

# Choosing Your Favorite Child

Data Driven Corridor Selection

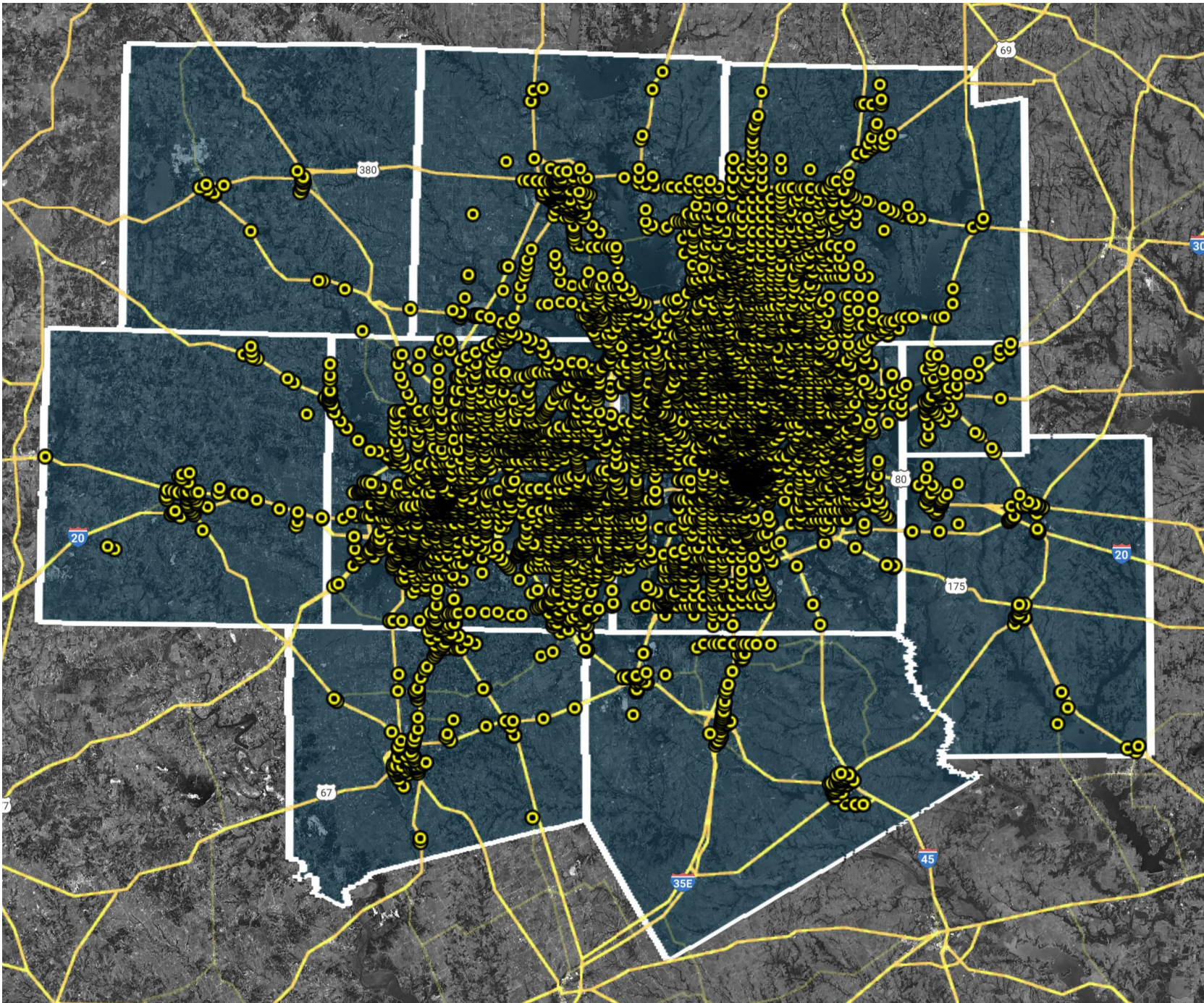
Tom Hartmann, P.E., PTOE, IMSA TS II

April 9<sup>th</sup>, 2026

TexITE Texas District Meeting



Kimley»Horn





# Data-Driven Approach



# El Paso Signal Synchronization



# El Paso Signal Synchronization

## Project Overview



# El Paso Signal Synchronization

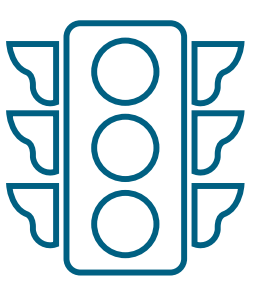
## Task Order #1 Highlights

Corridor	From	To	Length (mi)	Signals
Paisano Drive	Santa Fe Street	St. Vrain Street	0.6	9
Cotton Street	Arizona Avenue	Delta Drive	1.3	12
Mesa Street	River Avenue	Paisano Drive	1.0	14
Yandell Drive	Campbell Street	Santa Fe Street	0.4	7
Wyoming Avenue	Santa Fe Street	Kansas Street	0.3	6
Campbell Street	Paisano Drive	Arizona Avenue	0.9	13
Kansas Street	Arizona Avenue	Paisano Drive	0.9	13
Missouri Avenue	Campbell Street	Santa Fe Street	0.4	6
Franklin Avenue	Santa Fe Street	Campbell Street	0.4	6
Stanton Street	California Avenue	7th Avenue	1.3	16
Oregon Street	Arizona Avenue	4th Avenue	0.9	13
Santa Fe Street	Yandell Drive	Canal Road	0.8	11
Montana Avenue	Campbell Street	Oregon Street	0.3	5
Total			9.4	104*

\*some intersections included in more than one corridor



# Task Order #1



109 signals



9.35 miles

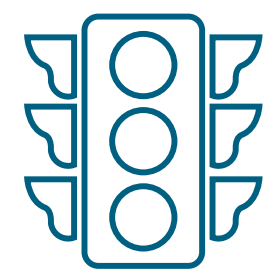
Downtown

Paisano

Cotton



# Downtown Network



73 signals

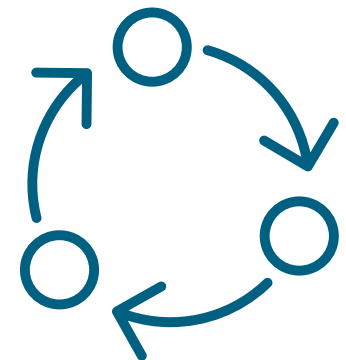


7.39 miles



# Downtown Hierarchy

- Structured approach vs. laying checkerboard tile from 4 corners
- Determine main movements and corridors
- Build off in a logical manner
- Buy in from client

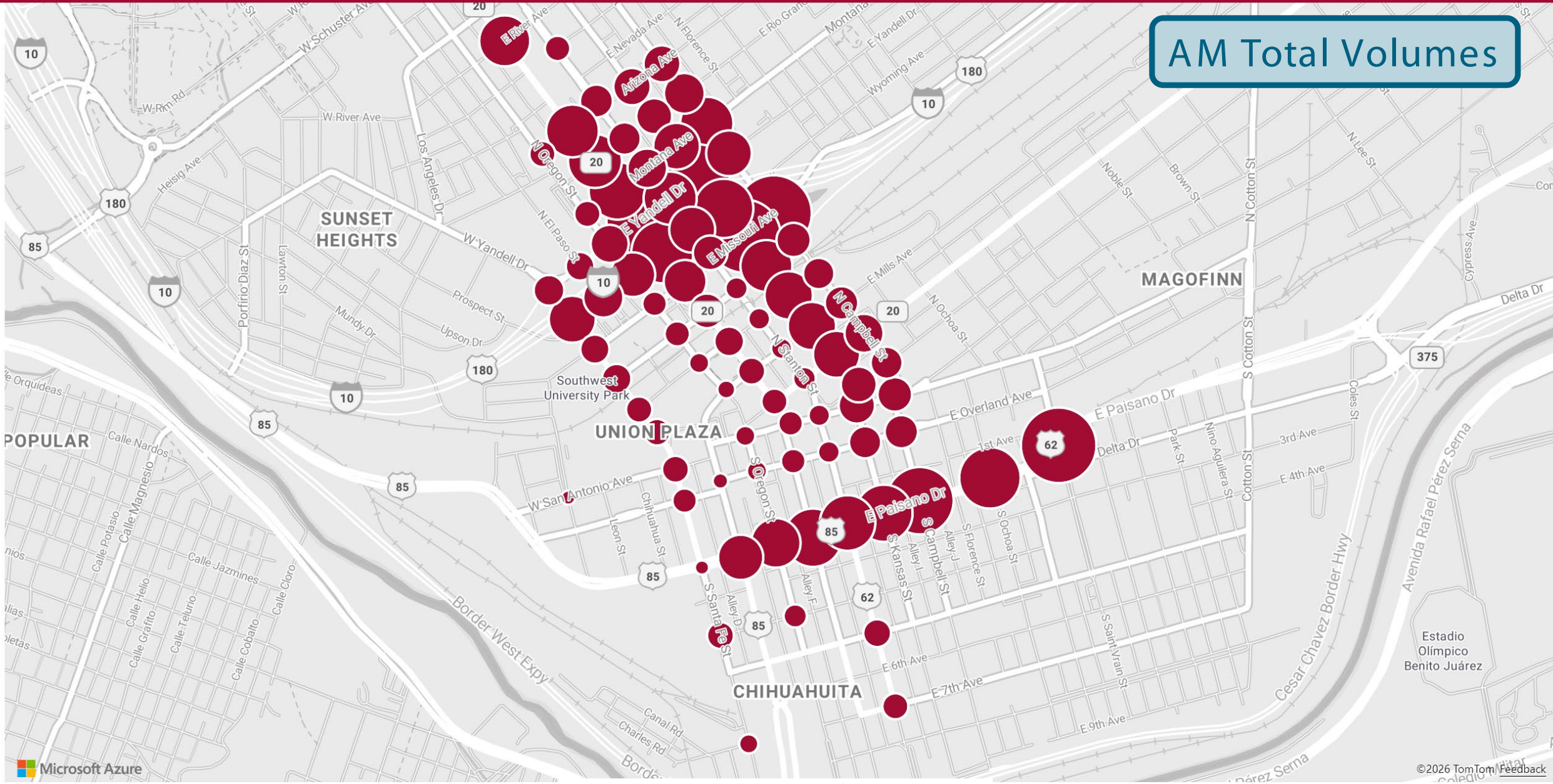


# El Paso Approach

- Available Data
  - INRIX Roadway Analytics
  - Turning Movement Counts (TMC)
  - Tube Counts
  - Local Knowledge
- Process
  - TMC volumes
  - TMC directions



