AGENDA

Town of Trophy Club
Town Council
Work Session & Regular Meeting

1 Trophy Wood Drive
Trophy Club, Texas
76262

November 13, 2023 | **6:00 PM** | **Council Chambers**

CALL WORK SESSION TO ORDER AND ANNOUNCE A QUORUM

1. Discussion on the Town of Trophy Club Intersection Traffic Study and traffic issues within the Town of Trophy Club. (Patrick Arata, Interim Town Manager)

2. Discussion on Code of Ethics and Conduct. (Dean Roggia, Town Attorney)

3. Discussion on Town Council Retreat to be held in January 2024. (Tamara Smith, Assistant to the Town Manager)

ADOURN WORK SESSION

CALL REGULAR MEETING TO ORDER (IMMEDIATELY FOLLOWING WORK SESSION OR 7:00 P.M. WHICHEVER IS LATER)

INVOCATION

Jeff Brooks, Senior Minister, Lake Cities Church of Christ

PLEDGES led by Council Member

Pledge of Allegiance to the American Flag

Pledge of Allegiance to the Texas Flag

PUBLIC COMMENT(S)

This is an opportunity for citizens to address the Council on any matter pursuant to Texas Government Code Sec. 551.007. The Council is not permitted to discuss or take action on any presentations made concerning matters that are not listed on the agenda. Presentations are limited to matters over which the Council has authority. Speakers have up to four (4) minutes or the time limit determined by the Presiding Officer. Each speaker must have submitted their request to speak by completing the Speaker's Form or may email mayorandcouncil@trophyclub.org

COMMUNITY SPOTLIGHT

1. Presentation by Medlin Middle School Students – Care of the Air

2. Working for You...Trophy Club
a) Update from Town Council Members
b) Update from Town Manager (Patrick Arata, Interim Town Manager)

CONSENT AGENDA

3. Consider approval of the October 23, 2023, Town Council Meeting Minutes. (Tammy Dixon, Town Secretary)

4. Consider approval of a purchase order to Delta Fire & Safety, Inc. for the purchase of several Personal Protective Equipment (PPE) ensembles. (Jason Wise, Fire Chief)

5. Consider approval of an ordinance amending subsection i, annual capital improvement and maintenance charge, of Section A1.014, Water and Wastewater fees for Public Improvement District No.1, within Appendix A, Fee Schedule, of the Trophy Club Code of Ordinances, to adopt a monthly surcharge for PID residents; providing for severability; providing a penalty; and providing an effective date. (April Duvall, Director of Finance)

6. Consider approval of an ordinance amending Division 3, "Open Records" of Chapter 1, "General Provisions" by repealing subsection 1.07.061, "Thirty-Six Hour Time Limit"; and amending Section A1.013 of Appendix A, Fee Schedule by repealing subsection 15 entitled "Personnel charges in excess of 36 hours." (Tammy Dixon, Town Secretary)

INDIVIDUAL ITEMS

7. Discuss, consider, and take action on the Trophy Club Community Pool Project, Phase II. (Ronnie Angel, Interim Director of Parks and Recreation)

8. Discuss and consider approval of a resolution providing for the appointment of a member to serve on the Trophy Club Economic Develpment Corporation. (Tammy Dixon, Town Secretary)

9. Future Agenda Items List. (Patrick Arata, Interim Town Manager)

EXECUTIVE SESSION

10. Pursuant to the following designated sections of the Texas Government Code, Annotated, Chapter 551 (Texas Open Meetings Act), the Town will recess into executive session to discuss the following:

    a. Section 551.071, Consultation with Town Attorney to seek legal advice regarding the Trophy Club Community Pool Project.

    b. Section 551.074, Personnel: To deliberate and consider the appointment, employment, evaluation, reassignment, duties, discipline or dismissal of public officers or employees; to wit: Interim Town Manager/Chief of Police

RECONVENE INTO REGULAR SESSION

ADJOURN

The Town Council may convene into executive session to discuss posted items as allowed by the Texas Open Meeting Act, LGC.551.071

CERTIFICATION

I certify that the above notice was posted on the bulletin board at Trophy Club Town Hall, 1 Trophy Wood Drive, Trophy Club, Texas, and was posted on the Town of Trophy Club website on November 9, 2023, at 4:00 p.m. in accordance with Chapter 551, Texas Government Code.

/s/Tammy Dixon
Tammy Dixon, Town Secretary

If you plan to attend this public meeting and have a disability that requires special needs, please contact the Town Secretary's Office at 682-237-2900, 48 hours in advance, and reasonable accommodations will be made to assist you.

engineers
surveyors
landscape architects

Town of Trophy Club, Texas

Intersection Traffic Study for

Trophy Club Drive at Bobcat Boulevard, Bobcat Boulevard at Parkview Drive, and Bobcat Boulevard at Marshall Creek Road

STATE OF TEXAS
CHRIS A. EDWARDS
118947
LICENSED PROFESSIONAL ENGINEER

Chris A. Edwards
12/07/2022

December 2022

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TNP Firm Registrations
Texas Board of Professional Engineers and Land Surveyors | Engineering Firm No. F-230
Surveying Firm No. 10011600 | 10194381 | 10011601
Georgia Board of Professional Engineers Firm No. PEF007431 | Texas Board of Architectural Examiners Firm No. BR 2673

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Executive Summary

Teague Nall & Perkins Inc. (TNP) has been retained to evaluate three existing unsignalized intersections in the Town of Trophy Club, Texas. The intersections evaluated are Trophy Club Drive at Bobcat Boulevard, Bobcat Boulevard at Parkview Drive, and Bobcat Boulevard at Marshall Creek Road. As part of the evaluation, traffic signal warrant analyses and level of service (LOS) analyses were performed for all three intersections. The LOS analyses evaluated the existing LOS as two-way stop-controlled intersections, and the LOS with the intersections improved as roundabouts. Modeling of the intersections as signalized was not included in the scope of this study.

Findings

Traffic Signal Warrant Study

There is no warrant study specifically for the consideration of a roundabout as a traffic control measure for an intersection. For the purposes of this study, it is assumed that if an intersection satisfies a traffic signal warrant(s), a roundabout is also warranted. Signal Warrant Analyses were performed utilizing 2009 *Manual on Uniform Traffic Control Devices (MUTCD)* methodologies in *Warrants 10*, a warrant analysis software by Trafficware. The applicable factors were evaluated for the following traffic signal warrants:

Warrant 1, Eight-Hour Vehicular Volume
Warrant 2, Four-Hour Vehicular Volume
Warrant 3, Peak Hour
Warrant 4, Pedestrian Volume
Warrant 5, School Crossing
Warrant 8, Roadway Network

The information gathered from study intersections was analyzed with *Warrants 10* software. **Table 4** shows a summary of warrant analysis results. The results show that Trophy Club Dr. at Bobcat Blvd. met three warrants and both Bobcat Blvd. at Parkview Dr. and Bobcat Blvd. at Marshall Creek Rd. met four warrants; therefore, installation of traffic signals or roundabouts at these intersections is warranted.

Table 4: Warrant Analysis Summary

Warrant	Trophy Club Dr at Bobcat Blvd	Bobcat Blvd at Parkview Dr	Bobcat Blvd at Marshall Creek Rd
Warrant 1 (Eight-Hour Vehicular Volume)	No	No	No
Warrant 2 (Four-Hour Vehicular Volume)	Yes	Yes	Yes
Warrant 3 (Peak Hour)	Yes	Yes	Yes
Warrant 4 (Pedestrian Volume)	No	No	No
Warrant 5 (School Crossing)	Not Applicable	Yes	Yes
Warrant 8 (Roadway Network)	Yes	Yes	Yes

LOS Analyses

Intersection capacity analyses were conducted for the study intersections. The following scenarios were used for the analyses:

- Existing (2022) Traffic Conditions with existing intersection configurations
- Existing (2022) Traffic Conditions with proposed roundabouts at Trophy Club Drive at Bobcat Boulevard, Bobcat Boulevard at Parkview Drive, and Bobcat Boulevard at Marshall Creek Road

The results of the analysis of the existing intersection configurations (two-way stop-controlled for the minor roadways) indicates that most traffic movements at the study intersections operate at an acceptable LOS (D or better) during the AM and PM peak hours. The following movements do not operate at acceptable LOS:

- The eastbound left turn from Bobcat Blvd. onto Trophy Club Dr. operates at LOS F during both peak hours.
- The northbound left turn from Parkview Dr. onto Bobcat Blvd. operates at LOS F during both peak hours.
- The northbound left turn from Marshall Creek Rd. onto Bobcat Blvd. operates at LOS E during both peak hours.
- The southbound left turn from Roseville Dr. onto Bobcat Blvd. operates at LOS E during the PM peak hour.

The results of the analysis of the intersections configured as roundabouts indicates that the traffic movements for Trophy Club Dr. at Bobcat Blvd., Bobcat Blvd. at Parkview Dr., and Bobcat Blvd. at Marshall Creek Rd. all operate at an acceptable LOS (D or better). Operation of the southbound left turn from Roseville Dr. onto Bobcat Blvd. degrades from LOS E to LOS F during the PM peak hour if the other intersections are converted to roundabouts.

Solutions

Based on the traffic signal/roundabout warrant analyses and the intersection capacity analyses, TNP evaluated the improvements options for Trophy Club Dr. at Bobcat Blvd., Bobcat Blvd. at Parkview Dr., and Bobcat Blvd. at Marshall Creek Rd. Pros and cons were developed for each option.

Trophy Club Dr. at Bobcat Blvd.

No Improvements

Pros

- Continuous traffic flow for Trophy Club Dr.
- No maintenance costs or installation costs

Cons

- Long delays for Bobcat Blvd.
- Increased likelihood of right-angle crashes
- Difficult for pedestrians to cross without a school crossing-guard

Roundabout Improvements

Pros

- Provides continuous flow of traffic for both roadways
- Reduction in delay for traffic on Marshall Creek Rd.
- Provides traffic calming (reduces speed)
- Reduces overall number of crashes and crash severity

Cons

- Installation costs
- Requires acquisition of additional right-of-way at intersections
- Marginalizes pedestrian (esp. handicapped people) and bicycle traffic

Traffic Signal Improvements

Pros

- Increases traffic capacity of the intersection
- Improves safety and efficiency of both pedestrian and vehicular traffic
- Reduces the frequency and severity of right-angle collisions
- Provides for orderly movement of traffic
- Interrupts heavy traffic at intervals to permit other vehicles or pedestrians to cross

Cons

- Increased installation and maintenance costs
- Potential for increased rear-end collisions
- Potential for disobedience of the signal indications

Bobcat Blvd. at Parkview Dr.

No Improvements

Pros

- Continuous traffic flow for Bobcat Boulevard
- No maintenance costs or installation costs

Cons

- Long delays for Parkview Dr., especially left turns
- Increased likelihood of right-angle crashes
- Difficult for pedestrians to cross without a school crossing-guard

Roundabout Improvements

Pros

- Provides continuous flow of traffic for both roadways
- Reduction in delay for traffic on Parkview Dr.
- Provides traffic calming (reduces speed)
- Reduces overall number of crashes and crash severity

Cons

- Installation costs
- Requires acquisition of additional right-of-way at intersections
- Marginalizes pedestrian (esp. handicapped people) and bicycle traffic

Traffic Signal Improvements

Pros

- Increases traffic capacity of the intersection
- Improves safety and efficiency of both pedestrian and vehicular traffic

- Reduces the frequency and severity of right-angle collisions
- Provides for orderly movement of traffic
- Interrupts heavy traffic at intervals to permit other vehicles or pedestrians to cross

Cons

- Increased installation and maintenance costs
- Potential for increased rear-end collisions
- Potential for disobedience of the signal indications

Bobcat Blvd. at Marshall Creek Rd.

No Improvements

Pros

- Continuous traffic flow for Bobcat Boulevard
- No maintenance costs or installation costs

Cons

- Long delays for Marshall Creek Rd., especially left turns
- Increased likelihood of right-angle crashes
- Difficult for pedestrians to cross without a school crossing-guard

Roundabout Improvements

Pros

- Provides continuous flow of traffic for both roadways
- Reduction in delay for traffic on Marshall Creek Rd.
- Provides traffic calming (reduces speed)
- Reduces overall number of crashes and crash severity

Cons

- Installation costs
- Requires acquisition of additional right-of-way at intersections
- Marginalizes pedestrian (esp. handicapped people) and bicycle traffic

Traffic Signal Improvements

Pros

- Increases traffic capacity of the intersection
- Improves safety and efficiency of both pedestrian and vehicular traffic
- Reduces the frequency and severity of right-angle collisions
- Provides for orderly movement of traffic
- Interrupts heavy traffic at intervals to permit other vehicles or pedestrians to cross

Cons

- Increased installation and maintenance costs
- Potential for increased rear-end collisions
- Potential for disobedience of the signal indications

Introduction

Teague Nall & Perkins Inc. (TNP) has been retained to evaluate three existing unsignalized intersections in the Town of Trophy Club, Texas, for reconstruction as roundabouts. The intersections evaluated are Trophy Club Drive at Bobcat Boulevard, Bobcat Boulevard at Parkview Drive, and Bobcat Boulevard at Marshall Creek Road. As part of the evaluation, traffic signal warrant analyses and level of service (LOS) analyses were performed for all three intersections. In addition, the LOS at the unsignalized intersection of Roseville Drive and Bobcat Boulevard was also evaluated. The locations of the study intersections are shown in **Figure 1**.

The following elements are included in this study:

Data Collection

- Collected existing 16-hour turning movement counts at Trophy Club Drive at Bobcat Boulevard, Bobcat Boulevard at Parkview Drive, and Bobcat Boulevard at Marshall Creek Road (6:00 AM to 10:00 PM) for use in traffic signal warrant analyses and LOS analyses
- Collected existing AM (7:00 AM to 9:00 AM) and PM (3:00 PM to 6:00 PM) peak period turning movement counts at Bobcat Boulevard at Roseville Drive for use in LOS analyses
- Gathered other relevant information

Traffic Analysis

- Using the *Warrants 10* analysis software, performed traffic signal warrant analyses for Trophy Club Drive at Bobcat Boulevard, Bobcat Boulevard at Parkview Drive, and Bobcat Boulevard at Marshall Creek Road
- Using the *Synchro 11* analysis software, performed LOS analyses for the study intersections for the following traffic conditions:
    - Existing (2022) Traffic Conditions with existing intersection configurations
    - Existing (2022) Traffic Conditions with proposed roundabouts at Trophy Club Drive at Bobcat Boulevard, Bobcat Boulevard at Parkview Drive, and Bobcat Boulevard at Marshall Creek Road

Existing Conditions

Trophy Club Drive at Bobcat Boulevard is a three-leg intersection. Trophy Club Drive is the through street and Bobcat Boulevard is stop-controlled. Trophy Club Drive is a four-lane divided roadway with two through lanes in each direction and a northbound dedicated left-turn lane at Bobcat Boulevard. Bobcat Boulevard is a four-lane undivided roadway. The posted speed limit is 30 mph for both roadways. At the intersection, Bobcat Boulevard consists of two lanes in the eastbound direction, a dedicated left-turn lane, and a dedicated right-turn lane. This intersection serves traffic associated with Beck Elementary School, Medlin Middle School, and Byron Nelson High School. There are two crossing guards assigned to this intersection during peak/school hours to direct traffic movement and assist students in crossing streets. Long queues of vehicles waiting to turn left were observed to form on the Bobcat Boulevard and Trophy Club Drive (northbound) approaches.

Bobcat Boulevard at Parkview Drive is a three-leg intersection. Bobcat Boulevard is the through street and Parkview Drive is stop-controlled. Bobcat Boulevard is a four-lane roadway with a westbound dedicated left-turn lane at Marshall Creek Road. Marshall Creek Road is a two-lane undivided roadway. The posted speed limit is 30 mph for both roadways. At the intersection, Parkview Drive consists of two lanes in the northbound direction, a dedicated left-turn lane, and a dedicated right-turn lane. This intersection is a key entrance for Medlin Middle School Traffic. There are two crossing guards assigned to this intersection during peak/school hours to direct traffic movement and assist students in crossing the streets. Long queues of vehicles waiting to turn left were observed to form on the Bobcat Boulevard (westbound) and Parkview Drive approaches.

Bobcat Boulevard at Marshall Creek Road is a three-leg intersection. Bobcat Boulevard is the through street and Parkview Drive is stop-controlled. Bobcat Boulevard is a four-lane roadway with a westbound dedicated left-turn lane at Marshall Creek Road. Marshall Creek Road is a two-lane undivided roadway. The posted speed limit is 30 mph for both roadways. At the intersection, Marshall Creek Road consists of two lanes in the northbound direction, a dedicated left-turn lane, and a dedicated right-turn lane. There is a crossing guard assigned to this intersection during peak/school hours to direct traffic movement and assist students in crossing the streets. Long queues of vehicles waiting to turn left were observed to form on the Marshall Creek Road approach.

Bobcat Boulevard at Roseville Drive is a four-leg intersection, with a driveway for The Church of Jesus Christ of Latter-day Saints lining up with the southbound approach of Roseville Drive. Bobcat Boulevard is the through street and Roseville Drive is stop-controlled. Bobcat Boulevard is a four-lane undivided roadway. Roseville Drive is a two-lane undivided roadway. The posted speed limit is 30 mph for both roadways. Peak hour traffic from Roseville Drive is minimal, with 56 vehicles in the AM peak hour and 68 vehicles in the PM peak hour, the overwhelming majority of which turn right onto Bobcat Boulevard. Vehicles turning left from Roseville Drive during the peak hours must contend with traffic queuing from the southbound approach of Trophy Club Drive at Bobcat Boulevard.

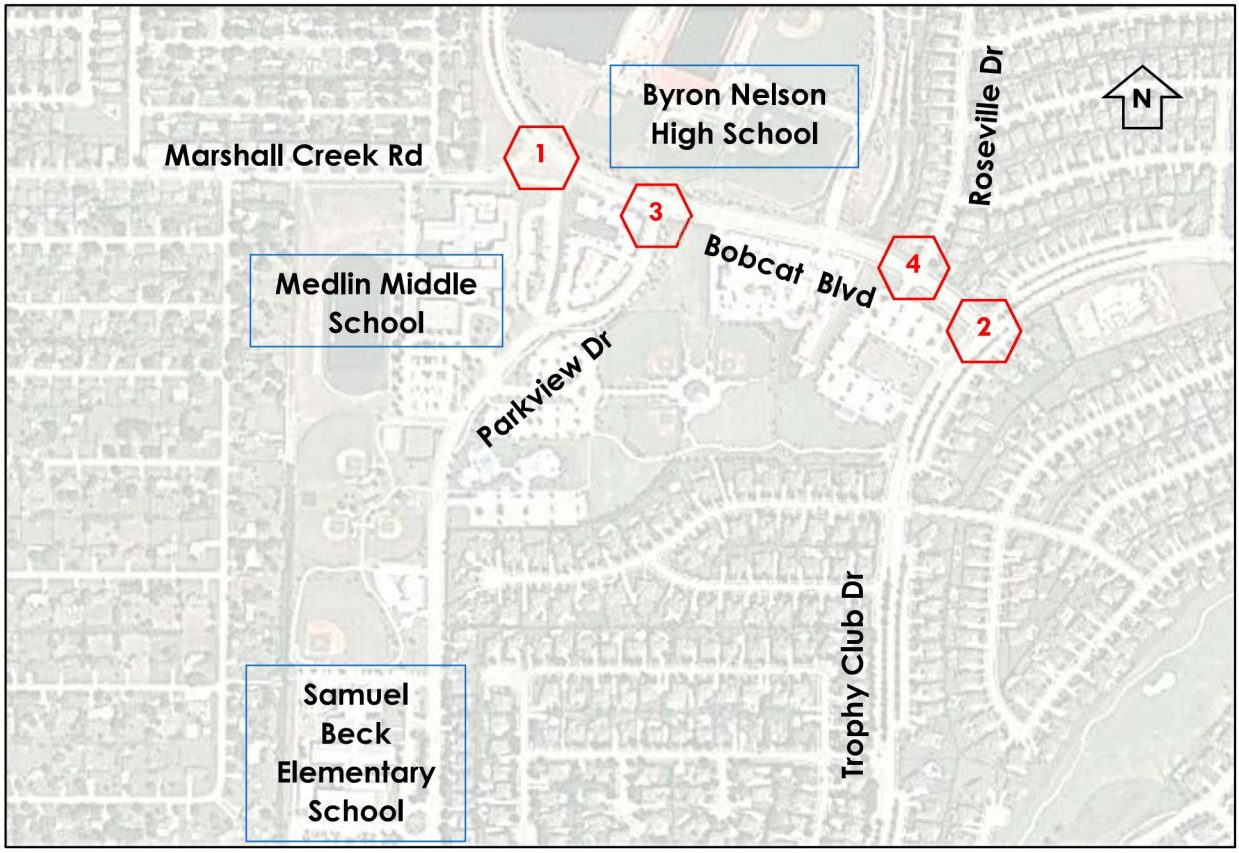


Figure 1: Site Location

Traffic Count Data

Turning movement traffic volumes on the study streets were collected by CJ Hensch & Associates, Inc. on Thursday, September 8, 2022 (see **Appendix A**). The AM peak hours of the study intersections were found to be 7:30 – 8:30 AM for all intersections except Roseville Drive at Bobcat Boulevard, which had an AM peak hour of 7:45 – 8:45 AM. The PM peak hour of all study intersections was found to be 5:00 – 6:00 PM. For purposes of the LOS analyses in this study, all peak hours were assumed to occur at the same time.

Traffic Signal/Roundabout Warrant Analysis

There is no warrant study specifically for the consideration of a roundabout as a traffic control measure for an intersection. Per Appendix E – Alternative Intersections and Interchanges, Section 2 – Roundabouts, of the *Roadway Design Manual (May 2022)*, by the Texas Department of Transportation, "Locations that meet or nearly meet a signal warrant(s) should be given consideration for roundabout installation." For the purposes of this study, it is assumed that if an intersection satisfies a traffic signal warrant(s), a roundabout is also warranted. Chapter 4C, Traffic Control Signal Needs Studies, of the *Texas Manual on Uniform Traffic Control Devices* (TMUTCD) was used as a guide for conducting this study. This report details the cursory investigation of traffic conditions and physical characteristics of the study locations that are required to determine if signalization is warranted. The investigation of the need for a traffic control signal includes an analysis of factors related to the existing operation and safety at the study location and the potential to improve these conditions. Signal Warrant Analyses were performed utilizing 2009 *Manual on Uniform Traffic Control Devices (MUTCD)* methodologies in *Warrants 10*, a warrant analysis software by Trafficware. The applicable factors are evaluated in the following traffic signal warrants:

Warrant 1, Eight-Hour Vehicular Volume
Warrant 2, Four-Hour Vehicular Volume
Warrant 3, Peak Hour
Warrant 4, Pedestrian Volume
Warrant 5, School Crossing
Warrant 8, Roadway Network

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

The TMUTCD provides the following guidance regarding warrants for traffic signal installation:

- A traffic control signal should not be installed unless one or more of the factors described in Chapter 4C are met.
- A traffic control signal should not be installed unless an engineering study indicates that installing a traffic control signal will improve the overall safety and/or operation of the intersection.
- A traffic control signal should not be installed if it will seriously disrupt progressive traffic flow.

Warrant 1 – Eight-Hour Vehicular Volume

The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any **8 hours** of an average day:

A. The vehicles per hour given in both the 100 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

B. The vehicles per hour given in both the 100 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

Table 4C-1. Warrant 1, Eight-Hour Vehicular Volume

Condition A—Minimum Vehicular Volume

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	500	400	350	280	150	120	105	84
2 or more	1	600	480	420	336	150	120	105	84
2 or more	2 or more	600	480	420	336	200	160	140	112
1	2 or more	500	400	350	280	200	160	140	112

Condition B—Interruption of Continuous Traffic

Number of lanes for moving traffic on each approach		Vehicles per hour on major street (total of both approaches)				Vehicles per hour on higher-volume minor-street approach (one direction only)			
Major Street	Minor Street	100%[a]	80%[b]	70%[c]	56%[d]	100%[a]	80%[b]	70%[c]	56%[d]
1	1	750	600	525	420	75	60	53	42
2 or more	1	900	720	630	504	75	60	53	42
2 or more	2 or more	900	720	630	504	100	80	70	56
1	2 or more	750	600	525	420	100	80	70	56

[a] Basic minimum hourly volume
[b] Used for combination of Conditions A and B after adequate trial of other remedial measures
[c] May be used when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000
[d] May be used for combination of Conditions A and B after adequate trial of other remedial measures when the major-street speed exceeds 40 mph or in an isolated community with a population of less than 10,000

The Minimum Vehicular Volume, Condition A, is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

The Interruption of Continuous Traffic, Condition B, is intended for application at locations where Condition A is not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.

It is intended that Warrant 1 be treated as a single warrant. If Condition A is satisfied, then the criterion for Warrant 1 is satisfied. Similarly, if Condition B is satisfied, then the criterion for Warrant 1 is satisfied.

In applying each condition, the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours. A minimum of any 8 hours of the day needs to match or exceed the preset benchmark for the condition to be met.

The analysis shows that for Condition A, only seven hours of traffic volumes for all three intersections meet the minimum criteria set in this warrant. As a result, none of the intersections satisfy the requirements for at least eight hours for Condition A. The analysis also shows that for Condition B, six hours of traffic volumes for both Trophy Club Dr. at Bobcat Blvd. and Bobcat Blvd. at Marshall Creek Rd., and seven hours of traffic volumes for Bobcat Blvd. at Parkview Dr., meet the minimum criteria set in this warrant. **Table 1** shows a summary of the Warrant 1 analysis.

Table 1: Warrant 1 Analysis Results

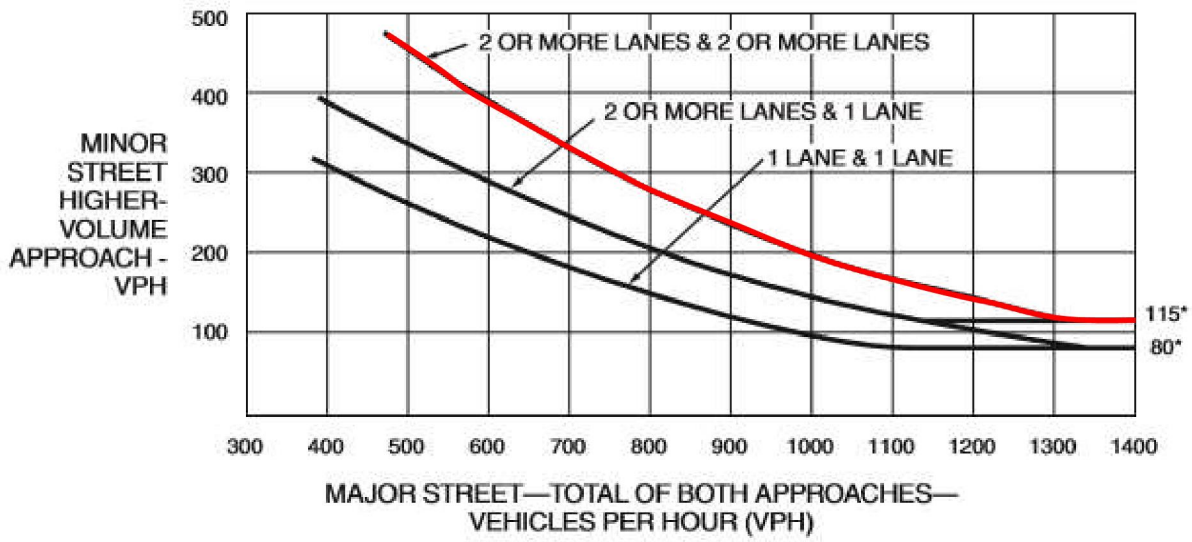
	Condition A		Condition B	
Intersection	**Hours Met**	**Hours Required**	**Hours Met**	**Hours Required**
Trophy Club Dr at Bobcat Blvd	7	8	6	8
Bobcat Blvd at Parkview Dr	7	8	7	8
Bobcat Blvd at Marshall Creek Rd	7	8	6	8

Thus, none of the intersections satisfy the requirements for at least eight hours for Condition B. Therefore, warrant 1 is **NOT SATISFIED FOR ANY OF THE INTERSECTIONS**. A detailed *Warrants 10* analysis summary is included in **Appendix B**.

Warrant 2 – Four-Hour Vehicular Volume

The Four-Hour Vehicular Volume signal warrant conditions are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

This warrant compares the existing hourly vehicular volume points with one of three predefined Vehicular Volume curves shown in Figure 4C-1. The greater hourly volume of the Minor Street approaches is plotted versus the combined hourly volume of both approaches of the Major Street. The appropriate curve to use depends on the existing number of lanes on the major street approaches and on the higher volume minor street approach. If the location of the point falls above the predefined curve that specific hour is warranted. Any 4 hours of the day are needed to match for this warrant to be met.

Table 2 presents a summary of the Warrant 2 analysis. The analysis indicates that for Bobcat Blvd. at Parkview Dr. and Bobcat Blvd. at Marshall Creek Rd. six hours of volumes fall above the applicable curve in figure 4C-1. For Trophy Club Dr. at Bobcat Blvd., seven hours of volumes fall above the applicable curve. Therefore, this warrant is **SATISFIED FOR ALL THREE INTERSECTIONS.** A detailed *Warrants 10* analysis summary is included in **Appendix B**.

Table 2: Warrant 2 Analysis Results

Intersection	Hours Met	Hours Required
Trophy Club Dr at Bobcat Blvd	7	4
Bobcat Blvd at Parkview Dr	6	4
Bobcat Blvd at Marshall Creek Rd	6	4

Warrant 3 – Peak Hour

The Peak Hour signal warrant is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street. According to TMUTCD, this signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time. Since schools would attract and/or discharge a large volume of vehicles over a short period, this warrant is applicable.

The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:

A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:

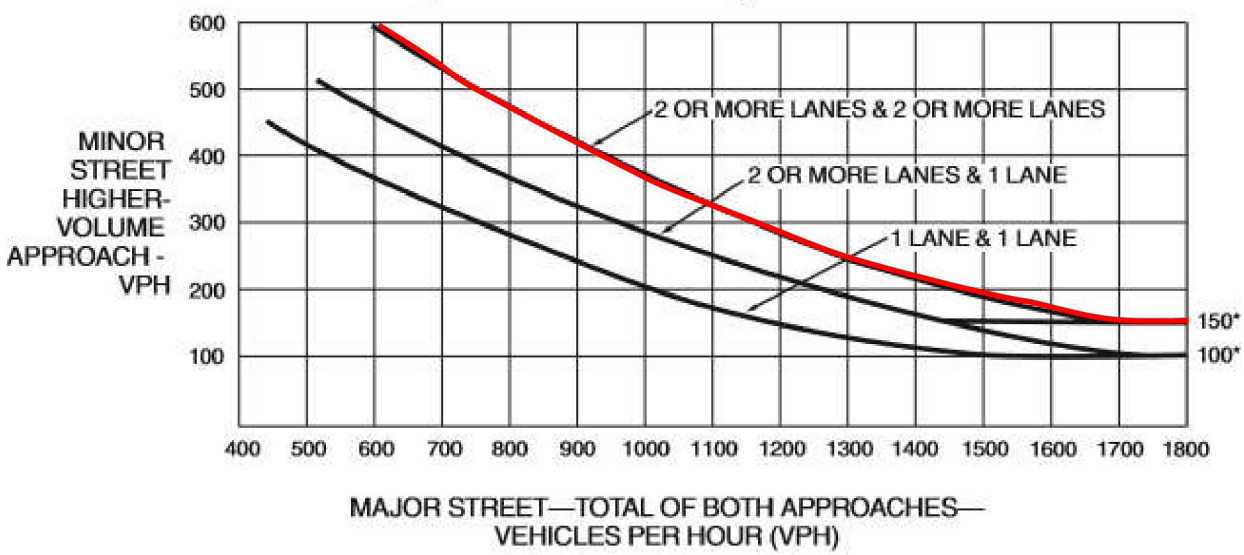
   1. The total stopped time delay experienced by the traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds 4 vehicle-hours for a one lane approach; 5 vehicle-hours for a two lane approach, and

   2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and

   3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Table 3 presents a summary of the Warrant 3 analysis. The analysis shows that four hours of volumes fall above the applicable curve (in red in Figure 4C-3) for Trophy Club Dr. at Bobcat Blvd., five hours of volume fall above the

applicable curve for Bobcat Blvd. at Parkview Dr., and three hours of volumes fall above the applicable curve for Bobcat Blvd. at Marshall Creek Rd., exceeding the 1 hour required minimum threshold volume. Therefore, this warrant is **SATISFIED FOR ALL THREE INTERSECTIONS**. A detailed *Warrants 10* analysis summary is included in **Appendix B**.

Table 3: Warrant 3 Analysis Results

Intersection	Condition A		Condition B	
	Hours Met	Hours Required	Hours Met	Hours Required
Trophy Club Dr at Bobcat Blvd	0	1	4	1
Bobcat Blvd at Parkview Dr	0	1	5	1
Bobcat Blvd at Marshall Creek Rd	0	1	3	1

Warrant 4 – Pedestrian Volume

The pedestrian volume warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street. It contains two levels of usage and conditions. For this warrant to be met both conditions must be met.

Condition A requires that a minimum of 100 pedestrian cross the intersection for any 4 hours during the day or 190 pedestrians during any 1 hour.

Condition B requires a minimum of 60 gaps per hour in the traffic stream to provide adequate length for pedestrians to cross.

Based on the pedestrian counts performed at the intersections, this signal warrant is **NOT SATISFIED FOR ANY OF THE INTERSECTIONS.**

Warrant 5 – School Crossing

The School Crossing warrant is intended for application where the crossing of the major street by school children is the principal reason to consider installing a traffic control signal.

The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of school children at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period and there are a minimum of 20 pedestrians during the highest crossing hour. Based on field reviews, students crossing the streets utilize the marked crosswalk with a crossing guard at each location.

It was observed that the number of students crossing the street at Trophy Club Dr. at Bobcat Blvd. did not meet the 20 pedestrians per hour requirement. Therefore, this signal warrant is **NOT SATISFIED FOR THIS INTERSECTION**.

The Bobcat Blvd. at Parkview Dr. and Bobcat Blvd. at Marshall Creek Rd. intersections did meet the 20 pedestrians per hour requirement. In addition, using empirical methods, the estimated total number of acceptable gaps was found to be 11 for Bobcat Blvd. at Parkview Dr. and 14 for Bobcat Blvd. at Marshall Creek Rd. The number of acceptable gaps did meet the requirements for a school crossing warrant since the total number was less than the minutes in the study period (30 minutes for both intersections). Therefore, this warrant is **SATISFIED FOR THE BOBCAT BLVD. AT PARKVIEW DR. AND BOBCAT BLVD. AT MARSHALL CREEK RD. INTERSECTIONS**.

Warrant 8 – Roadway Network

Installing a traffic control signal at some intersections might be justified to encourage concentration and organization of traffic flow on a roadway network. The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:

A. The intersection has a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or

B. The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday),

A major route as applied in this signal warrant shall have one or more of the following characteristics:

A. It is part of the street or highway system that serves as the principal roadway network for through traffic flow; or

B. It includes rural or suburban highways outside, entering, or traversing a city; or

C. It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study;

D. It connects areas of principal traffic generation; or

E. It has surface street freeway or expressway ramp terminals.

According to the Town's Comprehensive Land Use Plan (Updated 1997), Bobcat Blvd. and Trophy Club Dr. are classified as Major Collector routes. Thus, this warrant is applicable.

All three intersections have a total entering volume greater than 1000 and met Warrants 2 and/or 3; therefore, Condition A is met and this warrant is **SATISFIED FOR ALL THREE INTERSECTIONS**. A detailed *Warrants 10* analysis summary is included in **Appendix B**.

Signal/Roundabout Warrant Summary

The information gathered from study intersections was analyzed with *Warrants 10* software. **Table 4** shows a summary of warrant analysis results. The results show that Trophy Club Dr. at Bobcat Blvd. met three warrants and both Bobcat Blvd. at Parkview Dr. and Bobcat Blvd. at Marshall Creek Rd. met four warrants; therefore, installation of traffic signals or roundabouts at these intersections is warranted.

Table 4: Warrant Analysis Summary

Warrant	Trophy Club Dr at Bobcat Blvd	Bobcat Blvd at Parkview Dr	Bobcat Blvd at Marshall Creek Rd
Warrant 1 (Eight-Hour Vehicular Volume)	No	No	No
Warrant 2 (Four-Hour Vehicular Volume)	**Yes**	**Yes**	**Yes**
Warrant 3 (Peak Hour)	**Yes**	**Yes**	**Yes**
Warrant 4 (Pedestrian Volume)	No	No	No
Warrant 5 (School Crossing)	Not Applicable	**Yes**	**Yes**
Warrant 8 (Roadway Network)	**Yes**	**Yes**	**Yes**

Intersection Capacity Analysis

Level of Service (LOS) is a qualitative measure of the operating conditions experienced at an intersection or along a roadway when it is subject to varying traffic volumes. It is directly related to vehicle delay. There are six Levels of Service: LOS A, representing relatively short delays, through LOS F, which represents very long delays, or when volume exceeds capacity (V/C > 1.0). The standard target minimum LOS for intersections in the City of Kilgore is identified as LOS D. **Table 5** summarizes the LOS criteria for signalized and unsignalized intersections, per the *Highway Capacity Manual (HCM) 6th Edition*, by the Transportation Research Board, 2016.

