



Town of Moraga	Agenda Item
Ordinances, Resolutions and Requests for Action	10. C.

3
4
5 **TOWN OF MORAGA**

STAFF REPORT

6
7 **To: Honorable Mayor and Councilmembers**
8
9 **From: Shawn Knapp, Public Works Director/Town Engineer**
10 **Sharon Chan, Assistant Engineer**
11
12 **Subject: Consider Resolution ___ - 2021 Awarding a Professional Services**
13 **Agreement for Engineering Design Services to Harris and Associates,**
14 **Inc. (Concord, CA) in a Total Amount Not to Exceed \$924,048 for Phase**
15 **1 (\$602,014) and Phase 2 (\$201,506) and 15% Contingency (\$120,528)**
16 **for the 2022-23 Pavement Reconstruction Project (CIP 22-401);**
17 **Authorizing the Town Manager to Appropriate \$538,000 from Fund 213**
18 **– Measure K for the 2022-23 Pavement Reconstruction Project; and**
19 **Authorizing the Town Manager to Execute the Agreement (CEQA**
20 **Status: Categorically Exempt)**
21

22 **Request**

23
24 Staff is requesting that Council adopt Resolution _ - 2021 (Attachment A) awarding a
25 Professional Services Agreement for engineering design services to Harris and
26 Associates, Inc. (Concord) in a total amount not to exceed \$924,048.00 for Phase 1 and
27 Phase 2 of 2022-23 Pavement Reconstruction Project (CIP 22-401, authorizing the Town
28 Manager to appropriate \$538,000 from Fund 213 – Measure K for the 2022-23 Pavement
29 Reconstruction Project and authorizing the Town Manager to execute the agreement.
30

31 **Background**

32
33 A Town Council Goal for 2021 is to implement the 2021 Pavement Management Program,
34 including the design for the 2022-2024 “Worst First” Pavement Reconstruction project
35 and the Annual Pavement Repair Project.
36

37 The Town is responsible for the maintenance and repair of 58.59 centerline miles of paved
38 streets; this includes 13.8 miles of arterial, 15.8 miles of collector, 26.3 miles of residential
39 streets, and 2.6 miles of bike paths or service roads. The network is defined as a
40 complete inventory of all streets and other pavement facilities in which the Town has
41 jurisdiction and maintenance responsibilities. To facilitate the management of streets,
42 they are subdivided into management sections identified as a street segment, which is
43 homogeneous in geometry, function, and general condition.

1
2 A typical street has a lifecycle of 25 to 30 years and deteriorates by 35% - 40% in its first
3 10 to 12 years. Agencies often focus on streets after they have reached that level, but
4 that is not always the wisest approach. Getting the best bang for your (often limited) buck
5 depends on choosing the right roads to treat at the right stage of life: A “best value first”
6 approach instead of “Worst First.” For example, rehabilitating one street could cost the
7 same as applying preventive treatment to four or more streets, which might offer a better
8 long-term value.

9
10 StreetSaver is designed with a more cost-effective “Best-First” and “Balanced” approach.
11 The Town has followed this balanced approach to achieve significant improvements in
12 network PCI. The reasoning behind this philosophy is that it is better to maintain streets
13 with lower-cost, preventative maintenance treatments, such as slurry seals, chip seals,
14 and crack sealing, and extend their life cycle before the street condition deteriorates to a
15 state where it requires more costly rehabilitation and reconstruction.

16
17 Generally, paved streets spend about three-quarters of their lifecycle in “Fair” to “Good”
18 condition, where the street shows little sign of deterioration and has a high service level.
19 After this time, the street condition begins to deteriorate at a rapid rate and, if not
20 maintained properly, soon reaches a condition where it will require costly overlays and
21 reconstructions.

22
23 Cost-wise the Town is able to rehabilitate up to 16 streets in Good condition range
24 compared to only repairing one street in Very Poor condition. The following table
25 illustrates the significant cost increase for pavement rehabilitation when the streets
26 deteriorate into the next Pavement Condition Category.

