

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

328



**FROM:** Economic Development Agency

**SUBMITTAL DATE:**  
September 24, 2015

**SUBJECT:** Blythe Municipal Airport – Portland Cement Concrete (PCC) Apron Pavement Rehabilitation Project District 4 [\$160,000]; Federal Aviation Administration Improvement Grant Funds 90%, Airport Budget Fund (22350) 10%

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

1. Approve and authorize the Chairman of the Board to execute the attached work order agreement between the County of Riverside and Mead & Hunt, Inc. for the PCC Apron Pavement Rehabilitation Project - Design Engineering Services work order agreement at Blythe Municipal Airport; and
2. Delegate Change Order authority to the Assistant County Executive Officer/EDA or designee in accordance with Board Policy B-11.

**BACKGROUND:**

Summary

(Commences on Page 2)

Robert Field  
Assistant County Executive Officer/EDA

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost:	POLICY/CONSENT (per Exec. Office)
COST	\$ 160,000	\$ 0	\$ 160,000	\$	Consent <input type="checkbox"/> Policy <input checked="" type="checkbox"/>
NET COUNTY COST	\$	\$ 0	\$	\$	

<b>SOURCE OF FUNDS:</b> Federal Aviation Administration Airport Improvement Grant Funds 90%, Airport Budget Fund (22350) 10%,	<b>Budget Adjustment:</b> No
	<b>For Fiscal Year:</b> 2015/16

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

APPROVE

BY:   
Rohini Dasika

County Executive Office Signature

**MINUTES OF THE BOARD OF SUPERVISORS**

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

Ayes: Jeffries, Tavaglione, Washington, Benoit and Ashley  
 Nays: None  
 Absent: None  
 Date: October 6, 2015  
 xc: EDA

Kecia Harper-Ihem  
 Clerk of the Board  
 By:   
 Deputy

Prev. Agn. Ref.: | District: 4 | Agenda Number:

**3-21**

FORM APPROVED BY COUNTY COUNSEL DATE 9-17-15  
 BY: Anita C. Willis  
 ANITA C. WILLIS  
 FISCAL PROCEDURES APPROVED  
 PAUL LANGUILO, CPA, AUDITOR-CONTROLLER  
 BY: Susana Garcia, Department Concurrence  
 Susana Garcia 9/23/15

A-30  
 4/5 Vote  
 Positions Added  
 Change Order

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

Economic Development Agency

**FORM 11:** Blythe Municipal Airport – Portland Cement Concrete (PCC) Apron Pavement Rehabilitation  
Project District 4 [\$160,000] Federal Aviation Administration Improvement Grant Funds 90%, Airport Budget  
Fund (22350)10%

**DATE:** September 24, 2015

**PAGE:** 2 of 2

## **BACKGROUND:**

### **Summary**

This project involves the pavement rehabilitation design of approximately 34,570 square yards of PCC pavement, which is the main apron area at the Blythe Airport. The PCC apron was constructed prior to May of 1994, and displays joint seal failure, corner spalls, joint spalls, center slab cracks, subgrade failure, raised and shattered slabs.

The PCC Apron Pavement Rehabilitation project at the Blythe Municipal Airport is consistent with the Airport's Capital Improvement Program and Master Plan. Mead & Hunt Inc. was selected by Request for Qualification (RFQ) as the County's Airports Project Consultant, per the Federal Aviation Administration's (FAA) five-year consultant selection criteria.

Staff proposes to have Mead & Hunt, Inc. provide design engineering services and recommend that the Board of Supervisors approve the necessary design work order agreement for the project. County Counsel has reviewed and approved the attached documents as to legal form.

### **Impact on Citizens and Businesses**

The rehabilitation of the PCC Apron Pavement will improve the airport operations and enhance capacity and safety.

## **SUPPLEMENTAL:**

### **Additional Fiscal Information**

The FAA Airport Improvement Program (AIP) Grant has a mandatory 10% local match requirement. This match will be taken from Restricted Fund Balance held for airport improvement in special Aviation Fund 22350. There will be no impact on the County's general fund.

## **ATTACHMENTS:**

Work Order Agreement

WHEN DOCUMENT IS FULLY EXECUTED RETURN  
CLERK'S COPY  
to Riverside County Clerk of the Board, Stop 1010  
Post Office Box 1147, Riverside, Ca 92502-1147  
Thank you.

WORK ORDER AGREEMENT

FOR

**BLYTHE MUNICIPAL AIRPORT, PCC APRON PAVEMENT REHABILITATION**

BY AND BETWEEN

RIVERSIDE COUNTY ECONOMIC DEVELOPMENT AGENCY

AND

MEAD & HUNT, INC.

**This Agreement** is made and entered into this 10th day of October, 2015, by and between the COUNTY OF RIVERSIDE by and through the Economic Development Agency (EDA), a public body corporate politic in the State of California (hereinafter "COUNTY"), and MEAD & HUNT, INC., (hereinafter "CONSULTANT").

**RECITALS**

**WHEREAS**, the proposed services provided in this Agreement are necessary to maintain airport pavement conditions, critical to the airport's operation.

**WHEREAS**, the COUNTY has selected CONSULTANT to provide services based on a Request for Proposal (RFP) for Airport Consulting Services that included pavement reconstruction; and

**WHEREAS**, the COUNTY and the CONSULTANT have entered into a MASTER SERVICE AGREEMENT, dated 27 day of August, 2014 the terms of which apply to this Work Order Agreement; and

**WHEREAS**, CONSULTANT is uniquely qualified based on their prior knowledge by completing prior design and construction projects for similar to this work; and

**WHEREAS**, CONSULTANT has agreed to provide such services to COUNTY.

**NOW, THEREFORE**, in consideration of the mutual covenants contained herein, the parties hereto agree as follows:

OCT 06 2015 3-21

1. **DESCRIPTION OF SERVICES:** CONSULTANT shall provide services to design and prepare construction plans and specifications for Blythe Municipal Airport, PCC Apron Pavement Rehabilitation, the Scope of Services, which is attached hereto as Exhibit A, and by this reference incorporated herein.