LOS	Control Delay (Seconds per Vehicle)	
	Signalized Intersection	**Unsignalized Intersection**
A	≤10	≤10
B	>10-20	>10-15
C	>20-35	>15-25
D	>35-55	>25-35
E	>55-80	>35-50
F	>80 or V/C >1.0	>50 or V/C >1.0

Table 5: HCM Level of Service Criteria for Intersections

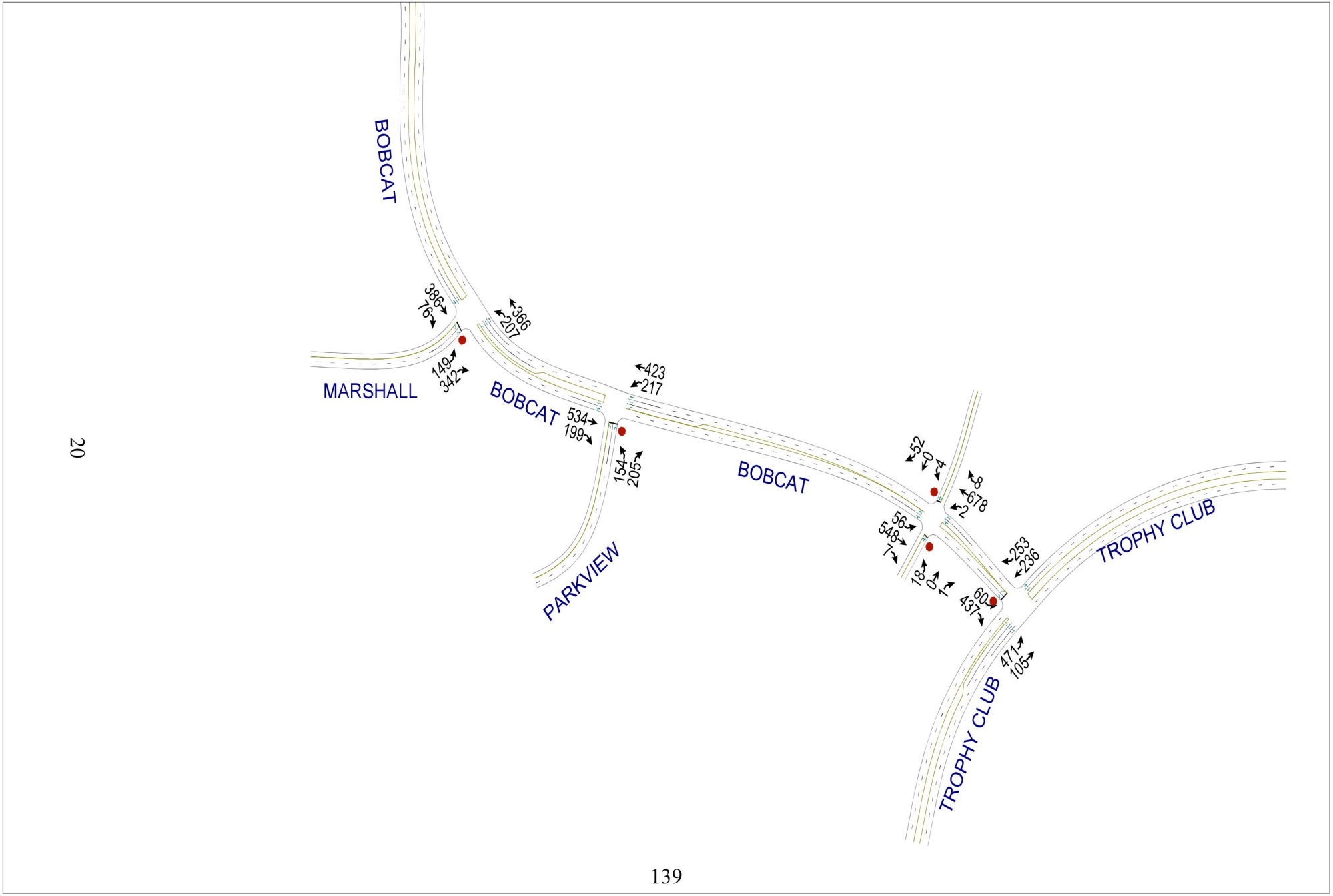
The intersection capacity analyses were conducted using the network simulation methodologies in Synchro 11, a traffic analysis and optimization software application, to evaluate the effects on the entire corridor of improvements to select intersections. The capacity analyses were conducted for the study intersections for the various scenarios outlined in this report. Reports from Synchro 11 relating to the intersection capacity analyses are included as **Appendix C**.

Study Scenarios

Intersection capacity analyses were conducted for the study intersections. The following scenarios were used for the analyses:

- Existing (2022) Traffic Conditions with existing intersection configurations
- Existing (2022) Traffic Conditions with proposed roundabouts at Trophy Club Drive at Bobcat Boulevard, Bobcat Boulevard at Parkview Drive, and Bobcat Boulevard at Marshall Creek Road

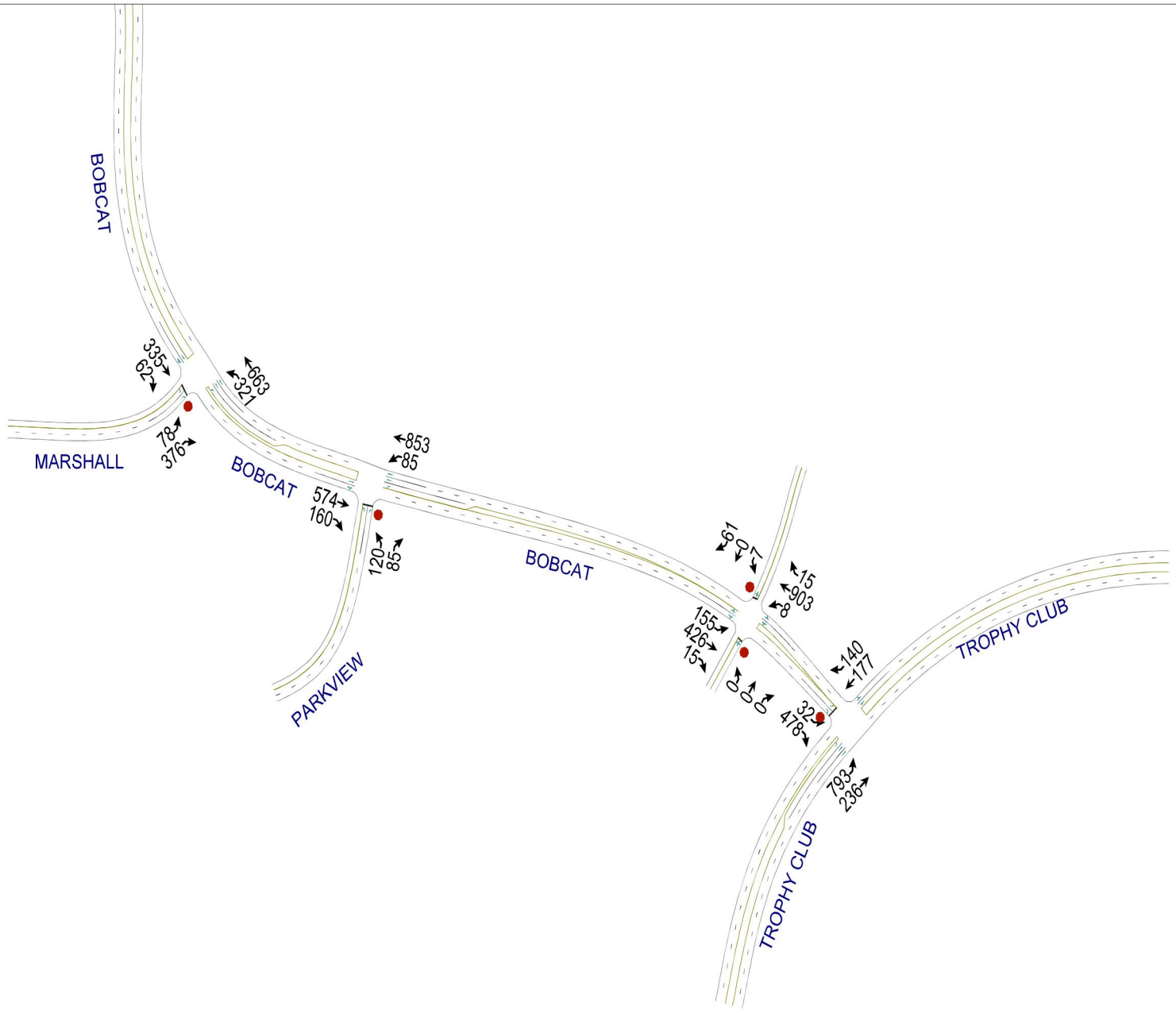
FIGURE 2



Ex-TRO.syn
TNP

2022 AM EXIST
10/26/2022

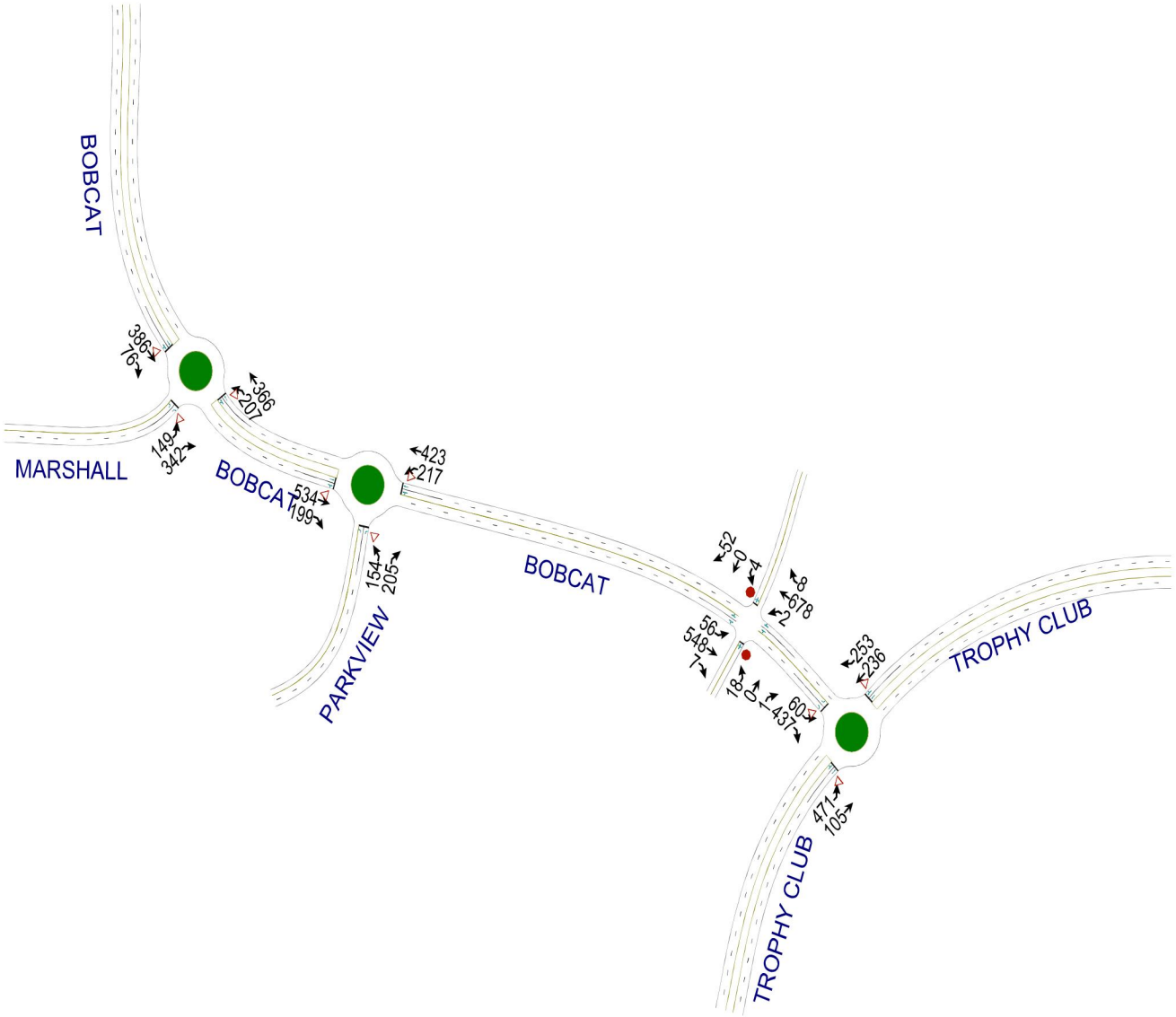
FIGURE 3



Ex-TRO.syn
TNP

2022 PM EXIST
10/26/2022

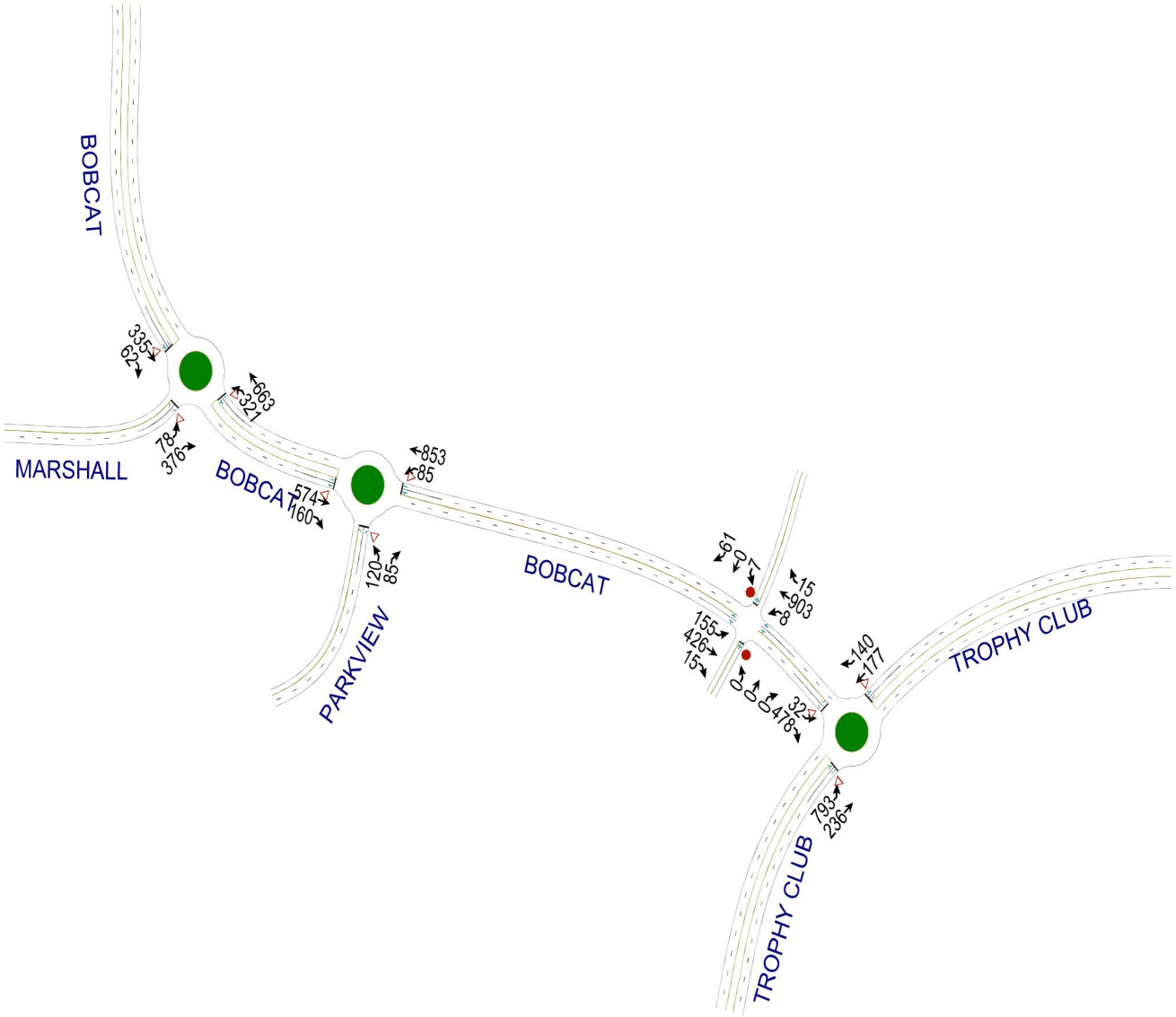
FIGURE 4



Prop-TRO-3RB.syn
TNP

2022 AM PROP
10/31/2022

FIGURE 5



Prop-TRO-3RB.syn
TNP

2022 PM PROP
10/31/2022

Existing Traffic Conditions (2022) with Existing Intersection Configurations

The existing intersection configurations and the existing AM and PM peak hour traffic volumes shown in **Figure 2** and **Figure 3** were modeled in Synchro 11 for these analyses. The first two columns in **Table 6** present the results for the study intersections under existing traffic volume conditions for the AM and PM peak hours.

The results of these analyses indicate that most traffic movements at the study intersections operate at an acceptable LOS (D or better) during the AM and PM peak hours. The northbound left turn from Marshall Creek Rd. onto Bobcat Blvd. operates at LOS E during both peak hours. The eastbound left turn from Bobcat Blvd. onto Trophy Club Dr. operates at LOS F during both peak hours. The northbound left turn from Parkview Dr. onto Bobcat Blvd. operates at LOS F during both peak hours. The southbound left turn from Roseville Dr. onto Bobcat Blvd. operates at LOS E during the PM peak hour.

Existing Traffic Conditions (2022) with Proposed Roundabouts

The proposed roundabout configurations and the existing AM and PM peak hour traffic volumes shown in **Figure 4** and **Figure 5** were modeled in Synchro 11 for these analyses. The third and fourth columns in **Table 6** present the results for the study intersections under existing traffic volume conditions with proposed roundabouts for the AM and PM peak hours.

The results of these analyses indicate that the traffic movements for Trophy Club Dr. at Bobcat Blvd., Bobcat Blvd. at Parkview Dr., and Bobcat Blvd. at Marshall Creek Rd. all operate at an acceptable LOS (D or better) with those intersections configured as roundabouts. Operation of the southbound left turn from Roseville Dr. onto Bobcat Blvd. degrades from LOS E to LOS F during the PM peak hour if the other intersections are converted to roundabouts.

Synchro Int. ID.	Intersection	Control Type	Approach	Level of Service (Delay in Seconds)			
				Existing Traffic 2022 w/ Existing Intersections		Existing Traffic 2022 w/ Prop Roundabouts	
				AM Peak	**PM Peak**	**AM Peak**	**PM Peak**
101	Bobcat Blvd at Marshall Creek Rd	Stop Controlled for Marshall Creek Rd (Roundabout in Prop Configuration)	EBT	A (0.9)	A (0.8)	A (4.2)	A (4.2)
			EBR	A (0.8)	A (0.7)	A (2.8)	A (3.0)
			WBL	A (5.9)	A (6.5)	A (3.3)	A (3.6)
			WBT	A (0.4)	A (0.4)	A (3.8)	A (3.6)
			NBL	**E (36.7)**	**E (49.5)**	A (6.0)	A (4.5)
			NBR	A (6.9)	A (6.9)	A (3.9)	A (4.0)
			Overall	*A (6.3)*	*A (4.9)*	*A (4.0)*	*A (3.8)*
102	Trophy Club Dr at Bobcat Blvd	Stop Controlled for Bobcat Blvd (Roundabout in Prop Configuration)	EBL	**F (61.6)**	**F (236.7)**	A (2.6)	A (2.9)
			EBR	A (4.8)	A (5.2)	A (2.5)	A (2.7)
			NBL	A (6.2)	A (8.6)	A (4.6)	D (33.9)
			NBT	A (0.3)	A (0.6)	A (4.6)	C (15.8)
			SBT	A (0.7)	A (0.9)	A (6.2)	A (6.6)
			SBR	A (1.2)	A (0.9)	A (2.5)	A (2.6)
			Overall	*A (5.7)*	*A (9.1)*	*A (3.8)*	*C (18.2)*
103	Bobcat Blvd at Parkview Dr	Stop Controlled for Parkview Dr (Roundabout in Prop Configuration)	EBT	A (1.4)	A (1.1)	A (4.1)	A (3.9)
			EBR	A (1.3)	A (1.0)	A (3.0)	A (2.9)
			WBL	B (13.2)	A (9.0)	A (4.5)	A (3.9)
			WBT	A (0.6)	A (0.8)	A (3.4)	A (4.0)
			NBL	**F (289.0)**	**F (65.3)**	A (6.0)	A (6.0)
			NBR	C (15.8)	A (4.5)	A (4.2)	A (3.6)
			Overall	*D (28.0)*	*A (5.3)*	*A (4.0)*	*A (4.0)*
104	Bobcat Blvd at Dwy/Roseville Dr	Two-way Stop Controlled for Dwy/Roseville Dr	EBL	A (5.7)	A (8.8)	A (5.8)	B (11.9)
			EBT	A (1.0)	A (1.0)	A (0.9)	A (1.0)
			EBR	A (1.0)	A (0.7)	A (0.5)	A (0.5)
			WBL	A (4.6)	A (4.5)	A (4.0)	A (4.5)
			WBT	A (0.6)	A (0.7)	A (0.5)	A (1.6)
			WBR	A (0.4)	A (0.6)	A (0.3)	A (1.6)
			NBL	C (15.1)	n/a	C (17.9)	n/a
			NBR	A (5.4)	n/a	A (4.6)	n/a
			SBL	B (14.2)	**E (46.1)**	C (19.6)	**F (82.5)**
			SBR	A (4.7)	A (9.2)	A (4.0)	B (12.9)
			Overall	*A (1.3)*	*A (2.1)*	*A (1.2)*	*A (3.0)*

Table 6: Intersection Capacity Analysis Results

Evaluation of Improvements Options

Based on the traffic signal/roundabout warrant analyses and the intersection capacity analyses, TNP evaluated the no-build, roundabout, and traffic signal improvements options for Trophy Club Dr. at Bobcat Blvd., Bobcat Blvd. at Parkview Dr., and Bobcat Blvd. at Marshall Creek Rd. Pros and cons were developed for each option.

Trophy Club Dr. at Bobcat Blvd.

No Improvements

Pros

- Continuous traffic flow for Trophy Club Dr.
- No maintenance costs or installation costs

Cons

- Long delays for Bobcat Blvd.
- Increased likelihood of right-angle crashes
- Difficult for pedestrians to cross without a school crossing-guard

Roundabout Improvements

Pros

- Provides continuous flow of traffic for both roadways
- Reduction in delay for traffic on Marshall Creek Rd.
- Provides traffic calming (reduces speed)
- Reduces overall number of crashes and crash severity

Cons

- Installation costs
- Requires acquisition of additional right-of-way at intersections
- Marginalizes pedestrian (esp. handicapped people) and bicycle traffic

Traffic Signal Improvements

Pros

- Increases traffic capacity of the intersection
- Improves safety and efficiency of both pedestrian and vehicular traffic
- Reduces the frequency and severity of right-angle collisions
- Provides for orderly movement of traffic
- Interrupts heavy traffic at intervals to permit other vehicles or pedestrians to cross

Cons

- Increased installation and maintenance costs
- Potential for increased rear-end collisions
- Potential for disobedience of the signal indications

Bobcat Blvd. at Parkview Dr.

No Improvements

Pros

- Continuous traffic flow for Bobcat Boulevard
- No maintenance costs or installation costs

Cons

- Long delays for Parkview Dr., especially left turns
- Increased likelihood of right-angle crashes
- Difficult for pedestrians to cross without a school crossing-guard

Roundabout Improvements

Pros

- Provides continuous flow of traffic for both roadways
- Reduction in delay for traffic on Parkview Dr.
- Provides traffic calming (reduces speed)
- Reduces overall number of crashes and crash severity

Cons

- Installation costs
- Requires acquisition of additional right-of-way at intersections
- Marginalizes pedestrian (esp. handicapped people) and bicycle traffic

Traffic Signal Improvements

Pros

- Increases traffic capacity of the intersection
- Improves safety and efficiency of both pedestrian and vehicular traffic
- Reduces the frequency and severity of right-angle collisions
- Provides for orderly movement of traffic
- Interrupts heavy traffic at intervals to permit other vehicles or pedestrians to cross

Cons

- Increased installation and maintenance costs
- Potential for increased rear-end collisions
- Potential for disobedience of the signal indications

Bobcat Blvd. at Marshall Creek Rd.

No Improvements

Pros

- Continuous traffic flow for Bobcat Boulevard
- No maintenance costs or installation costs

Cons

- Long delays for Marshall Creek Rd., especially left turns

- Increased likelihood of right-angle crashes
- Difficult for pedestrians to cross without a school crossing-guard

Roundabout Improvements

Pros

- Provides continuous flow of traffic for both roadways
- Reduction in delay for traffic on Marshall Creek Rd.
- Provides traffic calming (reduces speed)
- Reduces overall number of crashes and crash severity

Cons

- Installation costs
- Requires acquisition of additional right-of-way at intersections
- Marginalizes pedestrian (esp. handicapped people) and bicycle traffic

Traffic Signal Improvements

Pros

- Increases traffic capacity of the intersection
- Improves safety and efficiency of both pedestrian and vehicular traffic
- Reduces the frequency and severity of right-angle collisions
- Provides for orderly movement of traffic
- Interrupts heavy traffic at intervals to permit other vehicles or pedestrians to cross

Cons

- Increased installation and maintenance costs
- Potential for increased rear-end collisions
- Potential for disobedience of the signal indications

Appendix A

Traffic Count Raw Data

Leg	Trophy Club Drive						Trophy Club Drive						Bobcat Boulevard						
Direction	Southbound						Northbound						Eastbound						
Start Time	Thru	Right	U-Turn	**App Total**	Peds CW	Peds CCW	Left	Thru	U-Turn	**App Total**	Peds CW	Peds CCW	Left	Right	U-Turn	**App Total**	Peds CW	Peds CCW	**Int Total**
2022-09-08 06:00:00	9	7	0	**16**	0	2	21	1	0	**22**	0	0	1	13	0	**14**	0	0	**52**
2022-09-08 06:15:00	10	12	0	**22**	1	1	52	5	0	**57**	0	0	3	47	0	**50**	0	0	**129**
2022-09-08 06:30:00	28	12	0	**40**	0	0	42	5	0	**47**	0	0	8	66	0	**74**	0	0	**161**
2022-09-08 06:45:00	45	15	0	**60**	0	1	36	8	0	**44**	0	0	6	55	0	**61**	0	0	**165**
2022-09-08 07:00:00	65	35	0	**100**	0	0	56	11	0	**67**	0	0	8	64	0	**72**	0	0	**239**
2022-09-08 07:15:00	94	95	0	**189**	0	0	61	18	0	**79**	0	0	7	75	0	**82**	0	3	**350**
2022-09-08 07:30:00	63	52	0	**115**	0	1	95	26	0	**121**	0	0	10	121	0	**131**	1	0	**367**
2022-09-08 07:45:00	62	47	0	**109**	1	2	101	34	0	**135**	0	0	10	91	0	**101**	0	0	**345**
2022-09-08 08:00:00	53	64	0	**117**	0	4	116	22	0	**138**	0	0	17	103	0	**120**	0	1	**375**
2022-09-08 08:15:00	58	90	0	**148**	0	1	159	23	0	**182**	1	0	23	122	0	**145**	0	2	**475**
2022-09-08 08:30:00	58	33	0	**91**	2	3	59	28	0	**87**	0	0	24	123	0	**147**	1	0	**325**
2022-09-08 08:45:00	44	15	0	**59**	0	0	35	23	0	**58**	0	0	15	81	0	**96**	0	0	**213**
2022-09-08 09:00:00	52	21	0	**73**	0	0	47	21	0	**68**	0	0	6	52	0	**58**	0	1	**199**
2022-09-08 09:15:00	41	13	1	**55**	0	1	43	22	0	**65**	0	0	16	53	0	**69**	0	0	**189**
2022-09-08 09:30:00	29	12	1	**42**	1	0	36	19	1	**56**	0	0	7	54	0	**61**	0	0	**159**
2022-09-08 09:45:00	33	16	0	**49**	0	0	33	21	0	**54**	0	0	11	46	0	**57**	0	0	**160**
2022-09-08 10:00:00	42	13	0	**55**	0	0	25	21	0	**46**	0	0	13	48	0	**61**	0	0	**162**
2022-09-08 10:15:00	26	16	0	**42**	2	0	39	26	0	**65**	0	0	7	46	0	**53**	2	0	**160**
2022-09-08 10:30:00	33	10	0	**43**	0	0	29	18	0	**47**	0	0	11	36	0	**47**	0	0	**137**
2022-09-08 10:45:00	28	10	0	**38**	0	0	31	23	0	**54**	0	0	11	43	0	**54**	0	0	**146**
2022-09-08 11:00:00	34	13	0	**47**	0	0	36	15	0	**51**	0	0	7	48	0	**55**	0	0	**153**
2022-09-08 11:15:00	16	13	0	**29**	0	0	34	27	0	**61**	0	0	11	46	0	**57**	0	0	**147**
2022-09-08 11:30:00	31	19	0	**50**	0	0	45	25	1	**71**	0	0	8	31	0	**39**	0	0	**160**
2022-09-08 11:45:00	28	16	0	**44**	0	0	54	27	0	**81**	0	0	8	62	0	**70**	0	0	**195**
2022-09-08 12:00:00	33	19	0	**52**	0	0	49	31	0	**80**	0	0	9	60	0	**69**	0	0	**201**
2022-09-08 12:15:00	35	14	0	**49**	0	0	44	36	0	**80**	0	0	15	60	0	**75**	0	0	**204**
2022-09-08 12:30:00	43	16	1	**60**	0	0	32	18	0	**50**	0	0	17	55	0	**72**	0	0	**182**
2022-09-08 12:45:00	30	9	0	**39**	0	0	42	26	0	**68**	0	0	14	58	0	**72**	0	0	**179**
2022-09-08 13:00:00	22	15	0	**37**	0	0	57	34	0	**91**	0	0	11	52	0	**63**	0	0	**191**
2022-09-08 13:15:00	33	8	0	**41**	1	0	44	19	1	**64**	0	0	14	60	0	**74**	0	0	**179**
2022-09-08 13:30:00	20	13	0	**33**	0	0	43	28	0	**71**	0	0	12	56	0	**68**	0	0	**172**
2022-09-08 13:45:00	34	9	0	**43**	0	0	46	24	0	**70**	0	0	11	35	0	**46**	0	0	**159**
2022-09-08 14:00:00	35	19	0	**54**	0	0	44	31	0	**75**	0	0	11	48	0	**59**	0	0	**188**
2022-09-08 14:15:00	42	20	0	**62**	0	0	52	31	0	**83**	0	0	9	62	0	**71**	0	0	**216**
2022-09-08 14:30:00	27	26	0	**53**	0	0	61	26	0	**87**	0	0	18	50	0	**68**	0	0	**208**
2022-09-08 14:45:00	31	39	0	**70**	0	0	63	34	0	**97**	0	0	5	57	0	**62**	0	1	**229**
2022-09-08 15:00:00	34	16	0	**50**	0	0	82	57	0	**139**	0	0	10	63	0	**73**	3	0	**262**
2022-09-08 15:15:00	27	19	0	**46**	0	0	81	37	0	**118**	0	0	12	117	0	**129**	0	1	**293**
2022-09-08 15:30:00	45	22	0	**67**	0	0	84	36	0	**120**	0	0	16	84	0	**100**	0	0	**287**
2022-09-08 15:45:00	33	39	0	**72**	0	1	121	45	0	**166**	0	0	11	59	0	**70**	0	0	**308**
2022-09-08 16:00:00	44	34	0	**78**	5	1	114	44	0	**158**	0	0	14	151	0	**165**	0	0	**401**
2022-09-08 16:15:00	46	21	0	**67**	4	0	120	45	0	**165**	0	1	36	189	0	**225**	0	0	**457**
2022-09-08 16:30:00	53	24	0	**77**	1	0	139	44	0	**183**	0	0	7	121	0	**128**	0	0	**388**
2022-09-08 16:45:00	45	37	0	**82**	1	0	173	36	0	**209**	0	0	9	112	0	**121**	0	0	**412**
2022-09-08 17:00:00	45	31	0	**76**	1	0	185	59	0	**244**	0	0	14	127	0	**141**	0	0	**461**
2022-09-08 17:15:00	48	48	0	**96**	0	0	216	57	2	**275**	0	0	5	111	0	**116**	0	0	**487**
2022-09-08 17:30:00	43	37	0	**80**	0	0	211	65	0	**276**	0	0	6	105	0	**111**	0	0	**467**
2022-09-08 17:45:00	41	24	0	**65**	1	0	179	55	0	**234**	0	0	7	135	0	**142**	0	0	**441**
2022-09-08 18:00:00	45	22	1	**68**	1	0	146	66	0	**212**	0	0	16	100	0	**116**	0	0	**396**
2022-09-08 18:15:00	52	22	0	**74**	0	0	118	54	1	**173**	0	0	14	85	0	**99**	0	0	**346**
2022-09-08 18:30:00	49	29	0	**78**	0	0	135	45	0	**180**	0	0	16	79	0	**95**	0	0	**353**
2022-09-08 18:45:00	37	21	0	**58**	0	0	113	60	0	**173**	0	0	11	81	0	**92**	0	0	**323**
2022-09-08 19:00:00	22	18	0	**40**	0	0	83	44	0	**127**	0	0	22	76	0	**98**	0	0	**265**
2022-09-08 19:15:00	31	13	0	**44**	0	0	83	35	0	**118**	0	0	24	87	0	**111**	0	0	**273**

2022-09-08 19:30:00	24	10	0	**34**	1	0	50	45	0	**95**	0	0	20	75	0	**95**	0	0	**224**
2022-09-08 19:45:00	20	12	0	**32**	1	0	52	38	0	**90**	0	0	22	65	0	**87**	0	0	**209**
2022-09-08 20:00:00	21	13	0	**34**	0	0	39	41	0	**80**	0	0	22	46	0	**68**	0	0	**182**
2022-09-08 20:15:00	21	9	0	**30**	0	1	25	44	0	**69**	0	0	19	43	0	**62**	0	0	**161**
2022-09-08 20:30:00	12	11	0	**23**	0	0	27	35	0	**62**	0	0	16	42	0	**58**	0	0	**143**
2022-09-08 20:45:00	18	8	0	**26**	0	0	20	29	0	**49**	0	0	17	59	0	**76**	0	0	**151**
2022-09-08 21:00:00	11	6	0	**17**	0	0	28	21	0	**49**	0	0	12	49	0	**61**	0	0	**127**
2022-09-08 21:15:00	10	9	0	**19**	0	0	27	23	0	**50**	0	0	9	47	0	**56**	0	0	**125**
2022-09-08 21:30:00	6	3	0	**9**	0	0	21	15	0	**36**	0	0	11	39	0	**50**	0	0	**95**
2022-09-08 21:45:00	8	5	0	**13**	0	0	15	18	0	**33**	0	0	15	58	0	**73**	0	0	**119**
Grand Total	2258	1419	4	**3681**	24	19	4549	2000	6	**6555**	1	1	807	4584	0	**5391**	7	9	**15627**
% Approach	61.3%	38.5%	0.1%				69.4%	30.5%	0.1%				15.0%	85.0%	0.0%				
% Total	14.4%	9.1%	0.0%	**23.6%**			29.1%	12.8%	0.0%	**41.9%**			5.2%	29.3%	0.0%	**34.5%**			
Lights	2233	1399	4	**3636**			4524	1977	6	**6507**			799	4549	0	**5348**			**15491**
% Lights	98.9%	98.6%	100.0%	**98.8%**			99.5%	98.9%	100.0%	**99.3%**			99.0%	99.2%	0.0%	**99.2%**			**99.1%**
Articulated Trucks	0	0	0	**0**			0	1	0	**1**			0	2	0	**2**			**3**
% Articulated Trucks	0.0%	0.0%	0.0%	**0.0%**			0.0%	0.1%	0.0%	**0.0%**			0.0%	0.0%	0.0%	**0.0%**			**0.0%**
Buses and Single-Unit Trucks	25	20	0	**45**			25	22	0	**47**			8	33	0	**41**			**133**
% Buses and Single-Unit Trucks	1.1%	1.4%	0.0%	**1.2%**			0.5%	1.1%	0.0%	**0.7%**			1.0%	0.7%	0.0%	**0.8%**			**0.9%**
Pedestrians					14	8					1	1					3	3	
% Pedestrians					58.3%	42.1%					100.0%	100.0%					42.9%	33.3%	
Bicycles on Crosswalk					10	11					0	0					4	6	
% Bicycles on Crosswalk					41.7%	57.9%					0.0%	0.0%					57.1%	66.7%	