AM Total Volumes



Microsoft Azure

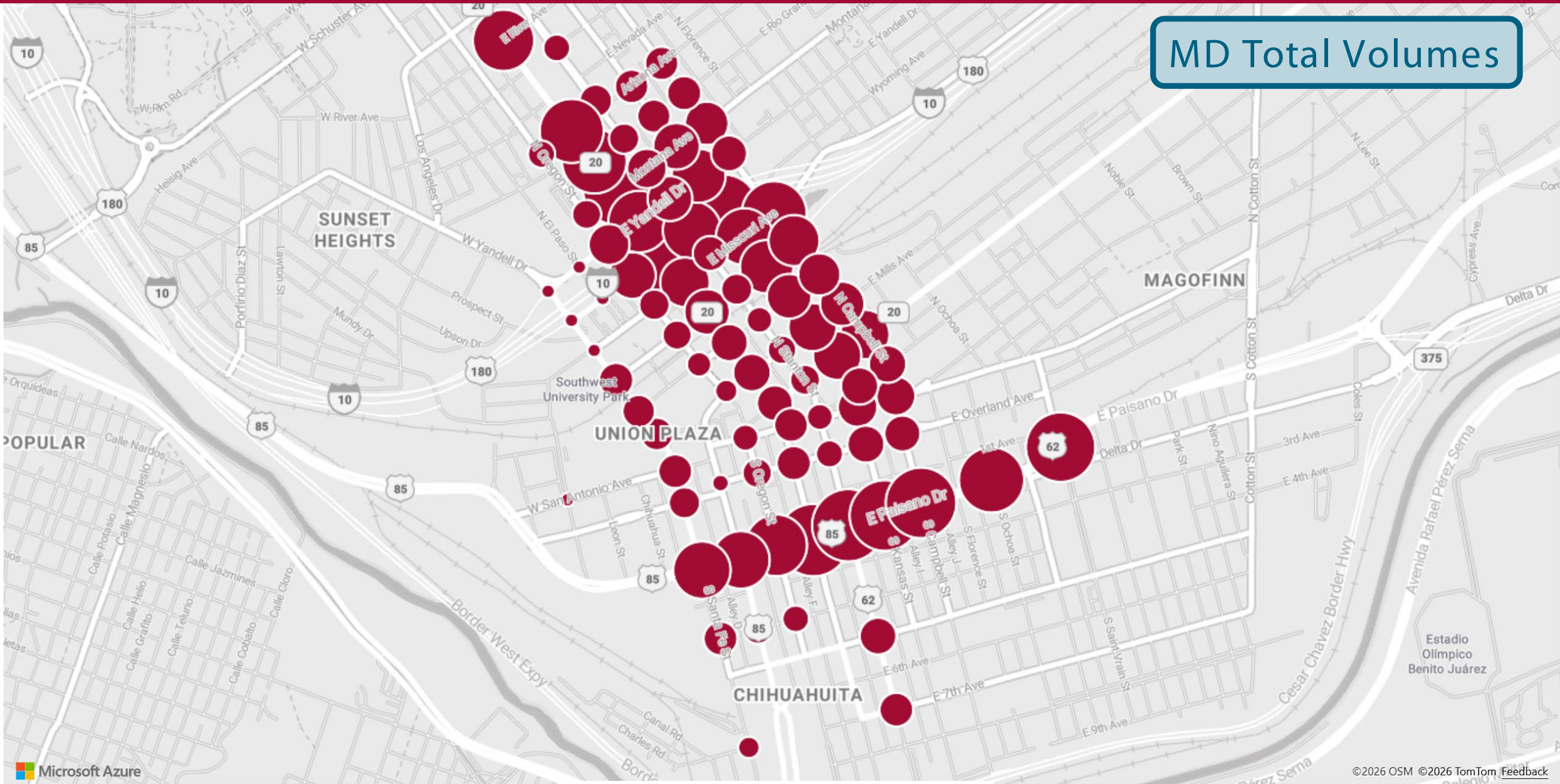
©2026 TomTom Feedback



AM	Average	PM
----	---------	----

# Average Existing Volumes

MD Total Volumes



Microsoft Azure

©2026 OSM ©2026 TomTom Feedback



AM	Average	PM
----	---------	----

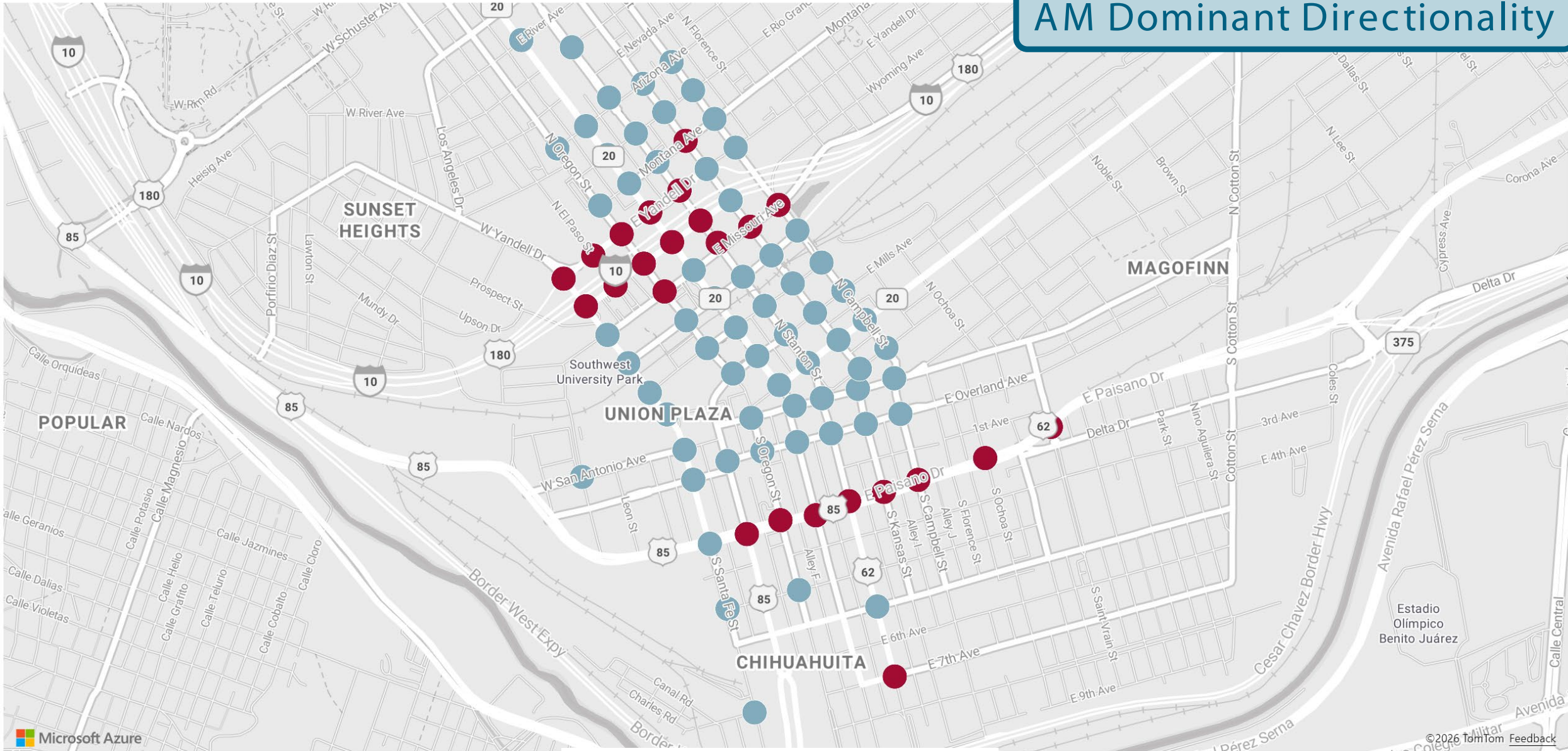
Kimley»Horn



# AM Existing Volumes

Dominant Direction ● East/West ● North/South

## AM Dominant Directionality



Microsoft Azure

©2026 TomTom Feedback



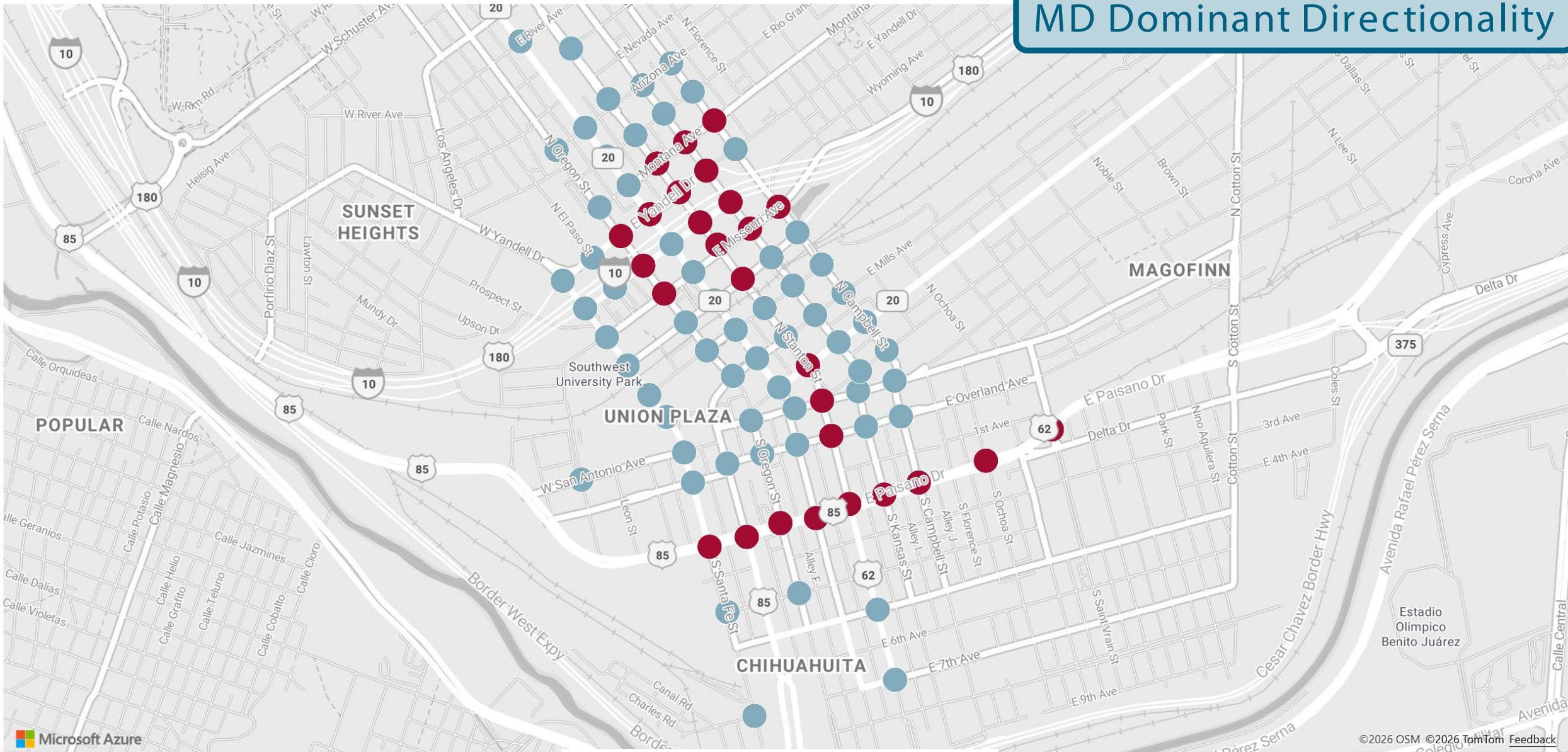
AM	Average	PM
----	---------	----

KimleyHorn

# Average Existing Volumes

Dominant Direction ● East/West ● North/South

## MD Dominant Directionality



Microsoft Azure

©2026 OSM ©2026 TomTom Feedback



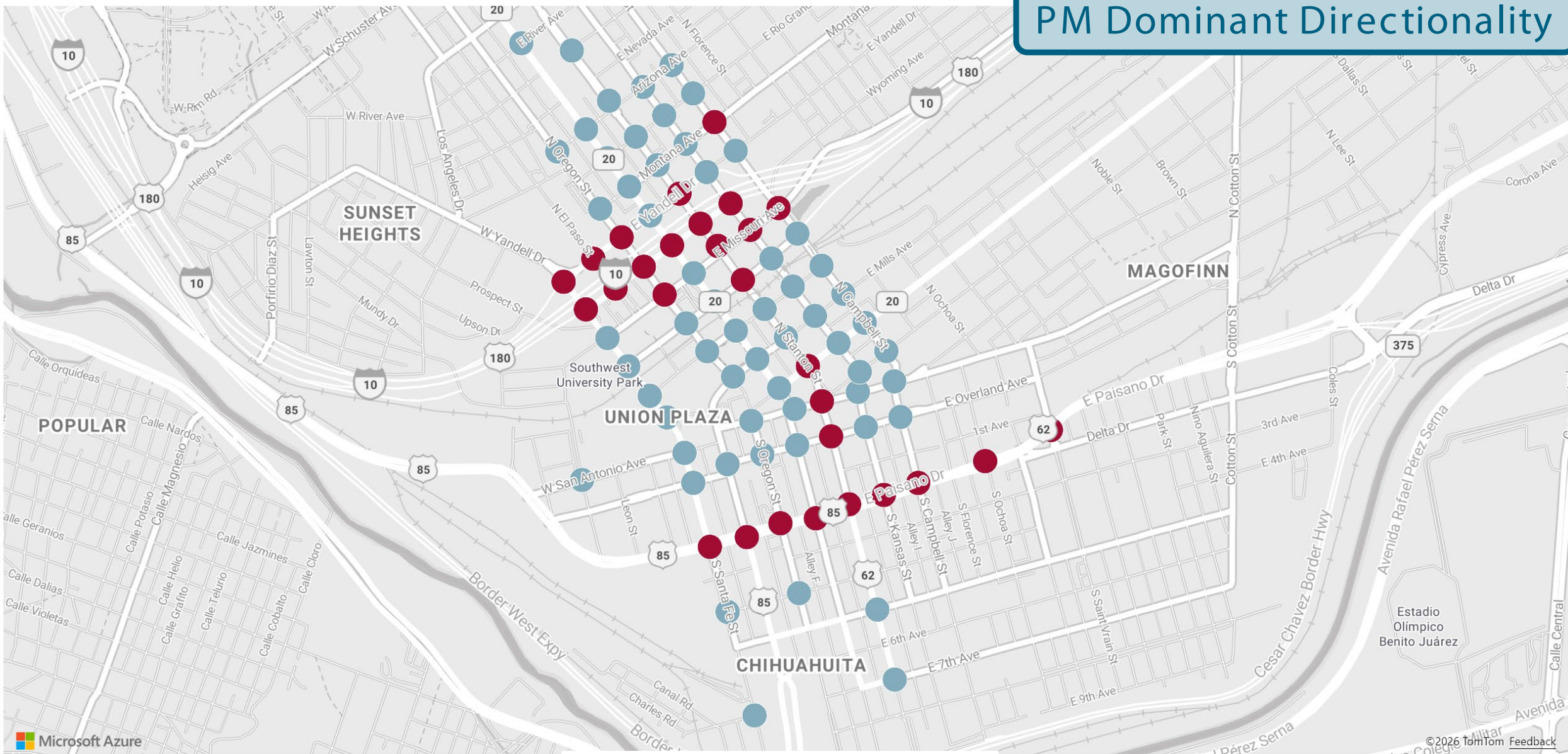
AM	Average	PM
----	---------	----

Kimley»Horn

# PM Existing Volumes

Dominant Direction ● East/West ● North/South

## PM Dominant Directionality



Microsoft Azure



AM	Average	PM
----	---------	----

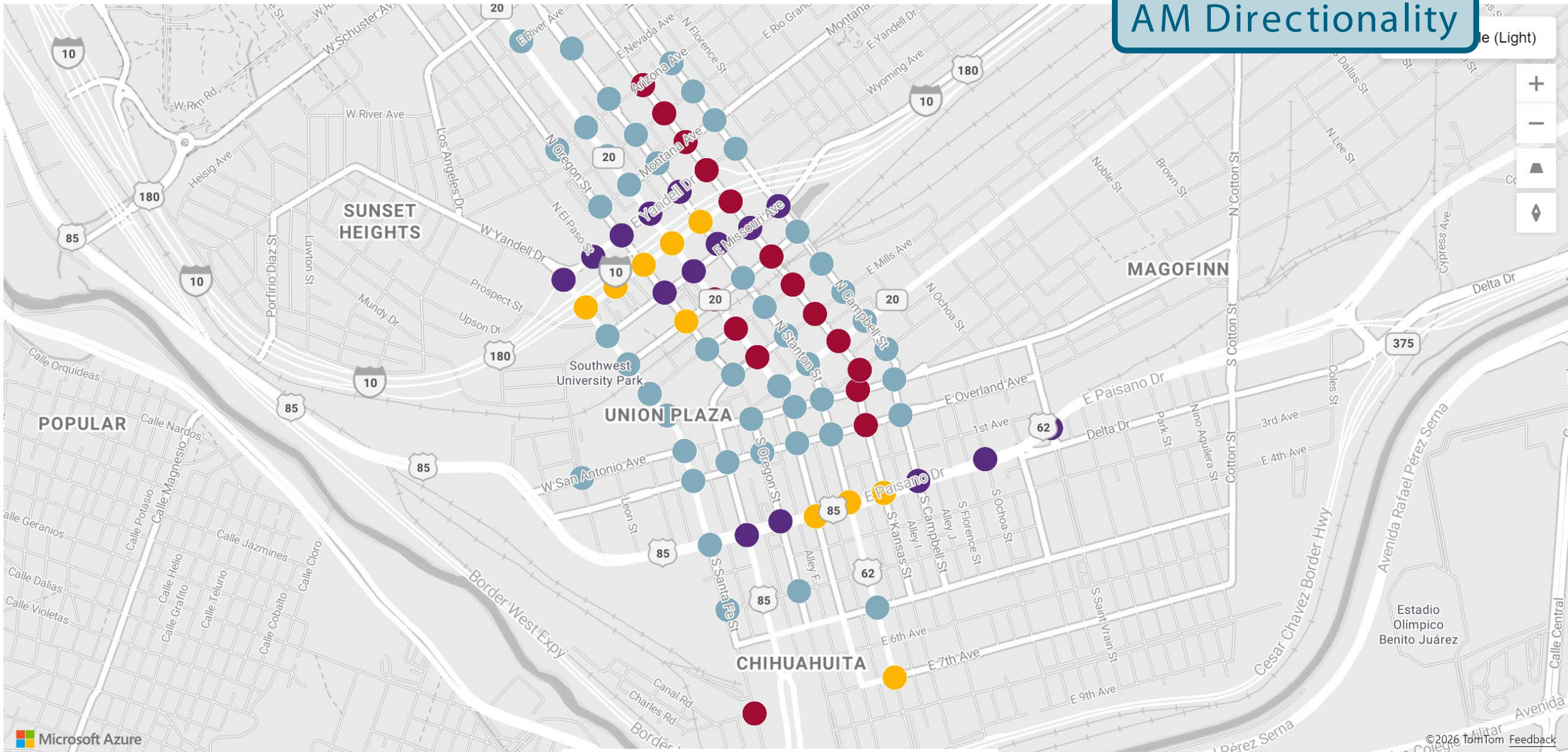
©2026 TomTom Feedback

KimleyHorn

# AM Existing Volumes

Peak Direction ● East ● North ● South ● West

## AM Directionality

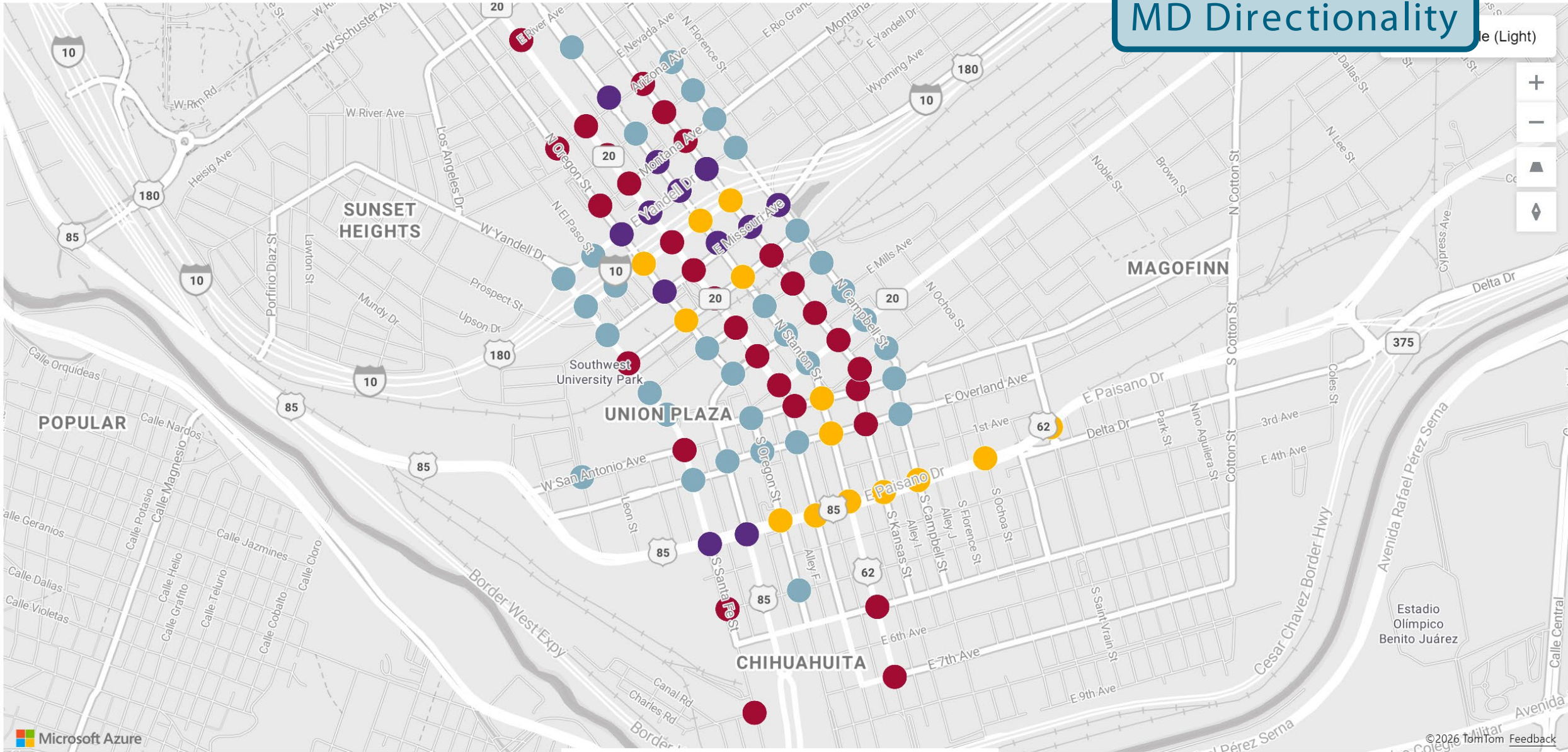


AM	Average	PM