1.1 CONSULTANT represents and maintains that it is skilled in the professional calling necessary to perform all services, duties, and obligations required by this Agreement to fully and adequately complete the project. CONSULTANT shall perform the services and duties in conformance to, and consistent with, the standards generally recognized as being employed by professionals in the same discipline in the State of California. CONSULTANT further represents and warrants to the COUNTY that it has all licenses, permits, qualifications, and approvals of whatever nature are legally required to practice its profession. CONSULTANT further represents that it shall keep all such licenses and approvals in effect during the term of this Agreement.

2. **PERIOD OF PERFORMANCE:** CONSULTANT shall commence performance upon date of execution of this Agreement and complete performance within twelve (12) months. CONSULTANT will diligently and responsibly pursue the performance of the services required of it by this Agreement through project completion unless the work is altered by written amendment(s) pursuant to the MASTER SERVICES AGREEMENT between COUNTY and CONSULTANT, dated August 27, 2014, currently in place. In the event the services described in this fully executed work order are not completed during the term of the MASTER SERVICES AGREEMENT, though the work order was executed by the parties while the MASTER SERVICES AGREEMENT was in effect, CONSULTANT shall continue to be obligated to perform the services and the COUNTY shall be obligated to pay for such services as provided in this work order.

3. **COMPENSATION:** The COUNTY shall pay the CONSULTANT for services performed and expenses incurred in accordance with the attached Exhibit "A", Scope of Services.

3.1 CONSULTANT shall be paid a LUMP SUM amount of One Hundred Sixty Thousand Dollars (\$160,000.00) for Engineering Design Services as described in Exhibit "A", Scope of Services. CONSULTANT shall submit invoices monthly to the COUNTY for progress payments based on the performance of the total work completed to date.

4. **CONFLICT OF INTEREST:** CONSULTANT shall have no interest, and shall not acquire any interest, direct or indirect, which will conflict in any manner or degree with the performance of services required under this Agreement.

5. **DESIGNATED REPRESENTATIVES:** The following individuals are designated as representatives of the COUNTY and CONSULTANT respectively to act as liaison between the parties:

<b>AGENCY</b>	<b>CONSULTANT</b>
Daryl Shippy Airports Manager County of Riverside, EDA Aviation 3403 10 <sup>th</sup> Street Suite 400 Riverside, CA 92501 Phone: (951) 955-9418 Fax: (951) 955-6686 Email: <a href="mailto:dshippy@rivcoeda.org">dshippy@rivcoeda.org</a>	Robert Casagrande Department Manager Mead and Hunt, Inc. 133 Aviation Boulevard, Suite 100 Santa Rosa, CA 95403 Phone: (707) 526-5010 Fax (707) 526-9721 Email: <a href="mailto:bob.casagrande@meadhunt.com">bob.casagrande@meadhunt.com</a>

Any change in designated representatives shall be promptly reported to the other party in order to ensure proper coordination of the Project.

6. **NOTICES:** All correspondence and notices required or contemplated by this Agreement shall be delivered to the respective parties at the addresses set forth below and are deemed submitted one (1) day after their deposit in the United States Mail, postage prepaid:

**AGENCY**

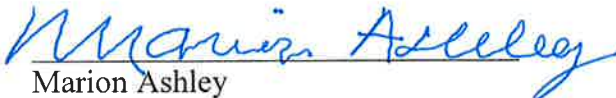
Daryl Shippy  
Airports Manager  
County of Riverside, EDA Aviation  
P.O. Box 1180  
Riverside, CA 92502

**CONSULTANT**

Jon J. Faucher  
Vice President  
Mead & Hunt, Inc.  
133 Aviation Boulevard, Suite 100  
Santa Rosa, CA 95403

IN WITNESS WHEREOF, the parties hereto have caused their duly representatives to execute this Agreement.

**COUNTY OF RIVERSIDE**

  
\_\_\_\_\_  
Marion Ashley  
Chairman, Board of Supervisors

**MEAD & HUNT, INC.**


  
\_\_\_\_\_  
Robert A. Casagrande  
Vice President

**APPROVED AS TO FORM:**

GREGORY P. PRIAMOS  
COUNTY COUNSEL

  
\_\_\_\_\_  
Neal R. Kipnis  
Deputy County Counsel

ATTEST:

  
\_\_\_\_\_  
Kecia Harper-Ihem  
Clerk of the Board

**BLYTHE MUNICIPAL AIRPORT**  
**County of Riverside, EDA Aviation Department**  
**PCC Apron Pavement Rehabilitation**  
**Design Engineering Scope of Services**  
**FAA AIP Project No.3-06-0025-009-2015**  
**August 2015**

## **PROJECT DESCRIPTION**

The Engineering Design Services to be provided by Mead & Hunt, Inc. (CONSULTANT) are described herein with details for airport improvements of the Portland Cement Concrete (PCC) Apron Pavement (Project) at the Blythe Municipal Airport (Airport) for the County of Riverside, Economic Development Agency, Aviation Department (COUNTY).

The Project involves the pavement rehabilitation design of approximately 34,570 square yards of PCC pavement, which is the main apron area at the Airport. The PCC apron was constructed prior to May of 1994. While sections of the pavement are in good condition, others have failures that include, but are not limited to, joint seal failure, corner spalls, joint spalls, center slab cracks, subgrade failures, raised slabs, and shattered slabs. The estimated cost for construction of this Project is approximately One Million Nine Hundred Eighty-nine Thousand Dollars (\$1,989,000).

This Scope of Services includes the survey, geotechnical soils investigation, engineering design, construction safety and phasing planning, and preparation of contract documents for the rehabilitation of the apron pavement with installation of tie downs, as detailed herein. The construction of the rehabilitation is anticipated to be completed in phases so bid alternates will be included as part of the design.

