

APPENDIX E
Intersection Crash Rate Worksheets

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Canton COUNT DATE : 12/1/2021 (adjusted)

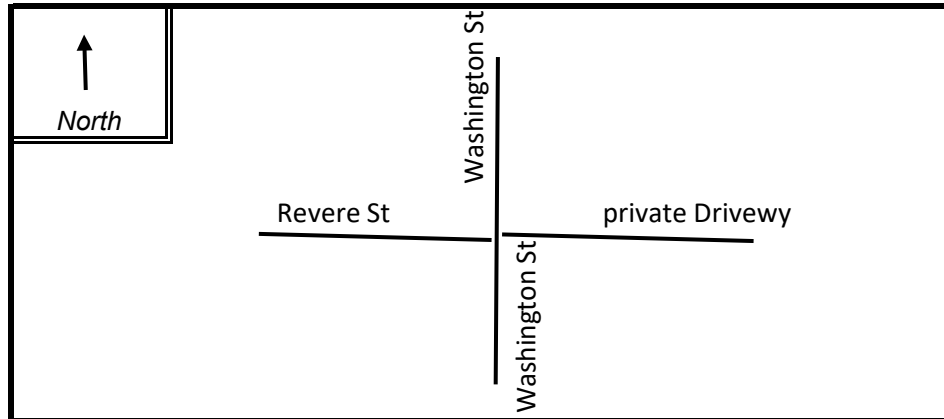
DISTRICT : 6 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Washington Street

MINOR STREET(S) : Revere Street

INTERSECTION
DIAGRAM



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (PM) :	163	5	539	634		1,341

"K" FACTOR : INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES : # OF YEARS : AVERAGE # OF CRASHES PER YEAR (A) :

CRASH RATE CALCULATION :

$$\text{RATE} = \frac{(A * 1,000,000)}{(V * 365)}$$

Comments : Average Crash Rate for MassDOT District 6 Signalized Intersections = 0.71

Project Title & Date : Washington Street Corridor Study in Canton

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Canton COUNT DATE : 12/1/2021 (adjusted)

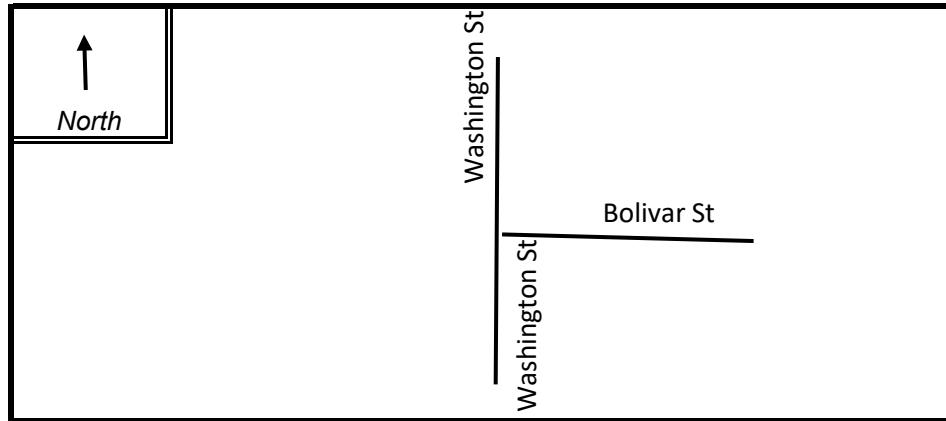
DISTRICT : 6 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Washington Street

MINOR STREET(S) : Bolivar Street

**INTERSECTION
DIAGRAM**



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (PM) :	0	332	587	729		1,648

"K" FACTOR : **0.090** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **18,311**

TOTAL # OF CRASHES : **15** # OF YEARS : **5** AVERAGE # OF CRASHES PER YEAR (**A**) : **3.00**

CRASH RATE CALCULATION : **0.52** RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : Average Crash Rate for MassDOT District 6 Signalized Intersections = 0.71

Project Title & Date : Washington Street Corridor Study in Canton

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Canton COUNTY : CANTON COUNT DATE : 12/1/2021 (adjusted)

