

WORK ZONE SAFETY AND CONNECTED EQUIPMENT

MASITE Annual Meeting
September 2025

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Image 3: Safe System Approach

2025 Delaware Total Fatalities as of 09/26/25									
	2025	2024			2023				
	Year-to-date	Year-to-Date		Total	Year-to-Date		Total		
Fatalities	81	96	↓	-16%	130	108	↓	-25%	137
Delaware Residents	60	80	↓	-25%	110	86	↓	-30%	110
Person Types									
Vehicle Occupant	41	49	↓	-16%	65	74	↓	-45%	89
Pedestrian	20	20		0%	34	17	↑	+18%	28
Bicyclist	3	3		0%	5	3		0%	5
Motorcyclist	16	19	↓	-16%	21	13	↑	+23%	14
Other Person Type	1	5	↓	-80%	5	1		0%	1
Crash Types									
Curve Related	11	17	↓	-35%	23	26	↓	-58%	28
Roadway Departure	36	33	↑	+9%	42	58	↓	-38%	69
Intersection Related	26	39	↓	-33%	48	27	↓	-4%	37
Median Crossover	1	0	↑	+100%	0	8	↓	-87%	8
Wrong Way	3	3		0%	4	1	↑	+200%	1
Work Zone	4	5	↓	-20%	5	8	↓	-50%	9

