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DATE: October 21, 2020

TO: City of Salem Planning Department and Public Works Department

FROM: Tegan Enloe, PE / Enloe Consulting, LLC

SUBJECT: Mildred Ln at Liberty Rd Apartments

Background

In May of 2019, the applicant received approval for a zone change of their parcel located at 5871 Liberty Road S. As part of the zone change, the applicant provided a traffic impact analysis (TIA) prepared by ATEP dated March 5, 2019, and included for reference as **Attachment A**. The TIA prepared a “worst-case scenario” analysis of possible transportation network impacts associated with the zone change. This TIA was used to inform the land use process for the Transportation Planning Rule (TPR) and zone adjustment.

The applicant now seeks to develop the parcel with their proposed actual development, which will produce less trips than identified in the TPR TIA analysis done for the zone change. This traffic analysis identifies the trips associated with the proposed actual use and their distribution through the study network.

Trip Generation

The applicant seeks to develop the parcel located at 5871 Liberty Road S with 42 townhomes and 222 apartments. This will result in 264 multifamily housing units best approximated by the Institute of Transportation Engineers (ITE) Trip Generation Land Use Code of 221. This is significantly less multifamily units than what was evaluated in the TPR TIA, which assumed a worst-case scenario of 442 multifamily housing units (assumed as apartments). The proposed actual development would result in 89 AM and 113 PM peak hour trips as shown in **Table 1**. This is much less than the original analysis provided for the purposes of the TPR analysis, which showed that the 442 apartment units would produce 159 AM and 194 PM peak hour trips.

Table 1: Trip Generation

Land Use (ITE Codes)	Dwelling Units	Time Period	Trip Generation Rate	Peak Hour Trips		
				In	Out	Total
Multifamily Housing (Mid-Rise) (221)	264	AM Peak	89	23	66	89
TOTAL AM PEAK HOUR				23	66	89
Multifamily Housing (Mid-Rise) (221)	264	PM Peak	113	69	44	113
TOTAL PM PEAK HOUR				69	44	113

Trip Distribution

To better understand how the actual trips from the proposed development would impact the study area identified in the TPR TIA, these trips were distributed to the following study intersections:

1. Liberty Rd / Davis Rd
2. Davis Rd / Joynak St
3. Liberty Rd / Mildred Rd
5. Davis Rd / Red Leaf Rd
6. Skyline Rd / Davis Rd

Trips were routed through the study intersections using the distribution percentages approved for the TPR TIA, which include:

- Red Leaf Rd north of Davis Rd: 5%
- Liberty Rd north of Davis Rd: 60%
- Liberty Rd south of Mildred Ln: 10%
- Mildred Ln east of Liberty Rd: 25%

The resulting trip distribution by study intersection is shown in **Figures 1 and 2**.

