

September 7, 2016

Mr. Tim Miller, Administrator
City of Sonora
94 N. Washington Street
Sonora, CA 95370

**RE: PROPOSAL TO PROVIDE TRAFFIC ENGINEERING CONSULTANT SERVICES
RELATING TO ASSESSMENT OF DOWNTOWN STREET CLOSURES, SONORA, CA**

Dear Mr. Miller:

Thank you for contacting our firm regarding assessment of the impacts associated with several downtown street closures being considered by the City of Sonora. As we have discussed, the City is considering closing some lesser used streets that link Green Street, Washington Street and Stewart Street in the area north of the Stockton Street / Washington Street intersection in order to create opportunities to use the reclaimed rights of way for other purposes. However, the City is interested in identifying the consequences of closing portions of Linoberg Street and Theall Street on traffic circulation at other downtown locations and to identify the effects of closure on downtown parking. Typically, the effects of downtown street closures can involve longer travel times for patrons of some businesses and increased delays at other intersections due to increased traffic.

APPROACH

Our approach to addressing the City's questions would identify the amount and source of vehicular traffic now using these streets, redistribute traffic to new routes and quantitatively evaluate the effects of traffic diversion based on operating Level of Service at key locations. We will supplement traffic volume data already collected for the Tuolumne County RTP Update or Vision Sonora traffic study with new p.m. peak hour traffic counts. We will identify the change in local travel patterns created by street closures and identify resulting Levels of Service. We will qualitatively discuss the change in travel time experienced by displaced motorists. We will supplement parking utilization data available from the Vision Sonora report to describe the effects of eliminating parking spaces on streets to be closed. We will review available data regarding long term traffic conditions in the downtown area and qualitatively discuss the relative effects of street closures on future conditions, and we have offered the option of quantitative analysis of future conditions.

Two study options are available. The first option addresses three street closures. The second option is for a study addressing only the segment of Linoberg Street from Washington Street to Stewart Street.

SCOPE OF WORK – THREE SEGMENTS

Phase 1 – Background Data Collection / Evaluation

Task 1.1 – Initiation. KDA will meet with City staff to review the study area and to discuss key issues and assumptions relating to conditions in downtown Sonora.

Task 1.2 – Collect Traffic Count Data. Based on review of traffic counts from the Sonora Vision traffic study, the greatest traffic volumes occur on downtown streets during the p.m. peak hour (4:00 to 6:00 p.m.), and we will assemble a baseline of count data during that time period for the following eleven (11) intersections:

1. Washington Street (SR 49) / Bradford Street (Existing Count)
2. Washington Street / Linoberg Street
3. Washington Street / Theall Street
4. Washington Street / Stockton Street (Existing Count)
5. Washington Street / Church Street
6. So Green Street / Linoberg Street
7. Stewart Street / Bradford Street
8. Stewart Street Lyons Street
9. Stewart Street / Linoberg Street
10. Stewart Street / Theall Street
11. Stewart Street / Church Street

Task 1.3 – Assemble Parking Utilization Data. We will identify the number of parking spaces on affected streets and on the streets in the immediate vicinity of potential closures, including:

- a. Theall Street from Washington Street to Stewart Street
- b. Theall Street from Stewart Street to Shepherd Street
- c. Linoberg Street from North Street to So Green Street
- d. Linoberg Street from So Green Street to Washington Street
- e. Linoberg Street from Washington Street to Stewart Street
- f. Washington Street from Bradford Street to Linoberg Street (Vision Sonora data)
- g. Washington Street from Linoberg Street to Theall Street (Vision Sonora data)
- h. Washington Street from Theall Street to Stockton Street (Vision Sonora data)
- i. So Green Street from Bradford Street to Linoberg Street (Vision Sonora data)
- j. So Green Street from Linoberg Street to Stockton Street (Vision Sonora data)
- k. Stewart Street from Bradford Street to Linoberg Street (Vision Sonora data)
- l. Stewart Street from Linoberg Street to Theall Street (Vision Sonora data)
- m. Stewart Street from Theall Street to Mehun Street (Vision Sonora data)

We will use data reported in the Vision Sonora traffic study but monitor parking utilization on un-reported streets on a weekday at the following times:

- Morning (10:00 to 11:00 a.m.)
- Noon (12:00 to 1:00 p.m.)
- Mid-Afternoon (2:00 to 3:00 p.m.)

We will tabulate current parking occupancy on a block by block basis during those time periods.

Task 1.4 – Identify Current Intersection Operating Levels of Service. We will calculate the current operating Levels of Service at study area intersections based on HCM 2010 methodology.

KDA

Phase 2 – Evaluation of Traffic / Parking Impacts of Street Closure Alternatives

The extent to which individual street closures or combinations of closures could affect the operation of the area street system will be evaluated. The following scenarios will be addressed:

1. Theall Street closure alone
2. Linoberg Street closure from So Green Street to Washington Street
3. Linoberg Street closure from Washington Street to Stewart Street
4. All three closures

Task 2.1 – Identify Plus Project Traffic Patterns / Impacts. The turning movements occurring at intersections at the end of street closures will be reviewed and traced back to trip origin and forward to probable destinations to identify the probable redistribution of these trips. The net effect of implementing each scenario will be determined and “Existing Plus Project” traffic volumes will be used to calculate operating Levels of Service. The extent to which changes in current Level of Service represent a “significant” traffic impact under City significance criteria will be determined.

