LANE CLOSURE WORKSHEET

DATE: **November 15, 2023**

FINANCIAL PROJECT ID: ***448938-1-52-01*** FEDERAL AID PROJECT NO: ***0000-000-A***

COUNTY: ***Hendry*** DESIGNER: ***Sarah Wright***

NO. OF EXISTING LANES: ***4*** LOCATION: ***NB SR 25 (US 27) from Stitt Ranch to***

SCOPE OF WORK: ***Mill and resurface, construct new guardrail, and minor cross slope correction.***

Calculate the peak hour traffic volume (V):

V = ATC ***13283*** X P/D ***0.076*** X D ***1.00*** X PSCF ***0.94*** X RTF ***1.00*** = ***945***

LANE CLOSURE CAPACITY TABLE

Capacity (C) of an Existing 2-Lane – Converted to 2-Way, 1-Lane = 1400 VPH
Capacity (C) of an Existing 4-Lane – Converted to 1-Way, 1-Lane = 1800 VPH
Capacity (C) of an Existing 6-Lane – Converted to 1-Way, 2-Lane = 3600 VPH
Capacity (C) of an Existing 8-Lane – Converted to 1-Way, 3-Lane = 5400 VPH
User Defined Capacity (C) of Existing 2-Lane - Converted to 2-Way, 1-Lane =
User Defined Capacity (C) of an Existing Multi-Lane - Converted to 1-Way, 1-Lane =

Factors restricting Capacity:

TLW ***11*** LC ***2*** WZL ***15840*** G/C ***0***

Calculate the Restricted Capacity (RC) at the Lane Closure Site by multiplying the appropriate 2L, 4L, or 6L Capacity (C) from the Table above by the Obstruction Factor (OF) and the Work Zone Factor (WZF). If the Lane Closure is through or within 600 ft. of a signalized intersection, multiply the RC by the G/C Ratio.

RC (Open Road) = C ***1800*** X OF ***0.9*** X WZF ***1.00*** = ***1620***

RC (Signalized) = RC (Open Road) ***1620*** X G/C ***0*** = ***0***

If V ≤ RC, there is no restriction on Lane Closure
If V > RC, calculate the hourly percentage of ADT at which Lane Closure will be permitted

$$\text{Open Road } \% = \frac{\text{RC (Open Road) } 1620}{(\text{ATC } 13283 \times \text{D } 1 \times \text{PSCF } 0.94 \times \text{RTF } 1)} = 12.97\ \%$$

Signalized % = Open Road % ***12.97*** X G/C ***0.00*** = ***0.00*** %

Plot 24 hour traffic to determine when Lane Closure permitted.

NOTE: For Existing 2-Lane Roadways, D = 1.00.
Work Zone Factor (WZF) applies only to 2-Lane Roadways.

For RTF< 1.00, briefly describe alternate route:

LANE CLOSURES

24 HOUR COUNTS

	AM Hourly Volume	ATC %	PM Hourly Volume	ATC %
12 - 1	142	1.1	777	5.8
1 - 2	75	0.6	772	5.8
2 - 3	72	0.5	843	6.3
3 - 4	116	0.9	943	7.1
4 - 5	197	1.5	965	7.3
5 - 6	363	2.7	1005	7.6
6 - 7	603	4.5	989	7.4
7 - 8	639	4.8	729	5.5
8 - 9	595	4.5	574	4.3
9 - 10	608	4.6	408	3.1
10 - 11	633	4.8	279	2.1
11 - 12	768	5.8	188	1.4
TOTAL	13,283	100		

COUNT DATE:

October 14, 2022

Designer:

Sarah Wright

Financial Project ID No.:

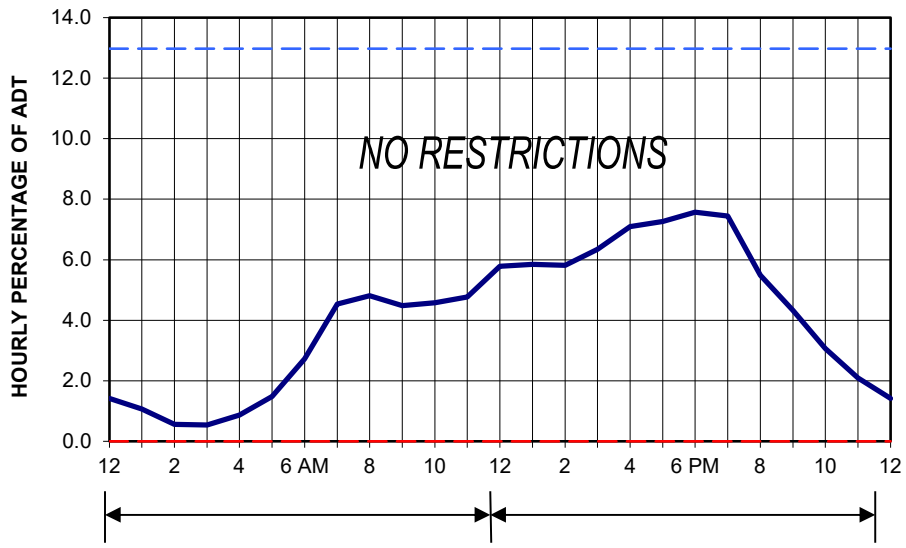
448938-1-52-01

Location:

NB SR 25 (US 27) from Stitt Ranch to Flaghole Rd

P/D = 0.076

HOURLY VARIATION OF DAILY TRAFFIC



- CONCLUSION -

ROUND TO THE NEAREST 1/2 HOUR CONSERVATIVELY

OPEN ROAD LANE CLOSURE

0:00 M to 0:00 M

SIGNALIZED LANE CLOSURE

0:00 M to 0:00 M