

May 16, 2019

Raymond Wong, Senior Project Manager
City of Mountain View
Public Works Department
Mountain View, CA 94039-7540

(via email: Raymond.Wong@mountainview.gov)

**Subject: Sailing Lake Erosion Repair and Boat Launch Area Improvements Proposal |
Project 17-52**

Dear Raymond:

Moffatt & Nichol submitted a proposal to the City of Mountain View on April 5, 2019 in response to the objectives outlined in the subject RFP. Based upon our discussion with the City of Mountain View (interview on April 29, the follow-up calls and discussions with you) we have refined our scope of services and revised the associated fee to meet the City's established budget for this project.

SCOPE OF SERVICES

The Scope of Services described below are tailored to suit the deliverables agreed upon in previous discussions.

Sailing Lake Erosion Repair and Beach Erosion Protection

It is our understanding that wave action is the primary cause of erosion along the lakeshore. This includes wind-generated waves and boat wake. Each of these have their own characteristics. With the 1,000 to 2,000-foot fetch across the lake and the lake being fairly deep, wind-waves on the order of about 1 foot can develop during times of high winds.

The wave action is sufficient to erode and mobilize sediments from the unprotected shoreline, and there is a process of eroded sediment migrating downslope to the deeper water within the lake. Wind shear across the lake can produce a slight tilting of the water surface, which will drive a mild circulation current within the lake. This circulation current transports eroded sediment along the lakeshore.

We will evaluate rip-rap shoreline protection systems for the site. The north shore of the lake has been partially repaired with the hard solution in the past. We will design the same for the erosion repair. We will develop two alternatives (soft and hard) for the beach erosion protection that would be appropriate with the surroundings, provide flatter grade for waves to run up, reduce wave reflection and supports preservation of the beach for public access.

Dock Replacement

We will gather available drawings of the existing dock, perform site inspection to evaluate the current condition of the existing dock and mooring system, and determine the factors affecting the life of the current dock. We

will work with the City staff and dock manufacturers to propose two dock alternatives providing adequate freeboard for access to the recreational vessels, adequate clearance to minimize the frequency of sediment removal and meet ADA requirements. The alternatives will include optimal mooring systems for ease of installation and maintenance.

New Dock Feasibility

We will assess the existing kayak launch area and its contribution to the sediment deposits in the lake. It is our understanding that the gravel beach causes severe wear and tear of the kayak equipment. We will work with the City and the City's Concessionaire on site, to develop a suitable alternative to the gravel beach that meets the ADA requirements.

Sediment Removal

It is our understanding that the City is preparing survey data for the project site. It is assumed that the data will include the lake bathymetry as designed and in its current state. We will develop a sediment removal plan to achieve the required clearance for boat and kayak launch. Since the City has performed dredging for regular maintenance, it is assumed that the same disposal site will be available for the future work and no alternative sites need to be determined.

Concrete Wall Extension

As we assess the pattern of eroded sediment transportation along the shoreline, we will evaluate the benefit of extending the existing retaining wall to reduce sediment migration. Our findings and design of the retaining wall, if needed, will be provided as drawings, calculations and specifications.

Permit Applications

It is our understanding that the City may have completed various site related studies in the past and holds some permits to continue operations and maintenance of the facility. The list of information that may be required by various agencies is extensive and we have made a good faith effort to present them below -

- Technical Reports (cultural, archaeological, historical etc.)
- Biological Assessments
- Supporting Field Surveys (e.g. aquatic species or benthic surveys)
- Land-owner Approvals, Tribal Coordination and Negotiations
- Sediment or Soil Testing and Characterization
- Environmental Review and/or Compliance Documents for National Environmental Policy Act (NEPA)

The scope of work assumes that such reports and other supporting documents can be made available to Moffatt & Nichol for the permit applications. Any additional studies, if required by the Permitting Agencies, are outside the proposed scope of work. We can assist with the studies as an added scope item with a separate cost, if desired by the City.

