

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



ITEM
3.13
(ID # 8335)

MEETING DATE:

Tuesday, December 11, 2018

FROM : ECONOMIC DEVELOPMENT AGENCY (EDA):

SUBJECT: ECONOMIC DEVELOPMENT AGENCY (EDA): French Valley Airport Rehabilitation of Runway 18-36, Taxiway A, Connector Taxiways Project First Amendment to the Work Order Agreement with Mead & Hunt Inc., District 3, [\$102,291], Federal Aviation Administration Airport Improvement Grant Funds 90%, Special Aviation Budget Fund (22350) 10%.

RECOMMENDED MOTION: That the Board of Supervisors:

1. Approve the First Amended to the Work Order Agreement with Mead & Hunt, Inc. for engineering design services on the French Valley Airport Rehabilitation of Runway 18-36, Taxiway A and Connector Taxiway Pavement Project, and authorize the Chairman of the to execute the agreement on behalf of the County; and
2. Delegate Change Order authority to the Assistant County Executive Officer/ ECD or designee in accordance with Board Policy 11.

ACTION: Policy

Robert Field, Assistant County Executive Officer/ECD 11/27/2018

MINUTES OF THE BOARD OF SUPERVISORS

On motion of Supervisor Tavaglione, seconded by Supervisor Jeffries 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: December 11, 2018
xc: EDA

Kecia Harper-Ihem
Clerk of the Board

By Deputy

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

FINANCIAL DATA	Current Fiscal Year:	Next Fiscal Year:	Total Cost:	Ongoing Cost
COST	\$102,291	\$0	\$102,291	\$0
NET COUNTY COST	\$0	\$0	\$0	\$0
SOURCE OF FUNDS: Federal Aviation Administration Airport Improvement Grant Fund 90%, Special Aviation Budget Fund (22350) 10%			Budget Adjustment:	No
			For Fiscal Year:	2018/2019

C.E.O. RECOMMENDATION: Approve

BACKGROUND:

Summary

The purpose of this project is to design the rehabilitation of the French Valley Airport's primary Runway 18-36 (Runway), the parallel Taxiway A (Taxiway) and the five connector taxiways. The Runway and Taxiway pavement were assessed in August 2017 using the 2013 Airport Pavement Management System database, and historical pavement information. Upon approval of the design work in February 2018, and after visual inspection of the Runway, considerable deterioration of the Runway pavement was found between August 2017 and the inspection. The engineering design work has increased to include additional geotechnical work, and increased construction scope of pavement repair. There are no anticipated changes to the Taxiway design.

The Rehabilitation of the Runway and Taxiway and connector taxiway pavement at French Valley Airport is consistent with the Airport's Federal Aviation Administration Capital Improvement Program and Master Plan. Mead & Hunt Inc. was authorized as the Aviation airports project consultant in August 27, 2014.

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

Impact on Residents and Businesses

The rehabilitation of the Runway 18-36, Taxiway A and connector taxiway pavement will improve the airport and contribute to safe operations.

Additional Fiscal Information

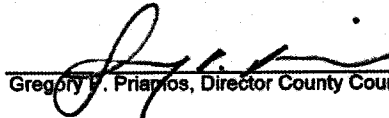
There will be no impact on the County's general fund.

ATTACHMENTS:

- Work Order Agreement Amendment #1 and Exhibits

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


Rohini Basma, Principal Management Analyst 12/3/2018


Gregory P. Priamos, Director County Counsel 11/28/2018

WORK ORDER AGREEMENT
AMENDMENT No. 1
FOR
FRENCH VALLEY AIRPORT
REHABILITATION OF THE RUNWAY 18-36, TAXIWAY A,
AND CONNECTOR TAXIWAY PAVEMENTS
ENGINEERING DESIGN SERVICES
BY AND BETWEEN
RIVERSIDE COUNTY ECONOMIC DEVELOPMENT AGENCY
AND
MEAD AND HUNT, INC.

This Amendment No. 1 is made and entered into this 14th day of December, 2018, by and between the County of Riverside, for its Economic Development Agency, hereinafter called the "AGENCY", and MEAD AND HUNT, INC., hereinafter called the "CONSULTANT".

RECITALS

WHEREAS, the AGENCY and CONSULTANT have entered into an agreement entitled "Work Order Agreement for French Valley Airport Rehabilitation of Runway 18-36, Taxiway A, and Connector Taxiway Pavements Engineering Design Services" that is dated February 27, 2018. The Agreement provides the terms and conditions, scope of work, schedule and budget for the performance of professional and technical services necessary to prepare for this rehabilitation project.

NOW, THEREFORE, the AGENCY and CONSULTANT agree to the changes that follow:

1. All references to "Exhibit A", originally referring to "EXHIBIT A: DESIGN ENGINEERING SCOPE OF SERVICES for FRENCH VALLEY AIRPORT, RIVERSIDE COUNTY Rehabilitation of Runway 18-36, Taxiway A and Connector Taxiway Pavements", shall now refer to "EXHIBIT

A: AMENDMENT NO. 1 DESIGN ENGINEERING SCOPE OF SERVICES for FRENCH VALLEY AIRPORT, RIVERSIDE COUNTY Rehabilitation of Runway 18-36, Taxiway A and Connector Taxiway Pavements: Revised: September 28, 2018” attached hereto and incorporated herein.

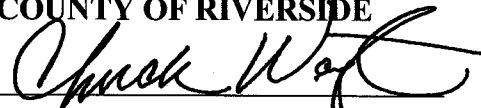
2. Section 2, “PERIOD OF PERFORMANCE” is amended to, remove the first sentence and replace it with “CONSULTANT shall complete work within one hundred & fifty (150) calendar days from the date the AGENCY issues the Notice to Proceed. This agreement is effective for twelve (12) months should circumstances require modifications to the schedule to meet the client needs.”

3. Section 3, “COMPENSATION:”, remove paragraph 3.1 and replace in its entirety with “CONSULTANT shall be paid a LUMP SUM amount not-to-exceed One Hundred Eighty-eight Thousand Two Hundred Five Dollars Sixty-five Cents (\$188,205.65) for Engineering Design and Bidding Services described in Exhibit “A”, Description of Tasks in Phases I, II, III & IV. This is an AMENDMENT of One Hundred Two Thousand Two Hundred Ninety Dollars Sixty-five Cents (\$102,290.65). CONSULTANT shall submit invoices monthly to the AGENCY for progress payments based on the performance of the total work completed to date.”

