



# Administrative Report

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N.2., File # 20-1250

Meeting Date: 8/18/2020

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**To:** MAYOR AND CITY COUNCIL  
**From:** TED SEMAAN, PUBLIC WORKS DIRECTOR

## **TITLE**

DISCUSSION AND POSSIBLE ACTION REGARDING THE TEMPORARY TRAFFIC CIRCLE INSTALLED AT THE INTERSECTION OF RUBY STREET AND GERTRUDA AVENUE

## **EXECUTIVE SUMMARY**

On December 3, 2018, the Public Works Commission approved the installation of a temporary traffic circle at the intersection of Ruby Street and Gertruda Avenue as part of a corridor study along Ruby Street from Francisca Avenue to Helberta Avenue. Following design plans and parts procurement, the temporary traffic circle was installed in October 2019.

As part of the City Council adopted traffic circle program, the temporary traffic circle was installed following Commission approval and evaluated for six months. As part of the evaluation, Staff conducted several field observations, collected vehicle speed and volume data, and solicited resident feedback in an effort to assess the traffic circle's effectiveness in reducing speeds along the roadway and enhancing traffic safety at the intersection.

Staff is hereby presenting the results of the six-month temporary traffic circle evaluation (Assessment) to City Council for discussion and possible action. While this report was ready several months ago, staff delayed placing this report on the agenda given more important issues confronting the City involving COVID-19 and the need to finalize and adopt the FY 2020-21 Budget.

The meeting minutes from the Public Works Commission meeting on December 3, 2018 are included in Attachment 1.

## **BACKGROUND**

On December 3, 2018, Staff presented a report to the Public Works Commission evaluating traffic calming measures, including the installation of traffic circles, along Ruby Street between Francisca Avenue and Helberta Avenue. Based on resident feedback and in conjunction with District 1 Council Member, the Commission approved Staff recommendations to install a temporary traffic circle at the intersection of Ruby Street and Gertruda Avenue. Following the development of design plans and procurement of parts, the temporary bulb-out was installed in October 2019.

Following installation, staff initiated the Assessment beginning with field observations and data

collection which included 24-hour vehicle speed and vehicle volume data counts immediately east and west of the Ruby Street and Gertruda Avenue intersection over three consecutive days in February 2020. In addition, during the same assessment period, Staff conducted field observations, performed two speed surveys for vehicles entering the subject intersection, and solicited resident feedback with a questionnaire.

**ANALYSIS**

As part of the Assessment, staff conducted field observations and collected speed data and average daily traffic (ADT) volume data to thoroughly assess any changes in vehicle speeds and volume patterns as a result of the installation of the temporary traffic circle. The data collections occurred at various times during the Assessment. The speed data and ADT volume data were collected in 24-hour increments for three consecutive days from February 22-24 of this year. Vehicle speed surveys were performed by Staff on September 10, 2019 (approximately one month before installation of the temporary traffic circle), October 23, 2019 (approximately one month after installation of the temporary traffic circle) and on August 4, 2020 (approximately 10 months after the installation and during current COVID-19 related restrictions). Field observations were conducted throughout various times of the day following installation of the temporary traffic circle. The data breakdown, analysis and respective conclusions are described in the following sections.

As part of the Assessment, Staff also conducted a public survey by mailing questionnaires to residents that were considered to be within the general proximity of the temporary traffic circle. These included all residents on Gertruda Avenue one block north and south of the subject intersection, and all residents on Ruby Street one block east and west of the subject intersection. The questionnaires were mailed out in March 2020 and were due on May 6, 2020, providing the residents a sufficient response time.

**Speed Data**

Staff collected speed data along Ruby Street which included 85th percentile, average and max speeds. Staff has specifically focused on assessing the 85th percentile speeds as the average and max speeds generally do not appropriately describe a measurable method of speeds or their comparison along the roadway. The 85th percentile speed data for Ruby Street is summarized in the following table:

**Ruby Street Average 85% Speed Data**

|                     | ~1 Month Prior to Temporary Traffic Circle Installation <sup>1</sup> | ~1 Month After Temporary Traffic Circle Installation <sup>1</sup> | ~4 Months After Temporary Traffic Circle Installation <sup>1</sup> | ~10 Months After Temporary Traffic Circle Installation <sup>2</sup> |
|---------------------|--|---|--|---|
| <b>COUNT DATE:</b>  | September 10, 2019   | October 23, 2019  | February 22-24, 2020   | August 4, 2020  |
| Average 85th% Speed | 29 mph   | 21 mph  | 25 mph   | 25 mph  |

<sup>1</sup> Temporary traffic circle installed October 2019

<sup>2</sup> Speed data taken under COVID-19 restrictions

As the table shows, following the installation of the temporary traffic circle, the 85th percentile speed data saw a significant reduction throughout the duration of the assessment in comparison to prior to construction.

