

**SUBMITTAL TO THE BOARD OF SUPERVISORS  
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**



ITEM  
3.22  
(ID # 6668)

**MEETING DATE:**

Tuesday, May 8, 2018

**FROM :** TLMA-TRANSPORTATION:

**SUBJECT:** TRANSPORTATION AND LAND MANAGEMENT AGENCY/TRANSPORTATION:  
Approval of Amendment No. 7 between the County of Riverside and CH2M HILL, Inc. for Engineering Services on the Clinton Keith Road Extension - I-215 to SR-79 Project Phase 3. District 3; [\$50,000 Current FY; \$5,469,644 Total], Local Funds 100%

**RECOMMENDED MOTION:** That the Board of Supervisors:

1. Approve Amendment No. 7 to the Agreement between The County of Riverside and CH2M HILL, Inc. for Engineering Services on the Clinton Keith Road – I-215 to SR-79 Project; and
2. Authorize the Chairman of the Board to execute the same.

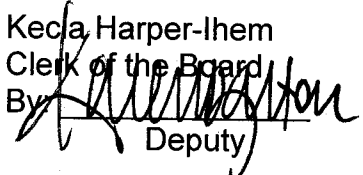
**ACTION:** Policy

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**MINUTES OF THE BOARD OF SUPERVISORS**

On motion of Supervisor Jeffries, seconded by Supervisor Perez and duly carried by unanimous vote, IT WAS ORDERED that the above matter is approved as recommended.

Ayes: Jeffries, Tavaglione, Washington, Perez and Ashley  
Nays: None  
Absent: None  
Date: May 8, 2018  
xc: Transp.

Kecia Harper-Ihem  
Clerk of the Board  
By   
Deputy

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,  
STATE OF CALIFORNIA**

<b>FINANCIAL DATA</b>	<b>Current Fiscal Year:</b>	<b>Next Fiscal Year:</b>	<b>Total Cost:</b>	<b>Ongoing Cost</b>
<b>COST</b>	\$ 50,000	\$ 280,000	\$ 5,469,644	N/A
<b>NET COUNTY COST</b>	\$	\$	\$	\$
<b>SOURCE OF FUNDS:</b> CFD 07-02 (100%) No General Funds are used on this Project			<b>Budget Adjustment:</b> No	
			<b>For Fiscal Year:</b> 18/19 – 22/23	

**C.E.O. RECOMMENDATION:** Approve

**BACKGROUND:**

**Summary**

The County is proposing to complete the extension of Clinton Keith Road from Antelope Road to State Route 79. On March 5, 2002 (Agenda Item 3-41), the Board of Supervisors approved the Engineering Services Agreement between the County and CH2M HILL, Inc. for the preparation of Plans, Specifications and Estimates for the Clinton Keith Road Extension Project between Antelope Road and SR-79.

Work commenced on environmental studies for the project in 2002, followed by contract amendments as follows:

- The Board of Supervisors approved Amendment No. 1, on November 2, 2004 (Agenda Item 3-30), and Amendment No. 2, on December 19, 2006 (Agenda Item 3-46), to the original agreement to modify the scope to incorporate additional environmental tasks and provide final engineering design services.
- On November 2, 2010 (Agenda Item 3-51), the Board of Supervisors approved Amendment No. 3 to the Agreement which extended the termination date to June 30, 2014, to continue design activities, support right-of-way acquisition, and develop construction strategies.
- Amendment No. 4 to the Agreement was approved by the Board of Supervisors on December 4, 2012 (Agenda Item 3-30), to modify the scope to include revisions to the environmental documents and design plans for the next phase of work.
- On January 6, 2015 (Agenda Item 3-41), the Board of Supervisors approved Amendment No. 5 to the Agreement to modify the scope of services to include updating technical studies and permit applications for newly created and identified environmental resources, and to include the scope services for an alternate bid for constructing a four lane facility, including additional environmental and design document updates.
- At the January 24, 2017 (Agenda Item 3-11) the Board of Supervisors approved Amendment No. 6 to the Agreement which adjusted the contract scope to include the additional design and construction support services for Phase 4 of the Clinton Keith Road Extension. The increase to the scope of services also included preparation of Plans, Specifications and Estimates for the roadway, sidewalk, raised median, drainage facilities and traffic signal modifications. It provided support services during the bidding

**SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,  
STATE OF CALIFORNIA**

and award of the construction contract, as well as the construction of Phase 4 improvements. The term of the agreement was also extended to December 30, 2019.

The construction of the Clinton Keith Road Extension Project is being constructed in phases as funding becomes available. Phase 1 construction was completed by the City of Murrieta in 2012 which widened Clinton Keith Road, from Antelope Road to Whitewood Road, to the ultimate six (6) lane road width. Phase 2, from Whitewood Road to Trois Valley Street is under construction and includes the construction of four (4) lanes, two (2) in each direction, a sidewalk on the south side of the roadway, and new traffic signals at Trois Valley Street and at Menifee Road. Phase 3 will improve Clinton Keith Road from Leon Road to SR-79 and it includes a bridge over French Valley Creek. Construction has recently begun on Phase 4 which completes the ultimate six (6) lane facility from Whitewood Road to Trois Valley Street, constructing the final two travel lanes, sidewalk on the north side, drainage modifications and a raised median.

Amendment 7 is now necessary to modify the contract scope to incorporate additional environmental services and final design tasks for Phase 3 of the Project. Additional services are necessary due to changed site conditions and project phasing.

**Impact on Residents and Businesses**

The Clinton Keith Road Extension Project will benefit the public by providing an alternate east-west road connection between SR-79 in French Valley and Interstate 215 in Wildomar. It will provide a shorter, more direct route for goods and services.

**Additional Fiscal Information**

Amendment 7 includes costs for environmental services, final design, bidding support and construction support through the end of construction.

Amendment No. 7 proposes to increase the budget by \$649,949.

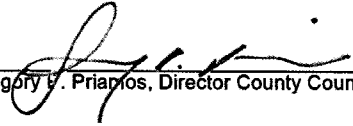
<b>Current Contract</b>	<b>\$4,819,695</b>
<b>Amendment No.7</b>	<b><u>\$ 649,949</u></b>
<b>Total Contract</b>	<b>\$5,469,644</b>

The Agreement contract will be funded 100% by the Clinton Keith Community Facilities District (CFD) 07-02. No General Funds will be used on this project.

**ATTACHMENTS**

Vicinity Map Phase 3  
Amendment 7 Clinton Keith  
Attachment A Scope and Fee

SUBMITTAL TO THE BOARD OF SUPERVISORS COUNTY OF RIVERSIDE,  
STATE OF CALIFORNIA

  
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Gregory V. Priamos, Director County Counsel 4/25/2018



AMENDMENT NO 7

AMENDMENT TO AGREEMENT BETWEEN

THE COUNTY OF RIVERSIDE AND CH2M HILL, INC.

FOR ENGINEERING SERVICES ON THE CLINTON KEITH ROAD – I-215 TO SR-79 PROJECT

THIS AMENDMENT 7 (hereinafter the "Amendment") to an agreement is made and entered into as of this 08th day of May, 2018, by and between the County of Riverside, a political subdivision of the State of California (hereinafter the "COUNTY"), and CH2M Hill Inc. (hereinafter "ENGINEER").

RECITALS

- A. COUNTY and ENGINEER have entered into an agreement entitled " Engineering Services Agreement for the Clinton Keith Road – I-215 to SR-79 project between the County of Riverside • Transportation Department and CH2M Hill Inc.," that is dated March 5, 2002 and amended on November 2, 2004, December 19, 2006, November 2, 2010, December 4, 2012, January 6, 2015, and January 24, 2017 (hereinafter the "Agreement"). The Agreement provides the terms and conditions, scope of work, schedule and budget for the performance of professional and technical services necessary to prepare an environmental document, project report, plans, specifications and estimates.
- B. On November 10, 2015 the Board of Supervisors awarded a construction contract for the Clinton Keith Road Phase 2 improvements for the construction of a four lane roadway segment from Whitewood Road to Trois Valley Street. On February 27, 2018 the Board of Supervisors awarded the construction contract for Phase 4 of the Clinton Keith Road Project. Phase 4 completes the ultimate six lane facility from Whitewood Road to Trois Valley Street.
- C. The parties now desire to supplement the Agreement to include consultant services for completing Phase 3 of the project which extends Clinton Keith Road from Leon Road to State Route 79. A portion of this segment is being designed and constructed by the developer of the property at the northwest quadrant of SR 79 and Clinton Keith Road. That portion of the project is excluded from this amendment with the exception of the necessary coordination activities.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants hereinafter contained, the parties agree as follows:

- D. To amend the scope of the Agreement to include the additional Administration, Design, Bid Support and Construction Support for Phase 3 of the project as detailed in Attachment "A" to this Amendment,

1 consisting of forty (40) pages attached and incorporated by this reference.

2  
3 E. The current contract budget of \$4,819,695.00 shall be increased by \$649,949.00 including contingencies  
4 to \$5,469,644.00 for: additional Environmental, Plans, Specifications and Estimates work effort; Bid  
5 Support; and Construction Support; all as detailed in Attachment "A" to this Amendment, consisting of  
6 twelve (12) pages attached and incorporated by this reference.

7 F. Appendix "B", Article B is amended to extend the term of the agreement from June 30, 2016 to December  
8 31, 2022.


9 G. Except to the extent specifically modified or amended hereunder, all of the terms, covenants and  
10 conditions of the Agreement as approved on dated March 5, 2002 and amended on November 2, 2004,  
11 December 19, 2006, November 2, 2010, December 4, 2012, January 6, 2015, and January 24, 2018  
12 shall remain in full force and effect between the parties hereto.

13 IN WITNESS HEREOF, the parties hereto have caused this Amendment to the Agreement to be duly executed  
14 this day and year first written above.

ARTICLE VII • APPROVALS

COUNTY Approvals

RECOMMENDED FOR APPROVAL:

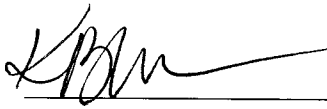
 Dated: 4-23-2018

PATRICIA ROMO

Director of Transportation

APPROVED AS TO FORM:

GREGORY P. PRIAMOS, County Counsel

 Dated: 4/26/18

Kristine Bell-Valdez, Supervising Deputy County Counsel

APPROVAL BY THE BOARD OF SUPERVISORS

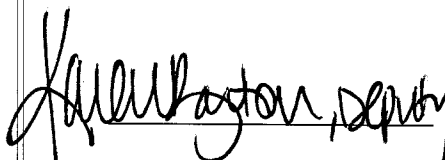
 Dated: MAY 08 2018

CHUCK WASHINGTON

PRINTED NAME

Chairman, Riverside County Board of Supervisors

ATTEST:

 Dated: MAY 08 2018

KECIA HARPER-IHEM

Clerk to the Board of Supervisors (SEAL)

ENGINEER Approvals

ENGINEER:

 Dated: 4/12/2018

TIM SMITH

PRINTED NAME

VICE PRESIDENT

TITLE

ENGINEER:

\_\_\_\_\_ Dated: \_\_\_\_\_

PRINTED NAME

TITLE



# Clinton Keith Road Extension Project

## Amendment No. 7

### Scope of Work

January 16, 2018

#### Introduction

This Amendment No. 7 is submitted to supplement the project's scope of work, and to continue to provide environmental and design support services for the next phase of the Clinton Keith Road Extension Project (Project) for the Riverside County Transportation Department (RCTD). The next phase (Phase 3) of the Project would take place from Leon Road to south of French Valley Creek Bridge.

This Amendment is required to incorporate additions to the scope of work for the current CH2M HILL, INC. Engineering and Environmental Services Agreement.

The following describes the additional scope of work for each task that is involved in this Amendment. The cost associated with each Task is attached.

#### **PHASE 1 (PA&ED)**

##### **Environmental and Management Tasks - \$313,416.60**

##### **A. Task T1.01 – Project Administration/Project Management - \$21,723.17**

The scope of these tasks has been modified and the associated budget needs to be increased by a total of \$21,723.17 for the following reasons:

- Our current contract provides project administration and project management support for Phase 2 and Phase 4 of the Project. Additional project management is needed to cover the next phase of the Project, Phase 3, costs until December 2022.
- Attendance at monthly meetings with the environmental team is required to discuss Project issues and schedule, and to attend field visits with the resource agencies, in order to keep the Project on track. The Project, broken out in Phases, was not anticipated as part of the original Amendment. Additional budget for Phase 1 (PA/ED) is needed to provide these services.

##### **B. Task T1.11.01 – California Rapid Assessment Method (CRAM) Analysis/Updated Wetland Delineation - \$0.00**

The cost associated with this task is approximately \$15,000. This work will be covered by budget remaining from our Amendment 5 contract (at this time, all work scoped under Amendment 5 is complete) and, as such, no additional budget is requested at this time. CRAM analysis is needed and is scoped to include all United States Army Corps of Engineers (USACE) jurisdictional areas within the Project footprint. Because this segment of the Project would require a Section 404 Individual Permit from the USACE, a CRAM analysis is required to

determine accurate mitigation ratios for impacts to USACE jurisdictional wetlands and waters. Additionally, an updated wetland delineation will be performed due to the change in existing conditions since the last wetland delineation was performed.

Additional scope is needed for the following reasons:

- A CRAM field analysis is required on five jurisdictional water features within this segment of the Project and includes field time to collect data and time to complete CRAM data sheets, since a CRAM analysis has not yet been performed for this segment.
- An updated wetland delineation is needed due to the change in existing conditions since the last wetland delineation was performed in March 2014.