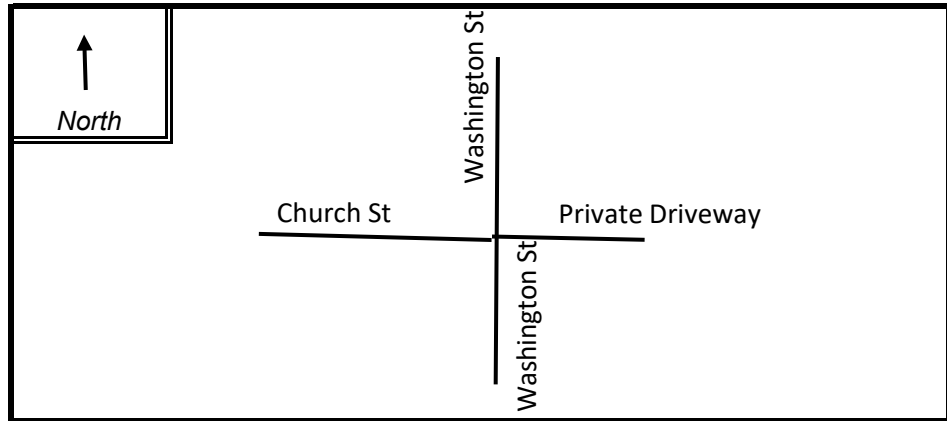
DISTRICT : 6 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Washington Street

MINOR STREET(S) : Church Street

**INTERSECTION
DIAGRAM**



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (PM) :	0	4	875	864		1,743

"K" FACTOR : **0.090** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **19,367**

TOTAL # OF CRASHES : **16** # OF YEARS : **5** AVERAGE # OF CRASHES PER YEAR (**A**) : **3.20**

CRASH RATE CALCULATION :

0.52

$$\text{RATE} = \frac{(A * 1,000,000)}{(V * 365)}$$

Comments : Average Crash Rate for MassDOT District 6 Signalized Intersections = 0.71

Project Title & Date: Washington Street Corridor Study in Canton

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Canton COUNTY : _____ COUNT DATE : 12/1/2021 (adjusted)

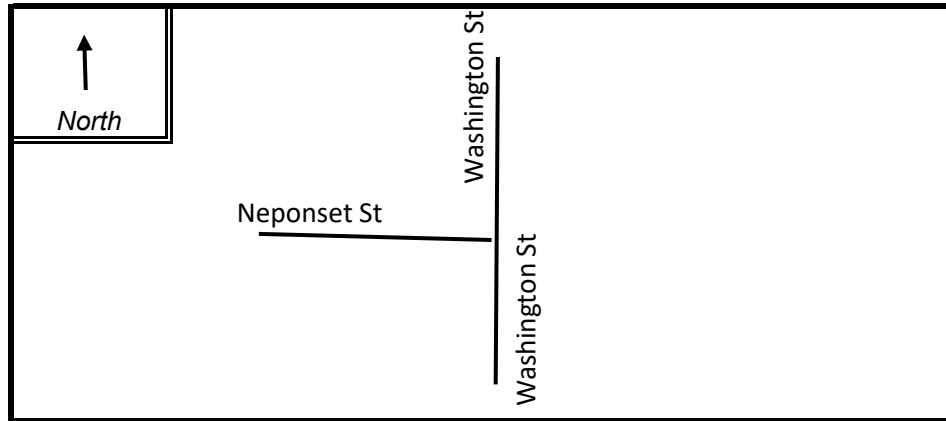
DISTRICT : 6 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Washington Street

MINOR STREET(S) : Neponset Street

INTERSECTION
DIAGRAM



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (PM) :	756	0	644	606		2,006

"K" FACTOR : INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES : # OF YEARS : AVERAGE # OF CRASHES PER YEAR (A) :

CRASH RATE CALCULATION : RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : Average Crash Rate for MassDOT District 6 Signalized Intersections = 0.71

Project Title & Date : Washington Street Corridor Study in Canton

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Sharon COUNT DATE : 12/1/2021 (adjusted)