4. Except as specifically modified by this Amendment to the AGREEMENT, all terms and conditions of the AGREEMENT, as amended, shall remain in full force and effect.

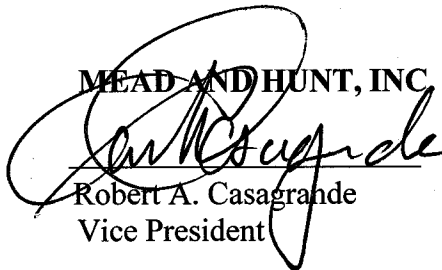
IN WITNESS WHEREOF, the parties hereto have caused their duly representatives to execute this Agreement.

COUNTY OF RIVERSIDE



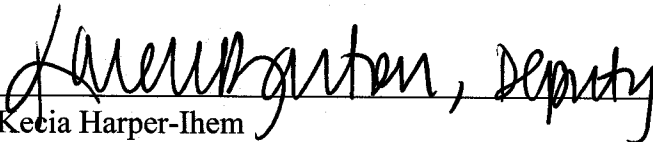
Chuck Washington, Chairman
Board of Supervisors

MEAD AND HUNT, INC.



Robert A. Casagrande
Vice President


ATTEST:



Kecia Harper-Ihem
Clerk of the Board

APPROVED AS TO FORM:

Gregory P. Priamos
County Counsel

 11/15/18

Kristine Bell-Valdez
Supervising Deputy County Counsel

EXHIBIT A

AMENDMENT NO.1

DESIGN ENGINEERING SCOPE OF SERVICES for FRENCH VALLEY AIRPORT, RIVERSIDE COUNTY

Rehabilitation of Runway 18-36, Taxiway A and Connector Taxiway Pavements

Revised: September 28, 2018

AMENDMENT #1: REVISED SCOPE

Site investigations during the preliminary engineering phase indicated that the original, anticipated methodology for rehabilitation will be insufficient. Preliminary engineering has indicated the crack seal and slurry approach will not be cost-effective for the runway, and an asphalt mill and overlay will likely be required. This entails additional engineering design work and associated costs. The revised anticipated construction cost on this methodology is \$2,500,000. The crack seal is still anticipated to be used on the taxiway.

It is assumed for design purposes that the runway will be constructed in 1 phase and the taxiway will be constructed in no more than three (3) phases.

PROJECT DESCRIPTION

The Engineering Design Services to be provided by Mead & Hunt, Inc. (Consultant) are described herein and detail airport improvements for pavement rehabilitation at the French Valley Airport (Airport) in the City of Murrieta, Riverside County (County), California.

The proposed project is to design the rehabilitation of ageing pavement on the Airport's primary runway, Runway 18-36, the parallel Taxiway A, and the five connector taxiways (Project). The pavements were visually inspected and detailed in the Airport Pavement Management System report, dated June 2013, and rated as "Fair" and "Good." However, since the report, the pavement has degraded considerably. The runway consists of an area of approximately 55,000 square yards. The connector taxiways consist of an area of approximately 6,500 square yards of pavement; Taxiway A has an area of approximately 31,500 square yards. The proposed rehabilitation methodology is different for the runway and taxiway: The taxiway rehabilitation is anticipated to include preparation of the pavement surface by pressure washing, crack cleaning and filling of minor size cracks, saw cutting and repair of major size cracks, a slurry seal of the pavement, and the application of new pavement markings. For the runway, it is expected that it will be full removal and replacement of runway pavement, along with the application of new pavement markings. The estimated cost of construction for this work is estimated at \$2,500,000.

CONSULTANT EXPERTISE

The Consultant's "Project Team" includes 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 details the scope of services to be provided by Consultant.

Phase I Contract Administration and Coordination

This phase involves those activities required for defining the scope of project, negotiating contract and subcontracts, and general coordination and administration, 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 and other concerned agencies and parties on matters affecting the project and shall arrive at a mutual understanding of such matters with the County. The Consultant and County shall discuss what type of environmental documentation (Environmental Assessment or Categorical Exclusion) will be needed and/or what has been prepared for the project and included in the work scope. The County shall provide the Consultant with any environmental documents available. Meetings with the County shall also determine the need for topographical surveying and pavement/geotechnical testing. It is anticipated that there will be a maximum of 1 meeting 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 any necessary subconsultant contracts required to complete the work described in this scope.

3.0 PROJECT COORDINATION (coordination with Design Team, County, FAA etc.)

Consultant will coordinate with the subconsultants, County, FAA, and other applicable agencies to complete the work elements of the Project. Weekly progress meetings will be held with the design team and/or County along with milestone meetings with the FAA.

4.0 GENERAL CONTRACT ADMINISTRATION

Provide general administration during the design and bidding process, as applicable. A Project Manager (PM) will be assigned to this Project to ensure continuity through all phases of work, as

described in this scope. The Project Manager will be responsible for work performed by the Project Team. The Project Manager shall:

- a. Define tasks, schedules, and costs.
- b. Monitor work progress and resolve problems.
- c. Maintain up-to-date schedules.
- d. 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.
- e. Focus the efforts of the Consultant and Subconsultants to expedite the design of a high-quality, cost-effective Project that meets the needs of the County.
- f. Maintain quality control on all work of the Consultant and subconsultants. Implement and monitor a program of Quality Control (QC) and Quality Assurance (QA).
- g. Prepare invoices to submit to the County in accordance with the County's standard invoice requirements.

