

The logo for TSMO (Texas State Motorway Operations) features a stylized arrow pointing to the right. The arrow is composed of two overlapping shapes: a green one in front and an orange one behind. To the right of the arrow, the letters "TSMO" are written in a large, white, sans-serif font against a solid green background. Below the green background is a white horizontal bar.

TSMO

I-670 SmartLANE & TSMO

Planning

Building

Operating

Lessons Learned

Planning

Building

Operating

Lessons Learned

ODOT transportation systems management and operations (TSMO) uses practical solutions to address immediate safety and congestion problems. Advanced technologies are also applied to make our system work better right now.

There is never enough money to build our way out of congestion. TSMO combines new technology with traditional methods to maximize traffic flow and safer driving conditions on the roads we already have.



## ATDM

Deploy actively managed strategies to reduce Ohio's urban congestion:

- Dynamic Ramp Metering
- Hard Shoulder Running
- Contra Flow Lanes
- Variable Speed Limits
- Queue Warning

## ATDM

Find pilot projects to help Ohio meet these goals:

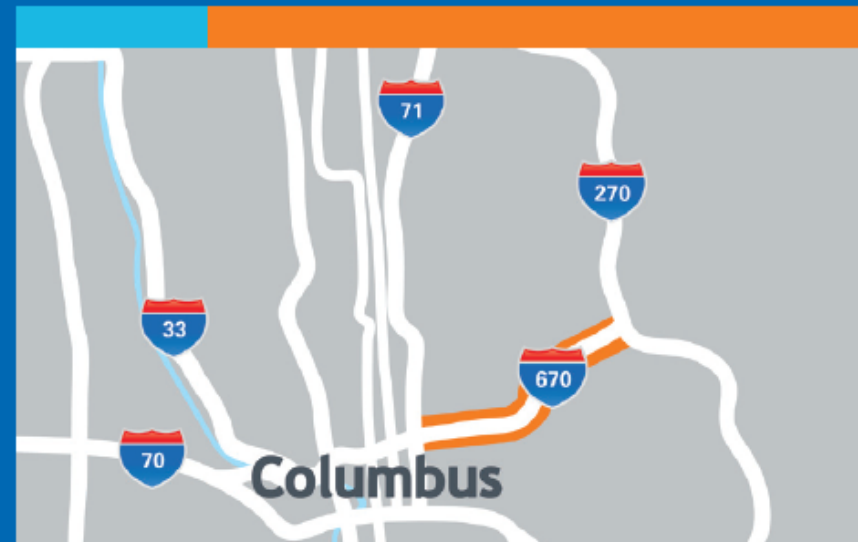
- Improve travel time reliability
- Preserve reliable capacity into the future
- Improve freight travel
- Reduce vehicle delay
- Improve person throughput

Based on the Department's review of the analyses, and subsequent discussions, the following corridors and strategies have been identified for potential pilot project(s) for one or more of the regions.

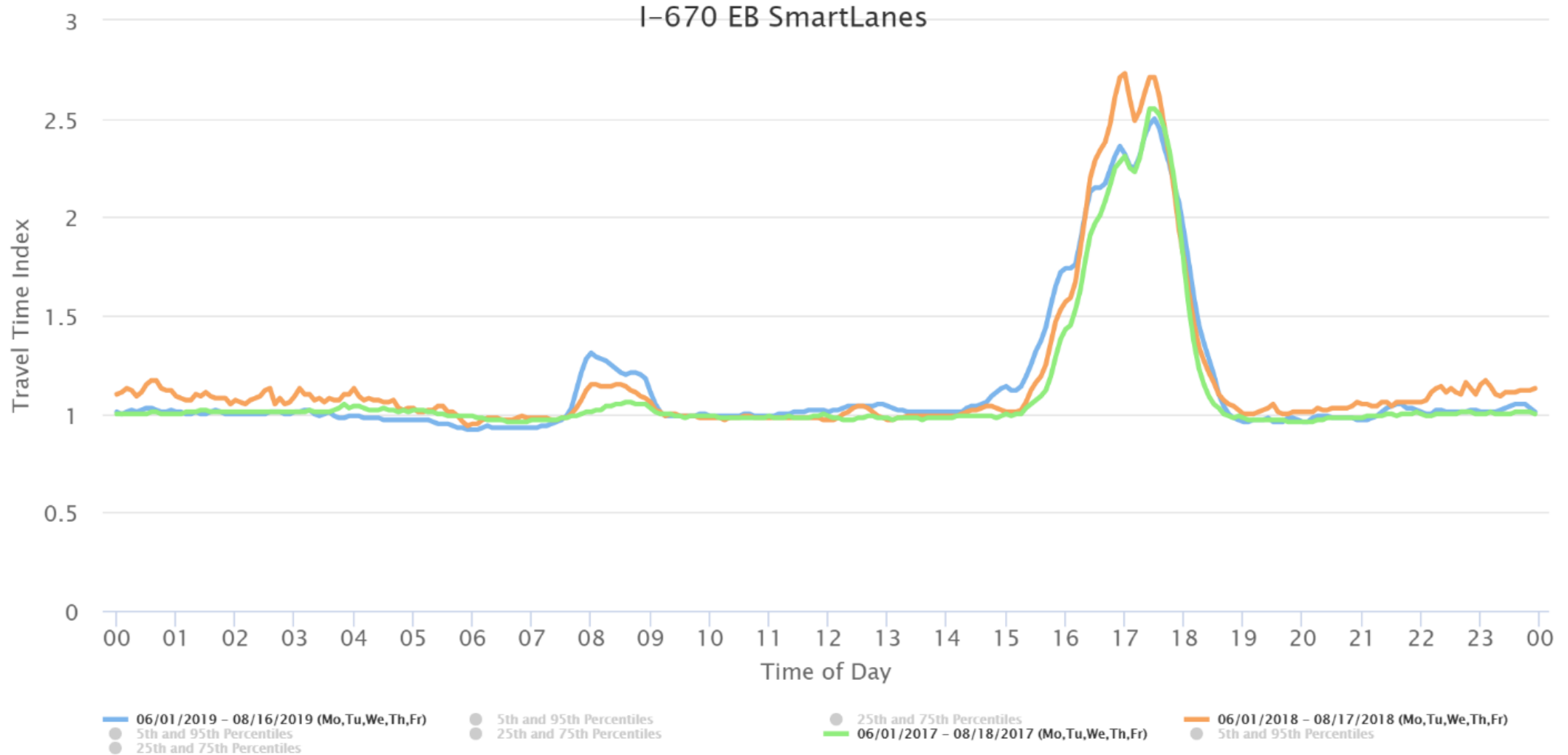
## Potential Pilot Projects



I-275 from I-71 to Loveland-Madeira Rd:  
Hard Shoulder Running Mixed Use Traffic