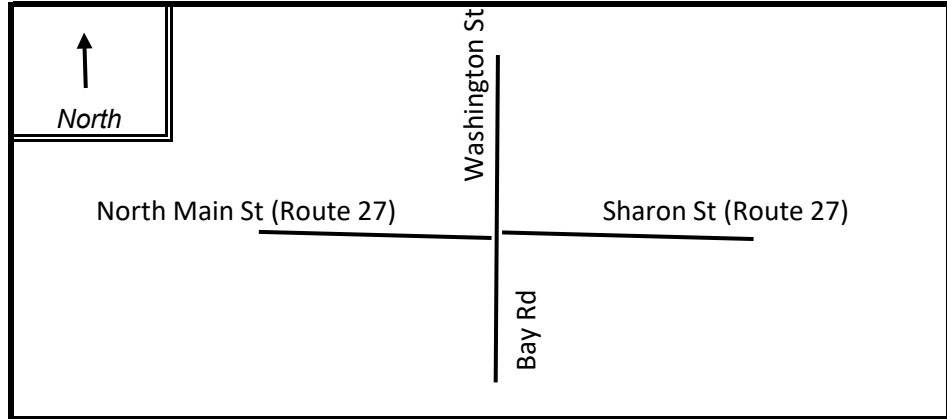
DISTRICT : 5 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Washington Street/Bay Road

MINOR STREET(S) : Route 27

INTERSECTION
DIAGRAM



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (PM) :	679	723	664	592		2,658

"K" FACTOR : **0.090** INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME : **29,533**

TOTAL # OF CRASHES : **43** # OF YEARS : **5** AVERAGE # OF CRASHES PER YEAR (A) : **8.60**

CRASH RATE CALCULATION :

0.92

$$\text{RATE} = \frac{(A * 1,000,000)}{(V * 365)}$$

Comments : Average Crash Rate for MassDOT District 5 Signalized Intersections = 0.75

Project Title & Date : Washington Street Corridor Study in Canton

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Canton COUNT DATE : 12/1/2021 (adjusted)

DISTRICT : 6 UNSIGNALIZED : X SIGNALIZED :

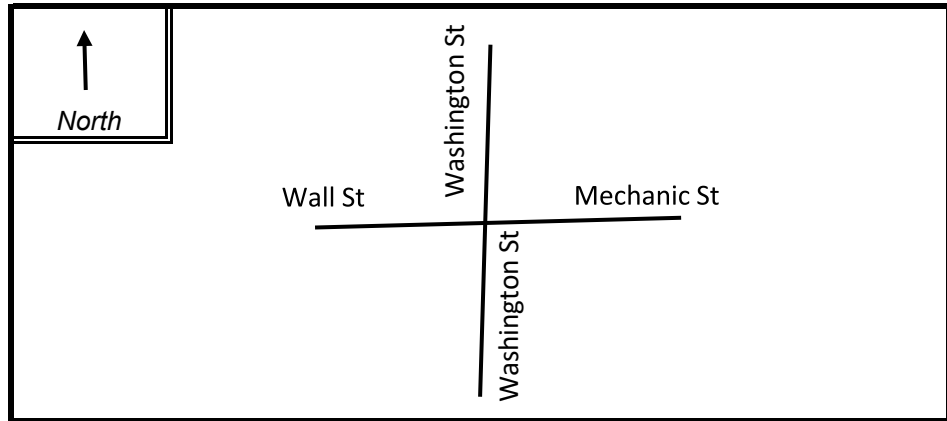
~ INTERSECTION DATA ~

MAJOR STREET : Washington Street

MINOR STREET(S) : Mechanic Street

Wall Street

**INTERSECTION
 DIAGRAM**



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (PM) :	19	92	597	855		1,563

"K" FACTOR : INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES : # OF YEARS : AVERAGE # OF CRASHES PER YEAR (**A**) :

CRASH RATE CALCULATION :

$$\text{RATE} = \frac{(A * 1,000,000)}{(V * 365)}$$

Comments : Average Crash Rate for MassDOT District 6 Unsignalized Intersections = 0.52