Submittals:

- CRAM data sheets and maps
- Wetland Delineation Report
- Preliminary Jurisdictional Delineation (PJD) Form

Addendum Assumptions:

- The environmental footprint will remain the same as that presented in the May 2015 Supplemental EIR Addendum
- CH2M to use one field day to collect data/perform wetland delineation
- The Project will proceed under a PJD and not an Approved JD
- All CRAM and jurisdictional wetland delineation locations will be readily accessible at the time of the survey

### **C. Task T1.11.02 – Section 404(b)1 Alternatives Analysis - \$28,441.07**

The cost associated with this task is \$28,441.07. For the USACE to issue the Section 404 Individual Permit, a Section 404(b)1 Alternatives Analysis must be prepared to comply with USACE guidelines and to determine the least environmentally damaging practicable alternative (LEDPA). This task will include consideration of various design modifications (alternatives) such as bridges, extension of proposed bridges or other avoidance measures.

Additional scope is needed for the following reasons:

- Additional scope is needed to work with design to identify and prepare draft plans for potential avoidance alternatives at French Valley Creek, the wetland area near Leon Road, and three other jurisdictional drainages within this segment.
- Impact calculations may need to be updated based on avoidance measures
- New figures may have to be created to show updated avoidance measures and impact calculations
- A 404(b)1 Alternatives Analysis document needs to be prepared

Submittals:

- Draft and Final Section 404(b)1 Alternatives Analysis Report

Amendment Assumptions:

- The environmental footprint may shift slightly, however, will not require a new Supplemental EIR Addendum
- Project alternative information included in the May 2015 Supplemental EIR Addendum and the Updated JD Report (from 2017) will be used as the basis for the 404(b)(1) alternatives analysis report
- Approval of the Draft and Final 404(b)1 alternatives analysis will be achieved after addressing no more than two rounds of review comments from the County

**D. Task T1.11.03 – Prepare NEPA Environmental Assessment (EA)/Update CEQA documentation- \$54,368.02**

The cost associated with this task is \$54,368.02. Because this segment of the Project would require an Individual Permit from the USACE, a NEPA document must be prepared. CH2M would prepare the Draft NEPA EA for USACE review and incorporate their comments into the Final NEPA EA for their agency to adopt and circulate. This would shorten the duration for USACE to issue the Individual Permit since it saves their agency time from having to prepare the NEPA document themselves. Additionally, if the 404(b)1 alternatives analysis results in changes to the current design, and impacts to jurisdictional areas vary from those stated in the CEQA Supplemental EIR Addendum, an updated CEQA document in the form of a technical memorandum will be required.

Additional scope is needed for the following reasons:

- Using the information from the CEQA Supplemental EIR Addendum, the 404(b)1 alternatives analysis, the 2017 Updated JD Report, and the USACE NEPA EA template, CH2M would prepare a NEPA EA for USACE review and approval since this segment is not under the Nationwide 404 program. As a result, a separate NEPA document must be prepared.
- CH2M would prepare updated figures and impacts for the NEPA EA based on the 404(b)1 alternatives analysis.
- CH2M would prepare the one page Finding of No Significant Impact (FONSI) for USACE signature.
- Additional scope is needed to gather data/information to be consistent with the USACE NEPA EA template.
- Additional scope is needed to update the CEQA documentation should the alternatives analysis result in a change in impacts to jurisdictional areas.

Submittals:

- Draft and Final NEPA EA
- FONSI
- Updated CEQA Technical Memorandum

Addendum Assumptions:

- The environmental footprint may shift slightly, however, will not require a new Supplemental EIR Addendum
- Although Section 106 compliance has taken place for the entire project, this scope has included hours for coordination of the cultural component of the NEPA EA.
- Approval of the Draft NEPA EA and the Final NEPA EA will be achieved after addressing no more than two rounds of review comments from the County.
- This scope assumes the CEQA documentation will consist of a Draft and Final CEQA Technical Memorandum. This scope does not include a higher level of documentation. If the environmental footprint changes substantially to warrant another Supplemental EIR Addendum, additional scope will be required. Approval of the Draft and Final CEQA Technical Memorandum will be achieved after addressing no more than two rounds of review comments from the County.
- Applied Earthworks would assist with the completion of the Cultural Resources section in the NEPA EA.
- These hours include efforts to make edits in response to Army Corps comments on the NEPA EA.

**E. Task T1.11.04 – Agency Coordination - \$18,918.05**

The cost associated with this task is \$18,918.05. Since this segment of the Project will require a Section 404 Individual Permit, coordination with the USACE is pertinent to discuss potential avoidance alternatives and compensatory mitigation consistent with the 2008 Mitigation Rule, assist in the preparation of the mitigation ratio checklist, and to aid in the preparation of the NEPA EA. Coordination with the other permitting agencies, California Department of Fish and Wildlife (CDFW), United States Fish and Wildlife Service (USFWS), and the Regional Water Quality Control Board (RWQCB) is also important to ensure this segment of the Project complies with the CDFW Lake and Streambed Alteration program, Section 7 of the Endangered Species Act, and RWQCB Section 401 program.

Additional scope is needed for the following reasons:

- Due to the time that has passed since the last site visit, additional site visits with the permitting agencies will be necessary since there may have been staff turnover at the various agencies
- Additional field visits to potential mitigation sites may be necessary when determining compensatory mitigation

- Phone meetings and figure reviews will also be included in this task to discuss avoidance alternatives, mitigation and other permitting issues that may arise

Submittals:

- CH2M does not have any submittals for this task since this task covers coordination only.

Addendum Assumptions:

- This scope includes one site visit for each permitting agency

**F. Task T1.11.05 – Identify Compensatory Mitigation and Prepare Habitat Mitigation and Monitoring Plan (HMMP) - \$95,273.72**

The cost associated with this task is \$95,273.72. The 2008 Mitigation Rule contains regulations for preferred mitigation by the U.S. Environmental Protection Agency (EPA) and USACE. Under the regulations, there are three mechanisms for providing compensatory mitigation (listed in order of preference as established by the regulations): mitigation banks, in-lieu fee programs, and permittee-responsible mitigation. CH2M will work with not only USACE, but CDFW and RWQCB to identify on-site and off-site mitigation to off-set the impacts to jurisdictional water features. Additionally, should least Bell's vireo (LBV) be found during updated surveys (Task T1.11.11 below), coordination will take place with USFWS to identify appropriate mitigation for impacts to occupied LBV habitat.

Additional scope is needed for the following reasons:

- Additional scope is needed for identifying compensatory mitigation for this segment, since mitigation has only taken place for the other segments of Clinton Keith Road that are already, or are currently being, constructed. This segment will require a Section 404 Individual Permit from USACE for impacts to wetlands, and therefore, mitigation ratios may be higher for the higher functioning wetland impacts. Identifying mitigation sites for these impacts that will meet criteria of the permitting agencies will take time since there are limited mitigation banks available within this watershed. Additionally, if LBV are present within the Project site, USFWS will need to approve the proposed mitigation to ensure it fully mitigates impacts to occupied LBV habitat, consistent with the MSHCP.
- Additional field visits to potential mitigation sites may be necessary when determining compensatory mitigation
- Coordination with mitigation bank managers or property owners will need to take place during negotiations for mitigation.
- Time will be needed to prepare the HMMP, once mitigation has been agreed upon by the permitting agencies, since an HMMP has not yet been prepared for this segment. The assumed level of effort for this activity is shown in the manhours spreadsheet.

Submittals:

- Draft and Final HMMP

Addendum Assumptions:

- This scope includes one site visit per mitigation site with the permitting agencies
- Approval of the Draft and Final HMMP will be achieved after addressing no more than two rounds of review comments from the County
- This scope also assumes addressing one round of comments from CDFW, USACE, and USFWS
- This scope assumes RCTD is responsible for all mitigation fees (i.e. in lieu fees, mitigation bank credits, property purchase)
- This scope assumes RCTD will coordinate any rights of entry or permissions to enter potential mitigation lands
- This scope includes both temporarily impacted on site areas, as well as, potential off-site areas for mitigation.

**G. Task T1.11.06 – Updated Determination of Biologically Equivalent or Superior Preservation (DBESP) - \$28,250.78**

The cost associated with this task is \$28,250.78. The updated DBESP is required per the Multiple Species Habitat Conservation Plan (MSHCP) Consistency Determination for the Project. The updated DBESP would be submitted to the CDFW and USFWS for impacts to riparian/riverine features within this segment, including impacts to least Bell's vireo (LBV) habitat, should LBV be found during updated surveys, as shown in Task T1.11.11 below. The goal of the DBESP would be to match the mitigation proposed for USACE jurisdictional features, as well as, provide for mitigation to occupied LBV habitat, if applicable.

Additional scope is needed based on the following reasons:

- Additional scope is needed to prepare and submit an updated DBESP for riparian/riverine features since this segment of the Project has not yet obtained permits, updated LBV surveys have not been performed, and mitigation is not yet known.

Submittals:

- Draft and Final DBESP

Addendum Assumptions:

- The environmental footprint may shift slightly, however, will not require a new Supplemental EIR Addendum.
- Approval of the Draft and Final DBESP will be achieved after addressing no more than two rounds of review comments from the County.
- This scope includes costs associated with updating the DBESP for occupied LBV riparian habitat, should LBV be found during updated protocol surveys.
- This scope includes costs associated with agency review of the DBESP, should additional edits be required.

#### **H. Task T1.11.07 – Permit Applications and Packages - \$11,591.57**

The cost associated with this task is \$11,591.57. Permit applications would be submitted to the CDFW, RWQCB, and USACE for impacts to jurisdictional water features within this segment. The permit package for USACE would include the mitigation ratio checklist.

Additional scope is needed based on the following reasons:

- Additional scope is needed to prepare and submit the permit packages to USACE, CDFW, and RWQCB since this segment of the Project has not yet obtained permits.

Submittals:

- Draft and Final CDFW Streambed Alteration Agreement permit package
- Draft and Final Section 401 Water Quality Certification permit package
- Draft and Final Section 404 USACE Individual permit package

Addendum Assumptions:

- This scope assumes RCTD is responsible for all permit fees
- Approval of the Draft and Final permit packages will be achieved after addressing no more than two rounds of review comments.

#### **I. Task T1.11.08 – CDFW Nesting Bird Plan - \$9,101.14**

The cost associated with this task is \$9,101.14. A Nesting Bird Plan that meets CDFW requirements, as stated in the Streambed Alteration Agreement (SAA) will be prepared. The Nesting Bird Plan will include monitoring protocols, survey timing and duration, and project-specific avoidance and minimization measures.

Additional scope is needed based on the following reasons:

- Additional scope is needed to prepare and submit the Nesting Bird Plan to CDFW since this segment of the Project will require an SAA. Each SAA requires a Nesting Bird Plan as a condition of the Project's permit

Submittals:

- Draft and Final Nesting Bird Plan

Addendum Assumptions:

- The environmental footprint may shift slightly, however, will not require a new Supplemental EIR Addendum
- This scope assumes two rounds of comments from CDFW prior to finalizing the Nesting Bird Plan

**J. Task T1.11.09 – Pre-Construction Nesting Bird and Burrowing Owl Surveys - \$13,496.54**

The cost associated with this task is \$13,496.54. Pre-construction nesting bird and burrowing owl surveys shall be performed prior to the commencement of Project activities, per the anticipated SAA and MSHCP Consistency Determination.

Additional scope is needed based on the following reasons:

- Additional scope is needed to conduct nesting bird and burrowing owl surveys since this segment of the Project will require an SAA, and also as a requirement of the MSHCP Consistency Determination

Submittals:

- Draft and Final Nesting Bird Survey Report
- Draft and Final Burrowing Owl Survey Report

Addendum Assumptions:

- The environmental footprint may shift slightly, however, will not require a new Supplemental EIR Addendum
- This scope assumes two biologists will perform nesting bird surveys, as well as, burrowing owl surveys in one day (8 hours)
- All right of entry permits will be obtained by the County prior to pre-construction surveys, if applicable
- Approval of the Draft and Final survey reports will be achieved after addressing no more than two rounds of review comments from the County.

**K. Task T1.11.10 – Bat Roost Surveys - \$9,076.62**

The cost associated with this task is \$9,076.62. Pre-construction bat roosting surveys shall be performed per Mitigation Measure B-3 of the SEIR Addendum prior to the commencement of Project activities.

Additional scope is needed based on the following reasons:

- Additional scope is needed to conduct preconstruction bat roosting surveys for this segment of the Project

Submittals:

- Draft and Final Bat Survey Report

Addendum Assumptions:

- The environmental footprint may shift slightly, however, will not require a new Supplemental EIR Addendum
- This scope assumes one biologist will perform the bat roost survey in one day (8 hours)
- The bat survey will be limited to day time visual observations for the presence of bat roosts. No night or emergence surveys will be performed.



- All right of entry permits will be obtained by the County prior to pre-construction surveys, if applicable
- Approval of the Draft and Final survey report will be achieved after addressing no more than two rounds of review comments from the County

#### L. Task T1.11.11 – Least Bell’s Vireo Surveys - \$23,175.92

The cost associated with this task is \$23,175.92. Least bell’s vireo (LBV) surveys shall be performed prior to the commencement of Project activities.

Additional scope is needed based on the following reasons:

- Additional scope is needed to conduct LBV surveys, since this segment of the Project contains suitable habitat for LBV at the wetland area near Leon/Briggs Road, and potential habitat near French Valley Creek. Also, to obtain the updated DBESP, LBV surveys must be performed.

Submittals:

- Draft and Final LBV Survey Report
- Draft and Final Biological Assessment (BA)

Addendum Assumptions:

- The environmental footprint may shift slightly, however, will not require a new Supplemental EIR Addendum
- All right of entry permits will be obtained by the County prior to LBV surveys, if applicable
- This scope assumes 8 one-day surveys, at least 10 days apart, between the months of April and July, per USFWS Survey Protocol for LBV
- This scope includes hours needed to proceed with formal Section 7 consultation, with USACE as the lead NEPA agency
- This scope assumes one round of review of the Final Draft BA by USACE
- This scope assumes the BA will be prepared using a USACE approved template
- Approval of the Draft and Final survey reports, and BA, will be achieved after addressing no more than two rounds of review comments from the County

## **PHASE 2 (PS&E)**

### **Engineering and Management Tasks - \$197,470.12**

#### **M. (Task T2.11.PM) – Project Administration/Project Management - \$22,183.70**

The scope of these tasks has been modified and the associated budget needs to be increased by a total of \$22,183.70 for the following reasons:

The original contract and Amendments included project management efforts through December 2016. Additional Project Management and Administration efforts for Phase 3 (PS&E) needs to be provided for the duration of the roadway design through December 2022.