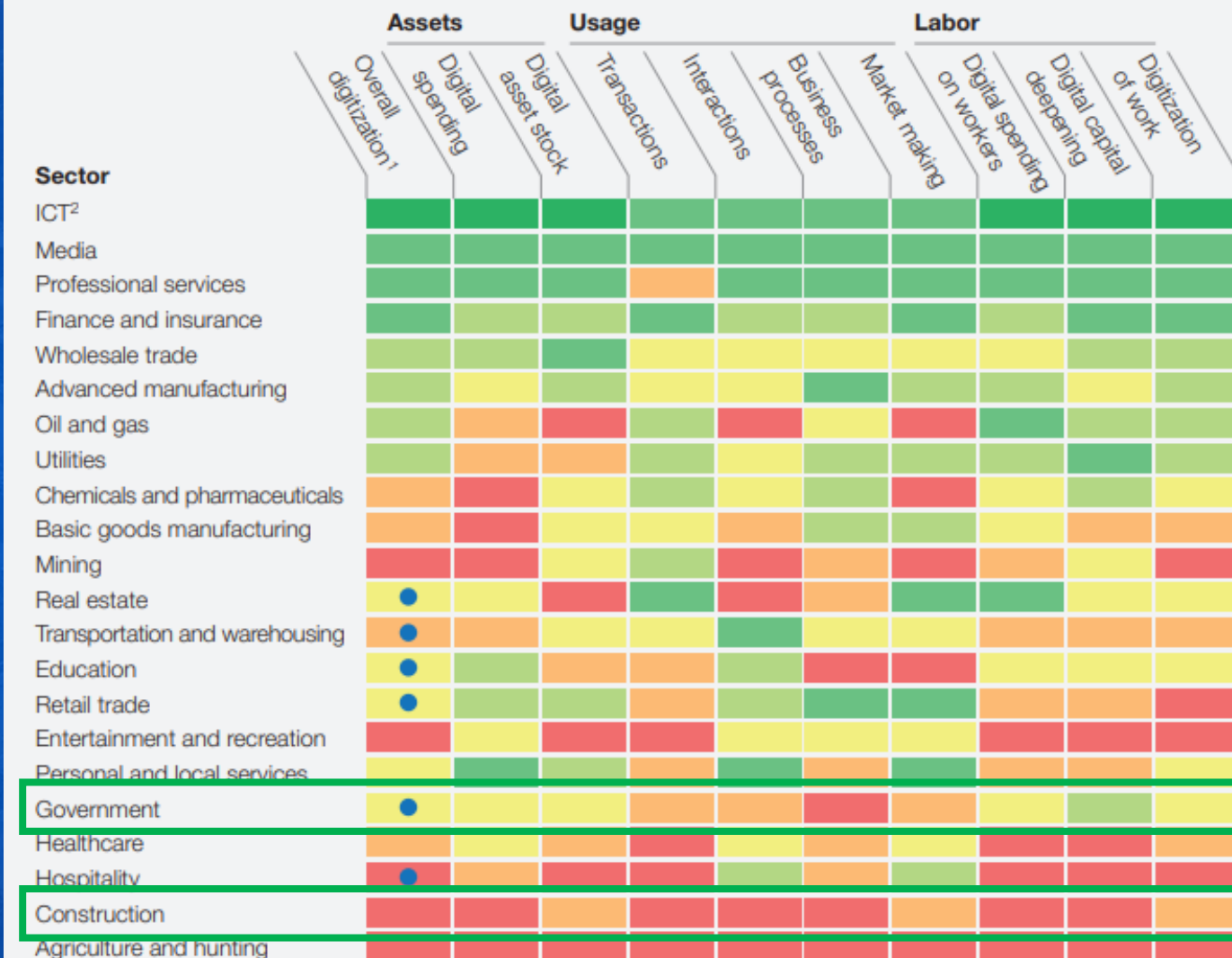


Digitization Effort by Sector

McKinsey Global Institute industry digitization index;
2015 or latest available data

Relatively low digitization  Relatively high digitization

● Digital leaders within relatively undigitized sectors



¹Based on a set of metrics to assess digitization of assets (8 metrics), usage (11 metrics), and labor (8 metrics).

²Information and communications technology.

Source: AppBrain; Bluewolf; Computer Economics; eMarketer; Gartner; IDC Research; LiveChat; US Bureau of Economic Analysis; US Bureau of Labor Statistics; US Census Bureau; McKinsey Global Institute analysis

E-Ticketing

2:09

My Projects

Updated May 4, 2:09 PM

Project Name

Elkton Road, MD Line to Casho Mill Road

Project Start Date

Apr 6, 2021

Contract number

Quantity

T201504401

9,689

469 TICKETS

Project Name

T201012001-SR 299-CATHERINE ST. TO SR1

Project Start Date

Aug 4, 2021

Contract number

Quantity

T201012001

6,171

445 TICKETS

Project Name

Delaware Avenue Separated Bikeway

Project Start Date

Feb 22, 2022

Contract number

Quantity

T201801501

Today

My Projects

2:03

T201012001-SR 299-C...

Quantity by Material Type ⓘ See More >

CHR 114 19MM 64-22 ⓘ 90 1905.52

CHR 139 19MM 76-22 AC... ⓘ 71 1475.61

9.5MM . 64-22 ⓘ 37 805.81

CHR114 19MM 64-22 PAT... ⓘ 36 701.99

CHR114 19MM 64-22 WE... ⓘ 30 648.48

May 4

1 ticket

5

May 3

5 tickets

92

May 2

13 tickets

259

Apr 29

44 tickets

879

Apr 28

51 tickets

1037

2:04

T201012001-SR 299-C...

Quantity by Material Type ⓘ

CHR114 19MM 64-22 WEDGI... ⓘ 9 194.41

CHR 114 19MM 64-22 PATC... ⓘ 2 37.11

CHR114 19MM 64-22 PATCH... ⓘ 2 26.98

Delivered

Pending

Rejected

Wa

SR. 299

May 2 09:16 AM

ADEL CONSTRUCTION

ADE210 Loaded

12.78 CHR114 19MM 64-22 PATCHING

73241 Load 1 Pending ⓘ

MARK DELIVERED

SR. 299

ADVANCED DIGITAL CONSTRUCTION MANAGEMENT SYSTEMS GRANT (ADCMS) - FHWA

- Digital Plans
- Digital As-Builds
- Asset Management
- Electronic Project Management System
- Connected Work Zone