Project Title & Date : Washington Street Corridor Study in Canton



INTERSECTION CRASH RATE WORKSHEET

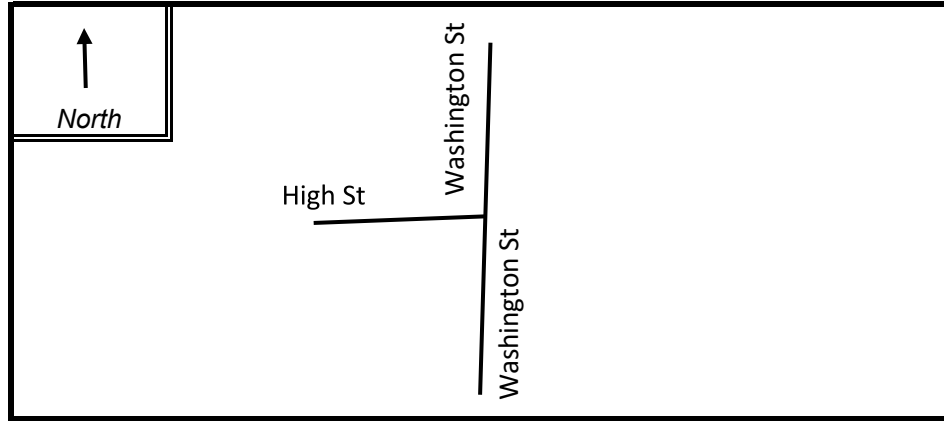
CITY/TOWN : Canton COUNT DATE : 12/1/2021 (adjusted)
 DISTRICT : 6 UNSIGNALIZED : X SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Washington Street

MINOR STREET(S) : High Street

**INTERSECTION
DIAGRAM**



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (PM) :	162	0	690	1,111		1,963

" K " FACTOR : INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES : # OF YEARS : AVERAGE # OF CRASHES PER YEAR (A) :

CRASH RATE CALCULATION :

0.32

$$\text{RATE} = \frac{(A * 1,000,000)}{(V * 365)}$$

Comments : Average Crash Rate for MassDOT District 6 Unsignalized Intersections = 0.52

Project Title & Date : Washington Street Corridor Study in Canton

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Canton COUNT DATE : 12/1/2021 (adjusted)

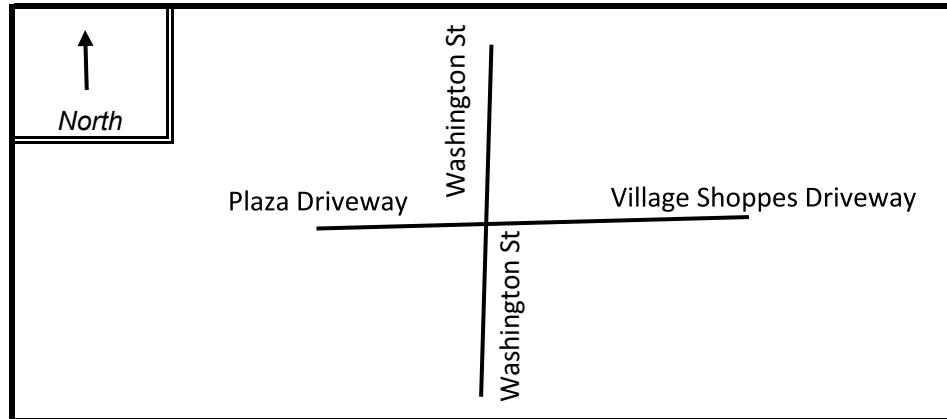
DISTRICT : 6 UNSIGNALIZED : **X** SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Washington Street

MINOR STREET(S) : Village Shoppes Driveway

**INTERSECTION
DIAGRAM**



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (PM) :	31	259	543	1,092		1,925

"K" FACTOR : INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES : # OF YEARS : AVERAGE # OF CRASHES PER YEAR (**A**) :

CRASH RATE CALCULATION :

0.38

$$\text{RATE} = \frac{(A * 1,000,000)}{(V * 365)}$$

Comments : Average Crash Rate for MassDOT District 6 Unsignalized Intersections = 0.52