#### **N. Tasks T2.11.20 – Engineering Design Tasks - \$175,286.42**

The scope of this task has been modified and the associated budget needs to be increased by \$175,286.42 for the following reasons:

Additional work in support of implementing the ultimate 6-lane improvements for the Clinton Keith Road from Leon Road to just south of French Valley Creek. This comes as a result of new requests by the County which will require the following additional work:

- Update the layout and construction detail plans, designed in May 2013, from the two-lane design to the ultimate 6-lane design project
- Update drainage plans back to the 6-lane design and tie-in to the drainage designed by the Murrieta Marketplace project
- Coordinate drainage improvements/design changes with the developer located at the downstream side of the “Unnamed Creek” culvert.
- Review alternatives for a new detention basin location that would not require changes to the environmental footprint.
- Update the design to new County, City and Caltrans standards, and incorporate design changes requested from the Phase 2 and Phase 4 plans.
- Incorporate striping changes made with Phase 2 and Phase 4 to provide consistency along the roadway. (ex. Detail 26 provided along median, bike lane symbol and arrow and signs changed, and buffer added between bike lane and through traffic).
- Traffic signal at Leon Road will need to be updated to current standards. FPL will support this effort.
- Update specifications to the new 2015 standards.
- Update cost estimate to reflect the change in design to 6-lanes.
- New border and format change to be made to all plans. This results in a new format to be prepared and may cause sheets to be re-cut to accommodate construction notes now being required. This is part of the new County standard for plan preparation.

- Parkways to be incorporated between curb and sidewalk areas. There is a potential that the city will require the parkway to be a minimum of 6 feet with trenches provided for water quality purposes. This requires modification to the drainage plans and additional construction detail sheets.
- Additional retaining wall along Briggs Rd, just north of French Valley Creek Bridge, to avoid impacts to existing Briggs Rd and the overhead SCE line.
- Specific filter types of BMPs will need to be installed in the catch basins within the City's boundaries. This will include a Kristar filter and the design of trenches between the curb and sidewalk for water quality treatment. This will need to be coordinated with the City.
- New details from the utility companies will need to be added to the French Valley Creek bridge for the utility openings in the superstructure. This includes an additional sewer line requested by EMWD.
- Update bridge and calculations to new codes and standards.
- Contech will prepare an alternative design to the HydroArch culvert as a replacement, which will provide a larger system with less impacts to the wetland area.
- Alternatives Analysis will be performed and coordinated with the environmental team.

Submittals:

- Two submittal packages of Phase 3 will be provided to address changes to the plans requested by the County and the City of Murrieta

Addendum Assumptions:

- The French Valley bridge length, width and other major features affecting the weight of the bridge will not be changed
- This scope assumes that minor revisions will be made to the drainage plans to avoid conflicts with the development south of the "Unnamed Creek", and may require the environmental footprint to shift slightly, but will not require a new Supplemental EIR Addendum.
- There will be no street lighting plans within Phase 3
- There will be no landscaping plans within Phase 3
- Coordination with the developer does not require changes to the Phase 3 plans
- No additional submittals will be made unless additional review(s) are due to quality of the deliverables

## **PHASE 3 (Bid Support)**

### **O. Task T3.11.03 – Bid Support Task - \$12,981.12**

The scope of this task has been modified and the associated budget needs to be increased by a total of \$12,981.12 for the following reasons:

RCTD's decision to break the project out into Phases has caused multiple bidding processes, which require additional funds to support this work. Additional Bid Support efforts are needed to cover the duration of the bid support tasks for Phase 3 through December 2022. The assumed level of effort for this task is shown in the manhours spreadsheet.

## **PHASE 4 (Construction Support)**

### **P. Task T4.11.04 – Construction Support - \$66,995.14**

The scope of this task has been modified and the associated budget needs to be increased by a total of \$66,995.14 for the following reasons:

- RCTD's decision to Phase the Project has created additional Construction Support efforts to cover the duration of this Project through December 2022. This task includes up to 4 hours per week for a duration of 18 months, 52 hours to attend meetings and project field visits, and 60 hours to prepare as-builts, electronically and with mylars, and close out the project. For any additional work beyond this, another amendment will need to be prepared and approved by RCTD.



# COST PROPOSAL

Contract No. 02-02-005A2

Environmental and Design Support of the Clinton Keith Road Extension Project

## AMENDMENT NO. 7

### Task Summary

15-Jan-18

Amendment No. 7 Task Number	Task Description	Fee
A	Project Administration/Project Management	\$21,723
B	CRAM Analysis and Updated Wetland Delineation	\$0
C	Section 404b(1) Alternatives Analysis	\$28,441
D	Prepare NEPA documentation	\$54,368
E	Agency Coordination	\$18,918
F	Identify Compensatory Mitigation and Prepare HMMP	\$95,274
G	Updated DBESP	\$28,251
H	Permit Applications and Packages	\$11,592
I	CDFW Nesting Bird Plan	\$9,101
J	Pre-Construction Nesting Bird and Burrowing Owl Surveys	\$13,497
K	Bat Roost Surveys	\$9,077
L	Least Bell's Vireo Surveys	\$23,176
	<b>Total Phase 1</b>	<b>\$313,417</b>
M	Project Administration/Project Management	\$22,184
N	Engineering Design Tasks	\$175,286
	<b>Total Phase 2</b>	<b>\$197,470</b>
O	Phase 3 - Bid Support	\$12,981
	<b>Total Phase 3</b>	<b>\$12,981</b>
P	Phase 4 - Construction Support	\$66,995
	<b>Total Phase 4</b>	<b>\$66,995</b>
	<b>Total Phases 1, 2, 3, and 4</b>	<b>\$590,863</b>
	<b>Contingency @ 10%</b>	<b>\$59,086</b>
	<b>Total Amendment No. 7</b>	<b>\$649,949</b>

	Manager	Lessons/Lect Specialist	Consultant	Consultant	Scientist	Scientist	Scientist	Drainage	Structural Engineer	Planner	Planner	Planner	Planner	Planner	Engineer	Engineer	Engineer	UADU
<b>Total Manhours</b>																		
nt	48													48				
lineation	32		32	24		40												
		4												80				
care HMMP			12	82	32	64	160	200	60	220				160				
			8		12	12			40					32	132			
		28	6								28			12				
ing Owl Surveys		36			4	4					40							
		15	4		4						18							
			8											142				
nt	72																	
	40		160					100	60						100	80	120	200
	20														20			16
	52		40					40	50						72	30		120
	264	79	224	78	106	108	252	140	110	320	200	0	86	112	192	110	120	336

<b>COMPANY:</b> CH2M HILL	<b>SCOPE OF WORK</b> Final PS&E	<b>DATE:</b> 10/7/2017	<b>REV:</b>
<b>PROJECT:</b> Clinton Keith Road		<b>MILESTONE/PHASE:</b> Project Summary	

**DIRECT LABOR**

	CLASSIFICATION	HOURS		RATE	AMOUNT
TR	Project Manager	264	@	\$79.12	\$20,887.68
EN	Env. Task Leader/Tech Specialist	79	@	\$62.30	\$4,921.70
TR	Senior Consultant	224	@	\$79.12	\$17,722.88
WT	Senior Consultant	78	@	\$79.65	\$6,212.70
EN	Senior Scientist	106	@	\$60.78	\$6,442.68
EN	Senior Scientist	108	@	\$54.48	\$5,883.84
WT	Senior Scientist	252	@	\$73.85	\$18,610.20
WT	Senior Drainage	140	@	\$78.66	\$11,012.40
TR	Senior Structural Engineer	110	@	\$82.69	\$9,095.90
TR	Environmental Planner	320	@	\$48.32	\$15,462.40
EN	Environmental Planner	200	@	\$45.83	\$9,166.00
EN	Environmental Planner	0		\$30.73	
TR	Environmental Planner	86	@	\$51.45	\$4,424.70
EN	Environmental Planner	112	@	\$51.66	\$5,785.92
TR	Environmental Planner	510	@	\$55.26	\$28,182.60
TR	Structural Engineer	192	@	\$60.10	\$11,539.20
TR	Engineer	110	@	\$54.52	\$5,997.20
TR	Engineer	120	@	\$50.68	\$6,081.60
TR	CADD	336	@	\$41.13	\$13,819.68
EN	Graphics / GIS	196	@	\$40.17	\$7,873.32
AD	Technical Editor	86	@	\$45.06	\$3,875.16
AD	Contracts	6	@	\$74.98	\$449.88
AD	Office/ Clerical/ Admin	226	@	\$33.94	\$7,670.44
<b>TOTAL HOURS</b>		3,861		<b>TOTAL DIRECT LABOR</b>	\$221,118.08

**MULTIPLIERS**

TR ESCALATION @	(Rate)	\$8,137.22
EN ESCALATION @	(Rate)	\$1,208.21
WT ESCALATION @	(Rate)	\$1,633.78
AD ESCALATION @	(Rate)	\$556.10
TR OVERHEAD @	103.333% (of Total Direct Labor + Escalation)	\$146,062.29
EN OVERHEAD @	102.933% (of Total Direct Labor + Escalation)	\$42,492.47
WT OVERHEAD @	82.933% (of Total Direct Labor + Escalation)	\$31,074.23
AD OVERHEAD @	85.833% (of Total Direct Labor + Escalation)	\$10,773.40
<b>TOTAL MULTIPLIERS</b>		\$241,937.70

**OTHER DIRECT EXPENSES**

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Communication		hr		\$1.30	
Health & Safety Assessment	385	hr	@	\$1.10	\$423.50
Computer		hr		\$4.80	
Production Copier		ea		\$0.04	
Outside Repro Services		LS	@	\$1.00	\$3,800.00
Postage & Freight		ea		\$10.00	
Supplies		ea		\$1.00	
Mileage	2286	miles	@	\$0.535	\$1,223.01
Travel Expenses		LS	@	\$1.00	\$8,270.00
GPS Rental		day		\$500.00	
<b>TOTAL OTHER DIRECT EXPENSES</b>					\$13,716.51

**OUTSIDE SERVICES (w/o fee)**

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
Applied Earthworks				17206
FPL & Associates				9250
Contech				40000
<b>TOTAL OUTSIDE SERVICES</b>				\$66,456.00

**FEES**

OUTSIDE SERVICES ADMIN FEE @	2.00% (of Total Outside Services)	\$1,329.12
CH2M HILL @	10.00% (of Total Direct Labor + Total Multipliers)	\$46,305.58
<b>TOTAL FEES</b>		\$47,634.70
<b>TOTAL COST</b>		\$590,862.99

<b>COMPANY:</b> CH2M HILL	<b>SCOPE OF WORK</b> Phase 1	<b>DATE:</b> 10/7/2017	<b>REV:</b>
<b>PROJECT:</b> Clinton Keith Road		<b>MILESTONE/PHASE:</b> Phase 1 Summary	

**DIRECT LABOR**

	CLASSIFICATION	HOURS		RATE	AMOUNT
TR	Project Manager	80	@	\$79.12	\$6,329.60
EN	Env. Task Leader/Tech Specialist	79	@	\$62.30	\$4,921.70
TR	Senior Consultant	4	@	\$79.12	\$316.48
WT	Senior Consultant	78	@	\$79.65	\$6,212.70
EN	Senior Scientist	106	@	\$60.78	\$6,442.68
EN	Senior Scientist	108	@	\$54.48	\$5,883.84
WT	Senior Scientist	252	@	\$73.95	\$18,610.20
WT	Senior Drainage	0		\$78.66	
TR	Senior Structural Engineer	0		\$82.69	
TR	Environmental Planner	320	@	\$48.32	\$15,462.40
EN	Environmental Planner	200	@	\$45.33	\$9,166.00
EN	Environmental Planner	0		\$30.73	
TR	Environmental Planner	86	@	\$51.45	\$4,424.70
EN	Environmental Planner	112	@	\$51.66	\$5,785.92
TR	Environmental Planner	510	@	\$55.26	\$28,182.60
TR	Structural Engineer	0		\$60.10	
TR	Engineer	0		\$54.52	
TR	Engineer	0		\$50.68	
TR	CADD	0		\$41.13	
EN	Graphics / GIS	196	@	\$40.17	\$7,873.32
AD	Technical Editor	86	@	\$45.06	\$3,875.16
AD	Contracts	0		\$74.98	
AD	Office/ Clerical/ Admin	96	@	\$33.94	\$3,258.24
<b>TOTAL HOURS</b>		2,313		<b>TOTAL DIRECT LABOR</b>	\$126,745.54

**MULTIPLIERS**

TR ESCALATION @	3.015%	(Rate)	\$1,649.68	
EN ESCALATION @	3.015%	(Rate)	\$1,208.21	
WT ESCALATION @	3.015%	(Rate)	\$748.41	
AD ESCALATION @	3.015%	(Rate)	\$215.07	
TR OVERHEAD @	103.333%	(of Total Direct Labor + Escalation)	\$58,244.12	
EN OVERHEAD @	102.933%	(of Total Direct Labor + Escalation)	\$42,492.47	
WT OVERHEAD @	82.933%	(of Total Direct Labor + Escalation)	\$21,207.05	
AD OVERHEAD @	85.833%	(of Total Direct Labor + Escalation)	\$6,307.41	
<b>TOTAL MULTIPLIERS</b>				\$132,072.43