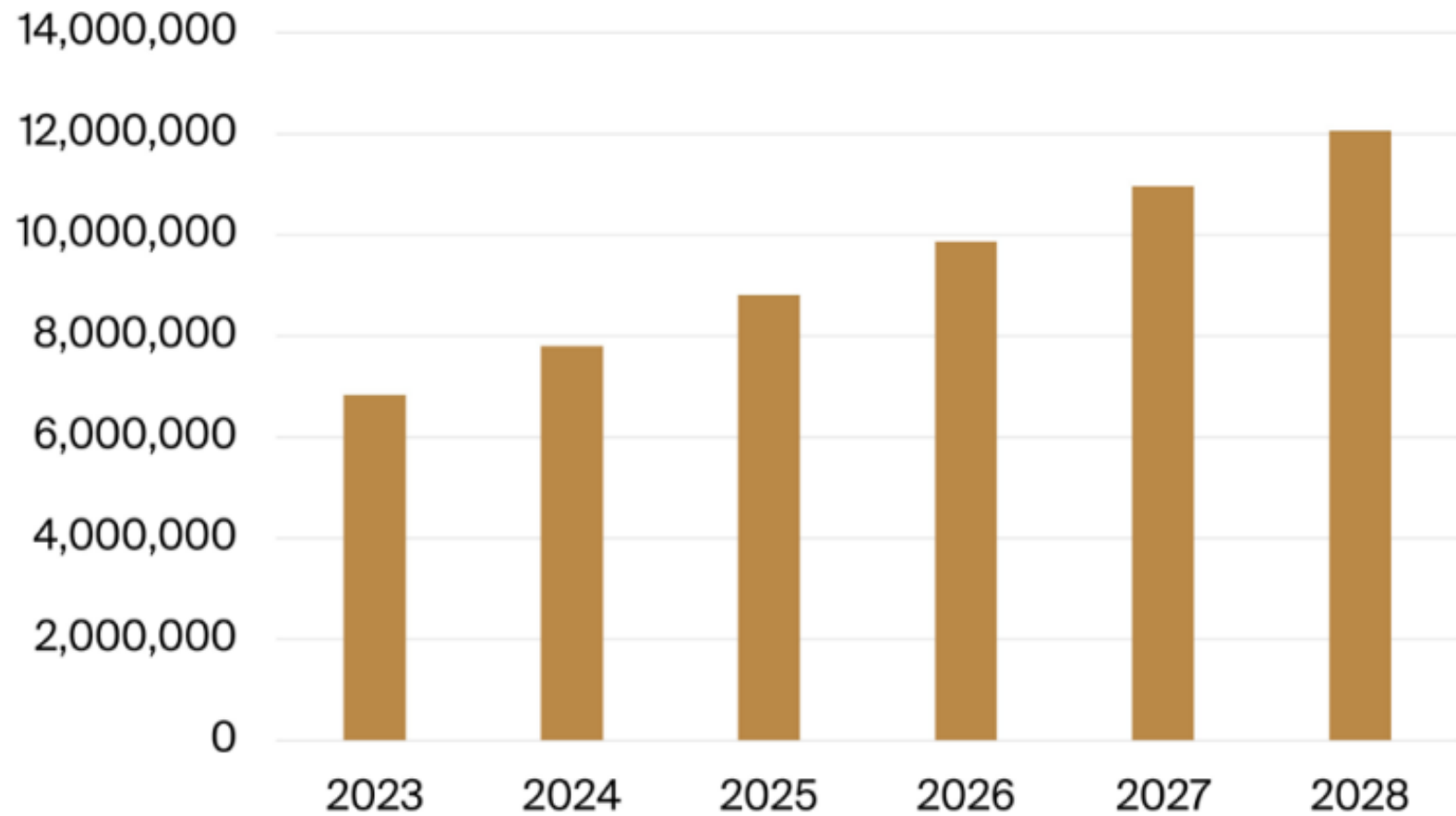
What Does Construction Already Have?



Specification

- Connect telematic-equipped machinery
- Connect to our Portal using the Manufacturer telematic
- Use an Application Programming Interface (API) with ISO 15143-3
- Transmit at least every 5 minutes.