----	---------	----

# Average Existing Volumes

Peak Direction ● East ● North ● South ● West

## MD Directionality



Microsoft Azure

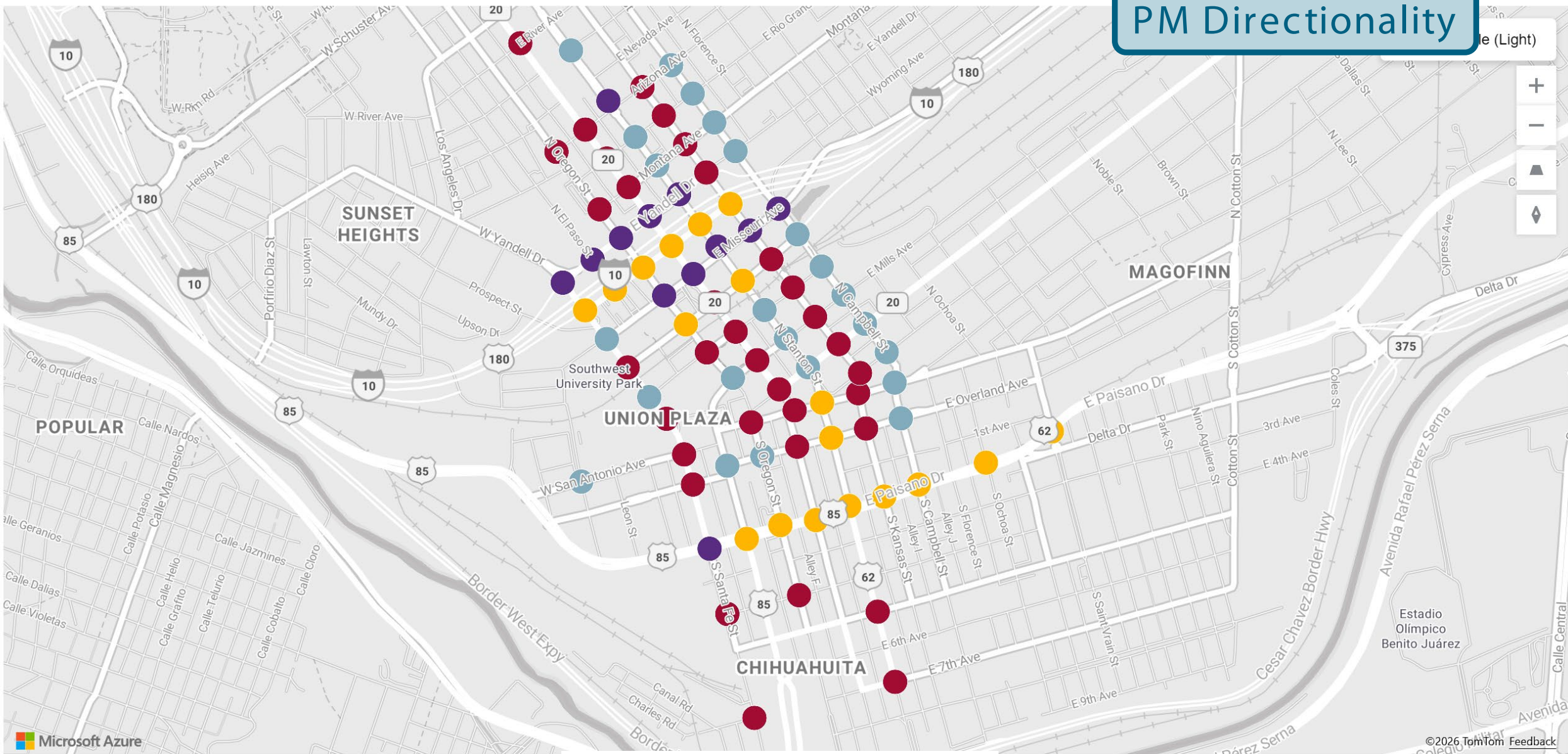


AM	Average	PM
----	---------	----

# PM Existing Volumes

Peak Direction ● East ● North ● South ● West

## PM Directionality



Microsoft Azure

©2026 TomTom Feedback

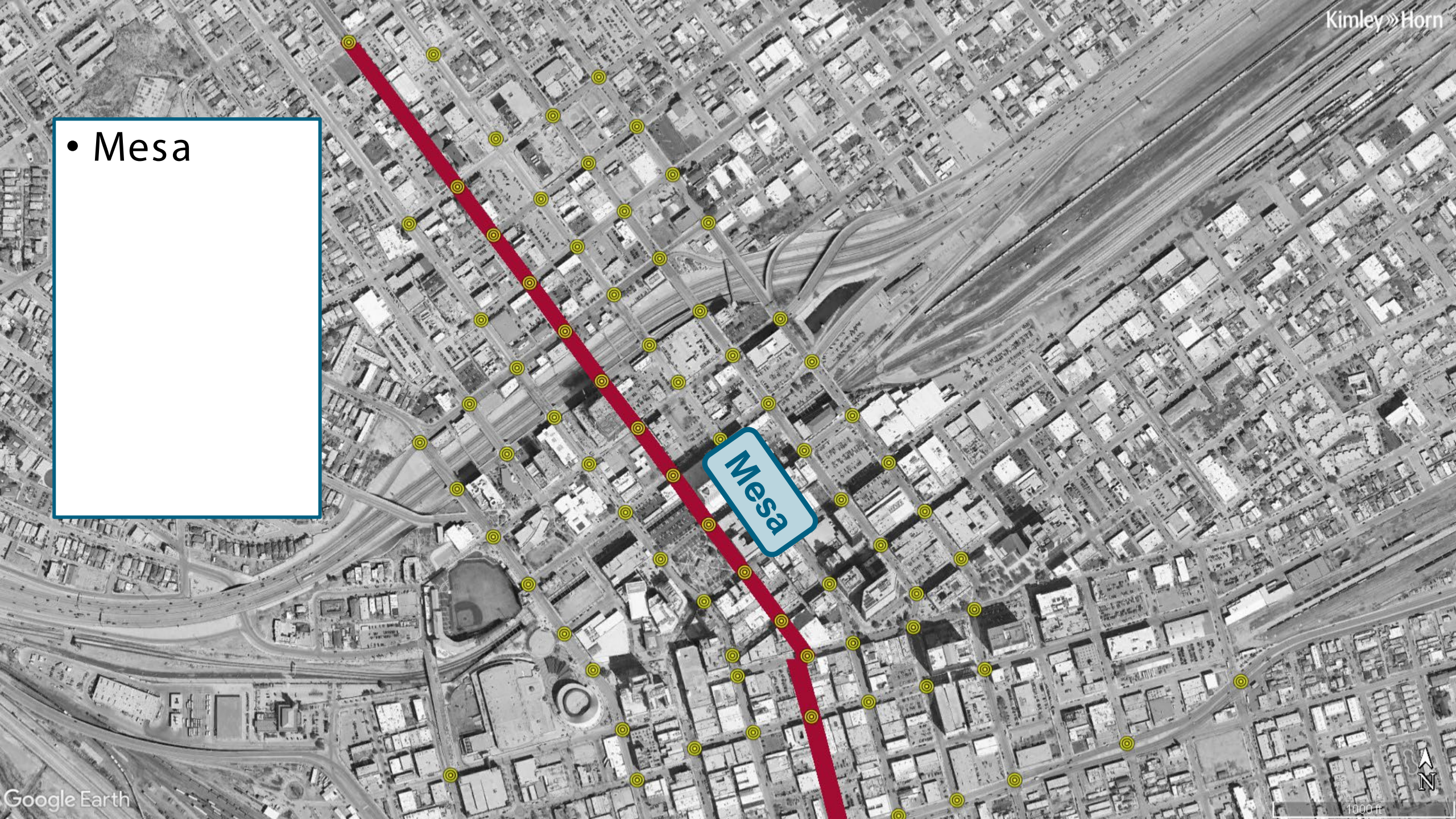


AM	Average	PM
----	---------	----

Kimley»Horn

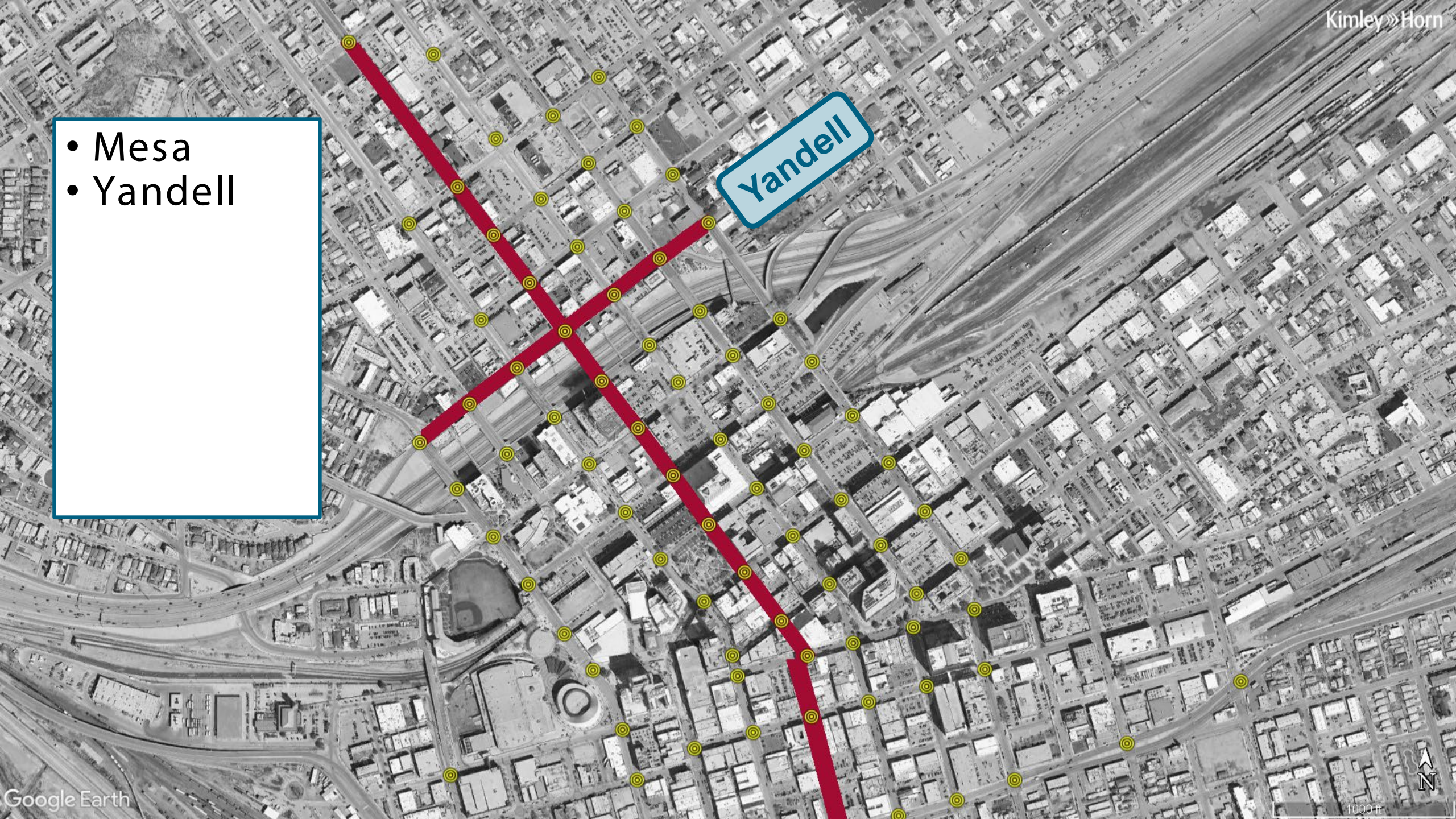
- Mesa

Mesa



- Mesa
- Yandell

Yandell



- Mesa
- Yandell
- Wyoming

Wyoming

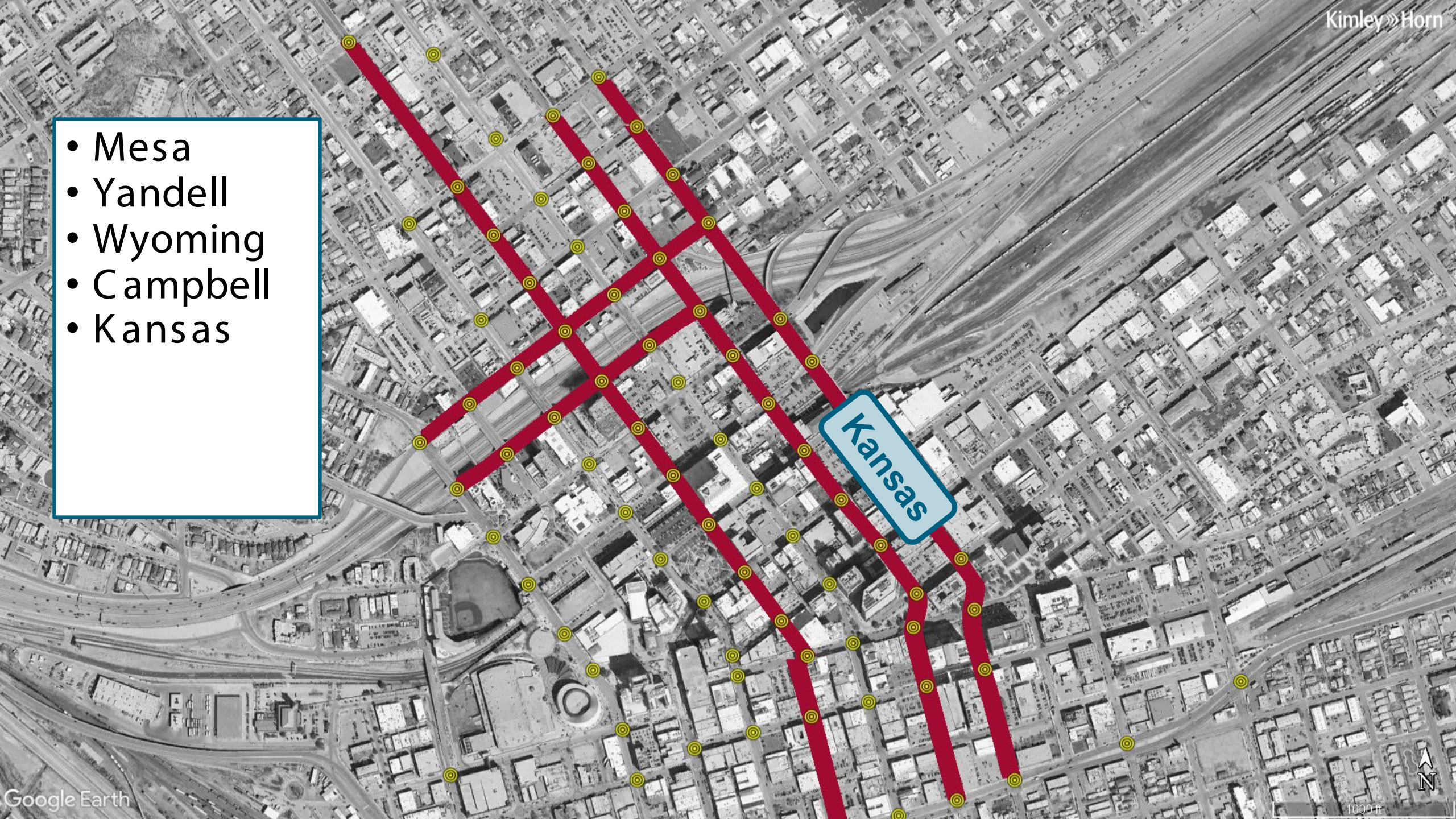


- Mesa
- Yandell
- Wyoming
- Campbell

Campbell



- Mesa
- Yandell
- Wyoming
- Campbell
- Kansas



- Mesa
- Yandell
- Wyoming
- Campbell
- Kansas
- Missouri

Missouri



- Mesa
- Yandell
- Wyoming
- Campbell
- Kansas
- Missouri
- Franklin

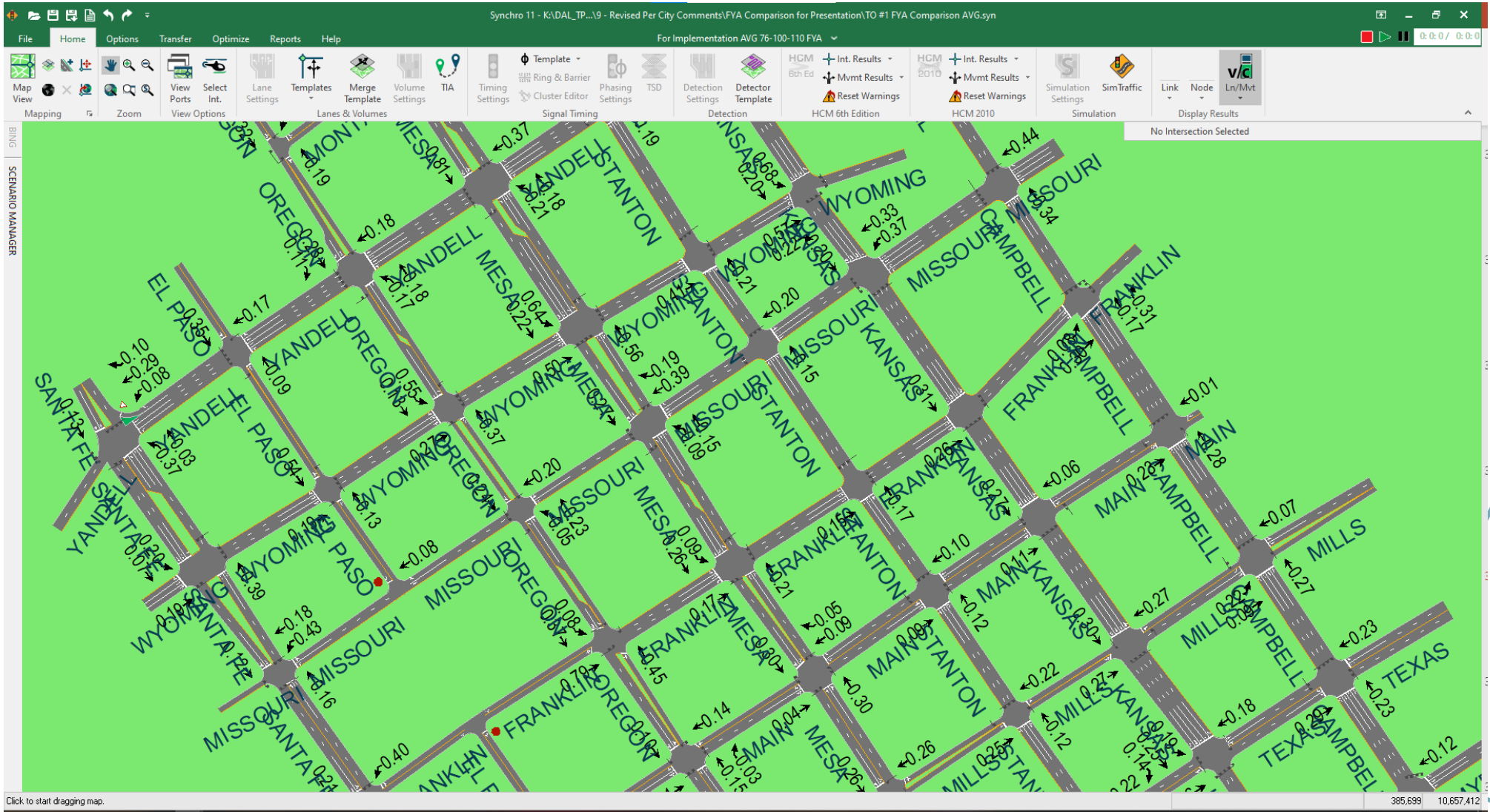
Franklin



- Mesa
- Yandell
- Wyoming
- Campbell
- Kansas
- Missouri
- Franklin
- Stanton



# Results



LEFT TURN  
YIELD  
ON GREEN

400 STANTON 300

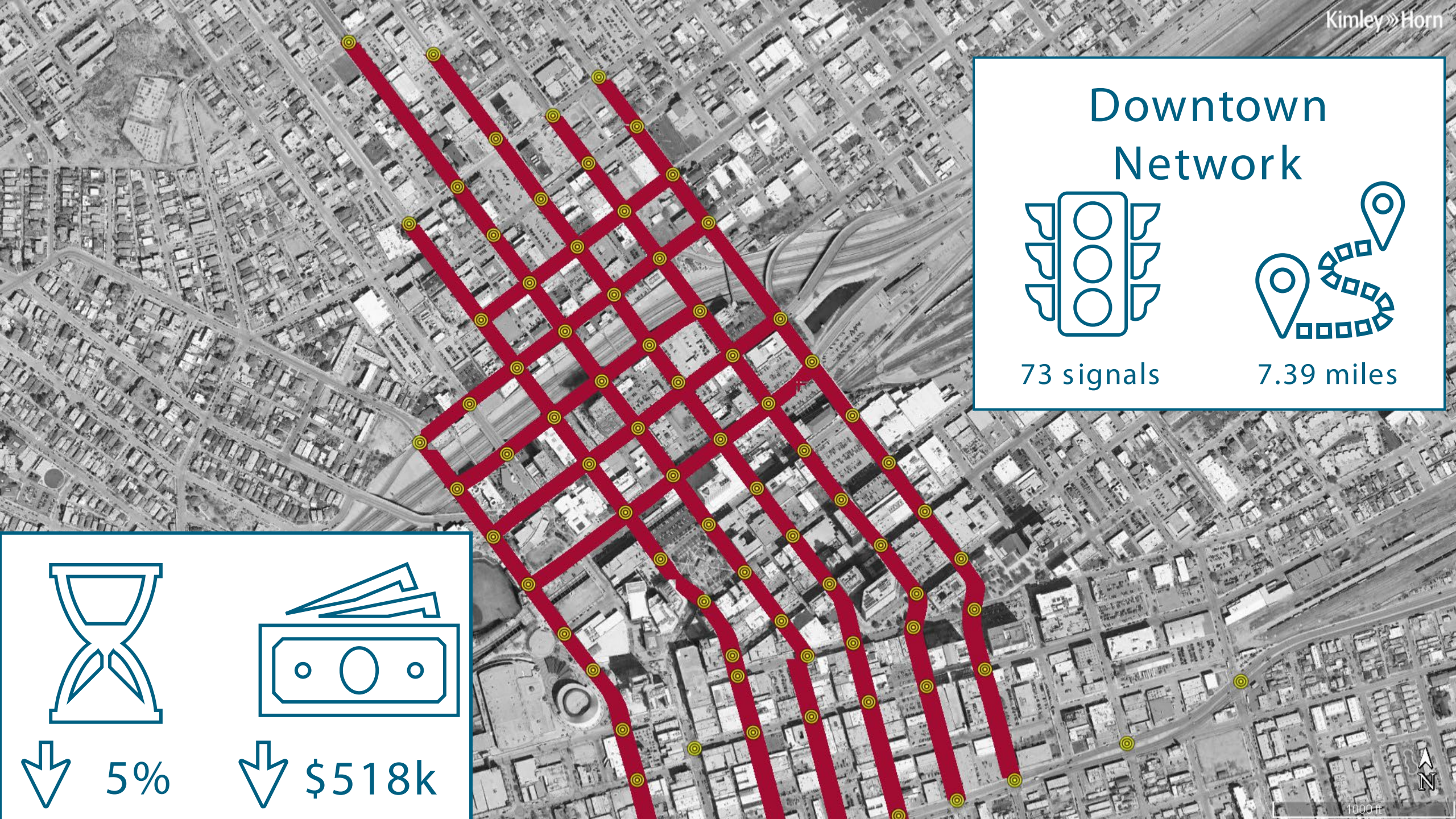
**MELEK**  
PEES / DOLLARS  
BANKS  
CHECKS CASHED  
MONEY ORDERS  
POSTAL BOXES  
MANIFESTOS  
ATM

