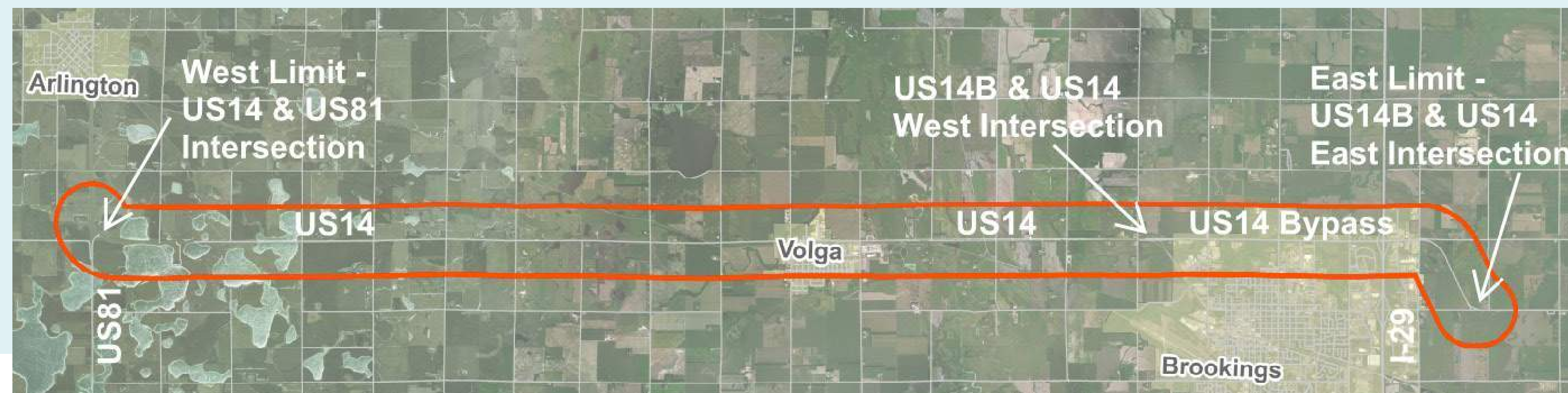


# US14-US14 Bypass Corridor Study

## PUBLIC INFORMATION MEETING AND OPEN HOUSE

Presentation at 5:40 p.m.

*Please sign in at the Registration Table*



# Get Involved

## LEAVE A COMMENT:

Today, please provide feedback on your experiences in the corridor. Comment forms are available at the registration table and completed forms should be submitted by: **July 12, 2019**

## MARK YOUR CALENDAR:

### Next Public Information Meeting: Fall 2019

Join us for a presentation of corridor concepts and preliminary evaluation for your review and comment.

## PROJECT CONTACTS:

### Jon Wiegand, P.E., PTOE

Consultant Project Manager (HDR)

605-782-8105 | jonathan.wiegand@hdrinc.com

### Steve Gramm, P.E.

SDDOT Project Manager

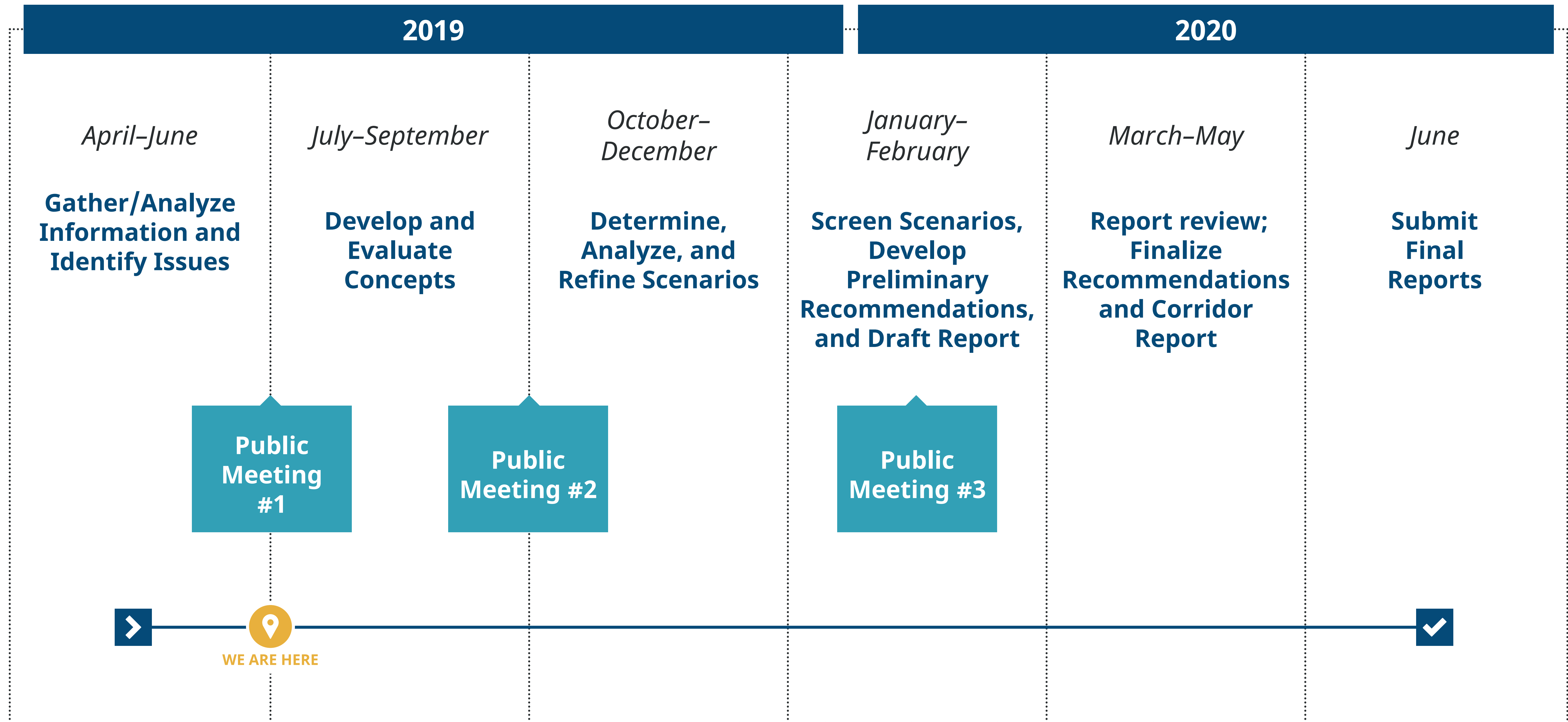
605-773-6641 | steve.gramm@state.sd.us

# Stay Connected

Throughout the study, materials will be posted on the project website to keep the public informed on the progress of the study.

[www.us14-14bcorridor.com](http://www.us14-14bcorridor.com)

# Study Schedule



# Study Area Crash History (2014-2018)

**Total Crashes: 288**

Intersections: 80

Roadway segments: 208

## Injury Severity Summary

Fatal injury: 5

Incapacitating injury: 7

Non-incapacitating injury: 6

Possible injury: 25

No injury: 245

## Manner of Collision Summary

No Collision between 2 motor vehicles: 49

Vehicle-animal: 134

Rear-end: 41

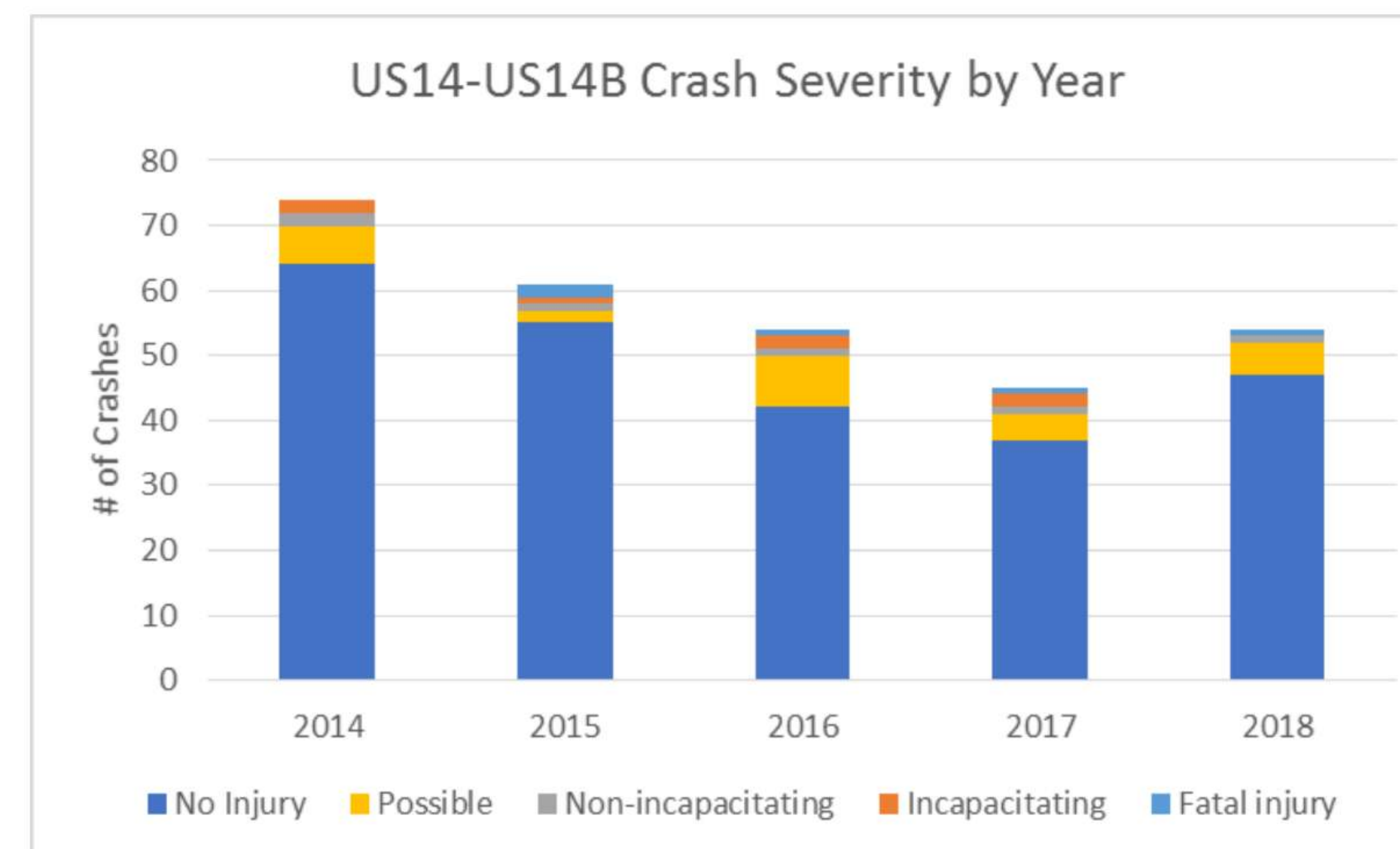
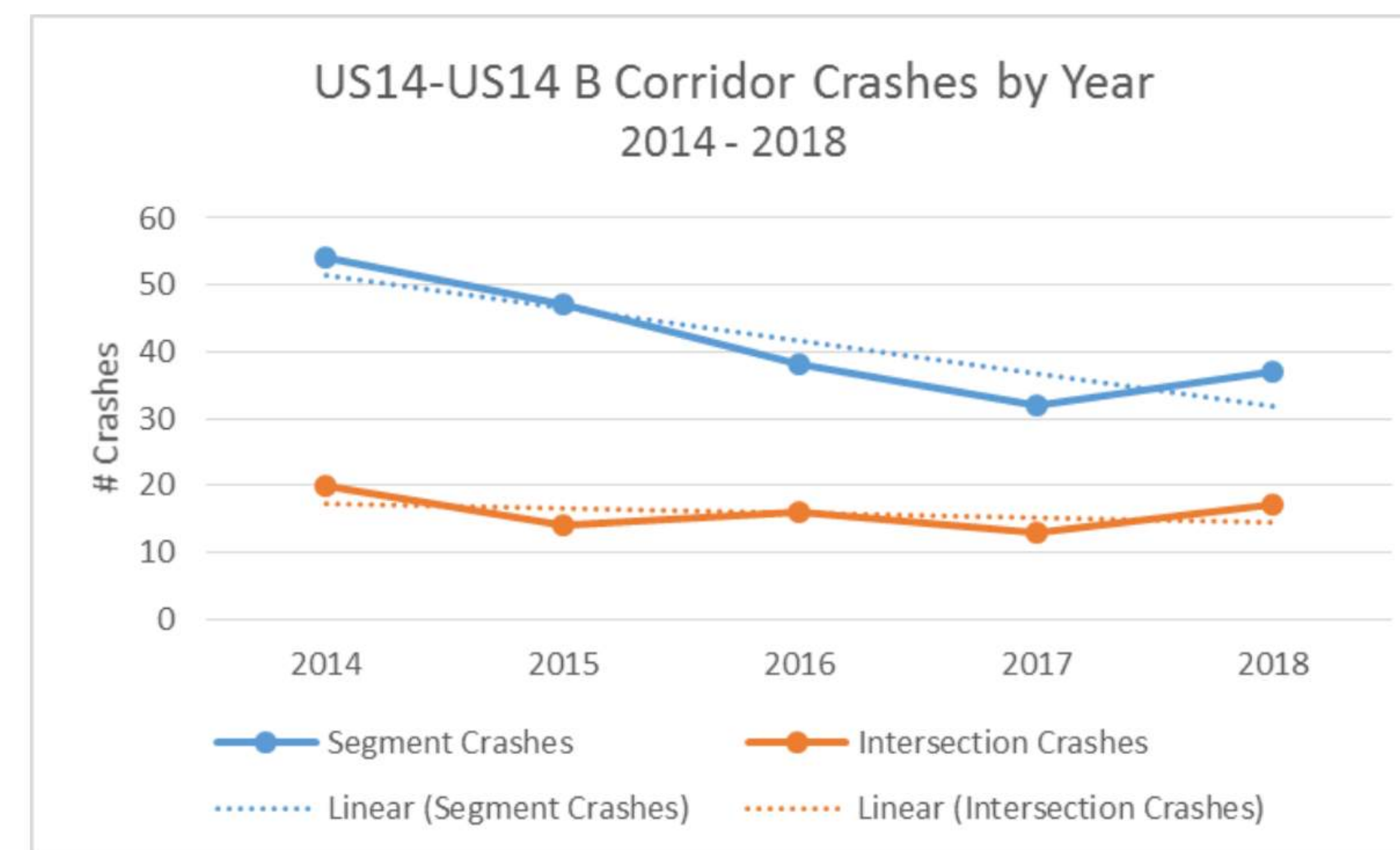
Angle: 48

