

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



ITEM: 3.35
(ID # 19789)

MEETING DATE:

Tuesday, October 04, 2022

FROM : TLMA - AVIATION:

SUBJECT: TRANSPORTATION AND LAND MANAGEMENT AGENCY/AVIATION: Jacqueline Cochran Regional Airport Runway 17-35 Electric, Lighting, and PAPI Rehabilitation Engineering Design Services District 4. [\$170,601 Total Cost - Federal Aviation Administration Airport Improvement Grant funds 90%, Airport Budget Fund (22350) 5%, State Division of Aeronautics Fund 5%]

RECOMMENDED MOTION: That the Board of Supervisors:

1. **Find** that the Jacqueline Cochran Regional Airport Runway 17-35 Electric, Lighting, and PAPI Rehabilitation Project is exempt from the California Environmental Quality Act (CEQA) pursuant to the State CEQA Guidelines Section 15301, Class 1 Existing Facilities Exemption; Section 15302 Replacement or Reconstruction; and Section 15061 (b)(3) "Common Sense" Exemption; and
2. **Approve** and authorize the Chair of the Board to execute the attached work order agreement for \$170,601 between the County of Riverside and Mead & Hunt for the Runway 17-35 Electric, Lighting, and PAPI Rehabilitation Engineering Design Services at Jacqueline Cochran Regional Airport.

ACTION:Policy

Charissa Leach, TLMA Director

9/12/2022

MINUTES OF THE BOARD OF SUPERVISORS

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

Ayes: Jeffries, Spiegel, Washington, Perez and Hewitt
Nays: None
Absent: None
Date: October 4, 2022
xc: TLMA-Aviation

Kecia R. Harper
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	\$ 170,601	\$ 0	\$ 170,601	\$ 0
NET COUNTY COST	\$ 0	\$ 0	\$ 0	\$ 0
SOURCE OF FUNDS: Federal Aviation Administration Airport Improvement Grant funds 90%, Airport Budget Fund (22350) 5%, State Division of Aeronautics Fund 5%			Budget Adjustment: No	
			For Fiscal Year: 22/23	

C.E.O. RECOMMENDATION: Approve

BACKGROUND:

Summary

On February 25, 2020, The Board of Supervisors approved the five-year design and engineering services agreement with Mead & Hunt for airport engineering, architectural, planning, and environmental services which includes design, construction administration, construction inspection of projects, planning and environmental services for the County's five airports. The attached work order is for design services for the Jacqueline Cochran Regional Airport Runway 17-35 Electric, Lighting, and PAPI Rehabilitation Project ("Project").

The purpose of this project is the rehabilitation of the electrical system for Runway 17-35. This includes the design of PAPI's for both Runway 17 and Runway 35, replacement of Runway 17-35's wire and light fixtures, and replacement of signs along Runway 17-35. This project is programmed as a fixture replacement project for the runway and taxiway lights. The intent is the existing cans, counterpoise, and conduits will be reused and lights will be reconstructed in the same location. The existing electrical system is over 20 years old, exceeding its life expectancy requirements. Runway 35 has an existing 4L PAPI, which needs a complete replacement of equipment. Runway 17 has an existing 2L VASI, which will be replaced by a new 4L PAPI. Runway 17-35 is equipped with medium-intensity runway edge lighting (MIRL) that is pilot controlled (TRM is a non-towered Airport). The ALP recommends the edge lighting to be upgraded to a high-intensity system when the approach to Runway 35 is upgraded from non-precision to a precision instrument approach; the timing of this change will be evaluated as part of the design work.

The Runway 17-35 Electric, Lighting, and PAPI Rehabilitation Project is consistent with the Airport's Capital Improvement Program Master Plan. Mead & Hunt was selected by Request for Qualification as the County's Airport Project Consultant, per the Federal Aviation Administration's (FAA) five-year consultant selection criteria.