27
28 **General Pavement Rehabilitation Costs Per Pavement Condition Category**

29

Pavement Condition Index (PCI)	Pavement Condition Category	Recommended Treatment	Treatment Cost (\$ / Square Yard)	Ratio Streets Completed
Greater Than 70	Excellent/Good	Surface Seal	\$7 – \$8	12-16 streets
50 to 70	Fair	Rubberize Cape/Surface Seal	\$16.50 - \$26	4 to 8 streets
25 to 50	Poor	Mill and Overlay	\$49 - \$59	2 to 3 streets
Below 25	Very Poor	Reconstruction (FDR)	\$86 – 125	1 street

30
31 While the “Best-First” and “Balanced” pavement strategies have serviced the Town’s
32 street network well these past years, it has left a very limited number of residents who
33 reside on the remaining Very Poor (3.2%) and Poor (10.4%) streets. These residents
34 have been watching significant amounts of neighboring streets be repaired and are likely
35 questioning when their street will be repaired. Without Council direction in April 2021 to
36 change to a “Worst-First” approach in 2022 and 2023, many of the Poor and Very Poor
37 streets would not be repaved in the foreseeable future. The April 22, 2020 staff report on
38 Pavement Management which further outlines this strategy, is included as (Attachment
39 B).
40

1 **Discussion**

2
3 **Request for Proposals and Qualifications (RFP/Q)**

4 Following the direction provided by Town Council, staff proceeded to develop the Request
5 for Proposal/Qualification (RFP/Q) (Attachment C) to include the following scope:
6

- 7 1. Research and Data Review – The consultant shall gather and review any available
8 information, reports, data, as-built, and record drawings from the Town and various
9 related utilities. Information gathered will be used as the basis of the Pavement
10 Design Report.
11
- 12 2. Site Investigation and Surveys – The consultant will perform all necessary field
13 investigations to assess the existing conditions at the various street segments.
14 The information gathered will be used as the basis of the Pavement Design Report
15 and Plans, Specification, and Estimate.
16
- 17 3. Pavement Design Report (Report) – The Consultant shall prepare a
18 comprehensive Report for pavement rehabilitation options for both phases to
19 identify which street segments will be included in each of the two phases. The
20 consultant will perform all necessary field investigations and surveys to assess the
21 existing condition of each street segment to gather the necessary information to
22 support the basis of the Report. In addition, the Report shall provide concurrence
23 regarding the streets to be addressed, priorities, probably cost estimates, and
24 other information to support the preparation of the plans, specification, and
25 estimate package for each phase and ultimately construction of cost-effective, high
26 quality streets and associated infrastructure.
27
- 28 4. Utility and Public Coordination (Coordination) – The consultant shall coordinate
29 with various utility companies to relocate and incorporate changes into the project
30 construction documents. The consultant shall also collaborate with the community
31 and local stakeholders to ensure comments are addressed in the project
32 documents.
33
- 34 5. Plans, Specification, and Estimate (PS&E) – The PS&E packages shall include
35 street segments appropriately identified in the Report. The 2022 Pavement
36 Reconstruction Project (Phase 1 PS&E bid package) is due to the Town for
37 construction advertisement by April 2022; and the 2023 Pavement Reconstruction
38 Project (Phase 2 PS&E bid package) is due to the Town for advertisement by
39 February 2023.
40
- 41 6. Construction Support – The consultant shall assist the Town during the bid
42 process, which includes drafting addenda, answering technical questions from
43 contractors, attending meetings, preparing confirmed and as-built construction
44 documents, and providing assistance to technical issues during construction.
45

46 Pursuant to the Town’s Purchasing Policy and Moraga Municipal Code section 3.04.060,
47 the RFP/Q for engineering design services for the 2022-23 Pavement Reconstruction
48 Project was advertised on July 20, 2021. The Town received proposals from five firms

1 for consideration by the August 19, 2021 deadline. Town engineering staff carefully and
2 independently reviewed each firm's qualifications and technical proposals. Each firm was
3 ranked based on the following pre-selected criteria included in the RFP/Q:

- 4 • Completeness of Response (Pass/Fail)
- 5 • Qualification and Specific Experience of Key Team Members (25 Points)
- 6 • Project Understanding and Approach (25 Points)
- 7 • Experience with Similar Types of Projects (25 Points)
- 8 • Schedule and Capacity to Provide Qualified Personnel (10 Points)
- 9 • References/Satisfaction of Previous Clients (15 Points)

10
11 Staff developed a short list of the top four written technical proposals using the above
12 RFP evaluation criteria. On October 12, 2021, the four firms were invited to an oral
13 presentation and interview with Town staff. The ranking of the four firms follows, with the
14 top three firms scoring relatively close to one another.

