

**AGREEMENT BETWEEN
CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY
AND
TJKM TRANSPORTATION CONSULTANTS**

This Agreement entered this _____th of _____ 2023, by and between the CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY, a joint powers agency whose members include the County of San Mateo and the twenty incorporated cities and towns within San Mateo County, hereinafter called “C/CAG,” and TJKM Transportation Consultants, hereinafter called “Consultant.”

WHEREAS, C/CAG is the designated Congestion Management Agency responsible for the development and implementation of the Congestion Management Program for San Mateo County; and

WHEREAS, the California Government Code requires Congestion Management Agencies to develop and monitor Congestion Management Programs; and

WHEREAS, C/CAG has determined that outside consulting services are needed for conducting the monitoring of the 2023 Congestion Management Program; and

WHEREAS, C/CAG selected TJKM Transportation Consultants through a competitive process to provide these services for the 2021 CMP monitoring; and

WHEREAS, C/CAG exercises the option to retain TJKM Transportation Consultants for the 2023 CMP update and monitoring.

WHEREAS, the Board of Directors of the City/County Association of Governments of San Mateo County authorized the Chair to execute an agreement with TJKM Transportation Consultants in the amount not to exceed \$141,624.

NOW, THEREFORE, IT IS HEREBY AGREED by the parties as follows:

1. **Services to be provided by Consultant.** In consideration of the payments hereinafter set forth, Consultant agrees to perform the services described in Exhibit B, attached hereto (the “Services”).
2. **Payments.** In consideration of Consultant providing the Services, C/CAG shall reimburse Consultant based on the fee schedule set forth in Exhibit A in an amount not to exceed one hundred forty one thousand and six hundred and twenty four dollars (\$141,624) for Services provided during the Contract Term as set forth below. Payments shall be made to Contractor monthly based on an acceptable invoice submitted by Contractor that identifies expenditures and describes services performed in accordance with the Agreement. C/CAG shall have the right to receive, upon request, documentation substantiating charges billed to C/CAG.

3. **Contract Materials.** At the end of this Agreement, or in the event of termination, all finished or unfinished documents, data, studies, maps, photographs, reports, and other written materials (collectively referred to as “contract materials”) prepared by Consultant under this Agreement shall become the property of C/CAG and shall be promptly delivered to C/CAG. Upon termination, Consultant may make and retain a copy of such contract materials if permitted by law.

However, notwithstanding any provision to the contrary in this Agreement, Consultant shall retain ownership and all rights in all inventions, improvements, discoveries, methodologies, models, formats, software, algorithms, processes, procedures, designs, specifications, findings, and other intellectual properties developed, gathered, or produced by Consultant prior to, or independently of, any of its services under this Agreement (“Pre-existing Materials”), including such Pre-existing Materials that Consultant may employ in the performance of this Agreement, or may incorporate into any part of the contract materials. Consultant grants C/CAG an irrevocable, non-exclusive, royalty-free license in perpetuity to use, disclose, derive from, and transfer such Pre-existing Materials, but only as an inseparable part of the contract materials. If any third-party content is incorporated into the contract materials, such third-party content shall not become the property of C/CAG. Consultant shall secure all licenses necessary for C/CAG to utilize Consultant’s services and the contract materials for their intended purposes.

Any unauthorized or unintended use, re-use, or modification by C/CAG of the contract materials, work product, services or deliverables prepared and provided by Consultant under this Agreement shall be at C/CAG’s sole risk and without liability to Consultant. Furthermore, in no event shall Consultant be responsible or liable for any losses or damages suffered by any person or third party as a result of their use of the contract materials, work product, services, or deliverables provided by Consultant to C/CAG under this Agreement. Nothing in this Agreement, express or implied, is intended to or shall confer upon any person or third party other than the parties to this Agreement any legal or equitable right, benefit or remedy of any nature under or by reason of this Agreement.

4. **Relationship of the Parties.** It is understood that Consultant is an Independent Consultant and this Agreement is not intended to, and shall not be construed to, create the relationship of agent, servant, employee, partnership, joint venture or association, or any other relationship whatsoever other than that of Independent Consultant.
5. **Non-Assignability.** Consultant shall not assign this Agreement or any portion thereof to a third party, or subcontract with a third party, without the prior written consent of the C/CAG Executive Director. Any such assignment or subcontract without the C/CAG Executive Director’s prior written consent shall give C/CAG the right to automatically and immediately terminate this Agreement without penalty or advance notice.
6. **Contract Term/Termination.** This Agreement shall be in effect as of _____, 2023 and shall terminate on March 31, 2024; provided, however, the C/CAG Chairperson

may terminate this Agreement at any time for any reason by providing 30 days' notice to Consultant. Termination will be effective on the date specified in the notice. In the event of termination under this paragraph, Consultant shall be paid for all services provided to the date of termination, subject to availability of funding. Such payment shall be that prorated portion of the full payment determined by comparing the work actually completed to the work required by the Agreement.

7. **Hold Harmless/Indemnity.**

- a. *General.* Consultant shall indemnify and save harmless C/CAG and its officers, agents, employees, and servants from all claims, suits, or actions of every name, kind, and description brought for, or on account of, any of the following: (A) injuries to or death of any person, including Consultant or its employees/officers/agents; (B) damage to any property of any kind whatsoever and to whomsoever belonging; (C) any sanctions, penalties, or claims of damages resulting from Consultant's failure to comply, if applicable, with the requirements set forth in the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and all Federal regulations promulgated thereunder, as amended; or (D) any other loss or cost, including but not limited to that caused by the concurrent active or passive negligence of C/CAG and/or its officers, agents, employees, or servants (collectively, "Claims") if such Claims arise out of Consultant's negligent performance of its services under this Agreement. However, Consultant's duty to indemnify and save harmless under this Section shall not apply to injuries or damage for which C/CAG has been found in a court of competent jurisdiction to be solely liable by reason of its own negligence or willful misconduct. The duty of Consultant to indemnify and save harmless as set forth by this Section shall include the duty to defend as set forth in Section 2778 of the California Civil Code.

The duty to indemnify and save harmless as set forth herein shall include the duty to defend as set forth in Section 2778 of the California Civil Code.

- b. *Intellectual Property.* Consultant hereby certifies that it owns, controls, and/or licenses and retains all right, title, and/or interest in and to any intellectual property it uses in relation to this Agreement, including the design, look, feel, features, source code, content, and/or other technology relating to any part of the services it provides under this Agreement and including all related patents, inventions, trademarks, and copyrights, all applications therefor, and all trade names, service marks, know how, and trade secrets (collectively referred to as "IP Rights") except as otherwise noted by this Agreement.