We will fill the permit applications and act as the City's agent for securing the required permits. The fees associated with the permit applications, payable to the respective agencies, are not included in the scope of work and will be paid directly by the City. We will make a good faith effort to secure the required permits for

the projects. However, as environmental permitting is dependent on authorities outside of the influence and control of the client, its consultants or contractors, we offer no guarantee as to the schedule, mitigation requirements, restrictions or ultimately the reward of any permit for the project.

The following permit requirements will be evaluated in this process:

California Environmental Policy Act (CEQA)

The City may already have complied and/or completed CEQA for the project. If this is not the case, we can assist with a CEQA Categorical Exemption document for maintenance and repair under this scope and fee. If project elements exceed what is typically characterized as maintenance and repair under CEQA, an Initial Study and Mitigated Negative Declaration (IS/MND) will likely be required. An IS/MND is not included in the scope of work and fee estimate.

US Army Corps of Engineers (USACE) Permit

We will coordinate with the USACE to verify their jurisdiction. If a USACE permit has not been obtained for prior dredging events or for prior construction at the lake it is likely that the lake is considered outside of the San Francisco USACE districts jurisdiction.

If a permit is required, the application can be completed under this scope and fee but supplemental information that identifies special status species and habitat in the area may be requested. Depending on the project elements and species identified in the area a Biological Assessment may be required. The application may also require biological field studies, archaeological and/or historical studies/reports (Section 106), and sometimes sediment/soil characterization efforts (for dredging and/or fill activities). If deemed necessary, or requested by the USACE, additional scope and fee will be required.

Regional Water Quality Control Board (RWQCB) - San Francisco Regional Board

There is a current NPDES General Waste Discharge Permit for Dry Dock Operations. A project specific NPDES Construction Permit may be required. This is frequently obtained by the contractor and is not included in the permitting scope and fee.

Since the City conducts their own dredging, there may already be permits in place. The proposed dredging may fall under this permit, however a project specific 401 WQC may also be required. We can complete this application if required.

California Department of Fish and Wildlife (CDFW) - Lake or Streambed Alteration (LSA)

This permit application may require supplemental information to delineate fish and wildlife resources as well as habitat. Depending on Project elements and identified species, a Biological Assessment may be required. We will provide supplemental information to consider fish and wildlife resources as well as habitat, however a full Biological Assessment is not included in this scope and fee.

Bay Conservation and Development Commission (BCDC)

We will coordinate with BCDC for regulatory compliance. If required, we will complete a BCDC permit application. However, if additional studies are required as part of this permitting process additional scope and fee will be required.

Progress Meetings

The Moffatt & Nichol Project Manager will attend up to five meetings with the City Project Manager. The key members of the design team may attend the meetings, as needed. There may be additional teleconference meetings to work with the City to develop suitable alternatives for the project.

It is expected that the meeting materials such as current work product, schedule updates, budget status will be prepared by Moffatt & Nichol. The workings of the meetings – concept development discussions with the City, option selections etc., will be documented in the meeting minutes or a technical memorandum and will be provided to the City.

Deliverables

The original scope included 5 deliverables – Basis of Design (Concepts) document, 60% Submittal, 90% Submittal, Draft 100% Submittal and Final 100% Submittal. Each submittal included drawings, calculations, cost estimate and specifications. We propose the following deliverables for efficient design process and help the City achieve their goals within the established budget.

35% Submittal

The 35% Submittal will include a Basis of Design, concept level drawings and preliminary cost estimate. The Basis of Design report will summarize all available information for the project, site condition assessment and a wave study to determine design wave parameters needed for evaluation of shore protection options. The site condition assessment will provide photographic documentation and evaluate the condition of the shoreline, existing dock, gravel beach, concrete wall and other facilities and infrastructure along the lakeshore.

The wave study will include the following elements: 1) water depth variation within the lake (bathymetry) and lakeshore profile (topography); 2) wind statistics; 3) Particulars of recreational vessel population.