5.0 GRANT APPLICATION AND ADMINISTRATION

This element of work includes the preparation of the FAA Grant Application before design has been completed and revisions to the FAA Grant Application after bids are accepted. Preparation of the FAA Grant Application will include the following:

- a. Federal form SF-424 with correct current information
- b. Federal form 5100 with current information, costs and calculations, and requested funding.
- c. Calculate the Project's FAA National Priority Rating (or research available pavement PCN and PCI ratings if required)
- d. Draft the program narrative (scope of work), discussing the purpose and need of the work and the method of accomplishment
- e. Generate a draft project schedule
- f. Prepare a Project cost estimate summary for Project elements involved
- g. Calculate FAA, State, and local funding amounts
- h. Prepare a current Exhibit A Property Map from available resources
- i. Prepare a Project Sketch, indicating the proposed Project area to be submitted with application
- j. Prepare updated, draft, Sponsor Certifications (that pertain to this project; usually 4 certifications) for County Signatures.
- k. Prepare updated, draft, Grant Assurances for County Signatures.
- l. Prepare updated, draft, Title VI Assurances for County Signatures.
- m. Assist County with information submittal to FAA.
- n. Communicate with FAA on behalf of the County if so requested.

The Consultant will prepare an electronic "application package" as a pdf. and submit to the County for approval and signatures. County will send signed application package to the FAA for grant processing.

PHASE I DELIVERABLES

- 1) Draft Scope of Services – One (1) electronic file
- 2) Final Scope of Services – Two (2) original hard copies
- 3) Executed Contract – Two (2) originals hard copies
- 4) Grant Application – One (1) electronic file to County

Phase II Preliminary Design (60%)

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. 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 (Subconsultant Hunsaker and Associates)

Survey control will be established and used for design surveys. The CONSULTANT will provide 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 the Runway 8-36 alignment, and tie this alignment into the PROJECT survey control.

6.3. Field Work (Subconsultant Hunsaker and Associates, Inc.)

The following tasks are included:

- a. Establish near-by horizontal control (NAD 83) and vertical control (NAVD 88) for topographic purposes and set temporary benchmarks outside RSA and TSA area.
- b. Locate all pavement on Runway 8-36, hardscape features, visible utilities, striping, drop edges, vertical faces, lighting and signage, pull boxes, hand holes, and storm drain.
- c. Provide pictures for all structures.
- d. Perform pavement survey on 25' grid.
- e. Provide PNEZD file and AutoCAD file of topographic area.

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 sub-consultant 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 (Subconsultant)

- a. Four (4) borings within the limits of the runway pavement as shown. The borings shall be to a depth of at least 10 feet below the surface.
- b. Perform two in-place CBR tests and two laboratory CBR tests.
- c. Prepare boring graphic logs including:
 - Location
 - Date performed
 - Type of exploration
 - Surface elevation
 - Depth of materials with particular detail on the pavement and base course layers.
 - Sample identification numbers
 - Classification
 - Water table
 - Standard penetration test (SPT) - Compaction tests of in situ material at 6" below pavement section, then 12" below pavement section, then 18" below pavement section.
- d. Soil Testing Requirements
 - i. Standard Test Method for Particle-Size Analysis of Soils (ASTM D 422). Provide a minimum of four (4) tests.
 - ii. Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils (ASTM D 4318). Provide a minimum of four (4) tests.

- iii. Moisture-Density Relations of Soils. Use ASTM Method D 698, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort. Provide a minimum of four (4) tests.
- e. Provide Unified Soil Classification per ASTM D 2487.
- f. Provide recommendations for preparation of subgrade and for subgrade stabilization techniques by mechanical means (with or without stabilization fabrics).
- g. Provide an analysis and recommendation for use of existing aggregate base and asphalt concrete blend for use and recycled base for pavement section.
- h. Provide an analysis for susceptibility for soil shrinkage and/or expansion and swelling

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

Consultant will complete a project layout sheet that will depict the proposed improvements.

9.0 PREPARE FAA PAVEMENT DESIGN REPORT.

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 150/5320-6F, *Airport Pavement Design and Evaluation*.

The following effort will be completed under this task:

- a. Determine critical design aircraft or vehicle based on current and forecasted aircraft fleet mix and vehicular use.
- b. Verify the pavement section based on accepted FAA pavement design programs. The applicable design program to be used is FAARFIELD. Develop pavement design alternatives and make recommendations as to the most economical pavement section and/or rehabilitation alternative. A total of two (2) pavement design alternatives will be evaluated.
- c. Evaluate interim and ultimate pavement strength requirements.
- d. Evaluate effects of pavement profile on adjacent operational areas and future runway/taxiway pavement rehabilitation.
- e. Calculate sub-excavation, undercutting, and other techniques for subgrade stabilization, if necessary.
- f. Review proposed pavement analysis with FAA Engineer.

- g. Prepare pavement design narrative to describe the design procedure, historic design, and justification for the FAA and SPONSOR.
- h. 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 – NIC

Existing stormwater conveyance systems and drainage patterns will be protected-in-place. There will be no revisions or review of the Industrial Storm Water Pollution Prevention Plan (SWPPP) nor a hydrology / hydraulic analysis as there will be no modifications to pavement geometries or drainage areas.

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. 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 the summary of the project scope, geometrics, pavement design, electrical 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 an Engineer's cost estimate. This report will also discuss funding, budget, strategies for bidding the project and potential use of bid alternates. The information will be presented in letter report format for review by the County.

13.0 PREPARE FAA FORM 7460

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 (Categorical Exclusion)

The Consultant has performed a Categorical Exclusion (CAT EX) Document for the site development project. The FAA has reviewed and approved the CAT EX in March 2017 for this project.

15.0 PHASE II PROJECT MEETINGS

The Consultant will arrange and lead meetings during Phase II, as described in the subtasks below. The Consultant will produce drawings and handouts, as needed, to conduct each meeting and will prepare minutes to document the discussions.

15.1 Present Preliminary Design and Cost Recommendations to Airport

The Consultant will prepare for and conduct a meeting by phone to present the findings of the preliminary engineering phase and cost recommendations for the project.

15.2 Coordination Meetings (with FAA, local agencies, subconsultants, etc)

The Consultant will conduct a coordination meeting by phone, with the FAA, the County, and other airport stake holders as needed.

