

Traffic and Transportation Commission

May 20, 2024

Reports and Other Items
All Wards

III. Reports from Traffic Services Division and the Municipal Counselor's Office.

Report from staff:

- a) Commission-approved traffic signals for public funding
- b) Before-and-after speed cushion studies
- c) Alternative Speed Abatement Program (ASAP) program status
- d) Summary of administratively installed yield signs and parking restrictions



MEMORANDUM

The City of OKLAHOMA CITY

PUBLIC WORKS DEPARTMENT – TRAFFIC SERVICES DIVISION

TO : Traffic and Transportation Commissioners

FROM : Stuart Chai, P.E., City Traffic Engineer

DATE : May 20, 2024

RE : Commission-approved traffic signals for public funding

At the April 17, 2023, meeting, the Commission requested a monthly report on traffic signals approved and awaiting public funding. Traffic signals approved subject to private funding are not included.

Commission

| <u>Hearing Date</u> | <u>Ward</u> | <u>Location</u> |
|---------------------|-------------|--|
| February 19, 2024 | 3 | S Cemetery Road and SW 29 Street* |
| February 20, 2023 | 6 | S Walker Avenue and W California Avenue |
| February 20, 2023 | 6 | Dewey Avenue and W Sheridan Avenue |
| December 19, 2022 | 8 | Lone Oak Drive and NW 150 Street |
| December 19, 2022 | 7 | Traditions Lake Parkway/Oakmond Road and NW 150 Street* |
| September 19, 2022 | 5 | S Western Avenue and SW 107 Street* |
| July 19, 2022 | 8 | Redbreast Drive/Gambels Trail Drive and NW 150 Street* |
| July 19, 2021 | 6 | N May Avenue and NW 19 Street* |
| April 15, 2019 | 8 | Hidden Creek Boulevard and NW 122 Street* |
| March 18, 2019 | 8 | Fenwick Boulevard and NW 164 Street* |
| March 18, 2019 | 8 | N May Avenue and NW 192 Street |
| October 15, 2018 | 3 | Greenfield Center Drive and W Reno Avenue* |
| July 16, 2018 | 3/5 | I-44 and SW 119 Street interchange* |
| August 17, 2015 | 8 | Danforth Farms Boulevard/Dartmoor Boulevard and NW 192 Street |

Notes:

Asterisks (*) indicate locations where the Commission stipulated roadway improvements as an approval requirement.

Based on a recommendation from Public Works Director Eric Wenger to the City Manager, funding is being secured for four (4) signals (**highlighted above**). At its meeting on May 9, 2023, the City Council voted to provide \$1,200,000 from sales tax funds (Item XI.V.) for signal projects. Additionally, at the same meeting, the City Council voted to utilize American Rescue Plan Act (ARPA) of 2021 (ARPA) funding for various project (Item IX.BO.) and a portion of these funds will be put toward funding these signal projects. In the last week of January, Public Works contract administration staff met with the engineering consultant who will be preparing the construction documents for the four signals to negotiate contracts for design services.



MEMORANDUM

The City of OKLAHOMA CITY

PUBLIC WORKS DEPARTMENT – TRAFFIC SERVICES DIVISION

TO : Traffic and Transportation Commissioners

FROM : Stuart Chai, P.E., City Traffic Engineer

DATE : May 3, 2024

RE : Before-and-after speed cushion studies for:

1. Elmhurst Drive between Dorchester Drive and Greystone Avenue
2. NE 55 Street between N Everest Avenue and N Lottie Avenue
3. NW 59 Street between N Villa Avenue and Riviera Drive
4. SE 80 Street between Megan Drive and Dawn Circle
5. SW 38 Street between Lambeth Street and St Augustine Street

This memorandum summarizes speed studies on the referenced roadways before-and-after speed cushions were installed under the Alternative Speed Abatement Program (ASAP). The roadways sampled were selected because of their differing characteristics.

1. Elmhurst Drive between Dorchester Drive and Greystone Avenue

Elmhurst Drive is approximately a 22 foot wide, two-lane, two way, undivided roadway without curb. It is classified as a neighborhood street and has a 25 mph speed limit. A pre-installation speed study was conducted on April 17, 2023. The observed 50th and 85th percentile (%) speeds were 25 miles per hour (mph) and 30 mph, respectively. The highest observed speed before the speed cushion installation was 35 mph. A single speed cushion was placed on Elmhurst Drive on October 11, 2023. The post-installation speed study was conducted April 18, 2024, after the speed cushion had been in place for about six (6) months.

- Prior to installation, the 50th% speed was 25 mph. After installation, the 50th % speed to either side of the speed cushion ranged from 23 mph to 25 mph.
- Prior to installation, the 85th% speed was 30 mph. After installation, the 85th % speed to either side of the speed cushion ranged from 28 mph to 29 mph.
- Prior to installation, the highest observed speed was 35 mph. After installation, the highest observed speed away from the speed cushion was 33 mph.
- The 50th% and 85th% speeds at the speed cushion were 21 mph and 23 mph, respectively.