Leg	Bobcat Boulevard						Parkview Drive						Bobcat Boulevard						
Direction	Westbound						Northbound						Eastbound						
Start Time	Left	Thru	U-Turn	**App Total**	Peds CW	Peds CCW	Left	Right	U-Turn	**App Total**	Peds CW	Peds CCW	Thru	Right	U-Turn	**App Total**	Peds CW	Peds CCW	**Int Total**
2022-09-08 06:00:00	0	21	0	**21**	0	0	3	2	0	**5**	0	2	23	2	0	**25**	0	0	**51**
2022-09-08 06:15:00	2	34	0	**36**	0	0	4	6	0	**10**	0	0	62	5	0	**67**	0	0	**113**
2022-09-08 06:30:00	4	44	0	**48**	1	1	5	3	0	**8**	0	0	51	5	0	**56**	0	0	**112**
2022-09-08 06:45:00	8	48	0	**56**	3	5	9	4	0	**13**	0	2	75	26	0	**101**	1	4	**170**
2022-09-08 09:00:00	5	61	0	**66**	0	0	8	5	0	**13**	0	0	63	6	0	**69**	0	0	**148**
2022-09-08 09:15:00	10	40	0	**50**	0	0	11	11	0	**22**	0	0	73	11	0	**84**	0	1	**156**
2022-09-08 09:30:00	3	51	0	**54**	0	0	7	2	0	**9**	0	0	60	8	1	**69**	0	0	**132**
2022-09-08 09:45:00	8	43	0	**51**	0	0	7	6	0	**13**	0	0	63	7	2	**72**	0	2	**136**
2022-09-08 10:00:00	4	32	0	**36**	0	0	12	5	0	**17**	0	0	57	15	0	**72**	0	0	**125**
2022-09-08 10:15:00	2	50	0	**52**	0	0	12	2	0	**14**	0	0	54	9	1	**64**	0	0	**130**
2022-09-08 10:30:00	3	37	0	**40**	0	0	10	4	0	**14**	0	0	49	14	0	**63**	0	0	**117**
2022-09-08 10:45:00	4	36	0	**40**	0	0	9	7	0	**16**	2	0	56	4	1	**61**	3	0	**117**
2022-09-08 11:00:00	7	44	0	**51**	0	0	10	3	0	**13**	0	0	48	6	0	**54**	0	0	**118**
2022-09-08 11:15:00	2	45	0	**47**	0	0	9	1	0	**10**	0	0	60	15	0	**75**	0	0	**132**
2022-09-08 11:30:00	8	56	0	**64**	0	0	11	9	0	**20**	0	0	44	10	2	**56**	0	0	**140**
2022-09-08 11:45:00	6	61	0	**67**	0	0	16	2	0	**18**	0	0	72	14	0	**86**	0	0	**171**
2022-09-08 12:00:00	6	72	0	**78**	0	0	11	0	0	**11**	0	0	64	19	2	**85**	0	0	**174**
2022-09-08 12:15:00	2	58	0	**60**	0	0	8	5	0	**13**	0	0	73	16	0	**89**	0	0	**162**
2022-09-08 12:30:00	2	54	0	**56**	0	0	5	4	0	**9**	0	0	71	8	0	**79**	0	0	**144**
2022-09-08 12:45:00	8	49	0	**57**	0	0	12	5	0	**17**	0	1	80	16	0	**96**	1	1	**170**
2022-09-08 13:00:00	2	64	0	**66**	0	0	10	5	0	**15**	0	1	67	10	0	**77**	0	0	**158**
2022-09-08 13:15:00	3	53	0	**56**	0	0	8	3	0	**11**	0	0	66	19	1	**86**	0	0	**153**
2022-09-08 13:30:00	6	63	0	**69**	0	0	11	5	0	**16**	0	0	61	17	1	**79**	0	0	**164**
2022-09-08 13:45:00	6	49	0	**55**	0	0	8	1	0	**9**	0	0	56	6	0	**62**	0	0	**126**
2022-09-08 14:00:00	7	52	0	**59**	0	0	8	4	0	**12**	0	1	54	9	2	**65**	0	1	**136**
2022-09-08 14:15:00	7	63	0	**70**	0	0	15	3	0	**18**	0	0	76	23	0	**99**	0	0	**187**
2022-09-08 14:30:00	35	62	0	**97**	0	0	7	6	0	**13**	0	0	62	21	0	**83**	0	0	**193**
2022-09-08 14:45:00	64	63	0	**127**	0	0	5	8	0	**13**	0	0	69	26	0	**95**	0	0	**235**
2022-09-08 18:00:00	9	155	0	**164**	0	0	25	11	0	**36**	0	0	122	33	0	**155**	0	0	**355**
2022-09-08 18:15:00	18	107	0	**125**	0	0	18	13	0	**31**	0	0	98	26	0	**124**	0	0	**280**
2022-09-08 18:30:00	15	156	0	**171**	0	0	35	25	0	**60**	0	3	116	25	0	**141**	0	0	**372**
2022-09-08 18:45:00	9	126	0	**135**	0	0	18	11	0	**29**	2	0	107	16	0	**123**	0	0	**287**
2022-09-08 19:00:00	9	99	0	**108**	0	0	37	14	0	**51**	0	1	118	23	1	**142**	1	0	**301**
2022-09-08 19:15:00	9	90	0	**99**	3	0	38	24	0	**62**	0	0	78	13	0	**91**	10	0	**252**
2022-09-08 19:30:00	7	57	0	**64**	0	0	23	13	0	**36**	0	0	89	25	0	**114**	0	0	**214**
2022-09-08 19:45:00	2	66	0	**68**	0	0	6	5	0	**11**	1	0	79	13	0	**92**	0	0	**171**
2022-09-08 20:00:00	2	56	0	**58**	0	0	12	4	0	**16**	3	0	75	13	0	**88**	3	0	**162**
2022-09-08 20:15:00	2	43	0	**45**	0	0	6	4	0	**10**	1	0	69	7	0	**76**	0	0	**131**
2022-09-08 20:30:00	3	55	0	**58**	0	0	25	12	0	**37**	0	0	37	5	0	**42**	0	0	**137**
2022-09-08 20:45:00	3	52	1	**56**	0	0	10	4	0	**14**	0	0	66	5	0	**71**	0	0	**141**
2022-09-08 21:00:00	4	61	0	**65**	0	0	0	0	0	**0**	0	0	55	3	1	**59**	0	1	**124**
2022-09-08 21:15:00	2	44	0	**46**	0	0	2	0	0	**2**	0	0	47	3	0	**50**	0	0	**98**
2022-09-08 21:30:00	4	33	0	**37**	0	0	3	1	0	**4**	0	0	36	3	0	**39**	0	0	**80**
2022-09-08 21:45:00	0	31	0	**31**	0	0	2	0	0	**2**	0	0	62	2	0	**64**	0	0	**97**
Grand Total	322	2636	1	**2959**	7	6	511	262	0	**773**	9	11	2963	562	15	**3540**	19	10	**7272**
% Approach	10.9%	89.1%	0.0%				66.1%	33.9%	0.0%				83.7%	15.9%	0.4%				
% Total	4.4%	36.2%	0.0%	**40.7%**			7.0%	3.6%	0.0%	**10.6%**			40.7%	7.7%	0.2%	**48.7%**			
Lights	319	2617	1	**2937**			504	259	0	**763**			2945	549	15	**3509**			**7209**
% Lights	99.1%	99.3%	100.0%	**99.3%**			98.6%	98.9%	0.0%	**98.7%**			99.4%	97.7%	100.0%	**99.1%**			**99.1%**
Articulated Trucks	0	1	0	**1**			0	0	0	**0**			0	0	0	**0**			**1**
% Articulated Trucks	0.0%	0.0%	0.0%	**0.0%**			0.0%	0.0%	0.0%	**0.0%**			0.0%	0.0%	0.0%	**0.0%**			**0.0%**
Buses and Single-Unit Trucks	3	18	0	**21**			7	3	0	**10**			18	13	0	**31**			**62**
% Buses and Single-Unit Trucks	0.9%	0.7%	0.0%	**0.7%**			1.4%	1.1%	0.0%	**1.3%**			0.6%	2.3%	0.0%	**0.9%**			**0.9%**
Pedestrians					7	6					6	8					18	7	
% Pedestrians					100.0%	100.0%					66.7%	72.7%					94.7%	70.0%	
Bicycles on Crosswalk					0	0					3	3					1	3	
% Bicycles on Crosswalk					0.0%	0.0%					33.3%	27.3%					5.3%	30.0%	

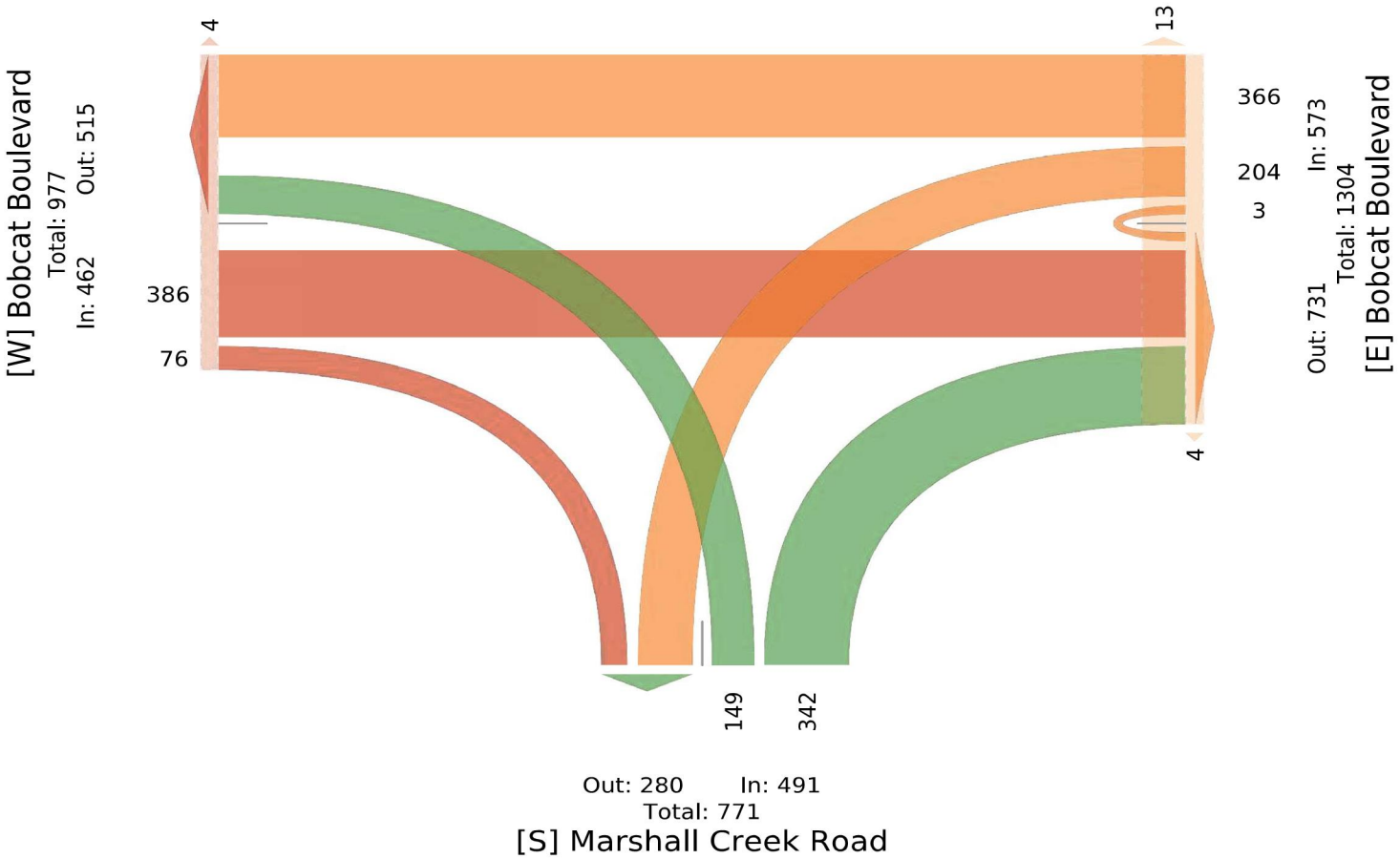
Leg	Bobcat Boulevard						Parkview Drive						Bobcat Boulevard						
Direction	Westbound						Northbound						Eastbound						
Start Time	Left	Thru	U-Turn	**App Total**	Peds CW	Peds CCW	Left	Right	U-Turn	**App Total**	Peds CW	Peds CCW	Thru	Right	U-Turn	**App Total**	Peds CW	Peds CCW	**Int Total**
2022-09-08 07:00:00	40	57	0	**97**	0	0	6	6	0	**12**	5	3	79	30	0	**109**	6	13	**218**
2022-09-08 07:15:00	104	66	0	**170**	0	0	26	49	0	**75**	1	0	91	39	1	**131**	1	17	**376**
2022-09-08 07:30:00	59	100	0	**159**	0	0	34	84	0	**118**	0	0	133	44	1	**178**	0	1	**455**
2022-09-08 07:45:00	31	87	0	**118**	0	0	22	29	0	**51**	0	0	126	47	0	**173**	0	0	**342**
2022-09-08 08:00:00	58	115	0	**173**	0	0	34	28	0	**62**	1	1	129	49	0	**178**	4	3	**413**
2022-09-08 08:15:00	69	121	0	**190**	0	0	64	64	0	**128**	1	1	146	59	0	**205**	4	7	**523**
2022-09-08 08:30:00	36	57	0	**93**	0	0	37	32	0	**69**	1	0	100	35	0	**135**	0	1	**297**
2022-09-08 08:45:00	7	47	0	**54**	0	0	11	7	0	**18**	0	0	96	6	0	**102**	0	0	**174**
2022-09-08 15:00:00	15	80	0	**95**	0	0	40	71	0	**111**	0	0	70	17	0	**87**	14	0	**293**
2022-09-08 15:15:00	25	90	0	**115**	0	0	14	21	0	**35**	0	3	110	20	0	**130**	5	0	**280**
2022-09-08 15:30:00	8	95	0	**103**	0	0	13	19	0	**32**	1	0	86	12	0	**98**	4	0	**233**
2022-09-08 15:45:00	29	97	0	**126**	0	0	15	20	0	**35**	0	0	93	38	0	**131**	7	0	**292**
2022-09-08 16:00:00	40	121	0	**161**	3	0	9	4	0	**13**	1	14	168	41	0	**209**	2	11	**383**
2022-09-08 16:15:00	41	136	0	**177**	1	0	64	71	0	**135**	1	11	160	51	0	**211**	9	12	**523**
2022-09-08 16:30:00	20	167	0	**187**	0	0	30	13	0	**43**	4	0	112	35	1	**148**	4	0	**378**
2022-09-08 16:45:00	26	200	0	**226**	0	0	30	22	0	**52**	0	2	126	14	0	**140**	0	0	**418**
2022-09-08 17:00:00	17	190	0	**207**	0	0	28	13	0	**41**	0	0	156	33	1	**190**	0	0	**438**
2022-09-08 17:15:00	27	246	0	**273**	0	0	16	21	0	**37**	0	0	149	54	2	**205**	0	0	**515**
2022-09-08 17:30:00	29	221	0	**250**	0	0	33	22	0	**55**	0	0	118	41	1	**160**	0	0	**465**
2022-09-08 17:45:00	12	196	0	**208**	0	0	43	29	0	**72**	0	0	151	32	0	**183**	0	0	**463**
Grand Total	693	2489	0	**3182**	4	0	569	625	0	**1194**	16	35	2399	697	7	**3103**	60	65	**7479**
% Approach	21.8%	78.2%	0.0%				47.7%	52.3%	0.0%				77.3%	22.5%	0.2%				
% Total	9.3%	33.3%	0.0%	**42.5%**			7.6%	8.4%	0.0%	**16.0%**			32.1%	9.3%	0.1%	**41.5%**			
Lights	690	2462	0	**3152**			566	621	0	**1187**			2370	694	7	**3071**			**7410**
% Lights	99.6%	98.9%	0.0%	**99.1%**			99.5%	99.4%	0.0%	**99.4%**			98.8%	99.6%	100.0%	**99.0%**			**99.1%**
Articulated Trucks	0	0	0	**0**			0	0	0	**0**			0	0	0	**0**			**0**
% Articulated Trucks	0.0%	0.0%	0.0%	**0.0%**			0.0%	0.0%	0.0%	**0.0%**			0.0%	0.0%	0.0%	**0.0%**			**0.0%**
Buses and Single-Unit Trucks	3	27	0	**30**			3	4	0	**7**			29	3	0	**32**			**69**
% Buses and Single-Unit Trucks	0.4%	1.1%	0.0%	**0.9%**			0.5%	0.6%	0.0%	**0.6%**			1.2%	0.4%	0.0%	**1.0%**			**0.9%**
Pedestrians					4	0					14	29					24	26	
% Pedestrians					100.0%	0.0%					87.5%	82.9%					40.0%	40.0%	
Bicycles on Crosswalk					0	0					2	6					36	39	
% Bicycles on Crosswalk					0.0%	0.0%					12.5%	17.1%					60.0%	60.0%	

Leg	Bobcat Boulevard						Marshall Creek Road						Bobcat Boulevard						
Direction	Westbound						Northbound						Eastbound						
Start Time	Left	Thru	U-Turn	**App Total**	Peds CW	Peds CCW	Left	Right	U-Turn	**App Total**	Peds CW	Peds CCW	Thru	Right	U-Turn	**App Total**	Peds CW	Peds CCW	**Int Total**
2022-09-08 06:00:00	5	16	0	**21**	0	0	3	9	0	**12**	0	0	11	1	0	**12**	0	0	**45**
2022-09-08 06:15:00	22	14	0	**36**	0	0	6	48	0	**54**	0	0	18	4	0	**22**	1	0	**112**
2022-09-08 06:30:00	33	17	0	**50**	0	1	10	34	0	**44**	0	0	26	9	0	**35**	0	0	**129**
2022-09-08 06:45:00	42	15	0	**57**	1	0	2	60	0	**62**	0	0	46	0	0	**46**	0	0	**165**
2022-09-08 07:00:00	27	30	0	**57**	0	1	11	74	0	**85**	0	0	38	5	0	**43**	0	0	**185**
2022-09-08 07:15:00	44	46	0	**90**	0	0	22	69	0	**91**	0	0	79	14	0	**93**	0	0	**274**
2022-09-08 07:30:00	56	79	2	**137**	0	2	13	72	0	**85**	0	0	92	11	0	**103**	0	0	**325**
2022-09-08 07:45:00	33	82	1	**116**	1	1	22	83	0	**105**	0	0	89	15	0	**104**	1	0	**325**
2022-09-08 08:00:00	52	100	0	**152**	2	6	46	96	0	**142**	0	0	95	21	0	**116**	1	0	**410**
2022-09-08 08:15:00	63	105	0	**168**	1	4	68	91	0	**159**	0	0	110	29	0	**139**	2	0	**466**
2022-09-08 08:30:00	64	50	0	**114**	0	3	19	49	0	**68**	0	0	90	27	0	**117**	0	1	**299**
2022-09-08 08:45:00	32	23	0	**55**	0	0	3	45	0	**48**	0	0	61	5	0	**66**	0	0	**169**
2022-09-08 09:00:00	32	33	1	**66**	0	0	7	26	0	**33**	0	0	37	1	0	**38**	0	0	**137**
2022-09-08 09:15:00	31	23	0	**54**	0	0	3	54	0	**57**	0	0	36	4	0	**40**	0	0	**151**
2022-09-08 09:30:00	26	30	0	**56**	0	0	2	41	0	**43**	0	0	19	2	0	**21**	0	0	**120**
2022-09-08 09:45:00	37	19	0	**56**	0	0	1	51	0	**52**	0	0	23	1	0	**24**	0	0	**132**
2022-09-08 10:00:00	24	19	0	**43**	1	0	0	45	0	**45**	0	0	26	0	0	**26**	0	0	**114**
2022-09-08 10:15:00	34	32	0	**66**	0	0	3	37	0	**40**	0	0	26	2	0	**28**	0	0	**134**
2022-09-08 10:30:00	28	19	0	**47**	0	0	0	46	0	**46**	0	0	22	2	0	**24**	0	0	**117**
2022-09-08 10:45:00	27	16	0	**43**	0	0	0	37	0	**37**	0	0	22	0	0	**22**	0	0	**102**
2022-09-08 11:00:00	34	20	1	**55**	0	0	2	44	0	**46**	0	0	15	1	0	**16**	0	0	**117**
2022-09-08 11:15:00	37	24	0	**61**	0	0	5	43	0	**48**	0	0	28	1	0	**29**	0	0	**138**
2022-09-08 11:30:00	37	25	0	**62**	0	0	3	43	0	**46**	0	0	16	1	0	**17**	0	0	**125**
2022-09-08 11:45:00	60	21	0	**81**	0	0	3	50	0	**53**	0	0	34	7	0	**41**	0	0	**175**
2022-09-08 12:00:00	51	34	0	**85**	0	0	5	57	0	**62**	0	0	28	6	0	**34**	0	0	**181**
2022-09-08 12:15:00	42	27	0	**69**	0	0	3	57	0	**60**	0	0	27	0	0	**27**	0	0	**156**
2022-09-08 12:30:00	40	21	0	**61**	0	0	3	57	0	**60**	0	0	26	3	0	**29**	0	0	**150**
2022-09-08 12:45:00	36	20	0	**56**	0	0	1	52	0	**53**	0	0	46	6	0	**52**	0	0	**161**
2022-09-08 13:00:00	47	30	0	**77**	0	0	1	54	0	**55**	0	0	21	1	0	**22**	0	0	**154**
2022-09-08 13:15:00	39	24	1	**64**	0	0	1	57	0	**58**	0	0	31	2	0	**33**	0	0	**155**
2022-09-08 13:30:00	49	29	0	**78**	1	0	6	46	0	**52**	0	0	32	15	0	**47**	0	0	**177**
2022-09-08 13:45:00	29	26	0	**55**	0	0	3	40	0	**43**	0	0	24	4	0	**28**	0	0	**126**
2022-09-08 14:00:00	35	29	0	**64**	1	0	2	37	0	**39**	0	0	25	4	0	**29**	0	0	**132**
2022-09-08 14:15:00	39	37	0	**76**	0	0	3	55	0	**58**	0	0	44	7	0	**51**	0	0	**185**
2022-09-08 14:30:00	39	31	0	**70**	0	0	2	46	0	**48**	0	0	38	3	0	**41**	0	0	**159**
2022-09-08 14:45:00	34	33	0	**67**	0	0	9	59	0	**68**	0	0	36	1	0	**37**	0	0	**172**
2022-09-08 15:00:00	60	58	0	**118**	0	0	9	46	0	**55**	0	0	34	8	0	**42**	0	0	**215**
2022-09-08 15:15:00	51	51	0	**102**	1	0	12	51	0	**63**	0	0	77	34	0	**111**	1	0	**276**
2022-09-08 15:30:00	38	68	0	**106**	0	0	18	58	0	**76**	0	0	50	2	0	**52**	0	0	**234**
2022-09-08 15:45:00	42	76	0	**118**	2	0	20	75	0	**95**	0	0	53	2	0	**55**	0	2	**268**
2022-09-08 16:00:00	55	63	1	**119**	27	1	12	66	0	**78**	0	0	153	54	0	**207**	0	10	**404**
2022-09-08 16:15:00	108	103	0	**211**	6	2	11	72	0	**83**	1	0	128	34	0	**162**	0	9	**456**
2022-09-08 16:30:00	72	112	0	**184**	1	0	10	76	0	**86**	0	0	68	11	0	**79**	0	0	**349**
2022-09-08 16:45:00	90	132	0	**222**	2	0	15	79	0	**94**	0	1	60	8	0	**68**	0	0	**384**
2022-09-08 17:00:00	67	159	0	**226**	2	0	17	95	0	**112**	0	0	89	17	0	**106**	0	1	**444**
2022-09-08 17:15:00	77	177	1	**255**	0	2	24	111	0	**135**	0	0	81	13	0	**94**	0	0	**484**
2022-09-08 17:30:00	86	175	0	**261**	1	0	24	84	0	**108**	0	0	71	20	0	**91**	0	0	**460**
2022-09-08 17:45:00	90	152	0	**242**	1	4	13	86	0	**99**	0	0	94	12	0	**106**	1	0	**447**
2022-09-08 18:00:00	84	100	0	**184**	0	0	5	70	0	**75**	0	0	80	4	0	**84**	0	0	**343**
2022-09-08 18:15:00	45	78	0	**123**	0	0	8	73	0	**81**	0	0	47	8	0	**55**	0	0	**259**
2022-09-08 18:30:00	91	98	0	**189**	0	1	15	80	0	**95**	0	0	58	5	0	**63**	0	0	**347**
2022-09-08 18:45:00	54	89	0	**143**	0	0	16	72	0	**88**	0	0	49	2	0	**51**	0	0	**282**
2022-09-08 19:00:00	65	81	0	**146**	0	0	9	57	0	**66**	0	0	74	19	0	**93**	0	0	**305**
2022-09-08 19:15:00	72	52	0	**124**	0	0	3	39	0	**42**	0	0	46	7	0	**53**	0	0	**219**

2022-09-08 19:30:00	51	36	0	**87**	0	0	4	57	0	**61**	0	0	52	7	0	**59**	0	0	**207**
2022-09-08 19:45:00	41	30	0	**71**	0	1	2	49	0	**51**	0	0	34	17	1	**52**	0	0	**174**
2022-09-08 20:00:00	32	39	0	**71**	0	0	8	36	0	**44**	0	0	53	11	0	**64**	0	0	**179**
2022-09-08 20:15:00	35	12	0	**47**	0	0	0	50	0	**50**	0	0	23	4	0	**27**	0	0	**124**
2022-09-08 20:30:00	54	23	0	**77**	0	0	4	29	0	**33**	0	0	16	4	0	**20**	0	0	**130**
2022-09-08 20:45:00	38	26	0	**64**	0	0	2	30	0	**32**	0	0	37	14	0	**51**	0	0	**147**
2022-09-08 21:00:00	40	23	0	**63**	0	0	2	37	0	**39**	0	0	26	8	0	**34**	0	0	**136**
2022-09-08 21:15:00	26	23	0	**49**	0	0	3	19	0	**22**	0	0	31	5	0	**36**	0	0	**107**
2022-09-08 21:30:00	22	12	0	**34**	0	0	2	17	0	**19**	0	0	17	10	0	**27**	0	0	**80**
2022-09-08 21:45:00	22	14	0	**36**	0	0	2	29	0	**31**	0	0	42	30	1	**73**	0	0	**140**
Grand Total	2968	3261	8	**6237**	51	29	563	3507	0	**4070**	1	1	3080	585	2	**3667**	7	23	**13974**
% Approach	47.6%	52.3%	0.1%				13.8%	86.2%	0.0%				84.0%	16.0%	0.1%				
% Total	21.2%	23.3%	0.1%	**44.6%**			4.0%	25.1%	0.0%	**29.1%**			22.0%	4.2%	0.0%	**26.2%**			
Lights	2942	3232	8	**6182**			555	3469	0	**4024**			3050	576	2	**3628**			**13834**
% Lights	99.1%	99.1%	100.0%	**99.1%**			98.6%	98.9%	0.0%	**98.9%**			99.0%	98.5%	100.0%	**98.9%**			**99.0%**
Articulated Trucks	1	0	0	**1**			0	0	0	**0**			0	0	0	**0**			**1**
% Articulated Trucks	0.0%	0.0%	0.0%	**0.0%**			0.0%	0.0%	0.0%	**0.0%**			0.0%	0.0%	0.0%	**0.0%**			**0.0%**
Buses and Single-Unit Trucks	25	29	0	**54**			8	38	0	**46**			30	9	0	**39**			**139**
% Buses and Single-Unit Trucks	0.8%	0.9%	0.0%	**0.9%**			1.4%	1.1%	0.0%	**1.1%**			1.0%	1.5%	0.0%	**1.1%**			**1.0%**
Pedestrians					48	23					1	1					5	22	
% Pedestrians					94.1%	79.3%					100.0%	100.0%					71.4%	95.7%	
Bicycles on Crosswalk					3	6					0	0					2	1	
% Bicycles on Crosswalk					5.9%	20.7%					0.0%	0.0%					28.6%	4.3%	

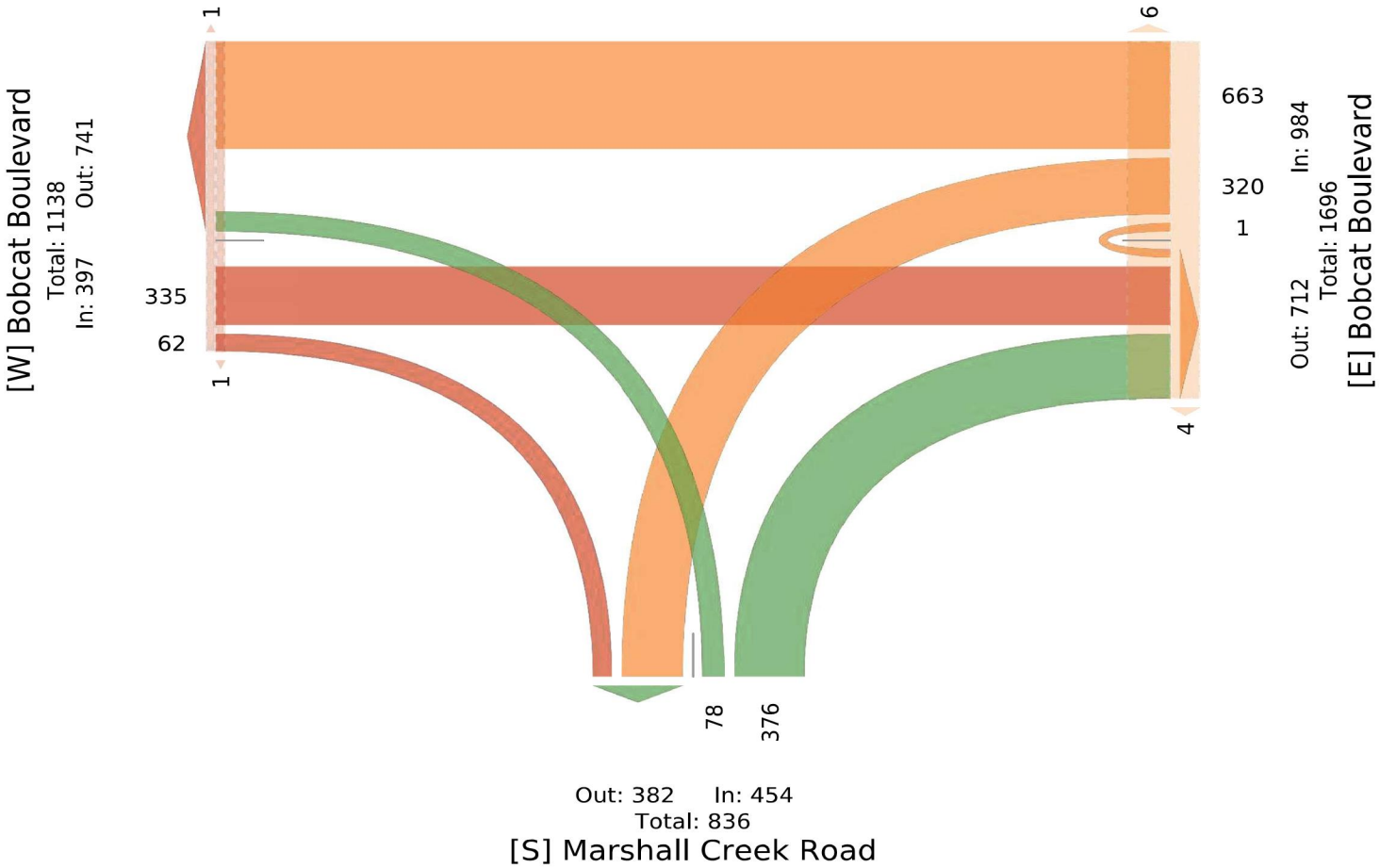
1. Bobcat Boulevard at Marshall Creek Road - TMC
Thu Sep 8, 2022
AM Peak (7:30 AM - 8:30 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 984733, Location: 33.015526, -97.205643

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



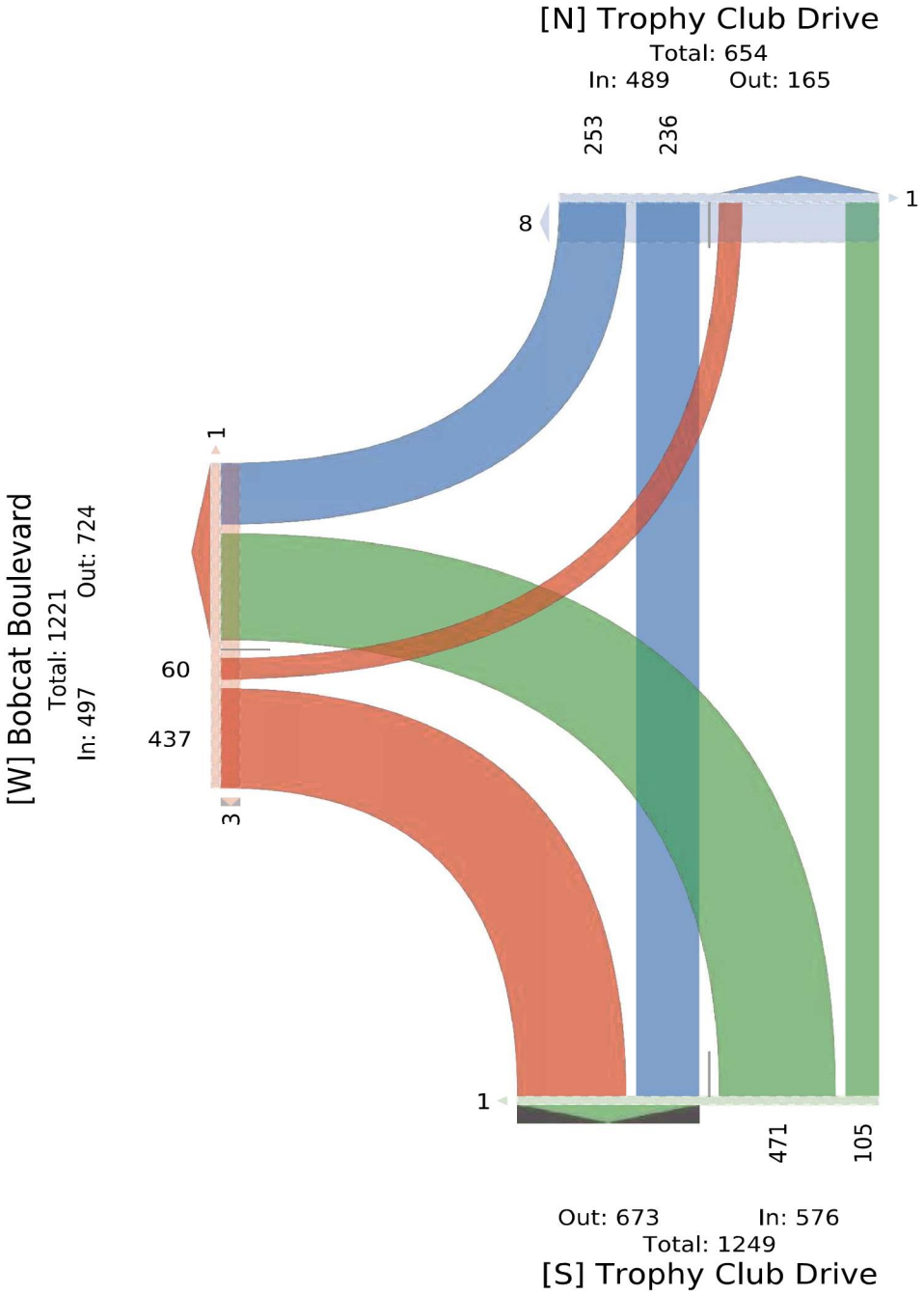
1. Bobcat Boulevard at Marshall Creek Road - TMC
Thu Sep 8, 2022
PM Peak (5 PM - 6 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 984733, Location: 33.015526, -97.205643

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



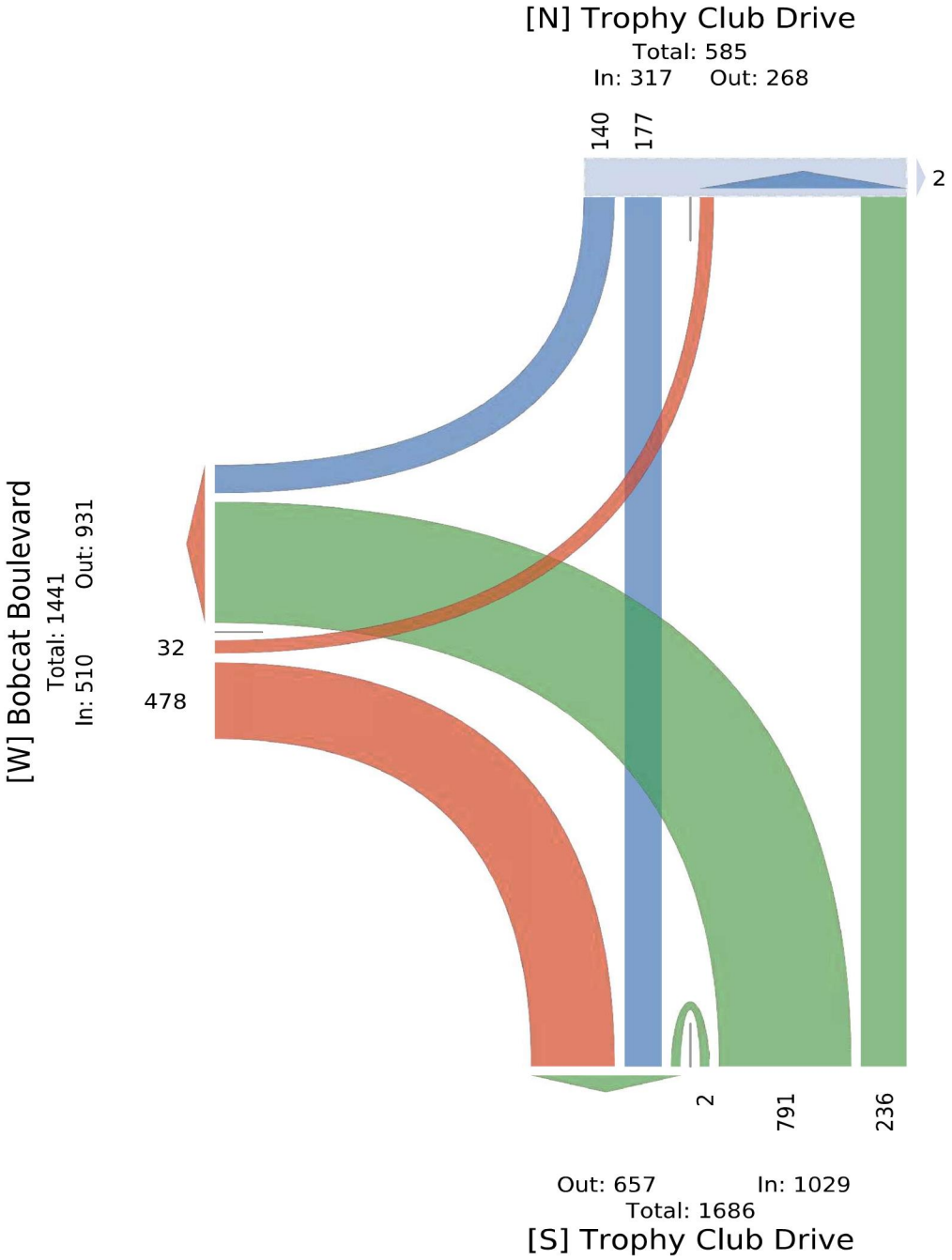
2. Trophy Club Drive at Bobcat Boulevard - TMC
Thu Sep 8, 2022
AM Peak (7:30 AM - 8:30 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 984734, Location: 33.013569, -97.200541