PHASE II DELIVERABLES

Prior to the completion of Phase II, the Consultant will deliver the following information to the County:

- 1) Preliminary Design Report – Three (3) hard copies and one electronic file
- 2) Plans in support of preliminary design – Three (3) hard copies and one electronic file
- 3) Geotechnical Report – Three (3) hard copies
- 4) FAA Form 7460 –Electronic file
- 5) CAT EX – Three (3) hard copies

Phase III Final Design (95% and Final)

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 Notes
- G-082 Construction Safety and Phasing Plan
- G-083 Construction Safety and Phasing Details

Pavement Boring Location Map:

- B-051 Plan and Log of Pavement Borings

Civil:

General

- C-001 Civil Legend
- C-021 Erosion Control Plans
- C-031 Erosion Control Details

Site

- C-051 Demolition Plan – 9 Sheets
- C-061 Demolition Details
- C-101 Paving Plan – 9 Sheets
- C-110 Paving Profile – 9 Sheets

- C-301 Typical Sections
- C-311 Paving Details

Marking

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

Not in Scope

No storm drain or electrical improvements are included in this Scope.

No AC 150/5300-13A Analysis is included in this Scope. No line-of-site analysis or grading compliance analysis will be performed.

Airport Pavement Management Plan (APMP) revisions are not included in this Scope.

PCN classification number calculations are not included in this Scope.

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), FAA Required Certification forms, DBE Requirements, 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
- Non-segregated Facilities
- Drug-free Workplace
- Texting and Driving

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 provide any project specific information. These provisions cannot be modified other than where noted in the document.

17.4 Prepare Special Provisions for Airport Construction

The Consultant will prepare Special 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. For work not covered by FAA Standards, County or Caltrans Standard Specifications shall be used. Technical Specifications anticipated for this project include, but not limited to, the following:

- A-105, Mobilization
- P-101, Surface Preparation
- P-152, Excavation, Subgrade, and Embankment
- P-156, Temporary Air and Water Pollution, Soil Erosion, and Siltation Control
- P-208, Aggregate Base Course
- P-401, Hot Mix Asphalt (HMA) Pavements
- P-609, Bituminous Asphalt Seal Coat
- P-620, Runway and Taxiway Marking
- P-626, Emulsified Asphalt Slurry Seal Surface Treatment

18.0 PREPARE FINAL SURFACE DRAINAGE ANALYSIS AND FINAL STORM SEWER DESIGN - NIC

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 SPONSOR CERTIFICATIONS, JUSTIFICATIONS FOR MODIFICATIONS TO FAA STANDARD SPECIFICATIONS, AND MODIFICATION OF AIRPORT CONSTRUCTION STANDARDS (if required).

22.1 Sponsor Certifications

The Consultant will complete the required Sponsor Certifications verifying the plans and specifications were developed in accordance with Federal guidelines, and the Equipment/Construction certification.

22.2 Justifications for Modification of Standards

If any minor additions or modifications are required to be made to FAA Standards (General Provisions and/or Technical Specifications) for project clarification, justifications for the change must be provided to the FAA. Consultant will prepare justifications as needed.

22.3 Modification of Airport Standards

If necessary, the Consultant will prepare a Request for Modification of Airport Standards, if found to be necessary for the project. The form will be submitted to the County for acceptance and signature. Signed copies will be uploaded to the FAA online portal.

Any justifications / modifications documents will be included in the final Engineer's Design Report.

23.0 PREPARE 95% SUBMITTAL

Based on County's written review comments on the 60% submittal, prepare 95% engineering and design of all improvements. This work shall include:

- a. Prepare and submit 95% plans.
- b. Prepare and submit 95% specifications and bid documents.
- c. Prepare and submit 95% cost estimate.
- d. Perform internal QA/QC for all documents included in the 95% submittal.
- e. Conduct 95% review meeting with the County to go over submitted data and discuss schedule for upcoming submittals.

24.0 PREPARE AND SUBMIT FINAL PLANS AND SPECIFICATIONS

A final set of plans, specifications, and contract documents will be prepared that will incorporate revisions, modifications, and corrections determined during the FAA and County's review of the ninety-five percent (95%) submittal.

25.0 PREPARE AND SUBMIT FINAL COST ESTIMATE

25.1 Calculate Estimated Final Quantities.

Update estimated quantities from the Preliminary Design to reflect County comments included to produce Final Plans.

25.2 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.

26.0 PREPARE AND SUBMIT ENGINEER'S DESIGN REPORT

Prepare the Engineer's Design Report in conformance with FAA requirements. The report will include a summary and explanation of the project design including (as applicable) geometrics, pavement and electrical 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. A construction operation plan will be included, as well as a final Engineer's cost estimate. This report will also include details for bidding the project and recommended bid alternates. The report shall include (as applicable), but not be limited to, the following:

- a. Project Scope
- b. Design Standards
- c. Topographic Survey Summary
- d. Geotechnical Investigation Summary (report included as an Appendix)
- e. Design Geometrics (reference Federal Advisory Circular 150/5300-13A)
- f. Pavement Design Analysis (reference Federal Advisory Circular 150/5320-6E)
- g. Drainage Considerations
- h. Electrical Considerations
- i. Utility Considerations
- j. Pavement Marking Considerations
- k. Airport Operational Safety (reference Federal Advisory Circular 150/5370-2F)
- l. Construction Estimate
- m. Project Schedule and Construction Phasing
- n. Construction Inspection and Testing
- o. Deviations From FAA Standards
- p. Sponsor / Engineer's Certification for Project Plans and Specifications
- q. Sponsor Certification for Equipment/Construction Contract

27.0 PREPARE A CONSTRUCTION SAFETY AND PHASING PLAN

Prepare Construction Safety and Phasing Plan (CSPP) in conformance with FAA Standards and AC 150/5370-2F, *Operations on Airports During Construction*. The CSPP will be uploaded to the FAA online portal for review and approval, after approval by County. The final CSPP will be included in the Bid Document package and will include the following information:

- a. Overview & Purpose

- b. Construction Safety Responsibility of Each Party
- c. Construction Phasing, including (but not limited to):
 - Phasing and time limitations
 - Areas and operations affected by construction
 - Wildlife management
 - Hazardous materials management
 - Inspection requirements
 - Marking and signs for access routes
 - Protection of runway and taxiway critical areas
 - Safety plan compliance document
- d. Construction Safety and Phasing Plan Sheet(s)

28.0 PHASE III PROJECT MEETINGS

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

- a. 95% Submittal review phone meeting (1)
- b. Final Submittal review phone meeting (1)
- c. Coordination meetings with County and FAA (If required)

PHASE III DELIVERABLES

During the Phase III design effort, the Consultant will deliver the following information to the County:

- 1) 95% Plans, Specifications, and Contract Documents – Three (3) hard copies and one electronic file.
- 2) 95% Engineer's Design Report – Three (3) hard copies and one electronic file.
- 3) Final Plans, Specifications and Contract Documents – Three (3) hard copies and one electronic file.
- 4) Final Engineer's Design Report – Three (3) hard copies and one electronic file.
- 5) Construction Safety and Phasing Plan – Will be included in the final set of bid documents as an Appendix.