Consultant warrants that the services it provides under this Agreement do not infringe, violate, trespass, or constitute the unauthorized use or misappropriation of any IP Rights of any third party. Consultant shall defend, indemnify, and hold harmless C/CAG from and against all liabilities, costs, damages, losses, and expenses (including reasonable attorney fees) arising out of or related to any

claim by a third party that the services provided under this Agreement infringe or violate any third-party's IP Rights provided any such right is enforceable in the United States. Consultant's duty to defend, indemnify, and hold harmless under this Section applies only provided that: (a) C/CAG notifies Consultant promptly in writing of any notice of any such third-party claim; (b) C/CAG cooperates with Consultant, at Consultant's expense, in all reasonable respects in connection with the investigation and defense of any such third-party claim; (c) Consultant retains sole control of the defense of any action on any such claim and all negotiations for its settlement or compromise (provided Consultant shall not have the right to settle any criminal action, suit, or proceeding without C/CAG's prior written consent, not to be unreasonably withheld, and provided further that any settlement permitted under this Section shall not impose any financial or other obligation on C/CAG, impair any right of C/CAG, or contain any stipulation, admission, or acknowledgement of wrongdoing on the part of C/CAG without C/CAG's prior written consent, not to be unreasonably withheld); and (d) should services under this Agreement become, or in Consultant's opinion be likely to become, the subject of such a claim, or in the event such a third party claim or threatened claim causes C/CAG's reasonable use of the services under this Agreement to be seriously endangered or disrupted, Consultant shall, at Consultant's option and expense, either: (i) procure for C/CAG the right to continue using the services without infringement or (ii) replace or modify the services so that they become non-infringing but remain functionally equivalent.

Notwithstanding anything in this Section to the contrary, Consultant will have no obligation or liability to C/CAG under this Section to the extent any otherwise covered claim is based upon: (a) any aspects of the services under this Agreement which have been modified by or for C/CAG (other than modification performed by, or at the direction of, Consultant) in such a way as to cause the alleged infringement at issue; and/or (b) any aspects of the services under this Agreement which have been used by C/CAG in a manner prohibited by this Agreement.

The duty of Consultant to indemnify and save harmless as set forth by this Section shall include the duty to defend as set forth in Section 2778 of the California Civil Code.

8. **Insurance.**

- a. *General Requirements.* Consultant or its subconsultants performing the services on behalf of Consultant shall not commence work under this Agreement until all insurance required under this section has been obtained. Consultant shall use diligence to obtain such insurance. Consultant shall furnish C/CAG with Certificates of Insurance evidencing the required coverage and there shall be a specific contractual liability endorsement to the Comprehensive General Liability Insurance Policy extending Consultant's coverage to include the contractual liability assumed by Consultant pursuant to this Agreement. These Certificates shall specify or be endorsed to provide that thirty (30) days' notice must be given,

in writing, to C/CAG of any pending change in the limits of liability or of non-renewal, cancellation, or modification of the policy.

- b. *Workers' Compensation and Employer Liability Insurance.* Consultant shall have in effect, during the entire life of this Agreement, Workers' Compensation and Employer Liability Insurance providing full statutory coverage. In signing this Agreement, Consultant certifies, as required by Section 1861 of the California Labor Code, that (a) it is aware of the provisions of Section 3700 of the California Labor Code, which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of the Labor Code, and (b) it will comply with such provisions before commencing the performance of work under this Agreement.

- c. *Liability Insurance.* Consultant shall take out and maintain during the life of this Agreement such Bodily Injury Liability and Property Damage Liability Insurance as shall protect Consultant, its employees, officers and agents while performing work covered by this Agreement from any and all claims for damages for bodily injury, including accidental death, as well as any and all claims for property damage that may arise from Consultant's operations under this Agreement, other than consultant's professional services, whether such operations be by Consultant or by any sub-consultant or by anyone directly or indirectly employed by either of them. Such insurance shall be combined single limit bodily injury and property damage for each occurrence and shall be not less than \$1,000,000 unless another amount is specified below and shows approval by C/CAG Staff.

- d. *Insurance Limits; Insured Entities; Breach.* Required insurance shall include:

	Required Amount	Approval by C/CAG Staff if under \$ 1,000,000
1. Comprehensive General Liability	\$ 1,000,000	_____
2. Workers' Compensation	\$ Statutory	_____
3. Professional Liability	\$1,000,000	_____
4. Motor Vehicle Liability	\$1,000,000	_____

C/CAG and its officers, agents, employees and servants shall be named as additional insured on the Comprehensive General Liability policy of insurance, which shall also contain a provision that the insurance afforded thereby to C/CAG, its officers, agents, employees, and servants shall be primary insurance to the full limits of liability of the policy, and that if C/CAG, or its officers, agents, employees, and servants have other insurance against a loss covered by such a policy, such other insurance shall be excess insurance only.

In the event of the breach of any provision of this section, or in the event any notice is received which indicates any required insurance coverage will be

diminished or canceled, the C/CAG Chairperson, at his/her option, may, notwithstanding any other provision of this Agreement to the contrary, immediately declare a material breach of this Agreement and suspend all further work and payment pursuant to this Agreement.