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



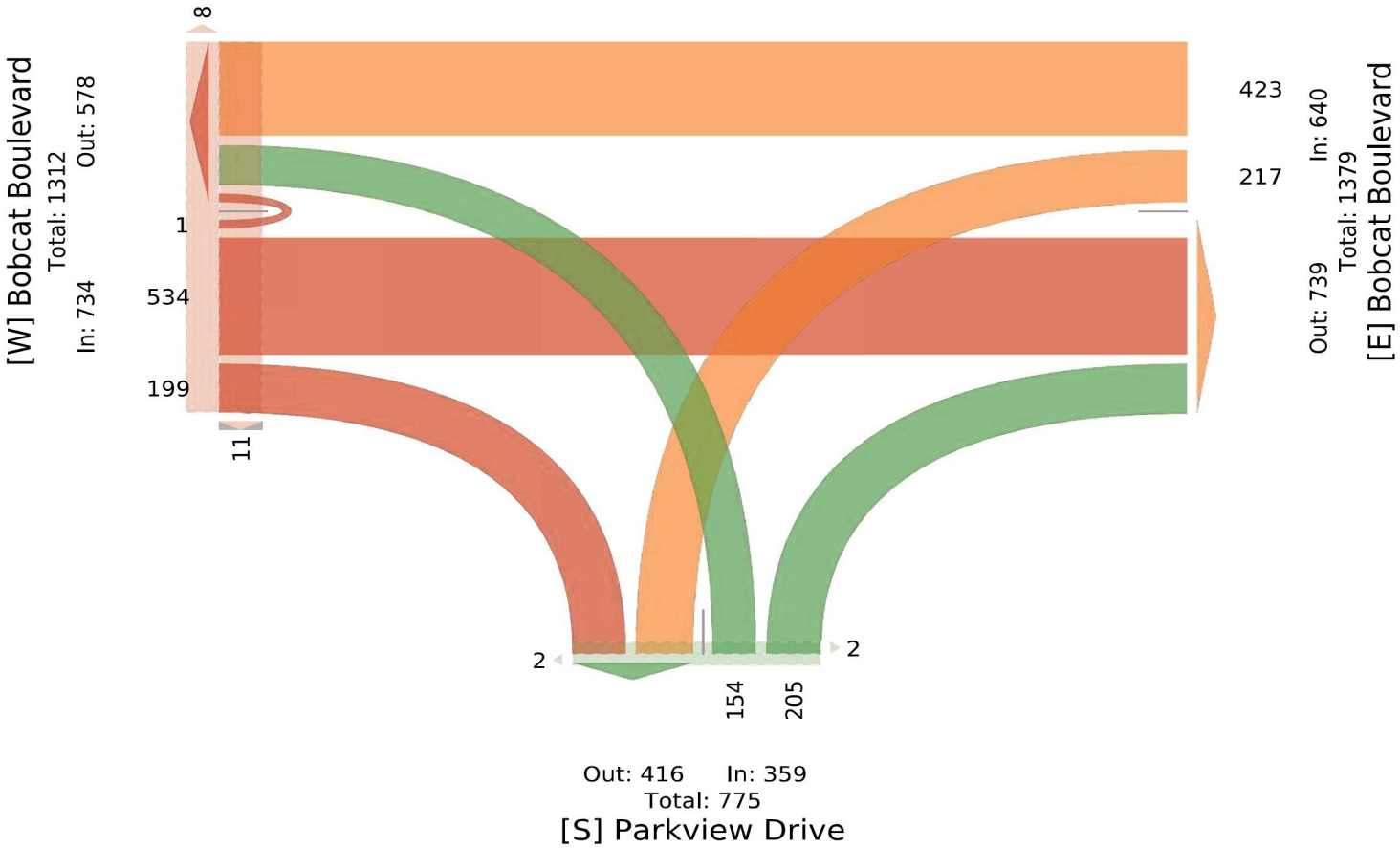
2. Trophy Club Drive at Bobcat Boulevard - TMC
Thu Sep 8, 2022
PM Peak (5 PM - 6 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 984734, Location: 33.013569, -97.200541

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



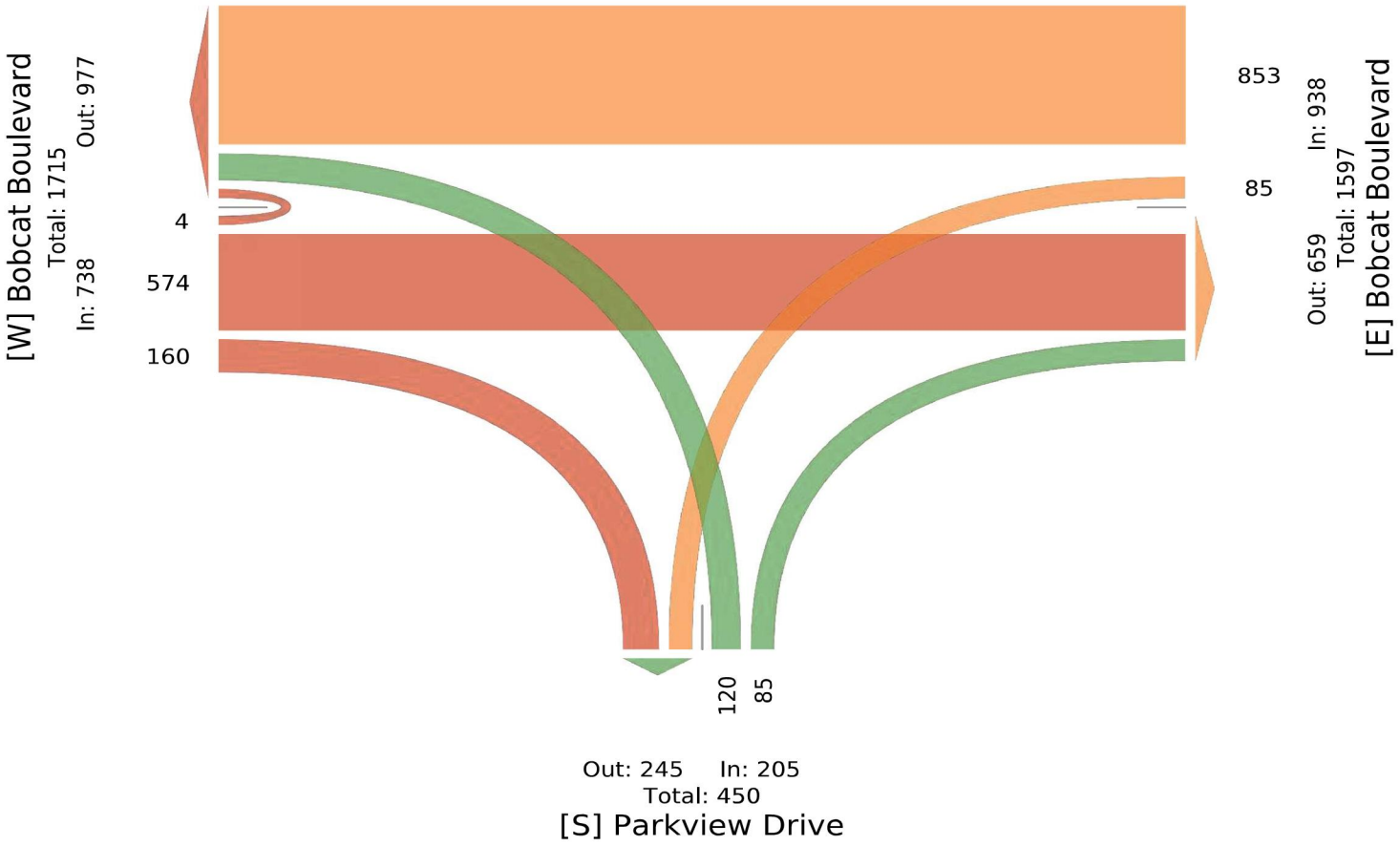
3. Bobcat Boulevard at Parkview Drive - TMC
Thu Sep 8, 2022
AM Peak (7:30 AM - 8:30 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 984731, Location: 33.014878, -97.204322

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



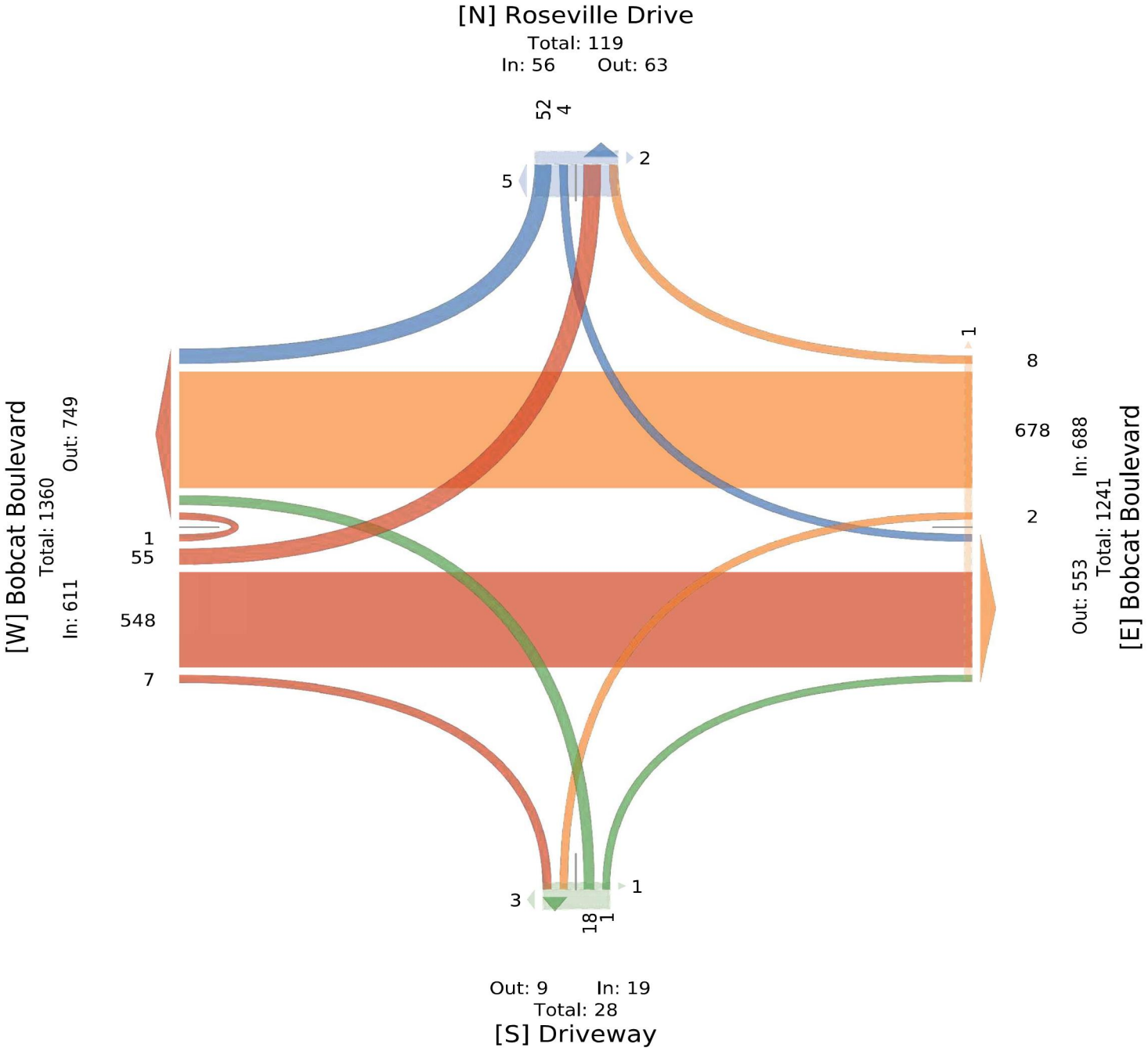
3. Bobcat Boulevard at Parkview Drive - TMC
Thu Sep 8, 2022
PM Peak (5 PM - 6 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 984731, Location: 33.014878, -97.204322

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



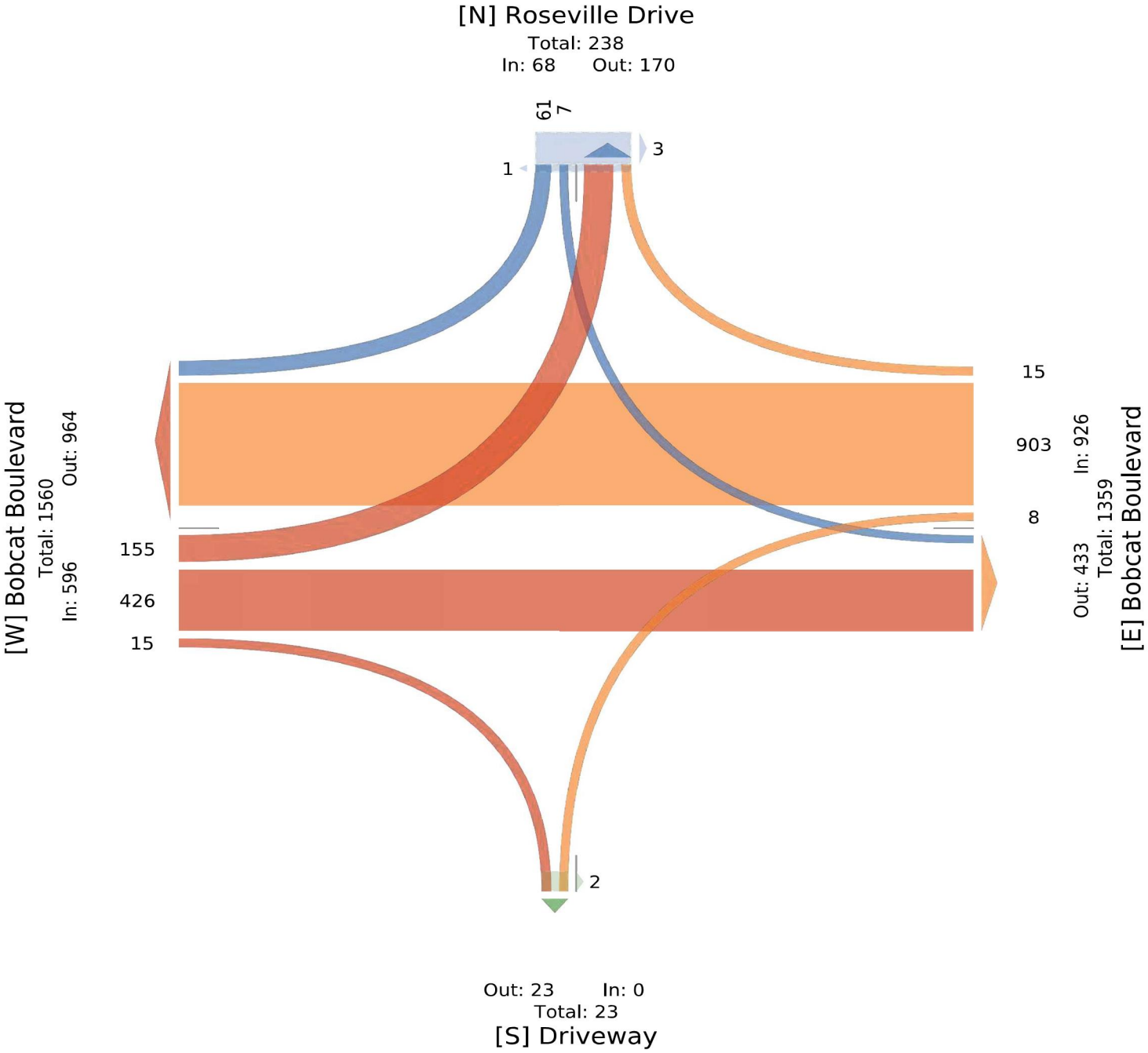
4. Bobcat Boulevard at Roseville Drive - TMC
Tue Sep 13, 2022
AM Peak (7:45 AM - 8:45 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 984732, Location: 33.01416, -97.201373

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



4. Bobcat Boulevard at Roseville Drive - TMC
Tue Sep 13, 2022
PM Peak (5 PM - 6 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Crosswalk)
All Movements
ID: 984732, Location: 33.01416, -97.201373

Provided by: C. J. Hensch & Associates Inc.
5215 Sycamore Ave.,
Pasadena, TX, 77503, US



Appendix B

Warrants 10 Traffic Signal Warrant Analysis Results

Warrants Summary Report

1: TCBOB

Intersection Information

	Major Street	Minor Street
Street Name	-	-
Direction	NB/SB	EB
Number of Lanes	2	2
Approach Speed	30	30

Warrant	Met?	Notes
Warrant 1, Eight-Hour Vehicular Volume		
	No	
Condition A or B Met?	No	7 Hours met (8 required)
Condition A and B Met?	No	6 Hours met (8 required)
Warrant 2, Four-Hour Vehicular Volume		
	Yes	7 Hours met (4 required)
Warrant 3, Peak Hour		
	Yes	
Condition A Met?	No	0 Hours met (1 required)
Condition B Met?	Yes	4 Hours met (1 required)
Warrant 8, Roadway Network		
	Yes	
AWSC Warrant, Multiway Stop Application		
	Yes	
Condition A Met?	Yes	
Condition B Met?	No	
Condition C Met?	No	

Warrant 1: Eight-hour Vehicular Volume

1: TCBOB

Intersection Information

Major Street Name:	-
Major Street Direction:	NB/SB
Minor Street Direction:	EB

WARRANT 1 MET? **No**

Details:

Condition A Met?	No	7 Hours met (8 required)
Condition B Met?	No	6 Hours met (8 required)

Hour	Major Street Vehicles (Total of Both Approaches)		High Volume Minor Approach Vehicles		100% Standard Met? Cond. A OR Cond. B		80% Standard Met? Cond. A AND Cond. B	
					Condition A 100% Column	Condition B 100% Column	Condition A 80% Column	Condition B 80% Column
06:00 to 07:00	**308**		**199**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
06:15 to 07:15	**437**		**257**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
06:30 to 07:30	**626**		**289**		Yes*	No	Yes	No
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
06:45 to 07:45	**775**		**346**		Yes	No	Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

07:00 to 08:00	915		386		Yes	Yes*	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

07:15 to 08:15	1,003		434		Yes	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

07:30 to 08:30	1,065		497		Yes*	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

07:45 to 08:45	1,007		513		Yes	Yes	Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

08:00 to 09:00	880		508		Yes	No	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

08:15 to 09:15	766		446		Yes	No	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

08:30 to 09:30	556		370		No	No	Yes	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

08:45 to 09:45	476		284		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

09:00 to 10:00	462		245		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

09:15 to 10:15	422		248		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

09:30 to 10:30	409		232		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

09:45 to 10:45	401		218		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

10:00 to 11:00	**390**		**215**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
10:15 to 11:15	**387**		**209**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
10:30 to 11:30	**370**		**213**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
10:45 to 11:45	**401**		**205**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
11:00 to 12:00	**434**		**221**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
11:15 to 12:15	**468**		**235**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

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11:30 to 12:30	507		253		No	No	Yes	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

11:45 to 12:45	496		286		No	No	Yes	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

12:00 to 13:00	478		288		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

12:15 to 13:15	474		282		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

12:30 to 13:30	450		281		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

12:45 to 13:45	444		277		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

13:00 to 14:00	450		251		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

13:15 to 14:15	451		247		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

13:30 to 14:30	491		244		No	No	Yes	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

13:45 to 14:45	527		244		No	No	Yes	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

14:00 to 15:00	581		260		No	No	Yes	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

14:15 to 15:15	641		274		Yes*	No	Yes	No
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

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14:30 to 15:30	**660**		**332**		Yes	No	Yes	No
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
14:45 to 15:45	**707**		**364**		Yes	No	Yes	No
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
15:00 to 16:00	**778**		**372**		Yes	No	Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				
15:15 to 16:15	**825**		**464**		Yes*	No	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				
15:30 to 16:30	**893**		**560**		Yes	No	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				
15:45 to 16:45	**966**		**588**		Yes	Yes*	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

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16:00 to 17:00	**1,019**		**639**		Yes	Yes	Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				
16:15 to 17:15	**1,103**		**615**		Yes*	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				
16:30 to 17:30	**1,242**		**506**		Yes	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				
16:45 to 17:45	**1,338**		**489**		Yes	Yes*	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				
17:00 to 18:00	**1,346**		**510**		Yes	Yes	Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				
17:15 to 18:15	**1,306**		**485**		Yes*	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

17:30 to 18:30	1,182		468		Yes	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

17:45 to 18:45	1,084		452		Yes	Yes*	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

18:00 to 19:00	1,016		402		Yes	Yes	Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

18:15 to 19:15	903		384		Yes*	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

18:30 to 19:30	818		396		Yes	No	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

18:45 to 19:45	689		396		Yes	No	Yes	No
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

19:00 to 20:00	**580**		**391**		No	No	Yes	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
19:15 to 20:15	**527**		**361**		No	No	Yes	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
19:30 to 20:30	**464**		**312**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
19:45 to 20:45	**420**		**275**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
20:00 to 21:00	**373**		**264**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
20:15 to 21:15	**325**		**257**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

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20:30 to 21:30	295		251		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

20:45 to 21:45	255		243		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

21:00 to 22:00	226		240		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

21:15 to 22:15	160		179		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

21:30 to 22:30	91		123		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

21:45 to 22:45	46		73		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	No				

Warrant 2: Four-hour Vehicular Volume

1: TCBOB

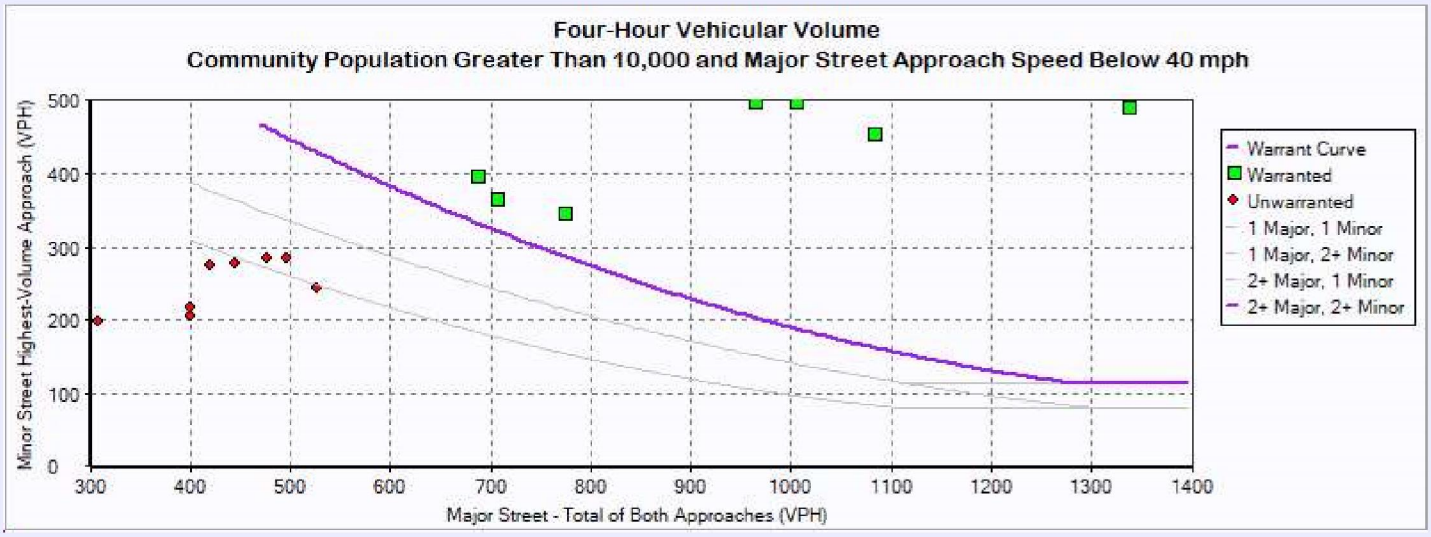
Intersection Information

	Major Street	Minor Street
Street Name	-	-
Direction	NB/SB	EB
Number of Lanes	2	2
Approch Speed	30	30

Warrant 2 Met? **Yes**

Details:

Notes	7 Hours met (4 required)
Low population	No



Hourly Volumes

Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
00:00:00 - 01:00:00	0.00	0.00
01:00:00 - 02:00:00	0.00	0.00
02:00:00 - 03:00:00	0.00	0.00
03:00:00 - 04:00:00	0.00	0.00
04:00:00 - 05:00:00	0.00	0.00
05:00:00 - 06:00:00	0.00	0.00
06:00:00 - 07:00:00	308.00	199.00
07:00:00 - 08:00:00	915.00	386.00
08:00:00 - 09:00:00	880.00	508.00
09:00:00 - 10:00:00	462.00	245.00
10:00:00 - 11:00:00	390.00	215.00
11:00:00 - 12:00:00	434.00	221.00
12:00:00 - 13:00:00	478.00	288.00
13:00:00 - 14:00:00	450.00	251.00
14:00:00 - 15:00:00	581.00	260.00
15:00:00 - 16:00:00	778.00	372.00
16:00:00 - 17:00:00	1,019.00	639.00
17:00:00 - 18:00:00	1,346.00	510.00
18:00:00 - 19:00:00	1,016.00	402.00
19:00:00 - 20:00:00	580.00	391.00
20:00:00 - 21:00:00	373.00	264.00
21:00:00 - 22:00:00	226.00	240.00
22:00:00 - 23:00:00	0.00	0.00
23:00:00 - 00:00:00	0.00	0.00

Warranted Volumes

Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
06:45:00 - 07:45:00	775.00	346.00
07:45:00 - 08:45:00	1,007.00	513.00
14:45:00 - 15:45:00	707.00	364.00
15:45:00 - 16:45:00	966.00	588.00
16:45:00 - 17:45:00	1,338.00	489.00
17:45:00 - 18:45:00	1,084.00	452.00
18:45:00 - 19:45:00	689.00	396.00

Warrant 3: Peak Hour

1: TCBOB

Intersection Information

	Major Street	Minor Street
Street Name	-	-
Direction	NB/SB	EB
Number of Lanes	2	2
Approch Speed	30	30

Warrant 3 Met? Yes

Details

Low Population? No

Condition A Met? No

Notes 0 Hours met (1 required)

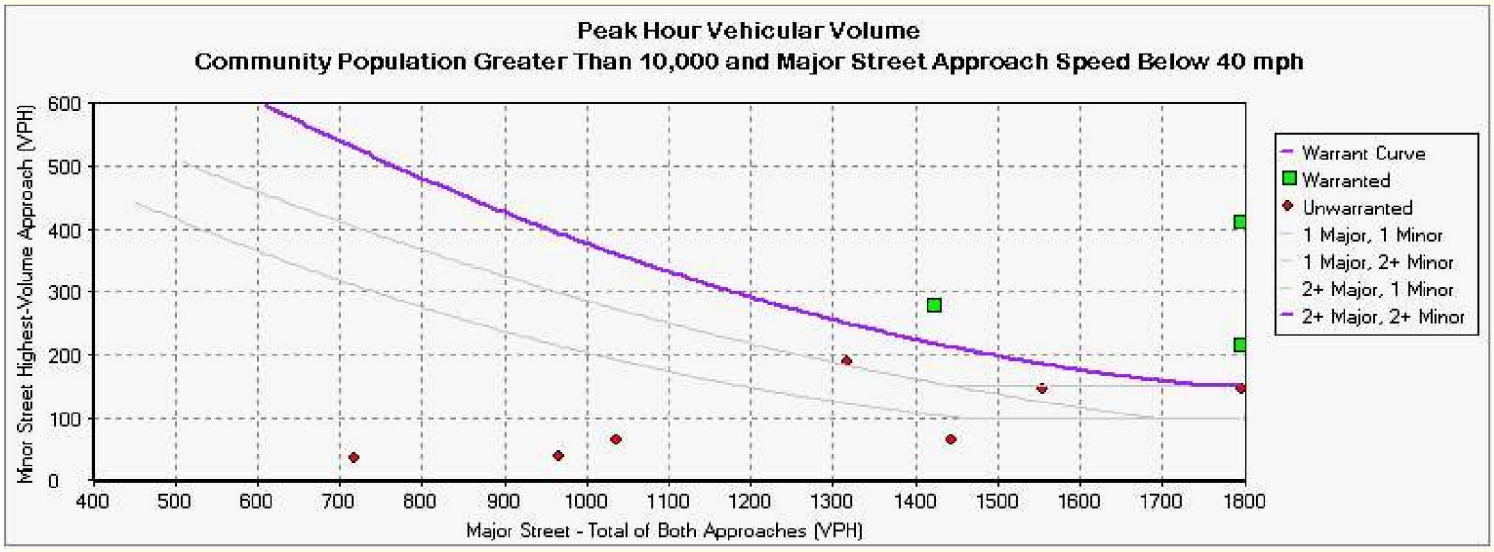
Condition B Met? Yes

Notes 4 Hours met (1 required)

Minor Approach Time Delay Condition Met? Not Met

Minor Approach Volume Condition Met? Met

Total Entering Intersection Volume Condition Met? Not Met



Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
6:00	308	199
7:00	915	386
7:15	1,003	434
8:15	766	446
9:15	422	248
10:15	387	209
11:15	468	235
12:15	474	282
13:15	451	247
14:15	641	274
15:15	825	464
15:30	893	560
16:30	1,242	506
17:30	1,182	468
18:30	818	396
19:30	464	312
20:30	295	251
21:30	91	123

Warrant 8: Roadway Network

1: TCBOB

Intersection Information

Major Street Name	-
Major Street Direction	NB/SB
Minor Street Direction	EB

WARRANT 8 MET? (A or B) Yes

Details:

Growth Rates % (per year)

	NB	SB	EB
L	0.00	0.00	0.00
T	0.00	0.00	
R	0.00	0.00	0.00

Condition A, Total Entering Volume

Existing Peak Hour	1,856
Years	0.00
Future Peak Hour	1,856
Warrant 1 in 5 Years?	No
Warrant 2 in 5 Years?	Yes
Warrant 3 in 5 Years?	Yes

Condition B, Non-normal Business Day

	Existing	Future
Highest Hour	0	0
Second Highest Hour	0	0
Third Highest Hour	0	0
Fourth Highest Hour	0	0
Fifth Highest Hour	0	0
Yearly Growth Rate (%)	0.00	
Years	0.00	

Condition A Met? Yes **Condition B Met?** No

All-Way Stop Control Warrant: Multiway Stop Applications

1: TCBOB

Intersection Information

Major Street Name:	-
Major Street Direction:	NB/SB
Minor Street Direction:	EB

AWSC WARRANT MET? **Yes**

Details:

Condition A Met?	Yes	Qualifying Crashes	0
Condition B Met?	No	Major Street 85th %-tile Speed	0.00
Condition C Met?	No	Major Street Speed Limit	30

Notes: Delay for highest hour < 30 sec/veh

Hour	Traffic Volumes		Bicycle Volumes		Ped Volumes		Condition C		
	Major Street	Minor Street	North Bound Bicycle Volumes	East Bound Bicycle Volumes	North Bound Ped Volumes	East Bound Ped Volumes	Major Street	Minor Street	
							Veh Volume > 300	Avg(Veh + Ped + Bicycle) > 200	Delay > 30
06:15 to 07:15	437	257	0	0	0	0	False	No	No
07:15 to 08:15	1,003	434	0	0	0	0	False	No	No
08:15 to 09:15	766	446	0	0	0	0	False	No	No
09:15 to 10:15	422	248	0	0	0	0	False	No	No
10:15 to 11:15	387	209	0	0	0	0	False	No	No
11:15 to 12:15	468	235	0	0	0	0	False	No	No
12:15 to 13:15	474	282	0	0	0	0	False	No	No
13:15 to 14:15	451	247	0	0	0	0	False	No	No
14:15 to 15:15	641	274	0	0	0	0	False	No	No
15:15 to 16:15	825	464	0	0	0	0	False	No	No
16:15 to 17:15	1,103	615	0	0	0	0	False	No	No
17:15 to 18:15	1,306	485	0	0	0	0	False	No	No
18:15 to 19:15	903	384	0	0	0	0	False	No	No
19:15 to 20:15	527	361	0	0	0	0	False	No	No
20:15 to 21:15	325	257	0	0	0	0	False	No	No

Warrants Summary Report

1: BobPark

Intersection Information

	Major Street	Minor Street
Street Name	BOBCAT	PARKVIEW
Direction	EB/WB	NB
Number of Lanes	2	1
Approch Speed	30	30

Warrant	Met?	Notes
Warrant 1, Eight-Hour Vehicular Volume		
	No	
Condition A or B Met?	No	7 Hours met (8 required)
Condition A and B Met?	No	7 Hours met (8 required)
Warrant 2, Four-Hour Vehicular Volume		
	Yes	6 Hours met (4 required)
Warrant 3, Peak Hour		
	Yes	
Condition A Met?	No	0 Hours met (1 required)
Condition B Met?	Yes	5 Hours met (1 required)
Warrant 4, Pedestrian Volume		
	No	
Condition A Met?	No	0 Hours met (4 required)
Condition B Met?	No	0 Hours met (1 required)
Warrant 5, School Crossing		
	Yes	

Warrant 8, Roadway Network

Yes

AWSC Warrant, Multiway Stop Application

Yes

Condition A Met?	Yes
Condition B Met?	No
Condition C Met?	No

Warrant 1: Eight-hour Vehicular Volume

1: BobPark

Intersection Information

Major Street Name:	BOBCAT
Major Street Direction:	EB/WB
Minor Street Direction:	NB

WARRANT 1 MET? **No**

Details:

Condition A Met?	No	7 Hours met (8 required)
Condition B Met?	No	7 Hours met (8 required)

Hour	Major Street Vehicles (Total of Both Approaches)		High Volume Minor Approach Vehicles		100% Standard Met? Cond. A OR Cond. B		80% Standard Met? Cond. A AND Cond. B	
					Condition A 100% Column	Condition B 100% Column	Condition A 80% Column	Condition B 80% Column
06:00 to 07:00	**410**		**36**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	Volume >= 100% column (900)?	No	Volume >= 100% column (75)?	No				
	Volume >= 80% column (720)?	No	Volume >= 80% column (60)?	No				
06:15 to 07:15	**570**		**43**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No				
Condition B	Volume >= 100% column (900)?	No	Volume >= 100% column (75)?	No				
	Volume >= 80% column (720)?	No	Volume >= 80% column (60)?	No				
06:30 to 07:30	**768**		**108**		No	No	No	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No				
Condition B	Volume >= 100% column (900)?	No	Volume >= 100% column (75)?	Yes				
	Volume >= 80% column (720)?	Yes	Volume >= 80% column (60)?	Yes				
06:45 to 07:45	**1,001**		**218**		Yes*	Yes*	Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	Volume >= 100% column (900)?	Yes	Volume >= 100% column (75)?	Yes				
	Volume >= 80% column (720)?	Yes	Volume >= 80% column (60)?	Yes				

07:00 to 08:00	**1,135**		**256**		Yes	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				
07:15 to 08:15	**1,280**		**306**		Yes	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				
07:30 to 08:30	**1,374**		**359**		Yes	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				
07:45 to 08:45	**1,265**		**310**		Yes*	Yes*	Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				
08:00 to 09:00	**1,130**		**277**		Yes	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				
08:15 to 09:15	**914**		**228**		Yes	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				

08:30 to 09:30	653		122		No	No	Yes	No
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	Yes				

08:45 to 09:45	548		62		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	Yes				

09:00 to 10:00	515		57		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				

09:15 to 10:15	488		61		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	Yes				

09:30 to 10:30	470		53		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				

09:45 to 10:45	450		58		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				

10:00 to 11:00	428		61		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	Yes				

10:15 to 11:15	425		57		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				

10:30 to 11:30	431		53		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				

10:45 to 11:45	448		59		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				

11:00 to 12:00	500		61		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	Yes				

11:15 to 12:15	558		59		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				

11:30 to 12:30	585		62		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	Yes				

11:45 to 12:45	600		51		No	No	No	No
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				

12:00 to 13:00	600		50		No	No	No	No
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				

12:15 to 13:15	580		54		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				

12:30 to 13:30	573		52		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				

12:45 to 13:45	586		59		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				

13:00 to 14:00	**550**		**51**		No	No		No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No					
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No					
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No					
13:15 to 14:15	**531**		**48**		No	No		No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No					
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No					
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No					
13:30 to 14:30	**558**		**55**		No	No		No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No					
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No					
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No					
13:45 to 14:45	**590**		**52**		No	No		No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No					
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No					
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No					
14:00 to 15:00	**695**		**56**		No	No		No	No
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	No					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No					
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No					
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No					
14:15 to 15:15	**753**		**155**		Yes*	No		Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes					

1790

14:30 to 15:30	**829**		**172**		Yes	No	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				
14:45 to 15:45	**850**		**191**		Yes	No	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				
15:00 to 16:00	**885**		**213**		Yes	No	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				
15:15 to 16:15	**1,073**		**115**		No	Yes*	No	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				
15:30 to 16:30	**1,216**		**215**		Yes*	Yes	Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				
15:45 to 16:45	**1,350**		**226**		Yes	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				

16:00 to 17:00	**1,459**		**243**		Yes	Yes		Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes					
16:15 to 17:15	**1,486**		**271**		Yes	Yes*		Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes					
16:30 to 17:30	**1,576**		**173**		Yes*	Yes		Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes					
16:45 to 17:45	**1,651**		**185**		Yes	Yes		Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes					
17:00 to 18:00	**1,676**		**205**		Yes	Yes		Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes					
17:15 to 18:15	**1,598**		**200**		Yes	Yes*		Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes					

17:30 to 18:30	**1,369**		**194**		Yes*	Yes	Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				
17:45 to 18:45	**1,271**		**199**		Yes	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				
18:00 to 19:00	**1,138**		**156**		Yes	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				
18:15 to 19:15	**1,069**		**171**		Yes	Yes*	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				
18:30 to 19:30	**1,010**		**202**		Yes*	Yes	Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				
18:45 to 19:45	**876**		**178**		Yes	No	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				

19:00 to 20:00	778		160		Yes	No	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (60)?**	Yes				

19:15 to 20:15	674		125		No	No	Yes	No
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	Yes				

19:30 to 20:30	605		73		No	No	No	No
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	Yes				

19:45 to 20:45	527		74		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	Yes				

20:00 to 21:00	494		77		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	Yes				

20:15 to 21:15	472		61		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	Yes				

20:30 to 21:30	**447**		**53**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				
20:45 to 21:45	**423**		**20**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				
21:00 to 22:00	**391**		**8**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				
21:15 to 22:15	**267**		**8**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				
21:30 to 22:30	**171**		**6**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				
21:45 to 22:45	**95**		**2**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (75)?**	No				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (60)?**	No				