- 15 1. Wood Rodgers
- 16 2. Harris and Associates
- 17 3. HDR/ WRECO
- 18 4. Wilsey Ham

19
20 The next step in the evaluation process was the consideration of costs. Town staff
21 reviewed proposed costs beginning with the highest ranked company, Wood Rodgers,
22 whose proposed cost for the project far exceeded the budgeted amount for design
23 services. Negotiations with Wood Rodgers were unsuccessful in lowering their proposal
24 costs to match the allocated budget. Town staff then began cost negotiations with Harris
25 and Associates (Harris), the second ranked firm, and was successful in reaching an
26 agreed cost to provide the necessary services for the design of the Project.

27 28 Harris and Associates Proposal

29 Harris is a full-service consulting engineering firm located in Concord, CA, specializing in
30 providing a wide range of technical civil engineering services related to the Project. Harris
31 has successfully performed on past projects with the Town, including construction
32 management for the Canyon Road Bridge Project; the 2013 Pavement Repair, and 2015
33 Pavement Reconstruction; and the civil engineering design for the 2018 Joint Town of
34 Moraga/City of Orinda Annual Pavement Rehabilitation projects. Harris understands the
35 Town has limited staffing and funding resources and needs a consultant who can provide
36 a complete civil engineering design for pavement rehabilitation, control costs, and
37 expedite delivery.

38
39 Harris has assembled a team with a vast amount of experience completing pavement
40 design projects for various agencies. The Harris's Team consists of the following
41 subconsultants: LCC Engineering & Surveying, Inc. (Topographic Surveying); Miller
42 Pacific Engineering Group (Pavement Testing and Analysis); and Subtronic (Utility
43 Locating and Potholing). Harris, in their Proposal, listed almost 90 civil engineering
44 projects where they teamed up with 1, 2, or all 3 of the above listed subconsultants.

45
46 Harris's key staff include Kourish Iranpour, PE, QSD, Project Manager with 33 years of
47 civil engineering experience and Zaheer Shaikh, PE, PMP, Engineer in Responsible
48 Charge, with 17 years of civil engineering experience. Both Mr. Iranpour and Mr. Shaikh

1 have worked on numerous pavement rehabilitation projects as documented in their
2 Proposal.

3
4 In Harris' proposal, the technical project scope (Attachment D) provides the needed
5 services to develop an innovative design to address the pavement issues in the Town on
6 streets with a PCI of under 50 within the limited budget. The proposal is complete and
7 acceptable. Harris' total negotiated cost proposal (Attachment E) is \$803,520 for Phase
8 1 (\$602,014) and Phase 2 (\$201,506). The cost proposal was analyzed by staff,
9 compared against ten present and recent engineering design service contracts.
10 Furthermore, the Harris average hourly rates for key consultant positions (Firm Principal,
11 Program Manager, Project Engineer, Design Engineer) were equal to the average rate of
12 ten other contracts combined, thus deeming the cost proposal to be competitive.

13
14 **Project Funding**

15 Funding for the design services for the 2022-23 Pavement Reconstruction Project is
16 included in the approved FY 2021/22 budget in the total amount of \$940,000 with
17 \$240,000 in FY 2021/22, \$610,000 in FY 2022/23 and \$60,000 in FY 2023/24. By
18 awarding the contract, the budget will be amended to advance all funding in upcoming
19 fiscal years (FY 2022/23 and FY 2023/24) to the current FY 2021/22. Since construction
20 is not expected to occur in the current fiscal year, approved funding for all construction
21 related activities in FY2021/22 will be transferred to design. The FY 2021/22 Project
22 funding shortfall of \$538,000 is recommended to be funded with the available Measure K
23 fund balance. The \$8 million total project cost is not projected to change.

24
25 **CEQA**

26
27 Design work is categorically exempt from the California Environmental Quality Act
28 (CEQA) per §15306. CEQA analysis for the construction of the Project will be conducted
29 as part of the scope of services under the design contract.

30
31 **Fiscal Impact**

32
33 The Fiscal Year (FY) 2021/22 Capital Improvement Program Budget includes \$486,000
34 for the 2022-23 Pavement Reconstruction Project. Additional funding for design work
35 was also projected for fiscal years 2022/23 and 2023/24. As the design contract is being
36 awarded in FY 2021/22, \$538,000 in funding from Fund 213 – Measure K will be
37 appropriated to increase the FY 2021/22 project funding to \$974,000. The total projected
38 project funding of \$8,060,000 remains unchanged. The Fund 213 – Measure K projected
39 year end fund balance as of June 30, 2022, of \$1,760,210 will be reduced by \$538,000
40 to \$1,222,210.