Installed base of active construction equipment
OEM telematics systems (World 2023-2028)





JOHN DEERE



Early Partners

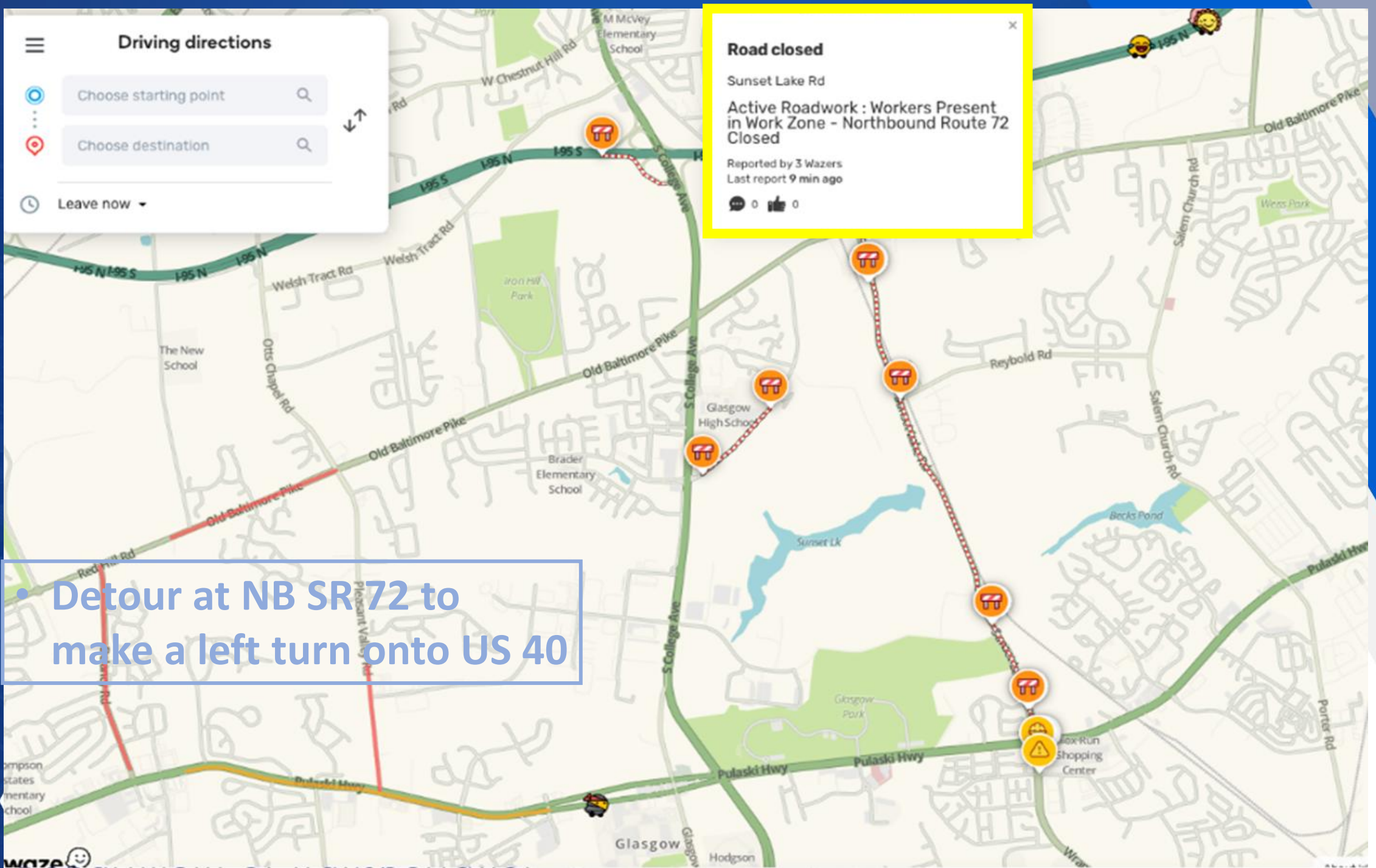


GREGGO
AND
FERRARA
INC.