Warrant 2: Four-hour Vehicular Volume

1: BobPark

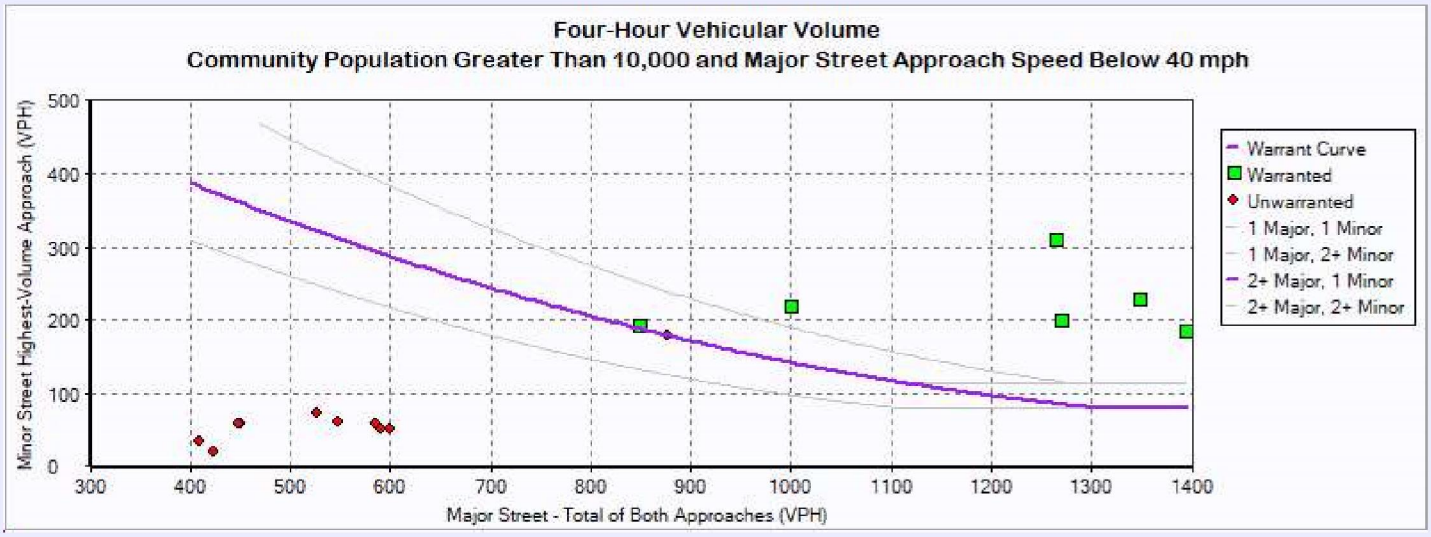
Intersection Information

	Major Street	Minor Street
Street Name	BOBCAT	PARKVIEW
Direction	EB/WB	NB
Number of Lanes	2	1
Approch Speed	30	30

Warrant 2 Met? **Yes**

Details:

Notes	6 Hours met (4 required)
Low population	No



1976

Hourly Volumes

Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
00:00:00 - 01:00:00	0.00	0.00
01:00:00 - 02:00:00	0.00	0.00
02:00:00 - 03:00:00	0.00	0.00
03:00:00 - 04:00:00	0.00	0.00
04:00:00 - 05:00:00	0.00	0.00
05:00:00 - 06:00:00	0.00	0.00
06:00:00 - 07:00:00	410.00	36.00
07:00:00 - 08:00:00	1,135.00	256.00
08:00:00 - 09:00:00	1,130.00	277.00
09:00:00 - 10:00:00	515.00	57.00
10:00:00 - 11:00:00	428.00	61.00
11:00:00 - 12:00:00	500.00	61.00
12:00:00 - 13:00:00	600.00	50.00
13:00:00 - 14:00:00	550.00	51.00
14:00:00 - 15:00:00	695.00	56.00
15:00:00 - 16:00:00	885.00	213.00
16:00:00 - 17:00:00	1,459.00	243.00
17:00:00 - 18:00:00	1,676.00	205.00
18:00:00 - 19:00:00	1,138.00	156.00
19:00:00 - 20:00:00	778.00	160.00
20:00:00 - 21:00:00	494.00	77.00
21:00:00 - 22:00:00	391.00	8.00
22:00:00 - 23:00:00	0.00	0.00
23:00:00 - 00:00:00	0.00	0.00

Warranted Volumes

Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
06:45:00 - 07:45:00	1,001.00	218.00
07:45:00 - 08:45:00	1,265.00	310.00
14:45:00 - 15:45:00	850.00	191.00
15:45:00 - 16:45:00	1,350.00	226.00
16:45:00 - 17:45:00	1,651.00	185.00
17:45:00 - 18:45:00	1,271.00	199.00

Warrant 3: Peak Hour

1: BobPark

Intersection Information

	Major Street	Minor Street
Street Name	BOBCAT	PARKVIEW
Direction	EB/WB	NB
Number of Lanes	2	1
Approch Speed	30	30

Warrant 3 Met? Yes

Details

Low Population? No

Condition A Met? No

Notes 0 Hours met (1 required)

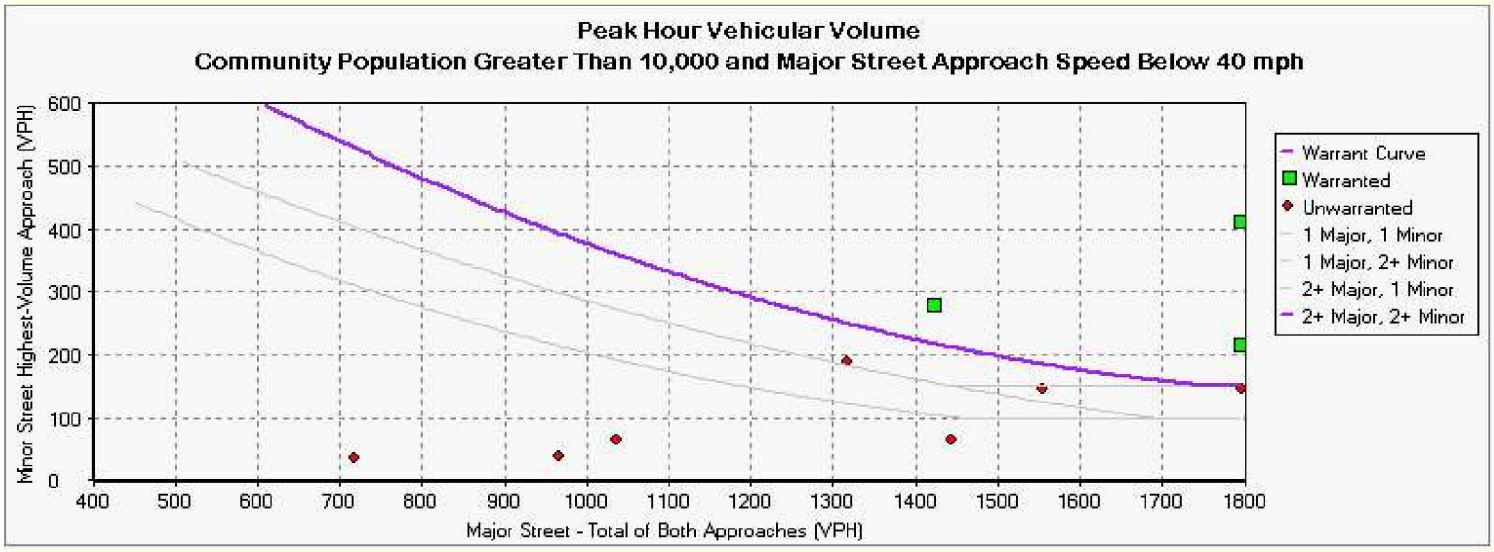
Condition B Met? Yes

Notes 5 Hours met (1 required)

Minor Approach Time Delay Condition Met? Not Met

Minor Approach Volume Condition Met? Met

Total Entering Intersection Volume Condition Met? Not Met



Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
6:00	410	36
7:00	1,135	256
8:00	1,130	277
9:00	515	57
10:00	428	61
11:00	500	61
12:00	600	50
13:00	550	51
14:00	695	56
15:00	885	213
15:30	1,216	215
16:30	1,576	173
17:30	1,369	194
18:30	1,010	202
19:30	605	73
20:30	447	53
21:30	171	6

2010

Warrant 4: Pedestrian Volume

1: BobPark

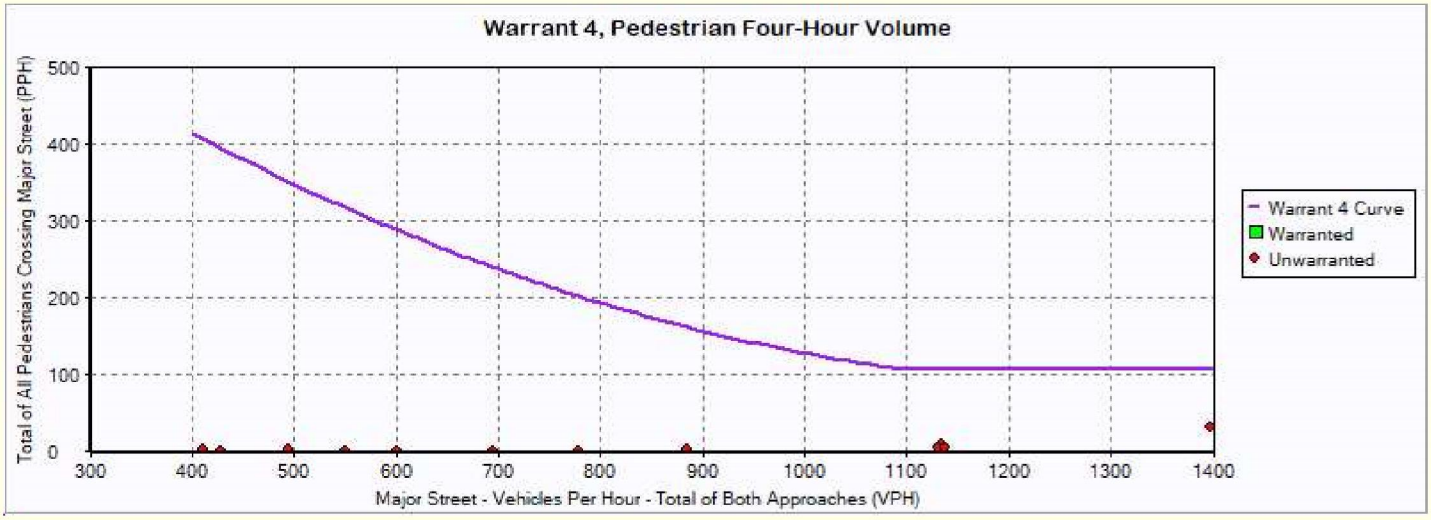
Intersection Information

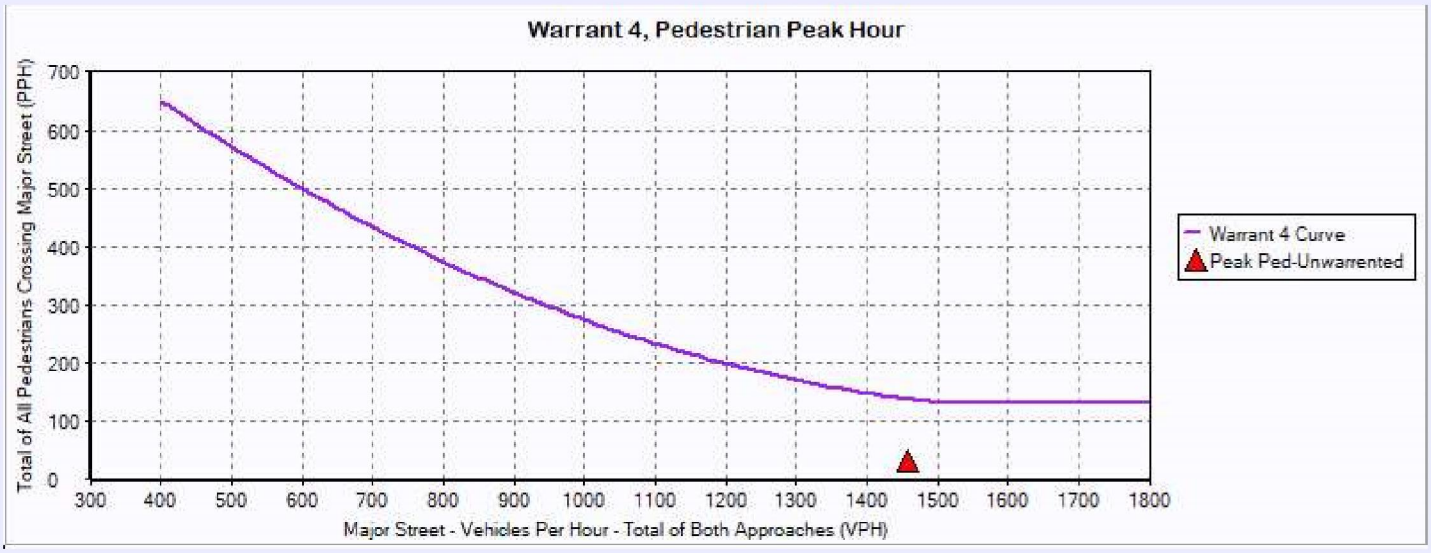
	Major Street	Minor Street
Street Name	BOBCAT	PARKVIEW
Direction	EB/WB	NB
Number of Lanes	2	1
Approch Speed	30	30

WARRANT 4 MET ? **No**

Details

Pedestrian Four Hour Volume Warrant Met?	No		
Pedestrian Peak Hour Warrant Met?	No	Notes	0 Hours met (4 required)
Speed Limit or 85th Percentile Speed on Major Street > 35mph, or Intersection lies within an Isolated Community with Population < 10,000?			No




Warrant 4, Pedestrian Peak Hour
Total of All Pedestrians Crossing Major Street (PPH)
700
600
500
400
300
200
100
0
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
Major Street - Vehicles Per Hour - Total of Both Approaches (VPH)
Warrant 4 Curve
Peak Ped-Unwarrented

Warrant 5: School Crossing

1: BobPark

Intersection Information

Major Street Name	BOBCAT
Major Street Direction	EB/WB

WARRANT 5 MET? **Yes**

Details:

Time Period Interval for Students Crossing (min)	30
Number of Students Crossing in Time Period	34
Number of Adequate Gaps in Time Period	0
Other Remedial Measures Attempted?	Yes
Adjacent Signal on EB approach?	No
Distance to signal on EB Approach (ft)	-
Adjacent Signal on WB approach?	No
Distance to signal on WB Approach (ft)	-
Will New Signal Restrict Progressive Traffic?	No

Warrant 8: Roadway Network

1: BobPark

Intersection Information

Major Street Name	BOBCAT
Major Street Direction	EB/WB
Minor Street Direction	NB

WARRANT 8 MET? (A or B) Yes

Details:

Growth Rates % (per year)

	NB	EB	WB
L	0.00	0.00	0.00
T	0.00	0.00	0.00
R	0.00	0.00	0.00

Condition A, Total Entering Volume

Existing Peak Hour	1,881
Years	0.00
Future Peak Hour	1,881
Warrant 1 in 5 Years?	No
Warrant 2 in 5 Years?	Yes
Warrant 3 in 5 Years?	Yes

Condition B, Non-normal Business Day

	Existing	Future
Highest Hour	0	0
Second Highest Hour	0	0
Third Highest Hour	0	0
Fourth Highest Hour	0	0
Fifth Highest Hour	0	0
Yearly Growth Rate (%)	0.00	
Years	0.00	

Condition A Met? Yes **Condition B Met?** No

All-Way Stop Control Warrant: Multiway Stop Applications

1: BobPark

Intersection Information

Major Street Name:	BOBCAT
Major Street Direction:	EB/WB
Minor Street Direction:	NB

AWSC WARRANT MET? **Yes**

Details:

Condition A Met?	Yes	Qualifying Crashes	0
Condition B Met?	No	Major Street 85th %-tile Speed	0.00
Condition C Met?	No	Major Street Speed Limit	30

Notes: 6 Hours Met (8 Required)

Hour	Traffic Volumes		Bicycle Volumes		Ped Volumes		Condition C		
	Major Street	Minor Street	East Bound Bicycle Volumes	North Bound Bicycle Volumes	East Bound Ped Volumes	North Bound Ped Volumes	Major Street	Minor Street	
							Veh Volume > 300	Avg(Veh + Ped + Bicycle) > 200	Delay > 30
06:45 to 07:45	1,001	218	0	0	0	0	False	No	No
07:45 to 08:45	1,265	310	0	0	0	0	False	No	No
14:45 to 15:45	850	191	0	0	0	0	False	No	No
15:45 to 16:45	1,350	226	0	0	0	0	False	No	No
17:00 to 18:00	1,676	205	0	0	0	0	False	No	No
18:30 to 19:30	1,010	202	0	0	0	0	False	No	No

Warrants Summary Report

1: test

Intersection Information

	Major Street	Minor Street
Street Name	-	-
Direction	EB/WB	NB
Number of Lanes	2	2
Approch Speed	30	30

Warrant	Met?	Notes
Warrant 1, Eight-Hour Vehicular Volume		
	No	
Condition A or B Met?	No	7 Hours met (8 required)
Condition A and B Met?	No	6 Hours met (8 required)
Warrant 2, Four-Hour Vehicular Volume		
	Yes	6 Hours met (4 required)
Warrant 3, Peak Hour		
	Yes	
Condition A Met?	No	0 Hours met (1 required)
Condition B Met?	Yes	3 Hours met (1 required)
Warrant 4, Pedestrian Volume		
	No	
Condition A Met?	No	0 Hours met (4 required)
Condition B Met?	No	0 Hours met (1 required)
Warrant 5, School Crossing		
	Yes	

Warrant 8, Roadway Network

Yes

AWSC Warrant, Multiway Stop Application

Yes

Condition A Met?	Yes
Condition B Met?	No
Condition C Met?	No

Warrant 1: Eight-hour Vehicular Volume

1: test

Intersection Information

Major Street Name:	-
Major Street Direction:	EB/WB
Minor Street Direction:	NB

WARRANT 1 MET? **No**

Details:

Condition A Met?	No	7 Hours met (8 required)
Condition B Met?	No	6 Hours met (8 required)

Hour	Major Street Vehicles (Total of Both Approaches)		High Volume Minor Approach Vehicles		100% Standard Met? Cond. A OR Cond. B		80% Standard Met? Cond. A AND Cond. B	
					Condition A 100% Column	Condition B 100% Column	Condition A 80% Column	Condition B 80% Column
06:00 to 07:00	**279**		**172**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	Volume >= 100% column (900)?	No	Volume >= 100% column (100)?	Yes				
	Volume >= 80% column (720)?	No	Volume >= 80% column (80)?	Yes				
06:15 to 07:15	**346**		**245**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	Volume >= 100% column (900)?	No	Volume >= 100% column (100)?	Yes				
	Volume >= 80% column (720)?	No	Volume >= 80% column (80)?	Yes				
06:30 to 07:30	**471**		**282**		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	Volume >= 100% column (900)?	No	Volume >= 100% column (100)?	Yes				
	Volume >= 80% column (720)?	No	Volume >= 80% column (80)?	Yes				
06:45 to 07:45	**626**		**323**		Yes*	No	Yes	No
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	Volume >= 100% column (900)?	No	Volume >= 100% column (100)?	Yes				
	Volume >= 80% column (720)?	No	Volume >= 80% column (80)?	Yes				

07:00 to 08:00	743		366		Yes	No	Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

07:15 to 08:15	911		423		Yes	Yes*	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

07:30 to 08:30	1,035		491		Yes	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

07:45 to 08:45	1,026		474		Yes*	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

08:00 to 09:00	927		417		Yes	Yes	Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

08:15 to 09:15	763		308		Yes	No	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

2009

08:30 to 09:30	550		206		No	No	Yes	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

08:45 to 09:45	396		181		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

09:00 to 10:00	355		185		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

09:15 to 10:15	320		197		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

09:30 to 10:30	320		180		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

09:45 to 10:45	314		183		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

2910

10:00 to 11:00	299		168		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

10:15 to 11:15	301		169		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

10:30 to 11:30	297		177		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

10:45 to 11:45	305		177		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

11:00 to 12:00	362		193		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

11:15 to 12:15	410		209		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

11:30 to 12:30	416		221		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

11:45 to 12:45	427		235		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

12:00 to 13:00	413		235		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

12:15 to 13:15	393		228		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

12:30 to 13:30	394		226		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

12:45 to 13:45	429		218		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

13:00 to 14:00	404		208		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

13:15 to 14:15	398		192		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

13:30 to 14:30	428		192		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

13:45 to 14:45	414		188		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

14:00 to 15:00	435		213		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

14:15 to 15:15	502		229		No	No	Yes	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

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14:30 to 15:30	**588**		**234**		No	No	Yes	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
14:45 to 15:45	**635**		**262**		Yes*	No	Yes	No
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
15:00 to 16:00	**704**		**289**		Yes	No	Yes	No
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				
15:15 to 16:15	**870**		**312**		Yes	No	Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				
15:30 to 16:30	**1,030**		**332**		Yes	Yes*	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				
15:45 to 16:45	**1,135**		**342**		Yes*	Yes	Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes				

16:00 to 17:00	**1,252**		**341**		Yes	Yes		Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes					
16:15 to 17:15	**1,258**		**375**		Yes	Yes		Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes					
16:30 to 17:30	**1,234**		**427**		Yes	Yes*		Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes					
16:45 to 17:45	**1,323**		**449**		Yes*	Yes		Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes					
17:00 to 18:00	**1,381**		**454**		Yes	Yes		Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes					
17:15 to 18:15	**1,317**		**417**		Yes	Yes		Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes					

17:30 to 18:30	**1,146**		**363**		Yes	Yes*		Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes					
17:45 to 18:45	**1,046**		**350**		Yes*	Yes		Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	Yes	**Volume >= 100% column (100)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes					
18:00 to 19:00	**892**		**339**		Yes	No		Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes					
18:15 to 19:15	**863**		**330**		Yes	No		Yes*	Yes*
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes					
18:30 to 19:30	**862**		**291**		Yes	No		Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes					
18:45 to 19:45	**756**		**257**		Yes*	No		Yes	Yes
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes					
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes					
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes					
	Volume >= 80% column (720)?	Yes	**Volume >= 80% column (80)?**	Yes					

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19:00 to 20:00	685		220		Yes	No	Yes	No
Condition A	Volume >= 100% column (600)?	Yes	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

19:15 to 20:15	581		198		No	No	Yes	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	Yes	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

19:30 to 20:30	478		206		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	Yes				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

19:45 to 20:45	429		178		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	Yes				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

20:00 to 21:00	421		159		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

20:15 to 21:15	383		154		No	No	No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No				
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No				
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes				
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes				

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20:30 to 21:30	**394**		**126**		No	No		No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No					
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No					
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes					
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes					
20:45 to 21:45	**358**		**112**		No	No		No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No					
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No					
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes					
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes					
21:00 to 22:00	**352**		**111**		No	No		No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No					
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No					
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	Yes					
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	Yes					
21:15 to 22:15	**255**		**72**		No	No		No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No					
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No					
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	No					
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	No					
21:30 to 22:30	**170**		**50**		No	No		No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No					
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No					
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	No					
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	No					
21:45 to 22:45	**109**		**31**		No	No		No	No
Condition A	Volume >= 100% column (600)?	No	Volume >= 100% column (900)?	No					
	Volume >= 80% column (480)?	No	Volume >= 80% column (720)?	No					
Condition B	**Volume >= 100% column (900)?**	No	**Volume >= 100% column (100)?**	No					
	Volume >= 80% column (720)?	No	**Volume >= 80% column (80)?**	No					

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Warrant 2: Four-hour Vehicular Volume

1: test

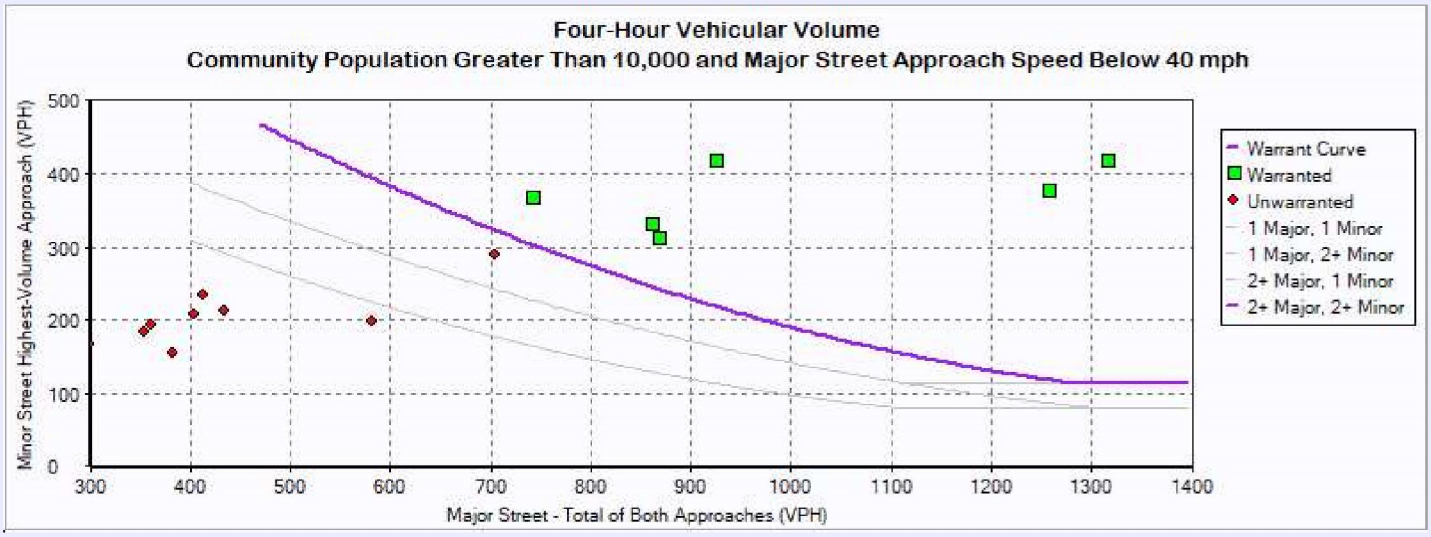
Intersection Information

	Major Street	Minor Street
Street Name	-	-
Direction	EB/WB	NB
Number of Lanes	2	2
Approch Speed	30	30

Warrant 2 Met? **Yes**

Details:

Notes	6 Hours met (4 required)
Low population	No



Hourly Volumes

Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
00:00:00 - 01:00:00	0.00	0.00
01:00:00 - 02:00:00	0.00	0.00
02:00:00 - 03:00:00	0.00	0.00
03:00:00 - 04:00:00	0.00	0.00
04:00:00 - 05:00:00	0.00	0.00
05:00:00 - 06:00:00	0.00	0.00
06:00:00 - 07:00:00	279.00	172.00
07:00:00 - 08:00:00	743.00	366.00
08:00:00 - 09:00:00	927.00	417.00
09:00:00 - 10:00:00	355.00	185.00
10:00:00 - 11:00:00	299.00	168.00
11:00:00 - 12:00:00	362.00	193.00
12:00:00 - 13:00:00	413.00	235.00
13:00:00 - 14:00:00	404.00	208.00
14:00:00 - 15:00:00	435.00	213.00
15:00:00 - 16:00:00	704.00	289.00
16:00:00 - 17:00:00	1,252.00	341.00
17:00:00 - 18:00:00	1,381.00	454.00
18:00:00 - 19:00:00	892.00	339.00
19:00:00 - 20:00:00	685.00	220.00
20:00:00 - 21:00:00	421.00	159.00
21:00:00 - 22:00:00	352.00	111.00
22:00:00 - 23:00:00	0.00	0.00
23:00:00 - 00:00:00	0.00	0.00

Warranted Volumes

Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
07:00:00 - 08:00:00	743.00	366.00
08:00:00 - 09:00:00	927.00	417.00
15:15:00 - 16:15:00	870.00	312.00
16:15:00 - 17:15:00	1,258.00	375.00
17:15:00 - 18:15:00	1,317.00	417.00
18:15:00 - 19:15:00	863.00	330.00

Warrant 3: Peak Hour

1: test

Intersection Information

	Major Street	Minor Street
Street Name	-	-
Direction	EB/WB	NB
Number of Lanes	2	2
Approch Speed	30	30

Warrant 3 Met? Yes

Details

Low Population? No

Condition A Met? No

Notes 0 Hours met (1 required)

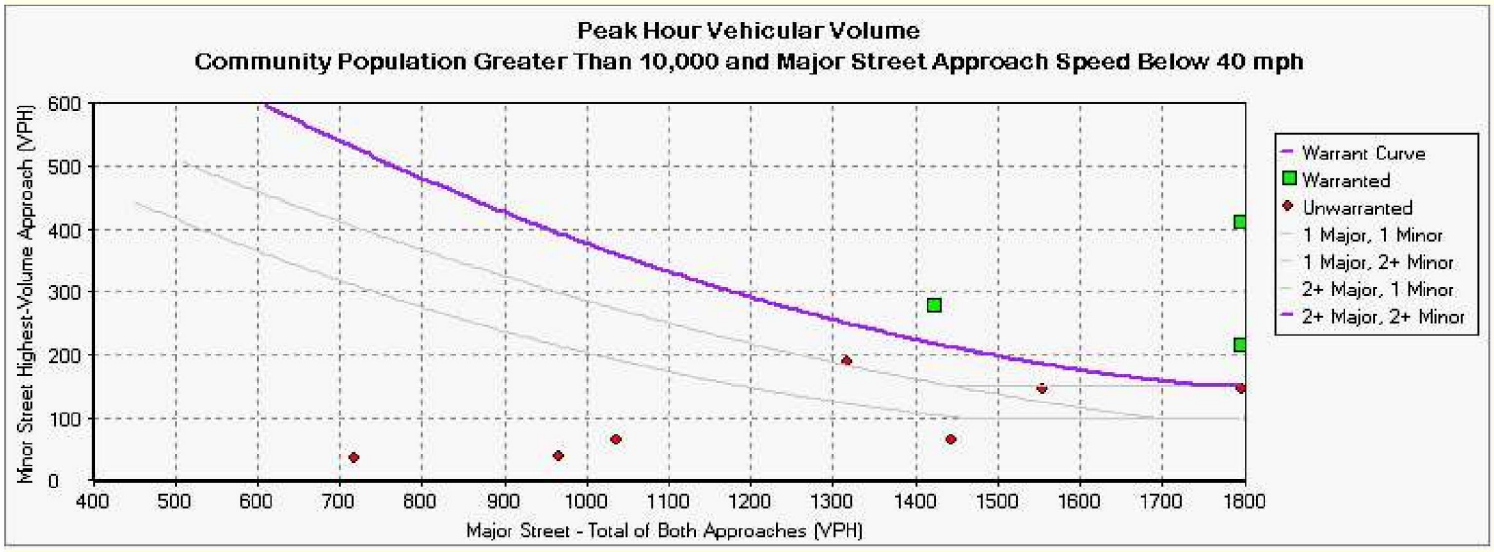
Condition B Met? Yes

Notes 3 Hours met (1 required)

Minor Approach Time Delay Condition Met? Not Met

Minor Approach Volume Condition Met? Met

Total Entering Intersection Volume Condition Met? Not Met



Hour	Major Street Total All Approaches (vph)	Minor Street Highest Volume Approach (vph)
6:00	279	172
7:00	743	366
7:15	911	423
8:15	763	308
9:15	320	197
10:15	301	169
11:15	410	209
12:15	393	228
13:15	398	192
14:15	502	229
15:15	870	312
15:45	1,135	342
16:45	1,323	449
17:45	1,046	350
18:45	756	257
19:45	429	178
20:45	358	112
21:45	109	31

Warrant 4: Pedestrian Volume

1: test

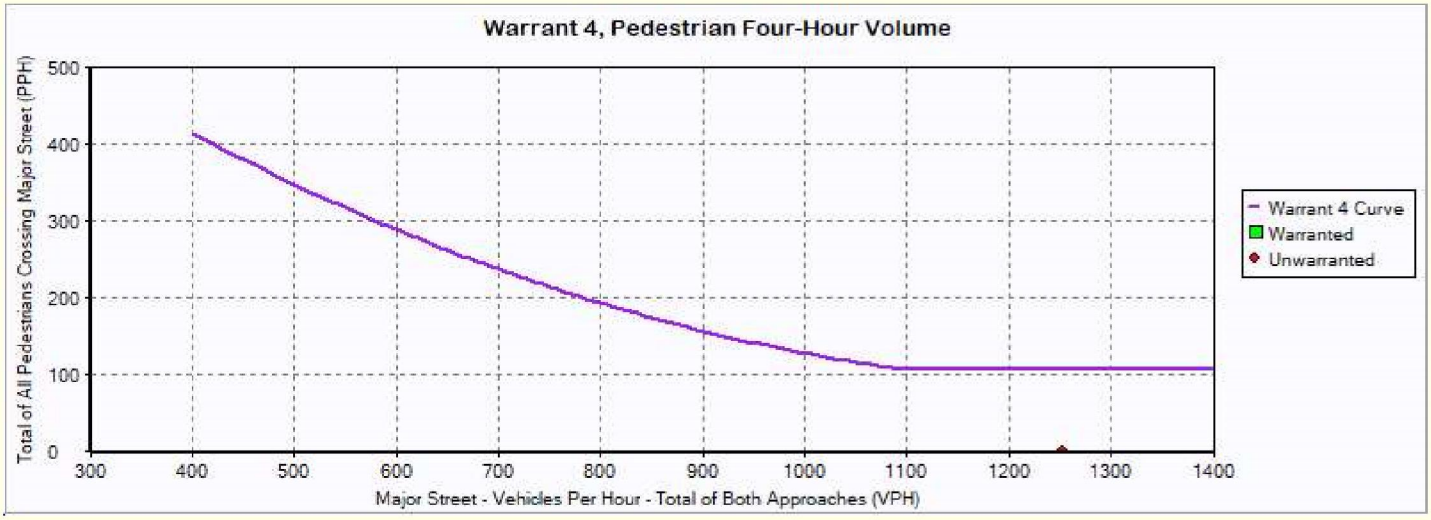
Intersection Information

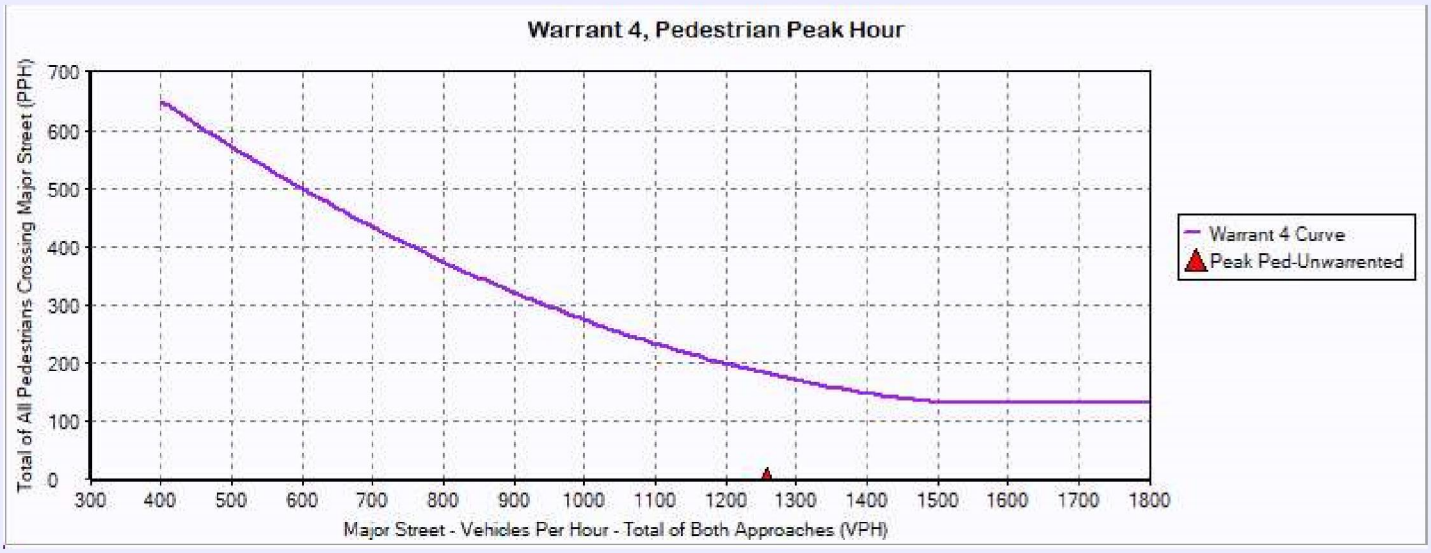
	Major Street	Minor Street
Street Name	-	-
Direction	EB/WB	NB
Number of Lanes	2	2
Approch Speed	30	30

WARRANT 4 MET ? **No**

Details

Pedestrian Four Hour Volume Warrant Met?	No		
Pedestrian Peak Hour Warrant Met?	No	Notes	0 Hours met (4 required)
Speed Limit or 85th Percentile Speed on Major Street > 35mph, or Intersection lies within an Isolated Community with Population < 10,000?			No




Warrant 4, Pedestrian Peak Hour
Total of All Pedestrians Crossing Major Street (PPH)
700
600
500
400
300
200
100
0
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
Major Street - Vehicles Per Hour - Total of Both Approaches (VPH)
Warrant 4 Curve
Peak Ped-Unwarrented

Warrant 5: School Crossing

1: test

Intersection Information

Major Street Name	-
Major Street Direction	EB/WB

WARRANT 5 MET? **Yes**

Details:

Time Period Interval for Students Crossing (min)	30
Number of Students Crossing in Time Period	56
Number of Adequate Gaps in Time Period	14
Other Remedial Measures Attempted?	Yes
Adjacent Signal on EB approach?	No
Distance to signal on EB Approach (ft)	-
Adjacent Signal on WB approach?	No
Distance to signal on WB Approach (ft)	-
Will New Signal Restrict Progressive Traffic?	No

Warrant 8: Roadway Network

1: test

Intersection Information

Major Street Name	-
Major Street Direction	EB/WB
Minor Street Direction	NB

WARRANT 8 MET? (A or B) Yes

Details:

Growth Rates % (per year)

	NB	EB	WB
L	0.00	0.00	0.00
T	0.00	0.00	0.00
R	0.00	0.00	0.00

Condition A, Total Entering Volume

Existing Peak Hour	1,835
Years	0.00
Future Peak Hour	1,835
Warrant 1 in 5 Years?	No
Warrant 2 in 5 Years?	Yes
Warrant 3 in 5 Years?	Yes

Condition B, Non-normal Business Day

	Existing	Future
Highest Hour	0	0
Second Highest Hour	0	0
Third Highest Hour	0	0
Fourth Highest Hour	0	0
Fifth Highest Hour	0	0
Yearly Growth Rate (%)	0.00	
Years	0.00	

Condition A Met? Yes **Condition B Met?** No

All-Way Stop Control Warrant: Multiway Stop Applications

1: test

Intersection Information

Major Street Name:	-
Major Street Direction:	EB/WB
Minor Street Direction:	NB

AWSC WARRANT MET? **Yes**

Details:

Condition A Met?	Yes	Qualifying Crashes	0
Condition B Met?	No	Major Street 85th %-tile Speed	0.00
Condition C Met?	No	Major Street Speed Limit	30

