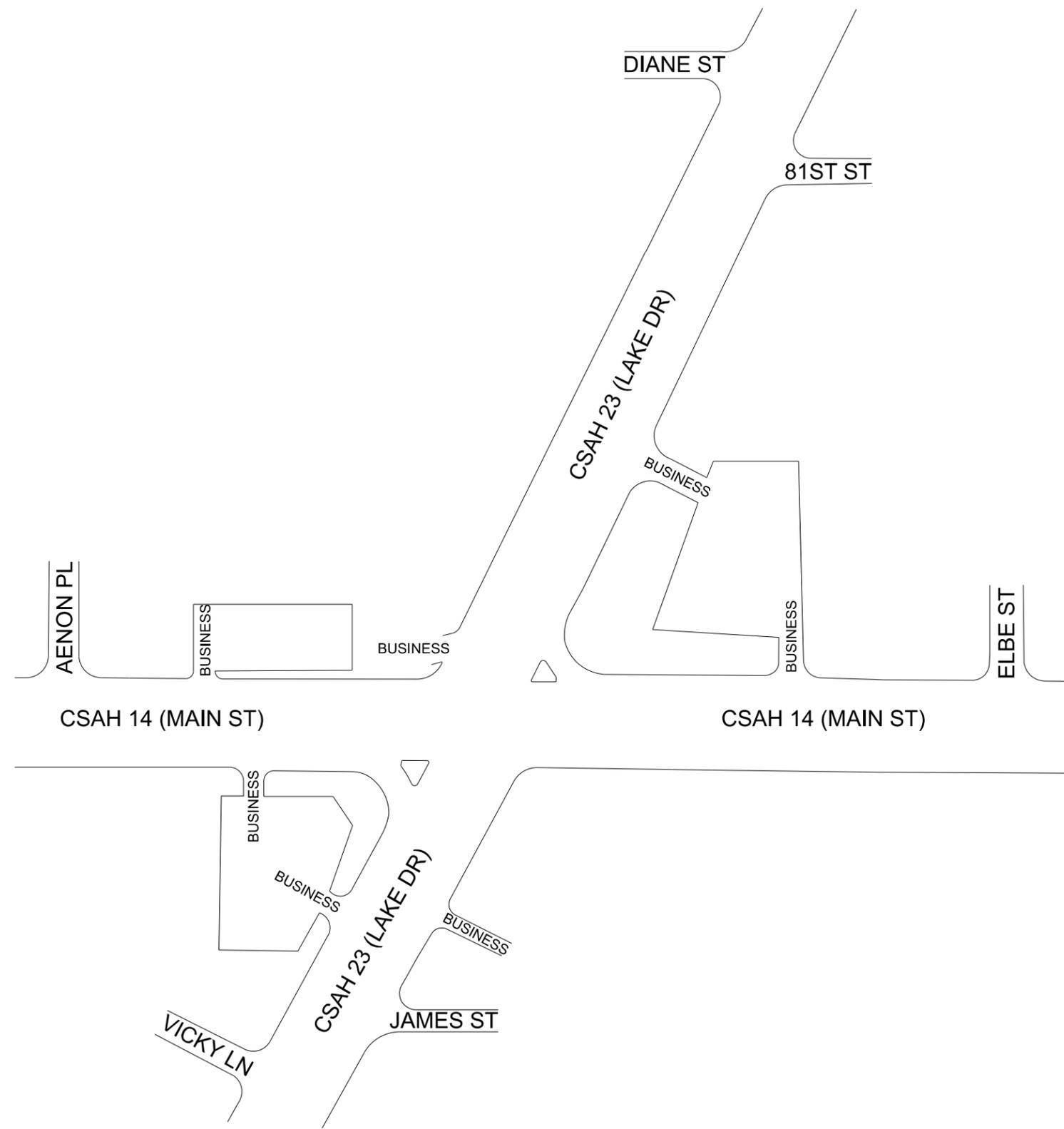




DRAWING NOT TO SCALE



DATE, TIME, LIGHT, WEATHER

- OVERTURN
- FIRE OR EXPLOSION
- MOVING VEHICLE
- REAR END
- BACKING VEHICLE
- COLLISION WITH FIXED OBJECT
- SIDE SWIPE SAME DIRECTION
- SIDE SWIPE OPPOSITE DIRECTION
- PARKED VEHICLE
- MOTORCYCLE
- DEER
- PEDESTRIAN
- BICYCLE
- FIXED OBJECT
- RIGHT ANGLE
- VEHICLE OUT OF CONTROL
- LEFT TURN INTO ONCOMING TRAFFIC