The proposed Project is categorically exempt from the provisions of CEQA (California Environmental Quality Act) according to the State CEQA Guidelines Section 15300.2 The Project will not cause any impact to an environmental resource of hazardous or critical concern, nor would the Project include unusual circumstances which would have a potentially significant

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

effect on the environment. The Project is limited to the replacement of existing transportation related infrastructure at an existing airport.

Staff proposes to have Mead & Hunt 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 Residents and Businesses

The Runway 17-35 Electric, Lighting, and PAPI Rehabilitation Project will improve the airport operations and enhance capacity and safety.

ATTACHMENTS:

Work Order Agreement and Scope of Work
Notice of Exemption



Jason Farin, Principal Management Analyst 9/27/2022

WORK ORDER AGREEMENT
FOR
JACQUELINE COCHRAN REGIONAL AIRPORT
RUNWAY 17-35: ELECTRIC, LIGHTING, AND PAPI REHABILITATION
ENGINEERING DESIGN SERVICES
BY AND BETWEEN
COUNTY OF RIVERSIDE, TRANSPORTATION AND LAND MANAGEMENT
AGENCY AVIATION DEPARTMENT
AND
MEAD AND HUNT, INC.

This Work Order Agreement (hereinafter "Agreement") is made and entered into this 4th day of October, 2022, by and between the COUNTY OF RIVERSIDE, a political subdivision of the State of California, on behalf of its Transportation and Land Management Agency (TLMA) Aviation Department, (hereinafter "COUNTY") and MEAD AND HUNT, INC., a Wisconsin corporation, (hereinafter "CONSULTANT").

RECITALS

WHEREAS, the proposed services provided in this Agreement are necessary to perform Electrical, Lighting, and PAPI Rehabilitation Engineering Design for Runway 17-35, critical to the Jacqueline Cochran Regional Airport's operation.

WHEREAS, the COUNTY has selected CONSULTANT to provide services based on Request for Proposal (RFP) for Airport Engineering, Architectural, Planning & Environmental Services; and

OCT 04 2022

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WHEREAS, the COUNTY and the CONSULTANT have entered into a Professional Service Agreement, dated the 25th day of February 2020, the terms of which apply to this Work Order Agreement (hereinafter "MASTER SERVICE AGREEMENT"); and

WHEREAS, CONSULTANT is uniquely qualified to perform these services based on their prior knowledge by completing design and construction projects for Jacqueline Cochran Regional Airport; 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:

1. DESCRIPTION OF SERVICES: CONSULTANT shall provide services for the design / engineering for the Runway 17-35: Electric, Lighting, and PAPI Rehabilitation project at Jacqueline Cochran Regional Airport, as outlined and specified in Exhibit "A", which is attached hereto 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 seven (7) months in accordance with Exhibit "A", Scope of Services. 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 the 25th day of February 2020, 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 Exhibit "A", Scope of Services.

3.1 CONSULTANT shall be paid a LUMP SUM amount not-to-exceed One Hundred Seventy Thousand Six Hundred One Dollars and Twenty Cents (\$170,601.20) for Project Administration and QAQC, Preliminary and Final Design, Subconsultant Fees, Bid Administration, and Total Expenses described in Exhibit "A", Description of Tasks in Phases I, II, III, IV, and V. 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 AGENCY and CONSULTANT respectively to act as liaison between the parties:

AGENCY

Angela Jamison
County Airport Manager
Riverside County Transportation and Land
Management Agency
Aviation Department
4080 Lemon Street, 14th Floor
Riverside, CA 92501-3609
Phone: (951) 955-4818
Fax: (951) 955-9418
Email: ajamison@rivco.org

CONSULTANT

Bob Casagrande
Vice President
Aviation Services
Mead and Hunt, Inc.
1360 19th Hole Drive, Suite 200
Windsor, CA 95492
Phone: (707) 284-8672
Fax: (608) 273-6391
Email: bob.casagrande@meadhunt.com

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

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

Angela Jamison
County Airport Manager
Riverside County TLMA Aviation
4080 Lemon Street, 14th Floor
Riverside, CA 92501-3609

CONSULTANT

Bob Casagrande
Vice President
Mead & Hunt, Inc.
1360 19th Hole Drive, Suite 200
Windsor, CA 95492