I-670 from I-71 to I-270: Hard Shoulder  
Running Mixed Use Traffic



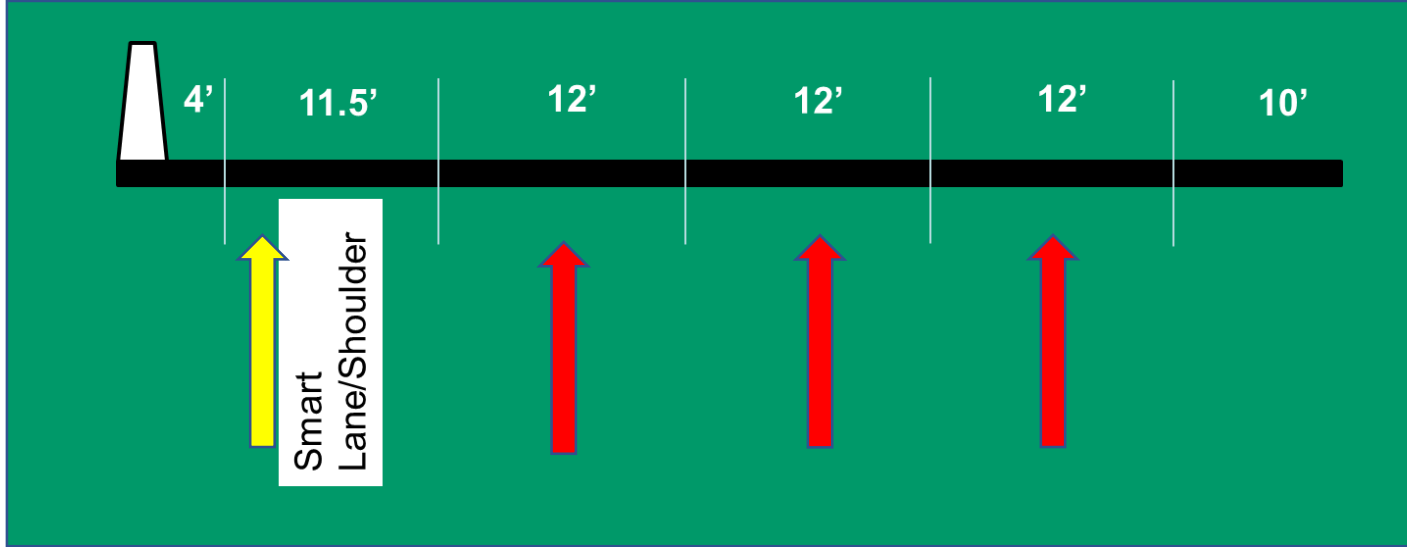


Planning

Building

Operating

Lessons Learned



Ohio Expo Center & State Fair

John Glenn Columbus International Airport

INTERSTATE 670

INTERSTATE 270




US 62

US 23

US 71

US 16

US 317

-  Existing Lane
-  New Perm. Lane
-  Smart Lane/Ex. Shoulder



# DOWNTOWN COLUMBUS TO THE EAST SIDE



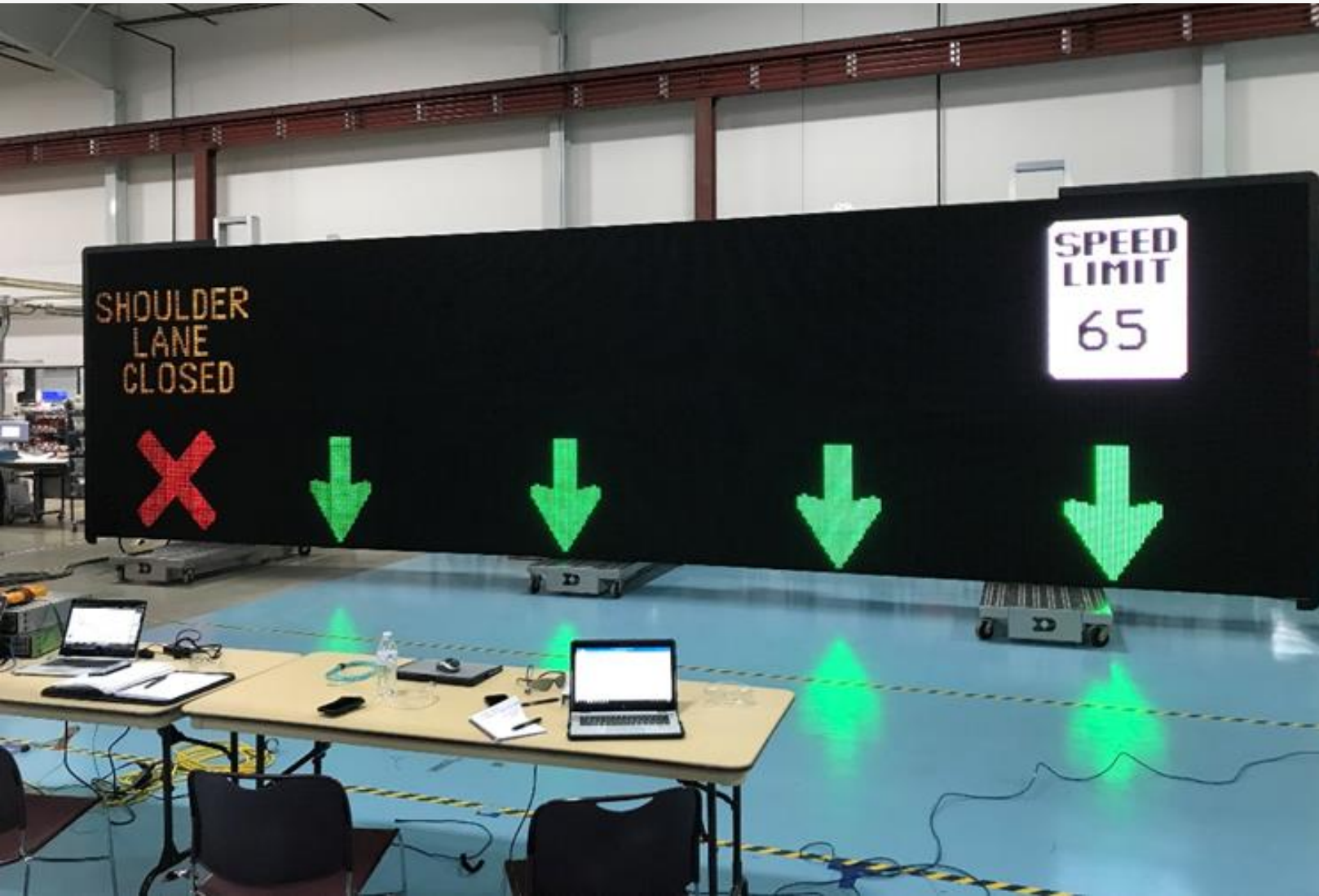
# TSMO

TRANSPORTATION SYSTEMS  
MANAGEMENT & OPERATIONS

Making Our System Work Better



- 9 large DMS signs
- 3 smaller DMS signs
- 39 new CCTV cameras for continuous coverage
- 9 variable speed limit signs
- New radar speed detectors
- 86,000+ feet of fiber