Project Title & Date : Washington Street Corridor Study in Canton

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Stoughton COUNT DATE : 12/1/2021 (adjusted)

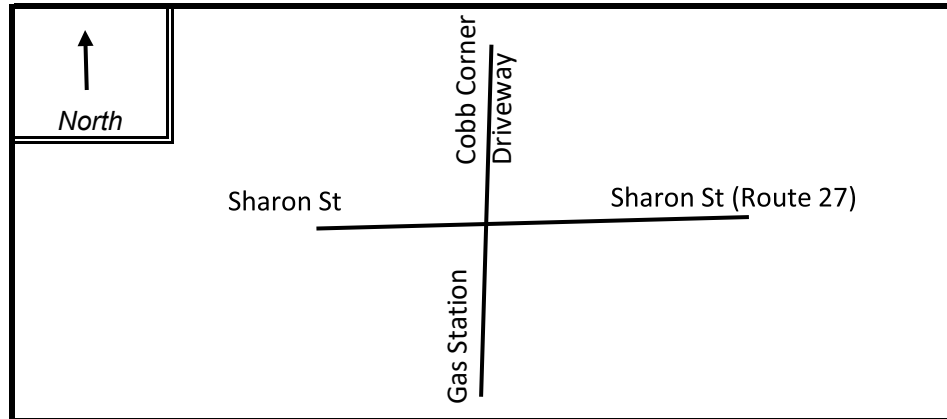
DISTRICT : 5 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Sharon Street (Route 27)

MINOR STREET(S) : Village Shoppes Driveway

**INTERSECTION
DIAGRAM**



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (PM) :	665	678	70	61		1,474

"K" FACTOR : INTERSECTION ADT (V) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES : # OF YEARS : AVERAGE # OF CRASHES PER YEAR (A) :

CRASH RATE CALCULATION : RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : Average Crash Rate for MassDOT District 5 Unsignalized Intersections = 0.57

Project Title & Date: Washington Street Corridor Study in Canton

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Stoughton COUNT DATE : 12/1/2021 (adjusted)

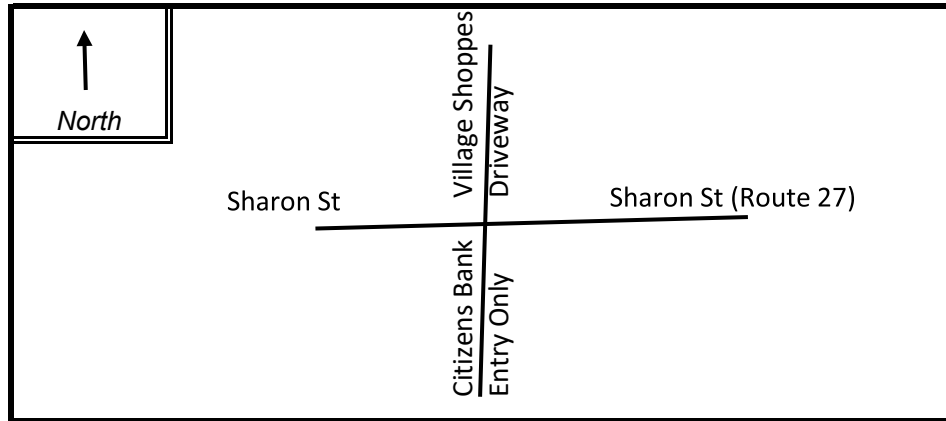
DISTRICT : 5 UNSIGNALIZED : SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Sharon Street (Rute 27)

MINOR STREET(S) : Village Shoppes Driveway

**INTERSECTION
DIAGRAM**



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (PM) :	725	717	0	237		1,679

"K" FACTOR : INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME :

TOTAL # OF CRASHES : # OF YEARS : AVERAGE # OF CRASHES PER YEAR (**A**) :

CRASH RATE CALCULATION : RATE = $\frac{(A * 1,000,000)}{(V * 365)}$

Comments : Average Crash Rate for MassDOT District 5 Unsignalized Intersections = 0.57

Project Title & Date: Washington Street Corridor Study in Canton