**ANOKA COUNTY
HIGHWAY DEPT.**

CSAH 14 FROM AENON PL TO ELBE ST
AND
CSAH 23 FROM VICKY LN TO DIANE ST

COLLISION DIAGRAM

LIGHT

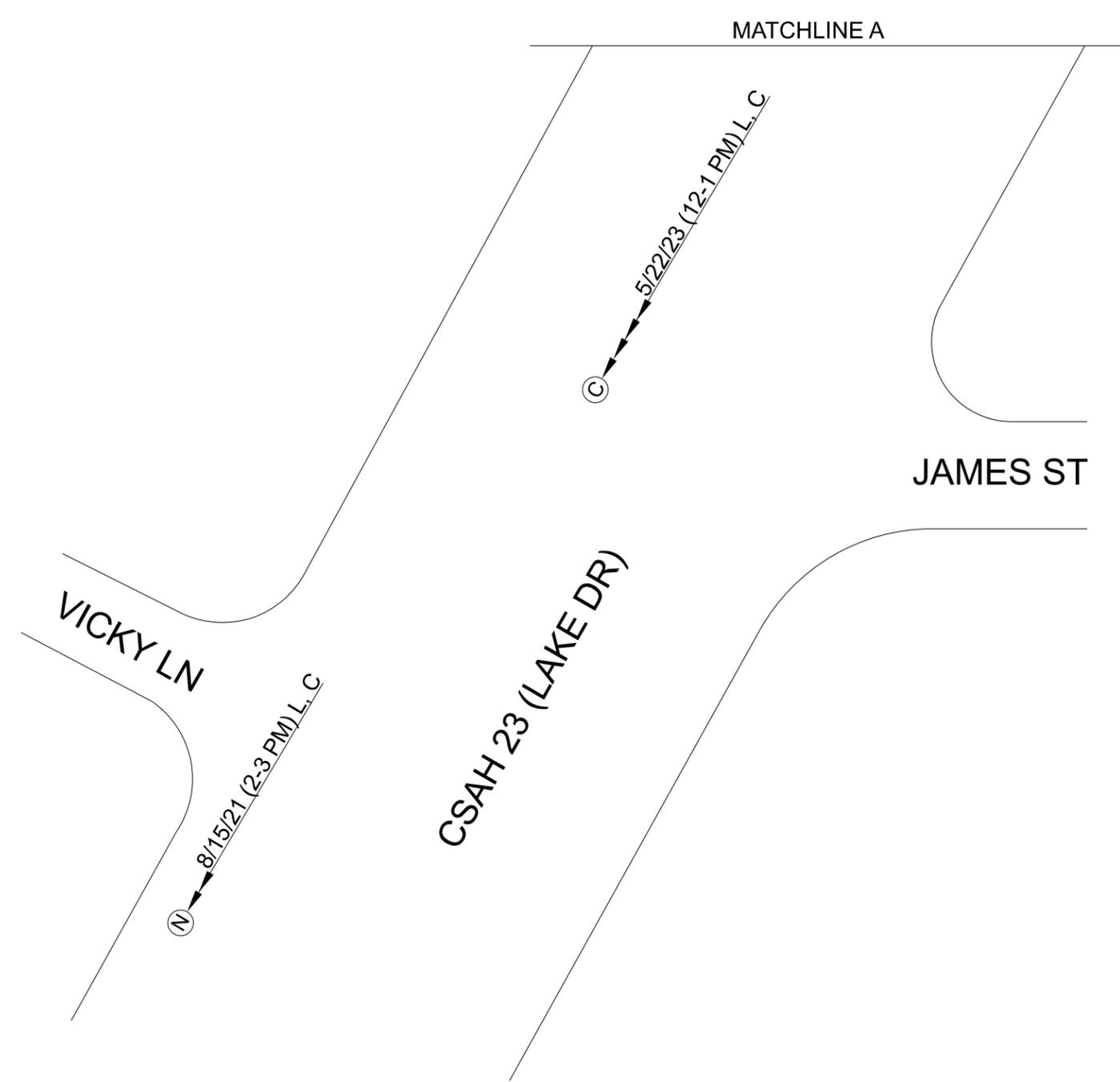
L = LIGHT
DN = DAWN
DU = DUSK
D = DARK
X = UNKNOWN

WEATHER

C = CLEAR
CL = CLOUDY
R = RAIN
S = SNOW/SLEET
X = OTHER/UNKNOWN

SEVERITY CODE

(N) PROPERTY DAMAGE
(C) POSSIBLE INJURY
(B) MINOR INJURY
(A) SERIOUS INJURY
(K) FATALITY

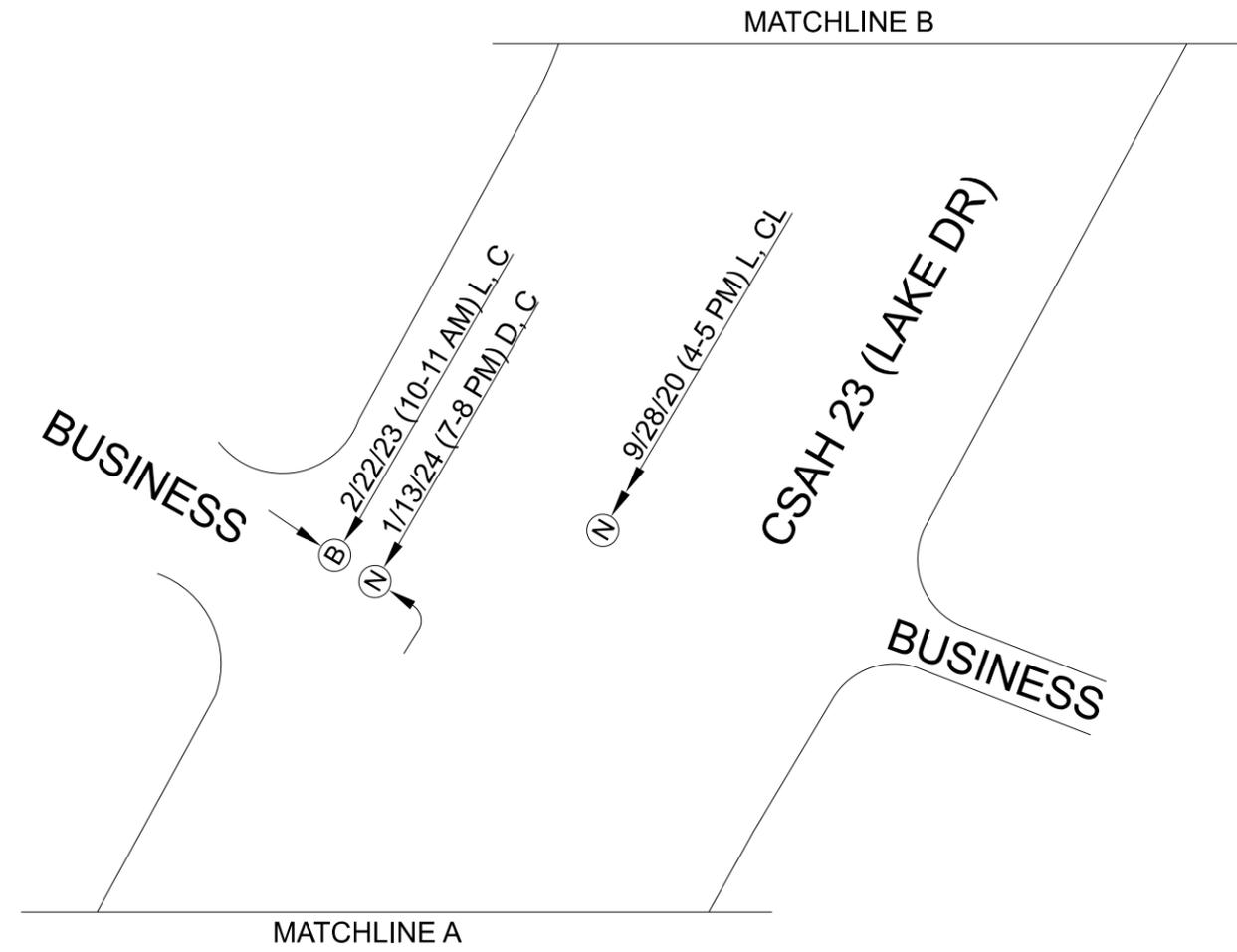


CORRIDOR - CSAH 23 FROM 200' SOUTH OF VICKY LN TO 150' SOUTH OF CSAH 14
 ADT: 6346 (TMC 2593)
 ACCIDENT RATE: 0.36 CR INDEX: 1.33
 SEVERITY RATE: 0.58 FAR INDEX: 0.00

