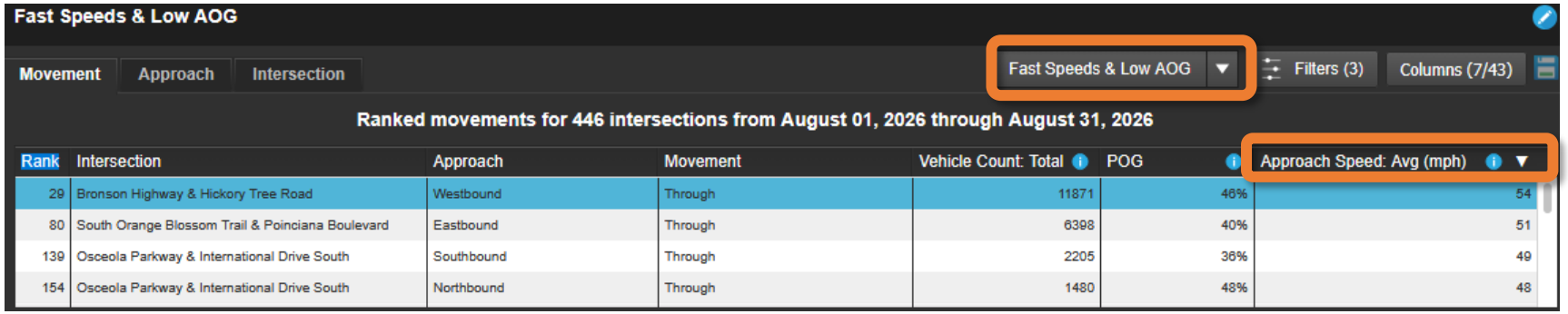
Exercise #5: Fast Speeds & Low AOG
Safety check

Intersection Ranking

Organizing your report data

Select Preset:
- Fast Speeds & Low AOG

Sort by Column:
- Approach Speed: Avg. ▼ (descending)



Rank	Intersection	Approach	Movement	Vehicle Count: Total	POG	Approach Speed: Avg (mph)
29	Bronson Highway & Hickory Tree Road	Westbound	Through	11871	46%	54
80	South Orange Blossom Trail & Poinciana Boulevard	Eastbound	Through	6398	40%	51
139	Osceola Parkway & International Drive South	Southbound	Through	2205	36%	49
154	Osceola Parkway & International Drive South	Northbound	Through	1480	48%	48

What to look for

- Look for the fastest approach speeds
- For locations where your engineering judgement finds the approach speeds to be excessive, you may wish to consider modifying offsets or putting the signal into coordination to improve the AOG. These signalized approaches may also benefit from reflective backplates; signing, striping, or equipment treatments; or other speed-based countermeasures.

© UMD CATT Laboratory