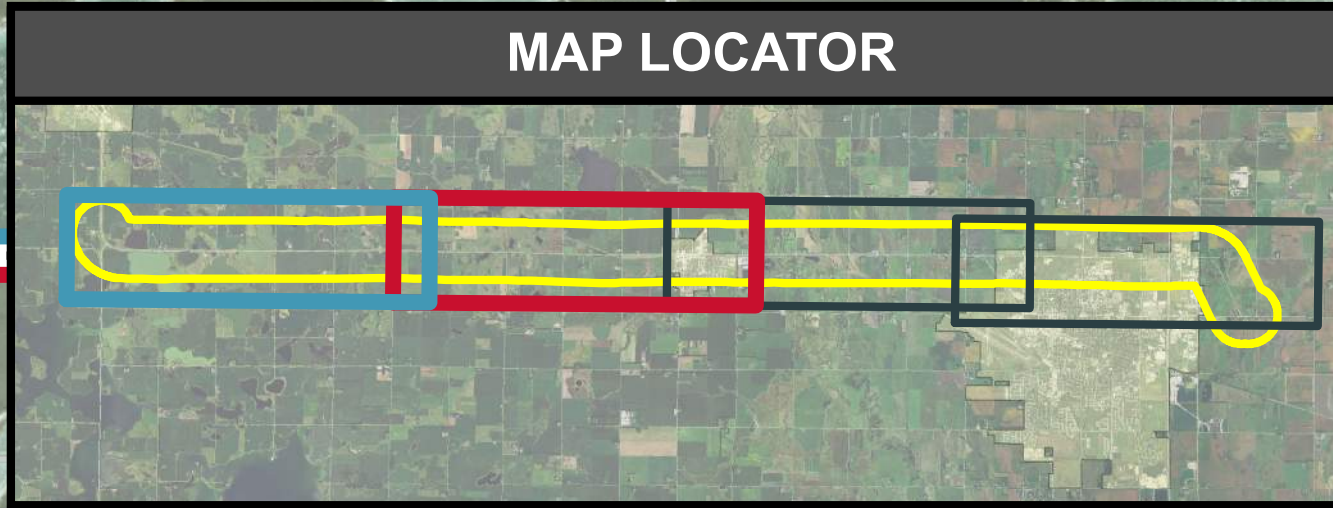
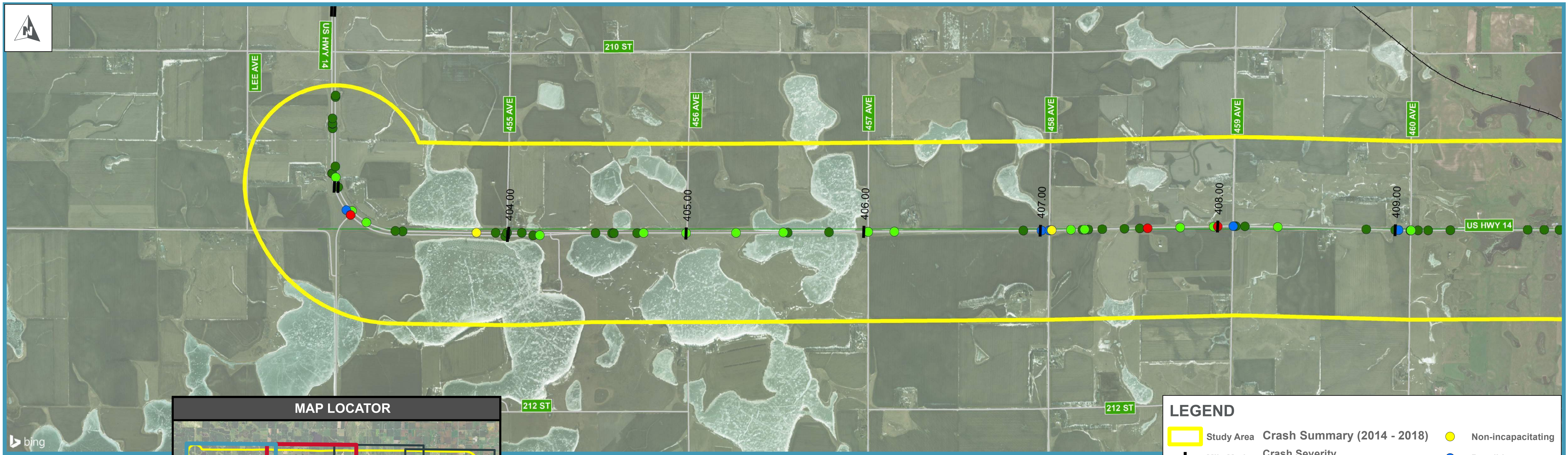
Sideswipe: 13

Head-on: 3

## Snow, Ice, Slush Road Conditions

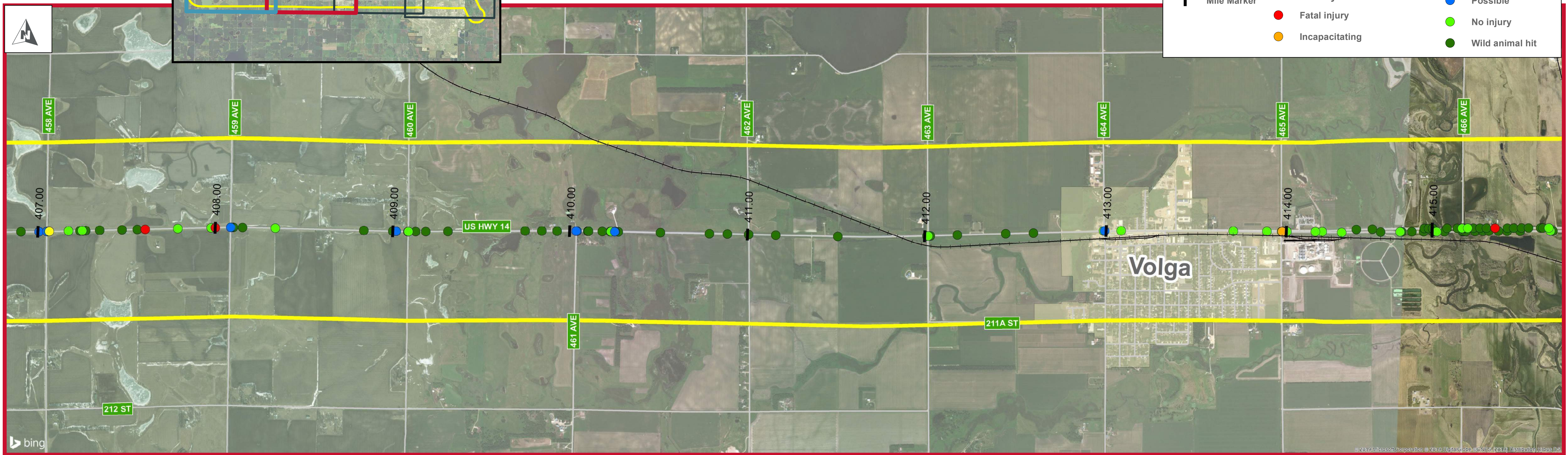
50 crashes noted snow, ice, or slush road conditions