9. **Compliance with All Laws.** Consultant shall at all times comply with all applicable federal, state, San Mateo County, and municipal laws, ordinances, and regulations, including without limitation those regarding services to disabled persons, including any requirements of Section 504 of the Rehabilitation Act of 1973. In the event of a conflict between the terms of this Agreement and any applicable State, Federal, San Mateo County, or municipal law or regulation, the requirements of the applicable law or regulation will take precedence over the requirements set forth in this Agreement. Consultant will timely and accurately complete, sign, and submit all necessary documentation of compliance.
10. **Non-discrimination.** Consultant and any subconsultants performing the services on behalf of Consultant shall not discriminate or permit discrimination against any person or group of persons on the basis of race, color, religion, national origin or ancestry, age, sex, sexual orientation, marital status, pregnancy, childbirth or related conditions, medical condition, mental or physical disability or veteran's status, or in any manner prohibited by federal, state or local laws.
11. **Substitutions.** If particular persons or classifications are identified in Exhibit A as working on this Agreement, Consultant will not assign others to work in their place without the prior written consent of the C/CAG Executive Director. Any substitution shall be with a person or classification of commensurate experience and knowledge unless otherwise authorized by the C/CAG Executive Director.
12. **Sole Property of C/CAG.** Work products of Consultant which are delivered under this Agreement or which are developed, produced and paid for under this Agreement, shall be and become the property of C/CAG, subject to the limitations in Section 3. of this Agreement regarding Consultant's Pre-Existing Materials and any third-party content that may be incorporated into Consultant's work product. Consultant shall not be liable for C/CAG's use, modification or re-use of products without Consultant's participation or for purpose other than those specifically intended pursuant to this Agreement.
13. **Agreement Renewal.** This Agreement may be renewed for an additional two years (additional 2-year cycle that includes services for the 2025 CMP's) upon the mutual agreements and approval by the C/CAG Board and Consultant.
14. **Record Retention; Right to Monitor and Audit.**
 - a. Consultant shall maintain all required records relating to services provided under this Agreement for three (3) years after C/CAG makes final payment and all other pending matters are closed, and Consultant shall be subject to the examination and/or audit by C/CAG, a Federal grantor agency, and the State of California.

- b. Consultant shall comply with all program and fiscal reporting requirements set forth by applicable Federal, State, and local agencies and as required by C/CAG.
 - c. Consultant agrees upon reasonable notice to provide to C/CAG, to any Federal or State department having monitoring or review authority, to C/CAG's authorized representative, and/or to any of their respective audit agencies access to and the right to examine all records and documents necessary to determine compliance with relevant Federal, State, and local statutes, rules, and regulations, to determine compliance with this Agreement, and to evaluate the quality, appropriateness, and timeliness of services performed.
15. **Permits/Licenses.** If any license, permit, or approval is required to perform the work or services required by this Agreement, Consultant bears the responsibility to obtain said license, permit, or approval from the relevant agency at Consultant's own expense prior to commencement of said work/services. Failure to do so will result in forfeit of any right to compensation under this Agreement.
16. **Merger Clause; Amendments.** This Agreement, including Exhibits A and B attached hereto and incorporated herein by reference, constitutes the sole agreement of the parties hereto with regard to the matters covered in this Agreement, and correctly states the rights, duties and obligations of each party as of the document's date. Any prior agreement, promises, negotiations or representations between the parties not expressly stated in this Agreement are not binding. All subsequent amendments shall be in writing and signed by the C/CAG Chair. In the event of a conflict between the terms, conditions or specifications set forth herein and those in Exhibit A or B attached hereto, the terms, conditions or specifications set forth herein shall prevail.
17. **Governing Law.** This Agreement shall be governed by the laws of the State of California, without regard to its choice of law rules, and any suit or action initiated by either party shall be brought in the County of San Mateo, California.
18. **Notices.** All notices hereby required under this agreement shall be in writing and delivered in person or sent by certified mail, postage prepaid and addressed as follows:

City/County Association of Governments of San Mateo County
555 County Center, 5th Floor
Redwood City, CA 94063
Attention: Jeffrey Lacap

Notices required to be given to Consultant shall be addressed as follows:

TJKM Transportation Consultants
4305 Hacienda Dr. Suite 550,
Pleasanton, CA 94588
Attention: Ruta Jariwala

IN WITNESS WHEREOF, the parties hereto have affixed their hands on the day and year first above written.

TJKM Transportation Consultants (Consultant)

By _____

Date

City/County Association of Governments of San Mateo County (C/CAG)

By _____
Davina Hurt
C/CAG Chair

Date

C/CAG Legal Counsel

By _____
Melissa D. Andrikopoulos, C/CAG Counsel

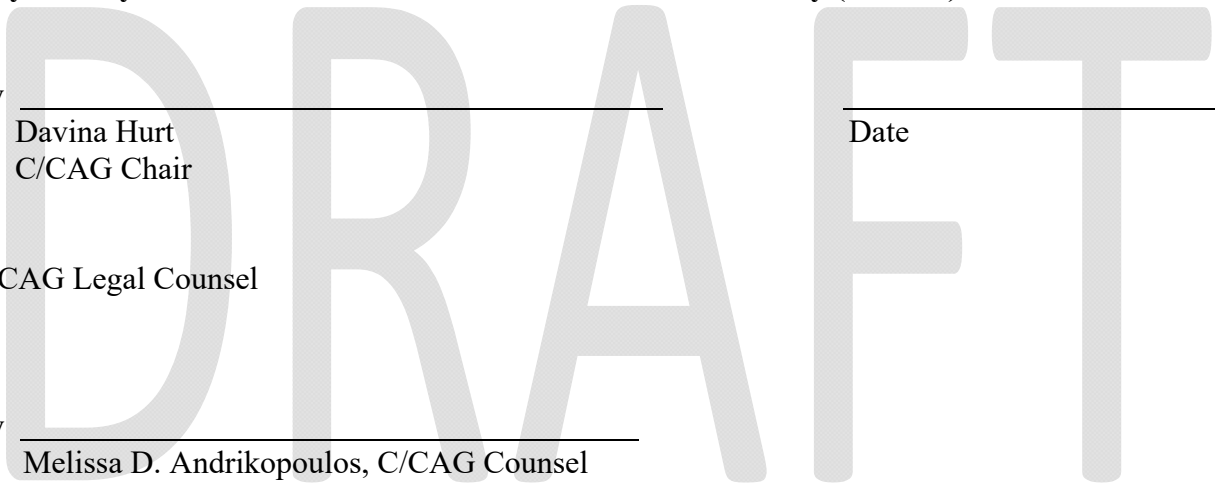


Exhibit A

CONSULTANT BILLING RATES

Hourly billing rates and staff for CONSULTANT and SUBCONSULTANT(S) are included on the following pages.