[Signature Page Follows]

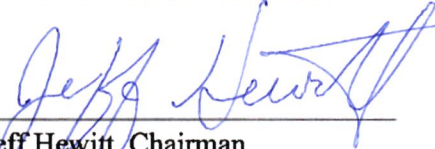
This Agreement may be executed in any number of counterparts, each of which will be an original, but all of which together will constitute one instrument. Each party to this Agreement agrees to the use of electronic signatures, such as digital signatures that meet the requirements of the California Uniform Electronic Transactions Act ("CUETA") (Cal. Civ. Code §§ 1633.1 to 1633.17), for executing this Agreement. The parties further agree that the electronic signatures of the parties included in this Agreement are intended to authenticate this writing and to have the same force and effect as manual signatures. Electronic signature means an electronic sound, symbol, or process attached to or logically associated with an electronic record and executed or adopted by a person with the intent to sign the electronic record pursuant to the CUETA as amended from time to time. The CUETA authorizes use of an electronic signature for transactions and contracts among parties in California, including a government agency. Digital signature means an

electronic identifier, created by computer, intended by the party using it to have the same force and effect as the use of a manual signature, and shall be reasonably relied upon by the parties. For purposes of this section, a digital signature is a type of "electronic signature" as defined in subdivision (i) of Section 1633.2 of the Civil Code.

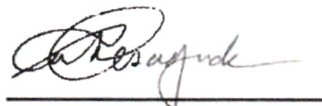
IN WITNESS WHEREOF, the parties hereto have caused their duly representatives to execute this Agreement.

COUNTY OF RIVERSIDE

MEAD AND HUNT, INC.



Jeff Hewitt, Chairman
Board of Supervisors



Bob Casagrande
Vice President

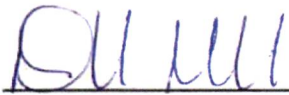
ATTEST:



Kecia R. Harper
Clerk of the Board

APPROVED AS TO FORM:

County Counsel



Danielle Maland
Deputy County Counsel

Exhibit A

JACQUELINE COCHRAN REGIONAL AIRPORT
County of Riverside: Transportation and Land Management Agency
Aviation Department
Runway 17-35: Electric, Lighting, and PAPI Rehabilitation
Design Scope of Services
February 23, 2022 – Version 2

PROJECT OVERVIEW

This Scope of Services details the preliminary design, final design, and bid administration services to be provided by Mead & Hunt, Inc. (Consultant) for the *Runway 17-35: Electric, Lighting, and PAPI Rehabilitation* (Project) at Jacqueline Cochran Regional Airport - TRM (Airport), in the City of Thermal for the County of Riverside Transportation and Land Management Agency, Aviation Department (County / Sponsor).

This Project is the rehabilitation of the electrical system for Runway 17-35. This includes the design of PAPIs for both Runway 17 and Runway 35, replacement of Runway 17-35's wire and light fixtures, and replacement of signs along Runway 17-35. For the runway and taxiway lights, this project is programmed as a fixture replacement project; the intent is the existing cans, counterpoise, and conduits will be reused and lights reconstructed in the same location.

The existing electrical system is over 20 years old, well-exceeding its life expectancy requirements. Runway 35 has an existing 4L PAPI, which needs a complete replacement of equipment. Runway 17 has an existing 2L VASI, which will be replaced by a new 4L PAPI. Runway 17-35 is equipped with medium-intensity runway edge lighting (MIRL) that is pilot controlled (TRM is a non-towered Airport). The ALP recommends the edge lighting to be upgraded to a high-intensity system when the approach to Runway 35 is upgraded from non-precision to a precision instrument approach; the timing of this change will be evaluated as part of the design.

Anticipated Project limits are shown in *Attachment 1*. Total construct cost is estimated at 1.1-million dollars.