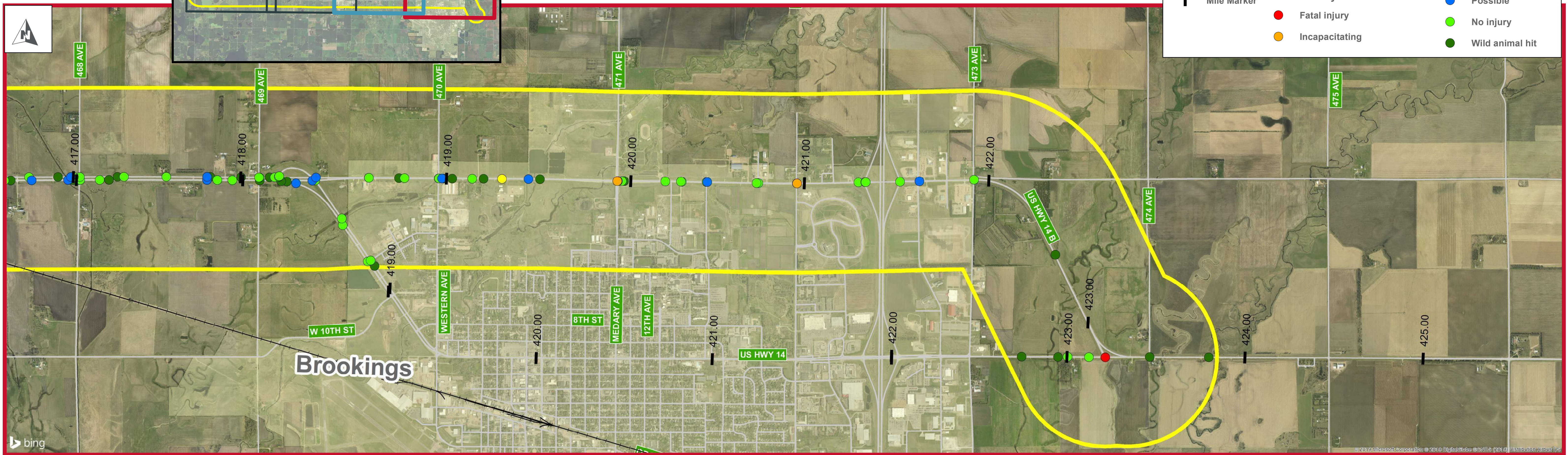
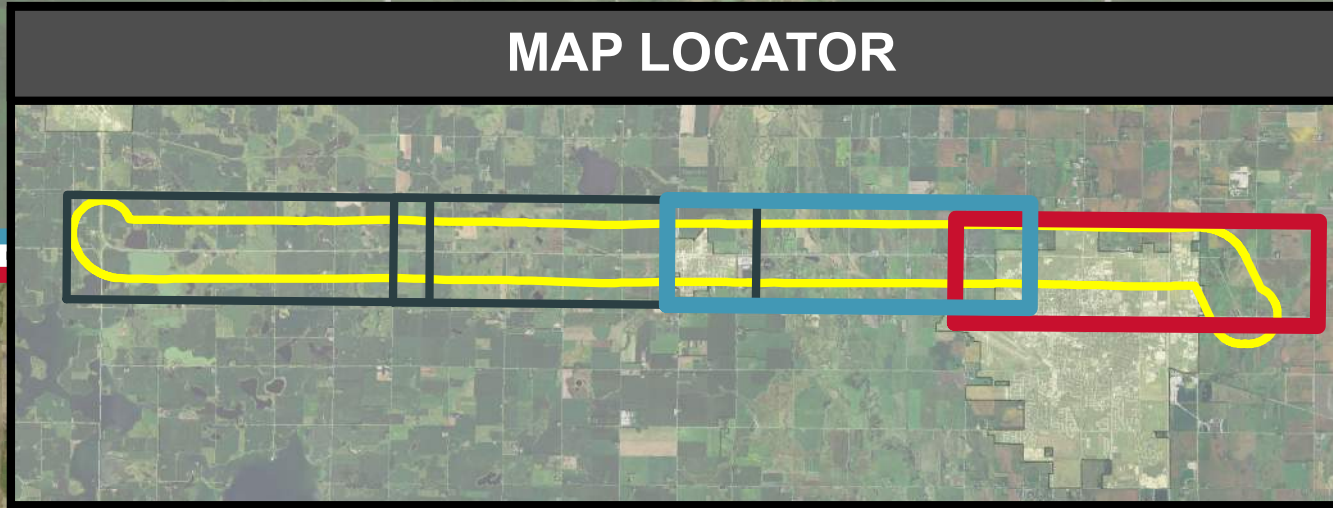
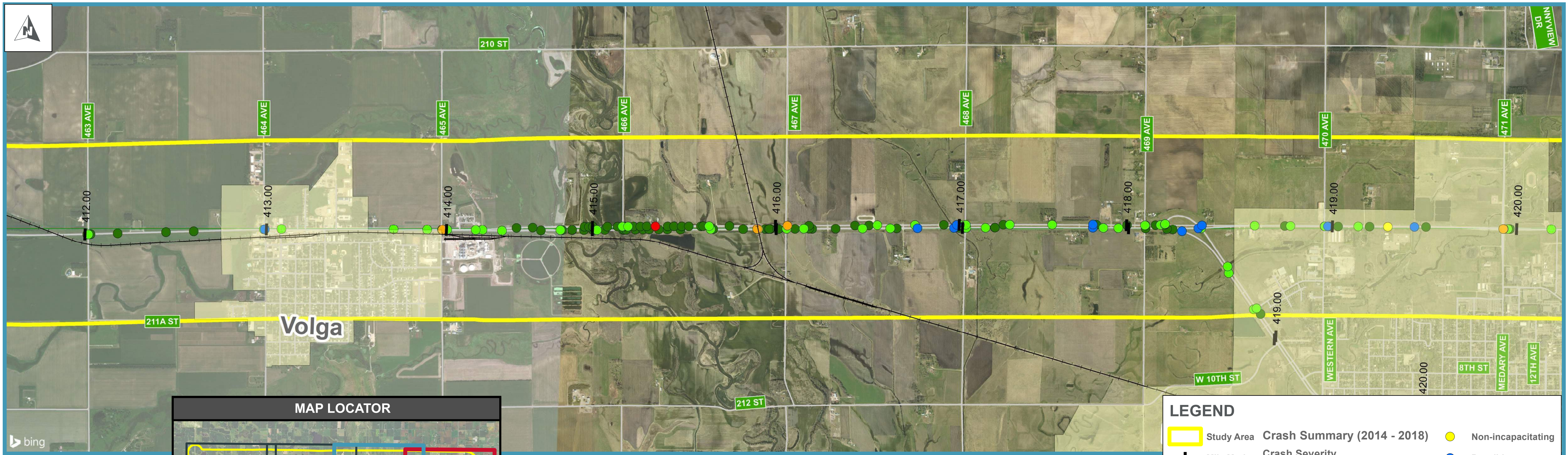
**LEGEND**

Study Area	<b>Crash Summary (2014 - 2018)</b>	Non-incapacitating
Mile Marker	<b>Crash Severity</b>	Possible
	Fatal injury	No injury
	Incapacitating	Wild animal hit



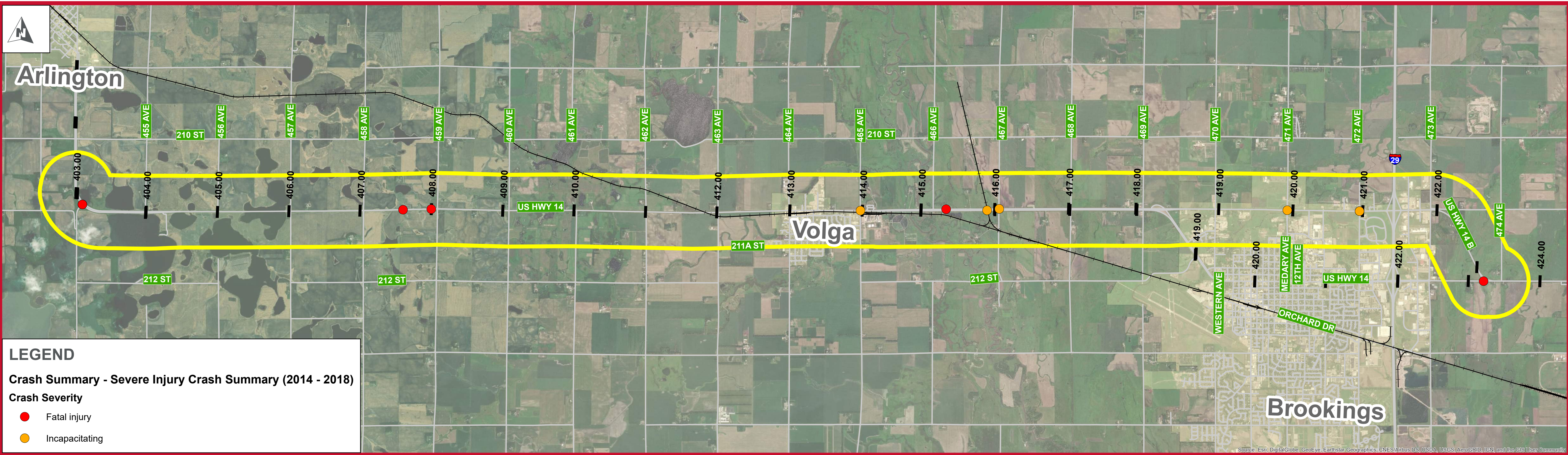
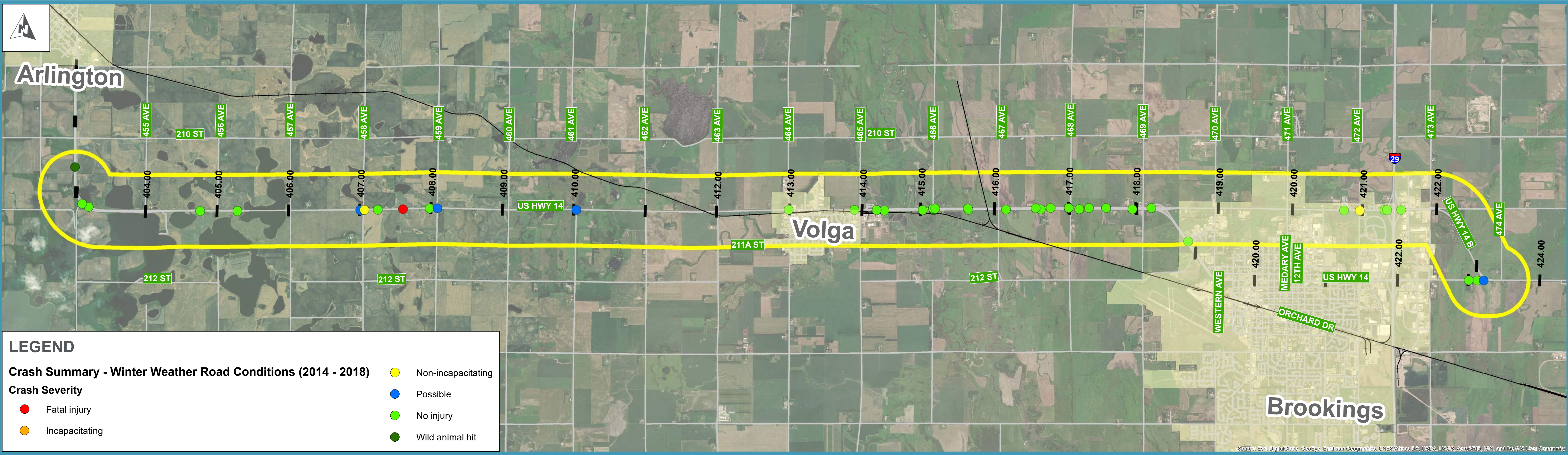
**CRASH SUMMARY (2014 - 2018)**