City/County Association of Governments of San Mateo County (C/CAG)
 Cost Proposal for San Mateo County Congestion Management Program 2023 Update
 Prepared by TJKM Transportation Consultants

Task	Ruta Jariwala	Sayed Fakhry	Ana Vickroy	Pranav Happa	Mitra Fakhry	Girish Basavaraj	Ana Dominduez	Hours by Task	Cost by Task
	Project Manager	QA/QC	Sr. Transportation Engineer	Task Lead	Asst. Transportation Engineer	Transportation Engineer	Graphics		
	Billing Rate	\$283.35	\$238.52	\$204.32	\$108.01	\$95.52	\$108.98		
Task 1: Project Management	13	0	13	0	0	0	0	26	\$ 6,339.71
1.1: Kick-Off Meeting	1		1					2	\$ 487.67
1.2: Monthly Meetings, Progress Reports & Invoices	12		12					24	\$ 5,852.04
Task 2: Companion Network	1	0	2	0	4	0	0	7	\$ 1,074.07
2.1: Confirm Companion Monitoring Network	1		2		4			7	\$ 1,074.07
Task 3: Prepare Monitoring Plan	6	2	18	0	22	0	10	58	\$ 9,050.94
3.1: Prepare Draft Monitoring Plan	4		10		12		6	32	\$ 4,979.60
3.2: Prepare Final Monitoring Plan	2	2	8		10		4	26	\$ 4,071.34
Task 4: Monitor & Analyze the CMP Network & Companion Network	12	8	45	76	129	120	0	390	\$ 48,111.20
4.1: Data Collection	4		8		25	16		53	\$ 6,899.64
4.2: QA/QC & Error Checking	4	4	12	24	24	24		92	\$ 12,039.56
4.3: Analyze Status of CMP Network & Companion Network	4	4	25	52	80	80		245	\$ 29,172.00
Task 5: Prepare CMP Monitoring Report	6	3	41	13	56	40	20	179	\$ 24,094.43
5.1: Draft CMP Monitoring Report	4	1	25	8	40	20	16	114	\$ 15,095.76
5.2: Final CMP Monitoring Report	2	2	16	5	16	20	4	65	\$ 8,998.67
Task 6: Development of the 2021 CMP Document	8	4	52	8	56	16	16	160	\$ 23,553.76
6.1: Prepare Final CMP Document	4		32	4	32	8	12	92	\$ 13,345.68
6.2: Finalize CMP Document & Committee/Board Presentations	4	4	20	4	24	8	4	68	\$ 10,208.08
Sub-Total	46	17	171	97	267	176	46	820	\$ 112,224.11
Direct Cost									
Mileage									\$ 1,000.00
Data Collection									\$ 32,000.00
Total									\$ 145,224.11

Exhibit B

SCOPE OF WORK

TJKM Transportation Consultants is pleased to submit our Scope of Work, Level of Effort and Schedule to C/CAG to update the Congestion Management Program for 2023.

SCOPE OF WORK

TJKM will update the Congestion Management Program for 2023 as noted below.

Task 1: Project Management

Under this task, TJKM will host a kick-off meeting, and provide monthly updates through check-in calls and progress reports with our invoices.

SUBTASK 1.1 KICK-OFF MEETING

Within a week of notice-to-proceed, TJKM will host a virtual kick-off meeting with C/CAG staff, and other stakeholders as requested by C/CAG. The purpose of the meeting will be to:

- Confirm the scope of work and data collection needs;
- Finalize the timeline and project milestones; and
- Establish communication protocols.

TJKM will prepare meeting materials including an agenda, PowerPoint presentations, and summarize meeting notes with action items.

SUBTASK 1.2 MONTHLY MEETINGS, PROGRESS REPORTS, & INVOICES

Throughout the life of the project, TJKM's Project Manager will host monthly status update meetings (virtually) to discuss project progress. For each meeting, TJKM will prepare meeting agendas and summary notes. Additionally, the TJKM Team will prepare monthly status reports detailing work completed, progress on the schedule, and current project budget.

Under this task, TJKM will also provide C/CAG with monthly invoices, to accompany the monthly status reports.

Task 1 Deliverables

- ✓ *Kick-Off Meeting Agenda, Meeting Minutes, and Action Items*
- ✓ *Monthly Meeting Agendas and Notes, Progress Reports, and Invoices*

Task 2: Companion Monitoring Network

C/CAG is to be commended for going above and beyond the typical scope of the CMP by developing a Companion Monitoring Network. As part of this task, the TJKM Team will work with C/CAG staff to confirm that no changes are required to the Companion Monitoring Network developed in the last cycle, before proceeding with the network analysis.

SUBTASK 2.1 CONFIRM COMPANION MONITORING NETWORK ANALYSIS

Based on direction from C/CAG staff, TJKM will finalize the Companion Monitoring Network. All locations in the network will be included in the Monitoring Report, and will be monitored alongside the CMP network. The results of the monitoring effort will be reported in the 2023 CMP Update.

Task 2 Deliverables

✓ *Final Companion Monitoring Network*

Task 3: Prepare Monitoring Plan

Under this task, our team will prepare a Monitoring Plan that outlines all data collection tasks, along with collection methodologies and schedules. This will allow the team and C/CAG staff to confirm any assumptions prior to proceeding with data collection.

SUBTASK 3.1 PREPARE DRAFT MONITORING PLAN

Under this subtask, TJKM will prepare a draft plan for collecting auto travel data at the locations defined in the San Mateo County CMP Network per the 2021 CMP Update. It is TJKM's understanding that C/CAG monitors 163.3 miles of freeways and 301.4 miles of arterials/state routes (53 roadway segments in total), and 16 intersections across San Mateo County. In the 2021 CMP Update, data collection included the use of INRIX data, 72-hour ADT counts at 25 locations, HOV lane travel time runs on US-101, and turning movement counts at 16 intersections, with the addition of the new Companion Monitoring Network. It is expected that a similar data collection suite will be employed for the 2023 CMP Update. TJKM will work with our data collection vendor, IDAX, to prepare a Monitoring Plan that will detail the methods by which data will be collected, where it will be collected, and the timeline for data collection.



Our Monitoring Plan will also be based on review of available data from INRIX. The resulting real-time data in INRIX takes three forms: pure archival/historical data (least reliable), pure real-time data (most reliable), and a hybrid of the two. To ensure statistical significance, TJKM will make sure that only the data assigned a statistical confidence interval of score over 90 percent is used as part of the data collection. TJKM will document the following in the Draft Monitoring Plan:

- Methods to be employed to monitor the CMP Network, including discussion of the statistical validity of all proposed data collection methods.
- Methods to monitor the new Companion Network: 10 roadway segments will be monitored similarly to the arterials/highways in the CMP network, thus requiring 72-hour ADT counts, but we will consult with C/CAG staff prior to proceeding. Turning movement counts at the 17 Companion intersections will be conducted just as they are with the CMP intersections.
- Consulting other sources of data: we will consult with C/CAG to see if there is traffic data already available from Caltrans or the member agencies that we can utilize to reduce data collection

needs.