DATE, TIME, LIGHT, WEATHER ←			OVERTURN FIRE OR EXPLOSION MOVING VEHICLE REAR END BACKING VEHICLE COLLISION WITH FIXED OBJECT SIDE SWIPE SAME DIRECTION SIDE SWIPE OPPOSITE DIRECTION	PARKED VEHICLE MOTORCYCLE DEER PEDESTRIAN BICYCLE FIXED OBJECT RIGHT ANGLE VEHICLE OUT OF CONTROL LEFT TURN INTO ONCOMING TRAFFIC	CSAH 14 FROM AENON PL TO ELBE ST AND CSAH 23 FROM VICKY LN TO DIANE ST
LIGHT	WEATHER	SEVERITY CODE			COLLISION DIAGRAM
L = LIGHT DN = DAWN DU = DUSK D = DARK X = UNKNOWN	C = CLEAR CL = CLOUDY R = RAIN S = SNOW/SLEET X = OTHER/UNKNOWN	(N) PROPERTY DAMAGE (C) POSSIBLE INJURY (B) MINOR INJURY (A) SERIOUS INJURY (K) FATALITY			Sheet <u>2</u> of <u>8</u> Sheets



DRAWING NOT TO SCALE



CORRIDOR - CSAH 23 FROM 200' SOUTH OF VICKY LN TO 150' SOUTH OF CSAH 14
 ADT: 6346 (TMC 2593)
 ACCIDENT RATE: 0.36 CR INDEX: 1.33
 SEVERITY RATE: 0.58 FAR INDEX: 0.00

← DATE, TIME, LIGHT, WEATHER

- ☒ OVERTURN
- 🔥 FIRE OR EXPLOSION
- ➡ MOVING VEHICLE
- ↔ REAR END
- ↔↔↔ BACKING VEHICLE
- ☐➡ COLLISION WITH FIXED OBJECT
- ↔↔↔ SIDE SWIPE SAME DIRECTION
- ↔↔↔ SIDE SWIPE OPPOSITE DIRECTION
- 🚗 PARKED VEHICLE
- 🏍️ MOTORCYCLE
- 🦌 DEER
- 🚶 PEDESTRIAN
- 🚲 BICYCLE
- ☐ FIXED OBJECT
- ↔ RIGHT ANGLE
- 🌀 VEHICLE OUT OF CONTROL
- ↔ LEFT TURN INTO ONCOMING TRAFFIC

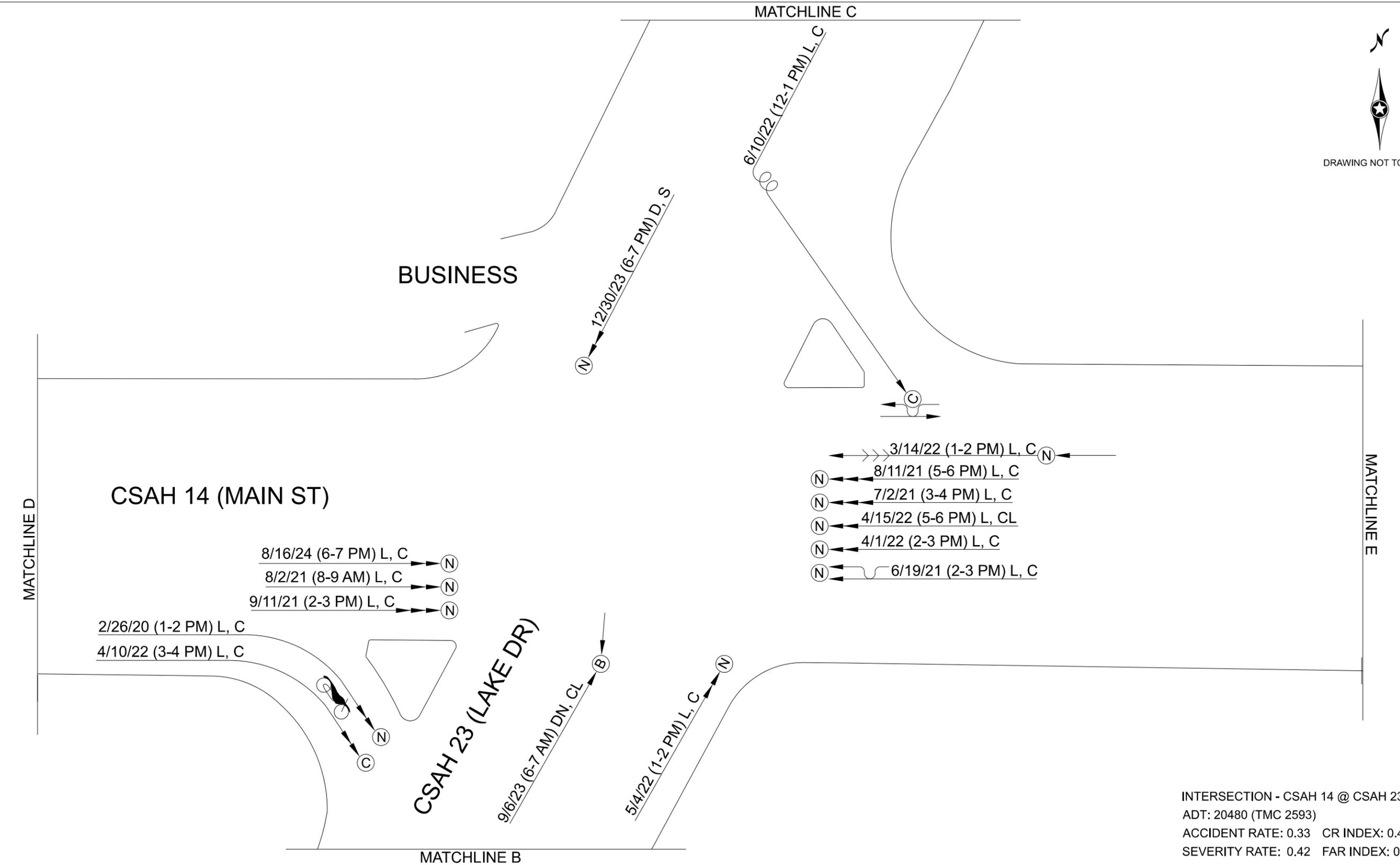


**ANOKA COUNTY
HIGHWAY DEPT.**

CSAH 14 FROM AENON PL TO ELBE ST
AND
CSAH 23 FROM VICKY LN TO DIANE ST

COLLISION DIAGRAM

LIGHT	WEATHER	SEVERITY CODE
L = LIGHT DN = DAWN DU = DUSK D = DARK X = UNKNOWN	C = CLEAR CL = CLOUDY R = RAIN S = SNOW/SLEET X = OTHER/UNKNOWN	(N) PROPERTY DAMAGE (C) POSSIBLE INJURY (B) MINOR INJURY (A) SERIOUS INJURY (K) FATALITY