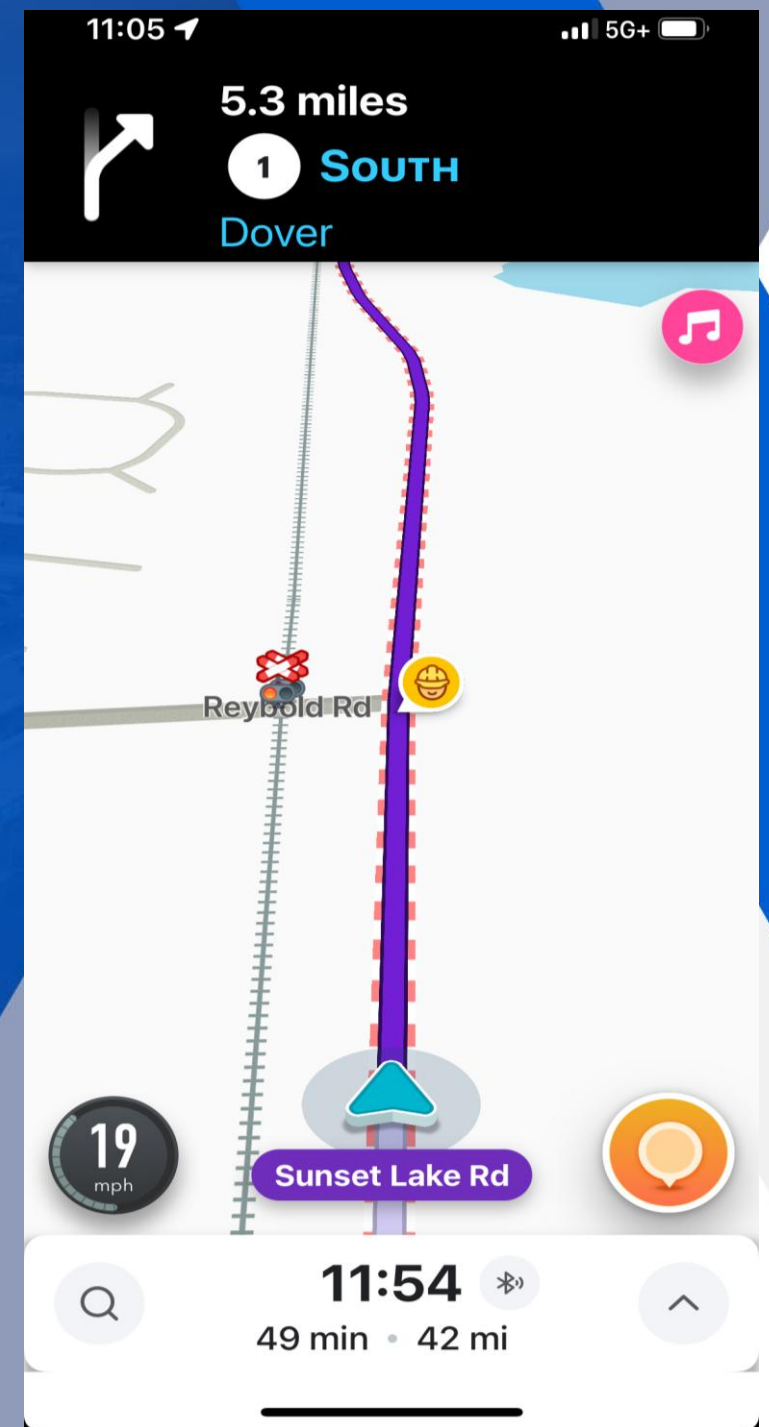


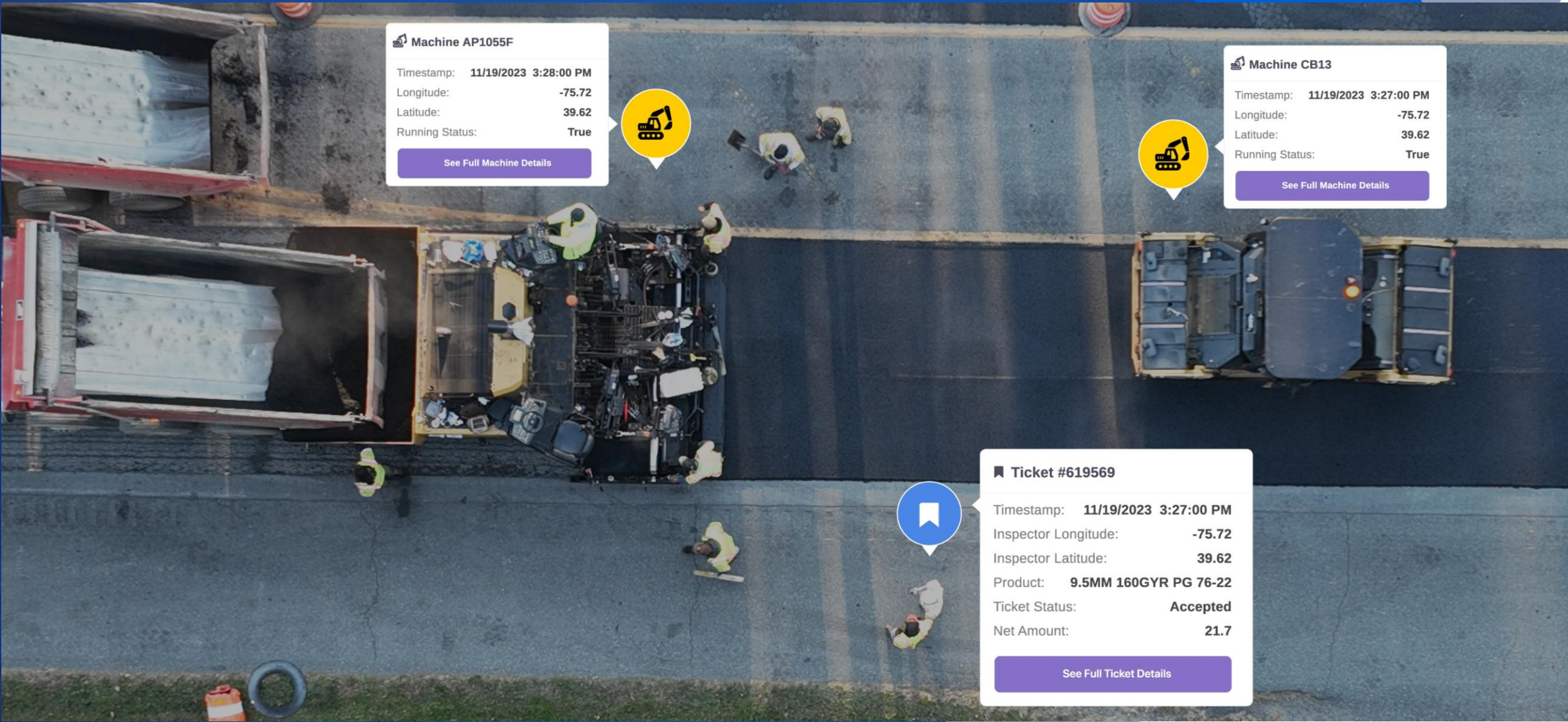
waze





Connected Work Zone Driver view





 **Machine AP1055F**

Timestamp: **11/19/2023 3:28:00 PM**
Longitude: **-75.72**
Latitude: **39.62**
Running Status: **True**

[See Full Machine Details](#)



 **Machine CB13**

Timestamp: **11/19/2023 3:27:00 PM**
Longitude: **-75.72**
Latitude: **39.62**
Running Status: **True**

[See Full Machine Details](#)