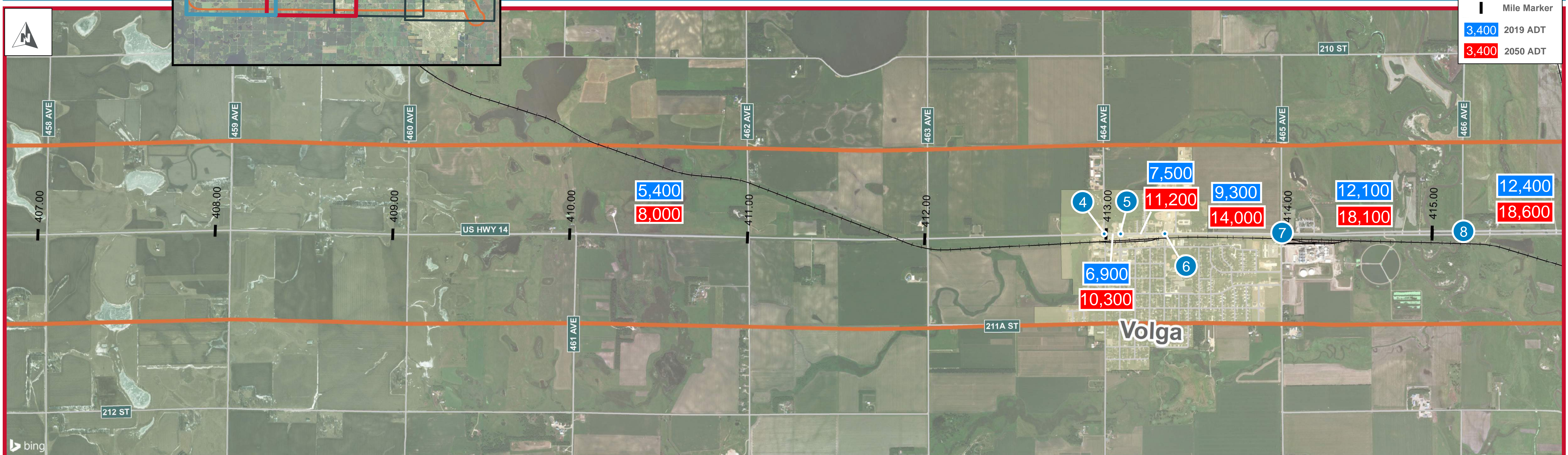
**CRASH SUMMARY (2014 - 2018)**

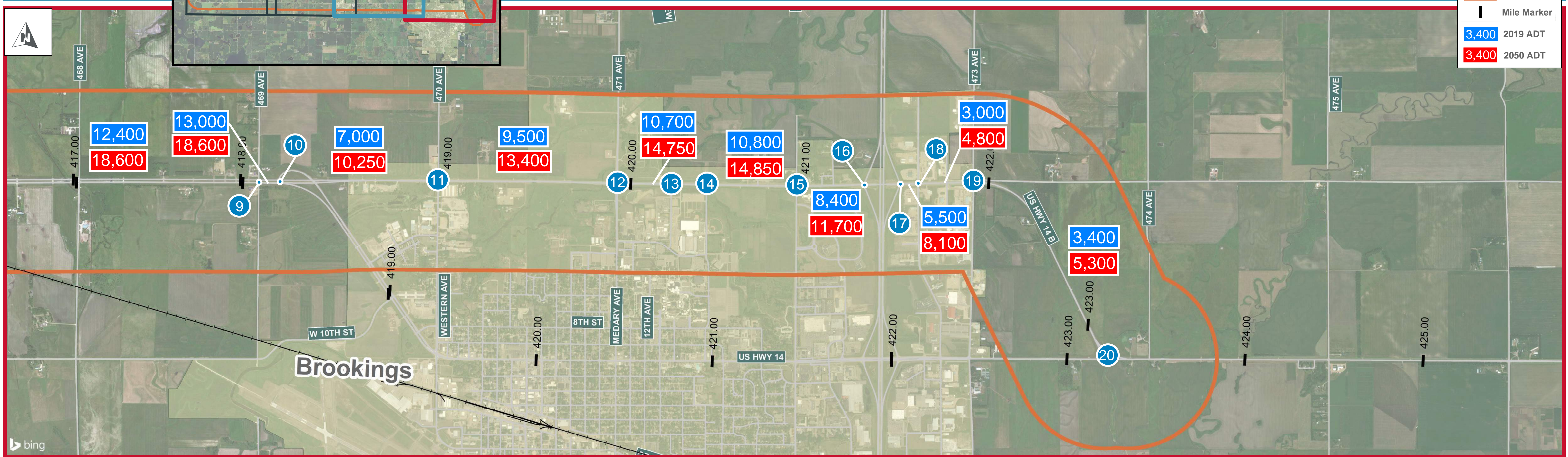




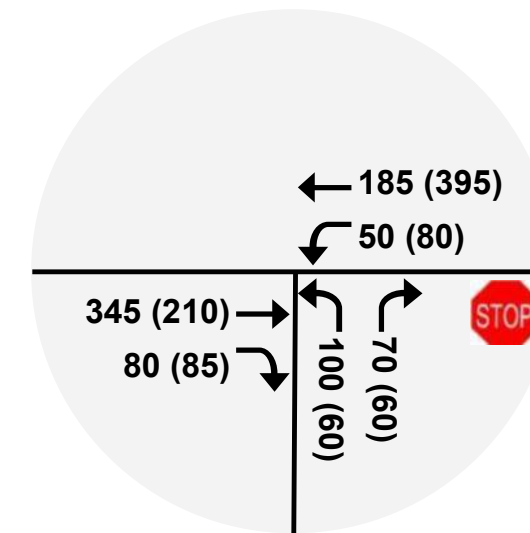
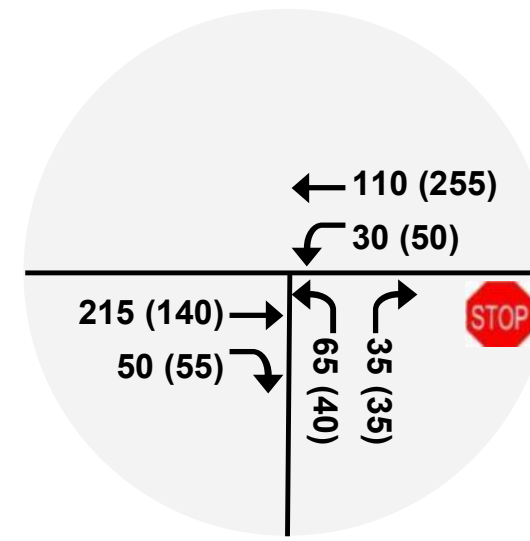
CRASH SUMMARY (2014 - 2018)





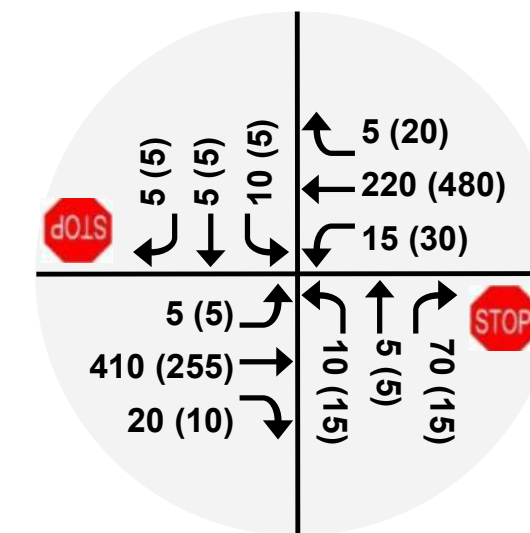
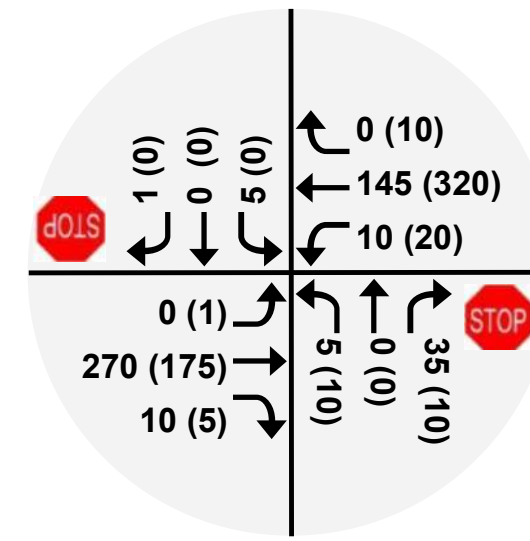


1 US 14 & US 81



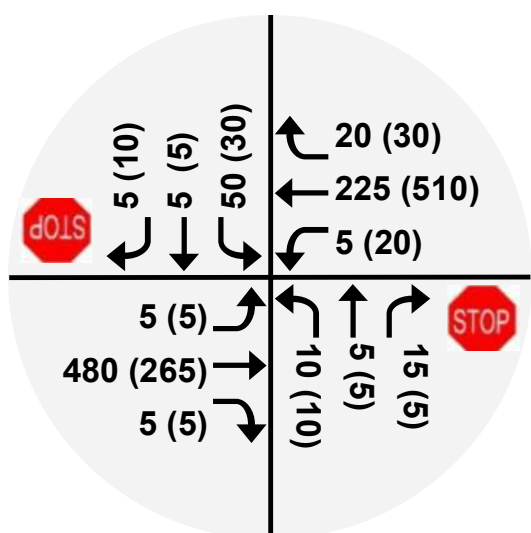
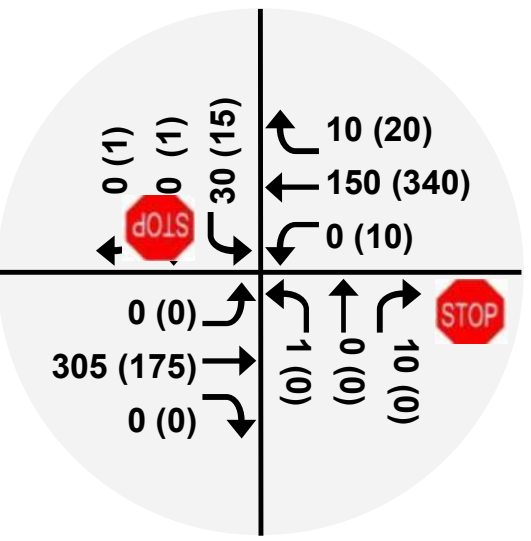
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Overall	A	A	A	A
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WB	A	A	A	A
NB	B	B	B	B

2 US 14 & Brookings Co. 11 / 458th Ave



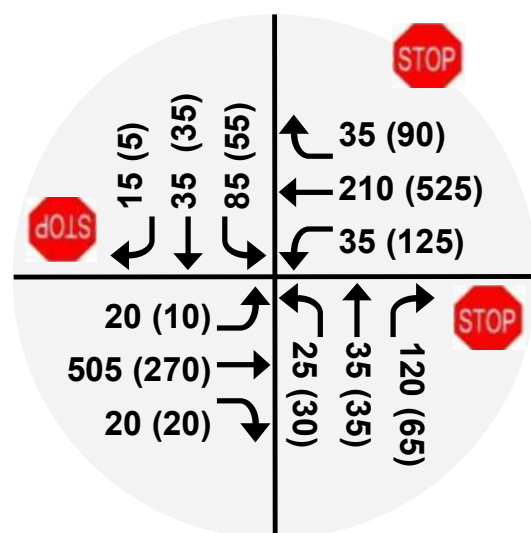
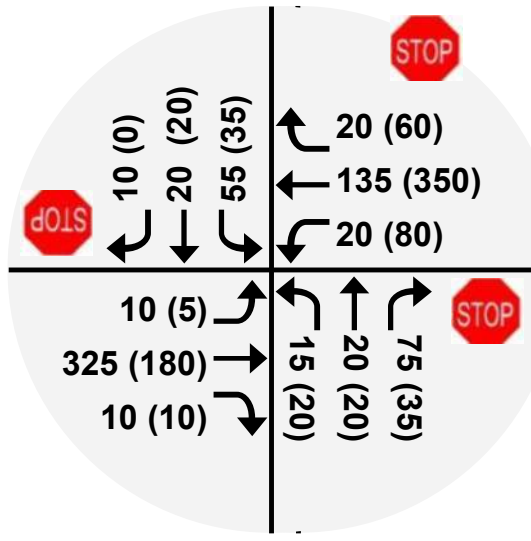
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Overall	A	A	A	A
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WB	A	A	A	A
NB	B	B	C	C
SB	B	A	C	C