INTERSECTION - CSAH 14 @ CSAH 23
 ADT: 20480 (TMC 2593)
 ACCIDENT RATE: 0.33 CR INDEX: 0.46
 SEVERITY RATE: 0.42 FAR INDEX: 0.00

← DATE, TIME, LIGHT, WEATHER

<ul style="list-style-type: none"> ☒ OVERTURN 🔥 FIRE OR EXPLOSION ➡ MOVING VEHICLE ↔ REAR END ↔↔↔ BACKING VEHICLE ☐➡ COLLISION WITH FIXED OBJECT ↔↔↔ SIDE SWIPE SAME DIRECTION ↔↔↔ SIDE SWIPE OPPOSITE DIRECTION 	<ul style="list-style-type: none"> 🚗 PARKED VEHICLE 🏍️ MOTORCYCLE 🦌 DEER 🚶 PEDESTRIAN 🚲 BICYCLE ☐ FIXED OBJECT ↔ RIGHT ANGLE 	<ul style="list-style-type: none"> 🌀 VEHICLE OUT OF CONTROL ↔ LEFT TURN INTO ONCOMING TRAFFIC
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LIGHT	WEATHER	SEVERITY CODE
L = LIGHT DN = DAWN DU = DUSK D = DARK X = UNKNOWN	C = CLEAR CL = CLOUDY R = RAIN S = SNOW/SLEET X = OTHER/UNKNOWN	(N) PROPERTY DAMAGE (C) POSSIBLE INJURY (B) MINOR INJURY (A) SERIOUS INJURY (K) FATALITY

**ANOKA COUNTY
HIGHWAY DEPT.**

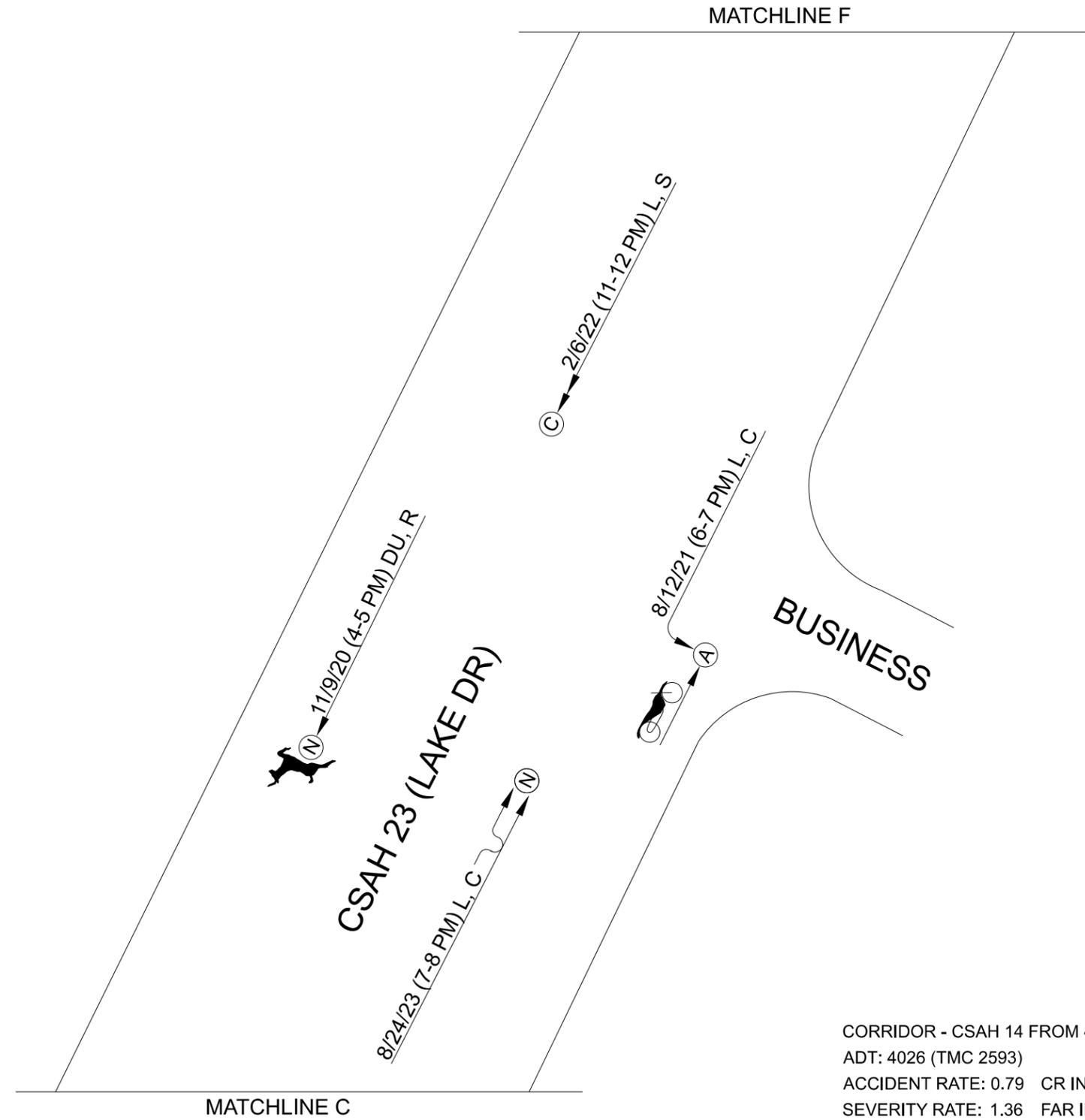
CSAH 14 FROM AENON PL TO ELBE ST
 AND
 CSAH 23 FROM VICKY LN TO DIANE ST

COLLISION DIAGRAM

Sheet 4 of 8 Sheets



DRAWING NOT TO SCALE



CORRIDOR - CSAH 14 FROM 400' EAST OF CSAH 23 TO 100' WEST OF ELBE ST
 ADT: 4026 (TMC 2593)
 ACCIDENT RATE: 0.79 CR INDEX: 2.14
 SEVERITY RATE: 1.36 FAR INDEX: 1.27

← DATE, TIME, LIGHT, WEATHER

- OVERTURN
- FIRE OR EXPLOSION
- MOVING VEHICLE
- REAR END
- BACKING VEHICLE
- COLLISION WITH FIXED OBJECT
- SIDE SWIPE SAME DIRECTION
- SIDE SWIPE OPPOSITE DIRECTION
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- RIGHT ANGLE
- VEHICLE OUT OF CONTROL
- LEFT TURN INTO ONCOMING TRAFFIC