Inter-Amp  
LOANS  
351-3900

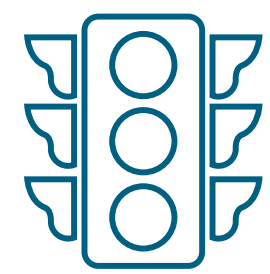
3491  
3794  
4296

SPEED  
LIMIT  
30





# Downtown Network



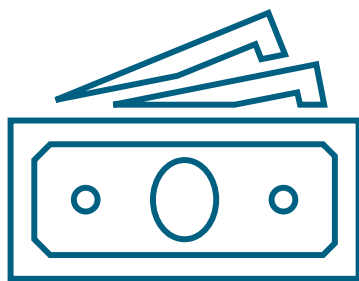
73 signals



7.39 miles



↓ 5%



↓ \$518k





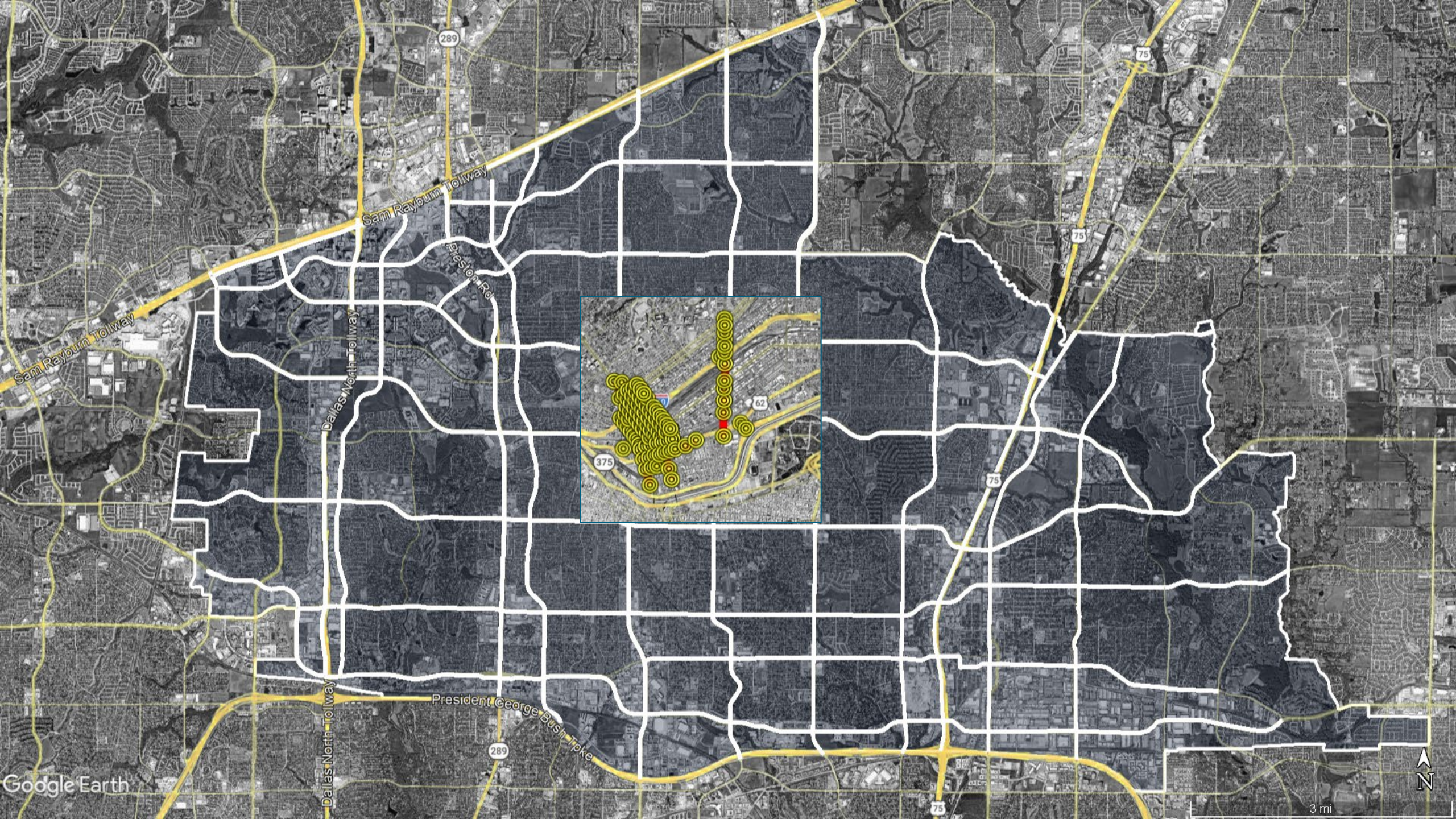
# Plano Citywide Timing



# Plano Citywide Timing

## Project Overview





289

75

75

75

75

289

62

375

Google Earth



3 mi

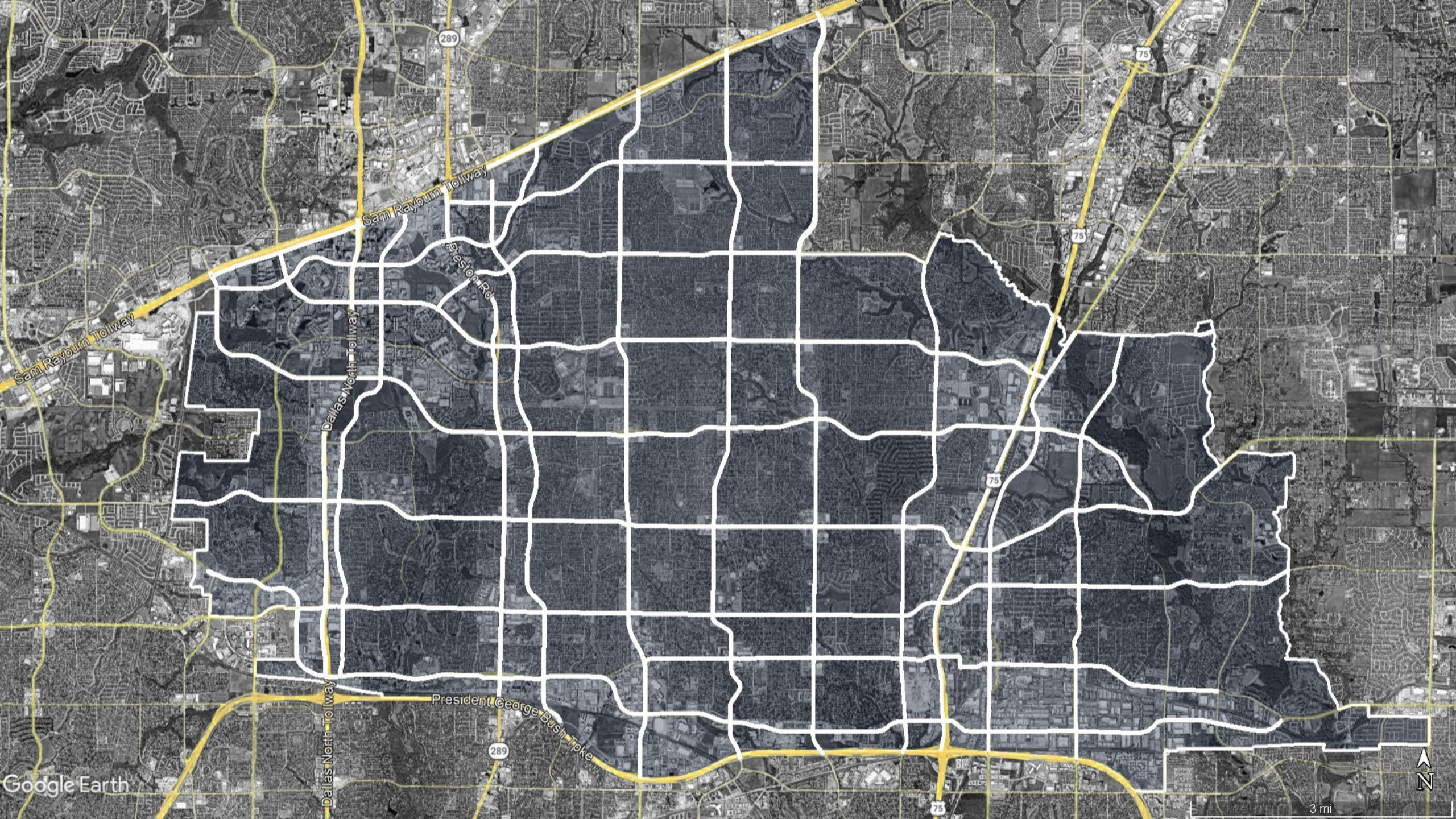
Sam Rayburn Tollway

Dallas North Tollway

President George Bush Turnpike

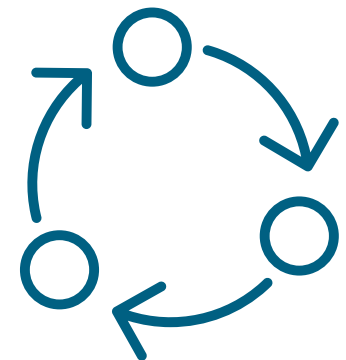
Preston Rd

Sam Rayburn Tollway



# Citywide Hierarchy

- Structured approach vs. laying checkerboard tile from 4 corners
- Determine priority corridors
- Build off in a logical manner
- Buy in from client

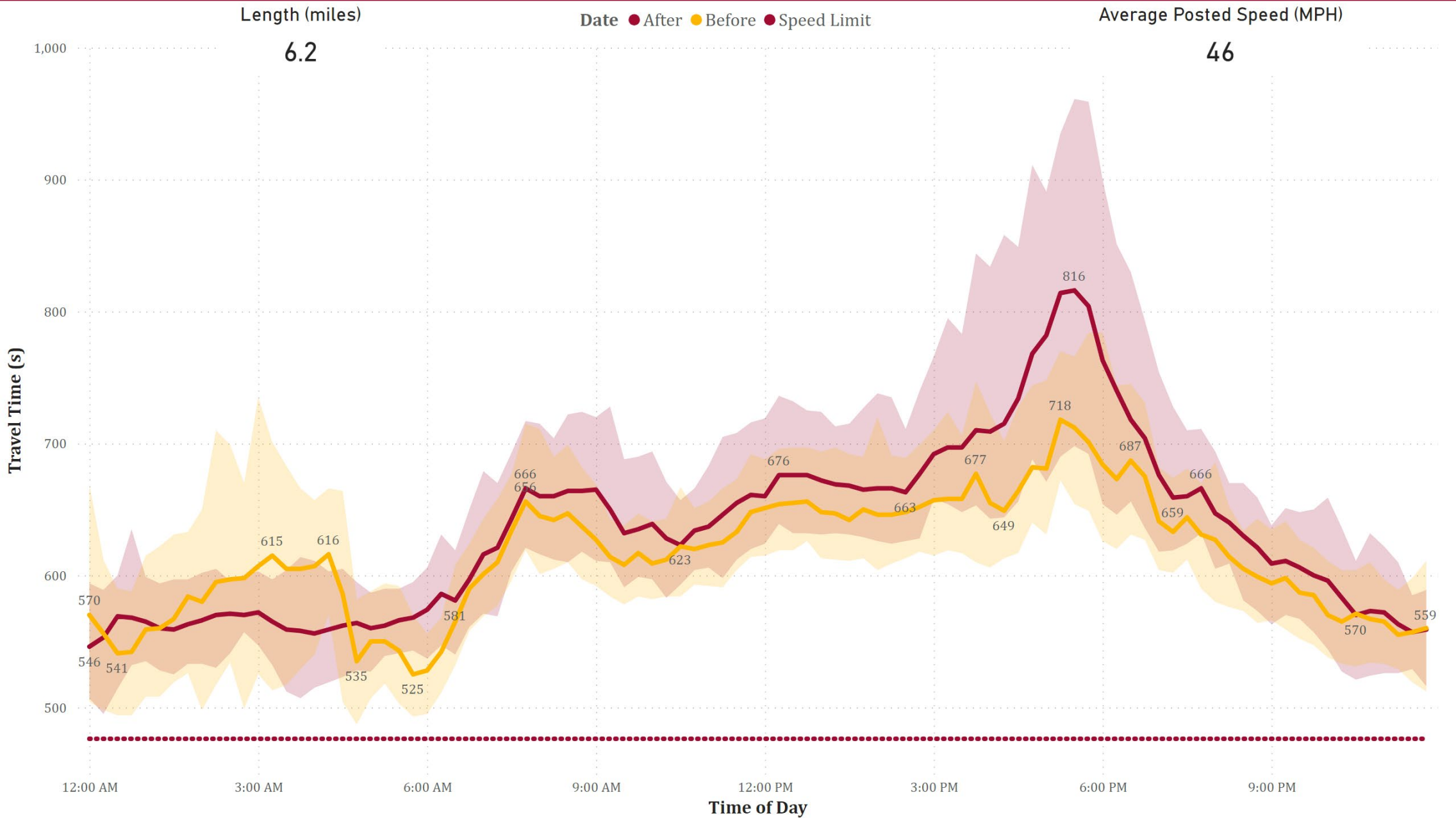


# Plano Approach

- Available Data
  - Citywide TMC
  - Citywide Tube Counts
  - Local Knowledge
  - INRIX Roadway Analytics
- Weighted average
  - Volume
  - Delay per mile
  - Travel time index
  - Per peak



# Preston Rd



### Delay Per Mile (s/veh/mi)

### Travel Time Reliability (s)

### Typical Count by Corridor

#### Peak Period

--

AM

MD

PM

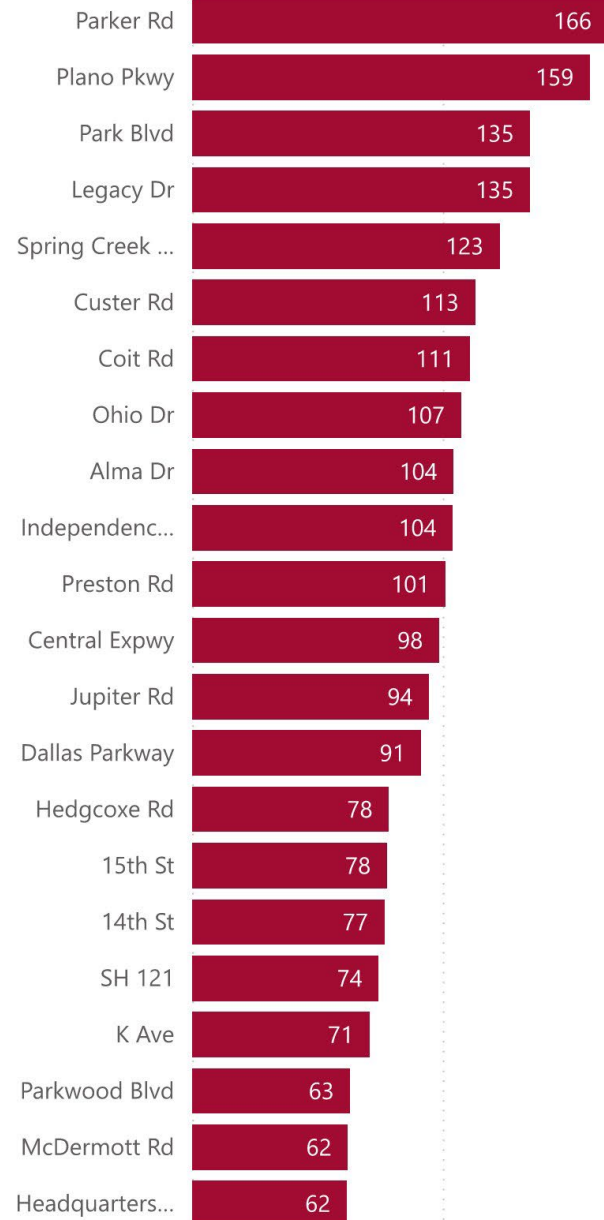
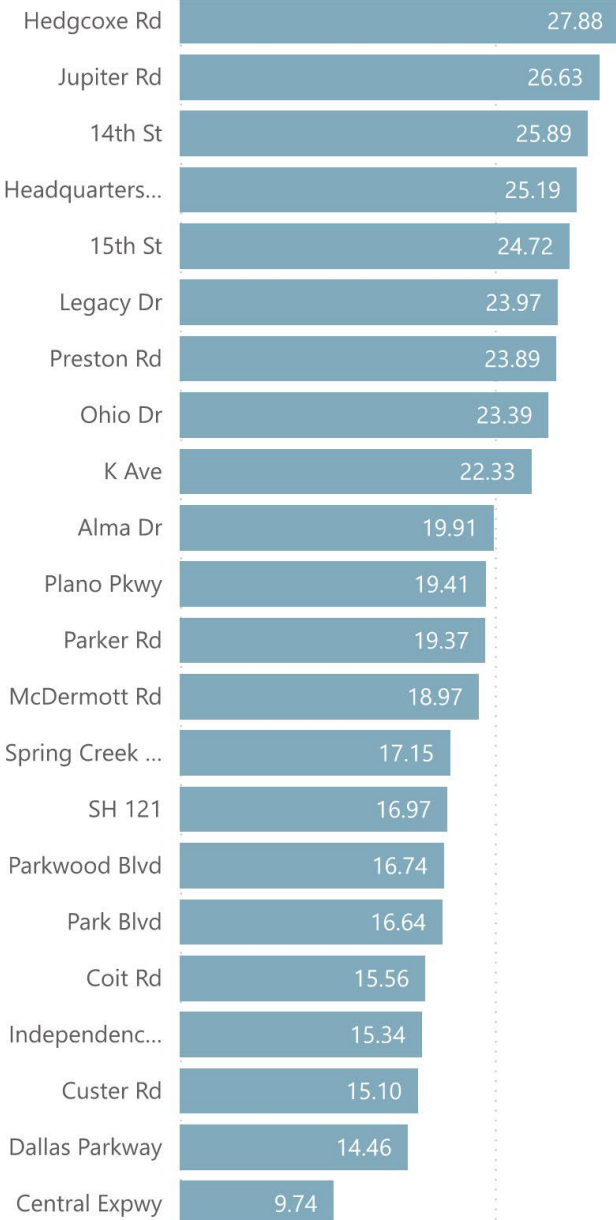
#### Direction

EB

NB

SB

WB



0 20 Average of Normalized Delay

0 100 Average of TT CI

0K 1K 2K Typical Count

### Delay Per Mile (s/veh/mi)

### Travel Time Reliability (s)

### Typical Count by Corridor

#### Peak Period

--

AM

MD

PM

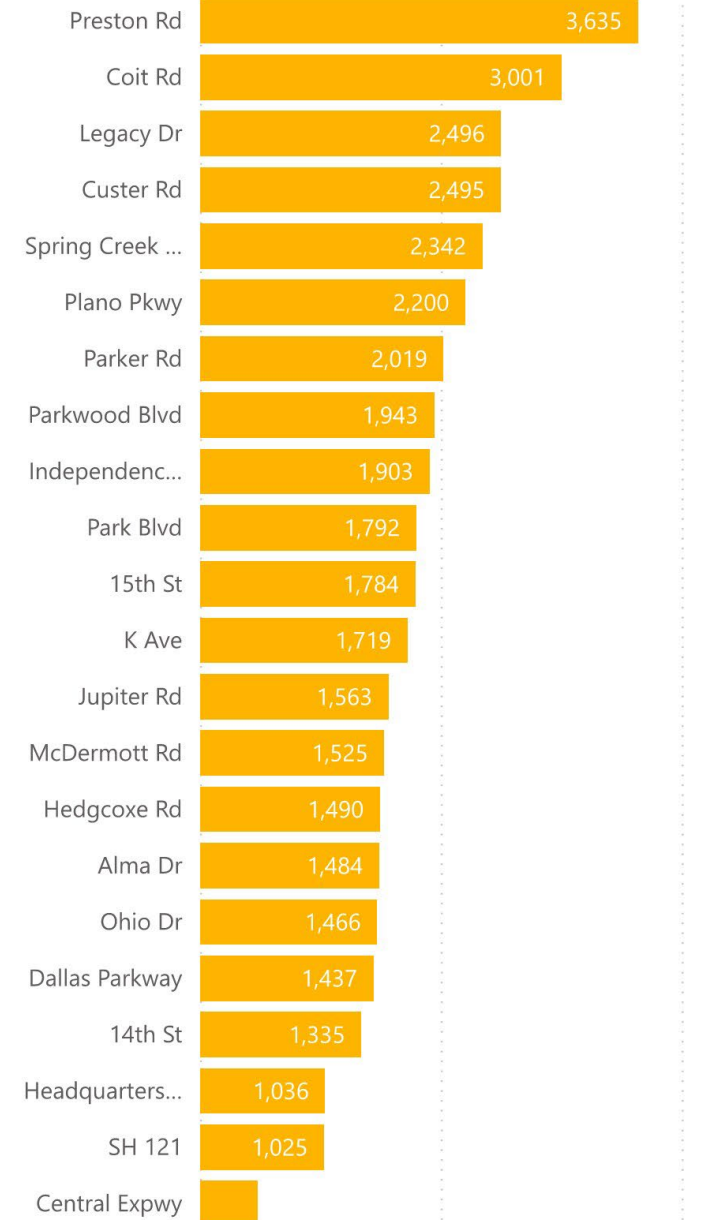
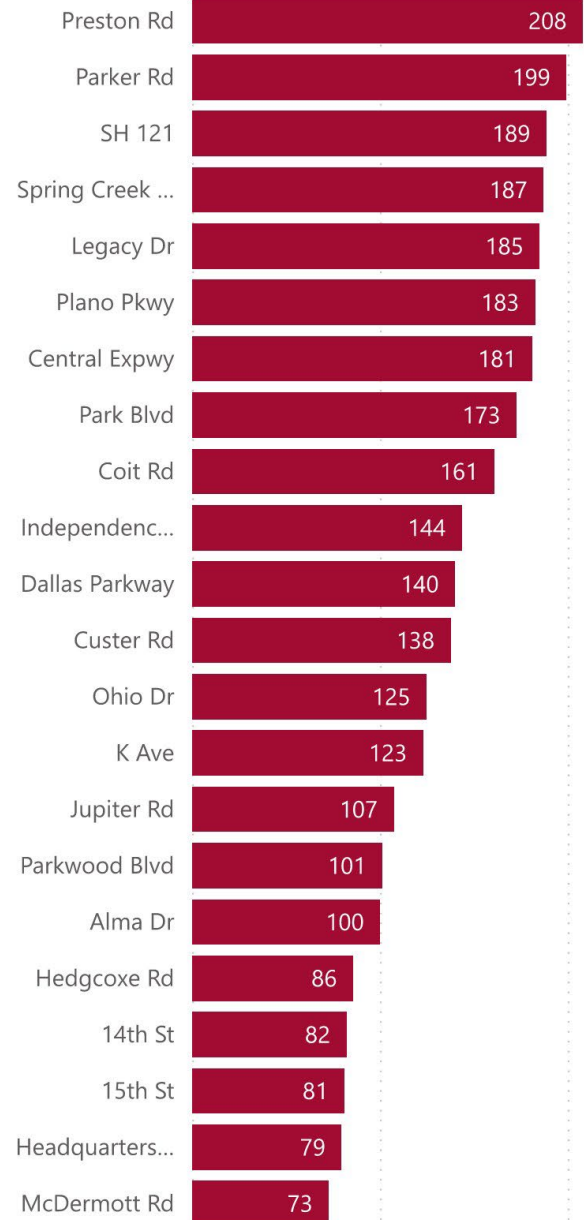
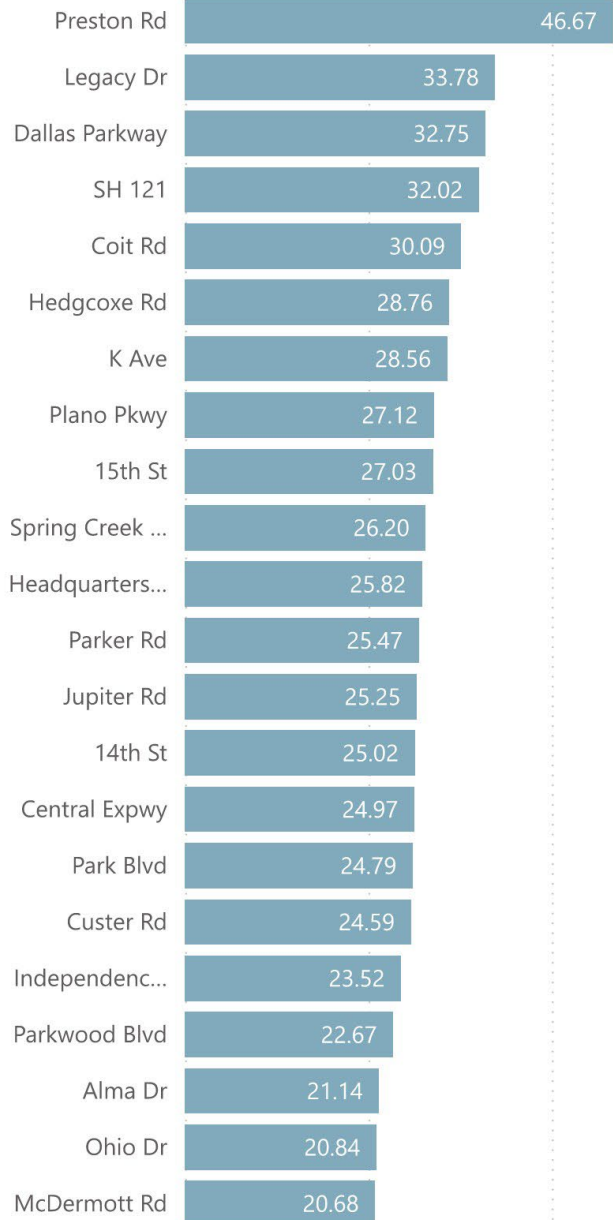
#### Direction