**Volume Data**

Staff also collected average ADT volumes as part of the six-month assessment to help identify any significant changes/impacts to vehicle volumes as a result of the temporary traffic circle construction. The average daily traffic volume comparison is summarized as:

**Ruby Street  
Average Daily Traffic Data <sup>1</sup>**

|                             | Prior to Temporary Traffic Circle Installation | ~4 Months After Temporary Traffic Circle Installation <sup>2</sup> |
|-----------------------------|--|--|
| <i>COUNT DATE:</i>          | <i>April 23-25, 2019</i>                       | <i>February 22-24, 2020</i>  |
| Average Daily Traffic (ADT) | 1,596 Vehicles                                 | 1,388 Vehicles   |

<sup>1</sup> Total average of vehicles traveling on roadway (eastbound and westbound).

<sup>2</sup> Temporary traffic circle installed October 2019

The ADT data shows a slight reduction in volumes along Ruby Street following the construction of the temporary traffic circle.

**Field Observations**

Staff conducted numerous field observations following the installation of the temporary traffic circle. Field observations showed that vehicles generally obeyed the turning movements that were created as a result of the temporary traffic circle installation. However, the following observations of inappropriate driver behavior were noted:

- Vehicles illegally turning left in front of the traffic circle
- Vehicles entering the traffic circle not yielding for vehicles already within the traffic circle
- Vehicles not yielding for pedestrians within the traffic circle

Occurrences of these inappropriate movements were found to be minimal and additional traffic enforcement and driver education may be used to help reduce the number of occurrences.

**Questionnaire**

The Temporary Traffic Circle Questionnaire was administered from March 2020 to May 6, 2020. A total of 77 questionnaires were mailed out to residents living one block in each direction of the subject intersection. Of the 77 questionnaires mailed out, 37 residents responded to the questionnaire to provide their input on the temporary traffic circle (48% response rate).

Of the 37 total resident responses: 13 residents (35%) preferred maintaining the existing configuration and desired construction of a permanent traffic circle, 6 residents (16%) preferred

reverting the intersection back to the original conditions through removal of the temporary traffic circle and re-installation of stop signs on Gertruda Avenue, and 18 residents (49%) preferred removing the temporary traffic circle and installing all-way stop controls. All submitted questionnaire responses along with a map showing residence location and responses is included in Attachment 2. Additional correspondence received from residents following the installation of the temporary traffic circle can be found in Attachment 3. Some specific resident responses are highlighted below:

- “Drivers seem to be more confused by traffic circle configuration. An all-way stop would be simple and safe”
- “Prior to the traffic circle we had 2 major accidents and a dog killed. Since the installation of traffic circle we have had none”
- “People do not understand traffic circle rules. Drivers on Ruby think they have the right-of-way no matter what, and that is untrue. If I am traveling northbound on Gertruda, and enter circle, traffic coming westbound on Ruby often honk at me, but I am already in the circle, and they should yield”
- “Roundabout too small to be effective”
- “Traffic speeds increased going up and down Ruby. I have almost been hit multiple times. Drivers do not understand how to use the circle... Drivers fly up Ruby and don’t even consider people in the circle”

Ultimately, the Assessment showed that the temporary traffic circle was effective in reducing the 85th percentile speed through the subject intersection. The Assessment also identified no collisions following the installation. However, the questionnaire responses show that most residents (65%) preferred the removal of the temporary traffic circle and either reverting the intersection back to original conditions or installing all-way stop controls.

Staff recommends the City Council provide direction regarding the removal of the traffic circle altogether, replacement of the temporary traffic circle with a more permanent installation, or installation of an all-way stop at the subject intersection.

### **COORDINATION**

All residents who originally received a questionnaire were notified of the City Council meeting. In addition, a correspondence was sent to the District 1 Council Member to request their assistance in helping to inform constituents of the discussion item.

### **FISCAL IMPACT**

Costs to install the various alternatives are as follows:

1. Traffic Circle Construction Alternative - Construction of permanent traffic circle - \$50,000 (lower, “non-permanent” cost alternatives available)
2. Revert to Original Conditions Alternative - Removal of temporary traffic circle and installation of stop controls on Gertruda Avenue - \$2,500

3. Removal of temporary traffic circle and installation of all-way stop controls - \$3,500

Funding for alternatives is available as part of the current Traffic Calming budget.

**APPROVED BY:**

*Joe Hoefgen, City Manager*

**ATTACHMENTS**

1. Public Works Commission Meeting 12-3-18 Minutes
2. Temporary Traffic Circle Questionnaire Response Map & Responses
3. Correspondence