**ANOKA COUNTY
HIGHWAY DEPT.**

CSAH 14 FROM AENON PL TO ELBE ST
AND
CSAH 23 FROM VICKY LN TO DIANE ST

COLLISION DIAGRAM

LIGHT

L = LIGHT
DN = DAWN
DU = DUSK
D = DARK
X = UNKNOWN

WEATHER

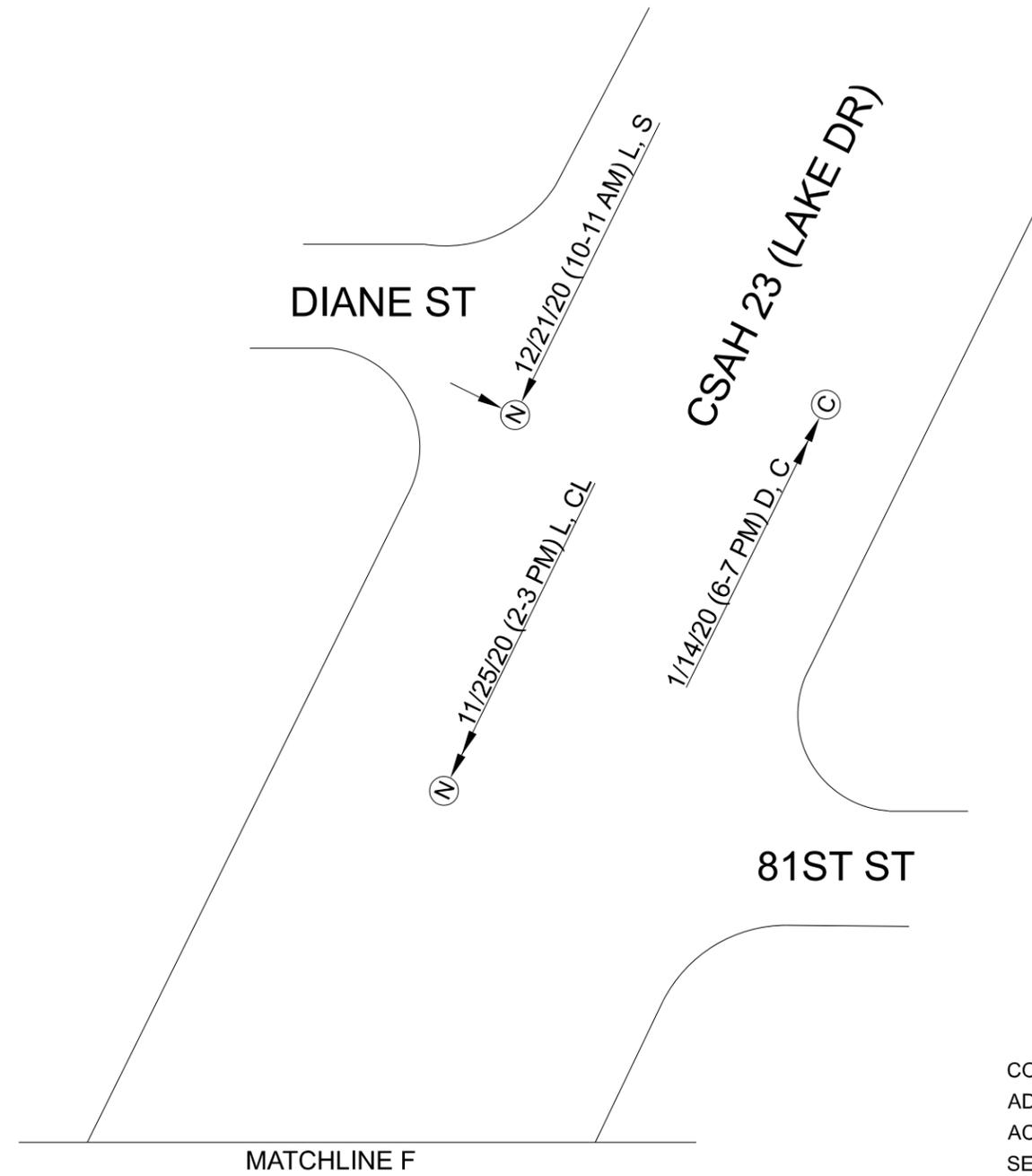
C = CLEAR
CL = CLOUDY
R = RAIN
S = SNOW/SLEET
X = OTHER/UNKNOWN