Phase IV Bid Administration

29.0 PREPARE ADVERTISEMENT FOR BIDS

Required advertisement dates and bidding dates will be established. Consultant will prepare the Advertisement 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.

30.0 BID DOCUMENTS DISTRIBUTION

Consultant shall prepare and upload Contract 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 Contract Documents. Bidders will be responsible for submitting their bids to the District similar to previous projects.

31.0 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.

32.0 PREPARE AND DISTRIBUTE ADDENDA

Consultant will issue up to one (1) bid addendum 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.

33.0 PRE-BID CONFERENCE

Consultant will arrange for and conduct Pre-Bid Conference. The Project Manager and Project Engineer will attend and conduct the Pre-Bid Conference with potential contractors and the County to review 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.

34.0 BID OPENING – NIC

Consultant will not attend the bid opening.

35.0 BID REVIEW AND BID TABULATION

Consultant will advise County 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.

36.0 PREPARE RECOMMENDATION FOR 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 supply 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 – upload to Quest site.
- 2) Bid Tabulation –One electronic file.
- 3) Recommendation for Award –One electronic file.

SCHEDULE OF COMPLETION

The Consultant will start work described under Phase I – Contract Administration and Coordination upon Notice to Proceed from the County. The Consultant will complete work called for under Phase II – Preliminary Design (60%) within sixty (60) calendar days from the date the County issues the Notice to Proceed with the work. Consultant will complete work described in Phase III – Final Design (95%) within

forty-five (45) calendar days of receipt of the County's review comments on the preliminary submittal. Consultant will complete the final Engineer's Design Report and final contract documents for use in bidding within forty-five (45) calendar days of the receipt of County and FAA review comments on the 95% submittal.

COMPENSATION FOR SERVICES

Payment for the amended scope of work described in Phases I, II, III, and IV of this Scope of Services shall be an additional lump sum fee of One Hundred Two Thousand Two Hundred Ninety Dollars Sixty-five Cents (\$102,290.65). This results in a revised total contract amount of One Hundred Eighty-eight Thousand Two Hundred Five Dollars Sixty-five cents (\$188,205.65). This fee shall include labor, materials, expenses, and incidentals necessary to complete the work as described herein. Exhibit B is included in this Scope of Services as an amended engineering services cost estimate.

Aviation Services Design Engineering Work Scope

AIRPORT: French Valley Airport
 LOCATION: Murrieta, California
 AIP PROJECT NO. 3-06-0338-029-2017
 PROJECT DESCRIPTION: Runway 18-36, Taxiway A and Connector Taxiway Pavement Rehabilitation

PROJECT NUMBER: 3171300-121874.01
 DATE: 9/24/18
 REV. NO.: 1

1.0	Project Scoping	\$	7,808.00
2.0	Prepare Contract and Sub-Contracts	\$	2,144.00
3.0	Project Coordination	\$	12,496.00
4.0	General Contract Administration	\$	10,112.00
5.0	Grant Application and Administration Expenses	\$	2,504.00
		\$	1,023.05

6.0	Topographic Surveying	\$	1,427.00
7.0	Geotechnical Investigation	\$	5,994.00
8.0	Prepare Plan Sheets for Preliminary Submittal	\$	22,376.00
9.0	Prepare FAA Pavement Design Report	\$	1,622.00
10.0	Prepare Preliminary Surface Drainage Analysis - NIC	\$	-
11.0	Prepare Preliminary Cost Estimate	\$	1,716.00
12.0	Prepare Preliminary Design Report	\$	1,616.00
13.0	Prepare FAA Form 7480	\$	896.00
14.0	Prepare Environmental Documentation	\$	8,880.00
15.0	Phase II Project Meetings Expenses	\$	2,308.00
		\$	623.05

16.0	Prepare Plans	\$	21,940.00
17.0	Prepare Specifications	\$	12,116.00
18.0	Prepare Final Surface Drainage Analysis and Final Storm	\$	-
19.0	Prepare Lighting Layout and Circuit Calculations - NIC	\$	-
20.0	Update Airport Signing and Marking Plan - NIC	\$	-
21.0	Erosion Control Plan	\$	1,616.00
22.0	Prepare Sponsor Certifications	\$	1,184.00
23.0	Prepare 95% Submittal	\$	4,944.00
24.0	Prepare and Submit Final Plans and Specifications	\$	4,944.00
25.0	Prepare and Submit Final Cost Estimate	\$	2,854.00
26.0	Prepare and Submit Engineers Design Report (EDR)	\$	4,352.00
27.0	Prepare Construction Safety and Phasing Plan	\$	3,504.00
28.0	Phase III Project Meetings Expenses	\$	4,192.00
		\$	623.05

29.0	Prepare Advertisement for Bids	\$	1,228.00
30.0	Bid Documents Distribution	\$	1,228.00
31.0	Respond to Bidders Questions	\$	2,095.00
32.0	Prepare and Distribute Addenda	\$	1,958.00
33.0	Pre-Bid Conference	\$	3,448.00
34.0	Bid Opening - NIC	\$	-
35.0	Bid Review and Bid Tabulation	\$	1,307.00
36.0	Prepare Recommendation for Award Expenses	\$	627.50
		\$	500.00

Additional Topographic Surveying (for Design)	\$	20,000.00
Additional Geotechnical Investigation (for Design)	\$	10,000.00
Cultural and Biological Field Investigations Expenses	\$	-