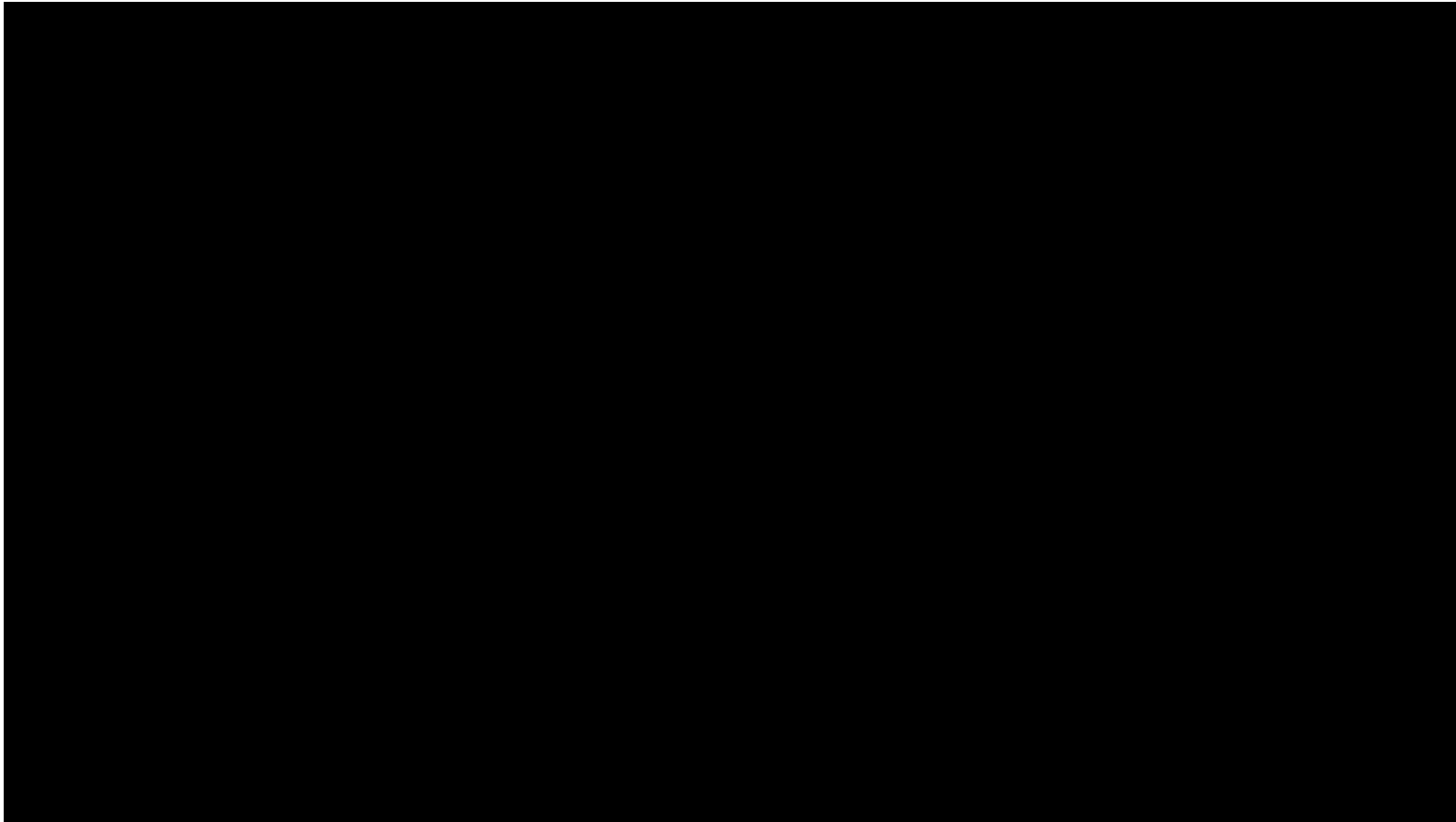


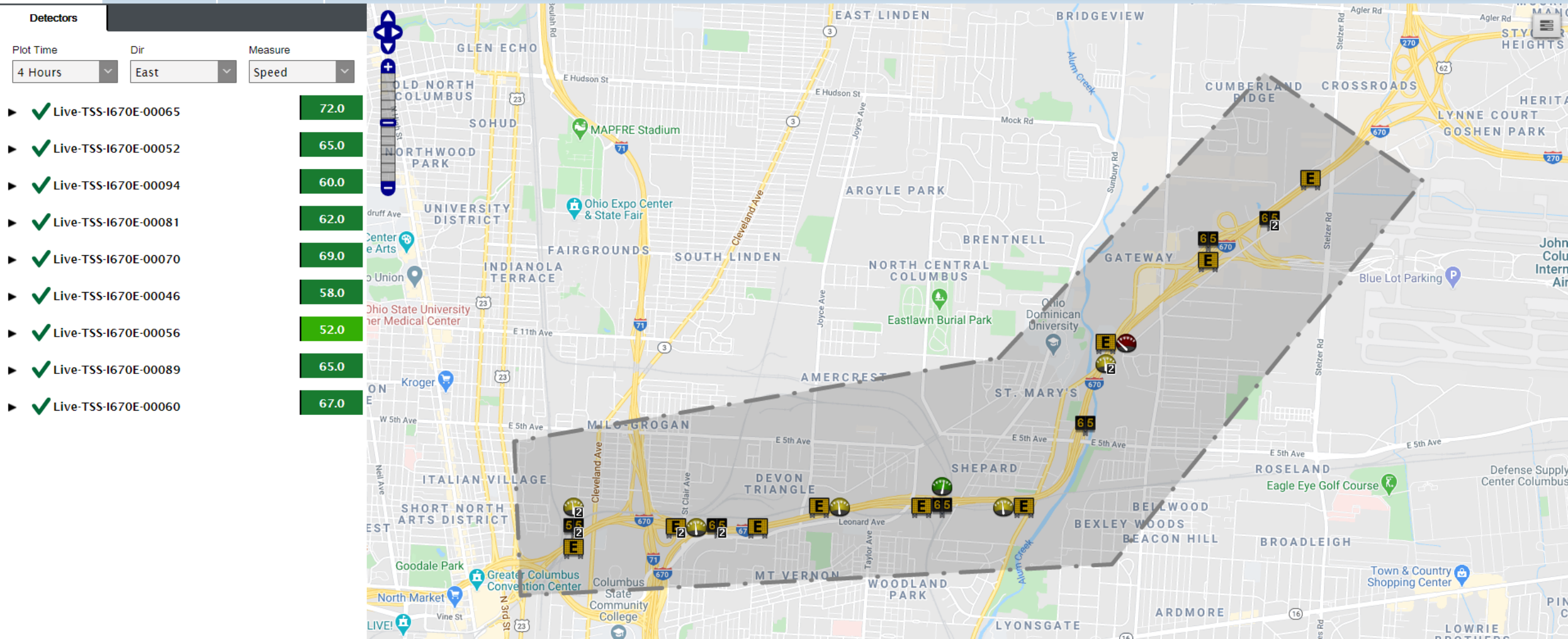
# TSMO

TRANSPORTATION SYSTEMS  
MANAGEMENT & OPERATIONS

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Making Our System Work Better









**ScaryBad**  
@ScaryBad

Replying to @ODOT\_Columbus



9:04 PM · Oct 9, 2019 · Twitter for iPhone

**edot** **ODOT Columbus** ✓  
@ODOT\_Columbus

Overhead digital signage is placed every 3/4 miles so that motorists will always know if the #SmartLane is

**Pam H** 🇺🇸  
@Pamcake614

Replying to @ODOT\_Columbus and @DriveOhio

Death lane. 🙄 This is a terrible, terrifying idea.

1:13 AM · Aug 6, 2019 · Twitter for iPhone



**Ohio's first SmartLane opens October 2019** edot

5:45 PM · Sep 23, 2019 · Hootsuite Inc.