**OTHER DIRECT EXPENSES**

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Health & Safety Assessment	385	hr	@	\$1.10	\$423.50
Production Copier		ea		\$0.04	
Outside Repro Services		LS	@	\$1.00	\$1,400.00
Postage & Freight		ea		\$10.00	
Supplies		ea		\$1.00	
Mileage	2006	miles	@	\$0.535	\$1,073.21
Travel Expenses	1894	LS	@	\$1.00	\$8,270.00
GPS Rental		day		\$500.00	
<b>TOTAL OTHER DIRECT EXPENSES</b>					\$11,166.71

**OUTSIDE SERVICES (w/o fee)**

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
Applied Earthworks				\$17,206.00
<b>TOTAL OUTSIDE SERVICES</b>				\$17,206.00

**FEES**

OUTSIDE SERVICES ADMIN FEE @	2.00%	(of Total Outside Services)	\$344.12	
CH2M HILL @	10.00%	(of Total Direct Labor + Total Multipliers)	\$25,881.80	
<b>TOTAL FEES</b>			\$26,225.92	
<b>TOTAL COST</b>				\$313,416.60



<b>COMPANY:</b> CH2M HILL	<b>SCOPE OF WORK</b> Phase 1	<b>DATE:</b> 10/7/2017	<b>REV:</b>
<b>PROJECT:</b> Clinton Keith Road		<b>MILESTONE/PHASE:</b> Phase 1 Project Administration/Project Management	

**DIRECT LABOR**

CLASSIFICATION	HOURS		RATE	AMOUNT
TR Project Manager	48	@	\$79.12	\$3,797.76
EN Env. Task Leader/Tech Specialist	0		\$62.30	
TR Senior Consultant	0		\$79.12	
WT Senior Consultant	0		\$79.65	
EN Senior Scientist	0		\$60.78	
EN Senior Scientist	0		\$54.48	
WT Senior Scientist	0		\$73.85	
WT Senior Drainage	0		\$78.66	
TR Senior Structural Engineer	0		\$82.69	
TR Environmental Planner	0		\$48.32	
EN Environmental Planner	0		\$45.83	
EN Environmental Planner	0		\$30.73	
TR Environmental Planner	0		\$51.45	
EN Environmental Planner	0		\$51.66	
TR Environmental Planner	48	@	\$55.26	\$2,652.48
TR Structural Engineer	0		\$60.10	
TR Engineer	0		\$54.52	
TR Engineer	0		\$50.68	
TR CADD	0		\$41.13	
EN Graphics / GIS	0		\$40.17	
AD Technical Editor	0		\$45.06	
AD Contracts	0		\$74.98	
AD Office/ Clerical/ Admin	96	@	\$33.94	\$3,258.24
<b>TOTAL HOURS</b>				<b>192</b>
			<b>TOTAL DIRECT LABOR</b>	<b>\$9,708.48</b>

**MULTIPLIERS**

TR ESCALATION @	3.015%	(Rate)	\$194.47
EN ESCALATION @	3.015%	(Rate)	\$0.00
WT ESCALATION @	3.015%	(Rate)	\$0.00
AD ESCALATION @	3.015%	(Rate)	\$98.24
TR OVERHEAD @	103.333%	(of Total Direct Labor + Escalation)	\$6,866.18
EN OVERHEAD @	102.933%	(of Total Direct Labor + Escalation)	\$0.00
WT OVERHEAD @	82.933%	(of Total Direct Labor + Escalation)	\$0.00
AD OVERHEAD @	85.833%	(of Total Direct Labor + Escalation)	\$2,880.96
<b>TOTAL MULTIPLIERS</b>			<b>\$10,039.86</b>

**OTHER DIRECT EXPENSES**

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
				<b>TOTAL OTHER DIRECT EXPENSES</b>
				<b>\$0.00</b>

**OUTSIDE SERVICES (w/o fee)**

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
				<b>TOTAL OUTSIDE SERVICES</b>
				<b>\$0.00</b>

**FEEES**

OUTSIDE SERVICES ADMIN FEE @	2.00%	(of Total Outside Services)	\$0.00
CH2M HILL @	10.00%	(of Total Direct Labor + Total Multipliers)	\$1,974.83
			<b>TOTAL FEES</b>
			<b>\$1,974.83</b>
			<b>TOTAL COST</b>
			<b>\$21,723.17</b>

<b>COMPANY:</b> CH2M HILL	<b>SCOPE OF WORK</b> Phase 1	<b>DATE:</b> 10/7/2017	<b>REV:</b>
<b>PROJECT:</b> Clinton Keith Road		<b>MILESTONE/PHASE:</b> Phase 1 Section 404b(1) Alternatives Analysis	

**DIRECT LABOR**

	CLASSIFICATION	HOURS		RATE	AMOUNT
TR	Project Manager	32	@	\$79.12	\$2,531.84
EN	Env. Task Leader/Tech Specialis	0		\$62.30	
TR	Senior Consultant	0		\$79.12	
WT	Senior Consultant	32	@	\$79.65	\$2,548.80
EN	Senior Scientist	24	@	\$60.78	\$1,458.72
EN	Senior Scientist	0		\$54.48	
WT	Senior Scientist	40	@	\$73.85	\$2,954.00
WT	Senior Drainage	0		\$78.66	
TR	Senior Structural Engineer	0		\$82.69	
TR	Environmental Planner	0		\$48.32	
EN	Environmental Planner	0		\$45.83	
EN	Environmental Planner	0		\$30.73	
TR	Environmental Planner	0		\$51.45	
EN	Environmental Planner	0		\$51.66	
TR	Environmental Planner	0		\$55.26	
TR	Structural Engineer	0		\$60.10	
TR	Engineer	0		\$54.52	
TR	Engineer	0		\$50.68	
TR	CADD	0		\$41.13	
EN	Graphics / GIS	60	@	\$40.17	\$2,410.20
AD	Technical Editor	24	@	\$45.06	\$1,081.44
AD	Contracts	0		\$74.98	
AD	Office/ Clerical/ Admin	0		\$33.94	
<b>TOTAL HOURS</b>		212		<b>TOTAL DIRECT LABOR</b>	\$12,985.00

**MULTIPLIERS**

TR ESCALATION @	3.015%	(Rate)	\$76.33
EN ESCALATION @	3.015%	(Rate)	\$116.65
WT ESCALATION @	3.015%	(Rate)	\$165.91
AD ESCALATION @	3.015%	(Rate)	\$32.61

TR LABOR	\$2,531.84
EN LABOR	\$3,868.92
WT LABOR	\$5,502.80
AD LABOR	\$1,081.44

TR OVERHEAD @	103.333%	(of Total Direct Labor + Escalation)	\$2,695.11
EN OVERHEAD @	102.933%	(of Total Direct Labor + Escalation)	\$4,102.46
WT OVERHEAD @	82.933%	(of Total Direct Labor + Escalation)	\$4,701.23
AD OVERHEAD @	85.833%	(of Total Direct Labor + Escalation)	\$956.22

**TOTAL MULTIPLIERS** \$12,846.52

**OTHER DIRECT EXPENSES**

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Health & Safety Assessment	24	hr	@	\$1.10	\$26.40

**TOTAL OTHER DIRECT EXPENSES** \$26.40

**OUTSIDE SERVICES (w/o fee)**

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
<b>TOTAL OUTSIDE SERVICES</b> \$0.00				

**FEES**

OUTSIDE SERVICES ADMIN FEE @	2.00%	(of Total Outside Services)	\$0.00
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CH2M HILL @	10.00%	(of Total Direct Labor + Total Multipliers)	\$2,583.15
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**TOTAL FEES** \$2,583.15

**TOTAL COST** \$28,441.07

<b>COMPANY:</b> CH2M HILL	<b>SCOPE OF WORK</b> Phase 1	<b>DATE:</b> 10/7/2017	<b>REV:</b>
<b>PROJECT:</b> Clinton Keith Road		<b>MILESTONE/PHASE: Phase 1</b> Prepare NEPA Documentation	

**DIRECT LABOR**

	CLASSIFICATION	HOURS		RATE	AMOUNT
TR	Project Manager	0		\$79.12	
EN	Env. Task Leader/Tech Sp	0		\$62.30	
TR	Senior Consultant	4	@	\$79.12	\$316.48
WT	Senior Consultant	0		\$79.65	
EN	Senior Scientist	0		\$60.78	
EN	Senior Scientist	0		\$54.48	
WT	Senior Scientist	0		\$73.85	
WT	Senior Drainage	0		\$78.66	
TR	Senior Structural Engineer	0		\$82.69	
TR	Environmental Planner	0		\$48.32	
EN	Environmental Planner	0		\$45.83	
EN	Environmental Planner	0		\$30.73	
TR	Environmental Planner	0		\$51.45	
EN	Environmental Planner	80	@	\$51.66	\$4,132.80
TR	Environmental Planner	160	@	\$55.26	\$8,841.60
TR	Structural Engineer	0		\$60.10	
TR	Engineer	0		\$54.52	
TR	Engineer	0		\$50.68	
TR	CADD	0		\$41.13	
EN	Graphics / GIS	40	@	\$40.17	\$1,606.80
AD	Technical Editor	16	@	\$45.06	\$720.96
AD	Contracts	0		\$74.98	
AD	Office/ Clerical/ Admin	0		\$33.94	
<b>TOTAL HOURS</b>		<b>300</b>		<b>TOTAL DIRECT LABOR</b>	<b>\$15,618.64</b>

**MULTIPLIERS**

TR ESCALATION @	3.015%	(Rate)	\$276.12
EN ESCALATION @	3.015%	(Rate)	\$173.05
WT ESCALATION @	3.015%	(Rate)	\$0.00
AD ESCALATION @	3.015%	(Rate)	\$21.74

TR OVERHEAD @	103.333%	(of Total Direct Labor + Escalation)	\$9,748.64
EN OVERHEAD @	102.933%	(of Total Direct Labor + Escalation)	\$6,086.07
WT OVERHEAD @	82.933%	(of Total Direct Labor + Escalation)	\$0.00
AD OVERHEAD @	85.833%	(of Total Direct Labor + Escalation)	\$637.48

**TOTAL MULTIPLIERS** \$16,943.09

**OTHER DIRECT EXPENSES**

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
Outside Repro Services		LS @	\$1.00	\$1,000.00

**TOTAL OTHER DIRECT EXPENSES** \$1,000.00

**OUTSIDE SERVICES (w/o fee)**

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
Applied Earthworks				\$17,206.00

**TOTAL OUTSIDE SERVICES** \$17,206.00

**FEES**

OUTSIDE SERVICES ADMIN FEE @	2.00%	(of Total Outside Services)	\$344.12
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CH2M HILL @	10.00%	(of Total Direct Labor + Total Multipliers)	\$3,256.17
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**TOTAL FEES** \$3,600.29

**TOTAL COST** \$54,368.02

TR LABOR	\$9,158.08
EN LABOR	\$5,739.60
WT LABOR	
AD LABOR	\$720.96

<b>COMPANY:</b> CH2M HILL	<b>SCOPE OF WORK</b> Phase 1	<b>DATE:</b> 10/7/2017	<b>REV:</b>
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<b>PROJECT:</b> Clinton Keith Road	<b>MILESTONE/PHASE:</b> Phase 1 Agency Coordination
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**DIRECT LABOR**

	CLASSIFICATION	HOURS		RATE	AMOUNT
TR	Project Manager	0		\$79.12	
EN	Env. Task Leader/Tech Spe	0		\$62.30	
TR	Senior Consultant	0		\$79.12	
WT	Senior Consultant	0		\$79.65	
EN	Senior Scientist	0		\$60.78	
EN	Senior Scientist	32	@	\$54.48	\$1,743.36
WT	Senior Scientist	32	@	\$73.85	\$2,363.20
WT	Senior Drainage	0		\$78.66	
TR	Senior Structural Engineer	0		\$82.69	
TR	Environmental Planner	60	@	\$48.32	\$2,899.20
EN	Environmental Planner	0		\$45.83	
EN	Environmental Planner	0		\$30.73	
TR	Environmental Planner	0		\$51.45	
EN	Environmental Planner	0		\$51.66	
TR	Environmental Planner	16	@	\$55.26	\$884.16
TR	Structural Engineer	0		\$60.10	
TR	Engineer	0		\$54.52	
TR	Engineer	0		\$50.68	
TR	CADD	0		\$41.13	
EN	Graphics / GIS	0		\$40.17	
AD	Technical Editor	0		\$45.06	
AD	Contracts	0		\$74.98	
AD	Office/ Clerical/ Admin	0		\$33.94	
<b>TOTAL HOURS</b>		<b>140</b>		<b>TOTAL DIRECT LABOR</b>	<b>\$7,889.92</b>

**MULTIPLIERS**

TR ESCALATION @	3.015%	(Rate)	\$114.07
EN ESCALATION @	3.015%	(Rate)	\$52.56
WT ESCALATION @	3.015%	(Rate)	\$71.25
AD ESCALATION @	3.015%	(Rate)	\$0.00

TR LABOR	\$3,783.36
EN LABOR	\$1,743.36
WT LABOR	\$2,363.20
AD LABOR	

TR OVERHEAD @	103.333%	(of Total Direct Labor + Escalation)	\$4,027.33
EN OVERHEAD @	102.933%	(of Total Direct Labor + Escalation)	\$1,848.60
WT OVERHEAD @	82.933%	(of Total Direct Labor + Escalation)	\$2,018.96
AD OVERHEAD @	85.833%	(of Total Direct Labor + Escalation)	\$0.00

**TOTAL MULTIPLIERS** \$8,132.77

**OTHER DIRECT EXPENSES**

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Mileage	174	miles	@	\$0.535	\$93.09
Travel Expenses		LS	@	\$1.00	\$1,200.00

**TOTAL OTHER DIRECT EXPENSES** \$1,293.09

**OUTSIDE SERVICES (w/o fee)**

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
<b>TOTAL OUTSIDE SERVICES</b> \$0.00				

**FEES**

OUTSIDE SERVICES ADMIN FEE @	2.00%	(of Total Outside Services)	\$0.00
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CH2M HILL @	10.00%	(of Total Direct Labor + Total Multipliers)	\$1,602.27
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**TOTAL FEES** \$1,602.27