EB

NB

SB

WB



0 20 40 Average of Normalized Delay

0 100 200 Average of TT CI

0K 2K 4K Typical Count

Corridor	Average of Normalized Delay	DelayRank	Average of TT CI	TT CI Rank	Typical Count	VolRank	Sum Rank	Dynamic Weighted Rank
Preston Rd	27.32	1	100.51	9	37,398	1	1.1	1.2
Legacy Dr	22.67	6	125.37	4	24,495	5	1.5	1.7
Plano Pkwy	19.65	11	138.30	2	20,776	7	2.0	2.2
Spring Creek Pkwy	19.50	12	134.90	3	21,082	6	2.1	2.3
Coit Rd	18.57	14	105.92	7	36,190	2	2.3	2.6
Parker Rd	17.74	16	144.24	1	20,060	8	2.5	2.8
Custer Rd	16.73	17	107.71	6	31,884	3	2.6	2.9
Independence Pkwy	16.62	18	103.06	8	27,244	4	3.0	3.3
K Ave	25.37	3	72.14	18	15,117	12	3.3	3.7
Dallas Parkway	20.06	9	96.05	10	13,787	15	3.4	3.8
15th St	21.37	7	62.88	19	17,367	9	3.5	3.9
Park Blvd	15.13	20	121.97	5	17,324	10	3.5	3.9
Hedcoxe Rd	25.60	2	73.12	16	12,264	18	3.6	4.0
Jupiter Rd	19.99	10	73.34	15	15,720	11	3.6	4.0
Parkwood Blvd	21.01	8	73.07	17	14,842	13	3.8	4.2
14th St	23.25	4	60.04	20	13,735	16	4.0	4.4
SH 121	18.85	13	92.82	11	8,841	20	4.4	4.9
Alma Dr	18.46	15	77.66	14	13,091	17	4.6	5.1
Headquarters Dr-Rasor Blvd	22.87	5	59.32	21	6,643	21	4.7	5.2
Ohio Dr	16.28	19	85.25	13	11,697	19	5.1	5.7
Central Expwy	10.66	22	91.83	12	6,106	22	5.6	6.2
McDermott Rd	13.93	21	55.35	22	13,882	14	5.7	6.3

Delay Weight

TT CI Weight

Volume Weight



Corridor	Average of Normalized Delay	DelayRank	Average of TT CI	TT CI Rank	Typical Count	VolRank	Sum Rank	Dynamic Weighted Rank
Legacy Dr	23.97	6	134.67	4	1,568	4	1.4	1.6
Plano Pkwy	19.41	11	158.58	2	1,621	3	1.6	1.8
Preston Rd	23.89	7	101.00	11	2,477	1	1.9	2.1
Parker Rd	19.37	12	165.75	1	1,258	7	2.0	2.2
Jupiter Rd	26.63	2	94.42	13	1,114	8	2.3	2.6
Spring Creek Pkwy	17.15	14	122.67	5	1,397	6	2.5	2.8
Coit Rd	15.56	18	110.75	7	2,000	2	2.7	3.0
15th St	24.72	5	77.58	16	1,070	9	3.0	3.3
Park Blvd	16.64	17	134.75	3	1,042	10	3.0	3.3
Custer Rd	15.10	20	112.83	6	1,567	5	3.1	3.4
Hedcoxe Rd	27.88	1	78.33	15	770	17	3.3	3.7
14th St	25.89	3	76.58	17	867	14	3.4	3.8
Alma Dr	19.91	10	104.25	9	798	16	3.5	3.9
Ohio Dr	23.39	8	107.17	8	535	19	3.5	3.9
K Ave	22.33	9	70.67	19	1,014	11	3.9	4.3
Independence Pkwy	15.34	19	103.92	10	986	12	4.1	4.6
Headquarters Dr-Rasor Blvd	25.19	4	61.58	22	298	22	4.8	5.3
Parkwood Blvd	16.74	16	63.00	20	960	13	4.9	5.4
Dallas Parkway	14.46	21	91.33	14	844	15	5.0	5.6
McDermott Rd	18.97	13	62.00	21	640	18	5.2	5.8
Central Expwy	9.74	22	98.42	12	488	20	5.4	6.0
SH 121	16.97	15	74.33	18	442	21	5.4	6.0

Delay Weight

TT CI Weight

Volume Weight



Corridor	Average of Normalized Delay	DelayRank	Average of TT CI	TT CI Rank	Typical Count	VolRank	Sum Rank	Dynamic Weighted Rank
Preston Rd	46.67	1	207.88	1	3,635	1	0.3	0.3
Legacy Dr	33.78	2	184.88	5	2,496	3	1.0	1.1
Coit Rd	30.09	5	160.69	9	3,001	2	1.6	1.8
Spring Creek Pkwy	26.20	10	187.00	4	2,342	5	1.9	2.1
Plano Pkwy	27.12	8	182.63	6	2,200	6	2.0	2.2
Parker Rd	25.47	12	199.19	2	2,019	7	2.1	2.3
SH 121	32.02	4	188.50	3	1,025	21	2.8	3.1
Dallas Parkway	32.75	3	139.81	11	1,437	18	3.2	3.6
Custer Rd	24.59	17	137.50	12	2,495	4	3.3	3.7
K Ave	28.56	7	122.88	14	1,719	12	3.3	3.7
Park Blvd	24.79	16	172.69	8	1,792	10	3.4	3.8
Independence Pkwy	23.52	18	143.56	10	1,903	9	3.7	4.1
Hedcoxe Rd	28.76	6	85.50	18	1,490	15	3.9	4.3
15th St	27.03	9	80.81	20	1,784	11	4.0	4.4
Jupiter Rd	25.25	13	107.25	15	1,563	13	4.1	4.6
Parkwood Blvd	22.67	19	101.06	16	1,943	8	4.3	4.8
Central Expwy	24.97	15	181.00	7	477	22	4.4	4.9
Ohio Dr	20.84	21	124.63	13	1,466	17	5.1	5.7
14th St	25.02	14	82.06	19	1,335	19	5.2	5.8
Headquarters Dr-Razor Blvd	25.82	11	79.44	21	1,036	20	5.2	5.8
Alma Dr	21.14	20	99.94	17	1,484	16	5.3	5.9
McDermott Rd	20.68	22	72.69	22	1,525	14	5.8	6.4

Delay Weight

TT CI Weight

Volume Weight



Corridor	Average of Normalized Delay	DelayRank	Average of TT CI	TT CI Rank	Typical Count	VolRank	Sum Rank	Dynamic Weighted Rank
Preston Rd	36.91	1	162.07	4	6,112	1	0.6	0.7
Legacy Dr	29.58	2	163.36	3	4,064	3	0.8	0.9
Plano Pkwy	23.81	12	172.82	2	3,820	5	1.9	2.1
Parker Rd	22.86	13	184.86	1	3,276	7	2.1	2.3
Coit Rd	23.86	11	139.29	9	5,001	2	2.2	2.4
Spring Creek Pkwy	22.32	14	159.43	5	3,738	6	2.5	2.8
Custer Rd	20.52	18	126.93	10	4,062	4	3.2	3.6
K Ave	25.89	5	100.50	16	2,733	12	3.3	3.7
Park Blvd	21.30	16	156.43	6	2,834	11	3.3	3.7
Jupiter Rd	25.84	6	101.75	15	2,676	13	3.4	3.8
15th St	26.04	4	79.43	20	2,854	10	3.4	3.8
SH 121	25.57	7	139.57	8	1,467	20	3.5	3.9
Hedcoxe Rd	28.38	3	82.43	18	2,260	16	3.7	4.1
Dallas Parkway	24.91	10	119.04	12	2,281	15	3.7	4.1
Independence Pkwy	20.02	20	126.57	11	2,889	9	4.0	4.4
Parkwood Blvd	20.13	19	84.75	17	2,902	8	4.4	4.9
14th St	25.39	9	79.71	19	2,202	17	4.5	5.0
Alma Dr	20.61	17	101.79	14	2,283	14	4.5	5.0
Ohio Dr	21.93	15	117.14	13	2,001	19	4.7	5.2
Headquarters Dr-Rasor Blvd	25.55	8	71.79	21	1,334	21	5.0	5.6
Central Expwy	18.44	22	145.61	7	965	22	5.1	5.7
McDermott Rd	19.95	21	68.11	22	2,165	18	6.1	6.8

Delay Weight

TT CI Weight

Volume Weight



Corridor	Average of Normalized Delay	DelayRank	Average of TT CI	TT CI Rank	Typical Count	VolRank	Sum Rank	Dynamic Weighted Rank
Preston Rd	36.91	1	162.07	4	6,112	1	0.6	1.1
Legacy Dr	29.58	2	163.36	3	4,064	3	0.8	1.4
Plano Pkwy	23.81	12	172.82	2	3,820	5	1.9	3.1
Parker Rd	22.86	13	184.86	1	3,276	7	2.1	3.4
Coit Rd	23.86	11	139.29	9	5,001	2	2.2	3.9
Spring Creek Pkwy	22.32	14	159.43	5	3,738	6	2.5	4.2
Park Blvd	21.30	16	156.43	6	2,834	11	3.3	5.4
Custer Rd	20.52	18	126.93	10	4,062	4	3.2	5.6
SH 121	25.57	7	139.57	8	1,467	20	3.5	5.6
K Ave	25.89	5	100.50	16	2,733	12	3.3	5.7
Jupiter Rd	25.84	6	101.75	15	2,676	13	3.4	5.9
15th St	26.04	4	79.43	20	2,854	10	3.4	6.1
Dallas Parkway	24.91	10	119.04	12	2,281	15	3.7	6.2
Hedgcoxe Rd	28.38	3	82.43	18	2,260	16	3.7	6.4
Independence Pkwy	20.02	20	126.57	11	2,889	9	4.0	6.8
Alma Dr	20.61	17	101.79	14	2,283	14	4.5	7.6
Parkwood Blvd	20.13	19	84.75	17	2,902	8	4.4	7.7
14th St	25.39	9	79.71	19	2,202	17	4.5	7.7
Ohio Dr	21.93	15	117.14	13	2,001	19	4.7	7.8
Central Expwy	18.44	22	145.61	7	965	22	5.1	8.2
Headquarters Dr-Rasor Blvd	25.55	8	71.79	21	1,334	21	5.0	8.5
McDermott Rd	19.95	21	68.11	22	2,165	18	6.1	10.5

Delay Weight

TT CI Weight

Volume Weight





# Plano Hierarchy

	AM Hierarchy	PM Rank
1	Preston Road	(1)
2	Coit Road	(2)
3	Plano Parkway	(6)
4	Legacy Drive	(3)
5	Custer Road	(4)
6	Spring Creek Parkway	(5)
7	Parker Road	(7)
8	Park Boulevard	(8)
9	Jupiter Road	(13)
10	15th Street/14th Street	(11)
11	K Avenue	(12)
12	Parkwood Boulevard	(9)
13	Independence Parkway	(10)
14	Alma Drive	(15)
15	Ohio Drive	(16)
16	Headquarters Drive/Rasor Boulevard	(17)
17	McDermott Road	(14)

	PM Hierarchy	AM Rank
1	Preston Road	(1)
2	Coit Road	(2)
3	Legacy Drive	(4)
4	Custer Road	(5)
5	Spring Creek Parkway	(6)
6	Plano Parkway	(3)
7	Parker Road	(7)
8	Park Boulevard	(8)
9	Parkwood Boulevard	(12)
10	Independence Parkway	(13)
11	15th Street/14th Street	(10)
12	K Avenue	(11)
13	Jupiter Road	(9)
14	McDermott Road	(17)
15	Alma Drive	(14)
16	Ohio Drive	(15)
17	Headquarters Drive/Rasor Boulevard	(16)

# Plano Next Steps

- AM and PM plans built off priority
- Interlocking, 4-way progression citywide
- In implementation





# NCTCOG

## Regional Traffic Signal Program

# NCTCOG History



# RTSP Goals

- Improve the arterial transportation system in the DFW Air Quality Nonattainment Area
- Improve air quality in region
- Alleviate arterial congestion in the region
- Reduce idle emissions



# Regional Traffic Signal Program

- RTSP: NCTCOG plans to retime up to 450 traffic signals.
- Distribution requirement: 66% Dallas District / 34% Fort Worth District.



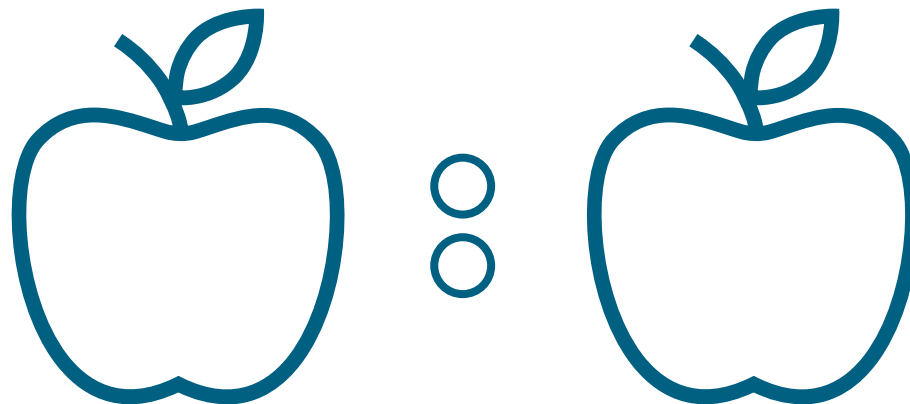
# Previous Approach

- Regional Call for Projects
- Agencies identified corridors
- NCTCOG scored
  
- Member agencies with significant potential for operational improvement but without on-staff traffic engineers may have been skipped over



# RTSP Approach

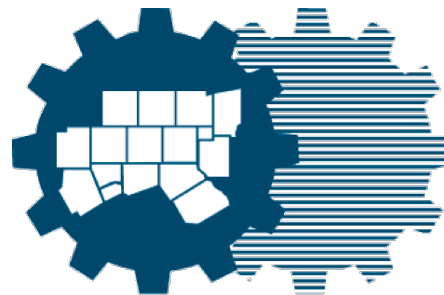
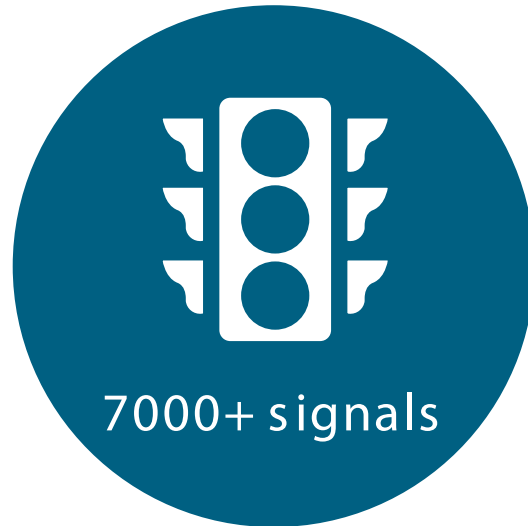
- Objective, performance-based corridor identification
- Consistent performance measures across region
- Find corridors where optimization can produce the greatest benefits



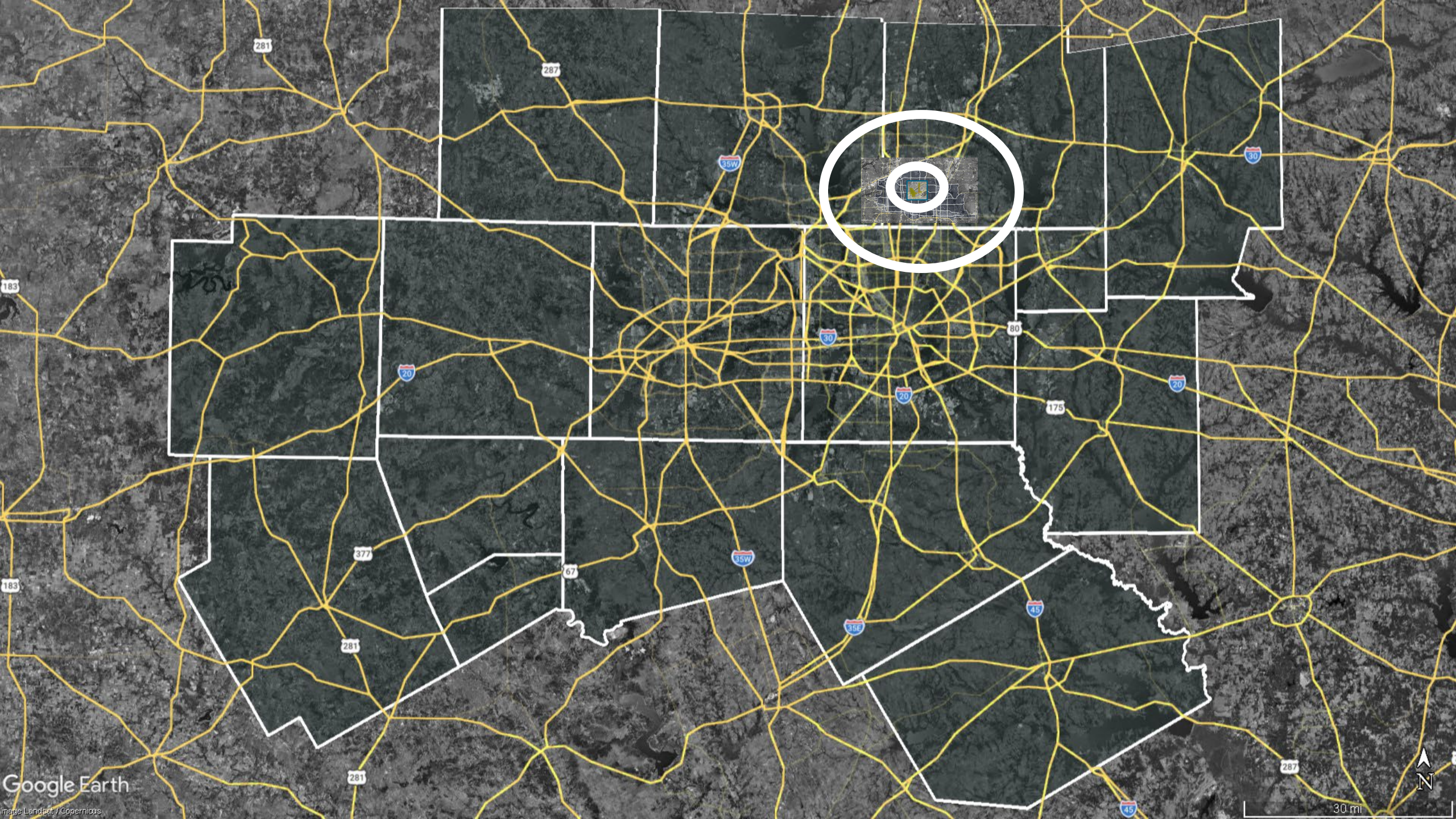


# Regional Traffic Signal Program

## Project Overview



**North Central Texas  
Council of Governments**



281

287

35W

30

183

20

30

80

175

20

183

377

67

35W

35E

45

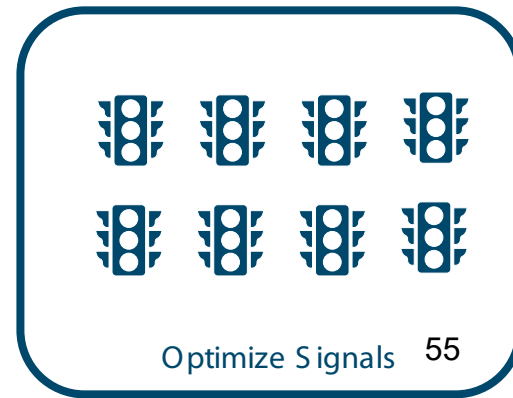
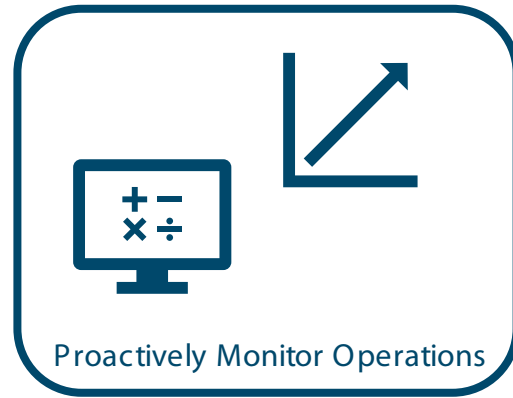
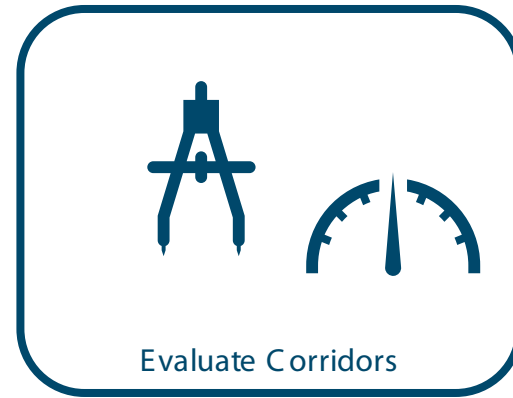
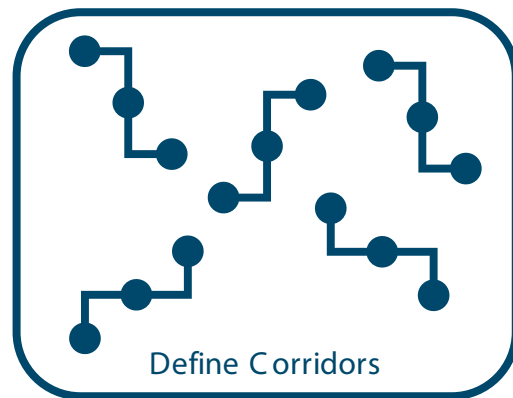
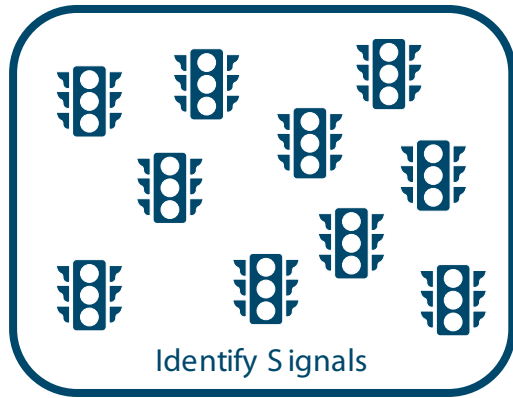
281

