



Item No. 20 Town of Atherton

CITY COUNCIL STAFF REPORT – REGULAR AGENDA

**TO: HONORABLE MAYOR AND CITY COUNCIL
GEORGE RODERICKS, CITY MANAGER**

**FROM: MICHAEL KASHIWAGI
COMMUNITY SERVICES DIRECTOR**

DATE: FEBRUARY 19, 2014

**SUBJECT: APPROVAL OF A DESIGN CONTRACT WITH BIGGS CARDOSA
ASSOCIATES FOR THE MARSH ROAD RETAINING WALL
REPAIR**

RECOMMENDATION

Authorize the City Manager to execute an agreement with Biggs Cardosa Associates, Inc. (BCA) for design of Option 2A, Cast-In-Place Concrete U Channel allowing for possible cover and including a traffic barrier, at a cost not to exceed \$137,089 and authorize a 5% contingency for unanticipated additional work.

BACKGROUND

BCA was selected in September 2012 to perform two phases of the project:

- Phase I, Preliminary Design; and
- Phase II, Final Design

Phase I was completed in 2013 at a cost of \$86,302. At the December 18, 2013 meeting, the City Council chose Option 2A, a cast-in-place concrete U-channel, to repair the portion of Atherton Channel adjacent to Marsh Road. The City Council directed staff to negotiate a contract with BCA to proceed with design of Option 2A.

Per City Council direction, the cast-in-place concrete U-channel will allow for the installation of a cover at some point in the future. The Council previously discussed different repair alternatives including, long-term monitoring and lesser repairs, soldier piles, soil nails, an enclosed pipe(s), and a box culvert. Some of these repair alternatives would allow for a future cover and some would not. In December, recognizing the priority of a future potential for a cover, the need to repair the failing portions of the channel, and the limited structural integrity of the mortared wall on the existing residential side (putting the Town back in the channel for repair at a future date), Council decided to move forward with Option 2A, the cast-in-place U-channel.

FINDINGS

A proposal to prepare plans, specifications and an estimate of probable cost (PS&E) has been prepared by BCA. It includes engineering and planning work to obtain approvals from various resource and permitting agencies, such as the Army Corps of Engineers and Regional Water Quality Control Board. Working through these permitting agencies and other associated environmental approvals constitutes just over 40% of the final design costs. The proposed fee, including design of a traffic-rated barrier to replace the existing masonry curb and chain link fence, is \$137,089. Staff proposes a 5% contingency for unanticipated additional work, to be used only with written authorization by the City Manager. The 2013/14 Capital Improvement Program Budget allocated \$160,000 for Phase II design.

During the preliminary design process, the City Council focused their analysis on the Channel itself as well as the potential for a cover of some type to facilitate a path above the Channel. At the time, the City Council did not select a design alternative for the necessary traffic barrier. BCA's proposal includes an option for a preferred barrier type. BCA's proposal does not include the provision of Construction Support Services (review of submittals, shop drawings, requests for information, etc., as well as on-site verification of construction methodology) at this time. The scope of this required effort is based on the more detailed final design from which they will submit a proposal.

FISCAL IMPACT

The project is included in the Five-Year Capital Improvement Program with a current FY 2013/14 budget of \$210,000 from the Special Parcel Tax. The remaining balance is approximately \$180,000.

Prepared By:

Approved:

Michael Kashiwagi, P.E.
Community Services Director

George Rodericks
City Manager

ATTACHMENTS

Attachment: Consultant Agreement with BCA

- C. Exhibit C: Compensation
- D. Exhibit D: Consultants, Specialists, or Experts

IN WITNESS WHEREOF, Town and Consultant have executed this Amendment as of the date first above written.

TOWN OF ATHERTON

CONSULTANT
(CORPORATIONS REQUIRE (2))
SIGNATURES

By: _____
City Manager

By: _____
Title: _____

Date:

Date:

APPROVED AS TO FORM:

By: _____
Title: _____

By: _____
City Attorney

Date:

ATTEST:

By: _____
City Clerk

EXHIBIT A

Scope of Work – See attached proposal

Detailed Work Plan – Final Design

Scope of Services

Phase 0: Project Management

Task 0.1 Project Management Plan: (By Biggs Cardosa Associates)

The Project Manager will provide coordination with the Town Engineer, direct the flow of information, define and track tasks, assign appropriate staff to complete the work, and ensure a technically sound, constructible and cost-effective set of construction documents.

Task 0.2 Coordination/ Meetings/ Administration: (By Biggs Cardosa Associates)

Provide general project management, consultant oversight, conduct regular Design Team Meetings and periodic meetings with Town staff and key stakeholders

Task 0.3 Progress Reports/ Billing: (By Biggs Cardosa Associates)

On a monthly basis we will submit invoices based on the major items of work performed by the Design Team.

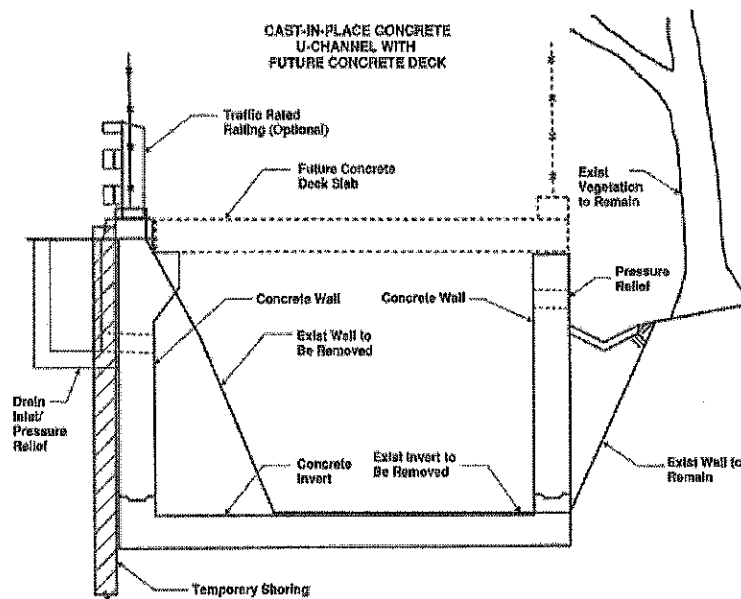
Deliverables:

- One (1) hardcopy of Monthly Invoices

Phase 1: Preliminary Engineering (Completed under separate NTP)

Phase 2: Final Design & Construction Documents

On December 18, 2013 the Town Council approved replacing the existing channel structures with a Cast-in-Place Concrete U-Channel with provisions to accommodate a future concrete deck at a later date. This alternative was initially described as Option 2A: Cast-in-Place Concrete U-Channel in the Type Selection Memorandum dated July 22, 2013 and was further developed and refined in a memorandum to the Town of Atherton on November 14, 2013. The following sketch shows the preliminary concept for development during Phase 2: Final Design & Construction Documents:



Selection of a preferred traffic rated railing along the top of the west wall was not included in the Town's December 18, 2013 Type Selection approval. Coordination of Town review and selection of a preferred traffic rating railing will be included in Final Design.

The Construction Documents package will include construction plans, specifications and estimates of anticipated construction costs and will conform to Town and Caltrans Standards. Final design calculations will also be prepared and submitted for Town staff review.

Task 2.1 Unchecked Plans (90% Submittal): (by Design Team)

- Traffic Rated Railing Type Selection: As part of the 90% design development a brief letter memorandum will be prepared outlining up to five alternatives for replacement of the existing chain link fencing on top of the existing west wall. Design Team will attend up to one Town Council meeting (as required) related to Town selection of a preferred traffic rated railing for the project.
- 90% Plans: The design will be advanced to the point that all major design issues and solutions are represented in the plan documents. Unchecked Plans will be prepared and submitted to the Town, County, Drainage District, utility companies and other agencies as applicable for initial review and comment. The following plan types will be prepared as applicable:
 - Title Sheet
 - Key Plan
 - Drainage Plans and Profiles (as required)
 - Utility Plans and Profiles (as required)
 - Construction Details
 - Traffic Handling and Construction Area Signs
 - Detour Plan
 - Erosion Control Plans (as required)
 - Structure Plans
- 90% Technical Specifications: A draft of the Technical Specifications will be prepared and included in this submittal. The Technical Specifications will reference Town or Caltrans standard specifications sections for the various items of work, with specific consideration of measurement and payment provisions. The Town will be responsible for the completion of "boilerplate" general and standard provisions related to the contract.
- 90% Cost Estimate: The preliminary Estimate of Probable Construction Cost will be updated to reflect the design refinements indicated in the 90% Design Submittal.
- Foundation Report: The preliminary Geotechnical Letter Report will be updated to reflect the design refinements indicated in the 90% Design Submittal.
- Response to Comments: The Design Team will prepare and submit a memo with "response to comments" received from the Preliminary Design Submittal.

Deliverables:

- Three (3) hardcopies and one electronic copy (PDF) of the 90% Plans
- Three (3) hardcopies and one electronic copy (PDF) of the 90% Technical Specifications
- Three (3) hardcopies and one electronic copy (PDF) of the 90% Cost Estimate
- Three (3) hardcopies and one electronic copy (PDF) of the Final Foundations Report
- Three (3) hardcopies and one electronic copy (PDF) of the Response to Comments

Task 2.2 Checked Plans (100% Submittal): (by Design Team)

- Independent Check: An in-house Quality Assurance/Quality Control Team will conduct an independent review of the plans, specifications, and estimate concurrently with review of the 90% PS&E Submittal by the Town and other agencies.
- Review Comments: Receive and review comments from the Town, in-house QA/QC Team, County, Drainage District, utility companies and other agencies. Work with the Town and other agencies to

resolve any conflicts between the comments of different reviewers. Incorporate resolved comments and prepare Checked Design Submittal (100% PS&E).

- 100% Plans: Checked Plans will be prepared and submitted to the Town, the utility companies and other agencies as applicable for final review and comment. Agencies shall thoroughly review the details of the project. The Design Team will work with the County, Drainage District and other agencies to resolve any conflicts between the comments of different reviewers.
- 100% Technical Specifications: The Technical Specifications will be updated using Town and Caltrans Standard Specifications. The Town will provide “boilerplate” legal and contractual provisions of the contract Bid Documents to the Design Team for review.
- 100% Cost Estimate: The 90% Estimate of Probable Construction Cost will be updated for use in the Bid Documents using standard Town and/or Caltrans items.
- Memorandum – Response to Comments: The Design Team will prepare and submit a memo with “response to comments” received from the 90% PS&E Submittal.
- Attend Community Meeting to support Town staff’s presentation to community

Deliverables:

- *Three (3) hardcopies and one electronic copy (PDF) of the 100% Plans*
- *Three (3) hardcopies and one electronic copy (PDF) of the 100% Technical Specifications*
- *Three (3) hardcopies and one electronic copy (PDF) of the 100% Cost Estimate*
- *Three (3) hardcopies and one electronic copy (PDF) of the Response to Comments*

Task 2.3 Construction Documents (Final Design Submittal): (by Design Team)

- Review Comments: Receive and review final comments from the Town, County, Drainage District, utility companies and other agencies. Resolve and incorporate comments and submit Final Design Submittal.
- Project Specifications: Compile Town prepared “boilerplate” specifications with the Design Team prepared Technical Specifications.
- Attend Town Council Meeting to support Town staff’s presentation to Council

Deliverables:

- *One (1) full-size (22x36) signed original and one electronic copy (PDF) of the Final Plans*
- *One (1) photo-ready hardcopy and one electronic copy (PDF) of the Final Project Specifications*
- *One (1) photo-ready hardcopy and one electronic copy (PDF) of the Final Cost Estimate*
- *One (1) hardcopy and one electronic copy (PDF) of the Response to Comments*

Task 2.4 Environmental Documents & Permits: (by BKF Engineers and Callander Associates)

- Environmental Documents: Prepare a Biological Resources Analysis Report.
- Permits: Apply for and obtain a USACE nationwide permit and Joint Aquatic Resource Permit Application (JARPA). Coordinate with USACE, CDFG, USFW and the RWQCB.
- Preservation Review: Provide review of Unchecked Plans (90% Submittal) for adherence to existing tree report.

Deliverables:

- *Three (3) hardcopies and one electronic copy (PDF) of the draft Biological Resources Analysis Report*
- *Three (3) hardcopies and one electronic copy (PDF) of the final Biological Resources Analysis Report*

Task 2.5 Services During Bidding: (by Design Team)

- Attend pre-bid meeting
- Respond to questions concerning the Construction Documents
- Prepare minor contract addenda if necessary

Design Assumptions:

The following assumptions were made in preparing this scope of work:

1. Plans and details shall be drafted using AutoCAD Version 2012 and shall be prepared following standard Caltrans format as outlined in "Plans, Specification and Estimate Guide" published by Caltrans.
2. The 2010 edition of the Caltrans "Standard Specifications" and Caltrans "Standard Plans" publications will be referenced in the project plans and specifications as applicable.
3. Structural Technical Specifications will be limited to technical specifications related to the replacement/rehabilitation alternative selected. The Town will provide boiler plate specifications to the Design Team for review as part of the 100% Submittal (Task 2.2). The Design Team will compile the Town supplied Boiler Plate Specifications with the Technical Specifications as part of the Final Design Submittal (Task 2.3).
4. The structural and civil design will account for the potential future covering of the channel with a concrete deck. The structural and civil design will include anticipated weights, geometry and forces from these potential future elements. The design will not include the formal design and detailing of these elements.
5. Boundary Easement information will be incorporated into the project base mapping based on Title Reports for the area to be provided by the Town. This item does not include resolving boundary survey, resolving any discrepancies between field and record information or setting property corners. If required these services can be provided as Extra Work.
6. Right-of-Way Engineering is not anticipated to be required and is not included herein. If required, these services can be performed as Extra Work.
7. No field survey work will be performed for the traffic handling and detour plans.
8. No temporary or modified traffic signal plans are included. Minor timing or phase adjustments may be needed for the detour plan and notes on the plan will suffice as direction to the Contractor.
9. Analysis of off-site storm drainage system is excluded from this scope of services.
10. Project includes the area located within the limits of the existing channel banks between the existing culverts at Middlefield Road and Fair Oaks Avenue. Facilities that may adjoin the channel area above the top of bank or beyond the culvert headwalls are excluded from this scope of services.
11. The Detour Plan for Marsh Road will be prepared based on the approved PG&E detour plan dated 9/11/08 supplied by the Town, or equivalent. The Town will facilitate Detour Plan coordination with affected agencies, to include but not necessarily limited to County of San Mateo and City of Menlo Park.
12. Assuming no topographic survey or existing background drawings are available for the limits required of a traffic control plan and detour plan, the Design Team will create a background by tracing the edge of pavement, striping, and traffic signal poles from Google Earth or using County GIS, with a field check to confirm approximate dimensions and geometry, as needed.
13. Geotechnical recommendations will be prepared based upon the draft "Geotechnical Engineering Report – Atherton Channel Lining Remediation Adjacent to Marsh Road" dated October 2, 2008 as provided by the Town of Atherton. All field investigations, lab work and information provided is assumed to be complete and prepared in accordance with prevailing industry standards and codes, and suitable for use on this project.
14. Section 7, Consultation is not included in the current scope of work but can be provided as Extra Work.
15. Environmental clearance will be limited to the replacement of the existing channel with a cast-in-place concrete U-Channel. Environmental clearance will not consider any future improvements such as covering the channel with a concrete deck. It is assumed that the project will qualify for a USACE nationwide permit and the remaining permit applications will be assembled using the Joint Aquatic Resource Permit Application (JARPA). If the project will require an individual permit from the USACE, then it will also be necessary to apply for individual permits from the RWQCB and CDFG. Processing individual permits is not included in this scope of work but can be provided as Extra Work.

16. The Town of Atherton will be the lead agency on the project. The Town will serve as the primary point of contact for the Atherton Channel Drainage District, the County of San Mateo, the City of Menlo Park and any other local agency as required.
17. Existing utilities will not be impacted by this project. Existing utilities will be shown based on provided as-built documentation and will be identified to be protected during construction.
18. We assume that no right-of-way takes will be required for the project. Preparation of Legal Descriptions or filing a Record of Survey with the County is not included in the current scope of work but can be provided as Extra Work.
19. The Design Team will support Town staff with exhibits and attendance at two Town Council Meetings. The Design Team will support Town staff with exhibits and attendance at one Community Meetings. The Town will provide meeting facilities, coordination, advertisement, minutes and facilitation of these meetings.
20. Construction support services are not included in the current scope of work. A detailed Construction Services Proposal will be prepared after submittal of the 100% PS&E when the scope of construction support services can be more definitively known. In general, the services during construction will include:
 - Attend Preconstruction Conference with Town and Contractor
 - Conduct preconstruction surveys
 - Attend weekly construction meetings as requested by the Town
 - Conduct periodic site visits to observe the performance and progress of the work
 - Conduct arborist site visit during clearing and grubbing operations
 - Response to Contractor and Town initiated Requests for Information (RFIs)
 - Review shop drawing submittals required by the project technical specifications
 - Prepare change orders for approval of the Town when required by unanticipated field conditions
 - Prepare Record Drawings from one master red-lined mark-up set provided by the Town Resident Engineer

Additional Services – Subject to Additional Compensation

1. Although Biggs Cardosa Associates has tried to be comprehensive in developing this scope of work, there may be unforeseen issues which will necessitate additional services beyond the scope of work described herein. Specific items described in the engineering or environmental studies may require additional investigations, calculations, plans, or measures than what was scoped in this proposal. It is recommended that the Town include some budget in the contract to account for unexpected additional services.
2. The following additional services may be required depending on the actual conditions encountered and design features selected by the Town. The Biggs Cardosa Associates Design Team is fully qualified and capable of performing these services as extra work should they be required:
 - Preparation of a mitigated negative declaration or other CEQA compliance documents.
 - Destructive or non-destructive material testing.
 - Hazardous materials removal plan preparation.
 - Right-of-Way Engineering.
 - Additional meetings with review boards and commissions.
 - Construction staking.
 - Construction inspection.
 - Modified or temporary traffic signal plans.
 - Traffic study and traffic counts.
 - Utility potholing and utility locating.
 - Formal Arborist Reports.

EXHIBIT B

Schedule

EXHIBIT C

Compensation

2.0	Project Management	\$ 5,700
2.1	Unchecked Plans	\$51,747
2.2	Checked Plans	\$37,747
2.3	Construction Documents	\$14,249
2.4	Environmental Documents and Permits	\$16,213
2.5	Services During Bidding	\$ 4,228
	Direct Costs/Reimbursables	\$ 1,850
	Contingency (at Town's direction)	\$ 6,854

Engineering Design and Related Services for the Marsh Road Retaining Wall - Final Design Services

Town of Atherton
Project Summary

Phase	BCA	BKF ENGINEERS	BAGG ENGINEERS	CALLANDER	TOTAL DOLLARS
Phase 1 - Preliminary Engineering					
1.0 Project Management					\$0
1.1 Data Collection					\$0
1.2 Field Review					\$0
1.3 Topographic Surveys and Base Mapping					\$0
1.4 Hydraulic Investigation					\$0
1.5 Geotechnical Investigation					\$0
1.6 Environmental Technical Studies					\$0
1.7 Type Selection Memorandum (35% Submittal)					\$0
Subtotal Phase 1 (\$)	\$0	\$0	\$0	\$0	\$0
Direct Costs/Reimbursables	\$0	\$0	\$0	\$0	\$0
Fee on Subconsultants (10%)	n/a	\$0	\$0	\$0	\$0
Total Dollars	\$0	\$0	\$0	\$0	\$0
Phase 2 - Final Design & Construction Documents					
2.0 Project Management	\$5,700	\$0	\$0	\$0	\$5,700
2.1 Unchecked Plans (90% Submittal)	\$37,100	\$11,053	\$3,050	\$544	\$51,747
2.2 Checked Plans (100% Submittal)	\$26,596	\$10,063	\$0	\$1,088	\$37,747
2.3 Construction Documents (Final Design Submittal)	\$4,774	\$9,475	\$0	\$0	\$14,249
2.4 Environmental Documents & Permits	\$0	\$16,213	\$0	\$0	\$16,213
2.5 Services During Bidding	\$2,164	\$2,064	\$0	\$0	\$4,228
Subtotal Phase 2 (\$)	\$76,334	\$48,868	\$3,050	\$1,632	\$129,884
Direct Costs/Reimbursables	\$1,200	\$500	\$100	\$50	\$1,850
Fee on Subconsultants (10%)	n/a	\$4,887	\$305	\$163	
Total Dollars	\$77,534	\$54,255	\$3,455	\$1,845	\$137,089
Totals					
Subtotal Labor Cost	\$76,334	\$48,868	\$3,050	\$1,632	
Direct Costs/Reimbursables	\$1,200	\$500	\$100	\$50	
Fee on Subconsultants (10%)	n/a	\$4,887	\$305	\$163	
Total Dollars	\$77,534	\$54,255	\$3,455	\$1,845	\$137,089
	BCA	BKF ENGINEERS	BAGG ENGINEERS	CALLANDER	TOTAL DOLLARS



EXHIBIT D

Consultants, Specialists or Experts

Civil and hydraulic engineering	BKF Engineers
Geotechnical Engineering	Bagg Engineers
Environmental services	Callander Associates