-
- Vehicle traffic count collection methods, including video recordings, automated roadway segment tube counts, and use of commercially available INRIX data. TJKM will identify all cost-effective improvements available to C/CAG through review of past monitoring efforts and our experience with using currently available technologies and methods.
- Routes and locations on which the above methods will be employed.
- Vehicle travel time collection methods, including floating car runs for the US-101 HOV lane.
- Transit Ridership Data Collection from BART, Caltrain, and SamTrans.
- Methodology to monitor LOS on the CMP network.
- Potential improvements to previous CMP Monitoring Reports and methodologies that provide improved metrics for CMP Network performance, including the incorporation of VMT data.
- Data collection plan and schedule.
- Quality Assurance/Quality Control (QA/QC) plan for collected data.

SUBTASK 3.2 FINAL MONITORING PLAN

TJKM will present the Draft Monitoring Plan to C/CAG staff for review. Based on comments and direction received, we will prepare a Final Monitoring Plan. It will then serve as a guide to complete Task 4.

Task 3 Deliverables

✓ *Draft and Final Monitoring Plan*

Task 4: Monitor & Analyze the CMP Network & Companion Network

After finalizing the Monitoring Plan, the TJKM Team will begin the work to collect data and perform the analysis of the CMP and Companion networks.

SUBTASK 4.1 DATA COLLECTION

One of the primary goals of the CMP Update is to monitor the LOS on 53 roadway segments and at 16 intersections across San Mateo County that are bi-annually monitored for CMP conformance. Based on the Final Monitoring Plan developed under Task 3, TJKM will conduct data collection and monitoring of the CMP network under this task. All data collection will be conducted in Spring 2023 during mid-week days (Tuesday-Thursday) when schools are in session to remain consistent with past monitoring cycles. Our team has worked together on several other CMP Monitoring projects and the previous C/CAG CMP effort and is prepared to bring our expertise to C/CAG. The data collection will consist of the following:

INRIX Data: Per the 2021 Monitoring Report Executive Summary, C/CAG utilized INRIX XD data to monitor 163.3 directional miles of freeways and arterials. As part of this task, the team will acquire INRIX XD data to collect average speed data for these segments, ensuring that all data points are derived from observed, real time sources. We have strong background using INRIX XD for the Transportation

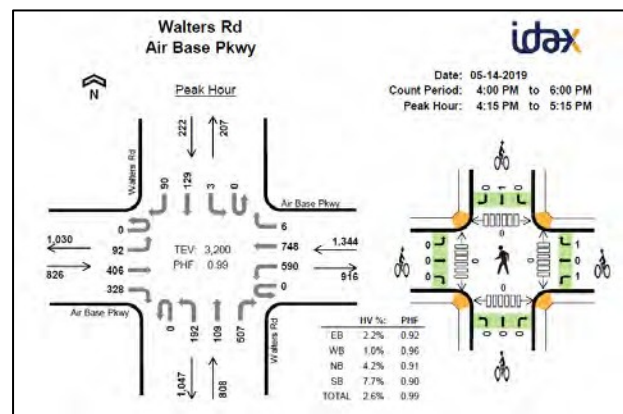


Authority of Marin and the Solano Transportation Authority CMP updates. INRIX XD segments cover more miles of road than TMC segments with greater granularity, and with the ability to adapt more quickly to the CMP network. INRIX XD will also provide information on incidents and reasons of slowdowns during any particular day. To use INRIX XD in collecting commercial auto speed data, the CMP network would be mapped and labeled in the web-based application tool and dates would be set to corresponding date and time for which data collection effort in real time would be made. Granularity by minutes or hours can then provide information regarding speed, travel time, congestion scan and bottlenecks with real time information on impact factors which can be downloaded in the form of Excel spreadsheets and visual diagrams.

72-Hour ADT Counts: The team will conduct directional 72-hour ADT counts for 25 locations, representing 301.4 miles of arterials/highways. The counts will be conducted using Metrocount MC5600 Portable Tube Classifiers, which stores every axle hit and operate with MTEExec software to provide outputs of speed, classification, and volume data. The counters record directional traffic volumes in 15-minute increments, and can be downloaded by a technician in the field (while not interrupting the study) to ensure a successful collection. If utilizing tubes becomes an issue due to high speeds, the team can deploy Wavetronix cameras to ensure a smooth data collection.

- **Intersection Turning Movement Count:**

Intersection TMCs will be conducted with video at all 16 CMP intersections and 17 Companion Monitoring Network intersections during the peak AM period (7 AM-9 AM) and peak PM period (4 PM-6 PM) as noted in the 2021 Monitoring Report. Our team has a vast amount of experience with industry-leading equipment and the proper ways to deploy it in order to accurately collect TMC. We only utilize the highest



quality video collection units and the best reduction techniques and partners to accurately record and process the data. Both TJKM and IDAX have worked together conducting data collection for the Transportation Authority of Marin’s CMP Monitoring Report for the last three cycles. Prior to collecting any turning movement count data, IDAX will verify the orientation of each intersection to ensure that it matches 2021 data. The turning movements will also capture bicycles and pedestrians, and will separate out heavy vehicles.

- **HOV Travel Time Runs:** In order to analyze multi-modal travel times along the US-101 corridor, the team will conduct travel time runs in the HOV lane on US-101 between the Santa Clara County line and North of San Francisco. A minimum of five runs per direction will be completed in both the AM (7 AM-9 AM) and PM peak periods (4 PM-6 PM).
- **Transit Ridership Data:** TJKM will obtain ridership data for BART (stations within San Mateo County), Caltrain, and SamTrans, either through online resources or by consulting with staff at these agencies.

DATA ACCESS

All collection types Start Date End Date Search for intersection 3 studies at 1 location selected

Streets	Client	Study	Data Source	Date(s)	Interval(s)
Moffett Boulevard; Central Expressway		18249	Turning Movement Counts	2018-11-1	Other
Export Options					
195(5308).xlsx			Excel File	71 KB	Inquire
195(5308)_PM.pdf			PDF File	170 KB	Inquire
195(5308)_PM.xlsx			Excel File	169 KB	Inquire
Moffett Boulevard; Central Expressway	TJKM	18137	Turning Movement Counts	2018-5-8	Other
Export Options					
1.xlsx			Excel File	65 KB	Download
1_AM.pdf			PDF File	244 KB	Download
1_AM.xlsx			Excel File	83 KB	Download

Additionally, the TJKM Team is excited to introduce a new data platform for the CMP data collection effort that will be accessible for the life of the contract. The current situation with COVID-19 has stressed the importance of understanding, organizing, and standardizing the vast amounts of transportation and mobility data currently available. To assist C/CAG in mitigating the issues surrounding data organization, the TJKM Team will provide all new data we collect in a data warehouse via web

Interface, something our team has developed for Santa Clara County Valley Transportation Authority. Access will be provided to an unlimited number of users within C/CAG. C/CAG will be able to view points for data that is owned internally. Additional data feeds can be ingested and stored within the warehouse including travel times, parking data, transit data, and additional volume data. Data other than what the TJKM Team has or will collect for C/CAG would incur a fee to ingest and store.