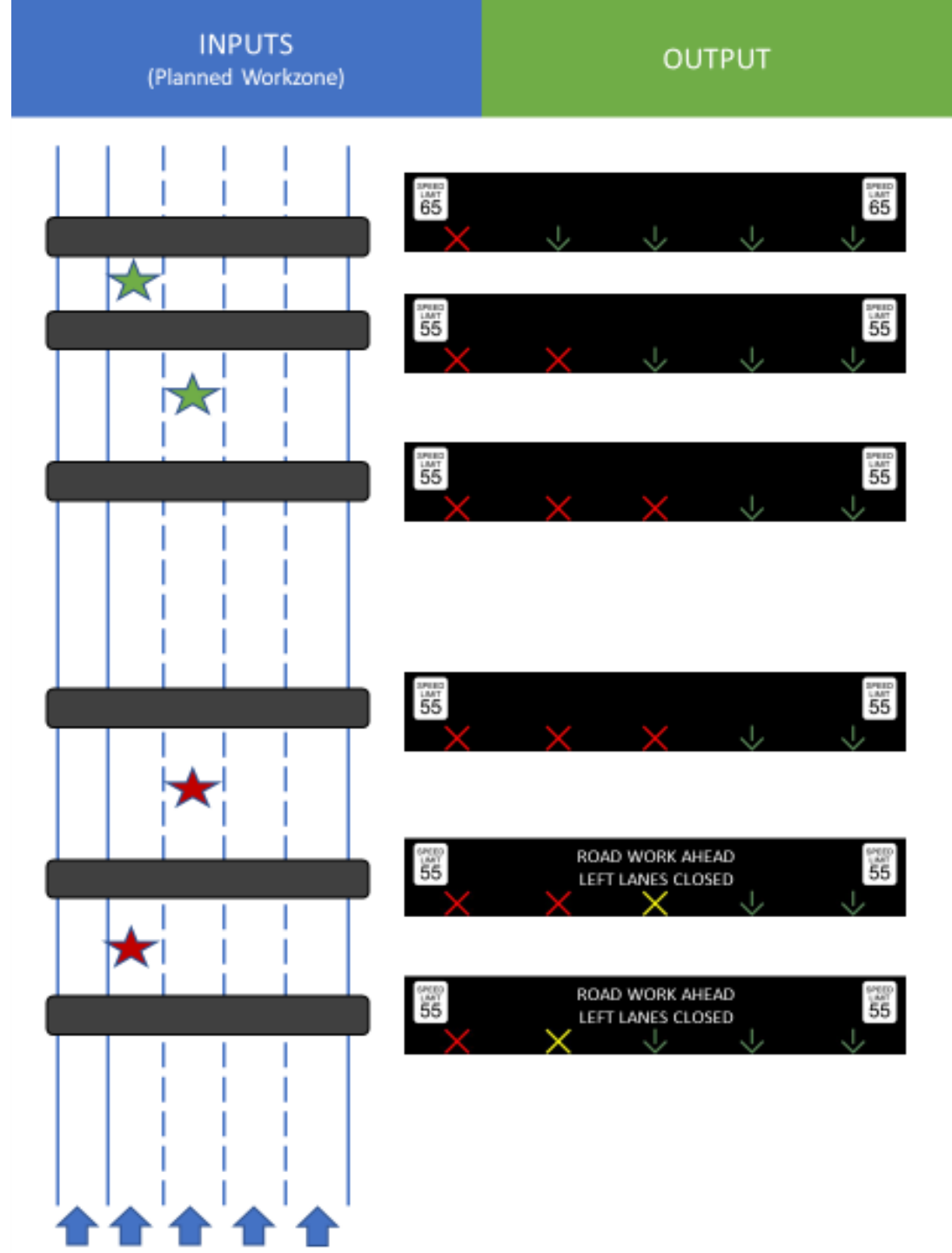
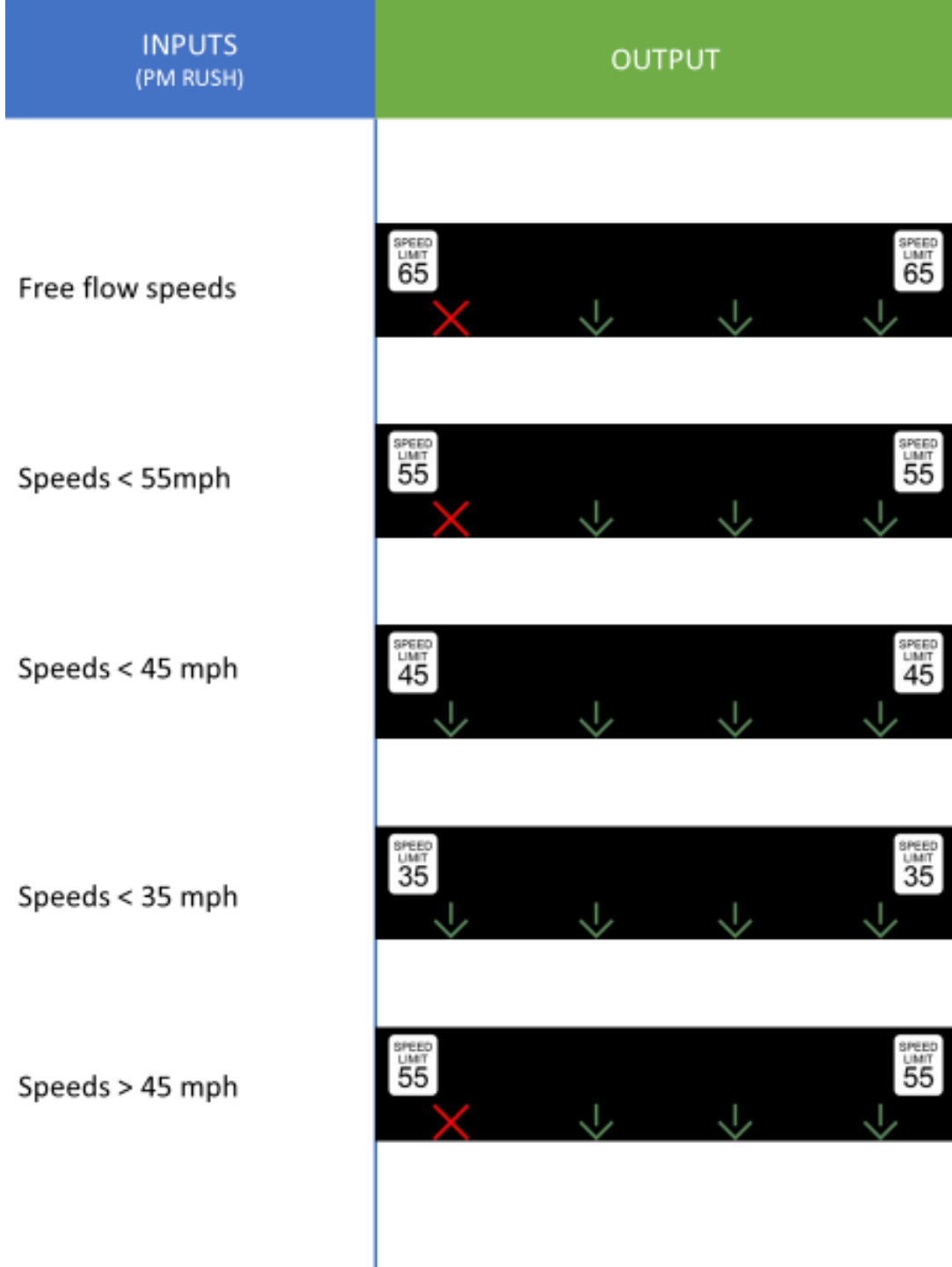
Planning

Building

Operating

Lessons Learned





SPEED  
LIMIT  
55

SPEED  
LIMIT  
55



FSP Sweep Begins

2/26/2020 1:51:40 PM

[Record](#)

CCTV Sweep Between 5.2 and 5.6 (St Clair and W of Joyce)

2/26/2020 2:48:41 PM

[Record](#)

CCTV Sweep Between 5.6 and 6.0 (W of Joyce and E of Joyce)

2/26/2020 2:49:05 PM

[Record](#)

CCTV Sweep Between 6.0 and 6.5 (E of Joyce and E of Leonard)

2/26/2020 2:56:07 PM

[Record](#)

CCTV Sweep Between 6.5 and 7.0 (E of Leonard and W of Nelson)

2/26/2020 2:57:10 PM

[Record](#)

CCTV Sweep Between 7.0 and 8.1 (W of Nelson and E of 5th)

2/26/2020 3:01:04 PM

[Record](#)

CCTV Sweep Between 8.1 and 8.9 (E of 5th and Airport Dr)

2/26/2020 3:02:32 PM

[Record](#)

CCTV Sweep Between 8.9 and 9.4 (Airport Dr and W of Stelzer)

2/26/2020 3:03:56 PM

[Record](#)

FSP Sweep Complete

2/26/2020 2:16:40 PM

[Record](#)

Speeds Reduced to 55 MPH

2/26/2020 3:16:40 PM

[Record](#)

55 MPH Notification Sent

2/26/2020 3:17:49 PM

[Record](#)

SmartLANE Open

2/26/2020 3:19:45 PM

[Record](#)

SmartLANE Open Notification Sent

2/26/2020 3:20:33 PM

[Record](#)

Visually Confirmed SmartLANE Signs

2/26/2020 3:20:47 PM

[Record](#)

SmartLANE Closure Warning

2/26/2020 6:23:33 PM

[Record](#)

SmartLANE Closed

2/26/2020 6:31:00 PM

[Record](#)

SmartLANE Closed Notification Sent

2/26/2020 6:32:51 PM

[Record](#)