## **CONSULTANT EXPERTISE**

The CONSULTANT Team (Team) is comprised of Civil Engineers, registered in the State of California to practice their professions, and are experienced in the evaluation and design of airport improvement projects in accordance with FAA standards.

## **DESIGN SERVICE PHASES**

The following phases detail the scope of services to be provided by CONSULTANT.

### **Phase I Contracts and Project Scoping**

This phase involves those activities required for defining the scope of the Project, negotiating the contract and subcontracts, and the general coordination and administration activities for the duration of the Project, including (but not limited to) the following activities:

#### **1.0 PROJECT SCOPING**

##### **1.1 Preliminary Meetings with the COUNTY.**

CONSULTANT will confer with the COUNTY to ascertain Project requirements, finances, schedules, and other pertinent matters and shall meet with Federal Aviation Administration (FAA), if needed, on matters affecting the Project and shall arrive at a mutual understanding of such matters with the COUNTY. The Categorical Exclusion has been prepared for the Project, approved by the FAA, and was included in a separate work scope. Meetings with the COUNTY shall also determine the extent of topographical surveying and pavement/geotechnical testing required for the Project. It is anticipated that there will be a maximum of two meetings with the COUNTY and/or the FAA, with some meetings occurring at the Project location.

1.2 Prepare Project Scope of Work and Proposal.

This includes preparing the scope of work and fee proposal and negotiating the contract scope and fee with the COUNTY. This also includes coordination with subconsultants for scopes and fees.

2.0 PREPARE CONTRACT AND SUBCONTRACTS

This includes preparing the CONSULTANT-COUNTY contract and preparing CONSULTANT-subconsultant contracts.

3.0 PROJECT COORDINATION (coordination with the Team, COUNTY, FAA etc.)

CONSULTANT will coordinate with the subconsultants, COUNTY, FAA, and other applicable agencies to complete the work elements in the Contract. Weekly progress meetings will be held via telecom with the Team and COUNTY along with monthly meetings with the FAA as required.

4.0 GENERAL CONTRACT COORDINATION

A Project Manager will be assigned to this Project, to provide general coordination and ensure continuity through all phases of work. The Project Manager will be responsible for all work performed by the Team.

The Project Manager shall:

4.1 Define Tasks, Schedules, and Costs.

4.2 Monitor Work Progress and Address Questions.

4.3 Maintain up-to-date Schedules.

4.4 Coordinate Project with COUNTY.

CONSULTANT will coordinate with the COUNTY to receive their input; address their concerns; keep them informed regarding Project status; obtain their concurrence on Project scope, cost, and schedule; and obtain their input and approval of concepts and Final Design.

4.5 Expedite Quality, Cost Effective Design.

Focus the efforts of CONSULTANT and subconsultants to expedite the design of a quality based, cost-effective Project that meets the needs of the COUNTY.

4.6 Provide Internal Quality Control.



Provide internal quality control on all work of the CONSULTANT and subconsultants by implementation and monitoring of a Quality Control (QC) and Quality Assurance (QA) program.

4.7 Invoices and Billing Backup.

Prepare invoices and billing backup to submit to the COUNTY in accordance with the COUNTY's standard invoice requirements.

5.0 GRANT APPLICATION AND COORDINATION

This element of work includes the preparation of the Grant Application documents before design has been completed and a revision to the Application after bids are accepted.

Preparation of the Application will include the following:

5.1 Prepare Federal Forms 424 and 5100

5.2 Program Narrative.

Create program narrative, discussing the purpose and need of the work and the method of accomplishment.

5.3 Prepare the Project Funding Summary.

5.4 Prepare Preliminary Estimate.

5.5 Include current "Exhibit A" Property Map (if available).

5.6 Proposed Project Exhibit.

Prepare an exhibit showing proposed project area to be submitted with application.

5.7 Sponsor Certification Forms.

Prepare the Sponsor's Certifications that pertain to this Project; usually four (4) certifications, for COUNTY's signature.

5.8 Attach the current FAA Grant Assurances.

5.9 Include Title VI Assurances.

The CONSULTANT will prepare a draft, electronic grant application package, in pdf format, and submit to the COUNTY for approval and signatures. COUNTY will send two (2) copies of the signed application package to the FAA for further processing.

Phase I Deliverables

- 1) Draft Scope of Services – Electronic submittal
- 2) Final Scope of Services – Two (2) originals
- 3) Executed Contract – Two (2) originals
- 4) Grant Application – Electronic submittal



## Phase II Preliminary Design (30%)

### 6.0 TOPOGRAPHICAL SURVEYING

#### 6.1 Coordination to Collect Existing Data and Locate Existing Facilities and Utilities.

CONSULTANT will coordinate the collection of existing data and locate known utilities. This task includes collection and review of as-built plans and available existing survey information in order to gather information on existing topography, facilities, and utilities. This also includes coordination for field utility locates with COUNTY and FAA. The CONSULTANT will coordinate with field survey crews to establish survey limits, coordinate access, establish survey schedule, and provide available survey control information.

#### 6.2 Survey Control.

Survey control will be established and used for design surveys. The CONSULTANT will provide the surveyor a drawing showing the location of the existing or established control for the Project. The CONSULTANT will coordinate necessary bench loop and traverse procedures to verify accuracy of vertical and horizontal control points. The CONSULTANT will establish runway end coordinates and runway centerline alignments, and tie these into the Project survey control.

#### 6.3 Field Work.

Limits of survey work to be shown on a site plan. CONSULTANT may meet with subconsultant in the field to coordinate collection of survey data for the Project.

#### 6.4 Convert Survey Data for Design Software.

This work includes analyzing the topographical surveying data and preparing the data for use with computer modeling. Included are the following separate tasks:

- a. Establish design coordinates and alignments to be used for CAD drawings.
- b. Input raw survey data into the computer program in order to sort data into company standard layers for efficient analyzing.
- c. Verify survey data from previous project with latest field survey.
- d. Sort all data points by layers and description for computer modeling.
- e. Verify surveyor horizontal and vertical control.
- f. Prepare digital terrain model (DTM) of existing ground contours, pavement edges, roadways, electrical equipment, drainage features, buildings, fences, and other miscellaneous entities.
- g. Generate three-dimensional contour model from the DTM.
- h. Prepare and process data for pavement profiles, grading and/or paving cross sections, and drainage features.