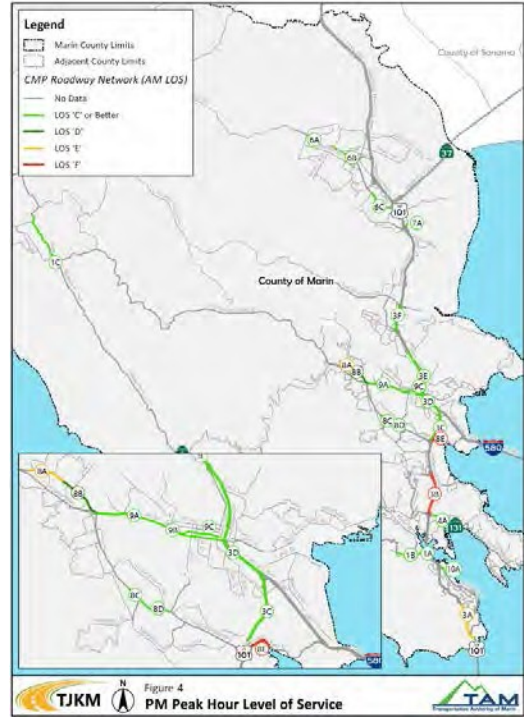
SUBTASK 4.2 QA/QC & ERROR CHECKING

After completing data collection; the TJKM Team will first ensure that all data is checked for accuracy before proceeding with the LOS analysis. In addition IDAX's QA/QC process to ensure the data is free of errors, TJKM will create tables to compare volumes and average travel speeds with data collected in 2021. The effects of the COVID-19 pandemic must be taken into account when comparing volumes from 2021 to 2023, as traffic levels may or may not have reached pre-pandemic levels. The team, in consultation with C/CAG staff, will also check if there are any nearby new developments that may have caused the change in traffic levels. Beyond that, TJKM will also consider any qualitative reasons for the change in volumes, such as any nearby improvements, effectiveness of TDM programs, HOV lanes, transit usage, etc. The final error checking will occur when the LOS is calculated for 2023 and compared to 2021. The tables created as part of the QA/QC process will later be used in the 2023 Monitoring Report to illustrate the effects of the COVID-19 pandemic on traffic in San Mateo County.

SUBTASK 4.3 ANALYZE STATUS OF CMP NETWORK & COMPANION NETWORK

Once the data is collected and QA/QC is performed, the team will calculate the LOS for all roadway segments and intersections in the CMP and Companion Networks to determine their current status. The analysis will be performed per the methodologies and performance measures established in the Final Monitoring Plan prepared under Task 2. TJKM understands based on the 2021 Monitoring Report that roadway segment LOS is calculated based on either average speed (freeways) or V/C ratio (multi-lane, two-lane, and arterial segments). Intersection LOS is calculated based on turning movement volumes, and will be analyzed using Synchro software.

TJKM will prepare tables showing 2023 LOS for both the AM and PM peak period, as well as a second table comparing the LOS with previous monitoring cycles using the worst case peak period for each location. Intersection LOS tables will show AM and PM peak period LOS for 2023 and compared with previous cycles. For CMP segments found to have an LOS below the established standard, interregional trips will be removed as allowed by CMP statute. Interregional travel is defined as trips that either begin/end outside San Mateo County, or that begin outside the county but end in San Mateo County. The countywide travel demand model will be used to determine the proportion of the segment's volume that is estimated to include interregional travel. Once the reductions are made, the segment's LOS will be recalculated to determine if any deficient segments remain. The team will also prepare maps showing the results of the LOS analysis, and turn the shapefiles with LOS results, average speeds, and volumes over to C/CAG.



As a value added task, TJKM will prepare Travel Time Reliability charts for each freeway in San Mateo County using available data. Our team has completed this task for both Marin County and Solano County on US-101 and I-80 respectively, and will complete one chart for each freeway spanning its entire length. The chart will show the 95th percentile travel time along the corridor for each hour from 5 AM–9 PM, compared to free flow travel time.

Additionally, **as an added value task**, the TJKM Team will utilize the shapefiles developed as part of this project to create an **interactive ArcGIS Online map** that shows the historical LOS of each C/CAG roadway segment and intersection. The purpose of including an interactive map is to allow C/CAG to quickly understand historical trends across the region or down to a specific segment/intersection. The map could also be shared with stakeholders or the general public, if desired.

Task 4 Deliverables

- ✓ *Electronic data files for: INRIX data; 72-hour ADT counts at 25 CMP locations and 10 Companion network locations; Intersection TMCs at 16 CMP intersections and 17 Companion network intersections; HOV travel time runs on US-101*
- ✓ *LOS analysis results with tables and maps*
- ✓ *Interactive online GIS map showing historical LOS results; GIS shapefiles*

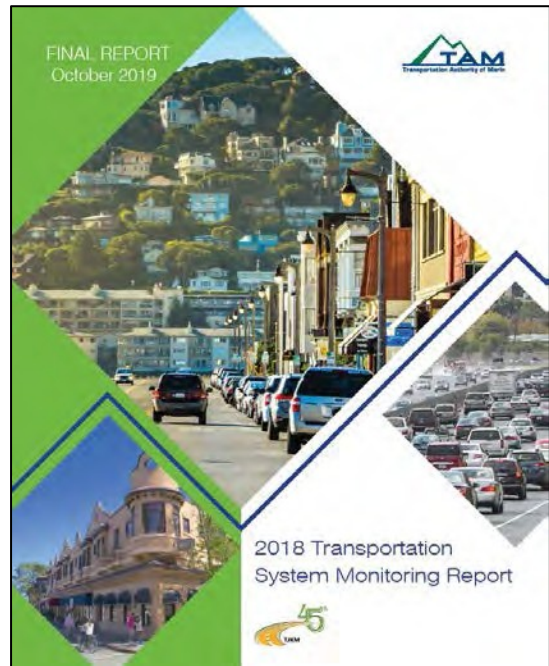
Task 5: Prepare CMP Monitoring Report

As part of this task, the results of the CMP monitoring effort will be summarized into a Draft and Final CMP Monitoring Report.