AMENDMENT No. 1

Item No.	Senior Associate	Senior Project Engineer	Senior Engineer	Engineer III	Engineer II	Engineer I	Technician III	Administrative Assistant	Clerical	Total Hours	Cost Summary
1.0 Project Scoping											
1.1 Preliminary meetings with the County	16	0	8	0	0	0	0	0	0	24	\$ 5,184.00
1.2 Prepare project scope of work and proposal	8	0	2	0	0	0	0	4	0	14	\$ 2,624.00
Estimated Total Man-hours	24	0	10	0	0	0	0	4	0	38	
Summary Costs	\$5,760.00	\$0.00	\$1,680.00	\$0.00	\$0.00	\$0.00	\$0.00	\$368.00	\$0.00		\$ 7,808.00
2.0 Prepare Contract and Sub-Contracts											
Estimated Total Man-hours	0	0	4	0	0	0	0	16	0	20	\$ 2,144.00
Summary Costs	\$0.00	\$0.00	\$872.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,472.00	\$0.00		\$ 2,144.00
3.0 Project Coordination											
Estimated Total Man-hours	4	8	40	0	0	20	0	8	0	80	\$ 12,496.00
Summary Costs	\$960.00	\$1,720.00	\$6,720.00	\$0.00	\$0.00	\$2,360.00	\$0.00	\$736.00	\$0.00		\$ 12,496.00
4.0 General Contract Administration											
Estimated Total Man-hours	8	0	40	0	0	0	0	16	0	64	\$ 10,112.00
Summary Costs	\$1,920.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,472.00	\$0.00		\$ 10,112.00
5.0 Grant Application and Administration											
Estimated Total Man-hours	4	0	2	0	0	4	0	8	0	18	\$ 2,504.00
Summary Costs	\$960.00	\$0.00	\$336.00	\$0.00	\$0.00	\$472.00	\$0.00	\$736.00	\$0.00		\$ 2,504.00
Expenses											
Subconsultant	0	0	0	0	0	0	0	0	0	0 Days	\$ 75.00
Auto Rental	1	0	0	0	0	0	0	0	0	1 Days	\$ 75.00
Mileage	0	0	230	0	0	0	0	0	0	230 Miles	\$ 0.54
Loging	0	0	0	0	0	0	0	0	0	0 Days	\$ 123.05
Airline Costs	1	0	0	0	0	0	0	0	0	1 Trips	\$ 600.00
Meats	1	0	3	0	0	0	0	0	0	4	\$ 25.00
Trips	0	0	0	0	0	0	0	0	0	0 Days	\$ 250.00
Miscellaneous	0	0	0	0	0	0	0	0	0	0 Days	\$ 100.00
Paper / Copies	0	0	0	0	0	0	0	500	0	500	\$ 0.25
Plotting	0	0	0	0	0	0	0	0	0	0	\$ 3.00
Other	0	0	0	0	0	0	0	0	0	0	\$ 50.00
Total Expenses											\$ 1,023.05

Item No.	Senior Associate	Senior Project Engineer	Senior Engineer	Engineer III	Engineer II	Engineer I	Technician III	Administrative Assistant	Clerical	Total Hours	Cost Summary
6.0 Topographic Surveying											
6.1	0	1	2	0	0	2	0	0	0	5	\$ 787.00
6.2	0	0	0	0	0	0	0	0	0	0	\$ -
6.3	0	0	0	0	0	0	0	0	0	0	\$ -
6.4	0	0	1	0	0	4	0	0	0	5	\$ 640.00
	Estimated Total Man-hours	6	3	0	0	6	0	0	0	10	\$ 1,427.00
	Summary Costs	\$0.00	\$504.00	\$0.00	\$0.00	\$708.00	\$0.00	\$0.00	\$0.00		\$ 1,427.00
7.0 Geotechnical Investigation											
7.1	0	4	0	0	0	0	0	0	0	4	\$ 860.00
7.2	0	2	4	0	0	0	0	0	0	6	\$ 1,102.00
7.3	0	0	16	0	0	0	0	0	0	16	\$ 2,688.00
7.4	0	0	8	0	0	0	0	0	0	8	\$ 1,344.00
	Estimated Total Man-hours	0	6	28	0	0	0	0	0	34	\$ 5,994.00
	Summary Costs	\$0.00	\$1,290.00	\$4,704.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$ 5,994.00
8.0 Prepare Plan Sheets for Preliminary Submittal											
	Estimated Total Man-hours	8	8	16	0	136	0	0	0	168	\$ 22,376.00
	Summary Costs	\$1,920.00	\$1,720.00	\$2,688.00	\$0.00	\$16,048.00	\$0.00	\$0.00	\$0.00		\$ 22,376.00
9.0 Prepare FAA Pavement Design Report											
	Estimated Total Man-hours	0	2	6	0	0	0	2	0	10	\$ 1,622.00
	Summary Costs	\$0.00	\$430.00	\$1,008.00	\$0.00	\$0.00	\$0.00	\$184.00	\$0.00		\$ 1,622.00
10.0 Prepare Preliminary Surface Drainage Analysis - NIC											
	Estimated Total Man-hours	0	0	0	0	0	0	0	0	0	\$ -
	Summary Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$ -
11.0 Prepare Preliminary Cost Estimate											
11.1	0	0	4	0	0	4	0	0	0	8	\$ 1,144.00
11.2	0	0	2	0	0	2	0	0	0	4	\$ 572.00
	Estimated Total Man-hours	0	0	6	0	6	0	0	0	12	\$ 1,716.00
	Summary Costs	\$0.00	\$0.00	\$1,008.00	\$0.00	\$708.00	\$0.00	\$0.00	\$0.00		\$ 1,716.00
12.0 Prepare Preliminary Design Report											
	Estimated Total Man-hours	0	0	4	0	8	0	0	0	12	\$ 1,616.00
	Summary Costs	\$0.00	\$0.00	\$672.00	\$0.00	\$944.00	\$0.00	\$0.00	\$0.00		\$ 1,616.00
13.0 Prepare FAA Form 7460											
	Estimated Total Man-hours	1	0	0	0	4	0	2	0	7	\$ 896.00
	Summary Costs	\$240.00	\$0.00	\$0.00	\$0.00	\$472.00	\$0.00	\$184.00	\$0.00		\$ 896.00
14.0 Prepare Environmental Documentation											
14.1	0	0	8	0	0	0	0	0	0	8	\$ 1,344.00
14.2	0	0	8	0	0	40	0	16	0	64	\$ 7,536.00
	Estimated Total Man-hours	0	0	16	0	40	0	16	0	72	\$ 8,880.00
	Summary Costs	\$0.00	\$0.00	\$2,688.00	\$0.00	\$4,720.00	\$0.00	\$1,472.00	\$0.00		\$ 8,880.00
15.0 Phase II Project Meetings											
15.1	0	0	4	0	0	0	0	0	2	6	\$ 818.00
15.2	0	0	8	0	0	0	0	0	2	10	\$ 1,490.00
	Estimated Total Man-hours	0	0	12	0	0	0	0	4	16	\$ 2,308.00
	Summary Costs	\$0.00	\$0.00	\$2,016.00	\$0.00	\$0.00	\$0.00	\$0.00	\$292.00		\$ 2,308.00
Expenses											
	Subconsultant	0	0	0	0	0	0	0	0	0 Days	\$ 75.00
	Auto Rental	0	0	0	0	0	0	0	0	0 Days	\$ -
	Mileage	0	0	230	0	0	0	0	0	230 Miles	\$ 0.54
	Lodging	0	0	0	0	0	0	0	0	0 Days	\$ 123.05
	Airline Costs	0	0	0	0	0	0	0	0	0 Trips	\$ -