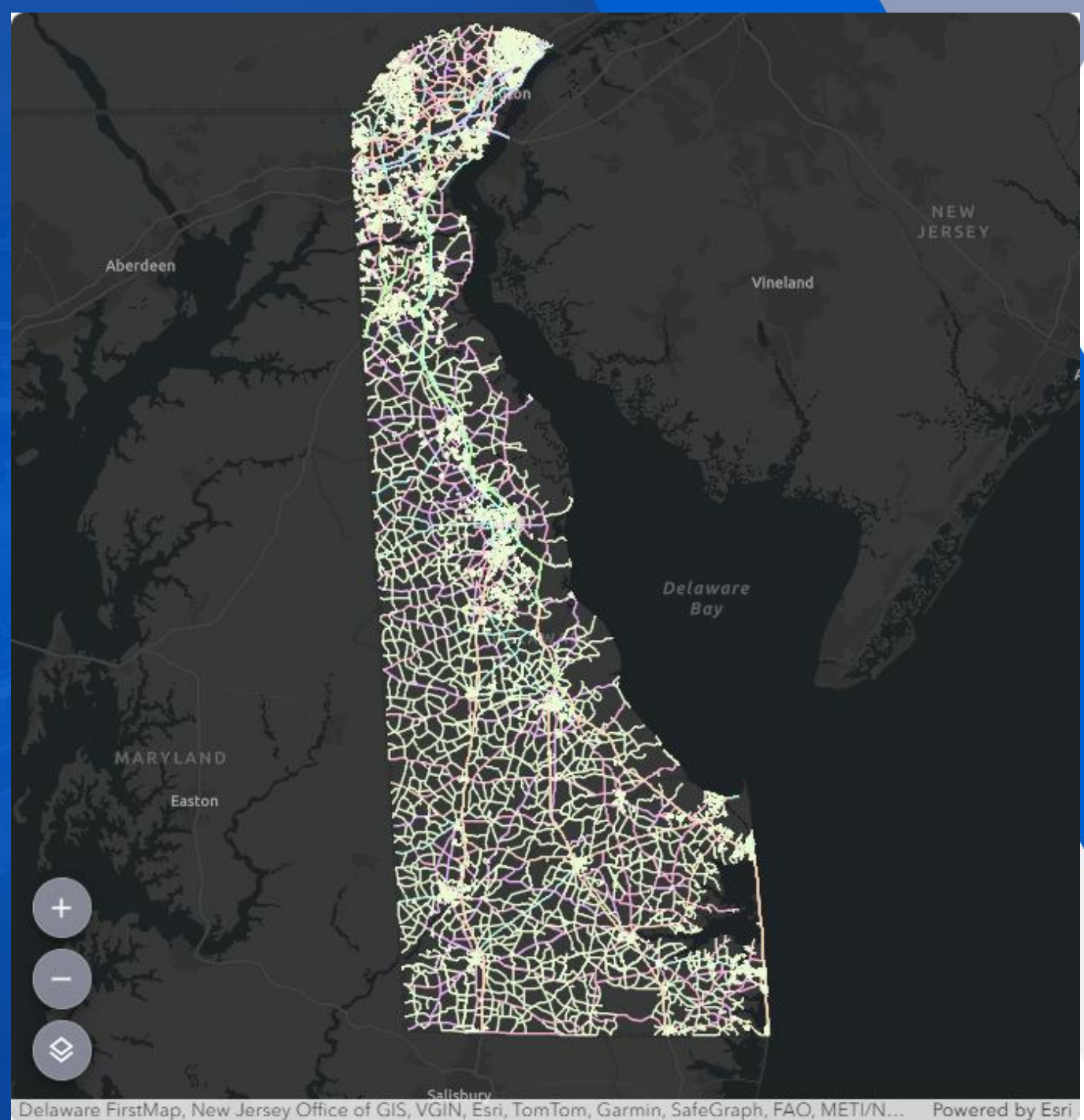
 **Ticket #619569**

Timestamp: **11/19/2023 3:27:00 PM**
Inspector Longitude: **-75.72**
Inspector Latitude: **39.62**
Product: **9.5MM 160GYR PG 76-22**
Ticket Status: **Accepted**
Net Amount: **21.7**

[See Full Ticket Details](#)