2. NE 55 Street between N Everest Avenue and N Lottie Avenue

NE 55 Street is a City standard 26 foot wide, two-lane, two way, curbed undivided roadway. It is classified as a minor connector street and has a 25 mph speed limit. A pre-installation speed study was conducted on April 17, 2023. The observed 50th and 85th% speeds were 25 mph and 33 mph, respectively. The highest observed speed before the speed cushion installation was 39 mph. A single speed cushion was placed on NE 55 Street on November 14, 2023. The post-installation speed study was conducted April 23, 2024, after the speed cushion had been in place for about five (5) months.

- Prior to installation, the 50th % speed was 25 mph. After installation, the 50th% speed to either side of the speed cushion ranged from 21 mph to 22 mph.
- Prior to installation, the 85th % speed was 33 mph. After installation, the 85th% speed to either side of the speed cushion ranged from 24 mph to 25 mph.
- Prior to installation, the highest observed speed was 39 mph. After installation, the highest observed speed away from the speed cushion was 27 mph.
- The 50th% and 85th% speeds at the speed cushion were 13 mph and 14 mph, respectively.

3. NW 59 Street between N Villa Avenue and Riviera Drive

NW 59 Street is a City standard 26 foot wide, two-lane, two way, curbed undivided roadway. It is classified as a minor connector street and has a 25 mph speed limit. A pre-installation speed study was conducted on October 16, 2023. The observed 50th and 85th% speeds were 22 miles per hour (mph) and 26 mph, respectively. The highest observed speed before the speed cushion installation was 32 mph. A single speed cushion was placed on NW 59 Street on January 31, 2024. The post-installation speed study was conducted April 18, 2024, after the speed cushion had been in place for about two and one-half (2-1/2) months.

- Prior to installation, the 50th % speed was 22 mph. After installation, the 50th % speed away from the speed cushion was 20 mph.
- Prior to installation, the 85th % speed was 26 mph. After installation, the 85th % speed away from the speed cushion was 23 mph.
- Prior to installation, the highest observed speed was 32 mph. After installation, the highest observed speed away from the speed cushion was 35 mph.
- The 50th% and 85th% speeds at the speed cushion were 15 mph and 20 mph, respectively.

4. SE 80 Street between Megan Drive and Dawn Circle

SE 80 Street is a 36 foot wide, two-lane, two way, curbed undivided roadway. It is classified as a neighborhood street and has a 25 mph speed limit. A pre-installation speed study was conducted on April 20, 2023. The observed 50th and 85th% speeds were 28 mph and 32 mph, respectively. The highest observed speed before speed cushion installation was 39 mph. A pair of speed cushions were placed on SE 80 Street on November 3, 2023. The post-installation speed study was conducted April 18, 2024, after the speed cushions had been in place for about five and one-half (5-1/2) months.

- Prior to installation, the 50th% speed was 28 mph. After installation, the 50th% speed between speed cushions was 20 mph.
- Prior to installation, the 85th% speed was 32 mph. After installation, the 85th% speed between speed cushions was 28 mph.
- Prior to installation, the highest observed speed was 39 mph. After installation, the highest observed speed away from the speed cushions was 29 mph.
- The 50th% and 85th% speeds at the speed cushions were 15 mph and 28 mph, respectively.

5. SW 38 Street between Lambeth Street and St Augustine Street

SW 38 Street is a City standard 26 foot wide, two-lane, two way, curbed undivided roadway. It is classified as a neighborhood street and has a 25 mph speed limit. A pre-installation speed study was conducted on April 19, 2023. The observed 50th and 85th% speeds were 24 mph and 29 mph,

respectively. The highest observed speed before speed cushion installation was 38 mph. A trio of speed cushions were placed on SW 38 Street on November 8, 2023. The post-installation speed study was conducted April 18, 2024, after the speed cushions had been in place for about five and one-half (5-1/2) months.

- Prior to installation, the 50th% speed was 24 mph. After installation, the 50th% speed between the sets of speed cushions averaged 15 mph.
- Prior to installation, the 85th% speed was 29 mph. After installation, the 85th% speed between the sets of speed cushions averaged 20 mph.
- Prior to installation, the highest observed speed was 38 mph. After installation, the highest observed speed away from the speed cushions was 27 mph.

General observations:

- Regardless of the number of cushions used, the 50th% speed away from the cushions was typically in the range of 20 mph to 25 mph.
- Speed cushions had a lesser influence on speed on roadways where the pre-installation 50th% speed was close to the posted speed limit and a greater influence on roadways where the 50th% speed was higher.
- In all but one case, the high speed following installation was lower. On 3 of 5 locations, the high speed was reduced by 10 or more mph. In one case, the high speed increased by 2 mph.