SUBTASK 5.1 DRAFT CMP MONITORING REPORT

TJKM will prepare and provide a Draft Monitoring Report for C/CAG staff review that incorporates the following elements:

- Introduction.
- Purpose and description of the monitoring program.
- Description of the Monitoring Program, including an explanation of methodologies for collecting and analyzing data.
- Monitoring results for the CMP Network and Companion Monitoring Network, including tables/maps showing 2023 LOS and comparing them with previous cycles.
- Actions identifying study locations per different levels according to their current status and actions to maintain or improve each level including the actions that have already been taken by different agencies to address the problems.
- Comparison of 2021 and 2023 Monitoring Report to highlight the impacts of the COVID-19 pandemic.
- Multi-modal Performance Measures: Travel times for various modes on US-101, bicycle/pedestrian improvements, and ridership/person throughput for transit.
- Appendix of all the raw data collection documents for the project.



The description of the monitoring program will include discussion on the methodologies used to collect data and to analyze study results. Graphics for the report will include figures that show where data has been collected, identify days and times of collection, location of segments that are grandfathered and/or exceeding established LOS standards, and related information.

The Draft Monitoring Report will also detail actions, such as roadway, transit, or other improvements, that can address previously or newly deficient LOS on roadway segments, including those already being undertaken by different agencies. All collected vehicle, bicycle, and pedestrian counts, and travel time runs will be documented in an Appendix. Consistent with past reports, the Draft Monitoring Report will document results based on the following performance measures established in the CMP:

- Roadway Level of Service
 - Travel Time – Average Speed
 - 72-hour traffic counts – V/C for rural arterials
- Intersection Level of Service
- Travel Time for various modes (single occupant, carpools, and transit)
- Pedestrian and Bicycle Improvements
- Ridership/Person Throughput for Transit

SUBTASK 5.2 FINAL CMP MONITORING REPORT

TJKM will meet with C/CAG staff to discuss and review the results of the Draft Monitoring Report. Following this meeting, TJKM will incorporate staff comments into a Final Monitoring Report for C/CAG staff use.

Task 5 Deliverables

✓ *Draft and Final CMP Monitoring Report*

Task 6: Development of 2023 CMP Document

As part of this task, the results of the CMP monitoring effort will be summarized into a Draft and Final CMP Monitoring Report.

SUBTASK 6.1 PREPARE FINAL CMP DOCUMENT

The 2023 CMP Update will be developed in accordance with MTC's guidance for Consistency of Congestion Management Programs with Regional Transportation Plan (RTP). Our approach for each section of the CMP is discussed below:

Executive Summary

The Executive Summary will provide an overview of the CMP document and summarize notable results.

Chapter 1: Designated Roadway System

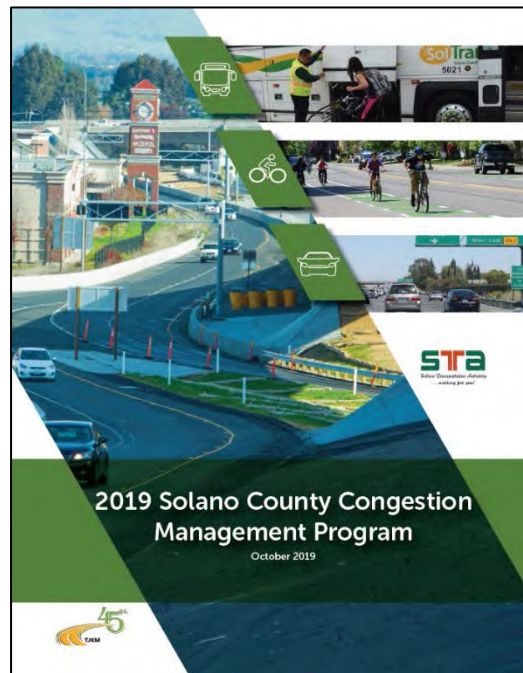
This chapter will include a brief discussion of the purpose of the CMP, legislative requirements, and the organization of the CMP.

Chapter 2: Designated Roadway System

The CMP legislation requires that all state highways and principal arterial roadways be included in the roadway network for analysis, and once a highway or roadway has been designated as part of the system, it may not be removed. In total, the San Mateo County CMP network includes 163.3 miles of freeway, 301.4 miles of arterials/state routes (broken into 53 segments), and 16 intersections. Chapter 1 will include a table of the CMP segments/intersections, and a map. A map and table detailing the segments/intersections of the Companion Monitoring Network will also be included.

Chapter 3: CMP System Performance

Under this section, the LOS standard for each CMP roadway segment and intersection will be defined. TJKM will include a discussion of alternate CMP System Performance Measures, such as LOS, VMT, and Vehicle Hours Delayed for traffic congestion and travel time reliability. Utilizing the information from the Monitoring Report, we will report on the status of the countywide CMP network and Companion Monitoring Network, noting any CMP segments with deficient LOS (Companion Network is presented for informational purposes only as it is not subject to CMP statute).



Chapter 4: Multi-Modal System Performance

C/CAG has selected four performance measures to be reported in the CMP:

- Level of Service
- Travel times from single-occupant automobiles, carpools, and transit
- Pedestrian and Bicycle Improvements
- Ridership/Person Throughout for Transit

Based on the information from the Monitoring Report, TJKM will provide a discussion of the status of the countywide transportation network based on each of these performance metrics. It will include a report of travel times by mode on US-101, a discussion of available bicycle and pedestrian facilities, and ridership data for BART, Caltrain, and SamTrans.

TJKM also proposes as a **value added task** to include a brief discussion of SB 743, and how VMT performance metrics could be incorporated into future CMPs. Our team has experience in assisting other CMAs implementing the use of VMT data, including Sonoma and Napa.