EXHIBIT B
Amended Engineering Services Cost Estimate

Item No.	Senior Associate	Senior Project Engineer	Senior Engineer	Engineer III	Engineer II	Engineer I	Technician III	Administrative Assistant	Clerical	Total Hours	Cost Summary
	\$240.00	\$215.00	\$165.00	\$148.00	\$137.00	\$118.00	\$114.00	\$92.00	\$73.00		
Meals	0	0	3	0	0	0	0	0	0	3	\$ 25.00
Trips	0	0	0	0	0	0	0	0	0	0	\$250.00
Miscellaneous	0	0	0	0	0	0	0	0	0	0	\$100.00
Paper / Copies	0	0	500	0	0	0	0	0	0	500	\$ 0.25
Plotting	0	0	100	0	0	0	0	0	0	100	\$ 3.00
Other	0	0	0	0	0	0	0	0	0	0	\$ 50.00
											\$ 75.00
Total Expenses \$ 623.05											

Item No.	Senior Associate	Senior Project Engineer	Senior Engineer	Engineer III	Engineer II	Engineer I	Technician III	Administrative Assistant	Clerical	Total Hours	Cost Summary
16.0 Prepare Plans											
General											
G-001	0.5	0	1	0	0	2	0	0	0	3.5	\$ 524.00
G-002	0.5	0	1	0	0	2	0	0	0	3.5	\$ 524.00
G-021	0.5	0	1	0	0	4	0	0	0	5.5	\$ 760.00
G-041	0.5	0	1	0	0	4	0	0	0	5.5	\$ 760.00
G-081	0.5	0	1	0	0	4	0	0	0	5.5	\$ 760.00
G-082	0.5	0	1	0	0	8	0	0	0	9.5	\$ 1,232.00
G-083	0.5	0	1	0	0	4	0	0	0	5.5	\$ 760.00
Civil - General											
C-001	0.5	0	1	0	0	4	0	0	0	5.5	\$ 760.00
C-021	0.5	0	1	0	0	4	0	0	0	5.5	\$ 760.00
C-031	0.5	0	1	0	0	4	0	0	0	5.5	\$ 760.00
Civil - Site											
C-051	0.5	0	1	0	0	18	0	0	0	19.5	\$ 2,412.00
C-061	0.5	0	1	0	0	18	0	0	0	19.5	\$ 2,412.00
C-101	0.5	0	1	0	0	18	0	0	0	19.5	\$ 2,412.00
C-110	0.5	0	1	0	0	18	0	0	0	19.5	\$ 2,412.00
C-301	0.5	0	1	0	0	4	0	0	0	5.5	\$ 760.00
C-311	0.5	0	1	0	0	4	0	0	0	5.5	\$ 760.00
Civil - Marking											
C-651	0.5	0	1	0	0	18	0	0	0	19.5	\$ 2,412.00
C-671	0.5	0	1	0	0	4	0	0	0	5.5	\$ 760.00
Estimated Total Man-hours											
Summary Costs	\$2,160.00	\$0.00	\$3,024.00	\$0.00	\$0.00	\$16,756.00	\$0.00	\$0.00	\$0.00	169	\$ 21,940.00
17.0 Prepare Specifications											
17.1	8	0	8	0	0	4	0	8	0	28	\$ 4,472.00
17.2	0.5	0	2	0	0	0	0	4	0	6.5	\$ 824.00
17.3	0.5	0	2	0	0	0	0	4	0	6.5	\$ 824.00
17.4	0.5	0	4	0	0	0	0	4	0	8.5	\$ 1,160.00
17.5	4	0	16	0	0	2	0	4	8	34	\$ 4,536.00
Estimated Total Man-hours											
Summary Costs	\$3,240.00	\$0.00	\$5,376.00	\$0.00	\$0.00	\$708.00	\$0.00	\$2,208.00	\$584.00	83.5	\$ 12,116.00
18.0 Prepare Final Surface Drainage Analysis and Final Storm Sewer Design - NIC											
Estimated Total Man-hours											
Summary Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0	\$ 0.00
19.0 Prepare Lighting Layout and Circuit Calculations - NIC											
Estimated Total Man-hours											
Summary Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0	\$ 0.00
20.0 Update Airport Signage and Marking Plan - NIC											
Estimated Total Man-hours											
Summary Costs	\$0.00	\$0.00	\$672.00	\$0.00	\$0.00	\$944.00	\$0.00	\$0.00	\$0.00	12	\$ 1,616.00
21.0 Erosion Control Plan											
Estimated Total Man-hours											
Summary Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0	\$ 0.00
22.0 Prepare Sponsor Certifications											
Estimated Total Man-hours											
Summary Costs	\$480.00	\$0.00	\$336.00	\$0.00	\$0.00	\$0.00	\$0.00	\$368.00	\$0.00	8	\$ 1,184.00
23.0 Prepare 95% Submittal											
Estimated Total Man-hours											
Summary Costs	1	\$0.00	\$1,344.00	\$0.00	\$0.00	\$1,888.00	\$0.00	\$1,472.00	\$0.00	41	\$ 4,944.00
24.0 Prepare and Submit Final Plans and Specifications											
Estimated Total Man-hours											
Summary Costs	1	\$0.00	\$1,344.00	\$0.00	\$0.00	\$1,888.00	\$0.00	\$1,472.00	\$0.00	41	\$ 4,944.00