### 7.0 GEOTECHNICAL INVESTIGATION

#### 7.1 Coordination for Geotechnical Work.

This task includes data collection, review of as-built plans, and compiling available existing geotechnical information in order to gather information on existing soil conditions and past

geotechnical or pavement test results. Coordination will be done with the geotechnical subconsultant to schedule work and establish any work constraint parameters.

7.2 Establish Project Testing Requirements.

The CONSULTANT will determine the type and frequency of geotechnical testing required for the Project. The testing shall consider such items as pavement type, design methodology, type of wheel loading, and weight of design aircraft (e.g. greater than or less than 60,000 lbs.). The CONSULTANT will use this information to perform the following tasks:

- a. Determine soil boring locations and frequency of testing.
- b. Develop a Project sketch showing location and coordinates of borings.
- c. Determine soil sampling locations and types of soils testing required.

7.3 Field Work and Laboratory Testing.

Limits of geotechnical work are shown on a site plan. CONSULTANT may meet with subconsultant in the field to coordinate collection of field data for the Project.

7.4 Analyze Data.

After receiving the testing report from the geotechnical firm, the CONSULTANT will analyze the data and any existing previous geotechnical data, consisting of the following tasks:

- a. Review geotechnical recommendations.
- b. Determine appropriate data for pavement design.
- c. Input data for computer modeling with topographical survey data.
- d. Prepare pavement data and soil information for incorporation onto plan sheets.
- e. Evaluate existing pavement sections for potential recycling and reuse.
- f. Evaluate shrink, swell, and consolidation potential.

8.0 PREPARE PLAN SHEETS FOR PRELIMINARY SUBMITTAL

8.1 Project Layout Sheet.

CONSULTANT will complete a Project Layout Sheet that will depict the proposed major improvements.

8.2 Design Alternatives.

Compare the various pavement issues on the apron with alternative designs for a cost effective Project. Full depth removal and replacement of the pavement section or partial slab replacement options will be considered, dependent on geotechnical testing results.

8.3 Planning Analysis.

Review future apron reconstruction phasing to the south and vertical grade tie-in as well as reconfiguration of tie-downs, and coordinate with possible pavement reconfigurations to meet current FAA standards.

9.0 PREPARE FAA PAVEMENT DESIGN REPORT AND FAA FORM 5100.

This task will consist of using information obtained in the geotechnical investigation to calculate the required pavement sections required to support the design vehicle or aircraft using FAA Advisory Circular 150/5320-6E, *Airport Pavement Design and Evaluation*.

CONSULTANT will perform the following under this task:

9.1 Determine Critical Aircraft and Fleet Mix.

Determine critical design aircraft or vehicle based on current and forecasted aircraft fleet mix and vehicular use.

9.2 FAARFIELD Pavement Design.

Verify the pavement section based on accepted FAA pavement design programs. The applicable design program to be used is FAARFIELD. CONSULTANT will develop pavement design alternatives and make recommendations as to the most economical pavement section and/or rehabilitation alternative.

9.3 Evaluate Pavement Strength Requirements.

Evaluate interim and ultimate pavement strength requirements.

9.4 Calculate Subgrade Stabilization Requirements.

Evaluate effects of pavement profile on adjacent operational areas and future pavement rehabilitation.

9.5 Pavement Analysis for FAA Review.

Calculate sub-excavation, undercutting, and other techniques for subgrade stabilization, as necessary. Submit proposed pavement analysis for FAA Engineer review.

9.6 Prepare Pavement Design Narrative.

Prepare pavement design narrative to describe the design procedure, historic design, and justification for the FAA and COUNTY.

9.7 FAA Form 5100.

Prepare FAA Pavement Design Form 5100 for each separate pavement section for inclusion in the Preliminary Design Report and the final Engineer's Design Report.

10.0 PREPARE PRELIMINARY SURFACE DRAINAGE ANALYSIS

10.1 Preliminary surface drainage design will be completed in accordance with standard engineering practices, local requirements, and in accordance with the FAA Advisory Circular 150/5320-5D, *Surface Drainage Design*.

10.2 The CONSULTANT will also examine the need for a Storm Water Pollution Prevention Plan (SWPPP) to be provided by the Contractor to address the proposed development. The CONSULTANT will also determine which drainage permits will be needed by the proposed development.

## 11.0 PREPARE PRELIMINARY COST ESTIMATE

### 11.1 Calculate Estimated Preliminary Quantities.

The CONSULTANT will calculate necessary quantities for the various work items. Quantities will be consistent with the specifications and acceptable quantity calculation practices.

### 11.2 Prepare Preliminary Cost Estimate.

The CONSULTANT will provide a Preliminary Cost Estimate based on record cost data and similar work. The Preliminary Cost Estimate shall be included in the Preliminary Design Report.

## 12.0 PREPARE PRELIMINARY DESIGN REPORT (PDR)

To document the results of a preliminary design, a PDR will be prepared. The report will include (as applicable) the summary of the Project scope, geometrics, pavement design, drainage design, pavement marking, environmental issues, construction phasing plans, and a Project schedule. The report will also contain details on alternative design concepts that were investigated as part of the preliminary design effort and recommendations on which alternatives to pursue. An analysis of the impacts of construction on Airport operations will be included, as well as the Engineer's Preliminary Cost Estimate. This report will also discuss funding, budget, strategies for bidding the Project, and potential use of bid alternates.

## 13.0 PREPARE FAA FORM 7460 (if required)

CONSULTANT will complete a notice of proposed construction or alteration as per FAA guidelines and will send the form to the COUNTY to be submitted to the FAA.