Notes: Delay for highest hour < 30 sec/veh

Hour	Traffic Volumes		Bicycle Volumes		Ped Volumes		Condition C		
	Major Street	Minor Street	East Bound Bicycle Volumes	North Bound Bicycle Volumes	East Bound Ped Volumes	North Bound Ped Volumes	Major Street	Minor Street	
							Veh Volume > 300	Avg(Veh + Ped + Bicycle) > 200	Delay > 30
06:15 to 07:15	346	245	0	0	0	0	False	No	No
07:15 to 08:15	911	423	0	0	0	0	False	No	No
08:15 to 09:15	763	308	0	0	0	0	False	No	No
11:15 to 12:15	410	209	0	0	0	0	False	No	No
12:15 to 13:15	393	228	0	0	0	0	False	No	No
14:00 to 15:00	435	213	0	0	0	0	False	No	No
15:00 to 16:00	704	289	0	0	0	0	False	No	No
16:00 to 17:00	1,252	341	0	0	0	0	False	No	No
17:00 to 18:00	1,381	454	0	0	0	0	False	No	No
18:00 to 19:00	892	339	0	0	0	0	False	No	No
19:00 to 20:00	685	220	0	0	0	0	False	No	No

Appendix C

Synchro 11 Intersection Analysis Results

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:55	6:55	6:55	6:55	6:55	6:55	6:55
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	65	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	2437	2469	2379	2399	2447	2396	2474
Vehs Exited	2430	2456	2379	2376	2414	2382	2466
Starting Vehs	48	56	49	49	40	32	55
Ending Vehs	55	69	49	72	73	46	63
Travel Distance (mi)	975	990	952	955	989	948	985
Travel Time (hr)	57.3	120.6	63.2	91.1	51.4	49.4	61.5
Total Delay (hr)	20.3	83.1	27.1	54.9	13.9	13.5	24.1
Total Stops	2016	1986	1834	1872	1967	1860	1943
Fuel Used (gal)	40.3	55.1	40.9	47.6	38.9	37.7	41.5

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:55	6:55	6:55	6:55
End Time	8:00	8:00	8:00	8:00
Total Time (min)	65	65	65	65
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	2422	2385	2443	2426
Vehs Exited	2403	2390	2413	2411
Starting Vehs	44	65	41	46
Ending Vehs	63	60	71	64
Travel Distance (mi)	957	949	974	967
Travel Time (hr)	53.4	54.7	65.8	66.9
Total Delay (hr)	17.1	18.7	28.9	30.1
Total Stops	1858	1879	1920	1914
Fuel Used (gal)	38.5	38.7	42.0	42.1

Interval #0 Information Seeding

Start Time	6:55
End Time	7:00
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2437	2469	2379	2399	2447	2396	2474
Vehs Exited	2430	2456	2379	2376	2414	2382	2466
Starting Vehs	48	56	49	49	40	32	55
Ending Vehs	55	69	49	72	73	46	63
Travel Distance (mi)	975	990	952	955	989	948	985
Travel Time (hr)	57.3	120.6	63.2	91.1	51.4	49.4	61.5
Total Delay (hr)	20.3	83.1	27.1	54.9	13.9	13.5	24.1
Total Stops	2016	1986	1834	1872	1967	1860	1943
Fuel Used (gal)	40.3	55.1	40.9	47.6	38.9	37.7	41.5

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2422	2385	2443	2426
Vehs Exited	2403	2390	2413	2411
Starting Vehs	44	65	41	46
Ending Vehs	63	60	71	64
Travel Distance (mi)	957	949	974	967
Travel Time (hr)	53.4	54.7	65.8	66.9
Total Delay (hr)	17.1	18.7	28.9	30.1
Total Stops	1858	1879	1920	1914
Fuel Used (gal)	38.5	38.7	42.0	42.1

101: MARSHALL & BOBCAT Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.2	0.3	0.1
Total Del/Veh (s)	0.9	0.8	5.9	0.4	36.7	6.9	6.3

102: TROPHY CLUB & BOBCAT Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	3.3	0.3	0.1	0.2	1.1
Total Del/Veh (s)	61.6	1.4	4.8	6.2	0.3	0.7	1.2	5.7

103: PARKVIEW & BOBCAT Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	85.8	102.5	18.4
Total Del/Veh (s)	1.4	1.3	13.2	0.6	289.0	18.5	28.0

104: CHURCH DWY/ROSEVILLE & BOBCAT Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0
Total Del/Veh (s)	5.7	1.0	1.0	4.6	0.6	0.4	15.1	5.4	14.2	4.7	1.3

Total Network Performance

Denied Del/Veh (s)	14.5
Total Del/Veh (s)	29.5

Intersection: 101: MARSHALL & BOBCAT

Movement	EB	EB	WB	NB	NB
Directions Served	T	TR	L	L	R
Maximum Queue (ft)	2	23	95	185	138
Average Queue (ft)	0	2	45	79	68
95th Queue (ft)	2	14	80	147	111
Link Distance (ft)	746	746		436	436
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			200		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 102: TROPHY CLUB & BOBCAT

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	TR
Maximum Queue (ft)	150	107	177	27	9	46
Average Queue (ft)	51	61	73	1	0	4
95th Queue (ft)	117	88	134	27	5	24
Link Distance (ft)	249	249		606	806	806
Upstream Blk Time (%)	0					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)			200			
Storage Blk Time (%)			0			
Queuing Penalty (veh)			0			

Intersection: 103: PARKVIEW & BOBCAT

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	TR	L	T	L	R
Maximum Queue (ft)	2	60	155	23	478	376
Average Queue (ft)	0	14	68	1	314	181
95th Queue (ft)	2	42	123	23	566	505
Link Distance (ft)	405	405		893	462	462
Upstream Blk Time (%)					30	26
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)			200			
Storage Blk Time (%)			0			
Queuing Penalty (veh)			0			

Intersection: 104: CHURCH DWY/ROSEVILLE & BOBCAT

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR	LTR	LTR
Maximum Queue (ft)	63	13	28	17	45	61
Average Queue (ft)	23	0	1	1	17	27
95th Queue (ft)	55	8	13	10	43	51
Link Distance (ft)	893	893	249	249	122	285
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Network Summary

Network wide Queuing Penalty: 1

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:55	6:55	6:55	6:55	6:55	6:55	6:55
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	65	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	2550	2572	2504	2550	2575	2480	2556
Vehs Exited	2545	2541	2491	2549	2558	2462	2544
Starting Vehs	46	38	39	41	56	39	47
Ending Vehs	51	69	52	42	73	57	59
Travel Distance (mi)	1108	1103	1063	1108	1114	1065	1100
Travel Time (hr)	53.2	52.5	49.7	52.8	57.9	50.8	55.0
Total Delay (hr)	11.7	11.3	10.0	11.3	16.2	10.9	13.7
Total Stops	1900	1858	1839	1832	2049	1863	1990
Fuel Used (gal)	41.9	42.0	40.0	42.1	43.1	40.4	42.2

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:55	6:55	6:55	6:55
End Time	8:00	8:00	8:00	8:00
Total Time (min)	65	65	65	65
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	2617	2582	2610	2562
Vehs Exited	2604	2576	2618	2548
Starting Vehs	47	51	62	45
Ending Vehs	60	57	54	58
Travel Distance (mi)	1121	1100	1142	1102
Travel Time (hr)	53.5	51.5	55.5	53.2
Total Delay (hr)	11.6	10.4	12.8	12.0
Total Stops	1979	1871	1880	1906
Fuel Used (gal)	42.6	41.7	42.8	41.9

Interval #0 Information Seeding

Start Time	6:55
End Time	7:00
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2550	2572	2504	2550	2575	2480	2556
Vehs Exited	2545	2541	2491	2549	2558	2462	2544
Starting Vehs	46	38	39	41	56	39	47
Ending Vehs	51	69	52	42	73	57	59
Travel Distance (mi)	1108	1103	1063	1108	1114	1065	1100
Travel Time (hr)	53.2	52.5	49.7	52.8	57.9	50.8	55.0
Total Delay (hr)	11.7	11.3	10.0	11.3	16.2	10.9	13.7
Total Stops	1900	1858	1839	1832	2049	1863	1990
Fuel Used (gal)	41.9	42.0	40.0	42.1	43.1	40.4	42.2

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2617	2582	2610	2562
Vehs Exited	2604	2576	2618	2548
Starting Vehs	47	51	62	45
Ending Vehs	60	57	54	58
Travel Distance (mi)	1121	1100	1142	1102
Travel Time (hr)	53.5	51.5	55.5	53.2
Total Delay (hr)	11.6	10.4	12.8	12.0
Total Stops	1979	1871	1880	1906
Fuel Used (gal)	42.6	41.7	42.8	41.9

101: MARSHALL & BOBCAT Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.1	0.2	0.1	0.0	0.2	0.3	0.1
Total Del/Veh (s)	0.8	0.7	6.5	0.4	49.5	6.9	4.9

102: TROPHY CLUB & BOBCAT Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	1.5	0.1	3.1	0.6	0.1	0.2	1.5
Total Del/Veh (s)	236.7	5.2	8.6	0.6	0.9	0.9	9.1

103: PARKVIEW & BOBCAT Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.1	0.0
Total Del/Veh (s)	1.1	1.0	9.0	0.8	65.3	4.5	5.3

104: CHURCH DWY/ROSEVILLE & BOBCAT Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	8.8	1.0	0.7	4.5	0.7	0.6	46.1	9.2	2.1

Total Network Performance

Denied Del/Veh (s)	1.2
Total Del/Veh (s)	15.4

Intersection: 101: MARSHALL & BOBCAT

Movement	EB	EB	WB	NB	NB
Directions Served	T	TR	L	L	R
Maximum Queue (ft)	4	38	149	148	142
Average Queue (ft)	0	4	62	53	71
95th Queue (ft)	3	20	111	113	115
Link Distance (ft)	746	746		436	436
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			200		
Storage Blk Time (%)			0		
Queuing Penalty (veh)			0		

Intersection: 102: TROPHY CLUB & BOBCAT

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	TR
Maximum Queue (ft)	146	146	223	294	4	48
Average Queue (ft)	61	70	109	19	0	7
95th Queue (ft)	151	110	198	145	4	32
Link Distance (ft)	249	249		606	806	806
Upstream Blk Time (%)	1					
Queuing Penalty (veh)	1					
Storage Bay Dist (ft)			200			
Storage Blk Time (%)			2	0		
Queuing Penalty (veh)			3	0		

Intersection: 103: PARKVIEW & BOBCAT

Movement	EB	WB	NB	NB
Directions Served	TR	L	L	R
Maximum Queue (ft)	31	83	197	72
Average Queue (ft)	4	32	87	35
95th Queue (ft)	19	64	173	59
Link Distance (ft)	405		462	462
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		200		
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 104: CHURCH DWY/ROSEVILLE & BOBCAT

Movement	EB	WB	WB	SB
Directions Served	LT	LT	TR	LTR
Maximum Queue (ft)	113	58	18	92
Average Queue (ft)	50	5	1	34
95th Queue (ft)	87	30	9	69
Link Distance (ft)	893	249	249	285
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 4

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:55	6:55	6:55	6:55	6:55	6:55	6:55
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	65	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	2404	2498	2433	2463	2418	2423	2454
Vehs Exited	2388	2502	2435	2468	2414	2418	2455
Starting Vehs	36	53	45	54	41	38	51
Ending Vehs	52	49	43	49	45	43	50
Travel Distance (mi)	984	1023	993	1019	983	988	1001
Travel Time (hr)	45.8	47.7	45.9	47.3	45.8	45.9	46.6
Total Delay (hr)	6.1	6.6	6.1	6.3	6.1	6.1	6.3
Total Stops	830	910	792	813	845	812	813
Fuel Used (gal)	39.5	41.2	39.5	40.8	39.1	39.6	40.1

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:55	6:55	6:55	6:55
End Time	8:00	8:00	8:00	8:00
Total Time (min)	65	65	65	65
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	2466	2499	2545	2459
Vehs Exited	2470	2497	2543	2459
Starting Vehs	49	56	51	47
Ending Vehs	45	58	53	46
Travel Distance (mi)	1002	1018	1048	1006
Travel Time (hr)	46.5	47.7	49.0	46.8
Total Delay (hr)	6.2	6.7	6.8	6.3
Total Stops	875	901	913	847
Fuel Used (gal)	39.8	40.9	41.7	40.2

Interval #0 Information Seeding

Start Time	6:55
End Time	7:00
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2404	2498	2433	2463	2418	2423	2454
Vehs Exited	2388	2502	2435	2468	2414	2418	2455
Starting Vehs	36	53	45	54	41	38	51
Ending Vehs	52	49	43	49	45	43	50
Travel Distance (mi)	984	1023	993	1019	983	988	1001
Travel Time (hr)	45.8	47.7	45.9	47.3	45.8	45.9	46.6
Total Delay (hr)	6.1	6.6	6.1	6.3	6.1	6.1	6.3
Total Stops	830	910	792	813	845	812	813
Fuel Used (gal)	39.5	41.2	39.5	40.8	39.1	39.6	40.1

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2466	2499	2545	2459
Vehs Exited	2470	2497	2543	2459
Starting Vehs	49	56	51	47
Ending Vehs	45	58	53	46
Travel Distance (mi)	1002	1018	1048	1006
Travel Time (hr)	46.5	47.7	49.0	46.8
Total Delay (hr)	6.2	6.7	6.8	6.3
Total Stops	875	901	913	847
Fuel Used (gal)	39.8	40.9	41.7	40.2

101: MARSHALL & BOBCAT Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.2	0.3	0.1
Total Del/Veh (s)	4.2	2.8	3.3	3.8	6.0	3.9	4.0

102: TROPHY CLUB & BOBCAT Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.4	0.1	0.1	0.2	0.2
Total Del/Veh (s)	2.6	0.6	2.5	4.6	4.6	6.2	2.5	3.8

103: PARKVIEW & BOBCAT Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.2	0.0
Total Del/Veh (s)	4.1	3.0	4.5	3.4	6.0	4.2	4.0

104: CHURCH DWY/ROSEVILLE & BOBCAT Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0
Total Del/Veh (s)	5.8	0.9	0.5	4.0	0.5	0.3	17.9	4.6	19.6	4.0	1.2

Total Network Performance

Denied Del/Veh (s)	0.2
Total Del/Veh (s)	8.9

Intersection: 101: MARSHALL & BOBCAT

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	TR	LT	T	L	R
Maximum Queue (ft)	60	45	68	8	97	90
Average Queue (ft)	23	4	27	0	39	38
95th Queue (ft)	55	25	60	8	77	78
Link Distance (ft)	700	700	330	330	412	412
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 102: TROPHY CLUB & BOBCAT

Movement	EB	EB	NB	NB	SB
Directions Served	L	R	LT	T	T
Maximum Queue (ft)	46	70	148	24	80
Average Queue (ft)	9	13	40	1	40
95th Queue (ft)	33	47	105	17	70
Link Distance (ft)	219	219	568	568	775
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 103: PARKVIEW & BOBCAT

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	TR	LT	T	L	R
Maximum Queue (ft)	65	44	105	9	82	87
Average Queue (ft)	25	6	37	0	36	34
95th Queue (ft)	57	27	81	5	70	69
Link Distance (ft)	330	330	850	850	428	428
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 104: CHURCH DWY/ROSEVILLE & BOBCAT

Movement	EB	WB	WB	NB	SB
Directions Served	LT	LT	TR	LTR	LTR
Maximum Queue (ft)	61	11	4	43	60
Average Queue (ft)	24	0	0	14	28
95th Queue (ft)	54	7	3	40	53
Link Distance (ft)	850	219	219	128	289
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	2	3	4	5	6	7
Start Time	6:55	6:55	6:55	6:55	6:55	6:55	6:55
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	65	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1	1
Vehs Entered	2493	2597	2546	2526	2502	2509	2652
Vehs Exited	2482	2606	2546	2528	2510	2494	2646
Starting Vehs	54	63	51	57	60	47	67
Ending Vehs	65	54	51	55	52	62	73
Travel Distance (mi)	1106	1165	1123	1131	1122	1114	1181
Travel Time (hr)	57.2	61.0	57.4	57.9	56.2	55.0	66.8
Total Delay (hr)	14.4	15.8	14.0	14.0	12.6	11.9	20.9
Total Stops	1425	1606	1350	1455	1340	1370	1542
Fuel Used (gal)	45.9	48.5	46.2	46.6	45.5	45.7	50.7

Summary of All Intervals

Run Number	8	9	10	Avg
Start Time	6:55	6:55	6:55	6:55
End Time	8:00	8:00	8:00	8:00
Total Time (min)	65	65	65	65
Time Recorded (min)	60	60	60	60
# of Intervals	2	2	2	2
# of Recorded Intervals	1	1	1	1
Vehs Entered	2618	2632	2654	2572
Vehs Exited	2616	2645	2670	2574
Starting Vehs	47	78	63	55
Ending Vehs	49	65	47	53
Travel Distance (mi)	1164	1171	1188	1146
Travel Time (hr)	60.0	65.1	63.6	60.0
Total Delay (hr)	14.7	19.6	17.5	15.5
Total Stops	1668	1485	1502	1476
Fuel Used (gal)	47.9	50.0	49.6	47.7

Interval #0 Information Seeding

Start Time	6:55
End Time	7:00
Total Time (min)	5

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	2	3	4	5	6	7
Vehs Entered	2493	2597	2546	2526	2502	2509	2652
Vehs Exited	2482	2606	2546	2528	2510	2494	2646
Starting Vehs	54	63	51	57	60	47	67
Ending Vehs	65	54	51	55	52	62	73
Travel Distance (mi)	1106	1165	1123	1131	1122	1114	1181
Travel Time (hr)	57.2	61.0	57.4	57.9	56.2	55.0	66.8
Total Delay (hr)	14.4	15.8	14.0	14.0	12.6	11.9	20.9
Total Stops	1425	1606	1350	1455	1340	1370	1542
Fuel Used (gal)	45.9	48.5	46.2	46.6	45.5	45.7	50.7

Interval #1 Information Recording

Start Time	7:00
End Time	8:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	8	9	10	Avg
Vehs Entered	2618	2632	2654	2572
Vehs Exited	2616	2645	2670	2574
Starting Vehs	47	78	63	55
Ending Vehs	49	65	47	53
Travel Distance (mi)	1164	1171	1188	1146
Travel Time (hr)	60.0	65.1	63.6	60.0
Total Delay (hr)	14.7	19.6	17.5	15.5
Total Stops	1668	1485	1502	1476
Fuel Used (gal)	47.9	50.0	49.6	47.7

101: MARSHALL & BOBCAT Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.2	0.3	0.1
Total Del/Veh (s)	4.2	3.0	3.6	3.6	4.5	4.0	3.8

102: TROPHY CLUB & BOBCAT Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Del/Veh (s)	0.0	0.1	1.0	0.7	0.1	0.2	0.6
Total Del/Veh (s)	2.9	2.7	33.9	15.8	6.6	2.6	18.2

103: PARKVIEW & BOBCAT Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	3.9	2.9	3.9	4.0	6.0	3.6	4.0

104: CHURCH DWY/ROSEVILLE & BOBCAT Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	11.9	1.0	0.5	4.5	1.6	1.6	82.5	12.9	3.0

Total Network Performance

Denied Del/Veh (s)	0.5
Total Del/Veh (s)	20.8

Intersection: 101: MARSHALL & BOBCAT

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	TR	LT	T	L	R
Maximum Queue (ft)	64	31	75	8	53	96
Average Queue (ft)	27	2	30	0	20	36
95th Queue (ft)	56	16	64	8	50	75
Link Distance (ft)	700	700	330	330	412	412
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 102: TROPHY CLUB & BOBCAT

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	26	70	573	524	78	13
Average Queue (ft)	2	9	314	185	38	0
95th Queue (ft)	16	40	597	496	64	13
Link Distance (ft)	219	219	568	568	775	775
Upstream Blk Time (%)			7	2		
Queuing Penalty (veh)			0	0		
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 103: PARKVIEW & BOBCAT

Movement	EB	EB	WB	WB	NB	NB
Directions Served	T	TR	LT	T	L	R
Maximum Queue (ft)	59	29	70	14	72	61
Average Queue (ft)	14	3	30	1	32	19
95th Queue (ft)	45	17	64	11	62	51
Link Distance (ft)	330	330	850	850	428	428
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 104: CHURCH DWY/ROSEVILLE & BOBCAT

Movement	EB	WB	WB	SB
Directions Served	LT	LT	TR	LTR
Maximum Queue (ft)	156	47	15	119
Average Queue (ft)	57	4	1	36
95th Queue (ft)	111	24	9	82
Link Distance (ft)	850	219	219	289
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 0

ARTICLE 1.05
CODE OF ETHICS AND CONDUCT

§ 1.05.001. Policy; applicability.

(a) Policy.It is hereby declared to be the policy of the town that the proper operation of democratic government requires that town officials, candidates, appointees, and employees be independent, impartial and responsible to the people of the town; that governmental decisions and policy be made in the proper channels of the governmental structure; that no town official, candidate, appointee, or employee have any interest, financial or otherwise, direct or indirect, or engage in any business, transaction or professional activity or incur any obligation of any nature which is in conflict with the proper discharge of his duties in the public interest; that public office and public employment are positions of public trust imposing the duty of a fiduciary upon all employees and officeholders, who are not to use their public position for personal gain; and that the public should have confidence in the integrity of its government.

(b) Applicability.To implement this policy, the town council enacts this code of ethics and conduct for all town officials, candidates, appointees and employees, whether elected or appointed, paid or unpaid, to serve not only as a guide for official conduct of the town's public servants, but also as a basis for discipline for those who refuse to abide by its terms. The provisions of this article shall not apply to political contributions, loans, expenditures, reports or regulation of political campaigns, or the conduct of candidates in such campaigns, except as expressly provided herein.

(Ordinance 2011-03, sec. 2 (17.01), adopted 2/7/11)

§ 1.05.002. Principles of conduct.

(a) Values.The town council further believes that town officials, candidates, appointees and employees require a public trust and should recognize the importance of high ethical standards within the organization they lead or support. Essential values and ethical behaviors that town officials, candidates, appointees and employees should exemplify include the following:

(1) Commitment beyond self.

(2) Obedience and commitment beyond the law.

(3) Commitment to the public good.

(4) Respect for the value and dignity of all individuals.

(5) Accountability to the public.

(6) Truthfulness.

(7) Fairness.

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(8) Responsible application of resources.

(b) Conduct.In keeping with the values set forth in subsection (a) of this section and to assist in the fulfillment of responsibilities to the individuals and communities served, each town official, candidate, appointee and employee should:

(1) Conduct himself and operate with integrity and in a manner that merits the trust and support of the public.

(2) Uphold all applicable laws and regulations, going beyond the letter of the law to protect and/or enhance the town's ability to accomplish its mission.

(3) Treat others with respect, doing for and to others what the town official, candidate, appointee or employee would have done for and to himself in similar circumstances.

(4) Be a responsible steward of the taxpayer resources.

(5) Take no actions that could benefit the town official, candidate, appointee or employee personally at the unwarranted expense of the town, avoiding even the appearance of a conflict of interest, and exercise prudence and good judgment at all times.

(6) Carefully consider the public perception of personal and professional actions and the effect such actions could have, positively or negatively, on the town's reputation both in the community and elsewhere.

(7) Strive for personal and professional growth to improve effectiveness as an elected or appointed town official, candidate, appointee or employee.

(c) Interpretation.This section is a statement of principles only. Nothing in this section may be used to create a cause of action against an elected or appointed town official, candidate, appointee or employee under this article.

(Ordinance 2011-03, sec. 2 (17.02), adopted 2/7/11)

§ 1.05.003. Definitions.

Appointee. A person appointed or confirmed by the mayor or town council; provided, however, for the purposes of this definition, the term "appointee" does not include municipal judges.

Business entity. A corporation, partnership, sole proprietorship, firm, enterprise, franchise, association, organization, self-employed individual, holding company, joint stock company, receivership, trust, or any other entity recognized by law.

Candidate. A person who declares for or files for any office of the town to be filled by election.

Clear and convincing evidence. Evidence that is legally and factually sufficient such that a fact-finder could reasonably form a firm belief or conviction that the allegation is true.

Compensation. Any economic benefit received in return for labor, services, property, or

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investment.

Economic benefit. Any money, real or personal property, purchase, sale, lease, contract, option, credit, loan, discount, service, or other tangible or intangible thing of value, whether similar or dissimilar to those enumerated.

Employee. A person employed by the town, including those individuals on a part-time basis, excluding independent contractors.

Family member. A person related to a town official, candidate, appointee, or employee in the first degree by consanguinity (blood) or affinity (marriage) as determined under the Texas Government Code.

Gift. A favor, hospitality, or economic benefit other than compensation but which does not include campaign contributions reported as required by state law, gifts received from a relative if given on account of kinship, or any value received by will, intestate succession, or as a distribution from an inter vivos or testamentary trust established by a spouse or ancestor.

Income. Economic benefit received.

Intentionally. A person acts intentionally, or with intent, with respect to the nature of his conduct or to a result of his conduct when it is his conscious objective or desire to engage in the conduct or cause the result.

Knowingly. A person acts knowingly, or with knowledge, with respect to the nature of his conduct or to circumstances surrounding his conduct when he is aware of the nature of his conduct or that the circumstances exist. A person acts knowingly, or with knowledge, with respect to a result of his conduct when he is aware that his conduct is reasonably certain to cause the result.

Substantial interest.

(1) A person has a substantial interest in a business entity if:

(A) The interest is ownership of ten percent or more of the voting stock or shares of the business entity or ownership of either ten percent or more or $5,000.00 or more of the fair market value of the business entity;

(B) Funds received by the person from the business entity exceed ten percent of the person's gross income for the previous year;

(C) The person holds a position of member of the board of directors or other governing board of the business entity;

(D) The person serves as an elected officer of the business entity;

(E) The person is an employee of the business entity;

(F) The person is a creditor, debtor or guarantor of the business entity in the amount of $5,000.00 or more; or

(G) Property of the person has been pledged to the business entity or is subject to a lien in favor of the business entity in the amount of $5,000.00 or more.

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(2) A person does not have a substantial interest in a business entity if:

(A) The person holds a position as a member of the board of directors or other governing board of a business entity or governmental body;

(B) The person has been designated by the town council to serve on such board;

(C) The person receives no remuneration, either directly or indirectly, for his or her service on such board; and

(D) The primary nature of the business entity is either charitable, nonprofit or governmental.

(3) A person has a substantial interest in real property if the interest is an equitable or legal ownership interest with a fair market value of $2,500.00 or more.

(4) A person has a substantial interest under this article if the person's family member has a substantial interest under this article.

Town official. The mayor, members of the town council, the town manager, the town attorney, the town secretary, judges of the municipal court, and individuals acting in the capacity of the aforementioned persons.
(Ordinance 2011-03, sec. 2 (17.03), adopted 2/7/11)

§ 1.05.004. Standards of conduct; prohibited acts.

No town official, candidate, appointee or employee, or their family member shall knowingly or intentionally:

(1) Accept or solicit any gift, favor, service or thing of value from any person, group or business entity, including a promise of future employment, that might reasonably tend to influence him in the discharge of his official duties or that the town official, candidate, appointee or employee knows or should know is being offered with the intent to influence the official conduct of the town official, candidate, appointee or employee. This prohibition shall not apply to:

(A) An occasional non-pecuniary gift, insignificant in value;

(B) An award publicly presented in recognition of public service;

(C) Any gift which would have been offered or given to the town official, candidate, appointee or employee or a family member if he were not a town official, candidate, appointee, employee, or family member; or

(D) Any travel and related expenses to attend ceremonial functions, provided that such acceptance and attendance have been approved by the town council prior to the occurrence of the ceremonial function.

(2) Grant in the discharge of his official duties any improper favor, service or thing of value to any person, group or business entity.

(3) Disclose any confidential information gained by reason of the position of the town

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official, candidate, appointee or employee concerning property, operations, policies or affairs of the town, or use such confidential information to advance any personal interest, financial or otherwise, of such town official, candidate, appointee or employee, family members or third parties. This subsection shall not preclude disclosure of such confidential information in connection with any investigation or proceeding regarding whether there has been a violation of the standards of conduct set forth in this article.

(4) Use one's position or office of employment or town facilities, personnel, equipment or supplies to secure special privileges or exemptions for himself, family members or third parties or for the private gain of the town official, candidate, appointee, employee, or his family members or third parties.

(5) Engage in any exchange, purchase or sale of property, goods or services with the town, except:

(A) Rendering services to the town as a town official, candidate, appointee or employee;

(B) Paying taxes, fines, or utility service or filing fees;

(C) Executing and performing any developer's agreement or plat in compliance with laws and regulations applicable to any person; provided, however, that if any town ordinance, rule or regulation allows any discretion by the appropriate town official, appointee or employee in the interpretation or enforcement of such ordinance, rule or regulation, any such discretion shall be exercised in favor of the town in connection with any such developer's agreement or plat;

(D) Appointees who are not also town officials or employees of the town may engage in any exchange, purchase or sale of property, goods or services with the town, or enter into a contract with the town, provided that the board on which they are a member has no advisory function, involvement, or decision-making authority, either direct or indirect, present or prospective, with respect to the transaction in which such appointee engages or proposes to engage.

(6) Hold himself out as representing the town in any capacity other than that for which he was appointed, elected or hired.

(7) Engage in or accept private employment or render a service when such employment or service is incompatible with the proper discharge of his official duties or would tend to impair his independent judgment in the performance of official duties.

(8) Make or permit the unauthorized use of town-owned vehicles, equipment, materials or property.

(9) Grant any special consideration, treatment or advantage to any citizen beyond that which is available to every other citizen.

(10) After termination of service or employment with the town, appear before any board or commission of the town in relation to any case, proceeding or application in

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which he personally participated or which was under his active consideration during the period of his service or employment.

(11) Transact any business in his official capacity with the town with a business entity in which he has a substantial interest.

(12) Perform or refuse to perform any act in order to deliberately thwart the execution of town ordinances, rules or regulations or the achievement of official town programs.

(Ordinance 2011-03, sec. 2 (17.04), adopted 2/7/11)

§ 1.05.005. Disclosure of interest; abstention from voting.

(a) Vote not allowed.Except as expressly provided in subsection (b) of this section, if a town official, candidate, appointee or employee has a substantial interest in a business entity or real property involved in a matter pending before such town official, candidate, appointee or employee, or the body of which he is a member, such town official, candidate, appointee or employee shall disclose such interest as provided in subsection (c) of this section and shall not vote or discuss the substance of the matter at any time with any other member of the board of which he is a member or any other body which will vote on or otherwise participate in the consideration of the matter.

(b) Vote allowed.If any of the following interests are involved in any matter pending before any town official, candidate, appointee or employee, or the body of which he is a member, such town official, candidate, appointee or employee shall disclose such interest as provided in subsection (c) of this section, but he shall be permitted to vote on and participate in the consideration of such matter:

(1) A matter concerning a bank or other financial institution from which the town official, candidate, appointee or employee has a home mortgage, automobile loan, or other installment loan, if the loan is not currently in default, was originally for a term of more than two (2) years and cannot be accelerated except for failure to make payments according to the terms thereof:

(2) A matter concerning a bank or other financial institution in which the town official, candidate, appointee or employee holds a savings account, checking account or certificate of deposit and which is fully insured by the U.S. government or an agency thereof;

(3) A matter concerning a business entity with which the town official, candidate, appointee or employee has a retail or credit card account;

(4) A matter concerning the approval of substitution of collateral by a town depository bank;

(5) A matter concerning real property or a business entity in which the town official, candidate, appointee or employee has a substantial interest if the action on the matter would not have a special economic effect on the value of the property or business entity, distinguishable from the effect on the public.

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(c) Affidavit and reporting requirement.A town official, appointee or employee shall disclose the existence of a substantial interest in a business entity or real property involved in any matter pending before such town official, appointee or employee, or the body of which he is a member or serves as the staff liaison. To comply with subsection (a) of this section, a town official, appointee or employee shall, prior to any discussion or determination of the matter, file an affidavit of disclosure as required by section 171.004 of the Texas Local Government Code, as amended, with the town secretary. To comply with subsection (b) of this section, a town official, employee or appointee shall publicly disclose in the official minutes of the body the nature of his interest. To comply with subsection (b) of this section, an employee shall notify the town manager or his designee in writing of the nature of any substantial interest that he or a family member has in a business entity or real property which would be affected by an exercise of discretionary authority by the employee and such matter shall be regulated in accordance with town policies and procedures.

(Ordinance 2011-03, sec. 2 (17.05), adopted 2/7/11)

§ 1.05.006. Ethics review commission.

(a) Established.An ethics review commission (commission) is hereby established to be composed of five (5) members and two (2) alternate members, all of whom shall reside in the town and shall be appointed by majority vote of the town council.

(b) Appointment to positions.Each commission member shall occupy a position on the commission, such positions being numbered 1 through 5.

(c) Term of office.The commission members shall be appointed to two (2) year staggered terms. Position 1 shall serve an implementation term that shall expire on September 30th of 2016 and shall expire thereafter in even-numbered years. The term for position 2 shall also expire in even-numbered years. The term for each alternate member and position 3 shall expire in odd-numbered years. No member shall serve for more than two (2) consecutive full terms. Implementation terms shall not be counted as full terms.

(d) Vacancies.All vacancies shall be filled for the unexpired term. A member shall hold office until his successor has been appointed by the town council and shall continue to hold office after his successor has been appointed by the town council for the limited purpose of the disposition of all complaints filed during that member's term. No new member may participate in a decision regarding a complaint filed prior to the expiration of the previous member's term, but new members shall accomplish the duties of office with respect to all complaints filed after the previous member's term.

(e) Chairman and vice-chairman.The commission shall elect a chairman and a vice-chairman to serve one (1) year terms. The vice-chairman shall act as chairman in the absence of the chairman.

(f) Quorum.Four (4) members of the commission shall constitute a quorum, and no

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action of the commission shall be of any force or effect unless it is adopted by the favorable vote of three (3) or more members.

(g) Meetings.The commission shall meet at least once a year to review this article and may make recommendations to the town council for amendments hereto.

(h) Issuance of advisory opinions.The commission shall render advisory opinions on potential conflicts of interest or violation of this article at the request of a town official, candidate, appointee or employee subject to the terms of this article. Such advisory opinion shall be rendered within a reasonable time, but in no event later than thirty (30) days after a request is received by the commission. A copy of an advisory opinion issued to an employee shall be forwarded to the town manager. A copy of an advisory opinion issued to an appointee shall be forwarded to the town council.

(i) Advisory opinion as defense.It shall be a defense to an alleged violation of this article that the person accused previously requested an advisory opinion of the commission and acted on such opinion in good faith, unless material facts were omitted or misstated by the person requesting the opinion. Such advisory opinion shall also be binding on the commission in any subsequent charges concerning the person requesting the opinion.

(j) Legal counsel.The town attorney or independent legal counsel shall be utilized to advise the commission and participate in hearings. The town council shall annually designate and retain independent counsel, who shall be a duly licensed attorney in the state.

(k) Jurisdiction.The commission shall have jurisdiction to review and make findings concerning an alleged violation of this article by a person subject to its provisions, if a written complaint meeting the requirements set forth herein is timely filed in accordance with section 1.05.007(c) of this article.

(Ordinance 2011-03, sec. 2 (17.06), adopted 2/7/11; Ordinance 2015-28 adopted 9/22/15; Ordinance 2021-23 adopted 10/11/21)

§ 1.05.007. Disposition of alleged violations.

(a) Form and contents of complaint.In order to file a complaint under this article, a complainant shall submit a written sworn complaint to the town secretary, which shall be notarized and shall be in the form specified below. A sworn complaint shall be based upon personal knowledge, shall allege a violation of this article, shall specify the provision(s) of this article alleged to have been violated, and shall name the town official, candidate, appointee, or employee being charged.

THE STATE OF TEXAS:

COUNTY OF DENTON:

TO: THE ETHICS REVIEW COMMISSION OF THE TOWN OF TROPHY CLUB, TEXAS:

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COMES NOW (complainant), and makes this complaint, UPON HIS/HER PERSONAL KNOWLEDGE AND UNDER OATH against (name of person complained against), and would show the Commission that: On or about the _____ day of _____, _____, (insert date of the action, or omission, complained of) _____, (name of person complained against) a/an (insert appropriate designation; Town Official, Candidate, Appointee, or Employee) of the Town of Trophy Club, Texas, violated the following provision(s) of Code of Ethics and Conduct Ordinance, Town of Trophy Club, Texas, to wit: (specify by section, subsection and paragraph number the provision(s) alleged violated) by committing the following act, or omission, to wit:

By the making and filing of this affidavit, I certify under oath that the statements contained herein are true and correct.

(Original signature and executed notary block must be included.)

(b) Consideration of complaints.Upon the filing of a written sworn complaint meeting all requirements of this section, the commission shall consider possible violations of this article by town officials, candidates, appointees and employees.

(c) Timely filing required.As a condition precedent to commission consideration of a complaint, such complaint shall be timely filed. A complaint alleging a violation of this article shall be filed with the town secretary within one (1) year after the date of the alleged violation in order to be considered timely. Each of the following complaints shall be deemed untimely filed and shall be returned to the complainant:

(1) A complaint alleging a violation that occurred before the effective date of this article;

(2) A complaint alleging a violation that occurred more than one (1) year before the date that the complaint is filed; and

(3) A complaint filed within the period beginning on the 60th day prior to the first date of early voting for a town election and ending on the later of the regular election date or runoff election date for such election.

(d) False statements notification.The town secretary shall, in writing, advise the person filing a complaint that falsely accusing someone of a violation of this article may result in criminal prosecution, under penalty of perjury, of anyone who knowingly makes a false accusation. The town secretary shall, in writing, advise the person charged in the complaint that falsely responding to a complaint may result in criminal prosecution, under penalty of perjury, of anyone who knowingly makes a false response.

(e) Processing of complaint.Complaints shall be processed as follows:

(1) Acknowledgement of receipt; distribution of copies.Not later than three (3) business days after the town secretary receives a sworn complaint, the town secretary shall acknowledge the receipt of the complaint to the complainant,

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and, if the complaint is timely filed, shall provide a copy of the complaint to the town attorney or independent counsel and the person complained against. If a complaint is not timely filed, it shall be returned to the complainant.

(2) Attorney preliminary review.Within seven (7) business days of receipt by the town attorney or independent counsel of a complaint determined by the town secretary to have been timely filed, the town attorney or independent counsel shall review the complaint to determine whether the complaint is sufficient as to form and whether the complaint alleges sufficient facts which if accepted as true would constitute a prima facie violation of this article. Further, the complaint shall be reviewed for compliance with subsection (l) of this section.