# TSMO

TRANSPORTATION SYSTEMS  
MANAGEMENT & OPERATIONS

Making Our System Work Better



10/29/2019 15:42:09 W

I-670 EB at MM 6.0



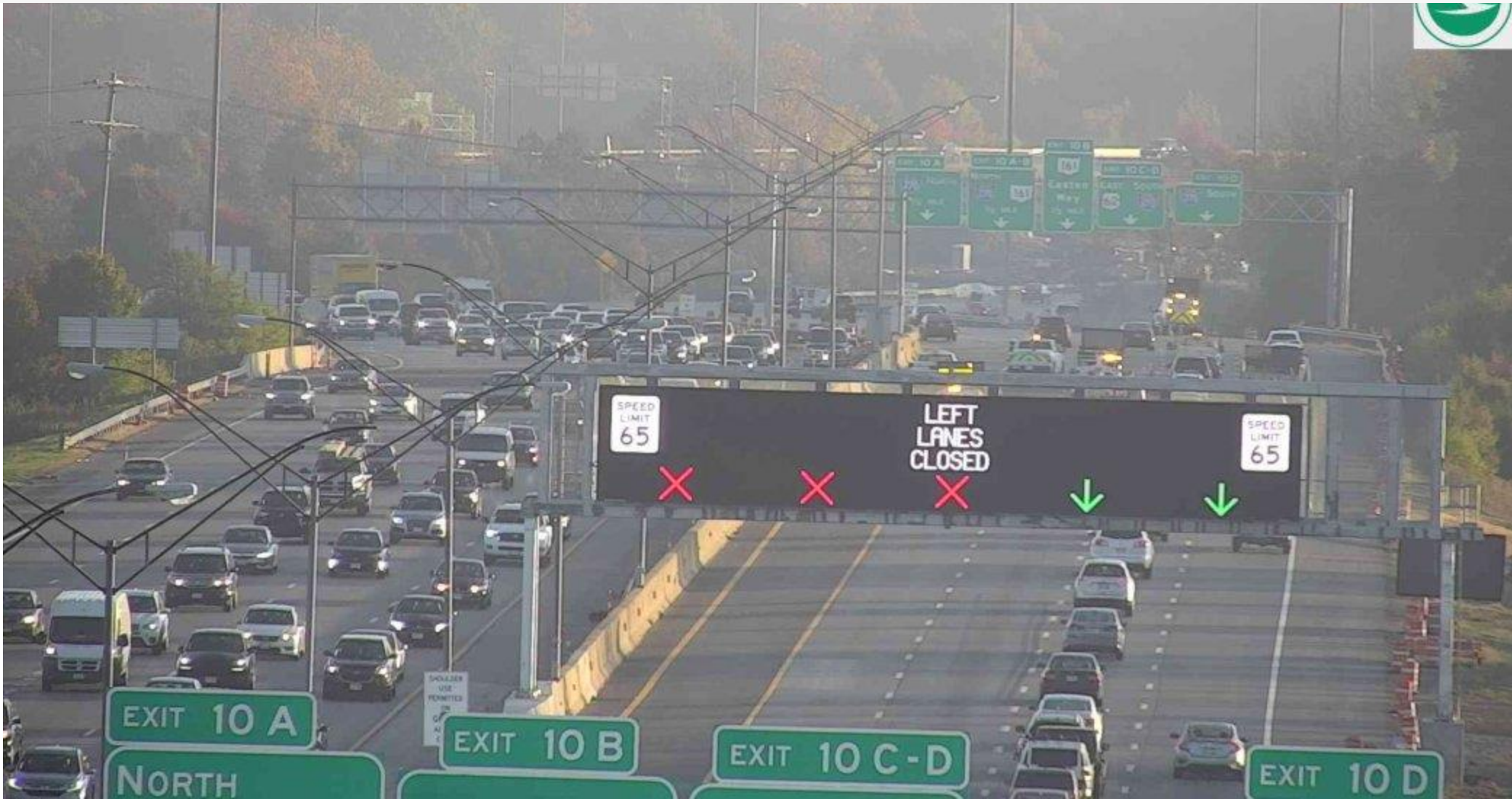
Planning

Building

Operating

Lessons Learned





SPEED  
LIMIT  
55

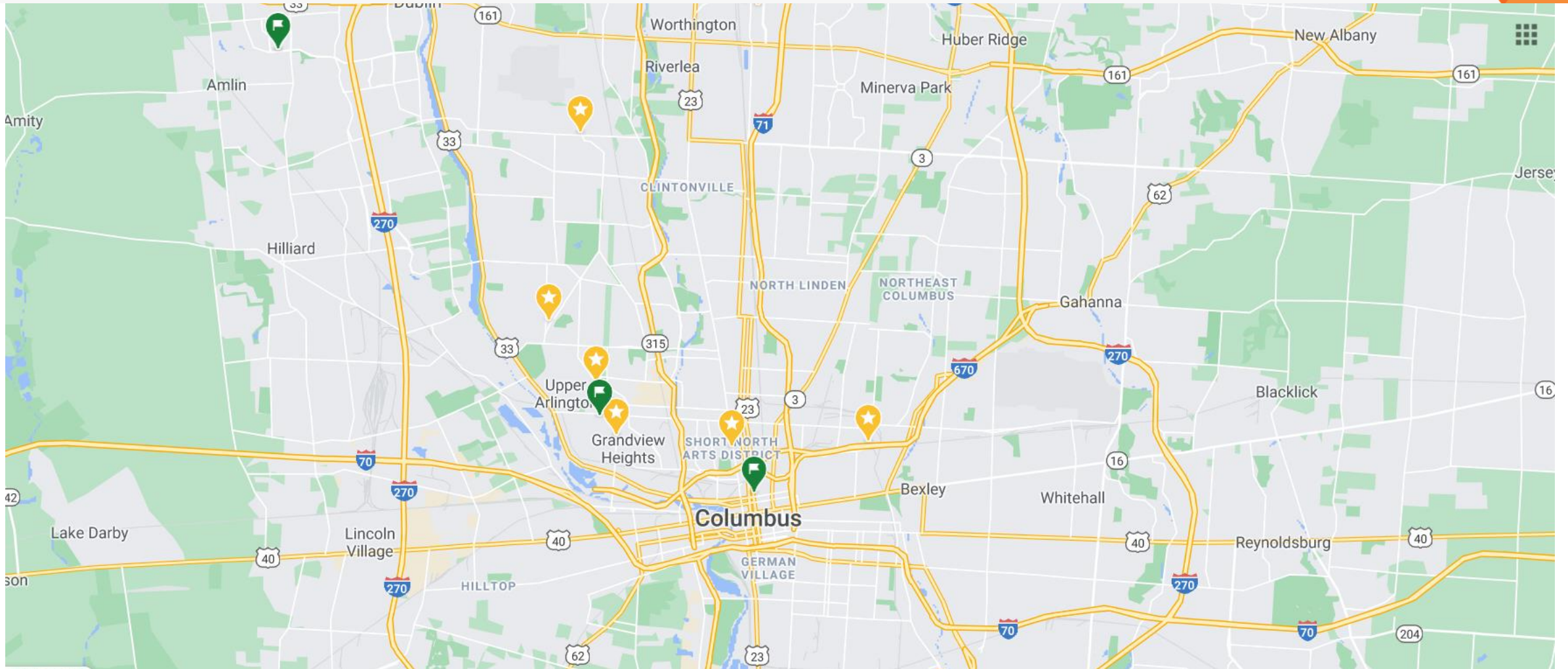
SPEED  
LIMIT  
55



# TSMO

## TRANSPORTATION SYSTEMS MANAGEMENT & OPERATIONS

Making Our System Work Better



12:00 PM

12:00 AM

Speed (mph)