**TOTAL COST** \$18,918.05

<b>COMPANY:</b> CH2M HILL	<b>SCOPE OF WORK</b> Phase 1	<b>DATE:</b> 10/7/2017	<b>REV:</b>
<b>PROJECT:</b> Clinton Keith Road		<b>MILESTONE/PHASE:</b> Phase 1 Identify Compensatory Mitigation and Prepare HMMP	

**DIRECT LABOR**

CLASSIFICATION	HOURS	RATE	AMOUNT
TR Project Manager	0	\$79.12	
EN Env. Task Leader/Tech Spc	0	\$62.30	
TR Senior Consultant	0	\$79.12	
WT Senior Consultant	12 @	\$79.65	\$955.80
EN Senior Scientist	82 @	\$60.78	\$4,983.96
EN Senior Scientist	64 @	\$54.48	\$3,486.72
WT Senior Scientist	160 @	\$73.85	\$11,816.00
WT Senior Drainage	0	\$78.66	
TR Senior Structural Engineer	0	\$82.69	
TR Environmental Planner	220 @	\$48.32	\$10,630.40
EN Environmental Planner	200 @	\$45.83	\$9,166.00
EN Environmental Planner	0	\$30.73	
TR Environmental Planner	0	\$51.45	
EN Environmental Planner	0	\$51.66	
TR Environmental Planner	0	\$55.26	
TR Structural Engineer	0	\$60.10	
TR Engineer	0	\$54.52	
TR Engineer	0	\$50.68	
TR CADD	0	\$41.13	
EN Graphics / GIS	0	\$40.17	
AD Technical Editor	12 @	\$45.06	\$540.72
AD Contracts	0	\$74.98	
AD Office/ Clerical/ Admin	0	\$33.94	
<b>TOTAL HOURS</b>	750	<b>TOTAL DIRECT LABOR</b>	\$41,579.60

**MULTIPLIERS**

TR ESCALATION @	3.015%	(Rate)	\$320.51
EN ESCALATION @	3.015%	(Rate)	\$531.75
WT ESCALATION @	3.015%	(Rate)	\$385.07
AD ESCALATION @	3.015%	(Rate)	\$16.30

TR LABOR	\$10,630.40
EN LABOR	\$17,636.68
WT LABOR	\$12,771.80
AD LABOR	\$540.72

TR OVERHEAD @	103.333%	(of Total Direct Labor + Escalation)	\$11,315.90
EN OVERHEAD @	102.933%	(of Total Direct Labor + Escalation)	\$18,701.31
WT OVERHEAD @	82.933%	(of Total Direct Labor + Escalation)	\$10,911.39
AD OVERHEAD @	85.833%	(of Total Direct Labor + Escalation)	\$478.11
<b>TOTAL MULTIPLIERS</b>			\$42,660.33

**OTHER DIRECT EXPENSES**

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
Health & Safety Assesmer	282	hr @	\$1.10	\$310.20
Outside Repro Services		LS @	\$1.00	\$200.00
Mileage	560	miles @	\$0.535	\$299.60
Travel Expenses		LS @	\$1.00	\$1,800.00
<b>TOTAL OTHER DIRECT EXPENSES</b>				\$2,609.80

**OUTSIDE SERVICES (w/o fee)**

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
				\$0.00
<b>TOTAL OUTSIDE SERVICES</b>				\$0.00

**FEES**

OUTSIDE SERVICES ADMIN FEE @	2.00%	(of Total Outside Services)	\$0.00
CH2M HILL @	10.00%	(of Total Direct Labor + Total Multipliers)	\$8,423.99
<b>TOTAL FEES</b>			\$8,423.99
<b>TOTAL COST</b>			\$95,273.72

<b>COMPANY:</b> CH2M HILL	<b>SCOPE OF WORK</b> Phase 1	<b>DATE:</b> 10/7/2017	<b>REV:</b>
<b>PROJECT:</b> Clinton Keith Road		<b>MILESTONE/PHASE:</b> Phase 1 Updated DBESP	

**DIRECT LABOR**

CLASSIFICATION	HOURS	RATE	AMOUNT
TR	Project Manager	0	\$79.12
EN	Env. Task Leader/Tech Spe	0	\$62.30
TR	Senior Consultant	0	\$79.12
WT	Senior Consultant	8 @	\$79.65 \$637.20
EN	Senior Scientist	0	\$60.78
EN	Senior Scientist	0	\$54.48
WT	Senior Scientist	0	\$73.85
WT	Senior Drainage	0	\$78.66
TR	Senior Structural Engineer	0	\$82.69
TR	Environmental Planner	0	\$48.32
EN	Environmental Planner	0	\$45.83
EN	Environmental Planner	0	\$30.73
TR	Environmental Planner	0	\$51.45
EN	Environmental Planner	32 @	\$51.66 \$1,653.12
TR	Environmental Planner	132 @	\$55.26 \$7,294.32
TR	Structural Engineer	0	\$60.10
TR	Engineer	0	\$54.52
TR	Engineer	0	\$50.68
TR	CADD	0	\$41.13
EN	Graphics / GIS	52 @	\$40.17 \$2,088.84
AD	Technical Editor	16 @	\$45.06 \$720.96
AD	Contracts	0	\$74.98
AD	Office/ Clerical/ Admin	0	\$33.94
<b>TOTAL HOURS</b>	<b>240</b>	<b>TOTAL DIRECT LABOR</b>	<b>\$12,394.44</b>

**MULTIPLIERS**

TR ESCALATION @	3.015%	(Rate)	\$219.92
EN ESCALATION @	3.015%	(Rate)	\$112.82
WT ESCALATION @	3.015%	(Rate)	\$19.21
AD ESCALATION @	3.015%	(Rate)	\$21.74

TR LABOR	\$7,294.32
EN LABOR	\$3,741.96
WT LABOR	\$637.20
AD LABOR	\$720.96

TR OVERHEAD @	103.333%	(of Total Direct Labor + Escalation)	\$7,764.69
EN OVERHEAD @	102.933%	(of Total Direct Labor + Escalation)	\$3,967.84
WT OVERHEAD @	82.933%	(of Total Direct Labor + Escalation)	\$544.38
AD OVERHEAD @	85.833%	(of Total Direct Labor + Escalation)	\$637.48
<b>TOTAL MULTIPLIERS</b>			<b>\$13,288.09</b>

**OTHER DIRECT EXPENSES**

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
<b>TOTAL OTHER DIRECT EXPENSES</b>				<b>\$0.00</b>

**OUTSIDE SERVICES (w/o fee)**

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
<b>TOTAL OUTSIDE SERVICES</b>				<b>\$0.00</b>

**FEES**

OUTSIDE SERVICES ADMIN FEE @	2.00%	(of Total Outside Services)	\$0.00
CH2M HILL @	10.00%	(of Total Direct Labor + Total Multipliers)	\$2,568.25
<b>TOTAL FEES</b>			<b>\$2,568.25</b>
<b>TOTAL COST</b>			<b>\$28,250.78</b>

<b>COMPANY:</b> CH2M HILL	<b>SCOPE OF WORK</b> Phase 1	<b>DATE:</b> 10/7/2017	<b>REV:</b>
<b>PROJECT:</b> Clinton Keith Road		<b>MILESTONE/PHASE:</b> Phase 1 Permit Applications and Packages	

**DIRECT LABOR**

	CLASSIFICATION	HOURS		RATE	AMOUNT
TR	Project Manager	0		\$79.12	
EN	Env. Task Leader/Tech Spe	0		\$62.30	
TR	Senior Consultant	0		\$79.12	
WT	Senior Consultant	8	@	\$79.65	\$637.20
EN	Senior Scientist	0		\$60.78	
EN	Senior Scientist	12	@	\$54.48	\$653.76
WT	Senior Scientist	12	@	\$73.85	\$886.20
WT	Senior Drainage	0		\$78.66	
TR	Senior Structural Engineer	0		\$82.69	
TR	Environmental Planner	40	@	\$48.32	\$1,932.80
EN	Environmental Planner	0	@	\$45.83	
EN	Environmental Planner	0		\$30.73	
TR	Environmental Planner	0		\$51.45	
EN	Environmental Planner	0		\$51.66	
TR	Environmental Planner	12	@	\$55.26	\$663.12
TR	Structural Engineer	0		\$60.10	
TR	Engineer	0		\$54.52	
TR	Engineer	0		\$50.68	
TR	CADD	0		\$41.13	
EN	Graphics / GIS	4	@	\$40.17	\$160.68
AD	Technical Editor	4	@	\$45.06	\$180.24
AD	Contracts	0		\$74.98	
AD	Office/ Clerical/ Admin	0		\$33.94	
TOTAL HOURS		92		TOTAL DIRECT LABOR	\$5,114.00

**MULTIPLIERS**

TR ESCALATION @	3.015%	(Rate)	\$78.27
EN ESCALATION @	3.015%	(Rate)	\$24.56
WT ESCALATION @	3.015%	(Rate)	\$45.93
AD ESCALATION @	3.015%	(Rate)	\$5.43
TR OVERHEAD @	103.333%	(of Total Direct Labor + Escalation)	\$2,763.32
EN OVERHEAD @	102.933%	(of Total Direct Labor + Escalation)	\$863.60
WT OVERHEAD @	82.933%	(of Total Direct Labor + Escalation)	\$1,301.49
AD OVERHEAD @	85.833%	(of Total Direct Labor + Escalation)	\$159.37
TOTAL MULTIPLIERS			\$5,241.97

TR LABOR	\$2,595.92
EN LABOR	\$814.44
WT LABOR	\$1,523.40
AD LABOR	\$180.24

**OTHER DIRECT EXPENSES**

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Outside Repro Services		LS	@	\$1.00	\$200.00
TOTAL OTHER DIRECT EXPENSES					\$200.00

**OUTSIDE SERVICES (w/o fee)**

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
TOTAL OUTSIDE SERVICES				\$0.00

**FEES**

OUTSIDE SERVICES ADMIN FEE @	2.00%	(of Total Outside Services)	\$0.00
CH2M HILL @	10.00%	(of Total Direct Labor + Total Multipliers)	\$1,035.60
TOTAL FEES			\$1,035.60
TOTAL COST			\$11,591.57

<b>COMPANY:</b> CH2M HILL		<b>SCOPE OF WORK</b> Phase 1		<b>DATE:</b> 10/7/2017		<b>REV:</b>	
<b>PROJECT:</b> Clinton Keith Road				<b>MILESTONE/PHASE:</b> Phase 1 CDFW Nesting Bird Plan			
<b>DIRECT LABOR</b>							
	<b>CLASSIFICATION</b>	<b>HOURS</b>		<b>RATE</b>	<b>AMOUNT</b>		
TR	Project Manager	0		\$79.12			
EN	Env. Task Leader/Tech Specialist	28	@	\$62.30	\$1,744.40		
TR	Senior Consultant	0		\$79.12			
WT	Senior Consultant	6	@	\$79.65	\$477.90		
EN	Senior Scientist	0		\$60.78			
EN	Senior Scientist	0		\$54.48			
WT	Senior Scientist	0		\$73.85			
WT	Senior Drainage	0		\$78.66			
TR	Senior Structural Engineer	0		\$82.69			
TR	Environmental Planner	0		\$48.32			
EN	Environmental Planner	0		\$45.83			
EN	Environmental Planner	0		\$30.73			
TR	Environmental Planner	28	@	\$51.45	\$1,440.60		
EN	Environmental Planner	0		\$51.66			
TR	Environmental Planner	0		\$55.26			
TR	Structural Engineer	0		\$60.10			
TR	Engineer	0		\$54.52			
TR	Engineer	0		\$50.68			
TR	CADD	0		\$41.13			
EN	Graphics / GIS	4	@	\$40.17	\$160.68		
AD	Technical Editor	4	@	\$45.06	\$180.24		
AD	Contracts	0		\$74.98			
AD	Office/ Clerical/ Admin	0		\$33.94			
<b>TOTAL HOURS</b>		<b>70</b>		<b>TOTAL DIRECT LABOR</b>	<b>\$4,003.82</b>		
<b>MULTIPLIERS</b>							
TR ESCALATION @	3.015%	(Rate)			\$43.43		
EN ESCALATION @	3.015%	(Rate)			\$57.44		
WT ESCALATION @	3.015%	(Rate)			\$14.41		
AD ESCALATION @	3.015%	(Rate)			\$5.43		
TR OVERHEAD @	103.333%	(of Total Direct Labor + Escalation)			\$1,533.50		
EN OVERHEAD @	102.933%	(of Total Direct Labor + Escalation)			\$2,020.08		
WT OVERHEAD @	82.933%	(of Total Direct Labor + Escalation)			\$408.29		
AD OVERHEAD @	85.833%	(of Total Direct Labor + Escalation)			\$159.37		
				<b>TOTAL MULTIPLIERS</b>	<b>\$4,241.95</b>		
<b>OTHER DIRECT EXPENSES</b>							
<b>ITEM</b>	<b>QUANTITY</b>	<b>UNIT</b>		<b>UNIT COST</b>	<b>AMOUNT</b>		
Health & Safety Assessment	28	hr	@	\$1.10	\$30.80		
				<b>TOTAL OTHER DIRECT EXPENSES</b>	<b>\$30.80</b>		
<b>OUTSIDE SERVICES (w/o fee)</b>							
<b>COMPANY</b>	<b>LABOR</b>	<b>MULTIPLIER</b>		<b>EXPENSES</b>	<b>TOTAL</b>		
				<b>TOTAL OUTSIDE SERVICES</b>	<b>\$0.00</b>		
<b>FEES</b>							
OUTSIDE SERVICES ADMIN FEE @	2.00%	(of Total Outside Services)			\$0.00		
CH2M HILL @	10.00%	(of Total Direct Labor + Total Multipliers)			\$824.58		
				<b>TOTAL FEES</b>	<b>\$824.58</b>		
				<b>TOTAL COST</b>	<b>\$9,101.14</b>		