3 US 14 & Brookings Co. 1 / 459th Ave



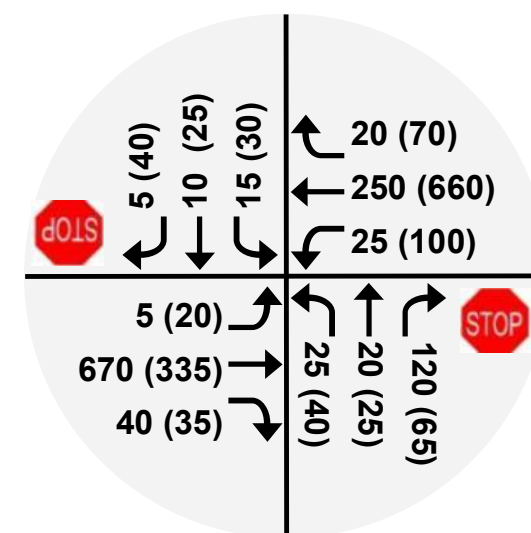
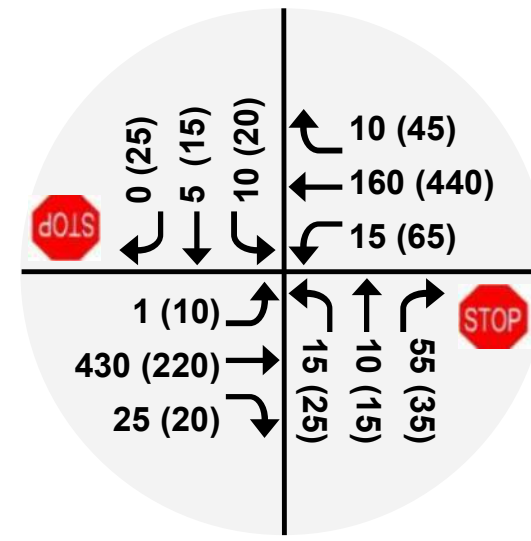
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EB	A	A	A	A
WB	A	A	A	A
NB	B	B	C	C
SB	B	B	D	D

4 US 14 & Brookings Co. 5 / 464th Ave



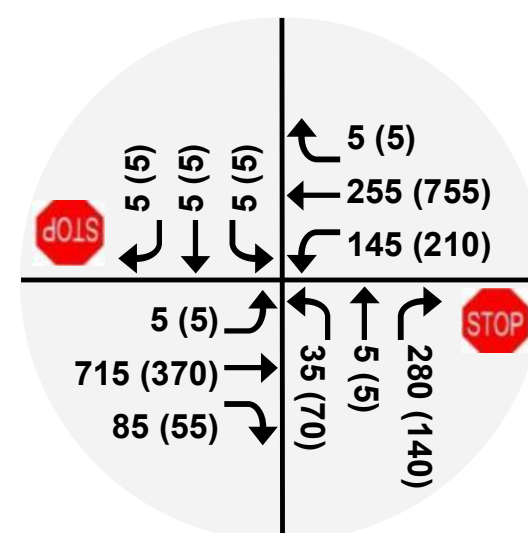
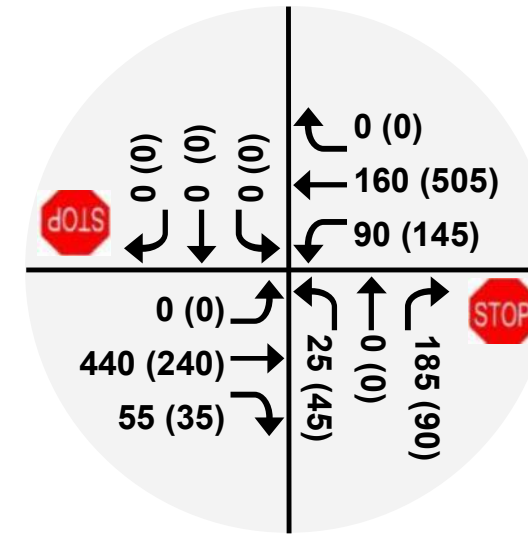
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	(AM)	(PM)	(AM)	(PM)
Overall	A	A	E	F
EB	A	A	A	A
WB	A	A	A	A
NB	B	C	E	F
SB	C	D	F	F

5 US 14 & Kasan Ave



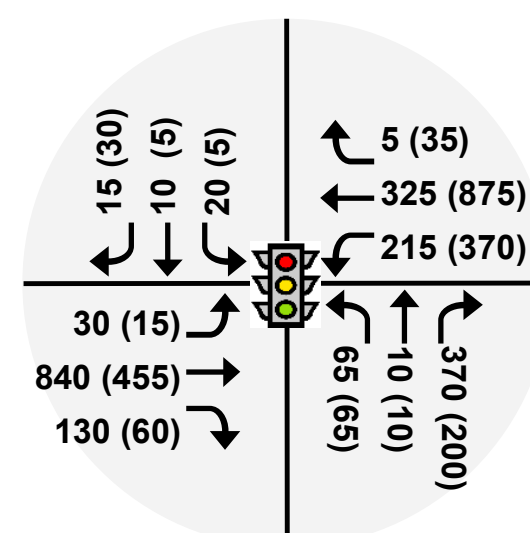
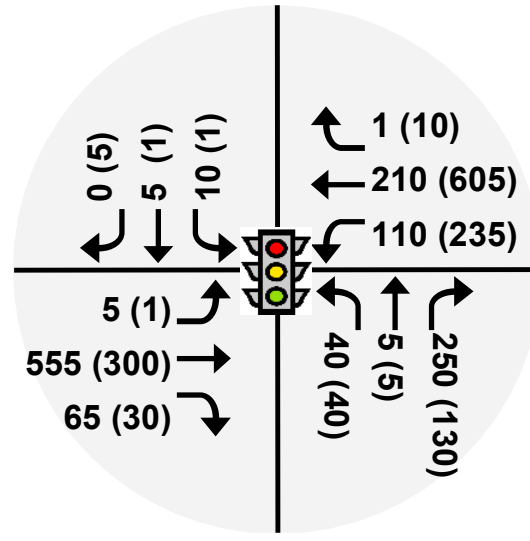
Approach	2019	2019	2050	2050
	(AM)	(PM)	(AM)	(PM)
Overall	A	A	A	B
EB	A	A	A	A
WB	A	A	A	A
NB	B	B	D	F
SB	B	C	C	F

6 US 14 & Hansina Ave



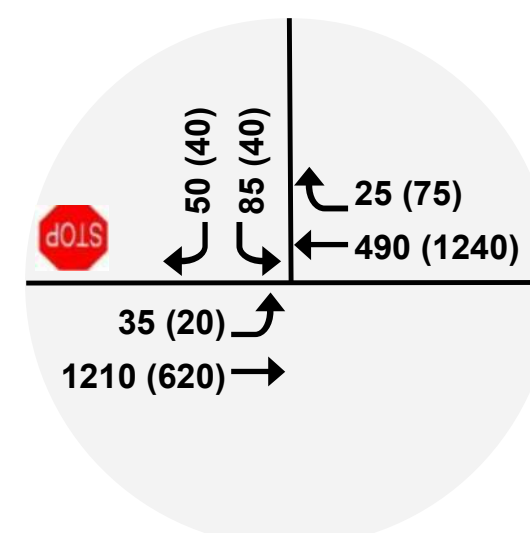
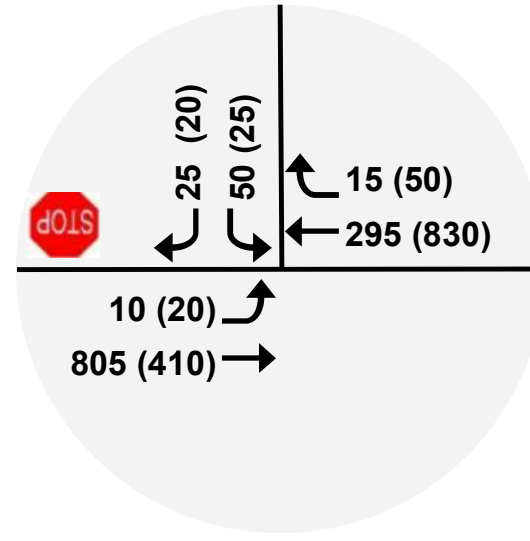
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	(AM)	(PM)	(AM)	(PM)
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EB	A	A	A	A
WB	A	A	A	A
NB	B	B	F	F
SB	A	A	A	F

7 US 14 & Caspian Ave



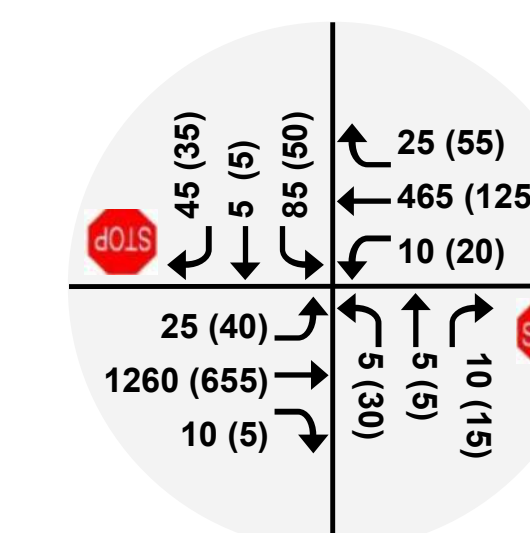
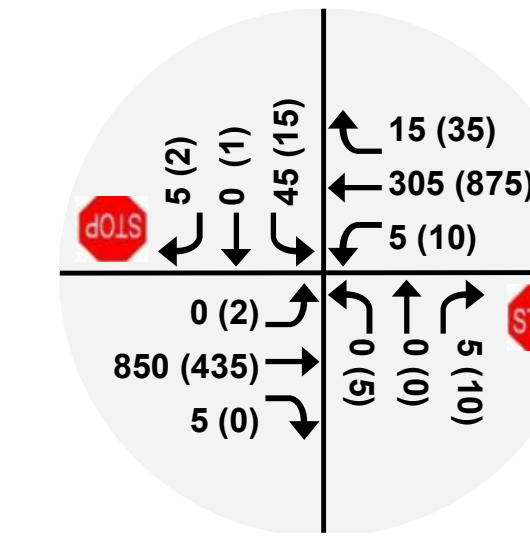
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	(AM)	(PM)	(AM)	(PM)
Overall	C	C	F	C
EB	B	C	E	D
WB	B	B	D	C
NB	C	D	F	D
SB	C	C	C	C