281

287

N

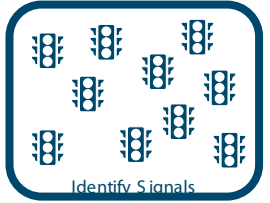
30 mi



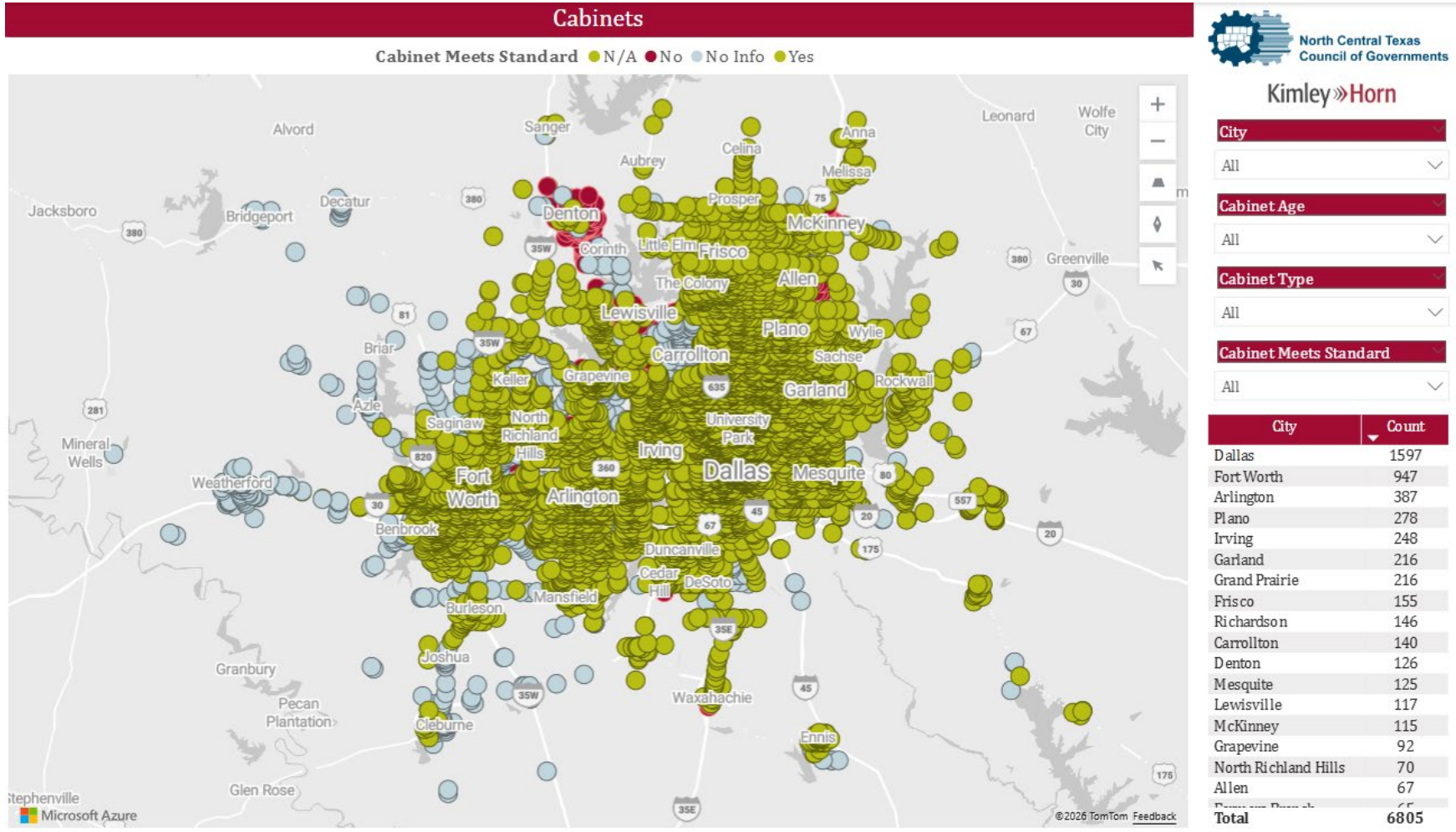
Regional Corridor  
Identification, Selection,  
and Evaluation Approach

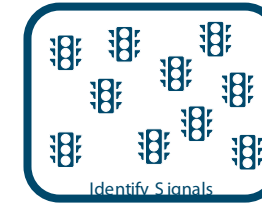
North Central Texas  
Council of Governments

Kimley»»Horn



# Regional Inventory





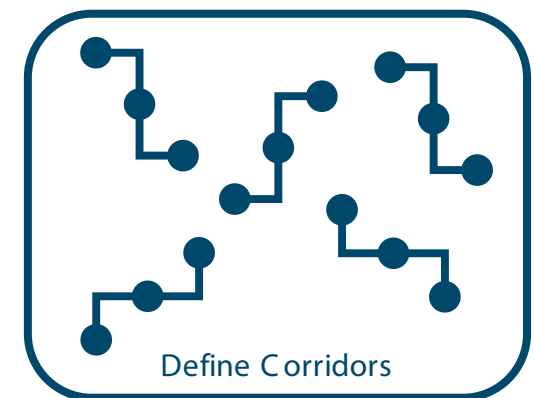
# Minimum Standards

Component	Minimum Functional Requirement
<b>Cabinet</b>	TS2, Caltrans, or ATC cabinet
<b>Controller</b>	TS2, 2070, or ATC controller (meets current ATC, NEMA, and NTCIP standards)
<b>Time Keeping</b>	Accurate and reliable
<b>Communication</b>	Controller can be remotely accessed and controlled Remote communications available and reliable
<b>Detection</b>	Detection present on at least side streets and left turns; detection accurate and reliable
<b>Signal Hardware</b>	FYA for Protected/Permitted Left Turns
<b>Signal Hardware</b>	LED Signal Heads



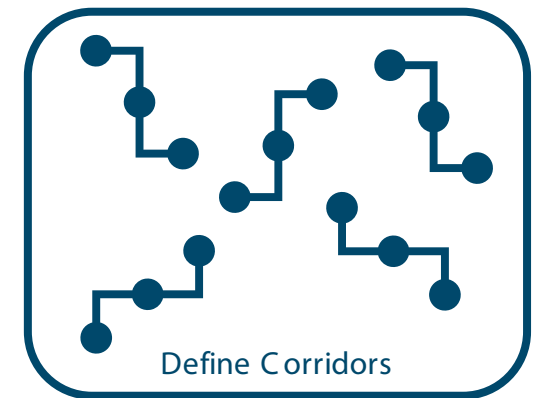
# Corridor Identification Goal

- Objectively identify corridors to be retimed as part of NCTCOG Regional Traffic Signal Program
- Process is intended to change and evolve over time as new tools and data become available to the region



# Corridor Identification Goal

- Define a process to
  - Group intersections into corridors
  - Evaluate corridors
  - Compare corridors
  - Short list corridors for further evaluation
  - Evaluate intersections
  - Select intersections for retiming





# Corridor Challenges

- Scale
- 100+ agencies
- Different equipment
- Data collection needs
- Standard performance measures



# Which Corridors are Good Candidates?

- High delay
- High variability
- High volumes
- Available capacity



# NCTCOG Approach



- Provided to entire region
- Intersection- and corridor-level metrics
- Cloud-based
- Historical data available

# RTSP Approach

- Available Data
  - Local Knowledge
  - INRIX Signal Analytics
- Rank Every Corridor
  - Delay per mile
  - PM Peak

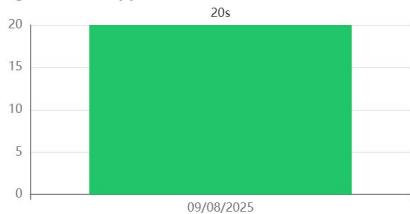


09/08/2025

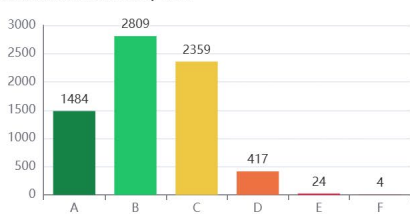
**All Licensed** 09/08/2025  
 Intersections Approaches Movements Corridors  
**7,097 24,622 62,843 1,326**

**Intersections** 09/08/2025  
 Total Control Delay 4wk Average Delta  
**35,728.... vs 0.0s 0.00%**  
 Average Control Delay per Vehicle 09/08/2025  
 Total Control Delay 4wk Average Delta  
**20.0s vs 0.0s 0.00%**

Avg Control Delay per Vehicle



Intersection Counts by LOS



**Intersections: Top 5 Control Delay Issues** 09/08/2025 24 Hours

Rank	Location	4-wk Avg.	09/08/2025	Delta
1	West State Highway 31	---	1.8h <span style="color: green;">B</span>	---
2	West State Highway 31 & South 45th Street	---	8.1h <span style="color: orange;">C</span>	---
3	South US Highway 287 & Bryant's Way	---	1.2h <span style="color: green;">A</span>	---
4	South Interstate 45 & South US Highway 287	---	1.9h <span style="color: green;">B</span>	---
5	West 7th Avenue	---	1.4h <span style="color: green;">A</span>	---

Rank	Location	4-wk Avg.	09/08/2025	Delta
1	West State Highway 31	---	10.7s <span style="color: green;">B</span>	---
2	West State Highway 31 & South 45th Street	---	28.9s <span style="color: orange;">C</span>	---
3	South US Highway 287 & Bryant's Way	---	9.1s <span style="color: green;">A</span>	---
4	South Interstate 45 & South US Highway 287	---	11.7s <span style="color: green;">B</span>	---
5	West 7th Avenue	---	6.5s <span style="color: green;">A</span>	---

**Corridors: Top 3 Corridor Issues** 09/29/2025 10/05/2025 Weekdays

Rank	Location	4-wk Avg.	Current Week	Delta
1	NCTCOG 0644 - EDMONDS LN SB from FM1171...	7.4m <span style="color: green;">B</span>	9.2m <span style="color: orange;">C</span>	+1.8m 24.00%
2	NCTCOG 0285 - BRIDGE ST WB from JOHN T W...	5.5m <span style="color: green;">B</span>	7.2m <span style="color: orange;">C</span>	+1.6m 29.30%
3	NCTCOG 0264 - BIG TOWN BLVD NB from ELA...	7.1m <span style="color: green;">B</span>	8.6m <span style="color: orange;">C</span>	+1.5m 21.50%

Rank	Location	4-wk Avg.	Current Week	Delta
1	NCTCOG 1419 - GOOD LATIMER EXPY EB from ...	2.00x <span style="color: orange;">D</span>	2.33x <span style="color: red;">E</span>	+0.34x 16.90%
2	NCTCOG 0162 - AKARD ST NB from Griffn St to ...	1.37x <span style="color: orange;">C</span>	1.68x <span style="color: red;">D</span>	+0.31x 22.30%
3	NCTCOG 0285 - BRIDGE ST WB from JOHN T W...	1.24x <span style="color: green;">B</span>	1.52x <span style="color: orange;">C</span>	+0.28x 22.20%

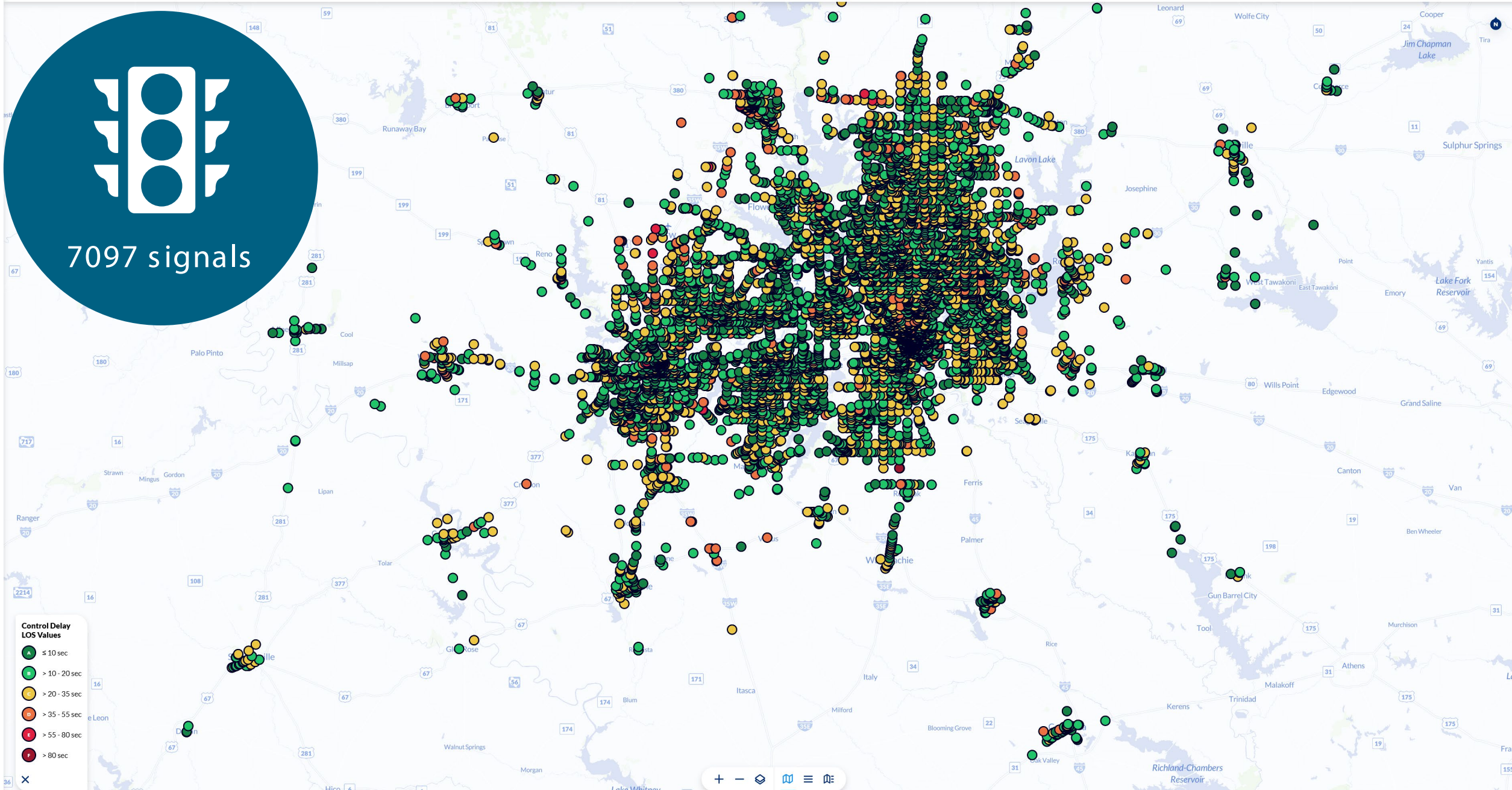




7097 signals

Control Delay LOS Values

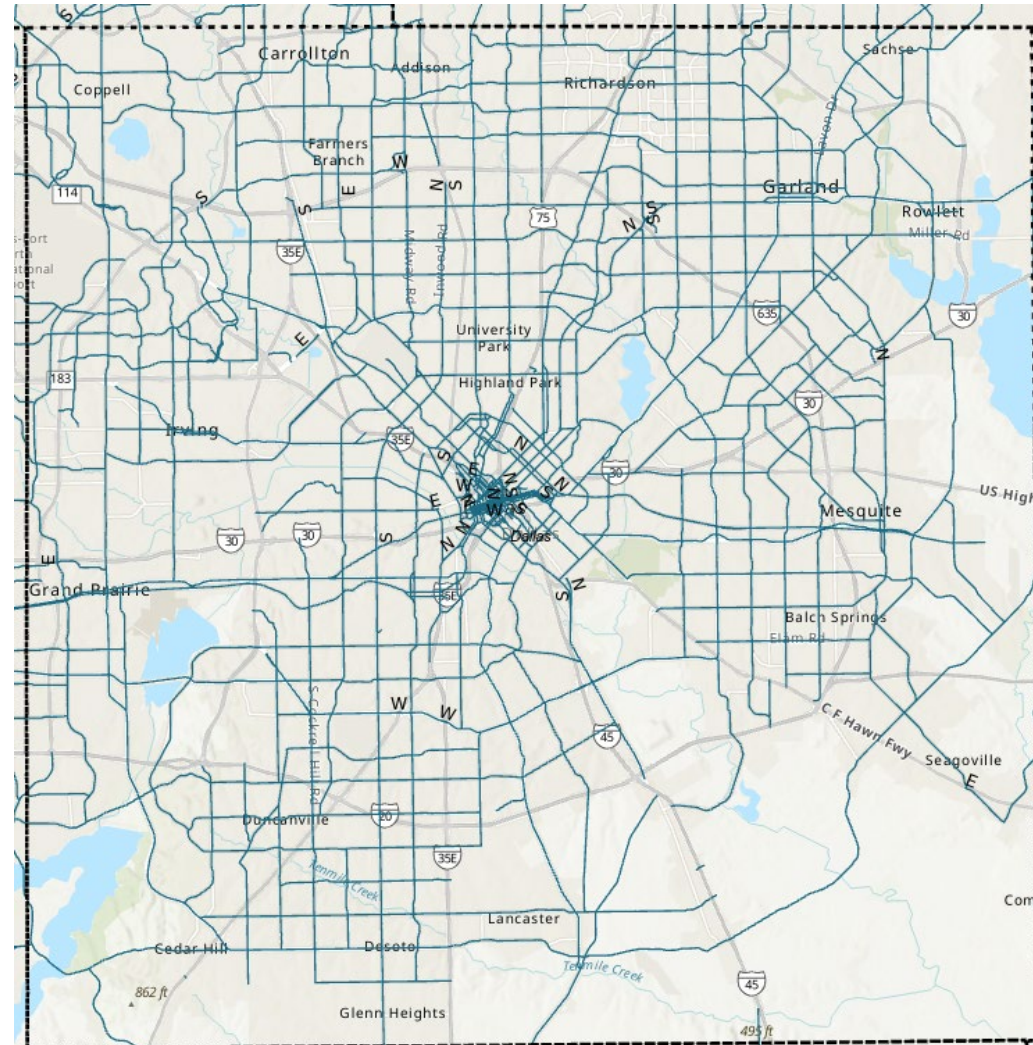
- ≤ 10 sec
- > 10 - 20 sec
- > 20 - 35 sec
- > 35 - 55 sec
- > 55 - 80 sec
- > 80 sec