## 14.0 PREPARE ENVIRONMENTAL DOCUMENTATION – NIC<sup>1</sup>

The Categorical Exclusion (CAT EX) Document for the Project was covered under a separate contract.

## 15.0 PRELIMINARY DESIGN PROJECT MEETINGS

The CONSULTANT will arrange and lead meetings at the conclusion of Phase II – Preliminary Design, as described in the subtasks below. The CONSULTANT will produce drawings and handouts, as needed, to conduct the meetings and will prepare minutes to document the discussions.

### 15.1 Present Preliminary Design Alternatives and Recommendations to COUNTY.

The CONSULTANT will prepare for and conduct a meeting with the COUNTY to present the findings of the preliminary engineering phase presenting any alternatives and recommendations for the Project.

### 15.2 Coordination Meetings.

The CONSULTANT will conduct coordination meetings with FAA, Caltrans Division of Aeronautics, COUNTY, subconsultants, etc. CONSULTANT will attend one meeting (including a site visit) at the Airport (or other named site) as needed.

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<sup>1</sup> NIC = Not in Contract

### Phase II Deliverables

Prior to the completion of Phase II, the CONSULTANT will deliver the following information to the COUNTY:

- 1) Preliminary Design Report (including Preliminary Cost Estimate) – Two (2) copies
- 2) Plans in support of Preliminary Design – Three (3) copies
- 3) Geotechnical Report – Two (2) copies
- 4) FAA Form 7460 – Electronic (if needed)

### **Phase III Final Design (90% and Final submittals)**

#### 16.0 PREPARE PLANS

Plan sheets will be prepared depicting the proposed improvements as indicated under "Project Description." The following is a general list of drawings that will be used as a guideline. Actual number and title of drawings may be modified during the design phase, as required.

#### **General:**

- G-001 Cover Sheet, Sheet Index and Symbols
- G-002 Legend and Abbreviations
- G-021 Project Layout Plan
- G-041 Survey Control Plan
- G-081 Construction Safety and Phasing Plan

#### **Geotechnical:**

- B-051 Soil Boring Log Plan

#### **Civil:**

##### **General**

- C-021 Erosion Control Plans
- C-031 Erosion Control Details
- C-051 Demolition Plans
- C-061 Demolition Details

##### **Site**

- C-101 Grading and Drainage Plans
- C-141 Intersection Details
- C-201 Plan and Profiles
- C-301 Typical Sections
- C-311 Paving Details
- C-321 PCC Repair Plans
- C-341 PCC Repair Details

##### **Marking**

- C-651 Marking Plans
- C-671 Marking Details

##### **Cross Sections**

## C-901 Cross Sections

### 17.0 PREPARE SPECIFICATIONS

The CONSULTANT will assemble the specifications and bid documents for COUNTY to use in obtaining competitive bids for the work. All documents shall meet current FAA Standards for Airport Improvement Program (AIP) funded projects.

#### 17.1 Prepare Bidding and Contract Documents.

The CONSULTANT will prepare bidding and contract documents including, but not limited to, Invitation for Bids (Notice to Bidders), Instruction to Bidders, Proposal (Bid Form), List of Subcontractors, FAA Required Certifications, Equal Employment Opportunity Clauses, DBE Requirements, Suspension and Debarments Requirements, Certification of a Drug-free Workplace, Sample Construction Contract/Agreement, Bid Bond, Performance Bond, and Payment Bond. All documents shall be based on the current COUNTY standards, modified to include all FAA required provisions and bid forms.

#### 17.2 Required Federal Provisions.

Federal laws and regulations require that specific contract provisions be included in federally funded contracts, as established within the grant assurances. CONSULTANT will include the Required Federal Provisions in the bid documents. These requirements cover items such as:

- Affirmative Action Plan
- Buy American Preferences
- Civil Rights
- Disadvantaged Business Enterprises
- Federal Fair Labor Standards Act (Minimum Wage)
- Lobbying and Influencing Federal Employees
- Occupational Safety and Health Act
- Davis Bacon Requirements
- Equal Employment Opportunity
- Nonsegregated Facilities

#### 17.3 FAA General Provisions (Advisory Circular 150-5370-10G).

FAA requires these provisions be included and complied with for all projects funded with federal grant monies through the Airport Improvement Program (AIP), as established within the grant assurances. The CONSULTANT will include the FAA General Provisions, and modify as applicable for Project. The CONSULTANT will review COUNTY provisions and shall submit any recommended modifications to the COUNTY, to avoid conflict with FAA Provisions.

#### 17.4 Prepare Miscellaneous Provisions for Airport Construction.

The CONSULTANT will prepare Miscellaneous Provisions to address, or expand on, conditions specific to construction on airports that require additional clarification. They will include (as applicable), but are not limited to the following items:

- General Safety Requirements, Airfield Safety and Traffic Control
- Record Drawings
- Time Limitations



- Liquidated Damages
- Barricades and Runway Closure Markers
- Radio Communication
- Access and Security
- Work Hour Limitations
- SWPPP Requirements and guidance for Contractor

17.5 Prepare Technical Specifications.

The CONSULTANT will prepare Technical Specifications using FAA Standard Specifications and FAA Specification format whenever possible. For work not covered by FAA Standards, COUNTY or Caltrans modified Standard Specifications shall be used.

18.0 PREPARE FINAL SURFACE DRAINAGE ANALYSIS

Using the findings from the preliminary drainage analysis completed in Phase II, a final surface drainage will be completed in accordance with standard engineering practices, local requirements, and the FAA Advisory Circular 150/5320-5D, *Airport Drainage Design*.

19.0 PREPARE LIGHTING LAYOUT AND CIRCUIT CALCULATIONS – **NIC**

20.0 UPDATE AIRPORT SIGNING AND MARKING PLAN **NIC**

21.0 EROSION CONTROL PLAN

The CONSULTANT will develop an Erosion Control Plan for the Project that is in general conformance with BAT (Best Available Technology) management practices. The plan will detail types of erosion control measures recommended for the site in addition to other information needed for the NPDES permitting application.

