

AGENDA ITEM #: _____

DATE: December 3, 2018

CAR #: 2018-6515

**CITY OF GOODYEAR
COUNCIL ACTION REPORT**

SUBJECT: Approve an enhanced traffic signal at Estrella Parkway and San Miguel Drive

STAFF PRESENTER: Rebecca Zook,
Engineering Director

CASE NUMBER: None

OTHER PRESENTER: None

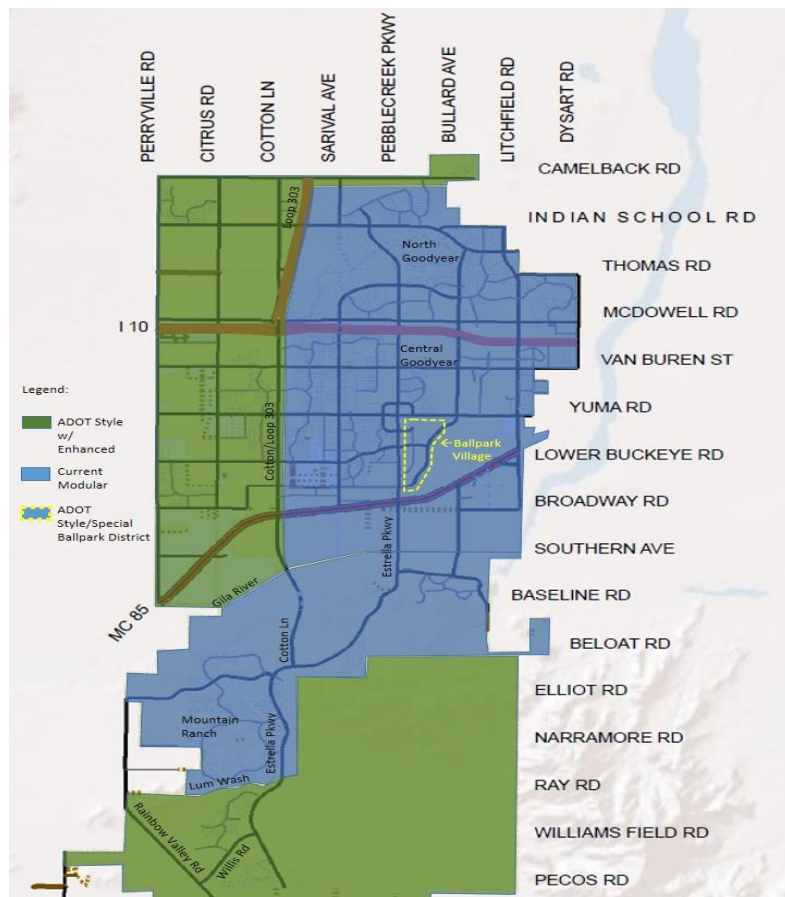
PROPOSED ACTION:

Approve utilizing an enhanced Arizona Department of Transportation style traffic signal at the intersection of Estrella Parkway and San Miguel Drive and related budget transfer if required.

BACKGROUND AND PREVIOUS ACTIONS:

On August 29, 2016 during a City Council Work Session Staff proposed and Council approved the use of enhanced Arizona Department of Transportation (ADOT) style traffic signal poles in certain areas throughout the city. Subsequent to the approval, the proposed change was incorporated into the City's Engineering Design Standards in August 2017.





A few months later on November 6, 2017, staff came back to Council requesting the use of an ADOT style pole in an area previously approved for a Goodyear modular traffic signal pole. The location in question was at the intersection of 135th Avenue and Thomas Road on our border with the city of Avondale. Due to the proximity of existing and proposed traffic signals along Thomas Road that did not utilize the modular design, Council approved the use of the enhanced ADOT style traffic signal. That signal was constructed and is in operation as of June, 2018.

STAFF ANALYSIS:

This fiscal year, we are anticipating the construction of three signals. The first two signals (146th & Camelback and Perryville & Indian School) were both approved as an enhanced ADOT style traffic signal per the original location map from Aug. 2016. The first signal at 146th & Camelback is currently under construction and is anticipated to be activated by June, 2019. The proposed signal at Perryville & Indian School is under design and is a joint venture between the City of Goodyear, Meritage Homes/Sedella and the County. The design involves the relocation of an APS line and coordination with the Maricopa Water District (MWD). The design and coordination efforts will continue into the 1st quarter of 2019 with an anticipated activation of the signal in the 3rd quarter of 2019.



The third warranted signal that will be constructed is at the intersection of San Miguel and Estrella in the community of Estrella Mountain Ranch. During the design phase, a deep waterline was identified along the western edge of Estrella Parkway that requires relocation. As indicated during the Aug. 2016 work session, the foundations for the modular poles are significant in size and depth and often result in impacts to the existing conditions. The placement of the signal pole is also limited by the maximum arm/cantilever length (due to weight). Based on the complexities of the design parameters including, but not limited to the size of the pole base, the allowable arm length and the utility relocation, staff analyzed three options for consideration by Council:

1. Install the Goodyear Modular Traffic Signal – Estimated at \$700,000
This option would result in a traffic signal per Aug. 2016 City standards, but includes significant cost due to the relocation of a deep ACP pipe. Arm length will not be sufficient to extend across all lanes of travel (maximum arm length 50’).
2. Modified Goodyear Modular Traffic Signal (+ median pole) – Estimated at \$550K
This option would place the pole on the southwest corner further from the street to avoid the existing utility conflicts, and would result in the addition of a pole (single upright) to be placed in the median. The additional pole in the median is required to ensure adequate visibility of signal heads to the driving public. Arm length will not be sufficient to extend across all lanes of travel.
3. Enhanced ADOT Style Traffic Signal – Estimated at \$400K
Construction of Enhanced ADOT style traffic signal per City standards can be completed without relocating utilities. Arm length will extend over all lanes of travel (maximum arm length 65’). This area of the City is not currently within the ADOT style signal boundaries, but is spaced approximately $\frac{3}{4}$ mile from the modular traffic signal in each direction to the north and the south.

In addition to the technical analysis, staff also reached out to Newland Communities regarding the installation of the signal at this intersection. Pete Teiche met with the team in the field and helped identify various options for consideration.

FISCAL ANALYSIS:

The San Miguel & Estrella Parkway traffic signal is budgeted in FY2019 at \$553,500 using 2014 Streets South Impact Fees.

The pre-audit FY2019 beginning fund balance plus year-to-date revenue through mid-November is \$708,000 and is adequate to cover any of the three proposed options.

If the first option for the Goodyear Modular Traffic signal is desired, approval of a \$146,500 budget transfer from Streets South Impact Fees will also be required.

RECOMMENDATION:

Based on the following criteria, staff recommends approving the use of an enhanced ADOT style traffic signal at Estrella Parkway and San Miguel Drive.

- Partnership and support from Newland Communities
- Construction timing and Cost associated with Utility relocation.
- Proximity (1 mile north) to approved boundary allowing use of enhance ADOT style traffic signal
- Visual mis-alignment of signal heads due to location of pole base

ATTACHMENTS:

None.