TR LABOR	\$1,440.60
EN LABOR	\$1,905.08
WT LABOR	\$477.90
AD LABOR	\$180.24



<b>COMPANY:</b> CH2M HILL	<b>SCOPE OF WORK</b> Phase 1	<b>DATE:</b> 10/7/2017	<b>REV:</b>
<b>PROJECT:</b> Clinton Keith Road		<b>MILESTONE/PHASE:</b> Phase 1 Pre-Construction Nesting Bird and Burrowing Owl Surveys	

**DIRECT LABOR**

	CLASSIFICATION	HOURS		RATE	AMOUNT
TR	Project Manager	0		\$79.12	
EN	Env. Task Leader/Tech Specialis	36	@	\$62.30	\$2,242.80
TR	Senior Consultant	0		\$79.12	
WT	Senior Consultant	0		\$79.65	
EN	Senior Scientist	0		\$60.78	
EN	Senior Scientist	0		\$54.48	
WT	Senior Scientist	4	@	\$73.85	\$295.40
WT	Senior Drainage	0		\$78.66	
TR	Senior Structural Engineer	0		\$82.69	
TR	Environmental Planner	0		\$48.32	
EN	Environmental Planner	0		\$45.83	
EN	Environmental Planner	0		\$30.73	
TR	Environmental Planner	40	@	\$51.45	\$2,058.00
EN	Environmental Planner	0		\$51.66	
TR	Environmental Planner	0		\$55.26	
TR	Structural Engineer	0		\$60.10	
TR	Engineer	0		\$54.52	
TR	Engineer	0		\$50.68	
TR	CADD	0		\$41.13	
EN	Graphics / GIS	0		\$40.17	
AD	Technical Editor	0		\$45.06	
AD	Contracts	0		\$74.98	
AD	Office/ Clerical/ Admin	0		\$33.94	
<b>TOTAL HOURS</b>		<b>80</b>		<b>TOTAL DIRECT LABOR</b>	<b>\$4,596.20</b>

**MULTIPLIERS**

TR ESCALATION @	3.015%	(Rate)	\$62.05
EN ESCALATION @	3.015%	(Rate)	\$67.62
WT ESCALATION @	3.015%	(Rate)	\$8.91
AD ESCALATION @	3.015%	(Rate)	\$0.00

TR LABOR	\$2,058.00
EN LABOR	\$2,242.80
WT LABOR	\$295.40
AD LABOR	

TR OVERHEAD @	103.333%	(of Total Direct Labor + Escalation)	\$2,190.71
EN OVERHEAD @	102.933%	(of Total Direct Labor + Escalation)	\$2,378.19
WT OVERHEAD @	82.933%	(of Total Direct Labor + Escalation)	\$252.37
AD OVERHEAD @	85.833%	(of Total Direct Labor + Escalation)	\$0.00

**TOTAL MULTIPLIERS** **\$4,959.84**

**OTHER DIRECT EXPENSES**

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Health & Safety Assessment	36	hr	@	\$1.10	\$39.60
Mileage	580	miles	@	\$0.535	\$310.30
Travel Expenses		LS	@	\$1.00	\$2,635.00

**TOTAL OTHER DIRECT EXPENSES** **\$2,984.90**

**OUTSIDE SERVICES (w/o fee)**

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
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**TOTAL OUTSIDE SERVICES** **\$0.00**

**FEES**

OUTSIDE SERVICES ADMIN FEE @	2.00%	(of Total Outside Services)	\$0.00
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CH2M HILL @	10.00%	(of Total Direct Labor + Total Multipliers)	\$955.60
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**TOTAL FEES** **\$955.60**

**TOTAL COST** **\$13,496.54**

<b>COMPANY:</b> CH2M HILL		<b>SCOPE OF WORK</b> Phase 1		<b>DATE:</b> 10/7/2017	<b>REV:</b>
<b>PROJECT:</b> Clinton Keith Road				<b>MILESTONE/PHASE:</b> Phase 1 Bat Roost Surveys	
<b>DIRECT LABOR</b>					
	<b>CLASSIFICATION</b>	<b>HOURS</b>	<b>RATE</b>	<b>AMOUNT</b>	
TR	Project Manager	0	\$79.12		
EN	Env. Task Leader/Tech Specialist	15	@ \$62.30	\$934.50	
TR	Senior Consultant	0	\$79.12		
WT	Senior Consultant	4	@ \$79.65	\$318.60	
EN	Senior Scientist	0	\$60.78		
EN	Senior Scientist	0	\$54.48		
WT	Senior Scientist	4	@ \$73.85	\$295.40	
WT	Senior Drainage	0	\$78.66		
TR	Senior Structural Engineer	0	\$82.69		
TR	Environmental Planner	0	\$48.32		
EN	Environmental Planner	0	\$45.83		
EN	Environmental Planner	0	\$30.73		
TR	Environmental Planner	18	@ \$51.45	\$926.10	
EN	Environmental Planner	0	\$51.66		
TR	Environmental Planner	0	\$55.26		
TR	Structural Engineer	0	\$60.10		
TR	Engineer	0	\$54.52		
TR	Engineer	0	\$50.68		
TR	CADD	0	\$41.13		
EN	Graphics / GIS	4	@ \$40.17	\$160.68	
AD	Technical Editor	2	@ \$45.06	\$90.12	
AD	Contracts	0	\$74.98		
AD	Office/ Clerical/ Admin	0	\$33.94		
<b>TOTAL HOURS</b>		<b>47</b>	<b>TOTAL DIRECT LABOR</b>	<b>\$2,725.40</b>	
<b>MULTIPLIERS</b>					
TR ESCALATION @	3.015%	(Rate)			\$27.92
EN ESCALATION @	3.015%	(Rate)			\$33.02
WT ESCALATION @	3.015%	(Rate)			\$18.51
AD ESCALATION @	3.015%	(Rate)			\$2.72
TR OVERHEAD @	103.333%	(of Total Direct Labor + Escalation)			\$985.82
EN OVERHEAD @	102.933%	(of Total Direct Labor + Escalation)			\$1,161.29
WT OVERHEAD @	82.933%	(of Total Direct Labor + Escalation)			\$524.56
AD OVERHEAD @	85.833%	(of Total Direct Labor + Escalation)			\$79.68
<b>TOTAL MULTIPLIERS</b>				<b>\$2,833.53</b>	
<b>OTHER DIRECT EXPENSES</b>					
<b>ITEM</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>AMOUNT</b>	
Health & Safety Assessment	15	hr @	\$1.10	\$16.50	
Mileage	580	miles @	\$0.535	\$310.30	
Travel Expenses		LS @	\$1.00	\$2,635.00	
<b>TOTAL OTHER DIRECT EXPENSES</b>				<b>\$2,961.80</b>	
<b>OUTSIDE SERVICES (w/o fee)</b>					
<b>COMPANY</b>	<b>LABOR</b>	<b>MULTIPLIER</b>	<b>EXPENSES</b>	<b>TOTAL</b>	
<b>TOTAL OUTSIDE SERVICES</b>				<b>\$0.00</b>	
<b>FEES</b>					
OUTSIDE SERVICES ADMIN FEE @	2.00% (of Total Outside Services)			\$0.00	
CH2M HILL @	10.00% (of Total Direct Labor + Total Multipliers)			\$555.89	
<b>TOTAL FEES</b>				<b>\$555.89</b>	
<b>TOTAL COST</b>				<b>\$9,076.62</b>	

TR LABOR	\$926.10
EN LABOR	\$1,095.18
WT LABOR	\$614.00
AD LABOR	\$90.12

<b>COMPANY:</b> CH2M HILL	<b>SCOPE OF WORK</b> Phase 1	<b>DATE:</b> 10/7/2017	<b>REV:</b>
<b>PROJECT:</b> Clinton Keith Road		<b>MILESTONE/PHASE:</b> Phase 1 Least Bell's Vireo	

**DIRECT LABOR**

	CLASSIFICATION	HOURS		RATE	AMOUNT
TR	Project Manager	0		\$79.12	
EN	Env. Task Leader/Tech Specialist	0		\$62.30	
TR	Senior Consultant	0		\$79.12	
WT	Senior Consultant	8	@	\$79.65	\$637.20
EN	Senior Scientist	0		\$60.78	
EN	Senior Scientist	0		\$54.48	
WT	Senior Scientist	0		\$73.85	
WT	Senior Drainage	0		\$78.66	
TR	Senior Structural Engineer	0		\$82.69	
TR	Environmental Planner	0		\$48.32	
EN	Environmental Planner	0		\$45.83	
EN	Environmental Planner	0		\$30.73	
TR	Environmental Planner	0		\$51.45	
EN	Environmental Planner	0		\$51.66	
TR	Environmental Planner	142	@	\$55.26	\$7,846.92
TR	Structural Engineer	0		\$60.10	
TR	Engineer	0		\$54.52	
TR	Engineer	0		\$50.68	
TR	CADD	0		\$41.13	
EN	Graphics / GIS	32	@	\$40.17	\$1,285.44
AD	Technical Editor	8	@	\$45.06	\$360.48
AD	Contracts	0		\$74.98	
AD	Office/ Clerical/ Admin	0		\$33.94	
<b>TOTAL HOURS</b>		<b>190</b>		<b>TOTAL DIRECT LABOR</b>	<b>\$10,130.04</b>

**MULTIPLIERS**

TR ESCALATION @	3.015%	(Rate)		\$236.58
EN ESCALATION @	3.015%	(Rate)		\$38.76
WT ESCALATION @	3.015%	(Rate)		\$19.21
AD ESCALATION @	3.015%	(Rate)		\$10.87
TR OVERHEAD @	103.333%	(of Total Direct Labor + Escalation)		\$8,352.93
EN OVERHEAD @	102.933%	(of Total Direct Labor + Escalation)		\$1,363.03
WT OVERHEAD @	82.933%	(of Total Direct Labor + Escalation)		\$544.38
AD OVERHEAD @	85.833%	(of Total Direct Labor + Escalation)		\$318.74
<b>TOTAL MULTIPLIERS</b>				<b>\$10,884.50</b>

TR LABOR	\$7,846.92
EN LABOR	\$1,285.44
WT LABOR	\$637.20
AD LABOR	\$360.48

**OTHER DIRECT EXPENSES**

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Mileage	112	miles	@	\$0.535	\$59.92
<b>TOTAL OTHER DIRECT EXPENSES</b>					<b>\$59.92</b>

**OUTSIDE SERVICES (w/o fee)**

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL	
<b>TOTAL OUTSIDE SERVICES</b>					<b>\$0.00</b>

**FEES**

OUTSIDE SERVICES ADMIN FEE @	2.00%	(of Total Outside Services)		\$0.00
CH2M HILL @	10.00%	(of Total Direct Labor + Total Multipliers)		\$2,101.45
<b>TOTAL FEES</b>				<b>\$2,101.45</b>
<b>TOTAL COST</b>				<b>\$23,175.92</b>

<b>COMPANY:</b> CH2M HILL	<b>SCOPE OF WORK</b> Phase 2	<b>DATE:</b> 10/7/2017	<b>REV:</b>
<b>PROJECT:</b> Clinton Keith Road		<b>MILESTONE/PHASE:</b> Phase 2 Summary	

**DIRECT LABOR**

CLASSIFICATION		HOURS		RATE	AMOUNT
TR	Project Manager	112	@	\$79.12	\$8,861.44
EN	Env. Task Leader/Tech Specialist	0		\$62.30	
TR	Senior Consultant	160	@	\$79.12	\$12,659.20
WT	Senior Consultant	0		\$79.65	
EN	Senior Scientist	0		\$60.78	
EN	Senior Scientist	0		\$54.48	
WT	Senior Scientist	0		\$73.85	
WT	Senior Drainage	100	@	\$78.66	\$7,866.00
TR	Senior Structural Engineer	60	@	\$82.69	\$4,961.40
TR	Environmental Planner	0		\$48.32	
EN	Environmental Planner	0		\$45.83	
EN	Environmental Planner	0		\$30.73	
TR	Environmental Planner	0		\$51.45	
EN	Environmental Planner	0		\$51.66	
TR	Environmental Planner	0		\$55.26	
TR	Structural Engineer	100	@	\$60.10	\$6,010.00
TR	Engineer	80	@	\$54.52	\$4,361.60
TR	Engineer	120	@	\$50.68	\$6,081.60
TR	CADD	200	@	\$41.13	\$8,226.00
EN	Graphics / GIS	0		\$40.17	
AD	Technical Editor	0		\$45.06	
AD	Contracts	6	@	\$74.98	\$449.88
AD	Office/ Clerical/ Admin	106	@	\$33.94	\$3,597.64
<b>TOTAL HOURS</b>		1,044		<b>TOTAL DIRECT LABOR</b>	\$63,074.76

**MULTIPLIERS**

TR ESCALATION @	5.560%	(Rate)	\$2,844.56
EN ESCALATION @	5.560%	(Rate)	\$0.00
WT ESCALATION @	5.560%	(Rate)	\$437.35
AD ESCALATION @	5.560%	(Rate)	\$225.04
TR OVERHEAD @	103.333%	(of Total Direct Labor + Escalation)	\$55,805.82
EN OVERHEAD @	102.933%	(of Total Direct Labor + Escalation)	\$0.00
WT OVERHEAD @	82.933%	(of Total Direct Labor + Escalation)	\$6,886.22
AD OVERHEAD @	85.833%	(of Total Direct Labor + Escalation)	\$3,667.27
<b>TOTAL MULTIPLIERS</b>			\$69,866.26

**OTHER DIRE \*\*\* Billed at Actual Cost \*\*\***

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
Outside Repro Services		LS @	\$1.00	\$1,000.00
<b>TOTAL OTHER DIRECT EXPENSES</b>				\$1,000.00

**OUTSIDE SERVICES (w/o fee)**

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
FPL & Associates				9250
Contech				40000
<b>TOTAL OUTSIDE SERVICES</b>				\$49,250.00