The Contractor shall prepare the SWPPP. This information shall include, but not limited to:

- a. Project Location
- b. Size of Disturbance of Project
- c. Amount of Impervious Surface
- d. Hydrologic Classification of Site
- e. Receiving Waters
- f. Site Drainage Overview

22.0 PREPARE DRAFT SPONSOR CERTIFICATIONS

The CONSULTANT will complete the Sponsor Certifications verifying the plans and specifications were developed in accordance with Federal guidelines, and that the contract(s) complies with Federal grant program standards. Sponsor Certification for Equipment/Construction Contracts will also be prepared. The certifications will be submitted to the COUNTY for acceptance. Signed copies will be inserted into the Engineer's Design Report, which will be forwarded to the FAA along with final plans and specifications.

23.0 PREPARE 60% SUBMITTAL – **NIC**

24.0 PREPARE A CONSTRUCTION SAFETY AND PHASING PLAN

CONSULTANT will prepare a Construction Safety and Phasing Plan (CSPP) in conformance with FAA AC 150/5370-2F.

**24.1 CSPP Prepared at 90% Plan Design.**

A draft of the CSPP will be submitted to the COUNTY for approval, and then digitally uploaded to the FAA portal for approval at the 90% plan completion stage.

**24.2 CSPP Prepared at Final Plan Design.**

When approval is received for the CSPP from the FAA the final CSPP will be included with the final Project specifications/bid documents.

The CSPP will be a bound report and will include the following items:

- a. Overview
- b. Purpose
- c. Construction Safety and Phasing Responsibilities
- d. Construction Safety and Phasing, including:
  - Coordination
  - Phasing and Time Limitations
  - Areas and Operations Affected by Construction
  - NAVAID Protection
  - Contractor Access
  - Wildlife Management
  - Foreign Object Debris (FOD) Management and Dust Control
  - Hazardous Materials (Hazmat) Management
  - Notification of Construction Activities
  - Inspection Requirements
  - Underground Utilities and Notification Responsibilities
  - Penalties
  - Special Conditions
  - Runway and Taxiway Visual Aids
  - Marking and Signs For Access Routes
  - Hazard Marking and Lighting
  - Protection of Runway and Taxiway Critical Areas
  - Other Limitations on Construction Safety Plan Compliance Document

**25.0 PREPARE 90% SUBMITTAL**

Based on COUNTY's written review comments on the Preliminary Design submittal, prepare 90% documents. CONSULTANT will perform the following work under this task:

**25.1 Prepare and submit 90% plans.**

**25.2 Prepare and submit 90% specifications and bid documents.**

25.3 Prepare and submit 90% cost estimate.

25.4 Perform Internal QA/QC.

Perform internal QA/QC for all documents included in the 90% submittal.

25.5 Conduct 90% Review Meeting with COUNTY.

Conduct 90% review meeting with the COUNTY via telecom to go over submitted data and discuss schedule for upcoming submittals.

25.6 Submit CSPP to FAA via 7460

Submit Construction Safety and Phasing Plan (CSPP) to FAA for review and approval via FAA online portal.

26.0 PREPARE AND SUBMIT FINAL PLANS AND SPECIFICATIONS

A final set of plans, specifications, and bid documents will be prepared incorporating revisions, modifications, and corrections determined during the FAA and COUNTY's review of the 90% submittal.

27.0 PREPARE AND SUBMIT FINAL COST ESTIMATE

27.1 Calculate Estimated Final Quantities.

27.2 Prepare Final Cost Estimate.

Using the final quantities calculated following the completion of the plans and specifications, the CONSULTANT will prepare the final construction cost estimate. The estimate will be based on information obtained from previous projects, contractors, material suppliers, and other databases available.

28.0 PREPARE AND SUBMIT ENGINEER'S DESIGN REPORT (EDR)

Prepare the Engineer's Design Report in conformance with FAA requirements. The report will include a summary and explanation of the Project design (as applicable) including geometrics, pavement design, drainage design, pavement marking, environmental issues, phasing plans, and a Project schedule. The report will also contain any alternative design concepts that were investigated and evaluated, as well as the Final Engineer's Cost Estimate.

The report shall include (as applicable), but not be limited to, the following:

- Project Scope
- Design Standards
- Topographic Survey Summary
- Geotechnical Investigation Summary (report included as an Appendix)
- Design Geometrics (reference Federal Advisory Circular 150/5300-13A)
- Pavement Design Analysis (reference Federal Advisory Circular 150/5320-6E)
- Drainage Considerations

- Pavement Marking Considerations
- Airport Operational Safety (reference Federal Advisory Circular 150/5370-2F)
- Construction Estimate
- Project Schedule and Construction Phasing
- Summary of Contract Documents
- Construction Inspection and Testing
- Deviations From FAA Standards
- Sponsor's Certifications for Project Plans and Specifications and Equipment/Contract Projects.

#### 29.0 PHASE III PROJECT MEETINGS

The CONSULTANT will arrange and lead the meetings as described below. The CONSULTANT will produce drawings and handouts, as needed, to conduct each meeting and shall issue minutes to document the discussions. The following meetings shall be included in Phase III:

29.1 90% Submittal review meeting (1) via telecom.

29.2 Final Plan Coordination Meeting – via telecom.

Final Plan coordination meetings with COUNTY and FAA (up to 2 as needed)

#### Phase III Deliverables

During the Phase III design effort, the CONSULTANT will deliver the following information to the COUNTY:

- 1) 90% Plans, Specifications, and Bid Documents – Three (3) copies each
- 2) Construction Safety and Phasing Plan – Two (2) bound copies (CSPP will also be included in final Bid Documents).
- 3) Upon notice from COUNTY that FAA has approved 90% submittal for bidding, CONSULTANT will prepare Final Plans, Specifications, and Bid Documents – Three (3) hard copy sets of each (full and half-size plan sheets), and electronic copies of all documents.
- 4) Final Engineer's Design Report – Two (2) bound copies.