Task 2.2 – Identify Parking Impacts. The extent to which eliminating parking on closed streets would appreciably affect the use of adjoining parking areas will be quantified on a block by block basis. Resulting parking demands will be compared to industry standards for “full utilization” of on-street parking supplies (i.e., 85% occupancy is considered to be fully utilized).

Phase 3 – Evaluate Long Term Cumulative Impacts

A qualitative evaluation of the ramifications of the street closures will be provided based on information from the Tuolumne County RTP Update.

Task 3.1 – Assess Long Term Background Traffic Conditions in Study Area. Daily traffic volumes and intersection Levels of Service reported for Year 2040 conditions in the RTP will be discussed. The extent to which planned regional improvements and /or future county-wide growth will alter current traffic conditions will be determined from the RTP DEIR. Level of Service results from the RTP EIR at study intersections will be reported. Under our base proposal the relative effects of the alternative street closures on long term conditions in the area and the effects of street closures will be described qualitatively based on shorter term results, but “cumulative plus project” traffic volumes will not be created and Level of Service will not be calculated.

Task 3.2 – Quantitative Evaluation of Long Term Cumulative Impacts (Optional). If this optional task is created, long term background traffic volumes will be estimated for those locations not addressed in the RPT EIR, and the effects of street closures will be quantified. Level of Service will be reported with and without the alternative closure projects.

Phase 4 – Report Production / Presentation

Task 4.1 – Prepare Draft Report / Finalize. The background materials and results of our evaluation will be summarized in a written report to the City of Sonora. Applicable tabular materials and graphic

KDA

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A qualitative evaluation of the ramifications of the street closures will be provided based on information from the Tuolumne County RTP Update.

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Phase 4 – Report Production / Presentation

Task 4.1 – Prepare Draft Report / Finalize. The background materials and results of our evaluation will be summarized in a written report to the City of Sonora. Applicable tabular materials and graphic illustrations will be included. The report will be provided to the City in draft form, and we will make one revision in response to one consolidated set of City comments.

Task 4.2 – Meetings / Presentations (Optional). We will be available to attend a meeting with the City staff to review the report or to attend Planning Commission / City Council meetings. However, as the need for these services is unknown, this work is not included under our base budget and a cost “per meeting” has been identified.

SCHEDULE

We would anticipate completing this assignment and providing the City with our draft report within seven (7) weeks of receiving authorization to proceed.

BUDGET

The table that follows outlines our anticipated costs for this assessment. As noted, our base proposal cost for three (3) segments is \$8,350. If a quantitative analysis of cumulative conditions is required, the optional Task 3.2 would add \$1,800. Our cost per optional meeting in Sonora is \$900.

If only one segment of Linoberg Street is evaluated, then our base cost is \$4,800.

KDA

ASSESSMENT OF DOWNTOWN SONORA STREET CLOSURES THREE SEGMENTS BUDGET (9-6-2016)					
Task	Description	Personnel Hours			
		Principal Engineer	Field Technician	Clerical	Total
1.1	Initiation	6	0	0	6
1.2	Collect Traffic Count Data	1	27	0	28
1.3	Assemble Parking Utilization Data	1	6	0	7
1.4	Identify Current intersection Operating Levels of Service	6	0	0	6
2.1	Identify Plus Project Traffic Patterns / Impacts	16	0	0	16
2.2	Identify Parking Impacts	2	0	0	2
3.1	Assess Long Term Background Traffic Conditions - Qualitative	4	0	0	4
4.1	Prepare Draft Report / Finalize	6	0	8	14
	Total Labor Hours	42	33	8	83
	Billing Rates	\$150	\$50	\$50	
	Labor Cost	\$6,300	\$1,650	\$400	\$8,350.00
	Base Proposal Budget				\$8,350.00
3.2	Quantitative Cumulative Evaluation	12	0	0	\$1,800.00
4.2	Meetings / Presentations				\$900 each

ASSESSMENT OF DOWNTOWN SONORA STREET CLOSURES ONE LINOBERG SEGMENT BUDGET (9-6-2016)					
Task	Description	Personnel Hours			
		Principal Engineer	Field Technician	Clerical	Total
1.1	Initiation	6	0	0	6
1.2	Collect Traffic Count Data	1	18	0	19
1.4	Identify Current intersection Operating Levels of Service	3	0	0	3
2.1	Identify Plus Project Traffic Patterns / Impacts	4	0	0	4
3.1	Assess Long Term Background Traffic Conditions - Qualitative	4	0	0	4
4.1	Prepare Draft Report / Finalize	6	0	6	12
	Total Labor Hours	24	18	6	48
	Billing Rates	\$150	\$50	\$50	
	Labor Cost	\$3,600	\$ 900	\$300	\$4,800.00
	Base Proposal Budget				\$4,800.00
3.2	Quantitative Cumulative Evaluation	4	0	0	\$600.00
4.2	Meetings / Presentations				\$900 each

KDA

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City of Sonora
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Thank you for contacting our firm regarding this assignment. Please feel free to contact me if you have any questions or need more information.

Sincerely Yours,

KD Anderson & Associates, Inc.

A handwritten signature in black ink, appearing to read 'K. Anderson', with a long horizontal flourish extending to the right.

Kenneth D. Anderson, P.E.
President

Sonora Downtown Street Closures2.pro

KDA