SEVERITY CODE

(N) PROPERTY DAMAGE
(C) POSSIBLE INJURY
(B) MINOR INJURY
(A) SERIOUS INJURY
(K) FATALITY



DRAWING NOT TO SCALE

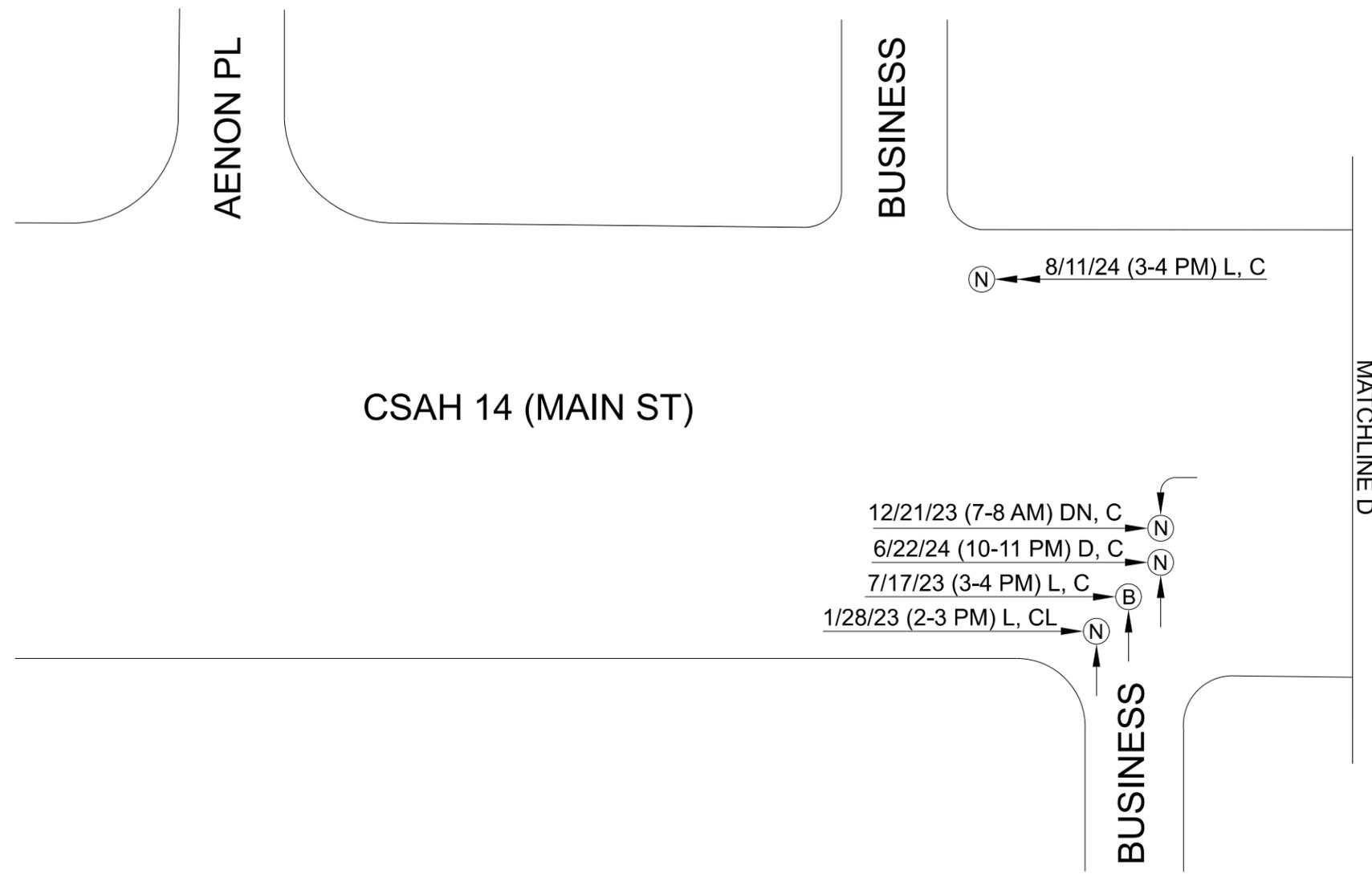


CORRIDOR - CSAH 14 FROM 400' EAST OF CSAH 23 TO 100' WEST OF ELBE ST
 ADT: 4026 (TMC 2593)
 ACCIDENT RATE: 0.79 CR INDEX: 2.14
 SEVERITY RATE: 1.36 FAR INDEX: 1.27

← DATE, TIME, LIGHT, WEATHER			OVERTURN FIRE OR EXPLOSION MOVING VEHICLE REAR END BACKING VEHICLE COLLISION WITH FIXED OBJECT SIDE SWIPE SAME DIRECTION SIDE SWIPE OPPOSITE DIRECTION			PARKED VEHICLE MOTORCYCLE DEER PEDESTRIAN BICYCLE FIXED OBJECT RIGHT ANGLE VEHICLE OUT OF CONTROL LEFT TURN INTO ONCOMING TRAFFIC			CSAH 14 FROM AENON PL TO ELBE ST AND CSAH 23 FROM VICKY LN TO DIANE ST		
LIGHT L = LIGHT DN = DAWN DU = DUSK D = DARK X = UNKNOWN	WEATHER C = CLEAR CL = CLOUDY R = RAIN S = SNOW/SLEET X = OTHER/UNKNOWN	SEVERITY CODE (N) PROPERTY DAMAGE (C) POSSIBLE INJURY (B) MINOR INJURY (A) SERIOUS INJURY (K) FATALITY				ANOKA COUNTY HIGHWAY DEPT.			COLLISION DIAGRAM		
						Sheet <u>6</u> of <u>8</u> Sheets					



DRAWING NOT TO SCALE

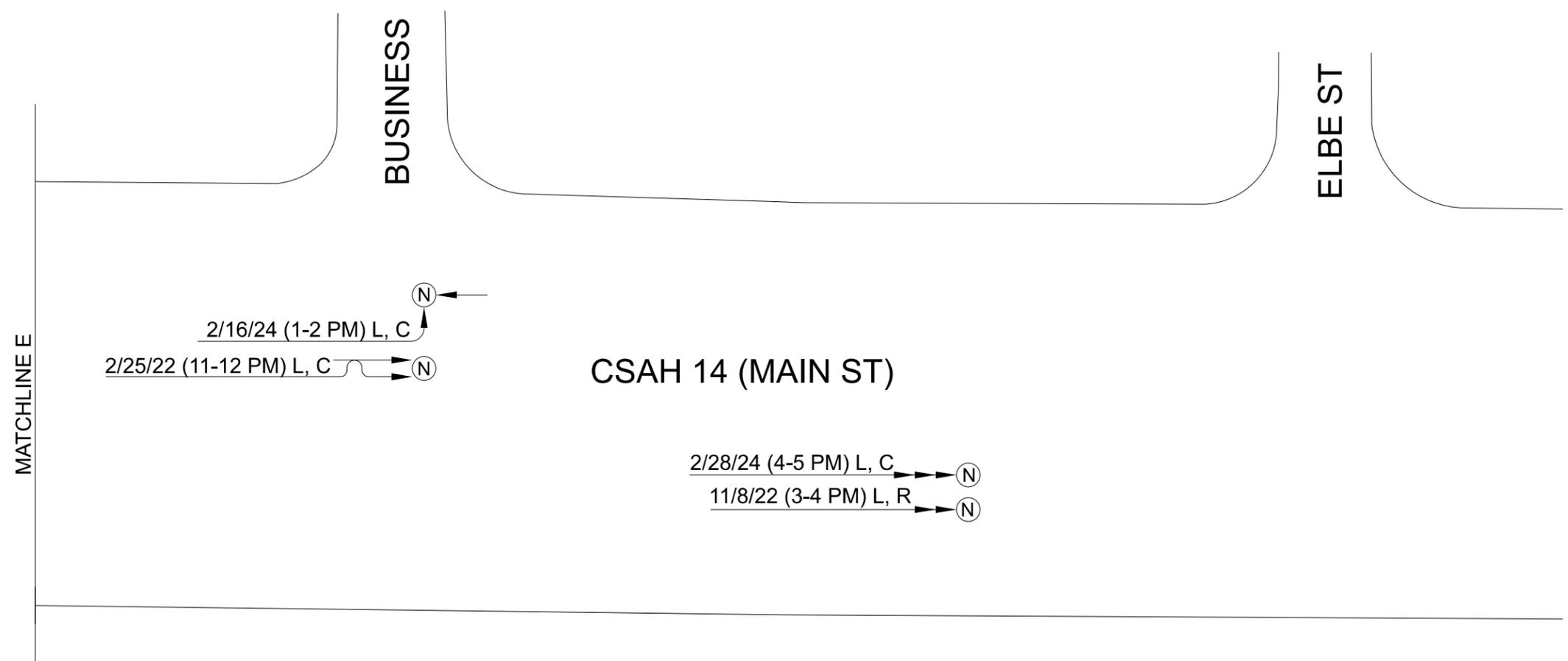


CORRIDOR - CSAH 14 FROM 100' WEST OF CSAH 23 TO 100' WEST OF AENON PL
 ADT: 4819 (TMC 2593)
 ACCIDENT RATE: 0.47 CR INDEX: 1.62
 SEVERITY RATE: 0.66 FAR INDEX: 0.00