# Corridor Definition

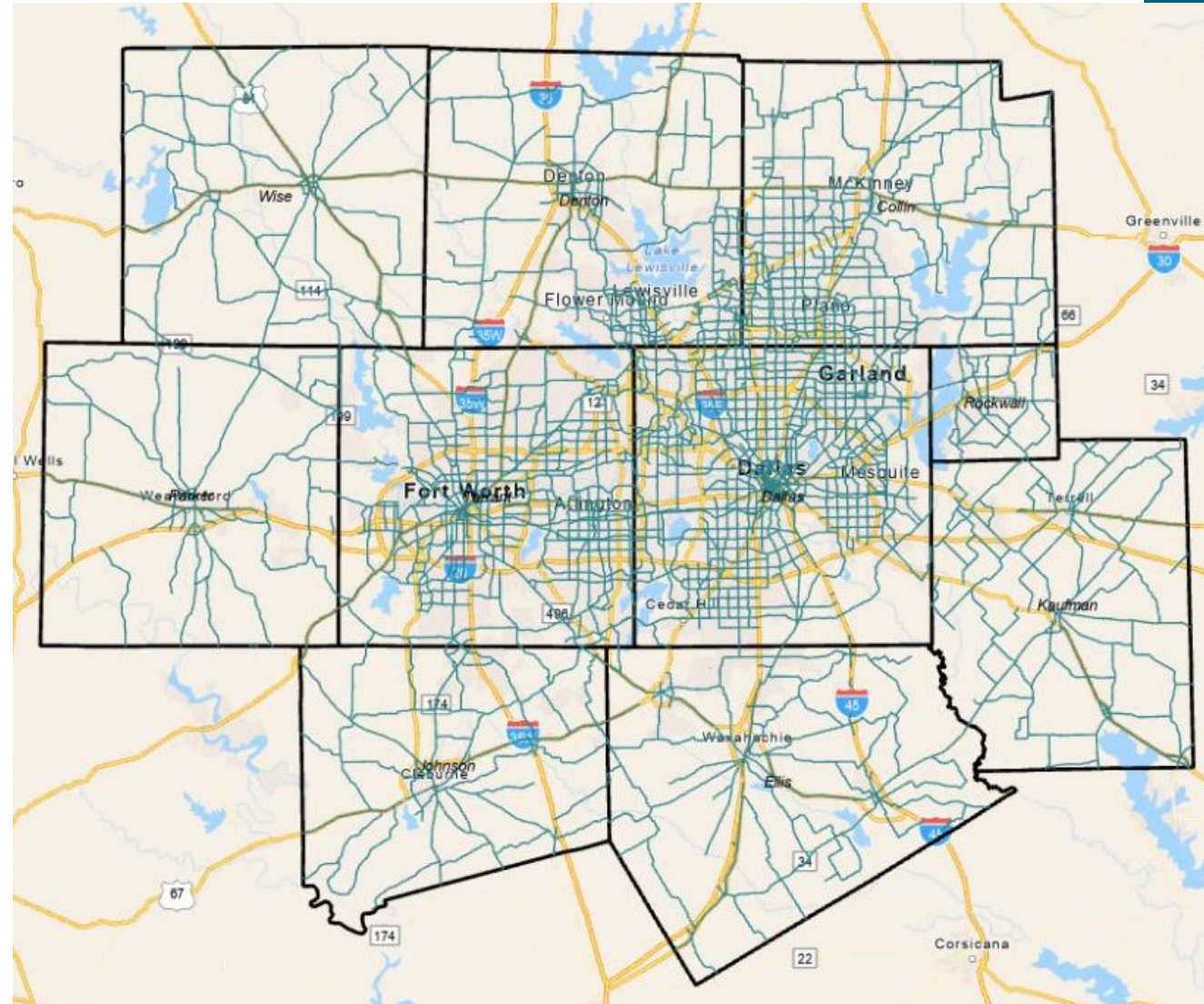
What is a corridor?

- Initial investigation
  - Regional Routes of Significance (NCTCOG)
  - Previously retimed arterials
  - Local input
- Corridors entered in Signal Analytics Platform



# Regional Routes of Significance (RRoS)

- Interstates
- Principal Arterials
  - Freeways
  - Expressways
  - Others
- Minor Arterials
- Major Collectors



# Initial Corridor Definition Criteria

- 3/4 mile or less spacing
- 8+ signals
- 3+ miles long
- Full extent of corridor
- Logical opportunities for progression
- Locally significant arterials



# Corridor Refinement

- Removed routes that turned a corner
  - Many corridors continued with the same street name after a turn
- Added reverse corridors
- Adjusted endpoints
  - Endpoints inside of diamonds
  - Endpoints past last signal



STATUS	CORRIDOR NAME	LENGTH	OBSERVED VEHICLE COUNT	4 WK. AVERAGE	STARTING POINT
Needs Attention	NCTCOG 0444 - CEDAR RIDGE DR SB from IH 20 WB to SANTA FE TRAIL	2.26 mi	71	48	32.668817, -96.925
Provisioned	NCTCOG 0447 - CEDAR SPRINGS NB from Pearl St to Lemmon Ave	1.15 mi	487	19	32.793206, -96.800
Provisioned	NCTCOG 0447 - CEDAR SPRINGS RD SB from Douglas AVE to OLIVE ST	1.21 mi	214	19	32.809295, -96.800
Provisioned	NCTCOG 0454 - CENTERVILLE RD NB from IH 635 to MILLER RD	3.68 mi	549	131	32.856554, -96.647
Provisioned	NCTCOG 0454 - CENTERVILLE RD SB from MILLER RD to IH 635	3.67 mi	500		32.893699, -96.600



**Corridor**

NCTCOG 0447 - CEDAR SPRINGS NB from Pearl St to Lemmon Ave [View in Corridors](#)

Length: 1.15 mi  
 Free Flow TT: 2.8m  
 Corridor ID: dd7f2da9-f377-4985-8c06-8493eb125070  
 Created Date: Tuesday, 03/18/2025, at 1:14 PM  
 Last Updated Date: Friday, 04/04/2025, at 10:14 AM  
 Next Report Date Range: 04/21/2025 to 04/27/2025

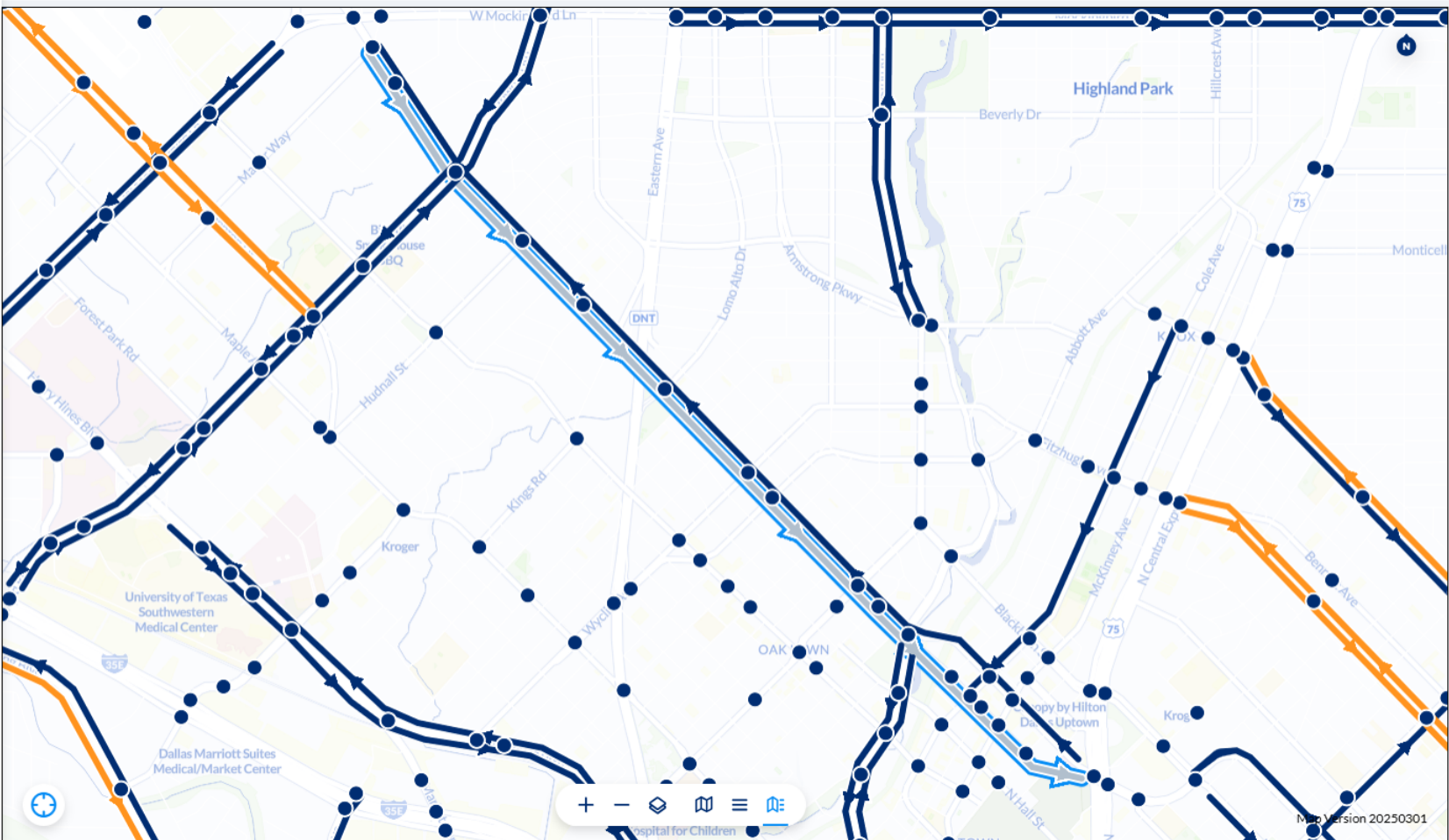
Most Recent Report Time Range  
 04/14/2025 to 04/20/2025, 24 Hours, Full week

Observed Ve... 487 vs 4wk Average 19 Change 468 +2463.2...

NCTCOG 0447 - CEDAR SPRINGS NB from Pearl St to Lemmon Ave - *originally turned corner at Bowen St*

Edit Corridor

STATUS	CORRIDOR NAME	LENGTH	OBSERVED VEHICLE COUNT	4 WK. AVERAGE	STARTING POINT
<input type="radio"/>	Provisioned NCTCOG 1757 - LEMMON AVE NB from CENTRAL EXPY NB to Roper St	3.03 mi	822	761	32.804233, -96.794
<input checked="" type="radio"/>	Pending NCTCOG 1757 - LEMMON AVE NB from Roper St to CENTRAL EXPY NB	3.07 mi			32.835143, -96.830
<input type="radio"/>	Needs Attention NCTCOG 1762 - LEONARD ST EB from FLORA ST to BYAN ST	1376.14 ft			32.789992, -96.794
<input type="radio"/>	Needs Attention NCTCOG 1762 - LEONARD ST WB from BRYAN ST to FLORA ST	1228.29 ft			32.787717, -96.794
<input type="radio"/>	Provisioned NCTCOG 1783 - LOVERS LN EB from DNT SB to CENTRAL EXPY NB	2.47 mi	273	305	32.851089, -96.810



**Corridor**

**NCTCOG 1757 - LEMMON AVE NB from Roper St to CENTRAL EXPY NB**

Corridor ID: 38954aa8-50da-43e0-b4b2-8c0f094f130  
 Created Date: Friday, 04/25/2025, at 2:38 PM  
 Last Updated Date: Friday, 04/25/2025, at 2:38 PM

NCTCOG 1757 -  
 LEMMON AVE SB from  
 Roper St to CENTRAL  
 EXPY NB  
 - NCTCOG 1757 -  
 LEMMON AVE SB from  
 Roper St to CENTRAL  
 EXPY NB added

Delete

Edit Corridor

STATUS	CORRIDOR NAME	LENGTH	OBSERVED VEHICLE COUNT	4 WK. AVERAGE	STARTING POINT
<input type="radio"/>	Needs Attention NCTCOG 0185 - ARKANSAS LN WB from SH360 to IH820	7.34 mi			32.706145, -97.064
<input checked="" type="radio"/>	Needs Attention NCTCOG 0187 - AUDELIA RD NB from Forest Ln to CENTENNIAL BLVD	1.98 mi	132	103	32.909725, -96.717
<input type="radio"/>	Needs Attention NCTCOG 0187 - AUDELIA RD SB from CENTENNIAL BLVD to Forest Ln	1.98 mi	151	50	32.937733, -96.718
<input type="radio"/>	Provisioned NCTCOG 0188 - AUDELIA RD NB from LOOP 12 to SKILLMAN ST	2.52 mi	366	393	32.862239, -96.717
<input type="radio"/>	Provisioned NCTCOG 0188 - AUDELIA RD SB from SKILLMAN ST to LOOP 12	2.52 mi	271	61	32.898390, -96.718

Corridor

NCTCOG 0187 - AUDELIA RD NB from Forest Ln to CENTENNIAL BLVD [View in Corridors](#)

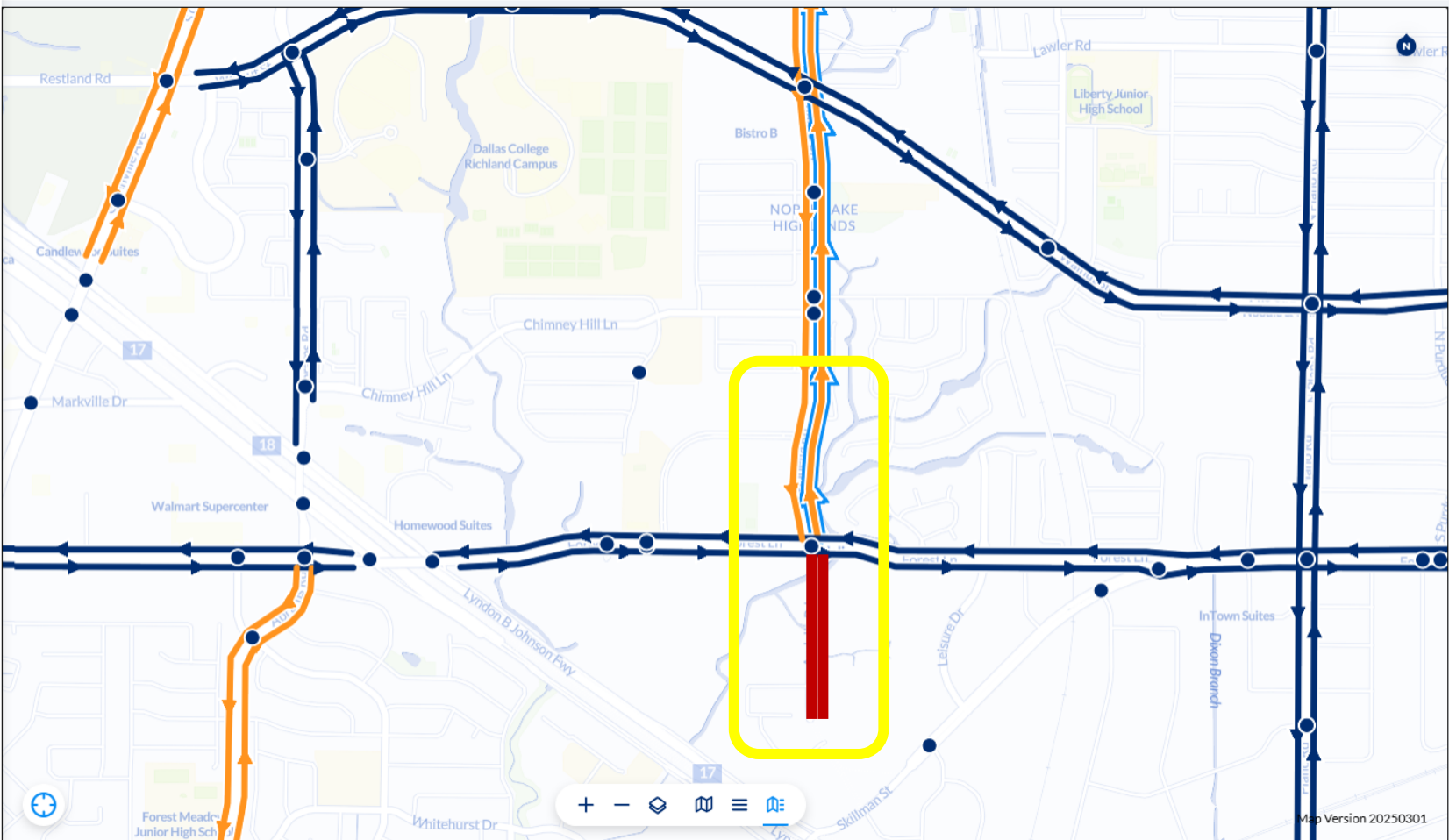
Length: 1.98 mi  
 Free Flow TT: 3.8m  
 Corridor ID: 41f37b0e-0168-4f13-80bb-78bc6c50dc88  
 Created Date: Tuesday, 03/18/2025, at 1:14 PM  
 Last Updated Date: Friday, 04/04/2025, at 10:45 AM  
 Next Report Date Range: 04/21/2025 to 04/27/2025

Most Recent Report Time Range  
 04/14/2025 to 04/20/2025, 24 Hours, Full week

Observed Ve... vs 4wk Average Change  
**132** vs **103** **29** **+28.20%**

NCTCOG 0187 - AUDELIA RD SB from CENTENNIAL BLVD to Springtree Ln - *moved to north of Forest Lane to cut off south end*

Edit Corridor

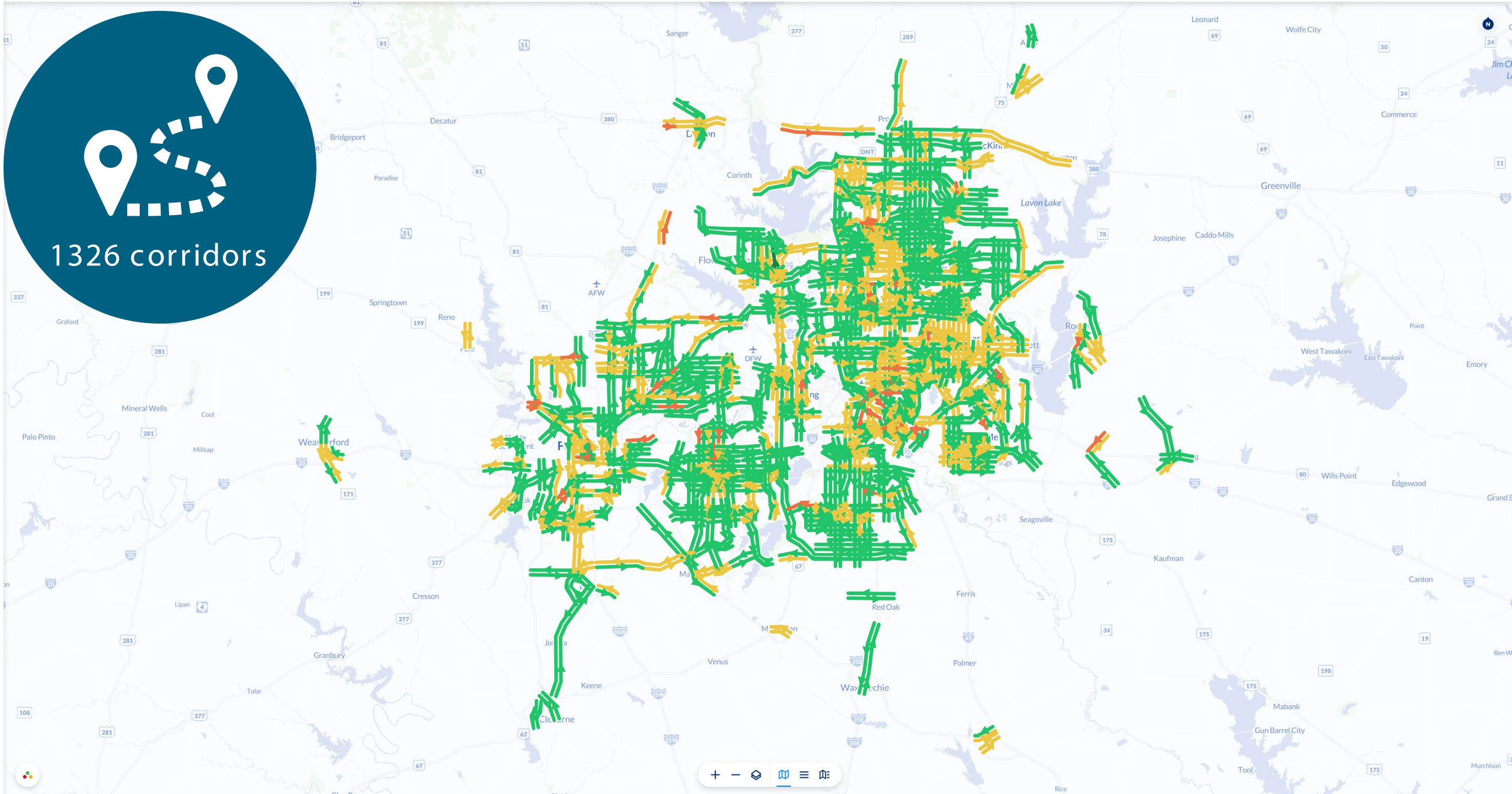


# Corridor Refinement

## Best Practices

- Corridors should be 3 miles or less.
- Corridors should follow logical routes, even if the street name changes.
- Corridors should capture more than 100 trips in 24 hours.
- Corridors should begin and end just outside of diamond interchanges.