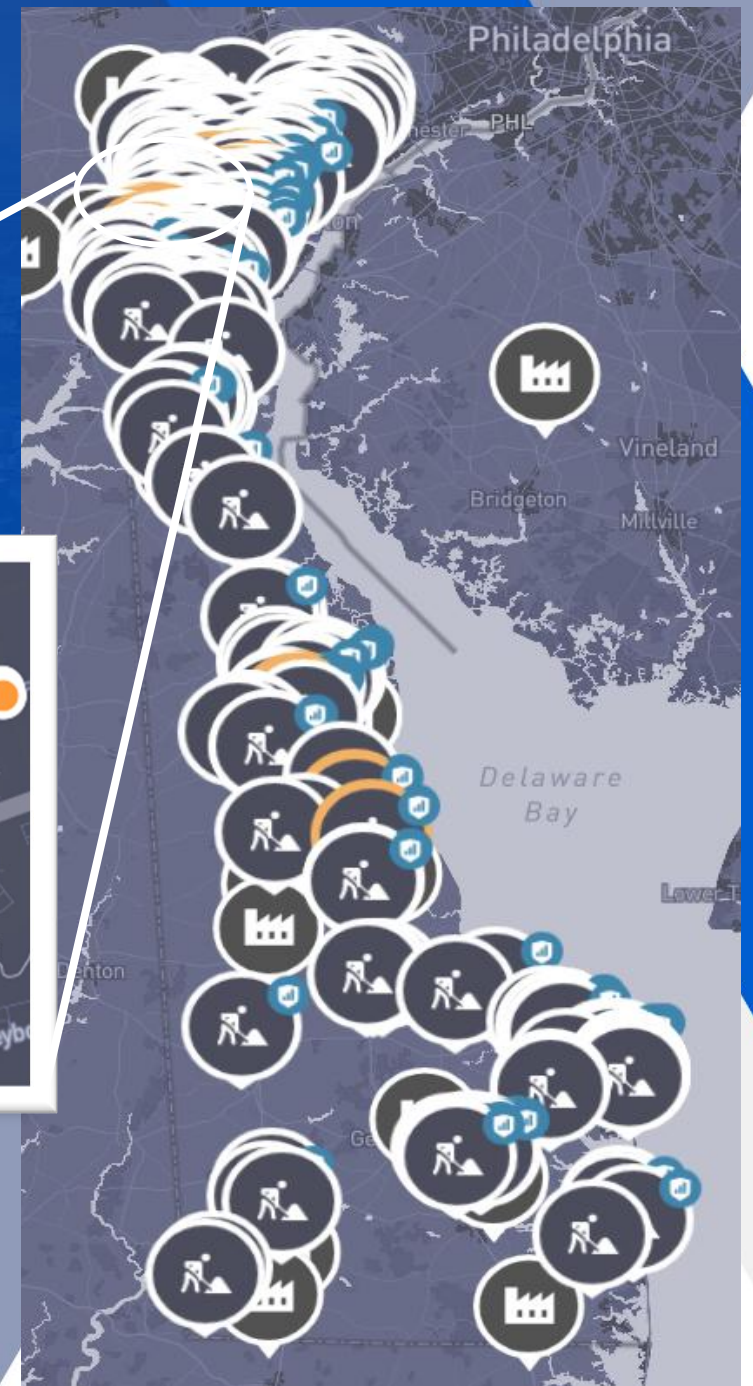
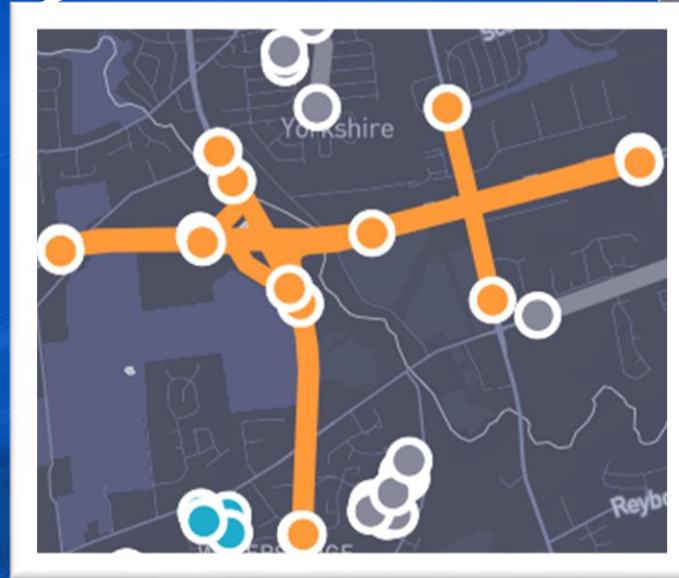


DeIDOT
maintains 90+%
of the roadways
in Delaware.



Work Zone Map:

- Geofence created for connected equipment and e-ticketing.
- Digital Stationing created.



Progress

- We've connected most of our major contractors including 117 pieces of equipment.
- Of the 180 projects DelDOT has within EDOT, we have defined 346 work zone.
- From those work zones, ≈1.3M notifications have been pushed to Waze

Next Steps...

- Safety Notifications for Every Project
- Connected Equipment Feeding Daily Work Summaries
- Work Zones Established in Vehicle-To-Everything (V2X)
- Provide Easy, Accurate As-Builts to Asset Management
- Data in a Digital Format
- Prepare, Don't Predict
- **Make our Staff Safer and More Efficient**

Questions & Comments

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