8 US 14 & Brookings Co. 7 / 466th Ave



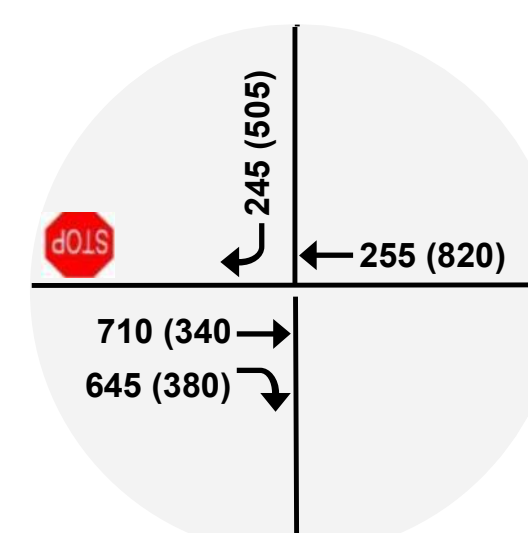
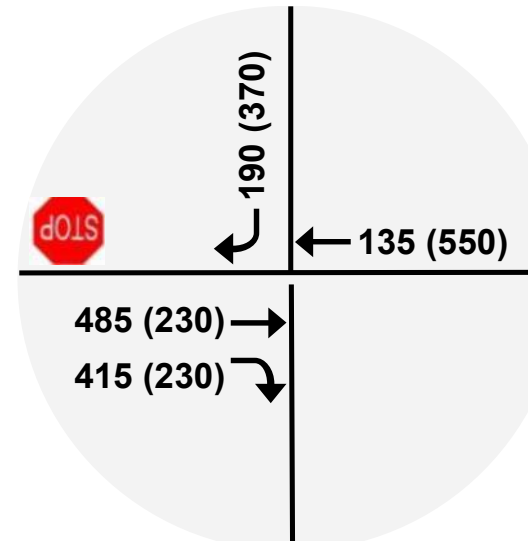
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EB	A	A	A	A
WB	A	A	A	A
NB	A	A	A	A
SB	B	C	C	E

9 US 14 & Brookings Co. 9 / 16th Ave W / 469th Ave



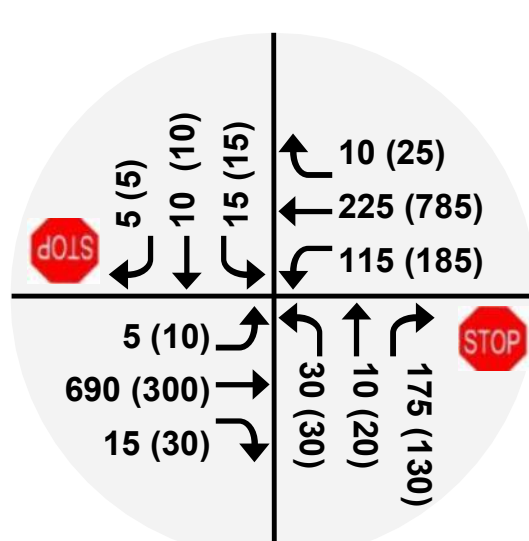
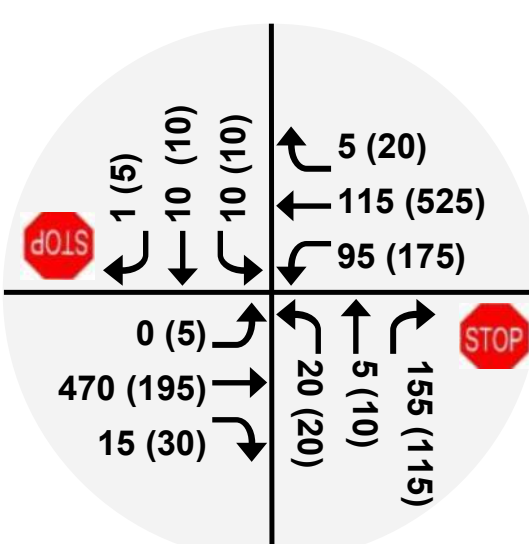
Approach	2019	2019	2050	2050
	(AM)	(PM)	(AM)	(PM)
Overall	A	A	B	A
EB	A	A	A	A
WB	A	A	A	A
NB	B	B	A	E
SB	C	C	A	F

10 US 14 & US 14 Bypass (West)



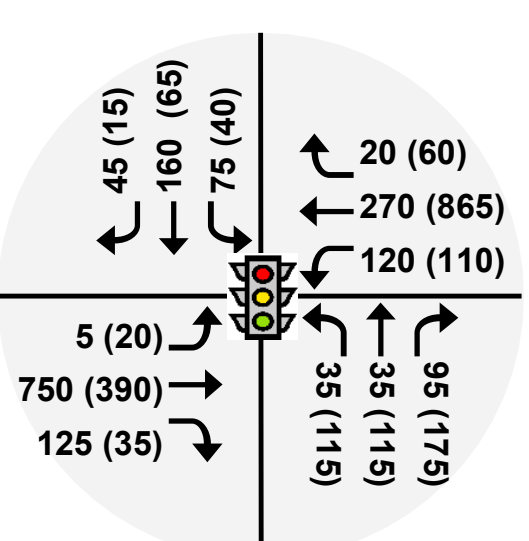
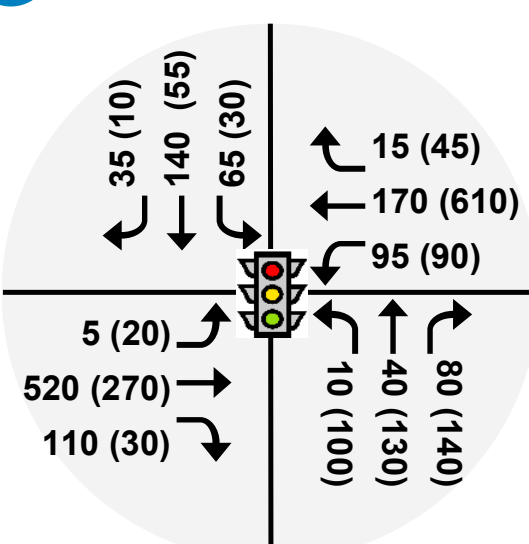
Approach	2019	2019	2050	2050
	(AM)	(PM)	(AM)	(PM)
Overall	A	A	A	A
EB	A	A	A	A
WB	A	A	A	A
NB	A	A	A	A
SB	B	C	B	F

11 US 14B & Western Ave



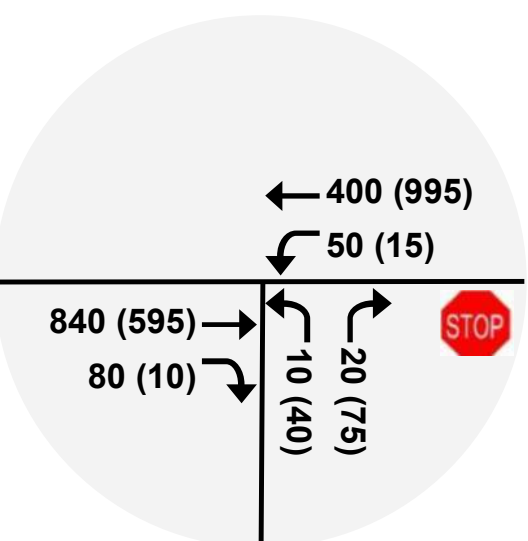
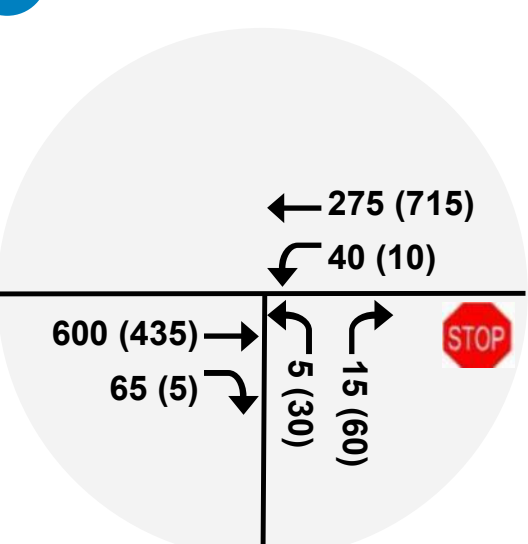
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	(AM)	(PM)	(AM)	(PM)
Overall	A	A	A	A
EB	A	A	A	A
WB	A	A	A	A
NB	D	C	E	F
SB	E	D	F	F

12 US 14B & Medary Ave



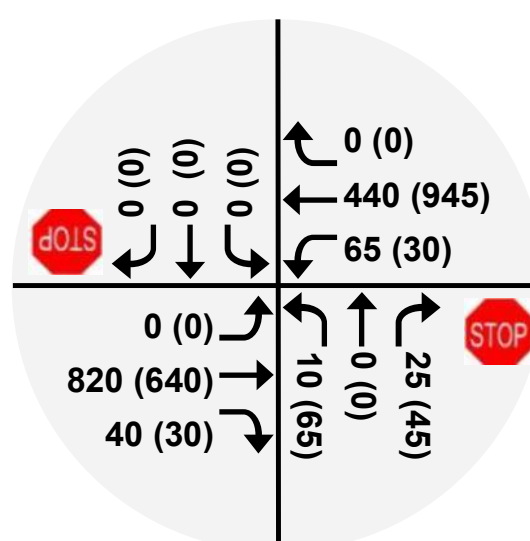
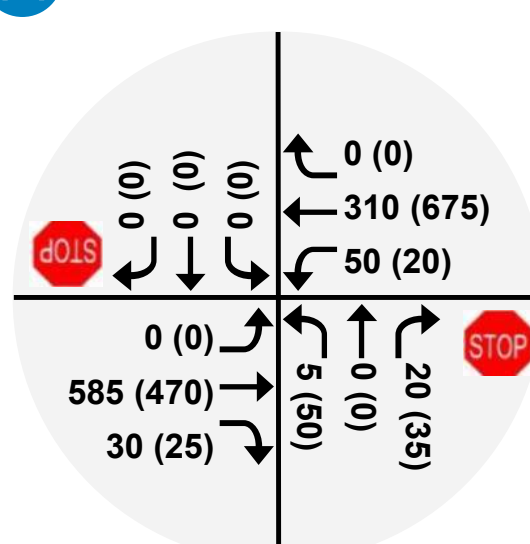
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EB	A	A	B	A
WB	A	A	B	A
NB	C	C	C	C
SB	C	C	C	C