← DATE, TIME, LIGHT, WEATHER			OVERTURN FIRE OR EXPLOSION MOVING VEHICLE REAR END BACKING VEHICLE COLLISION WITH FIXED OBJECT SIDE SWIPE SAME DIRECTION SIDE SWIPE OPPOSITE DIRECTION	PARKED VEHICLE MOTORCYCLE DEER PEDESTRIAN BICYCLE FIXED OBJECT RIGHT ANGLE	VEHICLE OUT OF CONTROL LEFT TURN INTO ONCOMING TRAFFIC	CSAH 14 FROM AENON PL TO ELBE ST AND CSAH 23 FROM VICKY LN TO DIANE ST
LIGHT L = LIGHT DN = DAWN DU = DUSK D = DARK X = UNKNOWN	WEATHER C = CLEAR CL = CLOUDY R = RAIN S = SNOW/SLEET X = OTHER/UNKNOWN	SEVERITY CODE (N) PROPERTY DAMAGE (C) POSSIBLE INJURY (B) MINOR INJURY (A) SERIOUS INJURY (K) FATALITY	ANOKA COUNTY HIGHWAY DEPT.		COLLISION DIAGRAM	
					Sheet <u>7</u> of <u>8</u> Sheets	



DRAWING NOT TO SCALE



CORRIDOR - CSAH 14 FROM 400' EAST OF CSAH 23 TO 100' WEST OF ELBE ST
 ADT: 5289 (TMC 2593)
 ACCIDENT RATE: 0.35 CR INDEX: 1.17
 SEVERITY RATE: 0.35 FAR INDEX: 0.00

← DATE, TIME, LIGHT, WEATHER			OVERTURN FIRE OR EXPLOSION MOVING VEHICLE REAR END BACKING VEHICLE COLLISION WITH FIXED OBJECT SIDE SWIPE SAME DIRECTION SIDE SWIPE OPPOSITE DIRECTION	PARKED VEHICLE MOTORCYCLE DEER PEDESTRIAN BICYCLE FIXED OBJECT RIGHT ANGLE	VEHICLE OUT OF CONTROL LEFT TURN INTO ONCOMING TRAFFIC	CSAH 14 FROM AENON PL TO ELBE ST AND CSAH 23 FROM VICKY LN TO DIANE ST
LIGHT L = LIGHT DN = DAWN DU = DUSK D = DARK X = UNKNOWN	WEATHER C = CLEAR CL = CLOUDY R = RAIN S = SNOW/SLEET X = OTHER/UNKNOWN	SEVERITY CODE (N) PROPERTY DAMAGE (C) POSSIBLE INJURY (B) MINOR INJURY (A) SERIOUS INJURY (K) FATALITY	ANOKA COUNTY HIGHWAY DEPT.		COLLISION DIAGRAM	
					Sheet <u> 8 </u> of <u> 8 </u> Sheets	

ACCIDENT AND SEVERITY RATES FOR A CORRIDOR

Segment: **CSAH 23 from 200' South of Vicky Ln to 150' South of CSAH 14**

Study Start Date: **01/01/2020**

Miles = 1.000

Study End Date: **12/31/2025**

Length of study in years: **6.00**

Days = 2190

Weighted

Average ADT for Corridor: **6346**

Total Accidents = 5

Number of Fatal Accidents: **0**

Total Fatal Accidents = 0

0

Number of "A" P.I. Accidents: **0**

Total "A" Injury Accidents = 0

0

Number of "B" P.I. Accidents: **1**

Total "B" Injury Accidents = 1

3

Number of "C" P.I. Accidents: **1**

Total "C" Injury Accidents = 1

2

Number of Property Damage Accidents: **3**

Total Property Damage Accidents = 3

3

Sum of weighted accidents = 8

Accident Rate (AR) = **0.36**

Severity Rate (SR) = **0.58**

Segment Safety Screening

Segment: CSAH 23 from 200' South of Vicky Ln to 150' South of CSAH 14

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	1
Possible Injury (C)	1
Property Damage (PDO)	3
Total Crashes	5

Analysis Description	
Length	0.150 miles
VMT	1,738,169
Non-junction AND Junction Crashes	

Annual crash cost per mile = \$566,667

Statewide comparison = Rural 2-Lane AADT 5000-7999

Total Crash Rate (CR)	
Observed	2.877
Statewide Average	0.499
Critical Rate	2.170
Critical Index	1.33

Fatal & Serious Injury Crash Rate (FAR)	
Observed	0.000
Statewide Average	2.643
Critical Rate	47.220
Critical Index	0.00

The observed crash rate is the number of crashes per million vehicle miles traveled (MVMT). The critical rate is a statistical comparison based on similar trunk highways statewide. An observed crash rate greater than the critical rate indicates that the section operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 2.88 per MVMT; this is 1.3 times the critical rate. If crashes were reduced by 2 over five years (40%), the section would perform within normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MVMT; this is 100% below the critical rate. The section operates within the normal range.

ACCIDENT AND SEVERITY RATES FOR AN INTERSECTION

Intersection:	CSAH 14 @ CSAH 23	
Study Start Date:	01/01/2020	
Study End Date:	12/30/2025	
Length of study in years:	6.00	Days = 2188.986 Weighted
Intersection ADT:	20480	Total Accidents = 15
Number of Fatal Accidents:	0	Total Fatal Accidents = 0 0
Number of "A" P.I. Accidents:	0	Total "A" Injury Accidents = 0 0
Number of "B" P.I. Accidents:	1	Total "B" Injury Accidents = 1 3
Number of "C" P.I. Accidents:	2	Total "C" Injury Accidents = 2 4
Number of Property Damage Accidents:	12	Total Property Damage Accidents = 12 12
		Sum of weighted accidents = 19
Accident Rate (AR) =	0.33	
Severity Rate (SR) =	0.42	

Intersection Safety Screening

Intersection: CSAH 14 @ CSAH 23

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Serious Injury (A)	0
Minor Injury (B)	1
Possible Injury (C)	2
Property Damage (PDO)	12
Total Crashes	15

Intersection Characteristics	
Entering Volume	20,480
Environment	Rural
Lighting	Lit
Traffic Control	Signal

Annual crash cost = \$138,000

Statewide comparison = Signal, Low Volume (<=20K)

Total Crash Rate	
Observed	0.401
Statewide Average	0.548
Critical Rate	0.870
Critical Index	0.46