41
42 **Alternatives**

- 43
44 1. Adopt Resolution ____ - 2021; or

- 2. Adopt the Resolution ___ - 2021 with modifications; or
- 3. Not adopt attached Resolution ___ - 2021 and provide direction to staff.

Recommendations

Adopt Resolution ___ - 2021 to:

- Award a Professional Services Agreement for Engineering Design Services to Harris and Associates, Inc. in a Total Amount Not to Exceed \$924,048 for the 2022-23 Pavement Reconstruction Project; and
- Authorize the Town Manager to Appropriate \$538,000 from Fund 213 – Measure K for the 2022-23 Pavement Reconstruction Project; and
- Authorize the Town Manager to Execute the Agreement.

Report reviewed by: Cynthia Battenberg, Town Manager
Denise Bazzano, Assistant Town Attorney

Attachments:

- A. Consider Resolution ___ - 2021 Awarding a Professional Services Agreement for Engineering Design Services to Harris and Associates, Inc. (Concord) in a Total Amount Not to Exceed \$924,048 for Phase 1 (\$602,014) and Phase 2 (\$201,506) and 15% Contingency (\$120,528) for the 2022-23 Pavement Reconstruction Project (CIP 22-401); and Authorizing the Town Manager to Appropriate \$538,000 from Fund 213 – Measure K for the 2022-23 Pavement Reconstruction Project; and Authorizing the Town Manager to Execute the Agreement (CEQA Status: Categorically Exempt)
- B. [2020 Pavement Management Staff Report and Presentation Link](#)
- C. [Request for Proposals and Qualifications \(RFP/Q\) for Engineering Design Services for the 2022 - 23 Pavement Reconstruction Project Link](#)
- D. [Harris and Associates' Engineering Design Services 2022-23 Pavement Reconstruction Project Proposal Link](#)
- E. Harris and Associates' 2022-23 Pavement Reconstruction on Project Cost Proposal

ATTACHMENT A

Resolution _____ - 2021 Awarding a Professional Services Agreement for Engineering Design Services to Harris and Associates, Inc. (Concord) in a Total Amount Not to Exceed \$924,048 for Phase 1 (\$602,014) and Phase 2 (\$201,506) and 15% Contingency (\$120,528) for the 2022 - 23 Pavement Reconstruction Project (CIP 22-401); and Authorizing the Town Manager to Execute the Agreement

BEFORE THE TOWN COUNCIL OF THE TOWN OF MORAGA

In the Matter of:

Awarding a Professional Services)
Agreement Engineering Design Services)
to Harris and Associates, Inc. (Concord))
in a Total Amount Not to Exceed)
\$924,048 for Phase 1 (\$602,014) and)
Phase 2 (\$201,506) and 15%)
Contingency (\$120,528) for the 2022-23)
Pavement Reconstruction Project (CIP)
22-401); and Authorizing the Town)
Manager to Appropriate \$538,000 from)
Fund 213 – Measure K for the 2022-23)
Pavement Reconstruction Project and)
Execute the Agreement (CEQA Status:)
Categorically Exempt))

Resolution No. ____ - 2021

WHEREAS, in accordance with the Town’s Purchasing Policy and Moraga Municipal Code section 3.04.060, Town staff prepared a request for proposals and qualifications (“RFP/Q”) for specialized professional services to select the most qualified and experienced consultant firm to provide engineering design, environmental documentation, permit and utility coordination, project bid documents, technical bid assistance and technical construction engineering services for the 2022 and 2023 Pavement Reconstruction Project (Project); and

WHEREAS, the Town has included the Project in the Fiscal Year 2021/2022 Budget; and

WHEREAS, the Town issued the RFP/Q on July 20, 2021, for engineering design services for the Project; and

WHEREAS, the Town received five (5) proposals by August 19, 2021 that were independently evaluated and scored addressing, among other things, technical qualifications, ability to provide the service in a timely manner; and

WHEREAS, Harris and Associates (Harris) was deemed the most qualified and experienced consultant that could complete the above described services within the project budget; and

WHEREAS, the design services that will be provided by Harris are categorically exempt from the California Environmental Quality Act (“CEQA”) pursuant to 14 CCR § 15306, as a preliminary study and other resource evaluation activities which do not result

in a serious or major disturbance to an environmental resource and are used strictly for information gathering purposes, or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded.