Due to low traffic volumes on the roadways evaluated, one-hour spot speed study sample sizes were small. The lowest sample size was 11 vehicles and the highest 66 vehicles. Statistically, larger sample sizes tend to provide more accurate average results. The results of the before-and-after spot speed studies do, however, indicate speed cushions whether used singly or in multiple sets do influence travel speeds in the immediate vicinity where they are used.

Their influence on driver route selection has not been assessed and is unknown at this point.



MEMORANDUM

The City of OKLAHOMA CITY

PUBLIC WORKS DEPARTMENT – TRAFFIC SERVICES DIVISION

TO : Traffic and Transportation Commissioners

FROM : Stuart Chai, P.E., City Traffic Engineer

DATE : May 10, 2024

RE : ASAP program status

As of April 5, 2024, speed abatement features have been installed on the following streets:

| | |
|-------------------|--|
| October 11, 2023 | One cushion placed on Elmhurst Avenue mid-way between Dorchester Drive and Greystone Avenue |
| November 3, 2023 | Two cushions placed on SE 80 Street between Megan Drive and Dawn Circle |
| November 8, 2023 | Three cushions placed on SW 38 Street between Lambeth Street and St Augustine Street. Due to the number of cushions, staff availability and tools on hand to complete the work, installation was completed on November 9. |
| November 14, 2023 | One cushion placed on NE 55 Street between N Everest Avenue and N Lottie Avenue. |
| November 15, 2023 | One driver speed feedback sign installed adjacent to 12701 Green Valley Drive . |
| November 16, 2023 | One cushion on NW 26 Street between N Harvard Avenue and N Windsor Place |
| November 29, 2023 | Two cushions on NW 36 Street between N Blackwelder Avenue and N Classen Boulevard |
| December 6, 2023 | One cushion on SW 166 Street between Serrano Drive and SW 167 Street |
| December 8, 2023 | Two cushions on NW 58 Place between N Ross Avenue and N Villa Avenue |
| January 31, 2024 | One cushion on NW 59 Street between N Villa Avenue and Riviera Drive |
| February 20, 2024 | Two cushions on SW 15 Street between S Douglas Avenue and S McKinley Avenue |
| March 5, 2024 | Two cushions on NW 5 Street between Prairie Hill Lane and Clementine Road |
| March 28, 2024 | One driver speed feedback sign at 6011 N Villa Avenue |
| March 28, 2024 | One driver speed feedback sign at 2429 NW 55 Terrace |
| April 4, 2024 | One cushion on Greystone Avenue between W Wilshire Boulevard and Somerset Place |
| April 18, 2024 | One cushion on N Blackwelder Avenue adjacent to 11100 N Blackwelder Avenue (between W Hefner Road and Morton Avenue) |

Completed applications with pending orders for speed abatement features:

- Two cushions on **NE 14 Street** between N Lincoln Boulevard and N Lindsay Avenue
- One cushion on **Pinehurst Road** between W Memorial Road and Inverness Avenue
- Two cushions on **SW 39 Street** between Lambeth Street and Augustine Street

As of the date of this report, a total of \$67,308.00 has been expended on the program, \$33,654.00 of which was from the initial \$50,000 matching funds allocated by the City Council leaving a matching fund balance of \$16,346.00.

Traffic and Transportation Commission

May 20, 2024

YIELD controls installed pursuant to
Traffic and Transportation Commission
standard operating policies and procedures
as amended December 21, 2009

The following is the list of locations where YIELD controls were installed in accordance with the Commission's standard operating policies and procedures.

| | |
|---------------------------------|--|
| Hawthorne Branch Dr & NW 193 St | Install north & south bound yield signs. |
| Baled Bermuda Rd & NE 105 St | Install a north bound yield sign. |
| Baled Bermuda Rd & NE 103 St | Install north & south bound yield signs. |
| Buffalo Wallow Rd & NE 103 St | Install north & south bound yield signs. |
| Buffalo Wallow Rd & NE 105 St | Install a north bound yield sign. |
| Castleberry Dr & NW 193 Ter | Install east & west bound yield signs. |
| Castleberry Dr & NW 193 St | Install east & west bound yield signs. |
| Castleberry Dr & NW 194 St | Install east & west bound yield signs. |
| Birchfield Dr & Castleberry Dr | Install a north bound yield sign. |
| Birchfield Dr & NW 194 St | Install a west bound yield sign. |
| Birchfield Dr & NW 193 St | Install a west bound yield sign. |
| Little Blue Ln & NE 105 St | Install a north bound yield sign. |
| Big Blue Dr & NE 103 St | Install east & west bound yield signs. |
| Big Blue Dr & NE 105 St | Install a north bound yield sign. |
| Harvey Ave & NW 61 St | Install east & west bound yield signs. |
| Taggert Dr & NW 195 St | Install north & south bound yield signs. |
| Cali Ct & NW 134 St | Install a south bound yield sign. |

PARKING restrictions installed pursuant to
Oklahoma City Ordinance #24,102 adopted by
the Oklahoma City Council on July 21, 2010.

The following is the list of locations where PARKING restrictions were installed in accordance with Ordinance #24,102: