STAFF REPORT

TO: AC Transit Board of Directors
FROM: Michael A. Hursh, General Manager
SUBJECT: Amendment to CH2M, Inc. Contract 2016-1378

ACTION ITEM

RECOMMENDED ACTION(S):

Consider authorizing the General Manager to execute an Amendment to the CH2M, Inc. (CH2M) contract 2016-1378 for an extension of time and additional funds in support of the East Bay Bus Rapid Transit (BRT) Project.

BACKGROUND/RATIONALE:

Under the current contract which expires on April 30, 2018, CH2M is providing Construction Management (CM) services to the District on the BRT project. This action is consistent with the Board approved Project Completion Plan (PCP) which forecasts project completion in December 2019. In the same plan staff forecasted a total need of $9.5 million for all professional services to meet the forecasted revenue service in December 2019. The BRT project is on schedule and on budget to meet the Board approved PCP forecast opening date of December 23, 2019. This contract amendment is necessary to continue CM services and project close-out services to successfully complete the project. Staff requests the Board authorize the General Manager to amend the CH2M contract to extend the performance period for 20 months and add $4,395,495 to the contract value.

BUDGETARY/FISCAL IMPACT:

The performance period for the proposed CH2M contract amendment will be from May 1, 2018 to December 31, 2019 to account for BRT project construction and closeout. The cost of the contract amendment is $4,395,495. As the services are for the BRT project, the contract will be paid for with existing and planned BRT funds.

ADVANTAGES/DISADVANTAGES:

The advantage of extending the contract and allocating additional funds is that CH2M can continue supporting the District in performing the CM services through construction and close out. Retaining CH2M will ensure continuity in inspection and project control functions that are critical to successfully complete the construction.

Another advantage of extending the CH2M contract is the firm’s continued use of Small, and Small Local Business Enterprises. The contract was let with a 10% SBE goal; CH2M has to date subcontracted 20%, i.e., over $700,000 to small and small local businesses as evidence of their commitment to the District’s SBE Program.
There are no disadvantages in amending the CH2M contract.

**ALTERNATIVES ANALYSIS:**

Staff considered not issuing the contract amendment and to resolicit a new contract for CM services. Staff doesn’t recommend this alternative as it will delay the project completion by at least 6 months and it will cost the District more time and effort to orient the new CM team with project issues, project conditions, stakeholders, and permitting agencies.

The second alternative staff considered was to extend CH2M contract only for the period needed for the District to resolicit, award new contract, and transition to new firm. Staff doesn’t recommend this option for the same reasons stated above.

The third alternative staff considered was to use Capital Projects on-call A&E contracts to provide construction inspection and project control functions. The annual on-call contract maximum of $500,000 is not nearly sufficient to fulfill the BRT project needs. Staff has to contract with more than two on-call A&E firms to fulfill the project needs. Staff doesn’t recommend this option as it puts more burden on contract administration, requires staff to manage multiple firms performing CM services on a single project, and the District can’t use the on-call A&E services for other District Capital project needs as it ties up the on-call contract capacity just for the BRT project.

**PRIOR RELEVANT BOARD ACTION/POLICIES:**

SR 16-149: Authorization to advertise the Request for Qualifications for Construction Management Services for Bid Package 3.

SR 16-149a: Consider awarding a Construction Management (CM) services contract to Ch2M, Inc. in the amount of $6,750,000 to manage construction of the Infrastructure and Station Platforms project in support of the East Bay Bus Rapid Transit (BRT) project.

SR 17-132: Consider approving the East Bay Bus Rapid Transit Project Completion Plan (PCP) inclusive of the financed funding plan for submittal to the Federal Transit Administration.

**ATTACHMENTS:**

1. Scope of Work
2. CH2M Amendment Cost Summary

Approved by: Ramakrishna Pochiraju, Executive Director of Planning and Engineering

Reviewed by: Claudia Allen, Chief Financial Officer
Denise C. Standridge, General Counsel
Chris Andrichak, Director of Management and Budget
Sharon Dennis, Acting Procurement Director
Phillip McCants, Contracts Compliance Administrator

Prepared by: Ramakrishna Pochiraju, Executive Director of Planning and Engineering
David Wilkins, Director, Bus Rapid Transit
William Tonis, Director of Project Controls and Systems Analysis
Purpose and Intent: The District intends to enter negotiations with CH2M (CM Consultant) to extend/modify their current contract for the designated period of performance instead of re-competing the contract.

General Assumptions
1) The District has four personnel assigned full time to the BRT project.
2) The District personnel or District’s designee will perform the Construction Manager and Resident Engineer functions.
3) The CM consultant staff will support and collaborate with both the District staff as well as other consultant staff performing functional roles on the project. The CM consultants will interface with many other District personnel in the course of their duties to help deliver the project. [See attached organizational chart]
4) The CM Consultant staff will be directed by the District staff or District’s designee.
5) Revenue Service Date is projected to be December 2019.
6) The District awarded the construction contract to O.C. Jones & Sons Inc. (O.C.) from Berkeley, CA, on March 14, 2016, issued a Limited Notice-To-Proceed (LNTP) to the O.C. on April 26, 2016, issued full-NTP on August 1, 2016. Construction is expected to be substantially complete by January 2019.
7) All strategic community outreach will be performed by the District under a separate professional services contract.
8) All design services during construction will be performed by the District under a separate professional services contract.
9) Technical Support services will be performed by the District under a separate professional services contract.
10) Some Inspection Support will be performed by the District under a separate professional services contract.
11) The staffing positions, qualifications, responsibilities and Level of Effort (LOE) deemed appropriate for the CM consultant for the positions required in this proposal remain unchanged from the original contract. See attached manning table reflecting the anticipated level of effort by position for the remainder of this contract extension.

Period of Performance
The District intends to enter into a minimum agreement for a term duration starting May 1, 2018 to December 31, 2019.

Scope of Work
It is expected that the CM Consultant will help the District successfully deliver the construction of the BRT project by monitoring all improvements are constructed in accordance with the approved Plans, Specifications and Permits, as may be amended or revised; that all construction activities and traffic control, utility coordination, are coordinated with concurrent construction projects undertaken by City of Oakland, PG&E, City of San Leandro, Caltrans, EBMUD and Affordable Housing Developers to minimize the disruptions to the residents, businesses and institutions along the project corridor; that all of the project documents are accounted for; and ultimately, that the District receives a successful review and acceptance by the affected Right-of-Way owners (City of Oakland, City of San Leandro and Caltrans) and Funding Partners, including the Federal Transit Administration (FTA). This work will be
Scope of Work
Construction Management (CM) SERVICES
PERIOD OF PERFORMANCE  October 1, 2017 to DECEMBER 31, 2019

conducted at District’s BRT Field Office at 985 66th Avenue, Oakland, which can support up to 12 staff members. AC Transit will provide a reasonable quantity of office supplies and a limited number of District owned computer equipment, printers/copiers, phones, and fax machines as required. The consultant is expected to equip its staff with vehicles, cell phones, tablets or laptop computers necessary to perform their duties. The CM consultant shall provide the services of the following key personnel:

1. Lead Inspector / Assistant Resident Engineer - 1 FTE
2. Field Inspectors - 3 FTEs
3. Systems Testing / Communications Engineer (Field) - 1 FTE
4. Electrical Inspector - 1 FTE
5. Office Engineer - 1 FTE
6. Document Control Support - 0.5 FTE
7. Scheduler with P6 and MS Project expertise - 1 FTE
8. Cost Engineer - 0.5 FTE
9. Project Management / Project Administration Staff - 1.12 FTE
10. Material Testing, Source Inspection and Special Inspection Testing

GENERAL DESCRIPTION OF DUTIES, RESPONSIBILITIES AND EXPECTATIONS
1) Assist in successfully completing BRT construction project, meeting schedule and budget constraints, by assisting the District in managing the contractor, O.C. Jones & Sons (OCJ).
2) Ensure and schedule staffing resources to effectively and efficiently administer this contract.
3) Manage CM team’s effort, including the subcontractors, according to the weekly and monthly budget projections.
4) Provide Staff augmentation to manage and monitor OCJ’s daily activities, costs and schedules.
5) Provide Staff augmentation to help identify, manage and ensure each Contract Data Requirements List (CDRL) is delivered, reviewed, and comments received are submitted timely and in accordance with the Contract specifications.
6) Provide Staff augmentation to assist in preparing information and updating monthly and other staff/progress reports, including those for District Board of Director meetings, PMOC monthly Cost and Schedule meetings, Risk Register (RR), Mitigation Monitoring Report (MMR) and Federal Transit Administration (FTA) Quarterly meetings, are provided as required by AC Transit's Project Director.
7) Provide Staff augmentation to help Review and approve all RFls promptly and accurately.
8) Review contractor’s baseline and progress schedules.
9) Facilitate progress of schedule and project milestones and review and recommend for approval OCJ’s payments per its milestone targets and schedule of values.
10) Recommend remedies to mitigate supply chain delays with OCJ and other third-party contract service providers.
11) Actively participate in partnering meetings, as needed
12) Share work with AC Transit to support Invoice Estimator for all subsequent months (form to be provided by AC Transit).
13) Ensure all CM team members report time and progress on weekly basis.
14) Interpret and explain plans and contract terms to administrative staff, construction workers, and others, representing the owner or OCJ.
**Scope of Work**

**Construction Management (CM) SERVICES**

**PERIOD OF PERFORMANCE** October 1, 2017 to DECEMBER 31, 2019

15) Provide staff augmentation to help ensure all activities are in compliance with building and safety codes, rules and other applicable state, local, and federal regulations.

16) Provide staff augmentation to help ensure all field activities and mitigation measures are in compliance with the commitments made in the FEIR (Mitigation Monitoring Matrix available on AC Transit Website).

17) Provide staff augmentation to help prepare cost estimates and packaging and processing for change orders.

18) Provide staff augmentation to help ensure Buy America Certifications are submitted and documented in a timely manner.

19) Assist and coordinate with the District’s and City’s public outreach efforts.

20) Assist in identifying and maintaining potential Errors and Omissions (E&O) log.

21) Identify and provided to AC Transit Project Director reported safety-related accidents of OCJ, including missed days, incidents resolved, and other safety measures taken.

**Task 1 – Management / Coordination / Administration**

Provide coordination with the District, monthly progress reports, and invoicing. This effort will include the following elements:

- Provide administrative and technical support to District’s project personnel.
- Organize and layout work for the project staff.
- Assist in the preparation of schedule updates monthly for Board Presentation and other presentations as required.
- Prepare monthly expenditures and CM Consultant scope activities.
- Prepare invoices along with progress reports describing CM services provided each month per District’s requirements.
- Provide pre-monthly invoicing estimates for the CM team in coordination with the District Project Controls Manager prior to the initiation of services the following month.
- Provide weekly progress reports / time sheets for all CM team members.
- Assist in the preparation of earned value project reports monthly for input to FTA monthly project report, GM quarterly, FTA quarterly, and other reports as required.
- Assist in preparation of the following reports for review and approval by the District:
  - Monthly Resident Engineer’s Report
  - Weekly Schedule of working Days
  - Monthly Source Inspection Testing Report
  - Monthly design changes report to include discrepancies, errors, omissions, or changes initiated by agency partners
  - Monthly Mitigation Monitoring report
  - Monthly Risk Management Report
  - Monthly Change Order Log and Report

**Task 2- Construction Services- Office**

2.1 **Document Control:** All shared construction documents from the contractor and the field office shall be uploaded, logged and tracked in PMWEB.

2.5 **Project Controls:** Assist in the preparing, monitoring and providing updates to the Risk Register (RR), Mitigation Monitoring Program (MMP), and Weekly Schedule of working Days and Contingency
Management Plan to AC Transit’s designee regularly in collaboration with the District’s Project Controls designee. Detailed progress reports including but not limited to schedule progressions, cost status, and DBE/SBE utilization monitoring will be furnished to the District via electronic and hard copy format at a monthly interval. Support the District’s project personnel in cost and schedule oversight.

2.7 Plan Interpretation: Provide technical interpretations of the drawings, specifications, and contract documents, and evaluate requested deviations from the approved design or specifications. Coordinate with the District’s BRT project team for resolutions of issues involving scope, schedule, and/or budget changes. Coordinate with EOR for necessary design modifications and plan revisions, as needed. Identify and track design discrepancies, design conflicts.

2.8 Weekly Meetings: Participate in weekly meetings, including preparation of draft agendas, meeting minutes, and distribution of minutes to attendees. Outstanding issues to be tracked on weekly basis or more frequent, as necessary. Prepare meeting minutes for weekly and all other pertinent meetings requiring such.

2.12 Design Management: The Assistant RE will help provide oversight during construction to ensure that all approved design changes are clearly communicated to all impacted parties. The Assistant RE will help to support AC Transit in efforts necessary to obtain financial recovery (should this be necessary) due to resolving error and omissions. Assist in verifying that the contractor has documented all changes to the design and are maintained in an As-Built plan file and provide a conformed set at project closeout.

2.13 Schedule Reviews: Assist in the updating the Program Master Schedule monthly to report overall program progress during construction. Maintain current information regarding critical and near-critical activities, milestones, progress and outstanding issues affecting the schedule. Perform detailed schedule review of the contractor for conformance with the contract documents and field observed progress. Perform schedule analysis on contractor provided updates and review schedule for delays and impacts. Coordinate with the contractor in the development of recovery scheduled, as needed, to address delays caused by either events or issues within the contractor’s control or other events or issues beyond the contractor’s control. Prepare Weekly Statement of Contract Days (WSCD) and provide Schedule oversight.

2.14 Lump Sum Breakdown: Assist in evaluating construction contractors’ Schedules of Values for lump sum items. Review the Contract Price allocations and verify that such allocations are made in accordance with the requirements of the Contract documents.

2.15 Monthly Progress Payment: Assist in reviewing progress reports with the contractor and prepare recommendation/request for the District’s approval.

2.16 Cost Projections: Develop Independent Cost Estimates (ICE) for construction contract change orders. Prepare monthly program cost forecast by analyzing the budgets, tracking actual expenditures, encumbrances, commitments, contingency levels and variances. Forecasts to be based on the current amount paid to date, pending change orders, bid item over/under run projections, contingency levels and other necessary information. A memo to file at substantial completion will be written outlining all of the bid items over/under-runs.

2.17 As-Built Drawings: Assist in reviewing monthly as-built drawings prepared by the contractor and utilities. and prepare a conformed set of project record drawings based on contractors provided information and from inspection notes. As-built drawings to be verified on a monthly basis, as part of the progress payment to the contractor. Upon project completion assist the RE in evaluating the contractor provided as-built drawings for completeness and verified with inspection information. Final record drawings will be prepared by Designers.

2.18 CDRL Management: Assist in review, monitor, and administrate all CDRLs.
Scope of Work

Construction Management (CM) SERVICES

PERIOD OF PERFORMANCE October 1, 2017 to DECEMBER 31, 2019

2.19 **Quality Assurance**: Assist in the reviewing Contractor’s QC Plan for approval. Additionally, the Assistant RE will review District’s QAP and help ensure the Contractor is complying with its QC plan. The Assistant RE will help assist in a quarterly quality auditing process a review of Quality issues and means to correct deficiencies of the Contractor’s quality control efforts. Support the Deputy Project Director in Quality Assurance oversight.

2.20 **Project Closeout**: Assist in providing all necessary close-out documents like agency sign-offs, punch-lists, warranties, training manuals, liens etc. Transfer all project documents to the District for permanent storage.

2.21 **Buy America**: Assist in ensuring all buy America certification is provided in a timely manner and review and recommend acceptance of them.

2.22 **Americans with Disabilities Act**: All federal, state and local laws apply throughout the terms of the contract.

2.23 **Asset Inventory**: Assist in gathering new asset serial data of equipment manufacture make, model, supplier, purchase year, purchase cost, warranty provisions, replacement cost, expected useful life, unit value, and quantities for the District’s Enterprise Asset Management System. New elements include but not limited to the following:

1) Bus Stop Shelter
2) Surveillance System
3) HVAC System
4) Ticket Vending Machine
5) Clipper Validator
6) Platform
7) Electrical System
8) Bus Pad
9) RTM Sign
10) Control Cabinet Components
11) Communication Cabinets and Components
12) Traffic Signal Components
13) Transit Signal Priority Components
14) BRT Hardware Components at the District Operations Control Center (OCC)

2.24 **Change Order Management**: OE will help prepare change order folders and packages in accordance with District SOP. The Assistant RE will help disseminate all approved design changes.

2.25 **Risk Management**: The Assistant RE help assess project risks in terms of time and cost impacts and help prepare monthly risk report in collaboration with District’s project personnel.

**Task 3: Construction Inspection Services - Field**

3.1 The consultant shall provide the services of 3 full time inspectors as identified in scope and oversee the following items of work on the project site and will observe the progress of the construction, including providing day-to-day contact with the contractor, community outreach team, designated local agency resident engineers and the District project management team:

1) Monitor the construction contractor activities to ascertain whether or not they are performing the work in accordance with contract documents and permit requirements.
2) Verify compliance with contract documents and mitigation monitoring plan.
3) Prepare daily inspection reports which may include the Mitigation Monitoring Checklist and digital photographs to be uploaded to the PMWEB.
Scope of Work
Construction Management (CM) SERVICES
PERIOD OF PERFORMANCE October 1, 2017 to DECEMBER 31, 2019

4) Document all materials delivered to the job sites. All material and equipment delivered will be tracked for Buy America per FTA requirements.

5) Observe material, workmanship, and construction areas for compliance with the contract documents and applicable codes, document and notify construction contractor of noncompliance.

6) Advise the District of any non-conforming work observed and corrective measures / actions taken during site visits.

7) Take periodic digital photographs during the course of construction, and/or coordinate this task to be accomplished by the contractor. Oversee this activity and ensure photos are uploaded to the PMWEB for documentation.

8) Assist in coordinating necessary inspections with the local agencies and utility companies assigned inspectors.

9) Interpret contract documents in coordination with the District project management team and Procurement Department.

10) Monitor SWPPP compliance.


12) Monitor Environmental Mitigation Compliance.

13) Observe and document the days/hours that the contractor’s personnel are on-site.

14) Upon substantial completion of work, assist in coordinating with the affected agencies to prepare a punch list of items to be completed or corrected. Assist in Coordinating final inspection with those agencies.

15) Coordinate with the utility agencies contractors performing utility relocation for the BRT project. City of Oakland will also be upgrading curb ramps along the corridor so close coordination will be required.

16) Monitor the contractor compliance with the Construction Staging Plan requirements for project phases and zones.

3.2 Material Testing: Document and evaluate results of testing and address deficiencies. If needed, coordinate the work of testing laboratories (as part of Other Direct Costs) in observation and testing of materials used in construction to verify contractor’s tests results.

3.3 Traffic Control Coordination: Assistant RE and Field Inspectors will monitor contractor compliance with the approved post-construction temporary traffic control plan that will remain in place until the final infrastructure is constructed and operational.

3.4 System Testing and Pre-Revenue Operations: The Systems Manager / Communication Engineer will review, monitor and prepare reports on the following BRT systems installed, configured, and tested by the BRT Contractor.

1) Carrier Transmission System (CTS)
2) SCADA System
3) CCTV System, including head-end servers
4) Public Address equipment, including head-end servers
5) Fare Collection System (FCS) [Ticket Vending Machines]
6) CTS network switches
7) Dynamic Message Sign (DMS) System
8) Clipper System
9) Transit Signal Priority System
Scope of Work
Construction Management (CM) SERVICES
PERIOD OF PERFORMANCE October 1, 2017 to DECEMBER 31, 2019

10) Hardware and Software, including head-end equipment at the OCC
11) Traffic Signal System

During the system testing and pre-revenue phase, help the CM develop ROW access plans/procedures/coordinating/supporting/scheduling the installation and testing of all traffic appliances, and system elements identified above. This effort will also include developing procedures for ROW access for all activities requiring such. This will include ROW access for construction, testing, and pre-revenue operations.

The Systems Manager / Communication Engineer will monitor design for compliance and witness testing that OCJ complies with all safety certification requirements for structures/systems/facilities.

The Systems Manager / Communication Engineer will support the integration tests of AC Transit’s third party vendors (Clever Devises, Cubic, Hastus, etc.) equipment and software.

3.5 Substantial Completion: Upon substantial completion of work, coordinate with the District’s project management team and Right-of-Way owners to perform a project inspection and develop a comprehensive list of deficiencies or punch list of items to be completed by the contractor. A punch list and Certification of Substantial Completion shall be prepared.

Task 4 - Submittal/RFI Processing

4.1 Submittals: Help to Coordinate and perform design and administrative reviews of drawings, samples, traffic control plans, test reports, and other submittals from the contractor for compliance with the contract documents. All submittals shall be logged and tracked in PMWEB. All submittals requiring EBMUD approvals need to be logged and tracked in EDOC in addition to PMWEB.

4.2 Request for Information (RFI): Assist in the review and respond to RFI’s. Coordinate RFI reviews and responses from design engineer and other stakeholders, as needed. All RFI’s shall be logged and tracked in PMWEB.

4.3 Record of Material (ROM): Help Maintain the ROM according to the local jurisdiction and FTA requirements. The ROM shall track all of the material delivered to the site including manufactures/supplier for Buy America requirements, material compliance documentation and other required documentations.

4.4 As Built Documentation: The CM team will help ensure all project record plans or as-built drawings are filed and transferred to the District at project closeout.

4.5 Operations and Maintenance (O&M) Manuals and Training: The CM team will help to ensure all project related documents related to O&M manuals and training are secured from the contractor and transferred to the District.

Task 5 - Change Management

5.1 PMWEB: The CM team will help research, prepare, log and track all change orders packages in PMWEB.

5.2 Change Orders: Assist with Developing change orders per the District’s guidelines. Provide technical assistance to negotiate change orders and assist in resolution of disputes which may occur during the course of the project. Prepare independent cost estimate, time impact analysis, assist District’s project personnel with tracking documentation for Change Order Requests and backup documentation provided by the Contractor.
### CH2M Amendment Cost Summary (Contract 2016-1378)

#### Cost Summary

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<th>Estimated to Complete</th>
<th>Remaining Allocations</th>
<th>Amendment Total (ETC-RA)</th>
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*Total: $5,395,494.93*

#### Estimated to Complete Resource Costs

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*Includes 4% escalation

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**Estimated to Complete Total: $5,645,594.53**