0 mph

50 mph

3:00 PM

7:00 PM

25

35

45

55

65

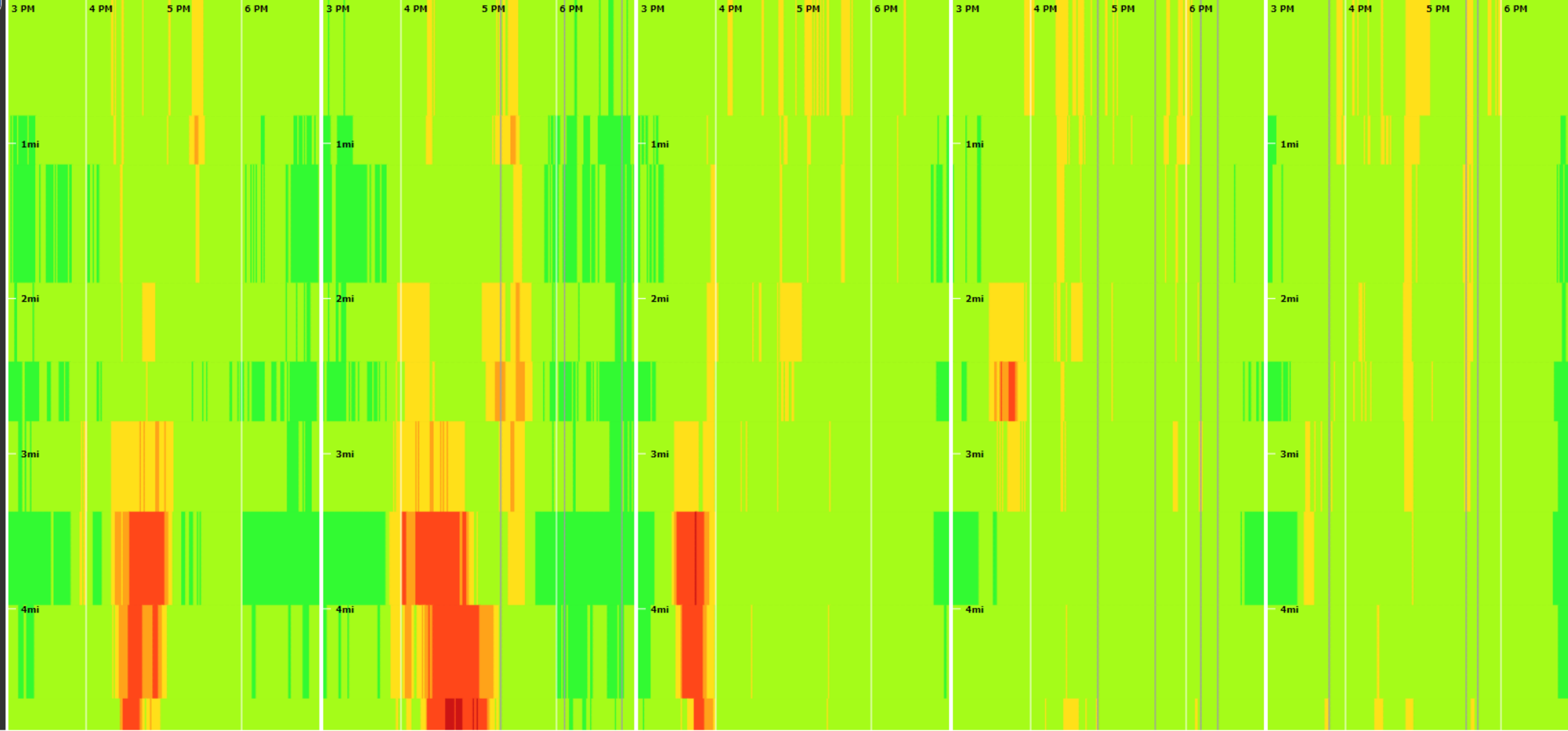
October 21, 2019 (Monday)

October 22, 2019 (Tuesday)

October 23, 2019 (Wednesday)

October 24, 2019 (Thursday)

October 25, 2019 (Friday)



I-270/US-62

INTERNATI...

AIRPORT DR

EXIT 9/JO...

E 5TH AVE

EXIT 7/E ST...

LEONARD ...

EXIT 6/LEO...

I-71/N 4TH ...



EB

### Travel time (minutes) for I-670 Eastbound between I-71 and I-270/US-62

**2017**

**Pre-Smartlane Implementation**

	10/23/2017	10/24/2017	10/25/2017	10/26/2017	10/27/2017	10/30/2017	10/31/2017	11/1/2017	11/2/2017	11/3/2017	11/6/2017	11/7/2017	11/8/2017	11/9/2017	11/10/2017	11/13/2017	11/14/2017	11/15/2017	11/17/2017
3:45 PM	6.77	6.73	4.93	6.59	6.42	4.45	5.36	6.29	4.8	5.51	4.57	4.67	5.25	5.57	4.63	4.45	5.43	11.68	8.3
4:00 PM	8.78	6.67	5.56	6.82	8.6	10.84	6.3	7.52	5.55	6.88	5.86	6.01	6.76	6.18	4.37	4.67	5.96	13.36	10.34
4:15 PM	8.86	7.95	5.85	8.04	10.37	24.78	8.68	9.27	6.52	8.19	6.91	7.57	8.21	6.54	4.16	7.27	6.68	19.86	11.68
4:30 PM	9.25	10.9	6.92	12.05	10.91	13.64	11.92	12.84	7.81	9.39	8.78	8.63	10.56	9.11	4.13	10.65	8.07	22.07	12.23
4:45 PM	13.56	17.36	7.21	21.24	11.99	13.11	14.52	15.88	9.66	9.04	9.8	7.69	12.3	10.18	5.7	14	9.79	21.92	17.41
5:00 PM	13.1	18.94	6.98	22.94	9.68	12.05	15.35	14.68	6.86	10.71	9.84	7.25	13.38	9.45	7.1	11.11	9.24	27.18	21.11
5:15 PM	15.48	18.56	7.03	26.01	7.25	17.34	13.95	19.58	6.8	11.38	11.85	7.41	12.97	10.21	6.44	10.98	12.3	29.14	23.99
5:30 PM	17.73	18.82	8.36	24.58	6.77	24.66	16.21	27.86	6.19	10.11	9.39	9.43	13.8	12.02	5.34	11.17	16.17	27.69	24.12
5:45 PM	15.61	18.73	6.99	18.54	4.49	21.52	9.26	23.72	4.74	5.15	7.05	8.2	14.02	11.29	4.3	11.05	15.08	24.52	14.32
6:00 PM	9.88	11.37	4.76	13.48	3.93	15.94	4.49	17.04	4.09	4.15	4.95	5.93	11.26	7.62	4.1	6.8	9.54	26.79	14.43
6:15 PM	4.9	7.49	3.89	6.52	4.08	10.31	3.82	16.25	3.89	4.09	4.29	4.19	6.32	6.27	4.03	4.24	7.49	21.13	11.11
6:30 PM	4.06	4.6	3.94	4.27	4.08	6.11	3.73	11.31	3.91	3.96	4.16	4.31	4.48	4.53	4.14	4.16	6.61	17.04	11.02
6:45 PM	4.08	4.04	4.02	4.12	4.25	4.37	3.89	6.82	4.06	3.91	4.22	4.12	4.17	4.08	4.23	4.19	4.52	12.75	6.87