We will utilize the survey information prepared by the City and supplement with other sources of data as needed. It is assumed that the survey information will include the lake bathymetry. Information on water depths within the lake can also be obtained from past hydro surveys or alternatively from the original design drawings for the lake. We anticipate that the City will be able to provide characteristics of recreational vessels frequenting the lake. If this information is not available, we will visit the lake and conduct a brief boater survey.

The 35% design drawings will be used for permit applications. Specifications will not be developed for this stage for efficient use of resources and budget. It is understood that the City will coordinate with all stakeholders and provide feedback on the 35% drawings and further, there will not be any significant changes (require rework) to the established alternatives.

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70% Submittal

The 70% Submittal will include detail drawings for the concept chosen by the City. An associated cost estimate and technical specifications will be provided for review.

Pre-final or 95% Submittal

The Pre-final Submittal will incorporate comments received from the City on the 70% Submittal. It is assumed that there will not be any significant changes (require rework) to the design.

Final or 100% Submittal

The Final Submittal will incorporate comments received from the City on the Pre-final Submittal. It is assumed that there will not be any significant changes (require rework) to the design. All drawings, cost estimate and specifications will be stamped and signed. A hard copy of the full-size drawings and specifications may be provided, if required by the City.

Fee Estimate

The fee estimate for the scope of services described above are provided as an attachment (pdf and spreadsheet). We are also providing the fee estimate submitted with the proposal (April 5, 2019) for your reference.

We appreciate the opportunity to assist the City of Mountain View with the project. Please call or email us with any question and comments.

Sincerely,

MOFFATT & NICHOL



Brad Porter
Principal



Satish Chilka
Project Manager

Attachment 1 – 20190516 Project Budget Worksheet (Fee Estimate for services described above)

Attachment 2 – 20190405 Project Budget Worksheet (Fee Estimate for Proposal April 5, 2019)

Moffatt & Nichol
2018-2019 Fee Proposal Worksheet



Project Number: P190230
Project Title: Sailing Lake Erosion Repair and Boat Launch Area Improvements
Project Manager: Satish Chilka
Project Principal: Brad Porter