Chapter 5: Travel Demand Management

TJKM will provide a discussion of C/CAG's travel demand management services, including existing efforts in San Mateo County. TDM aims at influencing travel behaviors for the purpose of redistributing travel demand. Examples of demand management strategies include alternative commute programs (e.g. carpool/vanpool, rideshare, etc.), HOV facilities, public transportation improvements, multimodal facilities, bicycle and pedestrian improvements, increased use of park-and-ride lots, improvements in jobs-housing balance, availability of flexible work hours, and telecommunicating. Many of these strategies are already in use in San Mateo County, including its robust shuttle program. The chapter will also include a discussion of commute trends in San Mateo County (using data, if possible, from the COVID-19 pandemic to see how it has affected commute patterns/modes).

Chapter 6: Land Use Analysis

As stipulated in California Government Code Section 65089(b)(4), a CMP must contain a program to analyze the impacts of land use decisions made by local jurisdictions on the regional transportation system (including highways and transit). This chapter will include a review of the components of C/CAG's program, the role of C/CAG's travel demand model, and how it contributes to the overall effort to mitigate congestion in San Mateo County.

Chapter 7: Travel Forecast Model

This chapter will include a discussion of C/CAG's CMP Transportation Model, its consistency with MTC's Regional Transportation Model, and the model's role in monitoring future congestion in San Mateo County. As stipulated in California Government Code Section 65089(c), every CMA, in consultation with the regional transportation planning agency (MTC), cities and county, must develop a uniform database on traffic impacts for use in a countywide travel forecast model. It also requires that the countywide model be the basis for transportation models used for county sub-areas and cities, and that all models be consistent with the modelling methodology and databases used by the regional transportation planning agency. The CMP also approves sub-county area transportation models, and models used by local jurisdictions for land use impact analysis, if local jurisdictions decide to perform this work on their own. The purpose of applying the model is to guide the CMA decision-making process in identifying the most effective balance of transportation programs and projects that maintain LOS standards, which includes:

- Consideration towards the benefits of transit service and TDM programs
- Need for projects that improve congestion on the CMP Network

The modeling requirement is also intended to assist local agencies in assessing the impact of new development on the transportation system.

Chapter 8: Capital Improvement Program

State legislation requires that a CMP contain a seven year Capital Improvement Program (CIP) to maintain or improve the performance of the multimodal transportation system for the movement of people and goods and to mitigate regional transportation impacts identified through the Land Use Analysis Program. The County CIP is the core element of the CMP Update, and capital improvement projects must conform to transportation-related vehicle emissions and air quality mitigation measures. These transportation control measures (TCMs) are contained in the Bay Area 2017 Clean Air Plan. TJKM will review existing funding and programming documents as follows:

- MTC's Draft 2021 Transportation Improvement Program (TIP)
- MTC's Plan Bay Area 2040
- California Transportation Commission's 2020 State Transportation Improvement Program (STIP)
- San Mateo County Measure A and Measure M Expenditure Plans

TJKM will review MTC's Draft 2021 TIP, the starting point for developing a CIP in San Mateo County. The CIP will reflect projects included in the TIP at minimum. The team will then recommend inclusion of projects from other sources, such as (but not limited to): STIP, the Measure A Expenditure Plan, San Mateo County Measure M, etc.

TJKM will discuss CIP project prioritization with C/CAG staff. Per this discussion, TJKM will develop the seven year CIP for inclusion in the Final CMP Update.

Under this task, TJKM will also assist C/CAG in providing updates to the Transportation Demand Management program.

Chapter 9: Deficiency Plan Procedures

Deficiency plans provide a method for local governments to focus on areas where congestion problems keep system performance from meeting adopted standards. They provide an opportunity to analyze the causes of problems and determine whether they can be fixed by local improvements, or if it would be best to employ measures that will improve overall system efficiency and air quality.

Deficiency plans also provide local governments with the opportunity to give priority to system and non-capital mitigation methods to relieve congestion. The statutes specifically point to improved public transit service and facilities, improved non-motorized transportation facilities, HOV facilities, parking cash-out programs, and TCMs.

TJKM will assist in the establishment of procedures for the deficiency plans, which will include the following:

- Identify and analyze the cause(s) of any deficiencies.
- Determine necessary improvements for any deficient segments or intersections to maintain minimum LOS standards and associated improvement cost estimates.
- Improvements, programs or actions (and associated cost estimates) that can improve multimodal performance of the system and air quality.
- Develop an action plan of the most effective implementation strategies to maintain minimum LOS standards at any deficient segments, or to improve current and future LOS of the system and contribute to notable air quality improvements.

Chapters 10-12

To retain consistency with the 2021 CMP Update, TJKM will update and include Chapter 10 (Monitoring and Updating the CMP), Chapter 11 (Measure M - \$10 Vehicle Registration Fee Program), and Chapter 12 (Traffic Impact Analysis Policy) in the 2023 CMP Update.

TJKM will compile these chapters into one Draft CMP Document and submit to C/CAG staff for review.

SUBTASK 6.2 FINALIZE CMP DOCUMENT & COMMITTEE/BOARD PRESENTATIONS

Once the CMP Document is drafted, TJKM will meet with C/CAG to discuss. Once C/CAG staff comments are received, the team will revise the document into the Final 2023 CMP Update. We will be on hand at up to five C/CAG standing committee and C/CAG Board meetings to present the Final CMP, up to the point of adoption.

Task 6 Deliverables

- ✓ *Draft and Final 2023 San Mateo County CMP Document*
- ✓ *Presentation of Final 2023 CMP at up to five C/CAG standing committees and C/CAG Board meetings*

COST PROPOSAL

TJKM truly understands the importance of good project management. We use state-of-the-art technology and software to maintain superior quality control, to control costs, and to maximize the efficiency of resource utilization. Our proposed Project Manager, Ruta Jariwala, will utilize a number of project management tools to ensure budget and schedule compliance, including:

- Internal kick-off meeting with the project team to review goals of the project, to identify deadlines for deliverables, and to assign tasks for each staff member.
- Weekly meetings to maintain communication with the project team, and to review anticipated hours necessary for completing project work.
- Weekly status reviews of billing system reports to track labor and cost expenditures, ensuring budget compliance.
- Regular monthly reports provided to C/CAG's Project Manager discussing progress and any outstanding issues or concerns, allowing for an open line of communication.
- Documentation of work performed to date in a status report accompanying each invoice, at the C/CAG's request.

Timeliness and quality are essential to maintaining good business relationships and a solid reputation. TJKM is committed to preparing high quality deliverables for our clients, while maintaining schedule and budget compliance, and to meeting deadlines that will be associated with this contract.

The cost proposal is included on the following page.