(A) Sufficient complaint.If the town attorney or independent counsel finds that the complaint is both sufficient as to form, and accepting the facts alleged as true for the limited purpose of a threshold review, finds that the allegations would constitute a prima facie violation of this article, the complaint shall be forwarded to the commission.

(B) Insufficient or ineligible complaint.If the town attorney or independent counsel finds that the complaint is either insufficient as to form, or, accepting the facts alleged as true for the limited purpose of a threshold review, finds that the allegations would not constitute a prima facie violation of this article, the town attorney or independent counsel shall notify the town council, the commission, the complainant and the person complained against of this determination, and shall return the complaint to the complainant. Further, if the town attorney or independent counsel determines that the commission is prohibited from entertaining a complaint under the conditions set forth in subsection (l) of this section, the town attorney or independent counsel shall notify the town council, the commission, the complainant and the person complained against of this determination, and shall immediately return the complaint to the complainant.

(3) Notification of hearing date.Not later than ten (10) business days after the commission receives a complaint forwarded by the town attorney or independent counsel, the commission shall notify in writing both the person who made the complaint and the person complained against of a date for a preliminary hearing. If the commission does not hold a preliminary hearing within twenty (20) business days of its receipt of the complaint, it shall notify the person who made the complaint and the person complained against of the reasons for the delay and shall subsequently give the appropriate notifications to all parties.

(f) Complaint filed by commissioner.A complaint filed by an individual member of the commission shall be deemed to have been filed in the commission member's capacity as a private citizen and, in such event, the member of the commission filing the complaint shall not thereafter participate in any commission meeting at

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which such complaint is considered except as the complainant.

(g) Communications of commission members.After a complaint has been filed and during the pendency of a complaint before the commission, a member of the commission may not communicate directly or indirectly with any party or person about any issue of fact or law regarding the complaint, except at a meeting of the commission; provided that a member may consult with the attorney or the town manager or his designee for the commission as to process, procedure and legal issues. Ex parte communications by or to members of the commission are prohibited.

(h) Disclosure of information prohibited.No town official, candidate, appointee, or employee shall reveal information relating to the filing or processing of a complaint, except as required for the performance of official duties or as required by law. All papers and communications relating to a complaint shall be treated as confidential unless required to be made public under the Public Information Act, court order, or other applicable law.

(i) Preliminary hearing.A preliminary hearing shall be conducted in accordance with the following:

(1) As soon as reasonably possible, but in no event more than sixty (60) days after receiving a complaint, the commission shall conduct a preliminary hearing. The issue at a preliminary hearing shall be the existence of reasonable grounds to believe that a violation of this article has occurred. The person filing a complaint shall state the alleged violation and shall describe in narrative form the testimony and other evidence which would be presented to prove the alleged violation as stated in the written complaint. Statements at a preliminary hearing shall be under oath, but there shall be no cross-examination or requests for persons or evidence issued for the hearing. Members of the commission may question the complainant, the independent counsel for the commission, or the town official, candidate, appointee or employee named in the complaint. The town official, candidate, appointee or employee named in the complaint may not be compelled to give evidence or testimony that violates his right against self-incrimination under the United States or the state constitution.

(2) The town official, candidate, appointee or employee named in the complaint shall have the opportunity to respond, but is not required to attend or make any statement. The town official, candidate, appointee or employee may describe in narrative form the testimony and other evidence which would be presented to disprove the alleged violation.

(3) The complainant and the town official, candidate, appointee or employee named in the complaint shall have the right of representation by counsel paid for at his own expense.

(4) At the conclusion of the preliminary hearing, the commission shall decide whether a final hearing should be held. If the commission determines that there are reasonable grounds to believe that a violation of this article has occurred,

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it shall schedule a final hearing. If the commission does not determine that there are reasonable grounds to believe that a violation of this article has occurred, the complaint shall be automatically dismissed. A decision to conduct a final hearing is not a finding that a violation has occurred. Notwithstanding the foregoing, the commission may proceed to determine the appropriate sanction if the charged town official, candidate, appointee, or employee does not object and admits the charged violation, and the commission determines that there are no fact issues to be resolved.

(5) At the preliminary hearing or at least fifteen (15) business days prior to the final hearing, the complainant, the town official, candidate, appointee or employee named in the complaint may request that the commission summon certain persons and evidence for a final hearing, if one is scheduled.

(j) Final hearing.A final hearing shall be conducted in accordance with the following:

(1) The final hearing shall be held as expeditiously as possible following the preliminary hearing at which a determination was made by the commission that there are reasonable grounds to believe that a violation of this article occurred, but in no event shall it be held more than thirty (30) days after such determination. The commission may grant two (2) postponements of the final hearing, not to exceed fifteen (15) days each, upon the request of the town official, candidate, appointee or employee named in the complaint.

(2) The issue at a final hearing shall be whether a violation of this article has occurred. The commission shall make its determination based on a clear and convincing evidence standard of proof. Parties to the proceeding may present testimony and evidence at the final hearing. All witnesses shall make their statements under oath. If the commission determines that a violation has occurred, it shall state its findings in writing, shall identify the particular provision(s) of this article which have been violated, and within five (5) business days shall deliver a copy of its findings to the complainant, if any, the person named in the complaint and the town secretary.

(3) If a complaint proceeds to a final hearing, the commission shall summon in writing witnesses for which it has received a written request from the complainant or from the town official, candidate, appointee or employee named in the complaint, provided that the requesting party shows good cause for the request and the request is timely submitted in accordance with subsection (i)(5) of this section. Such written summons shall be served by a constable at least ten (10) days before the date of the final hearing. Additionally, the commission may administer oaths and affirmations and receive testimony and evidence presented at the final hearing. It shall be a violation of this article for a person to fail to appear and testify before the commission in response to a written summons served ten (10) days or more prior to the scheduled time and date of final hearing. Notwithstanding the foregoing, no town official, candidate, appointee or employee named in a complaint or witness may be compelled to give evidence or testimony that

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violates his/her right against self-incrimination under the United States or the state constitution.

(k) Sanctions.The following sanctions are available:

(1) If the commission determines that a violation of this article has occurred, it shall proceed directly to determination of the appropriate sanction(s). A violation of this article shall not be subject to criminal penalties under the town Code of Ordinances, except for those instances specifically provided for in section 1.05.011 of this article. The commission may receive additional testimony or statements before determining sanctions, but is not required to do so. If the town official, candidate, appointee or employee named in the complaint acted in reliance upon a written opinion of the town attorney, the commission shall consider that fact.

(2) If the commission determines that a violation of this article has occurred, it shall take the following actions:

(A) If the person who committed the violation is a current employee under the jurisdiction of the town manager, the matter shall be referred to the town manager.

(B) If the person who committed the violation is the town manager, town attorney, town secretary, or a judge of the municipal court, the matter will be referred to the town council.

(C) If the person who committed the violation is a town council member, a candidate, an appointee, a former town official, or a former town employee, the matter will be referred to the town council.

(3) When referring a matter under subsection (k)(2) of this section, the commission may impose or recommend the following sanctions:

(A) Letter of notification.A letter of notification may be recommended when the commission finds that a violation of this article was clearly unintentional or when the action or conduct found to have been a violation of this article was performed by the town official, candidate, appointee, or employee in reliance on a public written opinion of the town attorney. A letter of notification must advise the town official, candidate, appointee, or employee to whom the letter is directed of any steps to be taken to avoid future violations.

(B) Letter of admonition.A letter of admonition may be recommended when the commission finds that the violation of this article was minor and/or may have been unintentional, but where the circumstances call for a more substantial response than a letter of notification.

(C) Reprimand.A reprimand may be recommended when the commission finds that a violation of this article was committed intentionally or through disregard of this article. A recommended reprimand directed to

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an employee shall be forwarded to the town manager. The town manager may also elect to discipline the employee in accordance with town personnel rules and procedures. A letter of reprimand directed to an elected town official shall also be transmitted to the town secretary and published in the official newspaper of the town.

(D) Removal or suspension from employment.A recommendation of removal from employment or a recommendation of suspension from employment, as well as a recommendation for length of suspension, shall be the appropriate sanction when the commission finds that a serious or repeated violation(s) of this article has been committed intentionally or through culpable disregard of this article by town employees. The final discretion to carry out such recommendations to remove or suspend from employment and the length of suspension shall be with the town manager. The town manager may also elect to discipline the employee in accordance with town policies and procedures.

(E) Censure, recall or removal from office or appointment.A letter of censure, a recommendation of recall, or a recommendation to institute proceedings for removal from office or appointment shall be the appropriate sanction when the commission finds that a serious or repeated violation(s) of this article has been committed intentionally or through culpable disregard of this article by an elected town official. A letter of censure, a recommendation of recall, or a recommendation to institute proceedings for removal from office directed to an elected town official shall also be transmitted to the town secretary and published in the official newspaper of the town. The town council and citizens of the town may take actions in accordance with the town charter. Any proceedings for removal from office shall be in compliance with provisions of the town charter and state law.

(l) Dismissal of complaint.If the complaint is dismissed because the evidence failed to establish a violation of this article, the commission shall issue a letter of dismissal or finding, and shall not entertain any other similar complaint based on substantially the same evidence.

(Ordinance 2011-03, sec. 2 (17.07), adopted 2/7/11)

§ 1.05.008. Request for review of allegations.

Any town official, candidate, appointee or employee against whom public allegations of ethics violations have been made in the media or elsewhere has the right to file a sworn statement with the town secretary affirming their innocence, and to request the commission to review the allegations and make known its findings.

(Ordinance 2011-03, sec. 2 (17.08), adopted 2/7/11)

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§ 1.05.009. Culpability.

To commit a violation under any provision of this article, a person must have acted or failed to act knowingly or intentionally.
(Ordinance 2011-03, sec. 2 (17.09), adopted 2/7/11)

§ 1.05.010. False complaints.

In the event a complaint is received by the commission that is subsequently found to be baseless, and the commission deems that the complaint was filed with the intent to:

(1) Harass the person named in the complaint;

(2) Damage a person's reputation;

(3) Benefit the person filing the complaint, or a third party, either personally, professionally or politically; or

(4) Damage a related third party;

the commission may recommend the town attorney cause a complaint to be filed against such person in the municipal court. The town council or town manager, as appropriate, may take disciplinary action(s) against the individual who filed the complaint, including but not limited to disciplinary action if such complainant is an employee, appointee, or town official as allowed by personnel policies, ordinance, state law or the town charter. The commission may also recommend other action(s) be taken.

(Ordinance 2011-03, sec. 2 (17.10), adopted 2/7/11)

§ 1.05.011. Penalties.

(a) It shall be unlawful and shall be a class C misdemeanor for any person to knowingly or intentionally violate section 1.05.007(d), 1.05.007(j)(3), or 1.05.010 of this article, and any person found guilty of such violation shall be fined, upon conviction, not less than one dollar ($1.00) nor more than two thousand dollars ($2,000.00) for each offense. Such penalty shall be in addition to all the other remedies provided herein.

(b) A person who knowingly files a false sworn statement under this article may be subject to criminal prosecution for perjury under the laws of the state.

(Ordinance 2011-03, sec. 2 (17.11), adopted 2/7/11)

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TOWN COUNCIL COMMUNICATION

WORKSHOP

MEETING DATE: **November 13, 2023**

FROM: **Tamara Smith, Assistant to the Town Manager**

AGENDA ITEM: **Discuss and consider Council Retreat Agenda Items**

BACKGROUND/SUMMARY: Mayor Tiffany and the incoming Town Manager, Brandon Wright, would like to finalize agenda items for the January Council retreat. Under consideration are:

- Date(s)- Incoming Town Manager Brandon Wright has outlined two topics to consider during the retreat. Number 1 Develop a Strategic Plan, and 2 Develop annual goals from the Strategic Plan. An outline of subjects aligning with those topics are:
    - Governance Training (2 Hours)
    - Discuss Timing and Sequence of Upcoming Vision/Master Plan Development (2 Hours)
    - Learning About and Preparing for Strategic Plan (2 Hours)
    - Budget Preparation (2-3 Hours)
    - Format 1st day (2 Hours), 2nd day (6-7 Hours)
    - Workshops are open to the public, per the open meetings act.

- Facilitator Choice- SGR (Strategic Government Resources) has provided a philosophy roadmap. A meeting with the Mayor was conducted on November 7, 2023, to discuss the retreat and request a quote. Other facilitators were contacted.

- Discussion of all other topics the Council has identified.

The only mandatory requirement outlined by our Charter, section 9.05, is for the Council to furnish the Town Manager with the goals for the next fiscal period by the conclusion of January in the current fiscal year.

ATTACHMENTS: SGR Council Retreat Philosophy, Capital Improvement Projects List

ACTION/OPTIONS:
Provide direction to staff.

SGR STRATEGIC VISIONING RETREATS

SGR's Process for Strategic Visioning will equip governing boards with the dynamic tools needed to agree on, establish, and implement priorities... together.

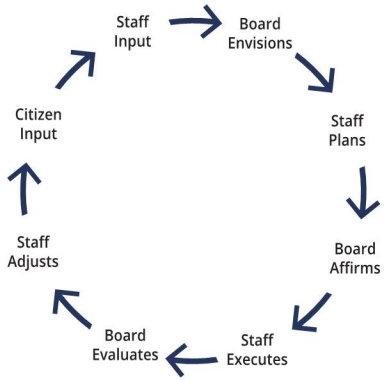
SGR's Philosophy of Strategic Visioning

We believe there is a difference between a Strategic Vision and a Strategic Plan. A vision is focused on where the organization needs to go in the future, and it is primarily the responsibility of the elected officials to develop that vision. A plan is focused on how to accomplish that vision, and it is primarily the responsibility of the staff to develop that plan.

SGR's Process of Strategic Visioning

1. SGR conducts individual interviews with each Council member to determine priorities.
2. SGR develops a custom retreat agenda with the organization to clearly set the purpose and expected outcome.
3. SGR designs a retreat around interactive discussion focused on strategic, future-oriented questions.
4. SGR leads the Council to identify and agree on priorities.
5. SGR leads the Council to identify milestones to achieve while pursuing their strategic priorities.
6. SGR provides a post-retreat report summarizing the work done by the Council, as well as a Strategic Vision succinctly presenting the organization's priorities.

SGR CYCLE FOR STRATEGIC VISION



This diagram illustrates the relationship between the key components in the cycle of creating and maintaining a Strategic Vision.

SGR eagerly meets organizations wherever they are in their planning process. We are flexible and enjoy working to meet the specific needs and requests of every organization.

Contact SGR at training@governmentresource.com for more information about the SGR Strategic Process.

SGR | www.GovernmentResource.com | 817.223.7320

APPENDIX

Proposed Projects

5 Year Capital Improvement Program - FY2024 - FY2028

Scheduled to coincide with MUD project	Year Begins	Description	Drainage	Streets	Sidewalks/ Pathways	TC Pool	Parks/ Fields	TC Park	Town Hall	Funding Source	Comments
*	FY2024	Inverness Storm System Improvement	$1,500,000							ARPA	This project is slated to be completed with the MUD's project for the same area.
*	FY2024	Inverness Street replacement Forest Hill to Indian Creek		$1,500,000						Current Bond	This project is slated to be completed with the MUD's project for the same area.
	FY2024	TC Park Entrance						$800,000		Current Bond/CIP Cash	This will be for a new gate system coming into the park, updating the guard shack, updating current restrooms and adding better parking areas.
	FY2024	Comprehensive Plan - Town							$100,000	General Fund - Fund Balance	
	FY2024	Parks Master Plan					$120,000			General Fund - Fund Balance	The last approved master plan was completed in 2008. This will update that plan and give the Parks and Rec. Dept. a blue print of what the priorities are for the park system.
	FY2024	Pickleball Courts					$1,300,000			GF Fund Balance/Bond Funds/Parkland Dedication/HOT	The Town has approved $330,000 from Parkland dedication funding. The additional funding will come from GF balance. $500,000 for the first part of the build project.
	FY2024	Town Hall Entrance Covering							$100,000	General Fund - Fund Balance	This will provide a cover for the front entrance to Town Hall to protect visitors from the sun and rain. Additionally this covered area will add a new posting board for council agendas.
	FY2024	Town Hall Rear Patio Covering							$40,000	General Fund - Fund Balance	Rear break area cover.
	FY2024	Town Hall: Police Parking Lot							$275,000	General Fund - Fund Balance	Covered area for Patrol Units and Lock up. This will provide covered parking for 16 parking spaces and a covered area off the building by the holding cell door.
	FY2024	Fire Department Portable Radios							$100,000	General Fund - Fund Balance	Replacement of the Motorola 6000 portable radios with new 8000.
	FY2024	Police Department - Car Camera Systems							$120,000	General Fund - Fund Balance	Patrol Unit Camera system replacements: This funding will replace the old camera systems with the new Motorola M500 systems. The currents systems are 10 years old and outdated. Cost is for 8 camera systems installed.
	FY2024	Payment Kiosk at Town Hall							$50,000	Fund Balance/ARPA/CARES	This is a payment kiosk for the parking lot of Town Hall, it would allow citation payments and possibly Parks & Rec membership payments and water utility payments. The City of Keller utilizes one of these so that they have a solution for citation payments in Town since they also outsource their court office to Colleyville. It is basically like a banks ATM but is used for accepting payments instead of dispening funds.
	FY2024	School Zone Flashers			$25,000					Fund Balance	School Zone flashers near high school crossing walk
	FY2024	IT Improvements							$50,000	Fund Balance	Improvements/Upgrades recommended by NetGenius, once they have evaluated all of our equipment.
	FY2024	Street Lights - TC & Bobcat - Bobcat & Parkview - School exits - Marshall Creek		$2,000,000							
	FY2024	Hogan's Glen Drainage	$150,000							General Fund - Fund Balance - Storm Drainage	Trophy Club Dr/Bobcat: This project is partially funded by Denton County with a $3,000,000 grant and the Town will fund the balance. (est. $3,000,000.). For a total project cost estimate $6 million.
	FY2024	Roundabout (Trophy Club Drive/Bobcat Blvd)		$6,000,000						Grant Funds ($3M)/Future CO Bond Funds ($3M)	Trophy Club Dr/Bobcat: This project is partially funded by Denton County with a $3,000,000 grant and the Town will fund the balance. (est. $3,000,000.). For a total project cost estimate $6 million.
	FY2025	TC Park improvements						$4-5 million		Future CO Bonds	This will enhance the park for future recreational activities that will be part of the park master plan and also help increase the attendance at the park from the activities. Some of this could be expanded ATV courses, adding more bike/hiking trails, possible camp sites, bridges on trails, etc. It will also update current restroom facilities and picnic sites to be more inviting. This list could change depending on the results of the Park Master Plan.
*	FY2025	TC Baseball Fields					$2-4 million			Future CO Bond/HOT	This will replace some current fencing that is not up to standards and add turf to the infields of the ballfields.
*	FY2025	Creekmere Dr. Street Replacement All of Creekmere Dr.		$1,500,000						Future CO Bonds	This project is slated to be completed with the MUD's project for the same area.
*	FY2026	Forrest Hill Street Replacement Indian Creek to Fresh Meadow Ct.		$1,500,000						Future CO Bonds	This project is slated to be completed with the MUD's project for the same area.
*	FY2026	Greenbriar Ct. Indian Creek to end of Ct.		$500,000						Future CO Bonds	This project is slated to be completed with the MUD's project for the same area.
*	FY2026	Timberline Dr.		$1,500,000						Future CO Bonds	This project is slated to be completed with the MUD's project for the same area.
	FY2027	Oakmont Drive		$3,000,000						Future CO Bonds	This project is slated to be completed with the MUD's project for the same area.
	FY2027	Trophy Club Dr.		$2,000,000						Future CO Bonds	
	FY2028	Palmetto		$550,000						Future CO Bonds	
	FY2028	Roaring Creek Court		$215,000						Future CO Bonds	
	FY2028	Woodlands Court		$400,000						Future CO Bonds	
	FY2028	Paint Rock Court		$250,000						Future CO Bonds	
	FY2028	Winding Creek Court		$250,000						Future CO Bonds	
	FY2028	Durango and Parkview Area			$150,000					Future CO Bonds	
	FY2028	Turnberry and Highlands Area			$75,000					Future CO Bonds	
	FY2028	Town Hall Roof							$450,000	General Fund - Fund Balance	Typical life expectancy +20 years, with routine annual maintenance
	FY2028	Town Hall RTUs (roof top units) three (3)							$235,000	General Fund - Fund Balance	Typical life expectancy +15 years, with annual quarterly maintenance. Blower motors have been replaced on all 3 Town Hall RTUs
	FY2028	Splash Pad Resurfacing				$50,000				General Fund - Fund Balance	
	FY2028	Main Pool Heaters								General Fund - Fund Balance	
	FY2028	Main Pool Diving Board								General Fund - Fund Balance	
	FY2028	Council Chambers remodel							$120,000	General Fund - Fund Balance	Move walls behind Staff seating on both sides of podium, install lighting for council members to push when they would like to speak from dais.
	FY2028	Town Hall and PD Flooring/Carpet							$175,000	General Fund - Fund Balance	Typical life expectancy 8-12 years

	FY2028	Town Hall Paint Interior/Exterior							$120,000	General Fund - Fund Balance	Every 5 years
	FY2028	Town Hall/PD add Gas Tankless Water Heaters							$75,000	General Fund - Fund Balance	Currently water heaters are electric. Tankless (gas) will be more efficient in the long run.
	FY2028	Streets and Parks Shop Remodel							$95,000	General Fund - Fund Balance	Office space is not utilized. Remodel (including demo) and adding a second floor for storage. Project would add +900 sqft of storage.
	FY2028	Streets/Parks add Storage Building 20x40							$130,000	General Fund - Fund Balance	Needed for streets and parks depatment. Covered storage for equipment, materials, etc.
	FY2028	Upgrade Town Crosswalk Flashers to 5g							$200,000	General Fund - Fund Balance	Crosswalk software and hardware will need to be upgraded for better communication throughout town.
	FY2028	Town Hall/PD Upgrade Card Readers							$150,000	General Fund - Fund Balance	Card readers are 5 years old and need to be upgraded to the new software and elctronic key cards
		Totals	**$ 1,650,000**	**$ 21,165,000**	**$ 250,000**	**$ 50,000**	**$ 1,420,000**	**$ 800,000**	**$ 2,585,000**		

TOWN COUNCIL COMMUNICATION

CONSENT

MEETING DATE:	**November 13, 2023**
FROM:	**Tammy Dixon, Town Secretary**
AGENDA ITEM:	**Consider approval of the October 23, 2023, regular meeting minutes.**

BACKGROUND/SUMMARY:
The Town Council held a regular meeting on October 23, 2023.

BOARD REVIEW/CITIZEN FEEDBACK: N/A

FISCAL IMPACT: N/A

LEGAL REVIEW: N/A

ATTACHMENTS:
Draft Meeting Minutes – October 23, 2023, Town Council Regular Meeting

ACTION/OPTIONS:
Move to approve the October 23, 2023, Town Council regular meeting minutes.

Town of Trophy Club - Regular Meeting Minutes
October 23, 2023

The Trophy Club Town Council met in a Regular Meeting on October 23, 2023, at 7:00 p.m. The meeting was held at Town Hall, 1 Trophy Wood Dr, Trophy Club, TX 76262.

CALL TO ORDER AND ANNOUNCE A QUORUM

Mayor Tiffany called the Town Council meeting to order at 7:00 p.m. with the following members present:
Jeannette Tiffany, Mayor
Stacey Bauer, Councilmember Place 1
Steve Flynn, Councilmember Place 6
LuAnne Oldham, Councilmember Place 5

with the following members absent:
Dennis Sheridan, Mayor Pro Tem
Jeff Beach, Councilmember Place 2
Karl Monger, Councilmember Place 4

constituting a quorum with the following members of the Town Staff participating:

Tammy Dixon, Town Secretary
Dean Roggia, Town Attorney
Jason Wise, Fire Chief
Bobby Tillman, Interim Police Chief
Matt Cox, Community Development Director
April Duvall, Finance Director
Denise Deprato, Human Resources Director
Jill Lind, Communications and Marketing Director
Tamara Smith, Assistant to the Town Manager

INVOCATION

Rev. William Eason, Fellowship United Methodist Church, led the invocation.

PLEDGES

Councilmember Oldham led the Pledge of Allegiances to the American and Texas Flags.

PUBLIC COMMENTS

There were none.

COMMUNITY SPOTLIGHT

1. Halloween Festivities

Denise Deprato, Human Resources Director, presented a video compilation featuring Town Staff Office Halloween decorations along with the Parks and Recreation Annual Fright Lights home decorating contest submissions.

Interim Police Chief Bobby Tillman provided Halloween Trick-or-Treading safety tips which included Traveling in Groups; Remaining Visible; Inspection of Treats; and Respecting Private Property.

2. Working for You . . . Trophy Club

a) Update from Town Council Members

Councilmember Flynn recognized Baylor Scott & White Emergency Center for providing the highest standard of care to the community; reminded the community of the Trophy Club Rotary First Responders Day event scheduled for November 4, 2023; and spoke about an update he attended regarding the Northwest Independent School District stating it was one of the fastest growing districts in the State and encouraged the community to stay informed of the districts progress.

Councilmember Oldham spoke about being an ambassador for the citizens which includes attending local and regional events on behalf of the Town. She spoke about attending the Metroport Chamber of Commerce's Lonestar Legislative Update on October 13, 2023, which provided outcomes from the 88th Legislative Session that included Border Security, Cyber Security and Texas Education.

Mayor Tiffany spoke on the importance of the November 7, 2023, Constitutional Amendment Election and encouraged voters to review the amendments and exercise their right to vote.

Fire Chief Jason Wise, at the request of Mayor Tiffany, provided an update on the Fire Station Open House scheduled for November 4, 2023, from 10 a.m. – 2:00 p.m.

b) Update from Town Manager – No Report

c) Quick Civic Tip

Dean Roggia, Town Attorney, provided information on the differences between the Charter, Ordinances and Resolutions.

CONSENT AGENDA

Mayor Tiffany requested item 4 be pulled from Consent for clarification.

3. Consider approval of the October 9, 2023, regular meeting minutes. (Tammy Dixon, Town Secretary)

4. Consider approval of 4 annual purchase orders for services exceeding an amount of $25,000.00 per year. (Matt Cox, Director of Community Development) ***Pulled from Consent***.

5. Consider approval of amending the Compensation Pay Plan with an effective date of October 28, 2023. (Denise Deprato, Director of Human Resources)

Councilmember Flynn moved to approve consent agenda items 3 and 5. Councilmember Bauer seconded the motion.

VOTE ON THE MOTION
AYES: Bauer, Flynn, Tiffany, Oldham
NAYES: None
ABSENT: Sheridan, Monger, Beach
VOTE: 4-0-3

INDIVIDUAL ITEMS

4. Consider approval of 4 annual purchase orders for services exceeding an amount of $25,000.00 per year. (Matt Cox, Director of Community Development).

Mayor Tiffany asked for clarification of LaTour Tree Services asking if it supported the future agenda item regarding trash baskets.

Matt Cox, Director of Community Development, stated it did not. He explained the purchase order for LaTour Tree Service, includes on-call services for trash/debris removal following heavy rainfall events that occur throughout the year.

6. Discuss, consider and act on appointment of Brandon Wright as the Town Manager, effective on the first day of employment with the Town, which shall occur on or before December 11, 2023. (Mayor Tiffany)

Mayor Tiffiany moved to appoint Brandon Wright as the Town Manager, effective on the first day of employment with the Town, which shall occur on or before December 11, 2023. Councilmember Oldham seconded the motion.

VOTE ON THE MOTION
AYES: Bauer, Flynn, Tiffany, Oldham
NAYES: None
ABSENT: Sheridan, Monger, Beach
VOTE: 4-0-3

Mr. Wright introduced himself and his family. He stated they were excited to become part of the Trophy Club family. He thanked the Town Council for the opportunity to serve the Town Council and citizens of Trophy Club.

7. Case PP23002 Triple Crown Estates, Preliminary Plat

Discuss, consider and take action on a request for a Preliminary Plat for Lots 16 and 7X, Block A, Triple Crown Estates, consisting of 2.992 acres of land out of the Mary Medlin Survey, Abstract No. 832, located south of Trophy Park Drive, east of Nottingham Court, west of Churchill Downs Lane, within Denton County, Trophy Club, Texas. (Matt Cox, Director of Community Development)

Mr. Cox provided the following:

- Subject property was currently zoned R-15 Single-Family District and the proposed lots on the Preliminary Plat meet or exceed the zoning standards for the district.
- The property owner/applicant requested to develop the property as six (6) residential lots and one (1) open space lot with a public cul-de-sac street serving each lot.
- The open space lot adjacent to Trophy Park Drive will accommodate required screening and landscaping along the roadway.
- A homeowner's association (HOA) will be created with the filing of the Final Plat that will own and maintain Lot 7X.
- The subdivider will also be required to dedicate fee-in-lieu of parkland at the time of Final Plat filing.
- The Planning & Zoning Commission reviewed the Final Plat at their October 5, 2023, meeting and recommended the item for approval (five in favor and two opposed, 5-2).

Councilmember Oldham moved to approve a Preliminary Plat for Lots 16 and 7X, Block A, Triple Crown Estates, consisting of 2.992 acres of land out of the Mary Medlin Survey, Abstract No. 832. Councilmember Flynn seconded the motion.

VOTE ON THE MOTION
AYES: Bauer, Flynn, Tiffany, Oldham
NAYES: None
ABSENT: Sheridan, Monger, Beach
VOTE: 4-0-3

8. Case FP23005 Bobcat Village Phase 1 Final Plat, formerly Well Site 1H
Discuss, consider and take action on a Final Plat for Bobcat Village Phase 1 (formerly Well Site 1H) containing ±2.7886 acres of land located east of Bobcat Boulevard, south and east of Halifax Street, and north of Byron Nelson High School. (Matt Cox, Director of Community Development)

Mr. Cox stated the applicant requested the Town Council to table the Final Plat for Bobcat Village Phase 1 with a waiver per the Town's Subdivision Ordinance, Section 10.02.068, Final Plats with waiver to the December 11, 2023, Town Council meeting.

Councilmember Oldham moved to approve the request to table this item with wavier to the December 11, 2023, Town Council meeting. Councilmember Bauer seconded the motion.

VOTE ON THE MOTION
AYES: Bauer, Flynn, Tiffany, Oldham
NAYES: None
ABSENT: Sheridan, Monger, Beach
VOTE: 4-0-3

9. Case FP23006 Bobcat Village Phase 2 Final Plat, formerly Well Site 1HB
Discuss, consider and take action on a Final Plat for Bobcat Village Phase 2 (formerly Well Site 1HB) containing ±2.106 acres of land located east of Bobcat Boulevard, east of Halifax Street, and north of Byron Nelson High School. (Matt Cox, Director of Community Development)

Mr. Cox stated the applicant has requested the Town Council to table the Final Plat for Bobcat Village Phase 2 with a waiver per the Town's Subdivision Ordinance, Section 10.02.068, Final Plats with waiver to the December 11, 2023, Town Council meeting.

Councilmember Oldham moved to approve the request to table this item with wavier to the December 11, 2023, Town Council meeting. Councilmember Flynn seconded the motion.

VOTE ON THE MOTION
AYES: Bauer, Flynn, Tiffany, Oldham
NAYES: None
ABSENT: Sheridan, Monger, Beach
VOTE: 4-0-3

ADJOURN

Mayor Tiffany announced the Town Council would conduct a work session on November 11, 2023, prior to the regular meeting.

Mayor Tiffany adjourned the Town Council meeting at 7:38 p.m.

_____
Jeannette Tiffany, Mayor
Town Council

Attest:

_____
Tammy Dixon, Town Secretary

TOWN COUNCIL COMMUNICATION

CONSENT

MEETING DATE:	**November 13, 2023**
FROM:	**Jason Wise, Fire Chief**
AGENDA ITEM:	**Consider approval of a purchase order to Delta Fire & Safety, Inc. for the purchase of several Personal Protective Equipment (PPE) ensembles.**

BACKGROUND/SUMMARY: The Texas Commission on Fire Protection (TCFP) adopted NFPA 1971, *Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting* (2018 Edition) and requires the Trophy Club Fire Department (TCFD) to purchase, provide, and maintain a complete set of protective clothing for all fire protection personnel who would be exposed to hazardous conditions from fire or other emergencies or where the potential for such exposure exists. A complete set of protective clothing consists of garments including bunker coat, bunker pant, boots, gloves, helmet, and protective hood, worn by fire protection personnel in the course of performing fire-fighting operations.

In addition, today's fire environment exposes firefighters to dangerous carcinogens and places the firefighter at a higher risk for various types of cancer when compared to the general public. TCFD has developed a plan to purchase two sets of PPE for each firefighter, so PPE can be cleaned after working in a superheated carcinogen-filled environment. This plan eliminates additional exposure to firefighters from donning dirty gear during the remainder of their tour. PPE is also subject to normal degradation; therefore, must be retired after ten years per manufacturer and NFPA recommendations.

BOARD REVIEW/CITIZEN FEEDBACK: N/A

FISCAL IMPACT: The total cost of the PPE ensembles in this purchase order is $36,800.75. Unfortunately, future purchases may be subject to price increase. The department goal is to update the PPE program and maintain compliance with TCFP standards.

LEGAL REVIEW: N/A

ATTACHMENTS:
- Clothing Specification Quote
- Purchase Requisition Form

ACTION/OPTIONS: Move to approve a purchase order to Delta Fire & Safety, Inc. for the purchase of several Personal Protective ensembles. (PPE) ensembles.

Delta Fire & Safety TX
3159 Summit Dr.
Port Neches TX 77651
United States

Quote
#QUO7928
10/19/2023

Bill To
Jason Wise TROPHY CLUB FD 295 Trophy Club Drive Trophy Club TX 76262 United States

Ship To
TROPHY CLUB FD 295 Trophy Club Drive Trophy Club TX 76262 United States

Expires	Exp. Close	Terms	Contract	Sales Rep	Partner	Shipping Method
11/18/2023	10/19/2023	Net 30	BuyBoard - Contract #: 698-23	Celeste Young		

Quantity	Item	Image	Description	Rate	Amount
3	**Pacific Helmets: F18-0001**		F18-0001, Traditional Firefighting Helmets-Matte Black	$378.00	$1,134.00
2	**Pacific Helmets:F18-0001**		F18-0001 Traditional firefighting helmets-Matte Red	$378.00	$756.00
8	**Honeywell: TXTROP00057**		TXTROP00057, LTO 75IG Tails Gold, Pioneer List Price: $2,711.36 Firefighters: R. Badillo, B. Wing, G. Sipes, S. Beck, D. Hards, S. Garrett, R. Fitzgerald, S. Rusk	$2,035.00	$16,280.00
8	**Honeywell: TXTROP00058**		TXTROP00058, MPL 75TG Pro Fit Pants Gold, Pioneer List Price: $1,984.53 Firefighters: R. Badillo, B. Wing, G. Sipes, S. Beck, D. Hards, S. Garrett, R. Fitzgerald, S. Rusk	$1,490.00	$11,920.00
2	**TL003DESS**		TL2 Helmet, Eye Protection: ESS Firepro goggle with long strap, Suspension: Ratchet with black 8'' detachable earlaps Color: Matte Black, Bend: Standard	$1,055.00	$2,110.00
1	**TL003DESS**		TL2 Helmet, Eye Protection: ESS Firepro goggle with long strap, Suspension: Ratchet with black 8'' detachable earlaps Color: Matte Black, Bend: Colorado	$1,055.00	$1,055.00
3	**TL2MILLER**		MILLER 1884 STYLE 64-CONE UPGRADE TO TL-2 HELMET	$144.00	$432.00
3	**TLNAMEUPG**		CUSTOM NAME STAMP ON TOP SIDE OF BRIM Names: "FITZGERALD", "GARRETT", "HARDS"	$86.25	$258.75
2	**BT5555 10.5W**		10.5 W BT5555 -14' Struct FF Boot-Lthr/Pwr Toe/Crstch MB/Fire & Ice	$535.00	$1,070.00

Delta Fire & Safety TX
3159 Summit Dr.
Port Neches TX 77651
United States

Quote
#QUO7928
10/19/2023

Quantity	Item	Image	Description	Rate	Amount
1	**BT5555 11W**		11W BT5555 -14' Struct FF Boot-Lthr/ Pwr Toe/Crstch MB/Fire & Ice.	$535.00	$535.00
1	**BT5555 11XW**		11XW BT5555 -14' Struct FF Boot-Lthr/Pwr Toe/Crstch MB/Fire & Ice.	$535.00	$535.00
1	**BT5555 13W**		13W BT5555 -14' Struct FF Boot-Lthr/ Pwr Toe/Crstch MB/Fire & Ice	$535.00	$535.00
1	**Vanguard Safety-MK1**		MK1-XXL Cadet, Firefighting structural glove	$90.00	$90.00
1	**MK-1 LG**		Vanguard MK-1 Structural Glove. Size LG	$90.00	$90.00

Shipping & Handling charges, Pre-Pay and Add; Charges to be added to final invoice.

Subtotal	$36,800.75
Shipping Cost	
Tax Total (%)	$0.00
Total	$36,800.75

TOWN OF
TROPHY CLUB

PURCHASE REQUISITION FORM

PO Number _____

Date : 10/30/2023

Department FIRE

Project# _____

Vendor (Name & Address)
Delta Fire & Safety

Delivery Address
1 Trophy Wood Drive
Trophy Club, TX 76262

Account Number	Description	Quantity	Unit Amount	Total Amount
01-256-72300	**Personal Protective Equipment - F18 Firefighting Helmet**	5	378.00	$ 1,890.00
01-256-72300	**Personal Protective Equipment - TL2 Helmet**	3	1,055.00	$ 3,165.00
01-256-72300	**Personal Protective Equipment - Bunker Coat**	8	2,035.00	$ 16,280.00
01-256-7230	**Personal Protective Equipment - Bunker Pant**	8	1,490.00	$ 11,920.00
01-256-7230	**Personal Protective Equipment - Helmet Upgrade**	3	144.00	$ 432.00
01-256-7230	**Personal Protective Equipment - Brim Stamp**	3	86.25	$ 258.75
01-256-7230	**Personal Protective Equipment - Bunker Boots**	5	535.00	$ 2,675.00
01-256-7230	**Personal Protective Equipment - Structural Firefighting Glove**	2	90.00	$ 180.00
Co-op info:	**Buy Board Contract # 698-23**			
			Total	**$ 36,800.75**

PPE Initiative - 2 Sets of PPE per full-time firefighter.
Comments

Requested by:

Approved by:

Finance Approved by:

The Town of Trophy Club must have a completed Vendor Packet on file before a requisition can be accepted by the Finance Department.