Revised Scope / Fee per City of Mountain View Request

Date: 05/16/19

Sub Mark-up: 10%
ODC Mark-up: 0%

I. MAN-HOUR BUDGET			CLASSIFICATION/RATES												HOURS	LABOR TOTAL			
Phase	Task	Title	Principal Eng./Sci P-9, P-8 \$273.00	Supervisory Eng./Sci P-7 \$259.00	Senior Eng./Sci P-6 \$238.00	Eng./Sci III P-5 \$223.00	Eng./Sci II P-4 \$196.00	Eng./Sci I P-3 \$174.00	Staff Eng. P-1, P-2 \$139.00	Senior Tech. T-5 \$191.00	Designer T-4 \$180.00	CADD II T-3 \$152.00	CADD I T-2, T-1 \$113.00	Word Processor A-4, A-3 \$113.00			General Clerical A-1, A-2 \$88.00		
1	1	Data Gathering / Project Initiation	2.00	16.00	16.00	16.00	8.00									58.0	\$13,634.00		
	2	Site Assessment		8.00	16.00	16.00	4.00									44.0	\$10,232.00		
	3	Wind Wave Study		2.00	24.00	8.00	4.00									38.0	\$8,798.00		
	4	Shoreline Repair Alternative - Two Designs		4.00	16.00	8.00	4.00					12.00				44.0	\$9,572.00		
	5	Dock Replacement Alternative - Two options		8.00	16.00	8.00	4.00					12.00				48.0	\$10,608.00		
	6	New Dock Feasibility - One Option		4.00	24.00	16.00										44.0	\$10,316.00		
	7	Sediment Removal - Supplement Existing Program		4.00	16.00	4.00						12.00				36.0	\$7,896.00		
	8	Concrete Wall Extension			12.00	8.00	8.00	8.00				12.00				48.0	\$10,524.00		
	9	Basis of Design Report	2.00	4.00	24.00	16.00	4.00									50.0	\$11,646.00		
	10	35% Concept Drawings	2.00	12.00	24.00	12.00	8.00					72.00				130.0	\$26,570.00		
	11	35% Cost Estimate	2.00	8.00	24.00	12.00										46.0	\$11,006.00		
1B	12	Permit Application Package		2.00	8.00	24.00			60.00							94.0	\$16,114.00		
2	13	70% Drawings	2.00	8.00	8.00	12.00	8.00				24.00					62.0	\$13,086.00		
	14	70% Design Calculations	2.00	8.00	12.00	8.00										30.0	\$7,258.00		
	15	70% Cost Estimate	2.00	4.00	16.00	4.00										26.0	\$6,282.00		
	16	70% Specification	2.00	16.00	16.00	4.00										38.0	\$9,390.00		
	17	Pre-Final 95% Drawings	2.00	4.00	8.00	8.00	4.00				16.00					42.0	\$8,934.00		
	18	Pre-Final 95% Design Calculations	2.00	4.00	8.00	8.00										22.0	\$5,270.00		
	19	Pre-Final 95% Cost Estimate	2.00	4.00	8.00	6.00										20.0	\$4,824.00		
	20	Pre-Final 95% Specification	2.00	12.00	8.00	6.00										28.0	\$6,896.00		
	21	Final 100% Drawings	2.00	4.00	8.00	8.00	4.00				12.00					38.0	\$8,214.00		
	22	Final 100% Design Calculations	2.00	4.00	4.00	8.00										18.0	\$4,318.00		
	23	Final 100% Cost Estimate	2.00	4.00	6.00	4.00										16.0	\$3,902.00		
	24	Final 100% Specification	2.00	8.00	4.00	4.00										18.0	\$4,462.00		
	25	Scheduled Meetings		10.00	32.00	32.00										74.0	\$17,342.00		
	TOTAL MAN-HOURS			32.00	174.00	354.00	260.00	60.00	0.00	60.00	0.00	172.00	0.00	0.00	0.00	0.00	1,112.0		
II. M&N LABOR			\$8,736.00	\$45,066.00	\$84,252.00	\$57,980.00	\$11,760.00	\$0.00	\$8,340.00	\$0.00	\$30,960.00	\$0.00	\$0.00	\$0.00	\$0.00		\$247,094.00		
III. OTHER COSTS															IV. PROJECT SUMMARY				
A. Subconsultants			Markup		Total														
1.		\$0	\$0	\$0															
2.		\$0	\$0	\$0															
3.		\$0	\$0	\$0															
3.		\$0	\$0	\$0															
4.		\$0	\$0	\$0															
5.		\$0	\$0	\$0															
6.		\$0	\$0	\$0															
7.		\$0	\$0	\$0															
8.		\$0	\$0	\$0															
9.		\$0	\$0	\$0															
10.		\$0	\$0	\$0															
Total Subconsultants:			\$0	\$0	\$0														
B. Other Direct Costs																			
	Airfare	\$0	\$0	\$0															
	Lodging	\$0	\$0	\$0															
	Meals	\$0	\$0	\$0															
	Mileage/Rental Car	\$1,200	\$0	\$1,200															
	Outside Reproduction	\$2,000	\$0	\$2,000															
	Postage/Delivery	\$960	\$0	\$960															
	Telephone/Fax	\$0	\$0	\$0															
	I&R/Diving Equipment	\$0	\$0	\$0															
	Other	\$0	\$0	\$0															
		\$4,160	\$0	\$4,160															
																	Total M&N Labor		\$247,094
																	Total Subconsultant Cost:		\$0
																	Total Other Direct Costs:		\$4,160
																	Mark-up on Subconsultants:		\$0
																	Mark-up on ODCs:		\$0
																	Total Project Estimate		\$251,254