### Travel time (minutes) for I-670 Eastbound between I-71 and I-270/US-62

**2019**

**Post-Smartlane Implementation**

	10/23/2019	10/24/2019	10/25/2019	10/29/2019	10/30/2019	10/31/2019	11/1/2019	11/5/2019	11/6/2019	11/7/2019	11/8/2019	11/11/2019	11/12/2019	11/13/2019	11/14/2019	11/15/2019
3:45 PM	5.55	5.05	4.88	4.58	5.09	4.95	4.76	4.62	6.28	4.98	4.78	4.45	4.69	4.62	4.93	5.33
4:00 PM	4.79	4.79	4.86	4.82	5.06	4.87	4.84	4.87	7.59	5.02	4.95	4.39	4.84	4.81	5.13	7.36
4:15 PM	4.86	4.97	4.9	5.09	5.4	5.43	4.95	4.86	6	5.09	5.42	5.14	4.92	5.15	6.24	6.81
4:30 PM	4.84	4.91	4.84	4.92	5.56	5.69	5.27	4.89	4.94	5.11	8.5	5.4	4.91	5.14	5.4	6.36
4:45 PM	4.93	4.83	5.05	4.88	5.34	5.14	4.89	4.84	4.95	5.36	6.41	5.43	4.92	5.17	5.05	6.54
5:00 PM	4.86	4.82	4.84	4.75	5.52	4.93	4.92	4.92	4.93	5.1	4.95	5.32	4.87	5.05	4.98	5.31
5:15 PM	4.9	4.82	4.78	4.9	5.69	5.1	4.89	4.91	4.99	5.26	4.98	5.29	4.98	5.06	5.16	5
5:30 PM	4.87	4.78	4.9	4.86	5.21	5.03	4.84	4.88	5.03	5.34	5.05	5.37	4.96	5.06	5.24	4.94
5:45 PM	4.75	4.86	4.7	4.83	5.14	4.78	4.93	4.83	4.87	5.6	4.95	5.06	4.87	5.08	5.05	5.14
6:00 PM	4.72	4.86	4.57	4.78	5.47	4.62	4.8	5.09	5.15	5.42	4.93	4.97	5.03	5.08	4.92	4.97
6:15 PM	4.79	4.66	4.66	4.95	5.21	4.36	5.05	5.23	5.09	5.43	5.07	5.16	4.97	5.02	4.88	5.07
6:30 PM	4.61	4.53	4.49	4.87	5.23	4.25	5	4.73	4.66	5.09	4.76	5.09	4.89	5.11	4.9	5.18
6:45 PM	4.31	4.46	4.29	4.76	5.02	4.34	4.39	4.34	4.46	4.6	4.46	4.82	5.04	4.67	4.44	4.79



**Lola Wu**  
@LolaWu

Replying to [@ODOT\\_Columbus](#)

The Smart Lane is GLORIOUS!! Dropped my commute from downtown to New Albany from 45 mins to 17 mins. Not a "terrible driver" in sight, in fact, far better than on any average day. Little to no congestion at 5:15pm. Just try it before offering an opinion!

[#LoveSmartLane](#)

4:00 PM · Oct 25, 2019 · [Twitter for iPhone](#)



**Heidi Tybee**  
@HeidiTybee

Replying to [@ODOT\\_Columbus](#) and [@DriveOhio](#)

I just thought about this yesterday and concluded the whole smart lane was a joke.

Now this. Guess I was wrong!

Bring on the I-270 smart lane!

12:51 AM · Aug 6, 2019 · [Twitter for Android](#)



**TryinRyan**  
@TryinRyan2

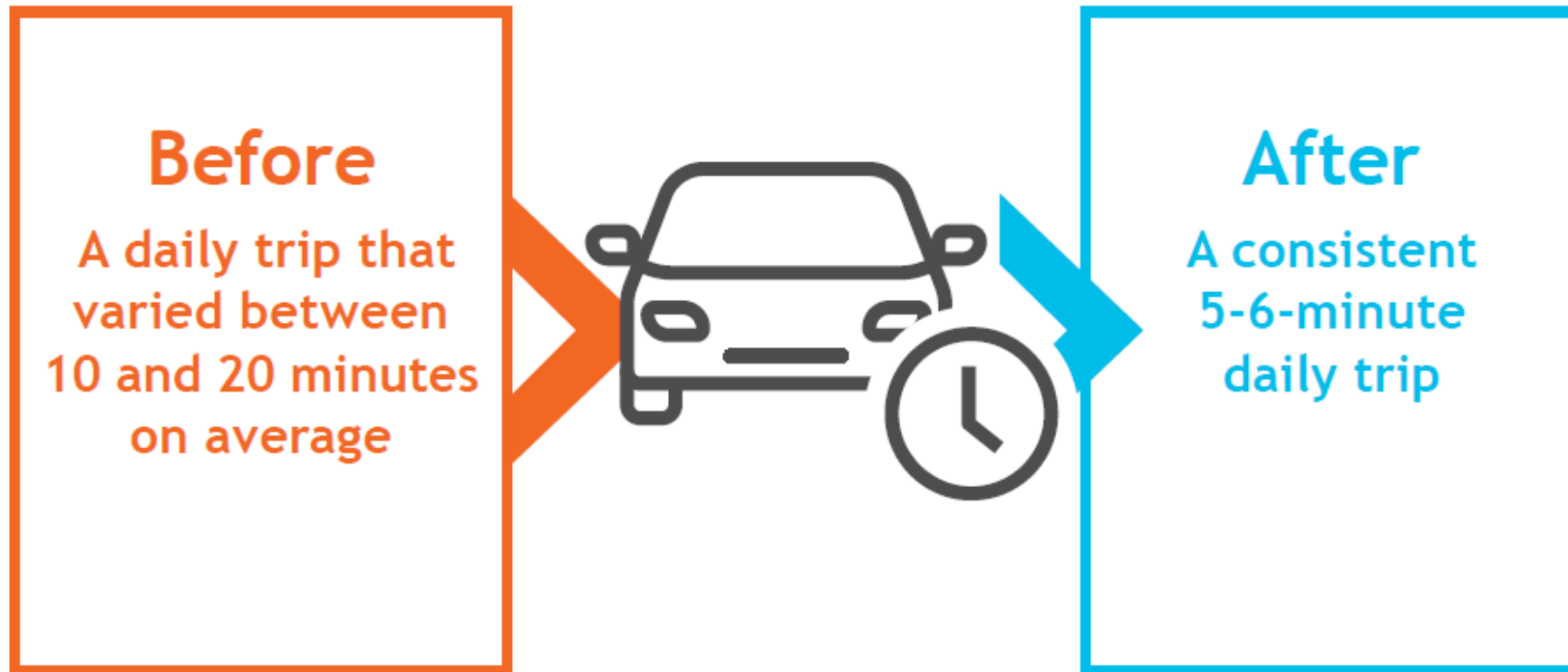
Replying to [@614Magazine](#)

I was skeptical, but I'm a fan! Works really well.