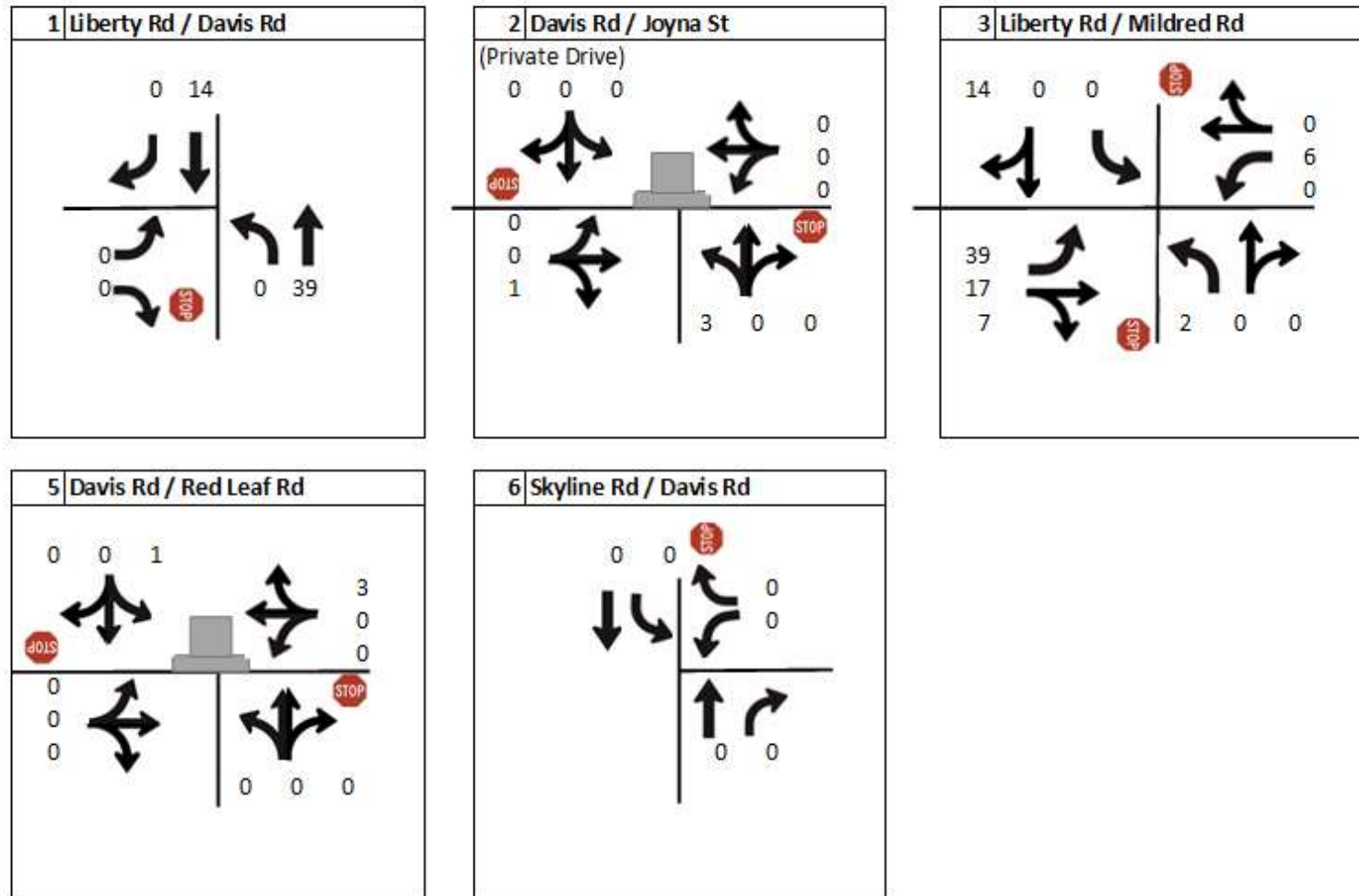


Figure 1: AM Trip Distribution

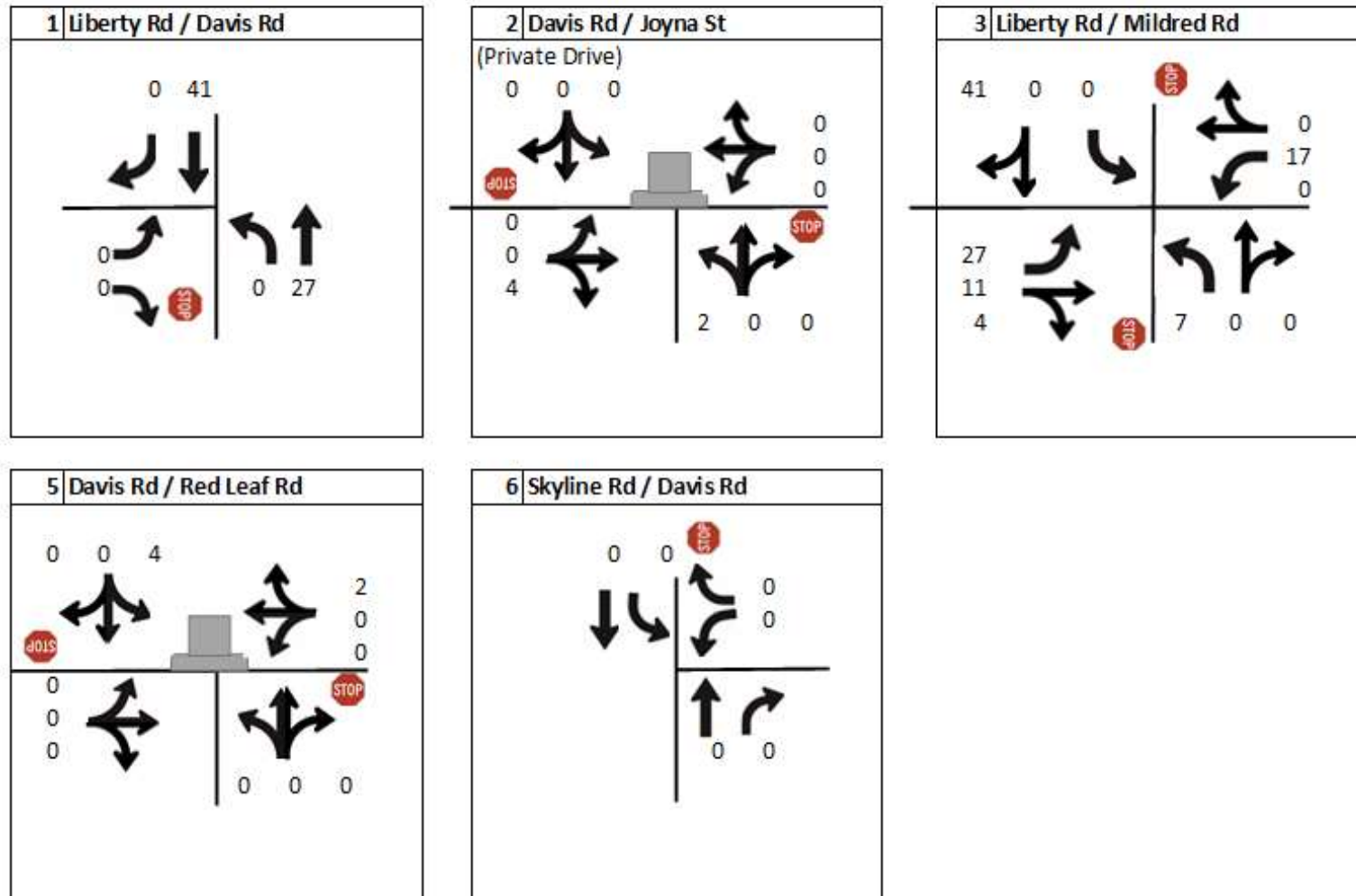


Figure 2: PM Trip Distribution



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Proportional Impacts

The proposed development will be built out and available for occupancy in 2022. The conditions of approval for the land use zone change identified the need for signalized intersections at Liberty Rd / Davis Rd and Liberty Rd / Mildred Rd. To better understand what proportion of trips the proposed actual development represents at these for opening year, the existing conditions intersection volumes from the TPR TIA were grown to the year 2022 using the previously approved annual growth rate of 3.4% applied linearly. **Table 2** outlines the resulting 2022 intersection volumes, site generated trips, and site generated proportional share.

Table 2: Proportional Calculations

#	Intersection	2022 Total Entering Volume	Site Generated Trips	Proportional Share
AM PEAK HOUR				
1	Liberty Rd / Davis Rd	1330	53	4%
3	Liberty Rd / Mildred Rd	877	85	10%
PM PEAK HOUR				
1	Liberty Rd / Davis Rd	1157	68	6%
3	Liberty Rd / Mildred Rd	1008	107	11%

Based on the analysis, the proposed development would contribute a maximum of 6% of the peak hour traffic at Liberty Rd / Davis Rd and 11% of peak hour traffic at Liberty Rd / Mildred Rd.

Attachment A:
Mildred Ln at Liberty Rd Apartments, March 2019 TIA