**FEES**

OUTSIDE SERVICES ADMIN FEE @	2.00%	(of Total Outside Services)	\$985.00
CH2M HILL @	10.00%	(of Total Direct Labor + Total Multipliers)	\$13,294.10
<b>TOTAL FEES</b>			\$14,279.10
<b>TOTAL COST</b>			<b>\$197,470.12</b>

<b>COMPANY:</b> CH2M HILL	<b>SCOPE OF WORK</b> Phase 2	<b>DATE:</b> 10/7/2017	<b>REV:</b>
<b>PROJECT:</b> Clinton Keith Road		<b>MILESTONE/PHASE:</b> Phase 2 Project Administration/Project Management	

**DIRECT LABOR**

CLASSIFICATION		HOURS		RATE	AMOUNT
TR	Project Manager	72	@	\$79.12	\$5,696.64
EN	Env. Task Leader/Tech Spe	0		\$62.30	
TR	Senior Consultant	0		\$79.12	
WT	Senior Consultant	0		\$79.65	
EN	Senior Scientist	0		\$60.78	
EN	Senior Scientist	0		\$54.48	
WT	Senior Scientist	0		\$73.85	
WT	Senior Drainage	0		\$78.66	
TR	Senior Structural Engineer	0		\$82.69	
TR	Environmental Planner	0		\$48.32	
EN	Environmental Planner	0		\$45.83	
EN	Environmental Planner	0		\$30.73	
TR	Environmental Planner	0		\$51.45	
EN	Environmental Planner	0		\$51.66	
TR	Environmental Planner	0		\$55.26	
TR	Structural Engineer	0		\$60.10	
TR	Engineer	0		\$54.52	
TR	Engineer	0		\$50.68	
TR	CADD	0		\$41.13	
EN	Graphics / GIS	0		\$40.17	
AD	Technical Editor	0		\$45.06	
AD	Contracts	6	@	\$74.98	\$449.88
AD	Office/ Clerical/ Admin	106	@	\$33.94	\$3,597.64
<b>TOTAL HOURS</b>		<b>184</b>		<b>TOTAL DIRECT LABOR</b>	<b>\$9,744.16</b>

**MULTIPLIERS**

TR ESCALATION @	5.560%	(Rate)	\$316.73
EN ESCALATION @	5.560%	(Rate)	\$0.00
WT ESCALATION @	5.560%	(Rate)	\$0.00
AD ESCALATION @	5.560%	(Rate)	\$225.04
TR OVERHEAD @	103.333%	(of Total Direct Labor + Escalation)	\$6,213.80
EN OVERHEAD @	102.933%	(of Total Direct Labor + Escalation)	\$0.00
WT OVERHEAD @	82.933%	(of Total Direct Labor + Escalation)	\$0.00
AD OVERHEAD @	85.833%	(of Total Direct Labor + Escalation)	\$3,667.27
<b>TOTAL MULTIPLIERS</b>			<b>\$10,422.84</b>

TR LABOR	\$5,696.64
EN LABOR	
WT LABOR	
AD LABOR	\$4,047.52

**OTHER DIRECT EXPENSES**

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
<b>TOTAL OTHER DIRECT EXPENSES</b>				<b>\$0.00</b>

**OUTSIDE SERVICES (w/o fee)**

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
<b>TOTAL OUTSIDE SERVICES</b>				<b>\$0.00</b>

**FEES**

OUTSIDE SERVICES ADMIN FEE @	2.00%	(of Total Outside Services)	\$0.00
CH2M HILL @	10.00%	(of Total Direct Labor + Total Multipliers)	\$2,016.70
<b>TOTAL FEES</b>			<b>\$2,016.70</b>
<b>TOTAL COST</b>			<b>\$22,183.70</b>

<b>COMPANY:</b> CH2M HILL		<b>SCOPE OF WORK</b> Phase 2		<b>DATE:</b> 10/7/2017	<b>REV:</b>
<b>PROJECT:</b> Clinton Keith Road				<b>MILESTONE/PHASE:</b> Phase 2 Engineering Design Tasks	
<b>DIRECT LABOR</b>					
CLASSIFICATION	HOURS	RATE	AMOUNT		
TR Project Manager	40	\$79.12	\$3,164.80		
EN Env. Task Leader/Tech Spe	0	\$62.30			
TR Senior Consultant	160	\$79.12	\$12,659.20		
WT Senior Consultant	0	\$79.65			
EN Senior Scientist	0	\$60.78			
EN Senior Scientist	0	\$54.48			
WT Senior Scientist	0	\$73.85			
WT Senior Drainage	100	\$78.66	\$7,866.00		
TR Senior Structural Engineer	60	\$82.69	\$4,961.40		
TR Environmental Planner	0	\$48.32			
EN Environmental Planner	0	\$45.83			
EN Environmental Planner	0	\$30.73			
TR Environmental Planner	0	\$51.45			
EN Environmental Planner	0	\$51.66			
TR Environmental Planner	0	\$55.26			
TR Structural Engineer	100	\$60.10	\$6,010.00		
TR Engineer	80	\$54.52	\$4,361.60		
TR Engineer	120	\$50.68	\$6,081.60		
TR CADD	200	\$41.13	\$8,226.00		
EN Graphics / GIS	0	\$40.17			
AD Technical Editor	0	\$45.06			
AD Contracts	0	\$74.98			
AD Office/ Clerical/ Admin	0	\$33.94			
	<b>TOTAL HOURS</b>	860		<b>TOTAL DIRECT LABOR</b>	\$53,330.60
<b>MULTIPLIERS</b>					
TR ESCALATION @	5.560%	(Rate)	\$2,527.83		
EN ESCALATION @	5.560%	(Rate)	\$0.00		
WT ESCALATION @	5.560%	(Rate)	\$437.35		
AD ESCALATION @	5.560%	(Rate)	\$0.00		
TR OVERHEAD @	103.333%	(of Total Direct Labor + Escalation)	\$49,592.02		
EN OVERHEAD @	102.933%	(of Total Direct Labor + Escalation)	\$0.00		
WT OVERHEAD @	82.933%	(of Total Direct Labor + Escalation)	\$6,886.22		
AD OVERHEAD @	85.833%	(of Total Direct Labor + Escalation)	\$0.00		
	<b>TOTAL MULTIPLIERS</b>		\$59,443.42		
<b>OTHER DIRECT EXPENSES</b>					
ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT	
Outside Repro Services		LS @	\$1.00	\$1,000.00	
	<b>TOTAL OTHER DIRECT EXPENSES</b>			\$1,000.00	
<b>OUTSIDE SERVICES (w/o fee)</b>					
COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL	
FPL & Associates				\$9,250.00	
Contech				\$40,000.00	
	<b>TOTAL OUTSIDE SERVICES</b>			\$49,250.00	
<b>FEES</b>					
OUTSIDE SERVICES ADMIN FEE @	2.00%	(of Total Outside Services)	\$985.00		
				0	
CH2M HILL @	10.00%	(of Total Direct Labor + Total Multipliers)	\$11,277.40		
	<b>TOTAL FEES</b>			\$12,262.40	
	<b>TOTAL COST</b>			\$175,286.42	

TR LABOR	\$45,464.60
EN LABOR	
WT LABOR	\$7,866.00
AD LABOR	

<b>COMPANY:</b> CH2M HILL	<b>SCOPE OF WORK</b> Phase 3 - Bid Support	<b>DATE:</b> 10/7/2017	<b>REV:</b>
<b>PROJECT:</b> Clinton Keith Road		<b>MILESTONE/PHASE:</b> Phase 3 Bid Support	

**DIRECT LABOR**

	CLASSIFICATION	HOURS		RATE	AMOUNT
TR	Project Manager	20	@	\$79.12	\$1,582.40
EN	Env. Task Leader/Tech Specialist	0		\$62.30	
TR	Senior Consultant	20	@	\$79.12	\$1,582.40
WT	Senior Consultant	0		\$79.65	
EN	Senior Scientist	0		\$60.78	
EN	Senior Scientist	0		\$54.48	
WT	Senior Scientist	0		\$73.85	
WT	Senior Drainage	0		\$78.66	
TR	Senior Structural Engineer	0		\$82.69	
TR	Environmental Planner	0		\$48.32	
EN	Environmental Planner	0		\$45.83	
EN	Environmental Planner	0		\$30.73	
TR	Environmental Planner	0		\$51.45	
EN	Environmental Planner	0		\$51.66	
TR	Environmental Planner	0		\$55.26	
TR	Structural Engineer	20	@	\$60.10	\$1,202.00
TR	Engineer	0		\$54.52	
TR	Engineer	0		\$50.68	
TR	CADD	16	@	\$41.13	\$658.08
EN	Graphics / GIS	0		\$40.17	
AD	Technical Editor	0		\$45.06	
AD	Contracts	0		\$74.98	
AD	Office/ Clerical/ Admin	0		\$33.94	
<b>TOTAL HOURS</b>		<b>76</b>		<b>TOTAL DIRECT LABOR</b>	<b>\$5,024.88</b>

**MULTIPLIERS**

TR ESCALATION @	9.273%	(Rate)	\$465.94
EN ESCALATION @	9.273%	(Rate)	\$0.00
WT ESCALATION @	9.273%	(Rate)	\$0.00
AD ESCALATION @	9.273%	(Rate)	\$0.00
TR OVERHEAD @	103.333%	(of Total Direct Labor + Escalation)	\$5,673.83
EN OVERHEAD @	102.933%	(of Total Direct Labor + Escalation)	\$0.00
WT OVERHEAD @	82.933%	(of Total Direct Labor + Escalation)	\$0.00
AD OVERHEAD @	85.833%	(of Total Direct Labor + Escalation)	\$0.00
<b>TOTAL MULTIPLIERS</b>			<b>\$6,139.77</b>

**OTHER DIRECT EXPENSES**

ITEM	QUANTITY	UNIT	UNIT COST	AMOUNT
Outside Repro Services		LS @	\$1.00	\$700.00
<b>TOTAL OTHER DIRECT EXPENSES</b>				<b>\$700.00</b>

**OUTSIDE SERVICES (w/o fee)**

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL
<b>TOTAL OUTSIDE SERVICES</b>				<b>\$0.00</b>

**FEEES**

OUTSIDE SERVICES ADMIN FEE @	2.00%	(of Total Outside Services)	\$0.00
CH2M HILL @	10.00%	(of Total Direct Labor + Total Multipliers)	\$1,116.47
<b>TOTAL FEES</b>			<b>\$1,116.47</b>
<b>TOTAL COST</b>			<b>\$12,981.12</b>

<b>COMPANY:</b> CH2M HILL	<b>SCOPE OF WORK</b> Phase 4 - Construction Support	<b>DATE:</b> 10/7/2017	<b>REV:</b>
<b>PROJECT:</b> Clinton Keith Road		<b>MILESTONE/PHASE:</b> Phase 4 Construction Support	

**DIRECT LABOR**

	CLASSIFICATION	HOURS		RATE	AMOUNT
TR	Project Manager	52	@	\$79.12	\$4,114.24
EN	Env. Task Leader/Tech Specialist	0		\$62.30	
TR	Senior Consultant	40	@	\$79.12	\$3,164.80
WT	Senior Consultant	0		\$79.65	
EN	Senior Scientist	0		\$60.78	
EN	Senior Scientist	0		\$54.48	
WT	Senior Scientist	0		\$73.85	
WT	Senior Drainage	40	@	\$78.66	\$3,146.40
TR	Senior Structural Engineer	50	@	\$82.69	\$4,134.50
TR	Environmental Planner	0		\$48.32	
EN	Environmental Planner	0		\$45.83	
EN	Environmental Planner	0		\$30.73	
TR	Environmental Planner	0		\$51.45	
EN	Environmental Planner	0		\$51.66	
TR	Environmental Planner	0		\$55.26	
TR	Structural Engineer	72	@	\$60.10	\$4,327.20
TR	Engineer	30	@	\$54.52	\$1,635.60
TR	Engineer	0		\$50.68	
TR	CADD	120	@	\$41.13	\$4,935.60
EN	Graphics / GIS	0		\$40.17	
AD	Technical Editor	0		\$45.06	
AD	Contracts	0		\$74.98	
AD	Office/ Clerical/ Admin	24	@	\$33.94	\$814.56
<b>TOTAL HOURS</b>		428		<b>TOTAL DIRECT LABOR</b>	\$26,272.90

**MULTIPLIERS**

TR ESCALATION @	14.239%	(Rate)	\$3,177.03
EN ESCALATION @	14.239%	(Rate)	\$0.00
WT ESCALATION @	14.239%	(Rate)	\$448.02
AD ESCALATION @	14.239%	(Rate)	\$115.99
TR OVERHEAD @	103.333%	(of Total Direct Labor + Escalation)	\$26,338.52
EN OVERHEAD @	102.933%	(of Total Direct Labor + Escalation)	\$0.00
WT OVERHEAD @	82.933%	(of Total Direct Labor + Escalation)	\$2,980.96
AD OVERHEAD @	85.833%	(of Total Direct Labor + Escalation)	\$798.72
<b>TOTAL MULTIPLIERS</b>			\$33,859.23

**OTHER DIRECT EXPENSES**

ITEM	QUANTITY	UNIT		UNIT COST	AMOUNT
Outside Repro Services		LS	@	\$1.00	\$700.00
Mileage	280	miles	@	\$0.535	\$149.80
<b>TOTAL OTHER DIRECT EXPENSES</b>					\$849.80

**OUTSIDE SERVICES (w/o fee)**

COMPANY	LABOR	MULTIPLIER	EXPENSES	TOTAL	
<b>TOTAL OUTSIDE SERVICES</b>					\$0.00

**FEES**

OUTSIDE SERVICES ADMIN FEE @	2.00%	(of Total Outside Services)	\$0.00
CH2M HILL @	10.00%	(of Total Direct Labor + Total Multipliers)	\$6,013.21
<b>TOTAL FEES</b>			\$6,013.21
<b>TOTAL COST</b>			\$66,995.14