Fatal & Serious Injury Crash Rate	
Observed	0.000
Statewide Average	1.024
Critical Rate	4.480
Critical Index	0.00

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.40 per MEV; this is 54% below the critical rate. Based on similar statewide intersections, an additional 18 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

ACCIDENT AND SEVERITY RATES FOR A CORRIDOR

Segment: **CSAH 23 FROM 100' NORTH OF CSAH 14 TO 100' NORTH OF DIANE ST**

Study Start Date: **01/01/2020** Miles = 1.000

Study End Date: **12/31/2025**

Length of study in years: **6.00** Days = 2190 Weighted

Average ADT for Corridor: **4026** Total Accidents = 7

Number of Fatal Accidents: **0** Total Fatal Accidents = 0

Number of "A" P.I. Accidents: **1** Total "A" Injury Accidents = 1 4

Number of "B" P.I. Accidents: **0** Total "B" Injury Accidents = 0 0

Number of "C" P.I. Accidents: **2** Total "C" Injury Accidents = 2 4

Number of Property Damage Accidents: **4** Total Property Damage Accidents = 4 4

Sum of weighted accidents = 12

Accident Rate (AR) = **0.79**

Severity Rate (SR) = **1.36**

Segment Safety Screening

Segment: CSAH 23 FROM 100' NORTH OF CSAH 14 TO 100' NORTH OF DIANE ST

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	1
Minor Injury (B)	0
Possible Injury (C)	2
Property Damage (PDO)	4
Total Crashes	7

Analysis Description	
Length	0.200 miles
VMT	1,470,295
Non-junction AND Junction Crashes	

Annual crash cost per mile = \$1,120,000

Statewide comparison = Rural 2-Lane AADT 1500-4999

Total Crash Rate (CR)	
Observed	4.761
Statewide Average	0.451
Critical Rate	2.220
Critical Index	2.14

Fatal & Serious Injury Crash Rate (FAR)	
Observed	68.014
Statewide Average	2.599
Critical Rate	53.650
Critical Index	1.27

The observed crash rate is the number of crashes per million vehicle miles traveled (MVMT). The critical rate is a statistical comparison based on similar trunk highways statewide. An observed crash rate greater than the critical rate indicates that the section operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 4.76 per MVMT; this is 2.1 times the critical rate. If crashes were reduced by 4 over five years (57%), the section would perform within normal range.

The observed fatal and serious injury crash rate for this period is 68.01 per 100 MVMT; this is 1.3 times the critical rate. This section may be a sustained severe crash location.

ACCIDENT AND SEVERITY RATES FOR A CORRIDOR

Segment: **CSAH 14 FROM 100' WEST OF CSAH 23 TO 100' WEST OF AENON PL**

Study Start Date: **01/01/2020** Miles = 1.000

Study End Date: **12/31/2025**

Length of study in years: **6.00** Days = 2190 Weighted

Average ADT for Corridor: **4819** Total Accidents = 5

Number of Fatal Accidents: **0** Total Fatal Accidents = 0 0

Number of "A" P.I. Accidents: **0** Total "A" Injury Accidents = 0 0

Number of "B" P.I. Accidents: **1** Total "B" Injury Accidents = 1 3

Number of "C" P.I. Accidents: **0** Total "C" Injury Accidents = 0 0

Number of Property Damage Accidents: **4** Total Property Damage Accidents = 4 4

Sum of weighted accidents = 7

Accident Rate (AR) = **0.47**

Severity Rate (SR) = **0.66**

Segment Safety Screening

Segment: CSAH 14 FROM 100' WEST OF CSAH 23 TO 100' WEST OF AENON PL

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	1
Possible Injury (C)	0
Property Damage (PDO)	4
Total Crashes	5

Analysis Description	
Length	0.150 miles
VMT	1,319,924
Non-junction AND Junction Crashes	

Annual crash cost per mile = \$413,333

Statewide comparison = Rural 2-Lane AADT 1500-4999

Total Crash Rate (CR)	
Observed	3.788
Statewide Average	0.451
Critical Rate	2.340
Critical Index	1.62

Fatal & Serious Injury Crash Rate (FAR)	
Observed	0.000
Statewide Average	2.599
Critical Rate	58.470
Critical Index	0.00

The observed crash rate is the number of crashes per million vehicle miles traveled (MVMT). The critical rate is a statistical comparison based on similar trunk highways statewide. An observed crash rate greater than the critical rate indicates that the section operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 3.79 per MVMT; this is 1.6 times the critical rate. If crashes were reduced by 2 over five years (40%), the section would perform within normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MVMT; this is 100% below the critical rate. The section operates within the normal range.

ACCIDENT AND SEVERITY RATES FOR A CORRIDOR

Segment: **CSAH 14 FROM 400' EAST OF CSAH 23 TO 100' WEST OF ELBE ST**

Study Start Date: **01/01/2020** Miles = 1.000

Study End Date: **12/31/2025**

Length of study in years: **6.00** Days = 2190 Weighted

Average ADT for Corridor: **5289** Total Accidents = 4

Number of Fatal Accidents: **0** Total Fatal Accidents = 0

Number of "A" P.I. Accidents: **0** Total "A" Injury Accidents = 0

Number of "B" P.I. Accidents: **0** Total "B" Injury Accidents = 0

Number of "C" P.I. Accidents: **0** Total "C" Injury Accidents = 0

Number of Property Damage Accidents: **4** Total Property Damage Accidents = 4

Sum of weighted accidents = 4

Accident Rate (AR) = **0.35**

Severity Rate (SR) = **0.35**

Segment Safety Screening

Segment: CSAH 14 FROM 400' EAST OF CSAH 23 TO 100' WEST OF ELBE ST

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	0
Possible Injury (C)	0
Property Damage (PDO)	4
Total Crashes	4

Analysis Description	
Length	0.150 miles
VMT	1,448,657
Non-junction AND Junction Crashes	

Annual crash cost per mile = \$80,000

Statewide comparison = Rural 2-Lane AADT 5000-7999

Total Crash Rate (CR)	
Observed	2.761
Statewide Average	0.499
Critical Rate	2.360
Critical Index	1.17

Fatal & Serious Injury Crash Rate (FAR)	
Observed	0.000
Statewide Average	2.643
Critical Rate	54.470
Critical Index	0.00

The observed crash rate is the number of crashes per million vehicle miles traveled (MVMT). The critical rate is a statistical comparison based on similar trunk highways statewide. An observed crash rate greater than the critical rate indicates that the section operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 2.76 per MVMT; this is 1.2 times the critical rate. If crashes were reduced by 1 over five years (25%), the section would perform within normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MVMT; this is 100% below the critical rate. The section operates within the normal range.