# Corridor Selection

- NCTCOG evaluated 1,300+ regional corridors for eligibility
- 74 corridors were identified for detailed review, representing approximately 600 total signals
- Corridors ranked by average PM delay per mile for all weekdays April 2025 and September 2025
- Top 42 corridors selected, totaling 587 signals



# Why Weekday PM?

- Need some sort of consistent comparison
- Weekday PM typically highest demand
- Typically coordinated operations
  - If we used 24 hours, free operations and lower volumes would wash out data
- Alternative measures
  - Arrivals on green
  - Intersection delay
  - S tops
  - Reliability

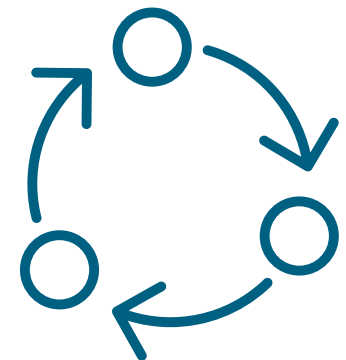


# Why April and September?

- “Normal months”
- All weekdays in both months
- Larger data set to minimize outliers

# Corridor Selection

- Corridors removed from ranking:
  - Corridors with known construction
  - Over-capacity corridors
  - Corridors already in progress
  - Recently retimed
  - CBD corridors
  - Duplicates
  - Corridors with less than 8 signals
- Agency review is needed



# Regional Traffic Signal Program

- RTSP: NCTCOG plans to retime up to 450 traffic signals.
- Distribution requirement: 66% Dallas District / 34% Fort Worth District.
- Ranking: Based on corridors with the highest PM peak delay per mile. Utilizes the metrics unanimously approved by the group.

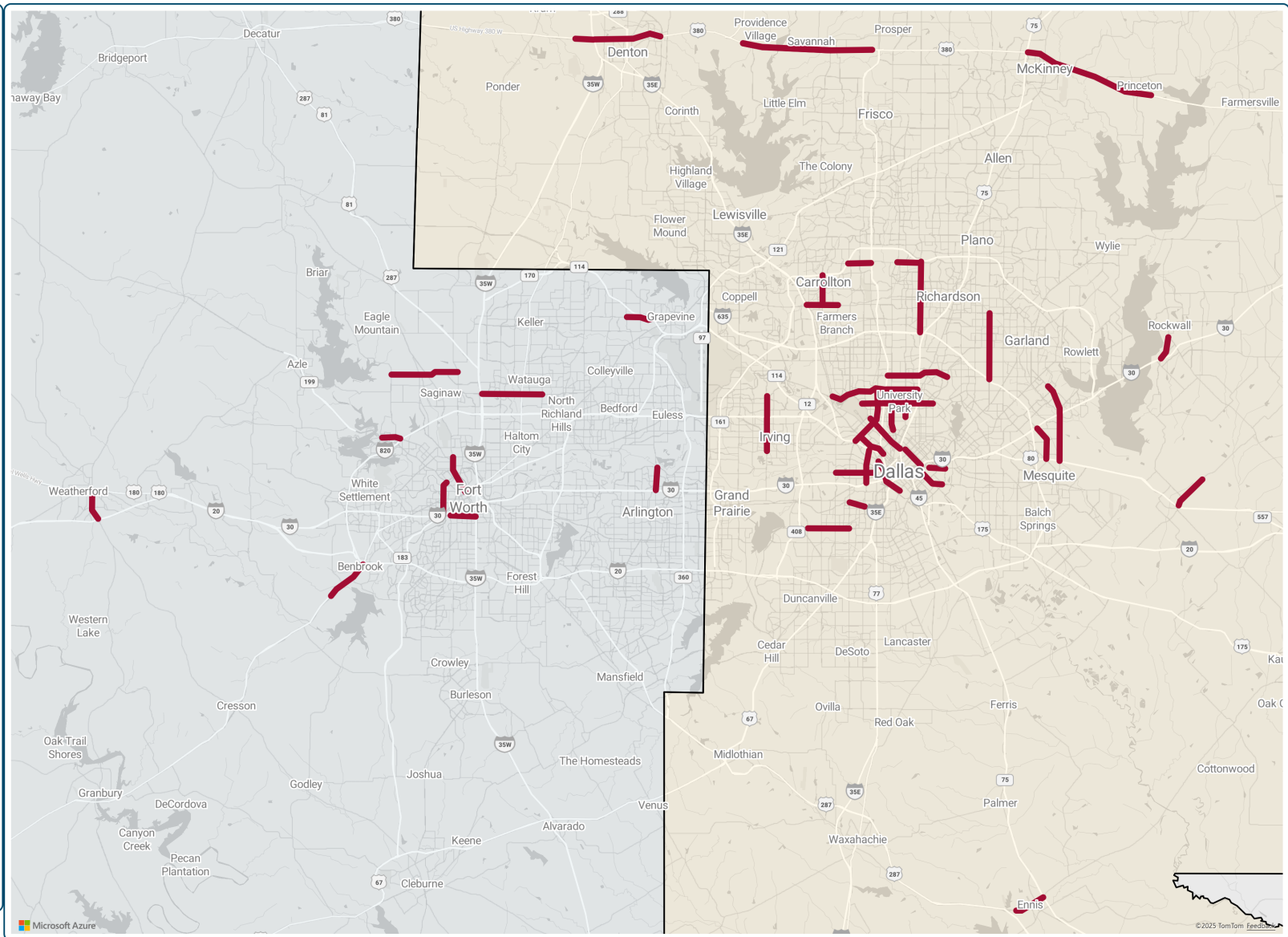


### NCTCOG Non-Attainment Area Top Corridors by Delay (seconds) per Mile

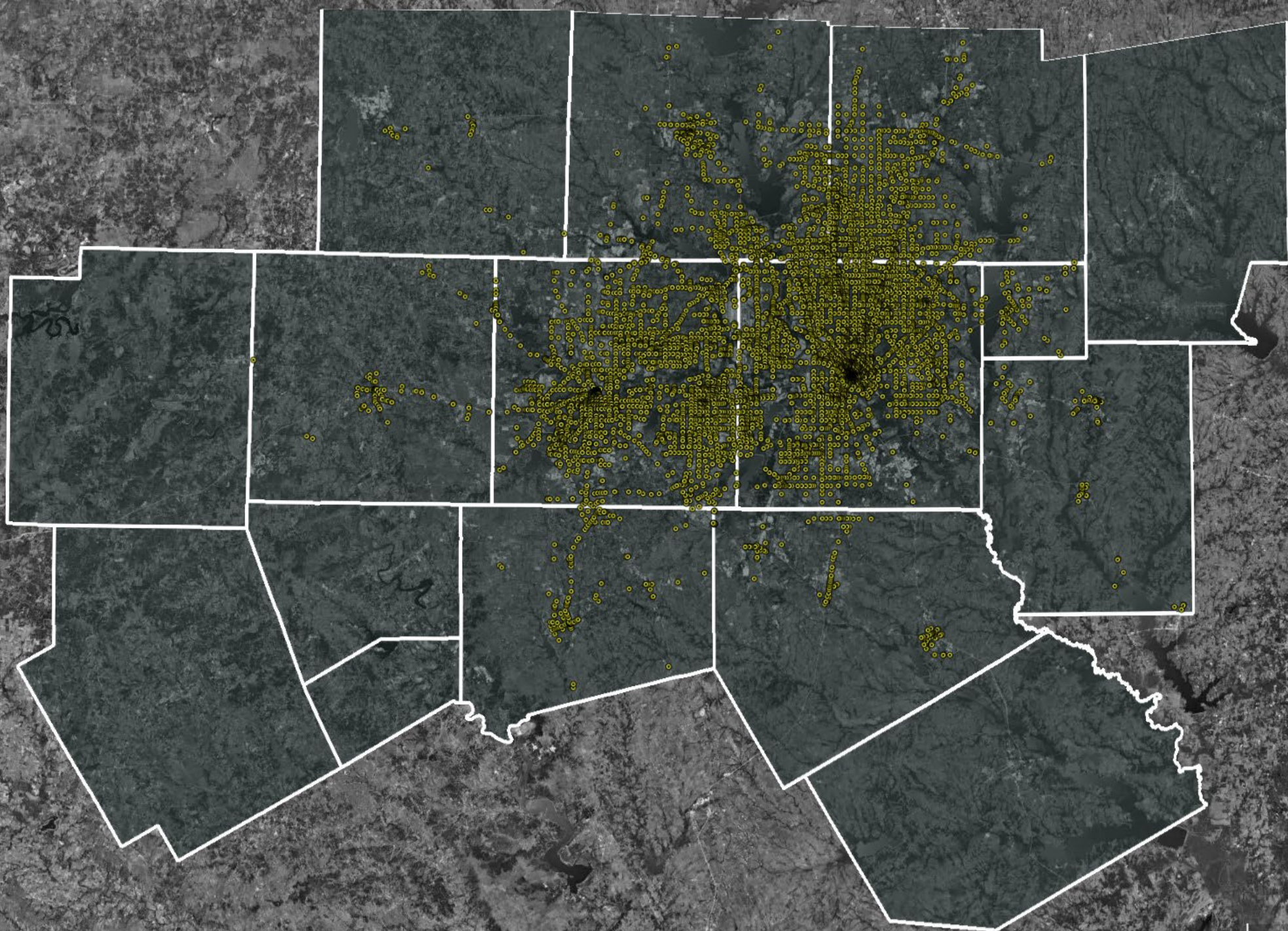
Based on PM Peak (4 PM - 6 PM) INRIX Signal Analytics Data for the Months of April and September 2025

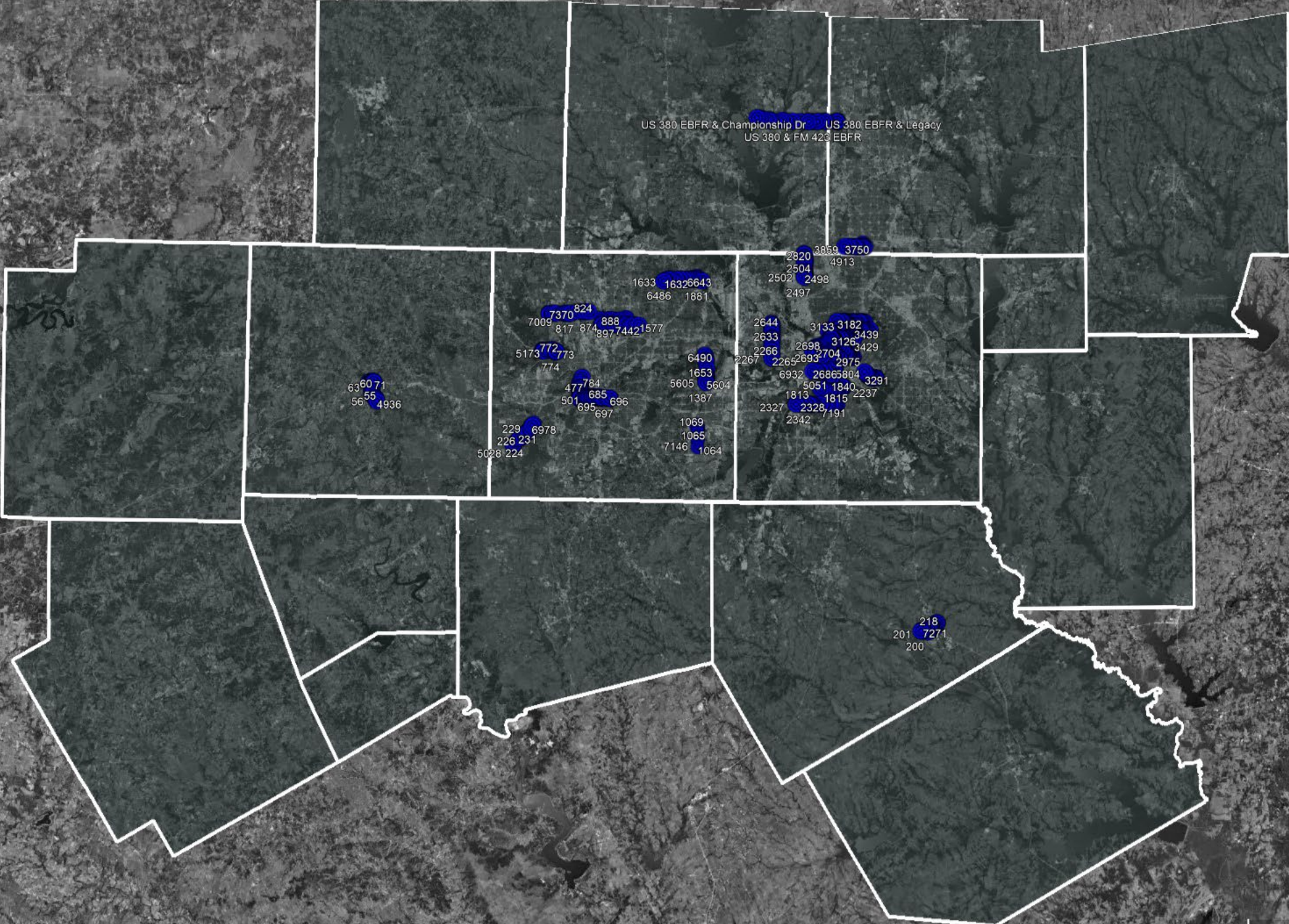
Corridor	Delay/ Mile (s)	TxDOT District	# Corr	# Direction	Travel Direction	From	To	LOTR	Approx Location	# Signals
LEMMON AVE	183.11	Dallas	1	1	SB	Roper St	CENTRAL EXPY NB	1.29	Dallas	16
AZLE AVE	174.60	Fort Worth	1	1	WB	I-820	Lake Worth Blvd	1.22	Lake Worth	2
HARRY HINES BLVD	146.66	Dallas	1	1	EB	HOUSTON ST	BUTLER ST	1.19	Dallas	9
US 380	140.91	Dallas	1	1	EB	Masch Branch Rd.	IH35EB	1.60	Denton	2
LOVERS LN	137.27	Dallas	4	2	EB	CENTRAL EXPY NB	ABRAMS ROAD	1.24	Dallas	36
INWOOD RD	135.15	Dallas	1	1	SB	LOOP 12	STEMMONS FWY	1.18	Dallas	12
MACARTHUR BLVD	134.57	Dallas	2	2	NB	SH 183 EB	Northgate Dr	1.27	Irving	10
FRANKFORD RD	125.14	Dallas	2	1	EB	Preston Rd	COIT RD	1.33	Dallas	12
BU287S ENNIS AVE	123.60	Dallas	1	1	EB	YORKTOWN DRIVE	IH 45 NB	1.30	Ennis	12
E Southlake Blvd/US114	118.80	Fort Worth	1	1	WB	SH114	Carroll Ave	1.20	Southlake	5
US380	110.31	Dallas	5	2	EB	DALLAS PKWY	CR458	1.15	Denton	53
S Industrial Blvd	108.40	Fort Worth	1	1	SB	Green Oaks Blvd	IH30 WB	1.43	Arlington	6
HILLCREST RD	106.81	Dallas	1	1	SB	LOOP 12	MOCKINGBIRD LN	1.30	University Park	13
SL12 NORTHWEST HWY	102.18	Dallas	1	1	WB	CENTRAL EXPY NB	DNT SB	1.34	Dallas	8
ROBERT CULLEM BLVD	102.14	Dallas	1	1	EB	AL LIPSCOMB WAY	Elsie Faye Higgins St	1.25	Dallas	8
Western Central Blvd	101.20	Fort Worth	1	1	WB	Rufe Snow Dr	IH35W	1.16	Watauga	11
SL12 EB	100.74	Dallas	2	1	EB	DNT SB	CENTRAL EXPY NB	1.22	Dallas	18
GALLOWAY AVE	100.65	Dallas	1	1	EB	IH 30 WB	US 80 EB	1.21	Mesquite	7
BELT LINE RD	99.44	Dallas	1	1	WB	Webb Chapel Rd	IH 35 NB	1.35	Carrollton	9
JUPITER RD	99.02	Dallas	1	1	NB	IH 635 EB	Belt Line	1.16	Garland	14
JEFFERSON BLVD	98.46	Dallas	1	1	WB	Tyler St	Hampton Rd	1.20	Dallas	5
COIT RD	97.19	Dallas	1	1	NB	IH 635	PGBT WB	1.14	Dallas	18
HASKELL AVE	96.98	Dallas	2	1	EB	Grand Ave	Dolphin Rd	1.24	Dallas	9
BROADWAY BLVD	96.96	Dallas	1	1	SB	1ST ST	IH 30 EB	1.10	Garland	8
FM740	95.27	Dallas	1	1	SB	SH 205	IH 30 EB	1.21	Rockwall	3
SINGLETON BLVD	94.91	Dallas	1	1	EB	Westmoreland Rd	BECKLEY AVENUE	1.18	Dallas	7
BAILEY BOSWELL RD	94.57	Fort Worth	2	1	WB	FM156 BLUE MOUND RD	FM1220 BOAT CLUB ROAD	1.30	Saginaw	13
FMS1	93.56	Fort Worth	1	1	NB	IH 20	US 180	1.20	Weatherford	8
SYLVAN AVE/WYCLIFF AVE	90.19	Dallas	1	1	SB	IH 35E WB	IH 30	1.21	Dallas	8
RIVERFRONT BLVD	87.38	Dallas	1	1	SB	MARKET CENTER BLVD	CORINTH ST	1.32	Dallas	13
FM548	86.89	Dallas	1	1	WB	Devonshire Dr	US 80	1.17	Forney	4
WALNUT HILL LN	82.62	Dallas	2	1	EB	CENTRAL EXPY NB	CENTRAL EXPY NB	1.19	Dallas	13
BU287P	79.98	Fort Worth	1	1	NB	HOUSTON ST	28TH ST	1.23	Fort Worth	11
SH289 PRESTON RD	79.75	Dallas	1	1	SB	NORTHWEST HWY	ARMSTRONG AVE	1.19	University Park	14
NORTHSIDE DR	76.93	Fort Worth	1	1	NB	IH 30	Jacksboro Highway	1.18	Fort Worth	8
Benbrook Blvd	65.37	Fort Worth	1	1	WB	IH820	Hawkins Home Blvd	1.14	Benbrook	7

[Corridor Slicer](#) [Expand Map](#)



# Overview





US 380 EBFR & Championship Dr. US 380 EBFR & Legacy  
US 380 & FM 423 EBFR

636071  
5655 4936

7370 824  
7009 817 874 888  
89774421577

5173 772 773  
774

477784  
501 685 696  
695 697

229 6978  
226 231  
5028 224

1633 16326643  
6486 1881

6490  
1653  
5605 5604  
1387

1069  
1065  
7146 1064

2820 3859 3750  
2504 4913  
2502 2498  
2497

2644 3133 3182  
2633 2698 3126 3439  
2266 2693 2704 3429  
2267 2265 2693 2975

6932 26865804 3291  
5051 1840  
1813 1815 2237

2327 2328  
2342 7191

218  
201 7271  
200



# RTSP Next Steps

- Agency buy-in
- Data collection
- Develop proposed timing



# Questions?

Data Driven Corridor Selection

Tom Hartmann, P.E., PTOE, IMSA TS II  
[tom.hartmann@kimley-horn.com](mailto:tom.hartmann@kimley-horn.com)



Kimley»Horn