13 US 14B & Stadium Rd



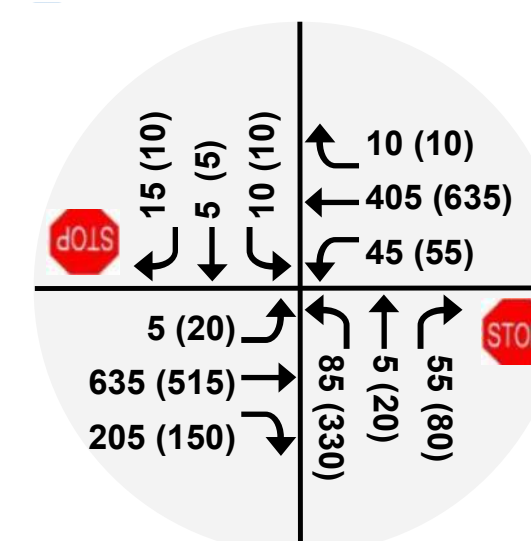
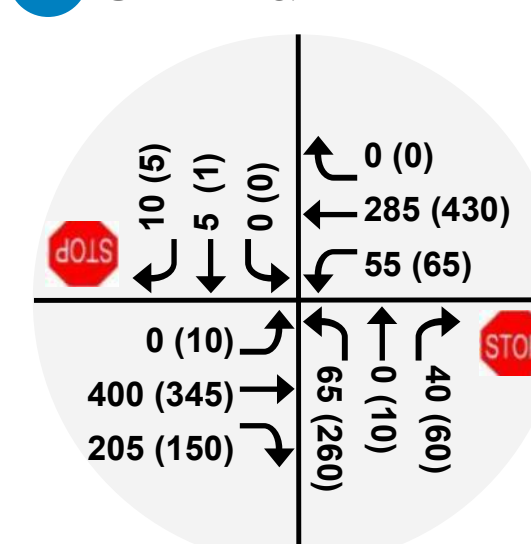
Approach	2019	2019	2050	2050
	(AM)	(PM)	(AM)	(PM)
Overall	A	A	A	A
EB	A	A	A	A
WB	A	A	A	A
NB	C	C	C	C
SB	-	-	-	-

14 US 14B & Jackrabbit Ave



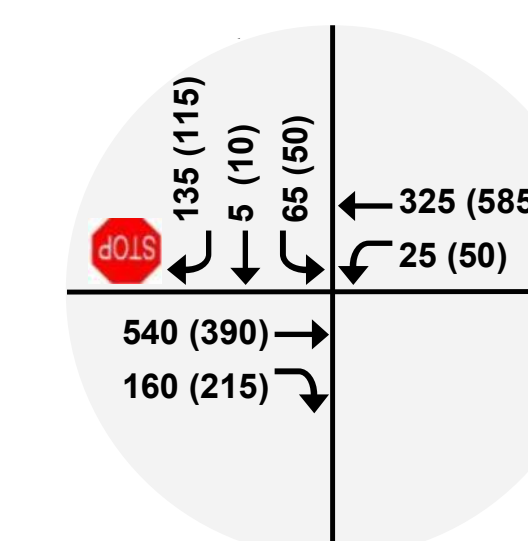
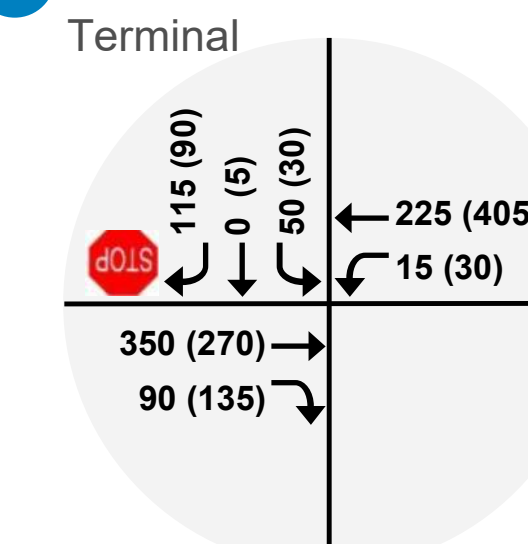
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	(AM)	(PM)	(AM)	(PM)
Overall	A	A	A	A
EB	A	A	A	A
WB	A	A	A	A
NB	C	C	C	D
SB	A	A	A	A

15 US 14B & 22nd Ave



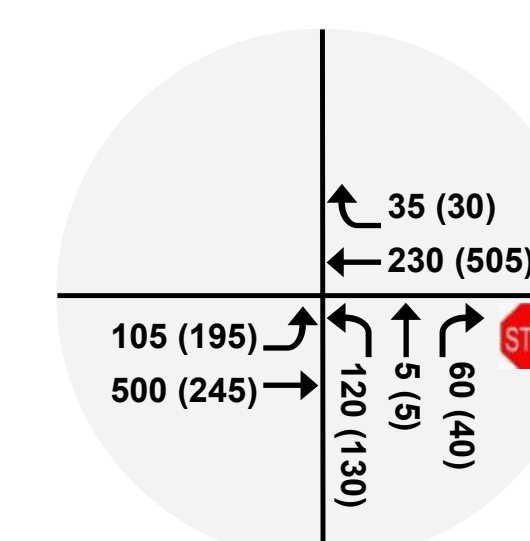
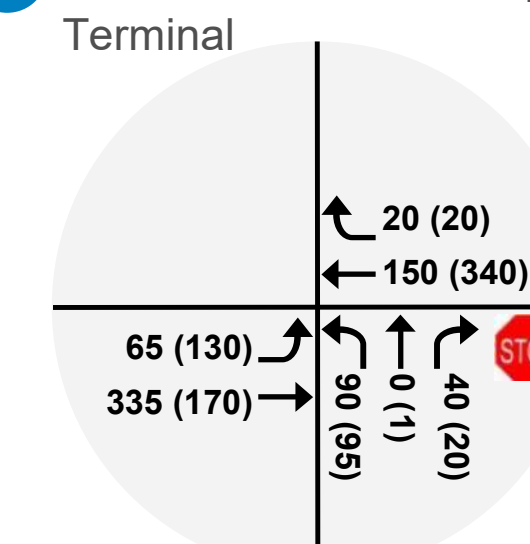
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Overall	A	F	A	F
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WB	A	A	A	A
NB	C	F	D	F
SB	B	B	C	D

16 US 14B & I-29 SB Ramp Terminal



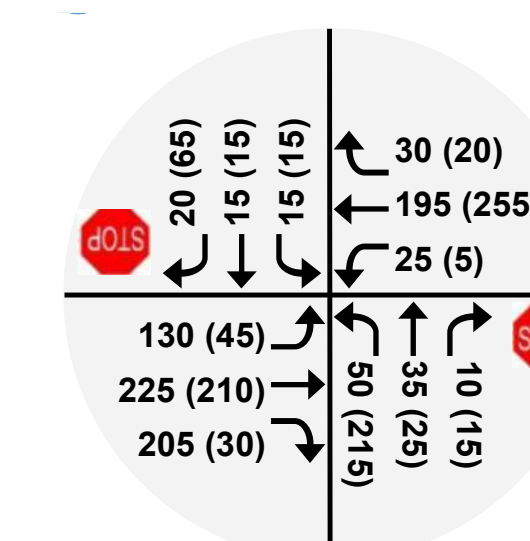
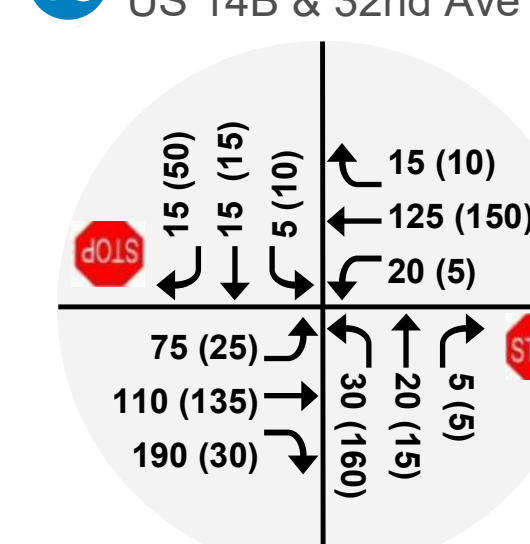
Approach	2019	2019	2050	2050
	(AM)	(PM)	(AM)	(PM)
Overall	A	A	A	A
EB	A	A	A	A
WB	A	A	A	A
NB	B	C	C	E
SB	-	-	-	-

17 US 14B & I-29 NB Ramp Terminal



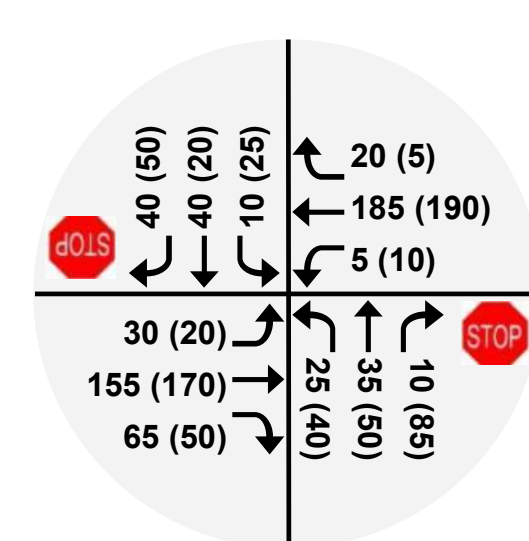
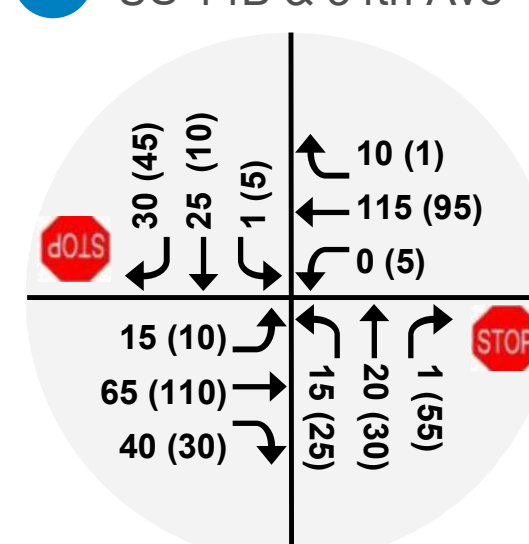
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Overall	A	A	A	D
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WB	A	A	A	A
NB	C	D	E	F
SB	-	-	-	-

18 US 14B & 32nd Ave



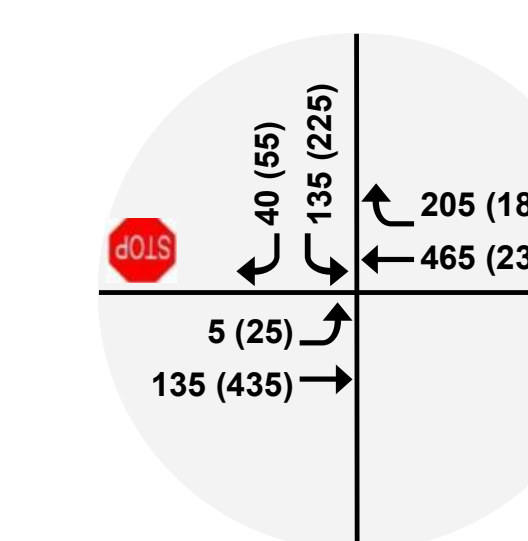
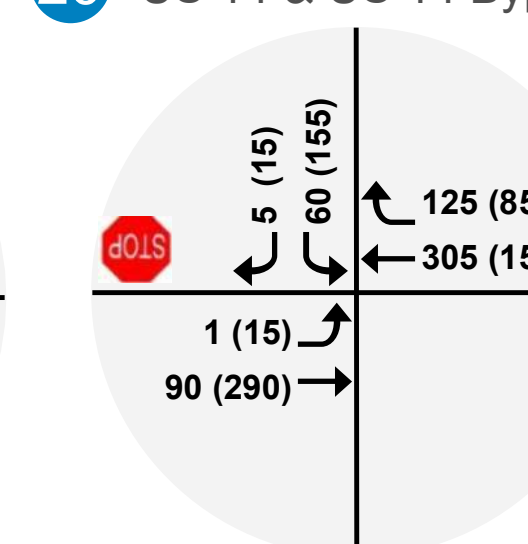
Approach	2019	2019	2050	2050
	(AM)	(PM)	(AM)	(PM)
Overall	A	A	A	B
EB	A	A	A	A
WB	A	A	A	A
NB	C	C	C	E
SB	B	B	C	B