#### **Phase IV Bidding Services**

##### 30.0 PREPARE ADVERTISEMENT FOR BIDS

Required advertisement dates and bidding dates will be established by the COUNTY. The CONSULTANT will prepare a draft Advertisement for Bids in conformance with FAA and local standards and submit a copy of the advertisement to the COUNTY. The COUNTY shall arrange for the legal advertising in conformance with local standards and shall pay for the associated cost of advertising. CONSULTANT will place ads in the various national trade journals.

##### 31.0 BID DOCUMENTS DISTRIBUTION

CONSULTANT shall prepare and upload Bid Documents to Quest Construction Data Network (QuestCDN.com). Contractors interested in bidding on the Project can register and pay a fee

(approximately \$20) to download the Bid Documents. Bidders will be responsible for submitting their bids to the COUNTY similar to previous projects.

This task also includes coordination time, and services required to facilitate and monitor the online process / progress.

### 32.0 RESPOND TO BIDDERS QUESTIONS

During the bidding process, the CONSULTANT will be available to clarify bidding issues with contractors and suppliers, and for consultation with the various entities associated with the Project. This item also includes contacting bidders to generate interest in the Project.

### 33.0 PREPARE AND DISTRIBUTE ADDENDA

CONSULTANT will issue up to two (2) bid addenda as appropriate to interpret, clarify, or change the bidding documents as required by the COUNTY or the FAA. Addenda will be made available to the plan holders electronically via QuestCDN Any addenda that are generated as a sole result of the COUNTY's error or omission, or FAA request, will be considered as extra services, and the CONSULTANT will be reimbursed for this effort as an amendment to this contract.

### 34.0 PRE-BID CONFERENCE

CONSULTANT will prepare agenda and assist COUNTY with arranging for and conducting Pre-Bid Conference. The Project Manager and Project Engineer will attend the Pre-Bid Conference with potential contractors and the COUNTY to present the Project and answer questions. The conference will be conducted at the Airport and will include a site inspection. Meeting minutes will be prepared and distributed.

### 35.0 BID OPENING – NIC

### 36.0 BID REVIEW AND BID TABULATION

CONSULTANT will advise COUNTY, at their request, as to the acceptability of any subcontractors, suppliers, and other persons and organizations proposed by the bidders and as to the acceptability of substitute materials and equipment proposed by bidders. The CONSULTANT will prepare a spreadsheet that includes all bid items for the purpose of evaluating the lowest bidder. The CONSULTANT will input the as-bid unit prices into the spreadsheet and verify mathematical computations of the bids. The CONSULTANT will then provide recommendations to the COUNTY as to the name of the Apparent Low Bidder.

### 37.0 PREPARE RECOMMENDATION OF AWARD

The CONSULTANT will prepare a Recommendation of Award for the COUNTY to accept or reject the bids as submitted. If rejection is recommended, the CONSULTANT will provide an explanation for their recommendation and possible alternative actions that the COUNTY can pursue to complete the Project. Once the Contract Award is made, the CONSULTANT will distribute the bid tabulations at request of the COUNTY.

### Phase IV Deliverables

- 1) Bid Documents – Hard copies as required for bidding, and electronic files.
- 2) Bid Tabulation – Three (3) copies and electronic files.

- 3) Recommendation of Award – Three (3) copies and electronic files.

## **SCHEDULE OF COMPLETION**

The CONSULTANT will complete work described under Phase I – “Contracts and Project Scoping” with coordination to perform Project related topographical survey and geotechnical investigation, within twenty (20) working days from the date the COUNTY issues the Notice to Proceed. The work described under Phase II – “Preliminary Design” will be completed within forty-five (45) working days from the date that the CONSULTANT receives the data from the surveyor and geotechnical subconsultants. A ten (10) working day period is scheduled for the COUNTY (and FAA, if required) to review preliminary plans, design options, cost estimates, and offer comments.

The CONSULTANT will complete the 90% submittal detailed in Phase III – “Final Design” (90% and final submittals) within twenty-five (25) working days of receipt of COUNTY and FAA review comments on the Preliminary Design submittal. Another ten (10) working days review period is scheduled for both COUNTY and FAA review for the 90% submittal.

The CONSULTANT will complete the Final Design including the Engineer’s Design Report, and the final contract documents for use in bidding within fifteen (15) working days of the receipt of COUNTY and FAA review comments with notice of FAA approval to bid on the 90% submittal.

## **COMPENSATION FOR SERVICES**

Payment for all work outlined in this Scope of Services shall be a lump sum fee of One Hundred Sixty Thousand Dollars (\$160,000.00). This fee shall include labor, materials, expenses, and incidentals necessary to complete the work as described herein. An Engineering Services Cost Estimate is included as *Attachment 1* to this Scope of Services. Payments will be made monthly based on the percentage of work complete.

Payment for any additional services requested by the COUNTY will be performed on a time-and-expense basis in conformance with the Mead & Hunt, Inc. Standard Billing Rate Schedule (2015) included as *Attachment 2* to this Scope of Work. The CONSULTANT will establish the budget for additional services prior to the start of work and may not exceed the budget without written authorization from the COUNTY. Any additional services must be authorized in writing by the COUNTY.