Item No.	Senior Associate	Senior Project Engineer	Senior Engineer	Engineer III	Engineer II	Engineer I	Technician III	Administrative Assistant	Clerical	Total Hours	Cost Summary
25.0	\$240.00	\$215.00	\$168.00	\$148.00	\$137.00	\$118.00	\$114.00	\$92.00	\$73.00		
25.1	0	1	2	0	0	8	0	0	0	11	\$ 1,495.00
25.2	0	1	4	0	0	4	0	0	0	9	\$ 1,359.00
	0	2	6	0	0	12	0	0	0	20	
	\$0.00	\$430.00	\$1,008.00	\$0.00	\$0.00	\$1,416.00	\$0.00	\$0.00	\$0.00		\$ 2,854.00
26.0											
	4	0	8	0	0	8	0	12	0	32	\$ 4,352.00
	\$960.00	\$0.00	\$1,344.00	\$0.00	\$0.00	\$944.00	\$0.00	\$1,104.00	\$0.00		\$ 4,352.00
27.0											
	2	0	8	0	0	8	0	8	0	26	\$ 3,504.00
	\$480.00	\$0.00	\$1,344.00	\$0.00	\$0.00	\$944.00	\$0.00	\$736.00	\$0.00		\$ 3,504.00
28.0											
	0	8	8	0	0	8	0	2	0	26	\$ 4,192.00
	\$0.00	\$1,720.00	\$1,344.00	\$0.00	\$0.00	\$944.00	\$0.00	\$184.00	\$0.00		\$ 4,192.00
Expenses											
	0	0	0	0	0	0	0	0	0	0	\$ 75.00
	0	0	0	0	0	0	0	0	0	0	\$ 75.00
	0	0	230	0	0	0	0	0	0	230	\$ 123.05
	0	0	0	0	0	0	0	0	0	0	\$ 150.00
	0	0	0	0	0	0	0	0	0	0	\$ 600.00
	0	0	3	0	0	0	0	0	0	3	\$ 25.00
	0	0	0	0	0	0	0	0	0	0	\$ 250.00
	0	0	0	0	0	0	0	0	0	0	\$ 100.00
	0	0	500	0	0	0	0	0	0	500	\$ 125.00
	0	0	100	0	0	0	0	0	0	100	\$ 300.00
	0	0	0	0	0	0	0	0	0	0	\$ 50.00
	0	0	0	0	0	0	0	0	0	0	\$ 623.05

Item No.	Senior Associate	Senior Project Engineer	Senior Engineer	Engineer III	Engineer II	Engineer I	Technician III	Administrative Assistant	Clerical	Total Hours	Cost Summary
30.0 Prepare Advertisement for Bids											
	0	4	0	0	0	0	0	4	0	8	\$ 1,228.00
Estimated Total Man-hours	\$0.00	\$860.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$368.00	\$0.00		\$ 1,228.00
31.0 Bid Documents Distribution											
	0	4	0	0	0	0	0	4	0	8	\$ 1,228.00
Estimated Total Man-hours	\$0.00	\$860.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$368.00	\$0.00		\$ 1,228.00
32.0 Respond to Bidders Questions											
	0	2	8	0	0	0	0	2	0	12	\$ 1,958.00
Estimated Total Man-hours	\$0.00	\$430.00	\$1,344.00	\$0.00	\$0.00	\$0.00	\$0.00	\$184.00	\$0.00		\$ 1,958.00
33.0 Prepare and Distribute Addenda											
	0	1	4	0	0	4	0	8	0	17	\$ 2,095.00
Estimated Total Man-hours	\$0.00	\$215.00	\$672.00	\$0.00	\$0.00	\$472.00	\$0.00	\$736.00	\$0.00		\$ 2,095.00
34.0 Pre-Bid Conference											
	8	0	8	0	0	0	0	2	0	18	\$ 3,448.00
Estimated Total Man-hours	\$1,920.00	\$0.00	\$1,344.00	\$0.00	\$0.00	\$0.00	\$0.00	\$184.00	\$0.00		\$ 3,448.00
35.0 Bid Opening - NIC											
	0	0	0	0	0	0	0	0	0	0	\$ -
Estimated Total Man-hours	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$ -
36.0 Bid Review and Bid Tabulation											
	0	1	4	0	0	2	0	2	0	9	\$ 1,307.00
Estimated Total Man-hours	\$0.00	\$215.00	\$672.00	\$0.00	\$0.00	\$236.00	\$0.00	\$184.00	\$0.00		\$ 1,307.00
37.0 Prepare Recommendation for Award											
	0	0.5	2	0	0	0	0	2	0	4.5	\$ 627.50
Estimated Total Man-hours	\$0.00	\$107.50	\$336.00	\$0.00	\$0.00	\$0.00	\$0.00	\$184.00	\$0.00		\$ 627.50
Expenses											
											Rate
Subconsultant	0	0	0	0	0	0	0	0	0	0	\$ 75.00
Auto Rental	0	0	0	0	0	0	0	0	0	0	\$ 75.00
Mileage	0	0	0	0	0	0	0	0	0	0	\$ 0.54
Lodging	0	0	0	0	0	0	0	0	0	0	\$ 150.00
Airline Costs	0	0	0	0	0	0	0	0	0	0	\$ 600.00
Meals	0	0	3	0	0	0	0	0	0	3	\$ 25.00
Trips	0	0	0	0	0	0	0	0	0	0	\$ 250.00
Miscellaneous	0	0	0	0	0	0	0	0	0	0	\$ 100.00
Paper / Copies	0	0	500	0	0	0	0	0	0	500	\$ 0.25
Plotting	0	0	100	0	0	0	0	0	0	100	\$ 3.00
Other	0	0	0	0	0	0	0	0	0	0	\$ 50.00
Total Expenses											\$ 500.00