19 US 14B & 34th Ave



Approach	2019	2019	2050	2050
	(AM)	(PM)	(AM)	(PM)
Overall	A	A	A	A
EB	A	A	A	A
WB	A	A	A	A
NB	B	B	B	B
SB	B	A	B	B

20 US 14 & US 14 Bypass (East)



Approach	2019	2019	2050	2050
	(AM)	(PM)	(AM)	(PM)
Overall	A	A	A	A
EB	A	A	A	A
WB	A	A	A	A
NB	A	A	A	A
SB	B	C	C	D

# Level of Service (LOS) Definitions

## Signalized Intersections

LOS	Description	Intersection Control Delay (seconds/vehicle)
A	Very minimal queuing; excellent corridor progression	≤ 10
B	Some queuing; good corridor progression	> 10 - 20
C	Regular queuing; not all demand may be serviced on some cycles (cycle failure)	> 20 - 35
D	Queue lengths increased; routine cycle failures	> 35 - 55
E	Majority of cycles fail	> 55 - 80
F	Volume to capacity ratio near 1.0; very long queues, almost all cycles fail	> 80

## AWSC and TWSC Intersections

LOS	Description	Intersection Control Delay (seconds/vehicle)
A	Queuing is rare	≤ 10
B	Occasional queuing	> 10 - 15
C	Regular queuing	> 15 - 25
D	Queue lengths increased	> 25 - 35
E	Significant queuing	> 35 - 50
F	Volume to capacity ratio approaches 1.0; very long queues	> 50

\* Control Delay Measures:

AWSC intersections measured as intersection control delay.

TWSC measured as stop-controlled approach delay.

TWSC Weighted Average measured as intersection control delay, where major through movements typically experience no delay.

## Two-Lane Principal Arterial Highway (Class I)

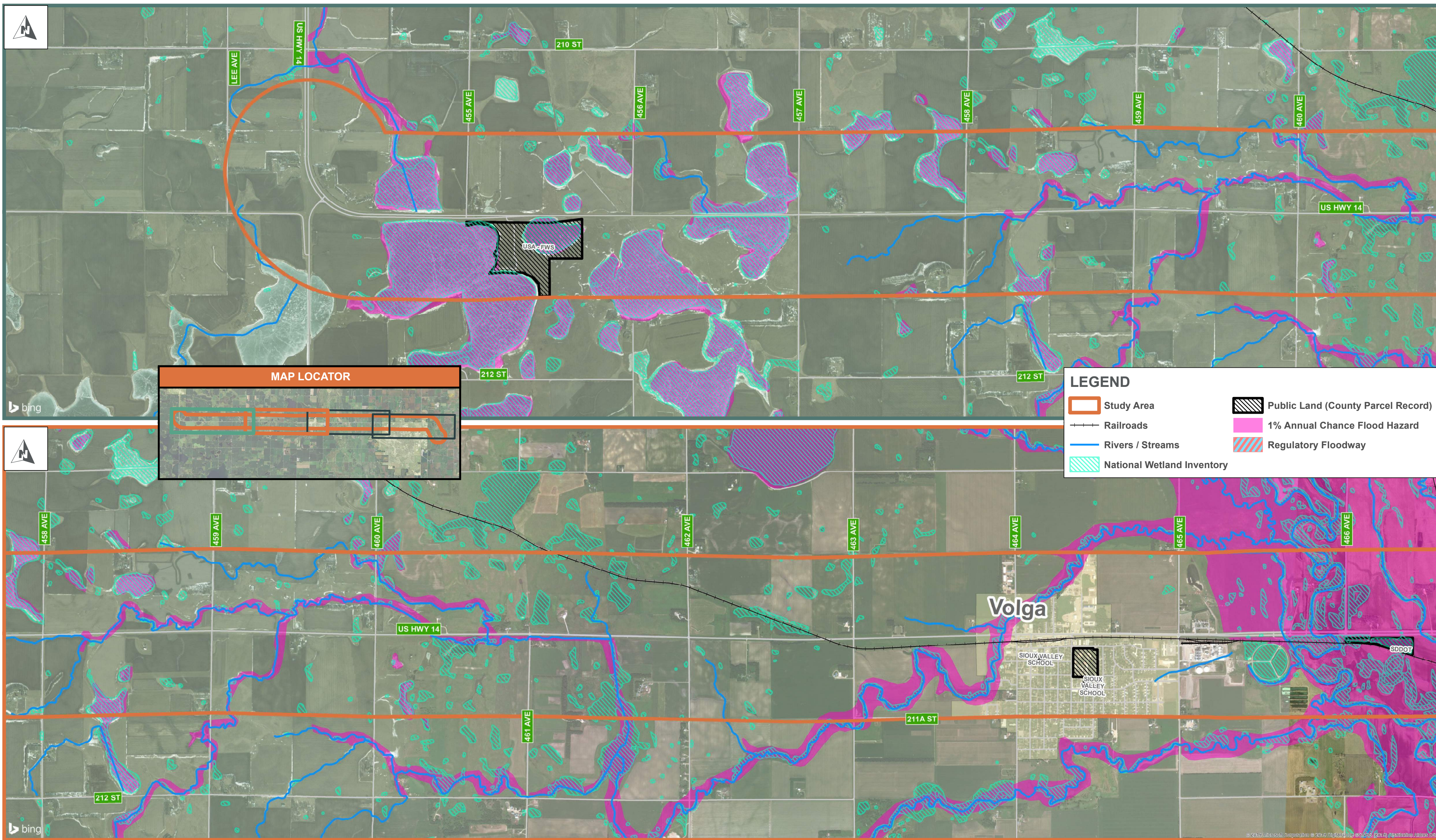
LOS	Description	Average Travel Speed (mi/h)	Percent Time Spent Following (%)
A	Little platooning; almost unlimited passing opportunities	> 55	≤ 35
B	Some platooning; passing demand & opportunities are balanced	> 50 - 55	> 35 - 50
C	Most vehicles are in a platoon; speeds are reduced	> 45 - 50	> 50 - 65
D	Platooning significantly increases; passing demand far exceeds passing opportunities	> 40 - 45	> 65 - 80
E	Facility operates near capacity; almost no passing opportunities	≤ 40	> 80
F	Over capacity; unstable flow; operational breakdown	Demand exceeds capacity	Demand exceeds capacity

## Multilane Principal Arterial Highway

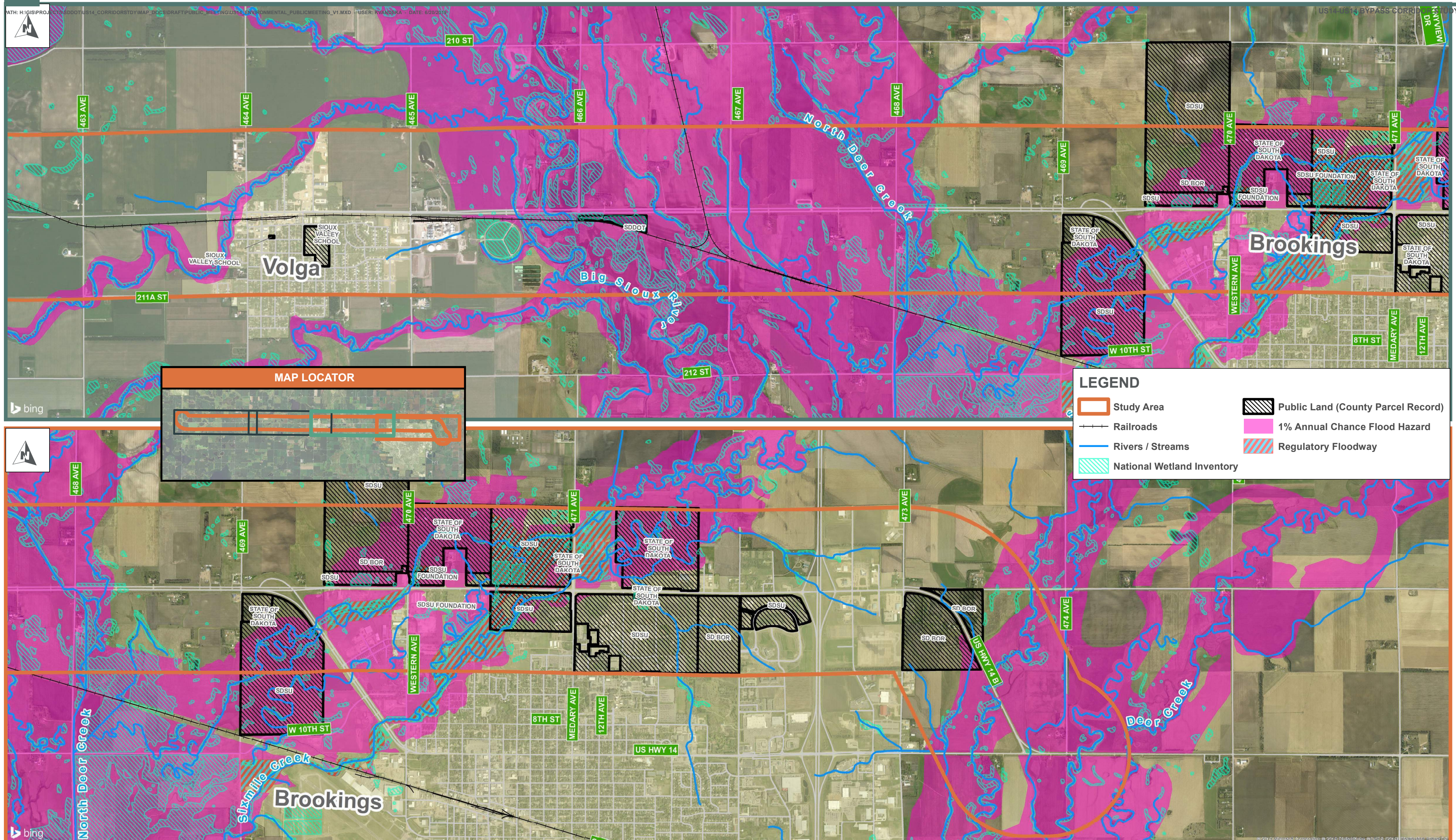
LOS	Description	Density (passenger cars/mile/lane)
A	Free-flow operation	≤ 11
B	Reasonably free-flow operation; minimal restriction on lane changes & maneuvers	> 11 - 18
C	Near free-flow operation; noticeable restriction on lane changes & other maneuvers	> 18 - 26
D	Speed decline with increasing flows; significant restriction on lane changes & other maneuvers	> 26 - 35
E	Facility operates at capacity; very few gaps for lane changes & other maneuvers; frequent disruptions & queues	> 35 - 45
F	Unstable flow; operational breakdown	Demand exceeds capacity OR density > 45

# Environmental Considerations

- The Study will help identify environmental constraints within the study area.
- Constraints identified using publicly available information and supplemented by field observations from public right-of-way



ENVIRONMENTAL CONSIDERATIONS



ENVIRONMENTAL CONSIDERATIONS