NOW, THEREFORE, BE IT RESOLVED that the Town Council of the Town of Moraga hereby awards a Professional Services Agreement for Engineering Design Services to Harris and Associates (Concord) in a Total Amount Not to Exceed \$924,048 for Phase 1 (\$602,014) and Phase 2 (\$201,506) and 15% contingency (\$120,528) for the 2022 and 2023 Pavement Reconstruction Project (CIP 22-401); and

BE IT FURTHER RESOLVED, that the Town Manager is hereby authorized to appropriate \$538,000 from Fund 213 – Measure K for the 2022-23 Pavement Reconstruction Project; and

BE IT FURTHER RESOLVED, that the Town Manager is authorized to execute the Agreement, with minor revisions that may be approved by the Town Manager and the Town Attorney, and to execute any other necessary documents to effectuate the terms of the Agreement and amendments to the Agreement.

PASSED AND ADOPTED by the Town Council of the Town of Moraga at a regular meeting held on October 27, 2021 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

Mike McCluer, Mayor

Attest:

Marty C. McInturf, Town Clerk

ATTACHMENT B

[2020 Pavement Management
Staff Report and Presentation Link](#)

ATTACHMENT C

[Request for Proposal and Qualifications \(RFP/Q\) for
Engineering and Design Services for the 2022 - 23
Pavement Reconstruction Project Link](#)

ATTACHMENT D

[Harris and Associates' Engineering Design 2022 - 23
Pavement Reconstruction Project Proposal Link](#)