TOWN COUNCIL COMMUNICATION

CONSENT

MEETING DATE: **November 13, 2023**

FROM: **April Duvall, Director of Finance**

AGENDA ITEM: **Consider approval of an ordinance amending subsection i, annual capital improvement and maintenance charge, of Section A1.014, Water and Wastewater fees for Public Improvement District No.1, within Appendix A, Fee Schedule, of the Trophy Club Code of Ordinances, to adopt a monthly surcharge for PID residents; providing for severability; providing a penalty; and providing an effective date.**

BACKGROUND/SUMMARY:
The Town has received the Trophy Club MUD's annual PID surcharge calculation. The calendar year 2024 PID resident's fair share of MUD operating and maintenance and debt expenditures is $143,223 or $99.24 per household, a decrease of approximately 1 percent. The calculated PID monthly surcharge is $8.27 for calendar year 2024.

BOARD REVIEW/CITIZEN FEEDBACK: N/A

FISCAL IMPACT:
The CY 2024 PID surcharge is a $0.10 cents per month per household decrease.

LEGAL REVIEW: N/A

ATTACHMENTS:
- Draft Ordinance
- CY24 PID Surcharge Analysis
- Letter to Town - PID Surcharge CY 2024

ACTION/OPTIONS:
Consider approval of amended PID Surcharge ordinance as presented.

TOWN OF TROPHY CLUB, TEXAS
ORDINANCE NO. 2024-

AN ORDINANCE OF THE TOWN OF TROPHY CLUB, TEXAS AMENDING SUBSECTION (i), "ANNUAL CAPITAL IMPROVEMENTS AND MAINTENANCE CHARGE," OF SECTION A1.014, "WATER AND WASTEWATER FEES FOR PUBLIC IMPROVEMENT DISTRICT NO. 1," WITHIN APPENDIX A, "FEE SCHEDULE," OF THE CODE OF ORDINANCES, TOWN OF TROPHY CLUB, TEXAS, TO ADOPT A MONTHLY SURCHARGE APPLICABLE TO CONNECTIONS IN THE TROPHY CLUB PUBLIC IMPROVEMENT DISTRICT NO. 1 IN ORDER TO PAY THE PID PORTION OF MUD1 OPERATIONS AND MAINTENANCE BUDGET AND DEBT FOR CALENDAR YEAR 2024; PROVIDING A SAVINGS AND REPEALER CLAUSE; PROVIDING A SEVERABILITY CLAUSE; PROVIDING FOR ENGROSSMENT AND ENROLLMENT; PROVIDING A PENALTY NOT TO EXCEED THE SUM OF FIVE HUNDRED DOLLARS ($500.00) FOR EACH OFFENSE AND A SEPARATE OFFENSE SHALL BE DEEMED COMMITTED EACH DAY DURING OR ON WHICH A VIOLATION OCCURS OR CONTINUES; PROVIDING FOR PUBLICATION; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Town of Trophy Club (the "Town") is a home rule municipality acting under its charter adopted by the electorate pursuant to Article XI, Section 5 of the Texas Constitution and Chapter 9 of the Local Government Code; and

WHEREAS, fees imposed by the Town are adopted and codified in Appendix A, "Fee Schedule," of the Code of Ordinances, Town of Trophy Club, Texas (the "Code"); and

WHEREAS, Appendix A, "Fee Schedule," Section A1.014 of the Code contains fees for public works for the Trophy Club Public Improvement District No. 1 ("PID"), including fees for meters utilized within the PID; and

WHEREAS, the Town is the owner and/or operator of a water and sewer system designed to serve present and future inhabitants of the PID (the "Town System"); and

WHEREAS, under the Amended and Restated Contract for Wholesale Water Supply and Wastewater Treatment Services and Water And Wastewater Operational Services between the Town and Trophy Club Municipal Utility District No. 1 dated April 15, 2014 (the "Contract"), the Trophy Club Municipal Utility District No. 1 ("MUD1") has agreed to provide the Town with wholesale water and wastewater services and with operations services related to the Town System within the boundaries of the PID "Property", as that term is defined in the Contract; and

WHEREAS, Sections 7.1 and 7.2 of Article VII of the Contract require the Town to

charge a fee to the residents of the PID for the "Annual Capital Improvements and Maintenance Charge" due to MUD1; and

WHEREAS, MUD1 has issued debt; therefore, pursuant to the Contract, the Town has determined it appropriate to adopt the fee set forth below in accordance with the provision of the Contract providing for an Annual Capital Improvements and Maintenance Charge in order to impose the fee required to fund the PID's percentage share of the MUD1 Operations and Maintenance budget and debt for calendar year 2024; and

WHEREAS, the Town Council hereby finds that the amendment of Section A1.014 of the Town's Fee Schedule to adopt the Annual Capital Improvements and Maintenance Charge in the form of a flat monthly fee as further specified herein meets the Town's contractual obligations pursuant to the Contract and serves the best interests of the Town.

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF TROPHY CLUB, TEXAS, THAT:

SECTION 1.
INCORPORATION OF PREMISES

The above and foregoing premises are true and correct and are incorporated herein and made a part hereof for all purposes.

SECTION 2.
AMENDMENT

Subsection (i), "Annual capital improvements and maintenance charge" of Section A1.014, "Water and wastewater fees for Public Improvement District No. 1," of Appendix A, "Fee Schedule," of the Town of Trophy Club Code of Ordinances is hereby amended to read as follows, and all other fees and provisions of Section A1.014 not specifically amended hereby shall remain in full force and effect:

"(i) Annual capital improvements and maintenance charge: $8.27 (monthly fee per connection)"

SECTION 3.
SAVINGS AND REPEALER

This Ordinance shall be cumulative of all other ordinances of the Town affecting fees and shall not repeal any of the provisions of such ordinances except in those instances where provisions of those ordinances are in direct conflict with the provisions of this Ordinance; whether such ordinances are codified or uncodified, and all other provisions of the ordinances of the Town of Trophy Club, codified or uncodified, not in conflict with the provisions of this Ordinance, shall remain in full force and effect. Notwithstanding the foregoing, any complaint, action, cause of action or claim which prior to the effective date of this Ordinance has been initiated or has arisen under or pursuant

to such repealed ordinance(s) shall continue to be governed by the provisions of that ordinance and for that purpose the ordinance shall be deemed to remain and continue in full force and effect.

SECTION 4.
SEVERABILITY

If any section, article, paragraph, sentence, clause, phrase or word in this Ordinance, or application thereof to any person or circumstance, is held invalid or unconstitutional by a court of competent jurisdiction, such holding shall not affect the validity of the remaining portions of this Ordinance, and the Town Council hereby declares it would have passed such remaining portions of this Ordinance despite such invalidity, which remaining portions shall remain in full force and effect.

SECTION 5.
ENGROSSMENT AND ENROLLMENT

The Town Secretary of the Town of Trophy Club is hereby directed to engross and enroll this Ordinance.

SECTION 6.
PENALTY

It shall be unlawful for any person to violate any provision of this Ordinance, and any person violating or failing to comply with any provision of this Ordinance shall be fined, upon conviction, not less than One Dollar ($1.00) nor more than Five Hundred Dollars ($500.00), and a separate offense shall be deemed committed upon each day during or on which a violation occurs or continues.

SECTION 7.
PUBLICATION

The Town Secretary of the Town of Trophy Club is hereby directed to publish the caption of this Ordinance in the official newspaper of the Town of Trophy Club, Texas, as required by Section 3.16 of the Charter of the Town of Trophy Club, Texas.

SECTION 8.
EFFECTIVE DATE

This Ordinance shall take effect from and after its date of publication in accordance with Section 3.16 of the Charter of the Town of Trophy Club, Texas, and it is so ordained.

PASSED AND APPROVED by the Town Council of the Town of Trophy Club, Texas, this 13th day of November 2023.

_____
Jeannette, Mayor

ATTEST:

_____
Tammy Dixon, Town Secretary

APPROVED TO AS FORM:

_____
Dean Roggia, Town Attorney

PID SURCHARGE

for Calendar Year 2024

Description	Standard		
O&M Revenue from PID Surcharge	27,337.00	19%	O&M proportion
I&S Revenue from PID Surcharge	115,886.00	81%	I&S proportion
Total	143,223.00		
Number of PID Residents	1,443.00		
Standard rate for 12 months (per month)	$ 8.27		
Change in Rate from CY23 ($8.37)	**$ (0.10)**		

Rate = ((Total/Number of Residents)/12 Months)

October 9, 2023

Emailed

Received By: April Duvall

Date: 10/9/2023

April Duvall
Director of Finance
Town of Trophy Club
1 Trophy Wood Drive
Trophy Club, TX 76262

PID Surcharge for Calendar Year 2024

In accordance with Section 7.2 of the Amended and Restated Contract for Wholesale Water Supply and Wastewater Treatment Services and Water and Wastewater Operational Services dated April 12, 2014, the District is providing notice of the Annual Capital Improvements and Maintenance Charge requirements for calendar year 2024.

Total amount to be collected from Town retail water and wastewater customers is calculated below.

MUD TARRANT COUNTY:	677,155,614
MUD DENTON COUNTY:	1,877,675,027
DENTON CO. PID:	1,032,220,715

O&M TAX/SURCHARGE RATE

REQUIRED REVENUE
O&M
$113,071*
$95,000**

**MUD (All of Dept. 39 Budget)*
***PID (Legal and Auditor only Dept 39)*

TAX/SURCHARGE RATE = REQUIRED REVENUE/TOTAL VALS/100

Vals/100 =		35,870,514
FY 2024 Tax/Surcharge Rate =		0.00265
Revenue from MUD Tax =	$	85,734
Revenue from PID Surcharge =	**$**	**27,337**
Total:	$	113,071

I&S TAX/SURCHARGE RATE

REQUIRED REVENUE
TAX NEW DEBT (I&S)
$402,713

TAX/SURCHARGE RATE = REQUIRED REVENUE/TOTAL VALS/100

Vals/100 =		35,870,514
FY 2024 PID Surcharge Rate =		0.01123
Revenue from MUD Tax =	$	286,827
Revenue from PID Surcharge =	**$**	**115,886**
Total:	$	402,713

Total Due to Trophy Club MUD No. 1

PID Surcharge Calendar 2024	**$**	**143,223**

Trophy Club Municipal Utility District No. 1
100 Municipal Drive, Trophy Club, Texas 76262
(682) 831-4600

October 9, 2023

The Town of Trophy Club is responsible for calculating the PID surcharge rate and must provide the new rate to Trophy Club Municipal Utility District No. 1 with an approved Town Rate Ordinance. In order for the January 2024 billing to reflect a new PID surcharge rate, the new Town Rate Ordinance must be received by the District no later than December 31, 2023.

The current 2023 PID surcharge rate per connection per month is set at $8.37, and as of September 30th the PID had 1,443 total water connections. In January, the District will reconcile the total funds collected from the PID surcharge for the calendar year and will submit any overage to the Town or if there is a shortage an invoice will be provided.

Thank you for your prompt attention to this matter, and please contact me if you have any questions.

Sincerely,

Steven Krolczyk

Steven Krolczyk
Finance Manager
Trophy Club Municipal Utility District No. 1
100 Municipal Drive
Trophy Club, TX 76262
Phone- 682-831-4692

TOWN COUNCIL COMMUNICATION

CONSENT

MEETING DATE:	**November 13, 2023**
FROM:	**Tammy Dixon, Town Secretary**
AGENDA ITEM:	**Consider approval of an ordinance amending Division 3, "Open Records" of Chapter 1, "General Provisions" by repealing subsection 1.07.061, "Thirty-Six Hour Time Limit"; and amending Section A1.013 of Appendix A, Fee Schedule by repealing subsection 15 entitled "Personnel charges in excess of 36 hours." (Tammy Dixon, Town Secretary).**

BACKGROUND/SUMMARY:

In 2012, the Town Council adopted an ordinance as authorized by Section 552.275 of the Texas Public Information Act (Act.) establishing a thirty-six-hour time limit on the amount of time that personnel must spend free of charge responding to public information requests (PIRs) from a requestor which reads as follows:

The intent was to recover the cost of staff time incurred as a result of redundant or repetitive public information requests, also known as vexatious requests.

The ordinance, per Section 552.275, provides that **each and every time** the Town complies with *any* PIR, the Town is required to provide the requestor with a written statement detailing the amount of personnel time spent complying with that request and the cumulative amount of time spent complying with requests from that requestor during the applicable 12-month period.

Further, it requires the Town to maintain a record of the time spent responding to **each and every request**, and it must provide the written statement detailing this information to **each and every requestor – not just the vexatious requestor.** The burden of this administrative task has proven to outweigh any cost recovery benefit objective to the ordinance.

Following review of the ordinance with the Town Attorney's Office, staff was provided an overview of other tools for managing public information requests under the Act. Section 552.222 allows the Town to seek clarification of an unclear request and to discuss ways in which the requestor may narrow a request for large amounts of information. Additionally, the Town may bill requestors for the time it takes to respond to a request in accordance with Section 552.2615 of the Act. These tools, together with Section 552.232 concerning redundant requests, provide the Town the ability to manage requests in a useful and potentially less burdensome manner.

The Act does provide the ability to recover labor costs for public information as set by the Attorney General's Office.

BOARD REVIEW/CITIZEN FEEDBACK: N/A

FISCAL IMPACT: N/A

LEGAL REVIEW: Andrea Russell, from the Town Attorney's Office, has reviewed the draft ordinance as to form and legality.

ATTACHMENTS:
Draft Ordinance
Current Ordinance language
Summary of Sections 552.275 and 552.232

ACTION/OPTIONS:
Move to approve an ordinance amending Division 3, "Open Records" of Chapter 1, "General Provisions" by repealing subsection 1.07.061, "Thirty-Six Hour Time Limit"; and amending Section A1.013 of Appendix A, Fee Schedule by repealing subsection 15 entitled "Personnel charges in excess of 36 hours."

TOWN OF TROPHY CLUB, TEXAS
ORDINANCE NO. 2023-xx

AN ORDINANCE OF THE TOWN OF TROPHY CLUB, TEXAS, AMENDING DIVISION 3, "OPEN RECORDS" OF CHAPTER 1, "GENERAL PROVISIONS" BY REPEALING SUBSECTION 1.071.061, "THIRTY-SIX HOUR TIME LIMIT"; AND AMENDING APPENDIX A "FEE SCHEDULE" ARTICLE A1.000 "GENERAL PROVISIONS" SECTION A1.013 "ADMINISTRATIVE FEES" BY REPEALING SUBSECTION 15 ENTITLED "PERSONNEL CHARGES IN EXCESS OF 36 HOURS"; PROVIDING FOR SEVERABILITY; PROVIDING FOR ENGROSSMENT AND ENROLLMENT; PROVIDING FOR PUBLICATION; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Town of Trophy Club is a home rule municipality acting under its charter adopted by the electorate pursuant to Article XI, Section 5, of the Texas Constitution and Chapter 9 of the Local Government Code; and,

WHEREAS, the Town Council of the Town of Trophy Club has previously adopted an ordinance, as authorized by Section 552.275 of the Texas Public Information Act (the "Act'), establishing a thirty-six-hour time limit on the amount of time that personnel must spend free of charge responding to requests from a requestor; and

WHEREAS, the burden of the administrative tasks required under the ordinance have proven to outweigh any benefit the ordinance purports to provide; and

WHEREAS, members of Town Staff responsible for compliance with the Act are aware of methods for managing public information requests that are more useful and less burdensome than the procedures required under Section 552.275 of the Act; and

WHEREAS, the Town Council of the Town of Trophy Club finds and determines that the thirty-six-hour time limit should be repealed.

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF TROPHY CLUB, TEXAS:

SECTION 1.

That the above and foregoing premises are true and correct and are incorporated herein and made a part hereof for all purposes.

SECTION 2.

The Code of Ordinances, Town of Trophy Club, Texas, Chapter 1, "General Provisions", Division 3, "Open Records", is amended by repealing subsection 1.071.062 "Thirty-Six Hour Time Limit", in its entirety.

SECTION 3.

The Code of Ordinances, Town of Trophy Club, Texas, Appendix A "Fee Schedule", Article A1.000 "General Provisions", Section A1.013 "Administrative Fee", is amended by repealing subsection 15 "Personnel charges in excess of 36 hours" in its entirety.

SECTION 4.

If any section, article, paragraph, sentence, clause, phrase or word in this Ordinance, or application thereof to any person or circumstance, is held invalid or unconstitutional by a Court of competent jurisdiction, such holding shall not affect the validity of the remaining portions of the Ordinance, and the Town Council hereby declares it would have passed such remaining of the Ordinance despite such invalidity, which remaining portions shall remain in full force and effect.

SECTION 5.

The Town Secretary of the Town of Trophy Club is hereby directed to engross and enroll this Ordinance in the Ordinance records of the Town and to properly record this Ordinance in accordance with the Town Charter.

SECTION 6.

The Town Secretary of the Town of Trophy Club is hereby directed to publish the caption of this Ordinance in the official newspaper of the Town of Trophy Club, Texas as required by Section 3.16 of the Charter of the Town of Trophy Club, Texas.

SECTION 7.

This Ordinance shall take effect from and after its date of passage in accordance with law, and it is so ordained.

DULY PASSED AND APPROVED by the Town Council of the Town of Trophy Club, Texas, this _____day of_____, 2023.

_____
Jeannette Tiffany, Mayor

ATTEST:

_____
Tammy Dixon, Town Secretary

APPROVED AS TO FORM:

_____
Dean Roggia, Town Attorney

Code of Ordinances

Chapter 1, General Provisions

§ 1.07.062 **Thirty-six hour time limit.**
Pursuant to and subject to the limitations in V.T.C.A., Government Code, section 552.275, the town council hereby establishes thirty-six (36) hours as a reasonable limit on the amount of time that personnel of the town are required to spend producing public information for inspection or duplication by a requestor, or providing copies of public information to a requestor, without recovering its costs attributable to that personnel time. Costs for time recoverable under this section shall accrue in accordance with the town's schedule of fees.

Appendix A, Fee Schedule

§ A1.013 **Administrative fees.**

(15) *Personnel charges in excess of 36 hours.* Notwithstanding any provision contained herein to the contrary, any requestor of public information will be charged personnel costs in accordance with V.T.C.A., Government Code, section 552.275 for all time in excess of thirty-six (36) hours spent by personnel of the town in producing public information for inspection or duplication by a requestor, or providing copies of public information to a requestor during a twelve-month period commencing on October 1 of each year. The records management officer shall be responsible for providing all notices required by law.

Town Ordinance No. 2012-13 adopted the provisions of Section 552.275 and includes the following statutory requirements:

1. Each time the Town receives a request for public information, the Town must provide the requestor with a written statement of the amount of personnel time spent complying with that request and the cumulative amount of time spent complying with requests for public information from that requestor during the applicable 12-month period. Note that the amount of time spent preparing the written statement may not be included in the amount of time included in this statement.

2. If the statement shows that the cumulative amount of personnel time spent complying with requests for public information from the same requestor equals or exceeds 36 hours, the Town shall provide the requestor with a written estimate of the total cost, including materials, personnel time, and overhead expenses, necessary to comply with the request.

3. This estimate must be provided to the requestor on or before the 10th day after the date on which the public information was requested. The amount of this charge relating to the cost of locating, compiling, and producing the public information shall be established by rules prescribed by the Attorney General under Sections 552.262(a) and (b) of the Public Information Act.

4. The Town is not required to produce public information for inspection or duplication or to provide copies in response to the requestor's request unless on or before the 10th day after the date the Town provided the written statement, the requestor submits a statement in writing to the Town in which the requestor commits to pay the lesser of:

   (1) the actual costs incurred in complying with the requestor's request, including the cost of materials and personnel time and overhead; or

   (2) the amount stated in the written statement provided to the requestor.

5. If the requestor fails or refuses to submit the written statement, the requestor is considered to have withdrawn the requestor's pending request for public information.

Section 552.232: Responding to Repetitious or Redundant Requests

Section 552.232 has proven to be helpful for many cities in processing repetitious or redundant requests. When a requestor seeks information that has already been provided to him or her, Section 552.232 allows a governmental body to certify in writing that the information was already provided. The certification must include the following statutory requirements:

1. a description of the information for which copies have been previously furnished or made available to the requestor;

2. the date that the governmental body received the requestors original request for that information;

3. the date that the governmental body previously furnished copies of or made available copies of the information to the requestor; and

4. a certification that no subsequent additions, deletions, or corrections have been made to that information; and

5. the name, title, and signature of the officer for public information or the officer's agent making the certification.

TOWN COUNCIL COMMUNICATION

REGULAR

MEETING DATE:	**November 13, 2023**
FROM:	**Ronnie Angel, Interim Director of Parks and Recreation**
AGENDA ITEM:	**Discuss and take action on the Trophy Club Community Pool Project, Phase II**

BACKGROUND/SUMMARY:
This item was presented on October 8, 2023. Following the discussion staff were directed to bring this item back with additional information to the November meeting.

History: This item was originally presented to the Town Council on November 8, 2022, with the council voting unanimously to approve the project in two (2) phases. Phase one (1) replaced the pumps, fixed a leak in pool, updated the lockers and made improvements in the office/concession room areas. Phase two (2) will add slides and create a party room that can be used for rentals all year.

BOARD REVIEW/CITIZEN FEEDBACK:
Staff presented the capital improvement project to the Parks and Recreation Board on August 21, 2023; the Board approved the project to move forward as presented and provided direction for staff to take the project to the Town Council.

FISCAL IMPACT:
Funding for this project was allocated as part of the Certificates of Obligation, Series 2021 bonds issued to the Town. This project was presented to the council as part of the CIP plan presented at the July 26, 2022, council meeting.

LEGAL REVIEW:
N/A

ATTACHMENTS:
PowerPoint Presentation from Halff

ACTION/OPTIONS:
Move to approve / deny agenda item as presented

TOWN OF TROPHY CLUB

COMMUNITY POOL AND SPLASH PAD RENOVATION PHASE 2

HALFF

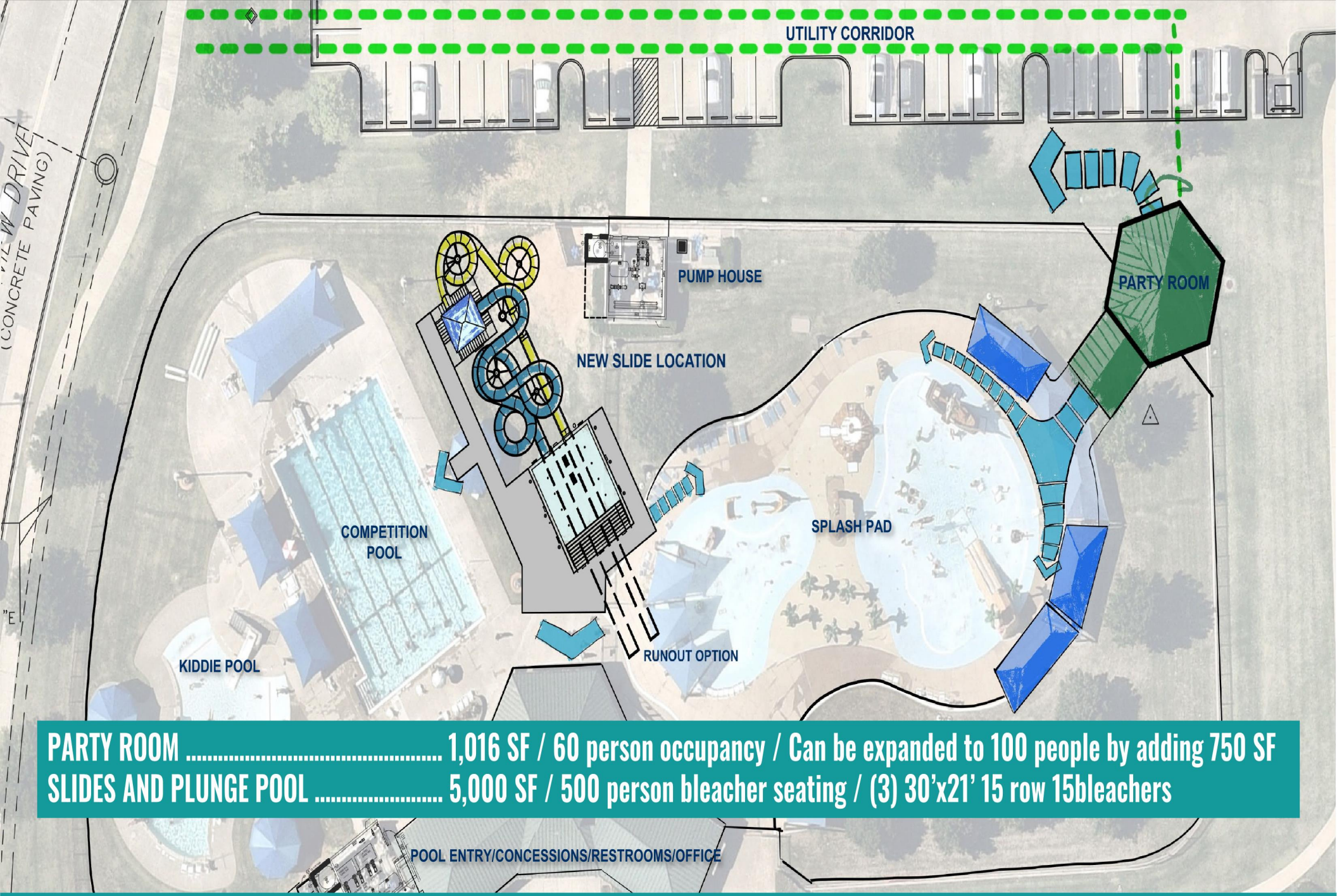
TOWN OF TROPHY CLUB

WHAT WE WOULD LIKE TO SHARE WITH YOU TODAY

A. SITE PLAN
B. SCHEDULE
C. BUDGET
D. PROPOSED IMPROVEMENTS

HALFF

TOWN OF TROPHY CLUB



PARTY ROOM ..... 1,016 SF / 60 person occupancy / Can be expanded to 100 people by adding 750 SF
SLIDES AND PLUNGE POOL ..... 5,000 SF / 500 person bleacher seating / (3) 30'x21' 15 row 15bleachers

SITE PLAN

TOWN OF TROPHY CLUB

PHASE 2 MILESTONES	CALENDAR DAYS TO COMPLETE
• COUNCIL APPROVAL OF CONCEPT AND DESIGN NTP	DAY 1
• SUBMIT 60% PLANS FOR CITY REVIEW	30 DAYS
• CITY REVIEW AND COMMENT	10 DAYS
• SUBMIT 90% PLANS FOR CITY REVIEW	30 DAYS
• CITY REVIEW AND COMMENT	10 DAYS
• SUBMIT 100% PLANS READY FOR BID	14 DAYS
TOTAL DAYS TO DESIGN COMPLETION	95 DAYS
• BID PROCESS	21 DAYS
• OPEN BIDS	1 DAY
• CONSTRUCTION CONTRACT PROCESS / CONSTRUCTION NTP	14 DAYS
• CONSTRUCTION PROCESS TO SUBSTANTIAL COMPLETION	120 DAYS
TOTAL DAYS TO CONSTRUCTION COMPLETION	146 DAYS

SCHEDULE

TOWN OF TROPHY CLUB

PHASE ONE – COMPLETE DEC 2023

A. CGC CONSTRUCTION
- INITIAL CONTRACT..... $ 531,700
- CHANGE ORDERS..... $ 1,595

B. SUNBELT POOLS
- EQUIPMENT PURCHASE..... $ 414,118
- EQUIPMENT INSTALLATION..... $ 207,800
- LEAK REPAIR..... $ 24,400

SUBTOTAL $ 1,179,613

PHASE TWO

A. SITEWORK.....$ 265,000
- Fence Modifications and Repairs
- Concrete Modifications and Repairs
- Shade Pavilion
- Rentable Cabanas
- Landscape Improvements and Repair
- Parking Lot Striping

A. SLIDE TOWER AND PLUNGE POOL..... $ 784,200

B. PARTY ROOM.....$1,028,907

C. EXISTING BUILDING RENOVATIONS.....$ 46,980

D. NORTH POOL EQUIPMENT ENCLOSURE..... $ 115,000

E. ESTIMATED DESIGN FEE ADD. SERVICES.... $ 30,000

SUBTOTAL $ 2,270,087

CONSTRUCTION TOTAL: $3,419,700
DESIGN FEES: $481,100

GRAND TOTAL $3,900,800

BUDGET

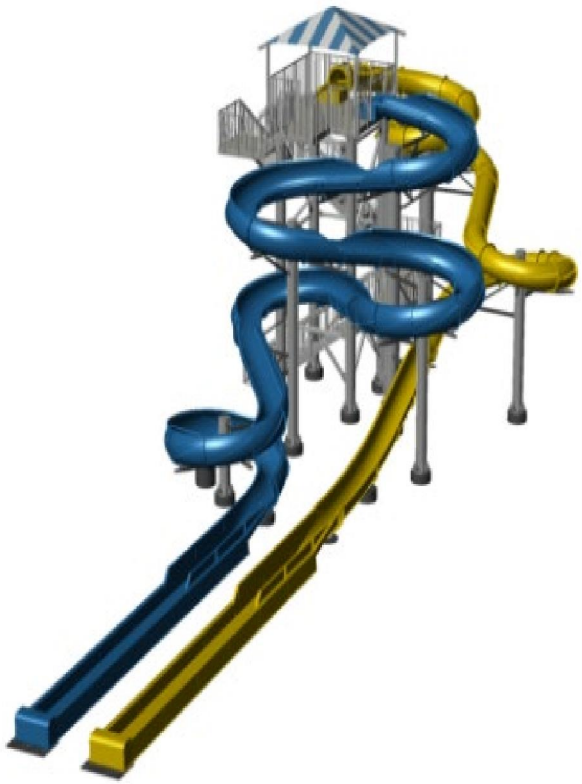
TOWN OF TROPHY CLUB

PARTY ROOM

TOWN OF
TROPHY CLUB

RIDER HEIGHT LIMITATIONS

A. PLUNGE POOL OPTION: 48”
B. DECK RUNOUT OPTION: 42”



SLIDE TOWER

TOWN OF TROPHY CLUB

QUESTIONS AND ANSWERS

TOWN OF TROPHY CLUB

PREVIOUS QUESTIONS

Q. How many square feet of space will be lost for tournament attendees due to water slide and slide plunge pool?

A. Slide and pool are approx. 5000 sf or 500 seats (if bleachers are used)

Q. What is the Pool House size and how many people it can hold?

A. 1,016 SF / 60 person occupancy / Can be expanded to 100 people by adding 750 SF

Q. Will the pumps, both proposed and existing, be able to operate the pool, kiddie pool and new slides?

A. The design intent is that the scheduled pumps, both proposed and existing, will operate all aquatic features.

Q. Will slide be available to all ages, children and adult?

A. The waterslides will have a minimum rider height limitation as dictated by the waterslide manufacturer. This is typically 48" for slides that exit into a plunge pool, and 42" for slides that terminate in a deck runout.

Q. Can Pool House be expanded on in the future?

A. Based on the current shape of the building, we can design for future expansion however it will increase the initial cost of the building to make future expansion more feasible. It is important that buildings are designed from the onset to accommodate future expansion with careful placement of structural columns and other elements.

TOWN COUNCIL COMMUNICATION

REGULAR

MEETING DATE: **October 9, 2023**

FROM: **Tammy Dixon, Town Secretary**

AGENDA ITEM: **Discuss and consider approval of a resolution providing for the appointment of a member to serve on the Trophy Club Economic Development Corporation. (Tammy Dixon, Town Secretary)**

BACKGROUND/SUMMARY:

The Town Council made appointments to the Boards and Commissions during the October 9, 2023, meeting. At that time staff had found a conflict between the Town Charter and the Economic Development Corporation (EDC) Articles of Incorporation pertaining to Town Council membership on the EDC, therefore leaving one position vacant.

Following review of the documents, the Town Attorney has advised that the Town Charter prevails, which prevents the appointment of a Town Council member to the EDC, or any other board.

This information was shared with the Boards and Commissions Appointments Committee.

Councilmember Oldham spoke with James Callaway regarding the vacant position, and he expressed interest in serving as a director on the EDC board. If appointed, he would then resign from his position on the Zoning Board of Adjustment.

FISCAL IMPACT: N/A

LEGAL REVIEW: Town Attorney, Dean Roggia, has reviewed the draft resolution as to form and legality.

ATTACHMENTS:

- Draft Resolution

ACTION/OPTIONS:
Move to approve a resolution appointing a member to the Trophy Club Economic Development Corporation.

TOWN OF TROPHY CLUB, TEXAS
RESOLUTION NO. 2023-XX

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF TROPHY CLUB, TEXAS, PROVIDING FOR THE APPOINTMENT OF A MEMBER TO SERVE ON THE ECONOMIC DEVELOMENT CORPORATION; DESIGNATING TERMS OF SERVICE; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Town of Trophy Club, Texas, benefits by having its citizens involved in local government through service on boards, commissions, and corporations; and

WHEREAS, there is currently a vacancy on the Trophy Club Economic Development Corporation Board; and

WHEREAS, the Trophy Club Town Council is responsible for making appointments to the boards, commissions, and corporations serving the Town; and

NOW THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF TROPHY CLUB, TEXAS, THAT:

SECTION 1. The facts and recitals set forth in the preamble of this resolution are hereby found to be true and correct.

SECTION 2. The Town Council of Trophy Club, Texas, hereby appoints the following individual to serve on the Economic Development Corporation Board as specified below:

Name	Place	Term Ending Date
	Place 7	09/30/2025

SECTION 3. This resolution shall become effective from and after its date of passage.

PASSED AND APPROVED THIS THE _____ DAY OF NOVEMBER 2023.

_____
Jeannette Tiffany, Mayor

ATTEST:

_____
Tammy Dixon, Town Secretary

APPROVED AS TO FORM:

_____
Dean Roggia, Town Attorney

Future Agenda Items
November 13, 2023

Future Agenda Items have 3 Categories:

1 Council requested future agenda items that need to be addressed.
2 Researched agenda items that are scheduled to be reported to Council. (first 2-4 weeks)
3 Council requested items that need additional research and will be brought back for public discussion at a Council Meeting. For agenda items with significant research time Council will be updated.

The Future Agenda Items list will be attached to the Council Meeting agenda to provide Council with a status on all items. During Council meetings, the future agenda items will be reviewed and removed if completed or added if new agenda items need to be addressed. Footnotes may be added.

	Future Agenda Item	Request Day	Who Requested	Date of Last Action
1	**Develop a Strategic Plan for the Town addressing future goals with budgetary needs for each department.**			
	The strategic plan will be addressed at a future workshop.	8.27.19	CM Geraci Mayor Sanders	6.27.23
2	**Hogans Glen drainage.**			
	The Town Council decided on the Hogan's Glen drainage matter during the June 13th Council meeting by approving $150,000 from the stormwater drainage funds to the HOA to mitigate the stormwater siltation. On August 28, 2023, the Council directed the Town Attorney to create an easement agreement with the HOA. Once the agreement is finalized, it will be brought back to Council.	8.23.22	CM Monger	8.28.23
3	**Improvements at the existing Trophy Lake/Club Drive roundabout crosswalks.**			
	The Town has received the original signage plan for the round-a-bout at Trophy Club Dr. and Trophy Lake. During the June 27th Council meeting, Councilmember Beach directed Director of Community Development Matt Cox to complete additional research on alternative options. Will be discussed in the November workshop.	8.9.22 1.10.23	CM Beach CM Beach	6.27.23 Added twice
4	**Short-Term rentals.**			
	Councilmember Sheridan would like to review short-term rentals before they become an issue within the Town. During the June 27th Council meeting, Town Attorney David Dodd presented a short-term rental process. Councilmember Bauer would like additional definitions of the word "owner" to be defined in the registration ordinance. The Town has passed this topic to our new Legal Counsel to review and re-visit at a future Council meeting.	6.13.23	CM Sheridan	6.27.23
5	**Town staff to provide a plan of action for trash baskets in Town-Owned inlets.**			
	Councilmember Sheridan would like staff to prepare a plan of action to install trash collector baskets in storm drain inlets in the Town with a not to exceed amount of $75,000. Also, provide a plan to have PD30 put in trash collector baskets when phase 3 begins. Interim Town Manager Arata discussed the item with the Finance subcommittee on June 27th.	6.13.23	CM Sheridan	6.27.23

	Future Agenda Item	Request Day	Who Requested	Date of Last Action
6	**Trophy Club community pool.**			
	Councilmember Bauer would like to re-visit Phase 2 of the Trophy Club Community Pool. The request includes looking at the whole project, including slides, finances, and Parks Board recommendations. TnP and the Town attorney are working on agreements for Phase II. Halff will be at the October Council meeting to discuss the pool project.	7.25.23	CM Bauer	7.25.23
7	**Trophy Club park revenues.**			
	Councilmember Bauer would like to explore current and new options for revenue at Trophy Club Park. Mayor Tiffany suggested this be a conversation for Park Board.	7.25.23	CM Bauer	7.25.23
8	**Legal description guidelines.**			
	Councilmember Oldham would like our Community Development Standards to incorporate legal description guidelines in the review process for the preparation of all real property descriptions, either for or on behalf of the Town of Trophy Club, Texas.	8.14.23	CM Oldham	8.14.23
9	**Comprehensive land plan.**			
	Mayor Tiffany would like to fully update and revise the 1997 comprehensive land plan, which will include a park master plan. Starting October 1st, we will initiate the development of an RFP to solicit bids from companies for the plan's development.	8.14.23	Mayor Tiffany	8.14.23
10	**Bobcat roundabouts.**			
	On August 25, 2020, Mayor Pro Tem Philip Shoffner added the Traffic Mitigation future agenda item. This item was removed from future agenda items on January 10, 2023. On August 18, 2023, Interim Town Manager Patrick Arata added the roundabouts back to the future agenda item. A workshop for the roundabouts will be November 13, 2023. [1]	8.18.23 8.25.20	Interim TM Arata CM Shoffner	8.18.23 1.10.23
	[1] Councilmember Sheridan added a workshop to be scheduled in November after sufficient data has accumulated to discuss and learn about the best solution for traffic control by the High School.	8.28.23	CM Sheridan	8.28.23
11	**MUD feasibility report.**			
	On September 11, 2023, Councilmember Flynn asked to review the full MUD feasibility report from NewGen at the second Council meeting in October.	9.11.23	CM Flynn	9.11.23