October 26, 2017

Ms. Alicia Cannon, P.E.  
CH2M Hill  
1770 Iowa Avenue, Suite 200  
Riverside, CA 92507  
Transmitted via email to [Alicia.Cannon@CH2M.com](mailto:Alicia.Cannon@CH2M.com)

**Re: Scope of Work and Cost Estimate to Provide Cultural and Paleontological Resource Studies in Support of the Clinton Keith Extension Project (Phase 3), Murrieta Region, Riverside County, California**

Dear Ms. Cannon:

Applied EarthWorks, Inc. (Æ) is pleased to submit a scope of work and cost estimate to conduct supplemental cultural resource studies in support of the Riverside County Transportation Department's (RCTD) Clinton Keith Road Extension Project (Segment 4) located between Leon Road and State Route 79, Riverside County, California. Æ understands that the County is seeking an individual permit from the Army Corps of Engineers requiring compliance under the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA). Previous cultural resource studies were completed on portions of Segment 4 resulting in the identification of at least two archaeological resources, one of which (33-016989) was presumed eligible for the National Register of Historic Places and treated as a historic property for the purposes of the Project. Measures to resolve the undertaking's adverse effects to this resource are included in the Memorandum of Agreement executed between the Army Corps of Engineers and the California State Historic Preservation Officer. Æ further understands that the County is acquiring additional property (the Lesovsky Property) not included in the limits of the Project's Area of Potential Effects (APE) that will require additional cultural resources survey and assessment to ensure no new impacts to cultural resources will occur as a result of this Project. Furthermore, Æ will perform reconnaissance survey of the remaining portions of Segment 4 and assess the condition of previously recorded archaeological resources and update site records as may be required. The results of this work will be summarized in a supplemental cultural resources survey report. The scope of work required to fulfill the Project requirements includes the following tasks:

- Æ will complete a supplemental archaeological literature and records search at the Eastern Archaeological Information Center, housed at the University of California, Riverside. This search will encompass a one-mile radius of the Project area and will be conducted at standard rates.
- A qualified archaeologist will conduct a supplemental Phase-1 archaeological survey of the Lesovsky Property and a reconnaissance survey of all other portions of Segment 4. Survey transect spacing will range from 10 to 15 m (30 to 50 ft), and all landforms likely to contain or exhibit archaeologically or historically sensitive cultural resources will be inspected carefully to ensure that visible, potentially important cultural resources are discovered and documented. Additionally, the surveyor will investigate any unusual contours, soil changes, distinctive vegetation patterns, features (e.g., road cuts, ditches, and stream cuts), and other potential cultural site markers. This scope assumes no cultural resources will be found that weren't previously identified in the Addendum EIR dated May 2015.
- Æ will prepare a site record update for 33-016989. This scope assumes no site record update will be required for CA-RIV-11585 (33-016990).



- Once the field investigation has been completed, Æ will provide a supplemental report of our survey findings. This report will include a project description, cultural setting, methods, survey results, and recommendations for cultural resources management including reference to existing cultural resource mitigation measures related to the protection of 33-016989 through the establishment of an Environmentally Sensitive Area (ESA) and monitoring. The report would also incorporate results of the supplemental records search from the Eastern Archaeological Information Center. This scope assumes no more than two review/revision cycles will be required before the document is accepted as final.
- Æ's scope includes time to initiate consultation with the Army Corps for Section 106 compliance. This scope does not include any additional Section 106 activities on behalf of the Army Corps that may be required, such as consultation with tribes, preparation of Area of Potential Effects maps, additional fieldwork, or reporting. Time is allotted for one conference call with the Army Corps.

A cost estimate to complete the archaeological literature search, initiate Army Corps consultation, conduct the cultural resource field investigations, and prepare the necessary technical reports is attached. As noted above, this scope assumes that no new cultural resources will be encountered during the survey. If previously unknown archaeological sites or historic built-environment resources are encountered during the fieldwork that require documentation, Project costs would increase based on the size and complexity of the resource(s) in question. Further, this scope does not include the cost of cultural monitoring, worker training, or Native American coordination or monitoring during field survey or Project construction.

Please do not hesitate to call me at (951)766-2000 if you have questions or require additional information. We look forward to working with you on this project.

Sincerely,

Barry A. Price, M.A., RPA  
Applied EarthWorks, Inc.  
Vice President

# PROPOSED LABOR ALLOCATION

Cultural Resource Study  
 RCTD Clinton Keith Road Extension (Segment 4)  
 Prepared for Alicia Canon - CH2M



10/26/2017

**TABLE 1  
 LABOR**

Task Identifier	Task 1	Task 2	Task 3	Task 4	Task 5	Total
Role	Admin/ Consult	Records Search	Field Survey	Site Record	Report	(hrs)
Principal Archaeologist	Price, B.	4.0			8.0	12.0
Project Manager	George, J.	12.0	2.0		20.0	34.0
Associate Archaeologist	Abdo-Hintzman, K	8.0			48.0	56.0
Field Supervisor	Moloney, P.		8.0	4.0	4.0	16.0
Field Technician	TBD		8.0	4.0		12.0
Graphics Specialist	Inoway, C.		8.0	6.0	12.0	26.0
Administrative Assistant	Birchhoff, S.	8.0	4.0	2.0	6.0	20.0
<b>Total</b>	<b>24.0</b>	<b>18.0</b>	<b>20.0</b>	<b>16.0</b>	<b>98.0</b>	<b>160</b>

# COST ESTIMATE



RCTD Clinton Keith Road Extension (Segment 4)  
 Prepared for Alicia Canon - CH2M

10/26/2017

**TABLE 2  
 COST**

Labor Category	Employee	Hrs	Rate	Cost
Principal Archaeologist	Price, B.	12.0	\$ 224.73	\$ 2,696.76
Project Manager	George, J.	34.0	\$ 92.81	\$ 3,155.54
Associate Archaeologist	Abdo-Hintzman, K	56.0	\$ 79.07	\$ 4,427.92
Field Supervisor	Moloney, P.	16.0	\$ 68.76	\$ 1,100.16
Field Technician	TBD	12.0	\$ 60.30	\$ 723.60
Graphics Specialist	Inoway, C.	26.0	\$ 81.19	\$ 2,110.94
Administrative Assistant	Birchhoff, S.	20.0	\$ 78.04	\$ 1,560.80
<b>Total Hours/\$</b>		<b>176.0</b>		<b>\$ 15,775.72</b>
<b>Travel/Transport</b>		<b>Units</b>	<b>@</b>	
Mileage (personal vehicle)		150	\$ 0.535	\$ 80.25
Travel Stipend		4	\$ 40.00	\$ 160.00
<b>Outside Services</b>				
EIC Fee		2	\$500	1,000.00
<b>Other Direct Costs</b>				
Postage/Communication		1	\$ 20.00	\$ 20.00
Office Supplies/Duplication		1	\$ 40.00	\$ 40.00
<b>Total Labor &amp; Benefits</b>				<b>\$ 15,775.72</b>
<b>Total Travel/Transportation</b>				<b>\$ 240.25</b>
<b>Total Outside Services</b>				<b>\$ 1,000.00</b>
<b>Total ODCs</b>				<b>\$ 60.00</b>
<b>Administrative Fee @ 10% (non-labor)</b>				<b>\$ 1,300.03</b>
<b>TOTAL</b>				<b>\$17,206</b>



**FPL and Associates, Inc.**  
30 Corporate Park, Suite 401  
Irvine, California 92606

Telephone: (949) 252-1688  
Facsimile: (949) 252-0088

Consulting Engineers • Traffic • Transportation • Civil • Facilities

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October 27, 2017

Job No.: 1089

CH2M

No. of Pages: 2

**Attn: Ms. Alicia Cannon**  
1770 Iowa Avenue, Suite 200  
Riverside, CA 92507

**SUBJECT: PROPOSAL TO UPDATE AND FINALIZE TRAFFIC SIGNAL PLAN AT  
CLINTON KEITH ROAD AND LEON ROAD  
Clinton Keith Road Improvements – Phase 3  
County of Riverside, California**

Dear Ms. Cannon:

FPL and Associates, Inc. (FPL) is pleased to submit for your consideration this fee proposal, per your e-mail request dated October 19, 2017, to update and finalize the for the design of traffic signal design plans at the intersection of Clinton Keith Road and Leon Road in the County of Riverside.

The scope of work in this proposal is to update the current 95%-level traffic signal design plan per the latest County of Riverside and Caltrans design standards and requirements and obtain new approvals from the City and County agencies.

Our scope is limited to the traffic signal plan design only. All submittals will be made to CH2M. We assume that CH2M will submit and process the plan through the City and County. FPL will revise plans based on review comments received from the City and County. Our scope assumes only two (2) submittals: 100% and final signed plans.

We assume updated geometric and striping base information will be provided to FPL by CH2M.

Our scope includes preparing the specifications and construction cost estimate for the traffic signal, and comment resolution with the agency.

Our scope includes attending two (2) meetings with the County.

Construction support and as-built preparation is not included in our scope, but will be provided by CH2M.

Field verification of existing conditions is not included in our scope.

We propose to provide the above-described scope of services for a lump-sum fee of **\$9,250**. The itemized fee summary is attached.

Ms. Alicia Cannon  
Page 2  
October 27, 2017

If you have any questions or need more information, please feel free to give me a call.

Sincerely,  
FPL and Associates, Inc.

A handwritten signature in black ink, appearing to read 'Alex Zupanski', written over a horizontal line.

Alexander D. Zupanski, P.E., T.E.  
Vice President – Traffic Design  
*[alex.zupanski@fplandassociates.com](mailto:alex.zupanski@fplandassociates.com)*

Attachments: Fee Schedule

**FPL and Associates, Inc.**

30 Corporate Park, Suite 401 • Irvine, California 92606 • (949) 252-1688 • Fax: (949) 252-0088

**Client:** County of Riverside

**Prime:** CH2M

**Date:** 10/27/2017

**Project:** Clinton Keith Road Improvements - Phase 3

**Job Number:** 1089

Clinton Keith Road & Leon Road - Traffic Signal Plan Updates

Type of Contract:  
Lump Sum

Name/Role:		Hours per Task	Cost per Task
	Project Manager	\$195.00	
	Project Engineer	\$175.00	
	Associate Engineer	\$135.00	
	Assistant Design Engineer	\$100.00	
Task	Description	Units	Individual Hours per Unit / Sheet
1.0	Meetings (2 total)		8 \$ 1,560
2.0	Traffic Signal Plan Updates	1	40 \$ 5,540
3.0	Specifications		4 \$ 700
4.0	Engineer's Construction Cost Estimate		10 \$ 1,330
	ODCs (mileage and reprographics)		\$ 120
<b>Total:</b>			<b>62 \$ 9,250</b>

**PROPOSAL FOR ENGINEERING SERVICES**

To: CH2M Hill  
6 Hutton Center Drive  
Suite 700  
Santa Ana, CA 92707  
PH: (714) 435-6025

Date: December 6, 2017  
Project: 574,098 Clinton Keith Road Phase 3  
Location: Murrieta, CA

CONTECH is pleased to provide the following engineering services proposal for the CON/SPAN O-series Precast System for the above referenced project. This proposal, if accepted by CH2M Hill within ninety (90 days) from the date hereof, shall constitute a binding contract. CONTECH is prepared to start on this request upon receipt of the signed proposal.

**DESCRIPTION OF ENGINEERING SERVICES:**

CONTECH proposes to provide CH2M Hill the following engineering services signed and sealed by a Professional Engineer registered in the State of California:

- Prepare LRFD engineering calculations and details for the CON/SPAN O-series Precast arch foundation design. Foundation design will be in accordance with recommendations from the project geotechnical report (provided to CONTECH by others). Geotechnical report will need to provide parameters for LRFD design.
- Prepare LRFD construction (design) drawings for the CON/SPAN O-series Precast arch design in accordance with the drawings and information provided by CH2M Hill.
- Prepare LRFD Precast or Keysteel Wall engineering calculations and details. Walls will be designed for local stability only; global stability analysis to be performed by others.

Please note that a site plan including proposed grades, roadway alignment, bridge location, and profile sections along with a geotechnical report specific to the Clinton Keith Phase 3 bridge is necessary prior to the start of design.

It is anticipated that design will commence upon acceptance of this proposal and receipt of the project information listed above. Drawings will be delivered 4 weeks from acceptance of this proposal. The drawings will be subject to one review by CH2M Hill. Revisions required due to errors on CONTECH plans or omissions from CONTECH plans will be completed under this scope of services. Any further revisions or changes to the scope of services described will be subject to additional fees.

CONTECH will provide the services outlined above for a lump sum fee of **\$40,000** to be billed upon completion of services.

Pending receipt of the order for the CON/SPAN O-series Precast System, CONTECH will prepare and deliver drawings for approval and fabrication. In addition, CONTECH will provide supplementary services at no cost with a signed order for the CON/SPAN O-series Precast System. These services may include:

- Minor revisions to installation and/or shop drawings due to approval agency comments.
- Responses to RFI's related to applicable construction and installation processes for the design shown.
- On-site installation consultation.

We appreciate the opportunity to serve you, and look forward to a successful project.

ACCEPTED this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,

subject to all terms and conditions contained herein.

BUYER: \_\_\_\_\_

By: \_\_\_\_\_  
(Signature)

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

BUYER's PO No. \_\_\_\_\_

Respectfully submitted,



Andrew Runk  
Bridge Consultant

cc: Ken Meyer – CONTECH

\*Expected Delivery Date for Engineering Services: \_\_\_\_/\_\_\_\_/\_\_\_\_  
mm / dd / yyyy

*\*Date based on receipt of all information listed above 4 weeks prior. Delivery date extension due to missing information or unforeseen changes will be mutually agreed to.*

Enclosed: Terms & Conditions  
Copy of Liability Insurance