ATTACHMENT E

Harris and Associates' 2022 - 23 Pavement
Reconstruction Project Cost Proposal

ESTIMATED LEVEL OF EFFORT							HARRIS & ASSOCIATES				
TOWN OF MORAGA											
2022 - PAVEMENT RECONSTRUCTION DESIGN PROJECTS - PHASE 1 (Revised)											
PHASE, TASK	HARRIS & ASSOCIATES						SUBCONSULTANTS			TOTAL	
	PROJECT DIR	QA/QC	PROJECT MGR	PROJECT ENGR	DESIGN ENGR	TOTAL HOURS	Subtronic Utility Loc.	Miller Pacific Geotech	LCC Topo Survey		
1.0 PROJECT MANAGEMENT											
1.1	Project Management Tasks			40	16		56				\$12,800
1.2	Kick-Off Meeting	2		2	2	2	8				\$1,690
1.3	Project Management Meetings (12 mtgs)	2		16	8		26				\$5,950
1.4	Progress Reports (12 reports)			12			12				\$3,000
1.5	Coordination/Communication with Town	1		30		16	47				\$10,095
1.6	Coordination/Communication with external agencies			10		16	26				\$4,820
1.7	Prepare/Update Project Schedules			2	12		14				\$2,600
1.8	Prepare Work Plan (including QA/QC Plan)	1	4	4	8		17				\$3,675
1.9	Public Outreach Meeting (2)	1		10	24		35				\$6,975
TASK SUBTOTAL		7	4	126	70	34	241				\$51,605
2.0 RESEARCH AND DATA REVIEW											
2.1	Data Collection	1		8	30	40	79				\$13,325
2.2	Existing Utility Coordination	1		8	16	24	49				\$8,555
TASK SUBTOTAL		2	0	16	46	64	128				\$21,880
3.0 SITE INVESTIGATION AND SURVEYS											
3.1	Field Investigation & Site Assessment	2	2	40	100	120	264				\$45,950
3.2	Utility Locating & Potholing	1		8	16	24	49	\$66,730			\$75,285
3.3	Geotechnical Paving Analysis	2		8	16	8	34		\$78,750		\$85,260
3.4	Topographic Survey	1		8	16	16	41			\$51,874	\$59,269
3.5	Prepare Notification Letters to fronting property owners		2	8	40	8	58				\$10,660
TASK SUBTOTAL		6	4	72	188	176	446	\$66,730	\$78,750	\$51,874	\$276,424
4.0 BASIS OF DESIGN MEMORANDUM (PAVEMENT DESIGN REPORT)											
4.1	Draft Pavement Design Report	1		40	80	40	161				\$30,075
4.2	Draft Utilities, facilities, and existing conditions base Map		1	8	40	50	99				\$16,500
4.3	Quality Control Review	2	8	4			14				\$3,550
4.4	Town Review Workshop	2		4	4		10				\$2,250
4.5	Final Pavement Design Report	1		16	20	24	61				\$11,255
4.6	Final Utilities, facilities, and existing conditions base Map		1	8	20	20	49				\$8,650
TASK SUBTOTAL		6	10	80	164	134	394				\$72,280
5.0 PLANS, SPECIFICATIONS, AND ESTIMATES (PS&E) - PHASE 1											
5.1	Conceptual PS&E (30%)	1		40	70	90	201				\$35,575
5.2	Tabulation of Comments and Permitting Requirements			8	16		24				\$4,800
5.3	Quality Control Review		16	2			18				\$4,500
5.4	Town Review Workshop	1		2	2		5				\$1,125
5.5	PS&E (60%)	1		30	50	70	151				\$26,675
5.6	Tabulation of Comments			2	8		10				\$1,900
5.7	Quality Control Review		16	2			18				\$4,500
5.8	Town Review Workshop	1		2	2		5				\$1,125
5.9	PS&E (90%)	1		20	40	60	121				\$20,975
5.10	Quality Control Review		16	2			18				\$4,500
5.11	Town Review Workshop	1		2	2		5				\$1,125
5.12	Final Bid Documents	1		16	30	40	87				\$15,325
TASK SUBTOTAL		7	48	128	220	260	663				\$122,125
6.0 UTILITY AND PUBLIC COORDINATION											
6.1	Communication Plan w/ Property Owners & Utilities	1		12	24	4	41				\$8,055
6.2	Property Owners and Utility Companies Meetings (2)			4	4		9				\$1,975
6.3	Town Review Meeting (1)	1		2	2		5				\$1,125
TASK SUBTOTAL		3	0	18	30	4	55				\$11,155
7.0 PERMITTING SUPPORT											
7.1	Assist Town with permitting tasks if necessary			10	8		18				\$3,900
TASK SUBTOTAL		0	0	10	8	0	18				\$3,900
8.0 BID PHASE SUPPORT											
8.1	Prepare Addenda (assume 2)	1		8	24	4	37				\$7,055
8.2	Respond to Contractor Technical Questions			8	4		12				\$2,700
8.3	Attend Pre-Bid Meeting			2	2		4				\$850
8.4	Conform Bid Documents		2	2	8	16	28				\$4,720
TASK SUBTOTAL		1	2	20	38	20	81				\$15,325
9.0 CONSTRUCTION SUPPORT											
9.1	Attend Pre-Construction Meeting			2	2		4				\$850
9.2	Attend Weekly Construction Meetings (assume 10 mtgs)	1		10	10		21				\$4,525
9.3	Provide Technical Advice to Town	1		8	4		13				\$2,975
9.4	Review Contractor RFI's (assume 10 RFI's)			8	10	2	20				\$4,040
9.5	Review Contractor Submittals (assume 20 submittals)			8	12		20				\$4,100
9.6	Attend Intermittent Site Inspections	1		8	8	8	25				\$4,835
9.7	Attend Punch List and Final Inspection Walks	1		4	4		9				\$1,975
9.8	Review As-builts and prepare record drawings		2	2	4	16	24				\$4,020
TASK SUBTOTAL		4	2	50	54	26	136				\$27,320
TOTAL HARRIS HOURS		36	70	520	818	718	2,162				
TOTAL SUBCONSULTANT HOURS (TASKS 3.2, 3.3, AND 3.4, SEE ASSUMPTIONS 9, 10, AND 11 BELOW)							997				
PHASE 1 TOTAL HOURS							3,159				
HOURLY RATE (2021-2022)		\$275	\$250	\$250	\$175	\$145					
FEE ESTIMATE PER POSITION		\$9,900	\$17,500	\$130,000	\$143,150	\$104,110		\$66,730	\$78,750	\$51,874	
PHASE 1 TOTAL											\$602,014

ASSUMPTIONS UPON WHICH LEVEL OF EFFORT ESTIMATE IS BASED:

1. Hourly rates shown are averages. Actual rates for positions may vary slightly.
2. Hours and fee for individual tasks are a guide; the total hours and cost for the project takes precedence.
3. Hours and fee may be renegotiated if the project is delayed by factors beyond Harris' control.
4. Harris will identify and quantify all base failure areas. The base repair locations will not be shown on the plans, but will be available on request.
5. City will provide the following:
 - Deflection Testing Analysis Report
 - Access to any available drawings or information relevant to the project.
 - "Front-end" documents boiler plate
 - Printing of PS&E set for bid advertisement and construction.
6. The number of budgeted meetings is indicated.
7. City comments at each review stage will be presented to Harris promptly and on one consolidated set of marked-up documents.
8. Fee assumes design completion in year 2022.
9. Task 3.2 assumes 15 days of field work to locate utilities and 5 days of potholing. See assumption 13 below.
10. Task 3.3 assumes 8 days of field work to perform pavement testing.
11. Task 3.4 assumes utilizing 2020 Contra Costa County orthophotos and 8 days of supplemental topographic survey. See assumptions 14 and 15 below.
12. ADA Curb ramps will be per Caltrans standard details except where detailed design is required due to site constraints.
13. Utility Locating is performed only on FDR streets as identified in the Pavement Design Report.
14. Topographic surveys will be performed only for critical locations/areas where detailed information is required.
15. Allowance for Topographic Survey and utility locating will be used on as-needed basis
16. Utilities will design their relocations, if any are needed. Harris will prepare exhibits for the relocation work, if requested.
17. Property lines and rights-of-way will be shown on plans as provided on Assessor's Parcel Maps and GIS data. No boundary surveys will be performed.
18. Significant redesign required due to changes made by City after 60% submittal review is subject to additional fee for Harris
19. For streets where underground utility locating will not be performed, utilities will be shown based on available facility maps from utility owners.
20. City will provide the traffic index (TI) for design of pavement structural sections, where needed.
21. Traffic control will be based on Caltrans Standards and no traffic control plans will be prepared.
22. Bike lanes will be included in the design only if it can be accommodated within the paved section through striping.
23. Extensive design for bike lane planning and implementation is not included in the budget.
23. Detailed Environmental studies are not included. This project is anticipated to be categorically exempt.

ESTIMATED LEVEL OF EFFORT							HARRIS & ASSOCIATES				
CITY OF MORAGA											
2023 - PAVEMENT RECONSTRUCTION DESIGN PROJECTS - PHASE 2 (Revised)											
PHASE, TASK	HARRIS & ASSOCIATES						Subconsultants			TOTAL	
	PROJECT DIR	QA/QC	PROJECT MGR	PROJECT ENGR	DESIGN ENGR	TOTAL HOURS	Subtronic Utility Loc.	Miller Pacific Geotech	LCC Topo Survey		
1.0 PROJECT MANAGEMENT											
1.1	Project Management Tasks			30	16		46				\$10,815
1.2	Kick-Off Meeting	2		2	2	2	8				\$1,775
1.3	Project Management Meetings (12 mtgs)	2		12	12		26				\$5,933
1.4	Progress Reports (12 reports)			12			12				\$3,150
1.5	Coordination/Communication with Town	1		30		8	39				\$9,382
1.6	Coordination/Communication with external agencies			10		8	18				\$3,843
1.7	Prepare/Update Project Schedules			12			12				\$3,150
1.8	Prepare Work Plan (including QA/QC Plan)	1	1	2			4				\$1,076
1.9	Public Outreach Meeting (2)	1		12	16		29				\$6,379
TASK SUBTOTAL		7	1	122	46	18	194				\$45,502
2.0 RESEARCH AND DATA REVIEW (TASKS COVERED IN PHASE 1)											
3.0 SITE INVESTIGATION AND SURVEYS (TASKS COVERED IN PHASE 1)											
4.0 BASIS OF DESIGN MEMORANDUM (PAVEMENT DESIGN REPORT) (TASKS COVERED IN PHASE 1)											
5.0 PLANS, SPECIFICATIONS, AND ESTIMATES (PS&E) - PHASE 2											
5.1	Conceptual PS&E (30%)	1		30	60	80	171				\$31,369
5.2	Tabulation of Comments and Permitting Requirements			4	12		16				\$3,255
5.3	Quality Control Review		16	2			18				\$4,725
5.4	Town Review Workshop	1		2	2		5				\$1,181
5.5	PS&E (60%)	1		20	40	60	121				\$22,024
5.6	Tabulation of Comments			2	8		10				\$1,995
5.7	Quality Control Review		16	2			18				\$4,725
5.8	Town Review Workshop	1		2	2		5				\$1,181
5.9	PS&E (90%)	1		10	30	40	81				\$14,516
5.10	Quality Control Review		16	2			18				\$4,725
5.11	Town Review Workshop	1		2	2		5				\$1,181
5.12	Final Bid Documents	1		10	20	30	61				\$11,156
TASK SUBTOTAL		7	48	88	176	210	529				\$102,034
6.0 UTILITY AND PUBLIC COORDINATION											
6.1	Communication Plan w/ Property Owners and Utilities	1		8	16	4	29				\$5,938
6.2	Property Owners and Utility Companies Meetings (2)	1		4	4		9				\$2,074
6.3	Town Review Meeting (1)	1		1	1		3				\$735
TASK SUBTOTAL		3	0	13	21	4	41				\$8,747
7.0 PERMITTING SUPPORT (TASKS COVERED IN PHASE 1)											
8.0 BID PHASE SUPPORT											
8.1	Prepare Addenda (assume 2)	1		8	24	4	37				\$7,408
8.2	Respond to Contractor Technical Questions			8	4		12				\$2,835
8.3	Attend Pre-Bid Meeting			2	2		4				\$893
8.4	Conform Bid Documents		2	2	8	16	28				\$4,956
TASK SUBTOTAL		1	2	20	38	20	81				\$16,091
9.0 CONSTRUCTION SUPPORT											
9.1	Attend Pre-Construction Meeting			2	2		4				\$893
9.2	Attend Weekly Construction Meetings (assume 10 mtgs)	1		10	10		21				\$4,751
9.3	Provide Technical Advice to Town			8	4		12				\$2,835
9.4	Review Contractor RFI's (assume 10 RFI's)			8	10	2	20				\$4,242
9.5	Review Contractor Submittals (assume 20 submittals)			8	12		20				\$4,305
9.6	Attend Intermittent Site Inspections	1		8	8	8	25				\$5,077
9.7	Attend Punch List and Final Inspection Walks	1		4	4		9				\$2,074
9.8	Review As-builts and prepare record drawings		2	2	8	16	28				\$4,956
TASK SUBTOTAL		3	2	50	58	26	139				\$29,132
TOTAL HARRIS HOURS		21	53	293	339	278	984				
TOTAL SUBCONSULTANT HOURS							0				
PHASE 2 TOTAL HOURS							984				
HOURLY RATE (2022-2023)		\$289	\$263	\$263	\$184	\$152					
FEE ESTIMATE PER POSITION		\$6,064	\$13,913	\$76,913	\$62,291	\$42,326		\$0	\$0	\$0	
PHASE 2 TOTAL											\$201,506
										PHASE 1 + PHASE 2	\$803,519