AIRPORT: Blythe Municipal Airport  
 LOCATION: County of Riverside, CA  
 AIP PROJECT NO. 3-06-0025-OXX-2015  
 PROJECT DESCRIPTION: Portland Cement Concrete (PCC) Apron Pavement Rehabilitation

PROJECT NUMBER: 3184400-121878.01  
 DATE: 8/20/15  
 REV. NO: 1

PHASE I - CONTRACTS AND PROJECT SCOPING	Engineering Fee
1.0 Project Scoping	\$4,624.00
2.0 Prepare Contract and Sub-Contracts	\$1,623.00
3.0 Project Coordination	\$3,778.00
4.0 Contract Coordination	\$3,803.00
5.0 Grant Application and Coordination Expenses	\$4,676.00
<b>TOTAL PHASE I - CONTRACT ADMINISTRATION</b>	<b>\$19,824.50</b>
<b>PHASE II - PRELIMINARY DESIGN</b>	
6.0 Topographic Surveying	\$3,042.00
7.0 Geotechnical Investigation	\$969.00
8.0 Prepare Plan Sheets for Preliminary Submittal	\$3,274.00
9.0 Prepare FAA Pavement Design Report and FAA Form 5100	\$5,352.00
10.0 Prepare Preliminary Surface Drainage Analysis	\$1,957.00
11.0 Prepare Preliminary Cost Estimate	\$2,745.00
12.0 Prepare Preliminary Design Report	\$3,312.00
13.0 Prepare FAA Form 7460	\$773.00
14.0 Prepare Environmental Documentation (NIC)	\$0.00
15.0 Phase II Project Meetings Expenses	\$1,840.00
<b>TOTAL PHASE II - PRELIMINARY DESIGN</b>	<b>\$23,564.00</b>
<b>PHASE III - FINAL DESIGN</b>	
16.0 Prepare Plans	\$11,577.00
17.0 Prepare Specifications	\$8,634.00
18.0 Prepare Final Surface Drainage Analysis and Final Storm Sewer Design	\$1,492.00
19.0 Prepare Lighting Layout and Circuit Calculations (NIC)	\$0.00
20.0 Update Airport Signing and Marking Plan (NIC)	\$0.00
21.0 Erosion Control Plan	\$1,480.00
22.0 Prepare Sponsor Certifications	\$550.00
23.0 Prepare 60% Submittal (NIC)	\$0.00
24.0 Prepare Construction Safety and Phasing Plan	\$3,560.00
25.0 Prepare 90% Submittal	\$8,255.00
26.0 Prepare and Submit Final Plans and Specifications	\$1,011.00
27.0 Prepare and Submit Final Cost Estimate	\$1,102.00
28.0 Prepare and Submit Engineers Design Report	\$1,732.00
29.0 Phase III Project Meetings Expenses	\$1,840.00
<b>TOTAL PHASE III - FINAL DESIGN</b>	<b>\$41,433.00</b>
<b>PHASE IV - BID ADMINISTRATION</b>	
30.0 Prepare Advertisement for Bids	\$845.00
31.0 Bid Documents Distribution	\$747.00
32.0 Respond to Bidders Questions	\$544.00
33.0 Prepare and Distribute Addenda	\$662.00
34.0 Pre-Bid Conference	\$933.00
35.0 Bid Opening (NIC)	\$0.00
36.0 Bid Review and Bid Tabulation	\$881.00
37.0 Prepare Recommendation for Award Expenses	\$406.00
<b>TOTAL PHASE IV - BIDDING PHASE</b>	<b>\$5,928.50</b>
<b>TOTAL MEAD &amp; HUNT FEES</b>	<b>\$90,750.00</b>

DIRECT SUB CONSULTANTS	Fee
Topographic Surveying (for Design)	\$ 40,250.00
Pavement/Soil Testing (for Design)	\$ 29,000.00
Other	
Other	
Other	
Other	
<b>TOTAL DIRECT SUB CONSULTANTS</b>	<b>\$ 69,250.00</b>

<b>TOTAL MEAD &amp; HUNT FEES</b>	<b>\$ 90,750.00</b>
<b>TOTAL DIRECT SUB CONSULTANTS</b>	<b>\$ 69,250.00</b>
<b>TOTAL ENGINEERING FEES</b>	<b>\$160,000.00</b>

**MEAD & HUNT, Inc.**  
**Western Standard Billing Rate Schedule**  
**Effective January 1, 2015**

**Standard Billing Rates**

Clerical .....	\$77.00 / hour
Interior Designer, Technical Editor .....	\$103.00 / hour
Senior Editor .....	\$152.00 / hour
Registered Land Surveyor .....	\$117.00 / hour
Accounting, Administrative Assistant.....	\$95.00 / hour
Technician I, Technical Writer .....	\$88.00 / hour
Technician II, Surveyor - Instrument Person .....	\$103.00 / hour
Technician III .....	\$111.00 / hour
Technician IV .....	\$134.00 / hour
Senior Technician .....	\$160.00 / hour
Engineer I, Scientist I, Architect I, Planner I .....	\$121.00 / hour
Engineer II, Scientist II, Architect II, Planner II.....	\$133.00 / hour
Engineer III .....	\$144.00 / hour
Senior Engineer, Senior Scientist, Senior Architect, Senior Planner, Senior Economist.....	\$164.00 / hour
Project Engineer, Project Scientist, Project Architect, Project Planner .....	\$177.00 / hour
Senior Project Engineer, Senior Project Scientist, Senior Project Architect, Senior Project Planner .....	\$216.00 / hour
Senior Associate .....	\$263.00 / hour
Principal .....	\$273.00 / hour
Senior Client/Project Manager.....	\$273.00 / hour

**Expenses**

Geographic Information or GPS Systems .....	\$32.00 / hour
Total Station Survey Equipment .....	\$16.00 / hour
Charges for other equipment may appear in a proposal	
Out-Of-Pocket Direct Job Expenses.....	cost plus 15%
Such as reproductions, sub-consultants / contractors, etc.	

**Travel Expense**

Company or Personal Car Mileage .....	\$0.90 / mile
Air and Surface Transportation .....	cost plus 15%
Lodging and Sustenance .....	cost plus 15%

**Billing & Payment**

Travel time is charged for work required to be performed out-of-office. A minimum of two hours will be billed for any work out-of-office.

Invoicing is on a monthly basis for work performed. Payment for services is due within 30 days from the date of the invoice. An interest charge of 1.5% per month is made on the unpaid balance starting 30 days after the date of invoice.

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This schedule of billing rates is effective January 1, 2015, and will remain in effect until December 31, 2015, unless unforeseen increases in operational costs are encountered. We reserve the right to change rates to reflect such increases.