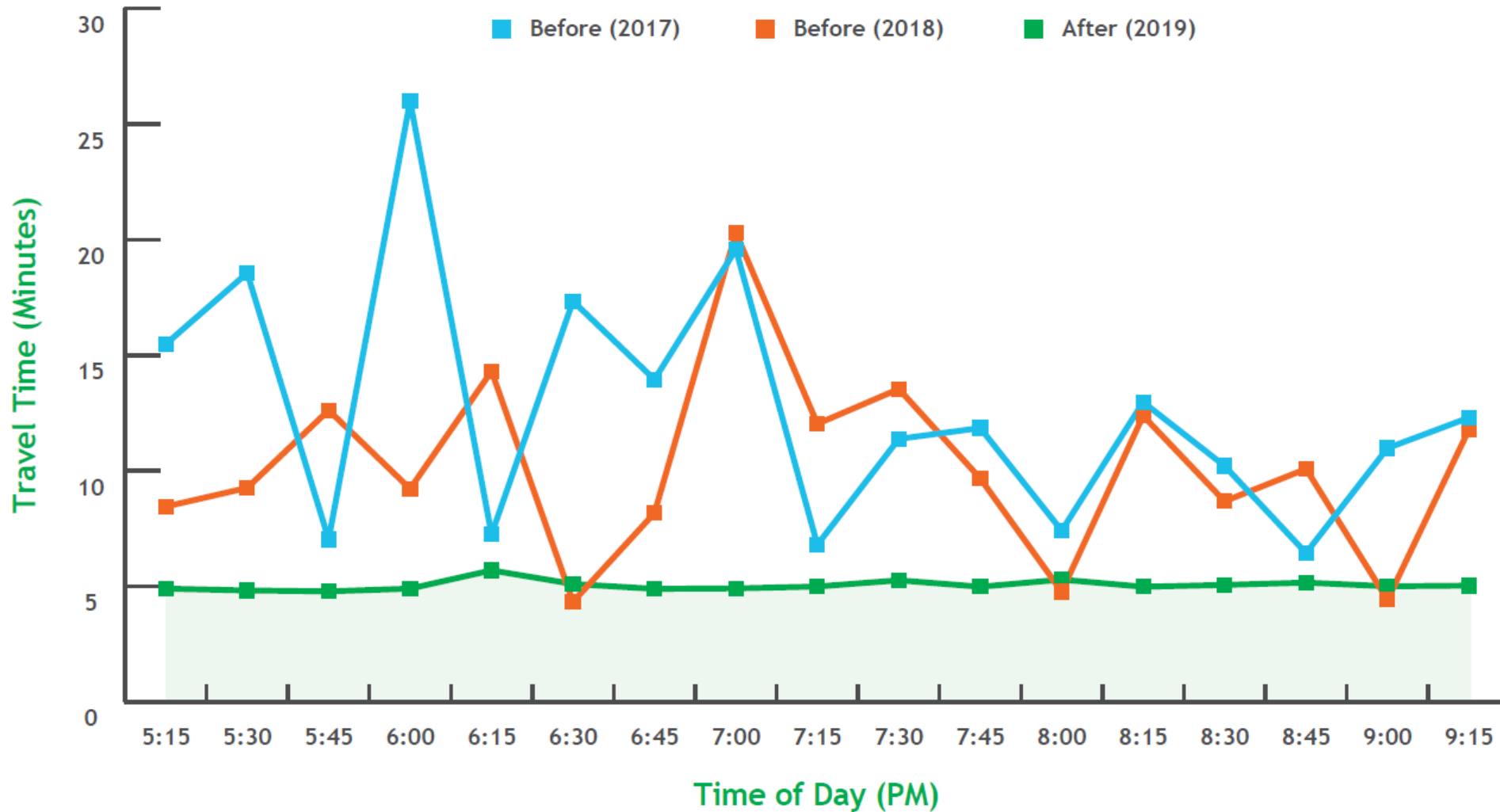
4:26 PM · Oct 26, 2019 · [Twitter for iPhone](#)

## Results

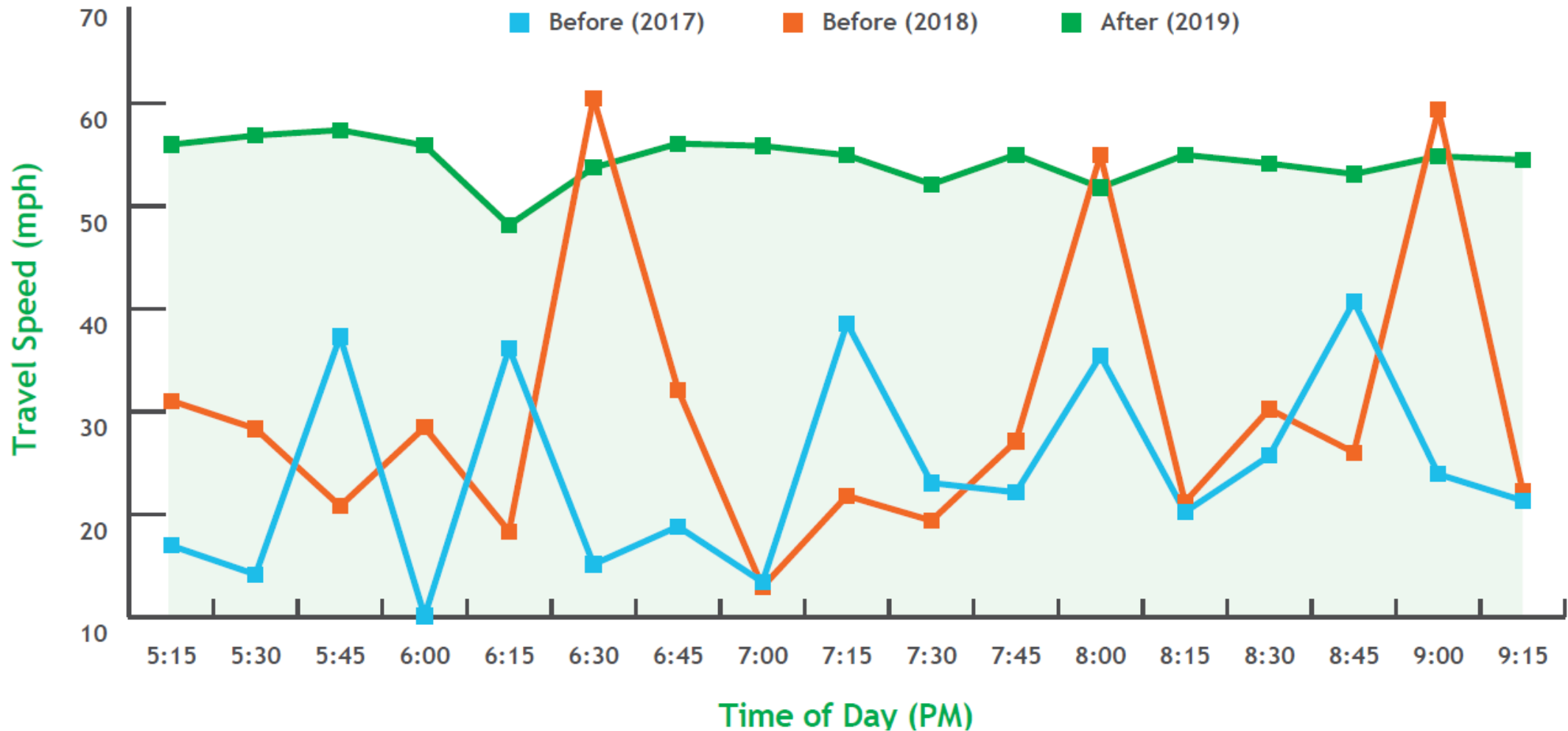
### TRAVEL TIME RELIABILITY



### Travel Time Savings



### More Predictability

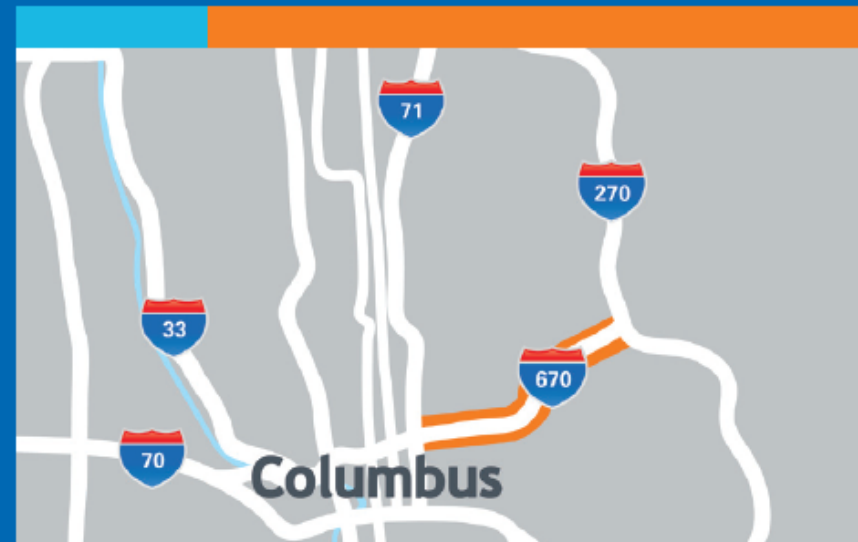


Based on the Department's review of the analyses, and subsequent discussions, the following corridors and strategies have been identified for potential pilot project(s) for one or more of the regions.

## Potential Pilot Projects



I-275 from I-71 to Loveland-Madeira Rd:  
Hard Shoulder Running Mixed Use Traffic



I-670 from I-71 to I-270: Hard Shoulder  
Running Mixed Use Traffic

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614.752.9695

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TSMO

I-670 SmartLANE & TSMO