ASSUMPTIONS UPON WHICH LEVEL OF EFFORT ESTIMATE IS BASED:

1. Hourly rates shown are averages. Actual rates for positions may vary slightly.
2. Hours and fee for individual tasks are a guide; the total hours and cost for the project takes precedence.
3. Hours and fee may be renegotiated if the project is delayed by factors beyond Harris' control.
4. Harris will identify and quantify all base failure areas. The base repair locations will not be shown on the plans, but will be available on request.
5. City will provide the following:
 - Deflection Testing Analysis Report
 - Access to any available drawings or information relevant to the project.
 - "Front-end" documents boiler plate
 - Printing of PS&E set for bid advertisement and construction.
6. The number of budgeted meetings is indicated.
7. City comments at each review stage will be presented to Harris promptly and on one consolidated set of marked-up documents.
8. Fee assumes design completion in year 2022.
9. Task 3.2 assumes 15 days of field work to locate utilities and 5 days of potholing. See assumption 13 below.
10. Task 3.3 assumes 8 days of field work to perform pavement testing.
11. Task 3.4 assumes utilizing 2020 Contra Costa County orthophotos and 8 days of supplemental topographic survey. See assumptions 14 and 15 below.
12. ADA Curb ramps will be per Caltrans standard details except where detailed design is required due to site constraints.
13. Utility Locating is performed only on FDR streets as identified in the Pavement Design Report.
14. Topographic surveys will be performed only for critical locations/areas where detailed information is required.
15. Allowance for Topographic Survey and utility locating will be used on as-needed basis
16. Utilities will design their relocations, if any are needed. Harris will prepare exhibits for the relocation work, if requested.
17. Property lines and rights-of-way will be shown on plans as provided on Assessor's Parcel Maps and GIS data. No boundary surveys will be performed.
18. Significant redesign required due to changes made by City after 60% submittal review is subject to additional fee for Harris
19. For streets where underground utility locating will not be performed, utilities will be shown based on available facility maps from utility owners.
20. City will provide the traffic index (TI) for design of pavement structural sections, where needed.
21. Traffic control will be based on Caltrans Standards and no traffic control plans will be prepared.
22. Bike lanes will be included in the design only if it can be accommodated within the paved section through striping.
23. Extensive design for bike lane planning and implementation is not included in the budget.
23. Detailed Environmental studies are not included. This project is anticipated to be categorically exempt.