SUMMARY OF SERVICES

The Consultant's scope of work for this Airport improvement Project is divided into four tasks as follows:

- Task 1 – Contract Administration and Coordination
- Task 2 – Preliminary Design
- Task 3 – Final Design
- Task 4 – Bid Administration

The proposed scope of services to be provided by Consultant is described as follows:

Task 1. Contract Administration and Coordination

This task involves those activities required for defining the limits of the design, negotiating contract and subcontracts, and general coordination and administration during the design, including the following activities:

1.0 PRELIMINARY MEETINGS

Consultant will confer with 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 County. It is anticipated that one (1) preliminary meeting with County and / or the FAA occurring at the Project location will be necessary under this task of the design. Consultant will have the Project Manager (PM) and one design engineer at the Project location meeting.

2.0 QUALITY CONTROL / ASSURANCE

Consultant will provide and maintain quality control guidelines on work of the Consultant's design team, including subconsultants, and implement and monitor a program of Quality Control (QC) and Quality Assurance (QA). The PM will be responsible for on-going quality control work; Consultant's Senior Staff will be responsible for conducting quality assurance reviews. Four (4) total quality assurance reviews of the Project will be conducted during the Project. These reviews will occur prior to submittals of the Preliminary, 90%, Issued for Bid, and Issued for Construction packages.

3.0 PROJECT COORDINATION AND CONTRACT ADMINISTRATION

Consultant will coordinate with the design team, County, FAA, subconsultants, and the Coachella Valley Water District to complete the tasks associated with this Scope of Services. Weekly progress meetings will be held via teleconference with the design team, along with monthly virtual meetings between the Project Manager and County.

Consultant will provide general administration during the design, document preparation, and bidding process, as applicable. Consultant will assign a PM to this Project to monitor continuity through all phases of work, as described in this scope. The PM will be responsible for work performed by the Project Design Team. The PM's responsibilities may include the following:

- a. Define tasks, schedules, and costs.
- b. Monitor work progress and address any issues that may arise.
- c. Maintain up-to-date schedules.
- d. Coordinate with County to address concerns; provide status updates; obtain concurrence on scope, cost, and schedule; and obtain input and approval of design concepts.
- e. Focus the efforts of the Consultant and their subconsultants to complete the design.
- f. Prepare invoices to submit to County in accordance with County's standard invoice requirements.

4.0 GRANT APPLICATION AND ADMINISTRATION

Consultant will prepare two Grant Applications (Application) for the Project before the design has been completed and revise each grant up to 2 times after bids are accepted. One grant will be for discretionary funding; the second grant will be for supplemental funding, pursuant to the February 9, 2022, meeting between County, Consultant, and FAA. Each application will include preparation of the following:

- a. Federal Grant Application Form SF-424.
- b. FAA Application for Federal Assistance Form 5100-100.
- c. FAA Los Angeles Airports District Office (LA ADO) Grant Submittal Checklist.
- d. Program narrative, discussing the purpose and need of the work and the method of accomplishment.

- e. An exhibit of the proposed Project area to be submitted with Application.
- f. Project funding pro-rata share breakdown.
- g. Schedule of work.
- h. Current Grant Assurances.
- i. Title VI Assurances.
- j. Sponsor's Certifications.

The Consultant will prepare an electronic "Application package" in pdf format and submit to County for approval and signatures. County will send the signed application package to the FAA for further processing.

TASK 1 DELIVERABLES

- 1) Draft Scope of Services – electronically.
- 2) Final Scope of Services – electronically.
- 3) Executed Contract – three (3) originals.
- 4) Grant Application – electronic copy.

Task 2. Preliminary Design

5.0 TOPOGRAPHICAL SURVEYING

5.1 Coordination to Collect Existing Data and Locate Existing Facilities and Utilities

Consultant will coordinate the collection of existing data and locate visible utility features. This task includes collection and review of as-built plans and available existing survey information to gather information on existing topography, facilities, and utilities. This also includes coordination for field utility locates with County, DigAlert, and FAA. The Consultant will coordinate with field survey crews to establish survey limits, establish a survey schedule, coordinate site access, and provide available survey control information. Consultant will be on-site providing escort during this work.

5.2 Survey Control

Survey control will be established and used for design and construction 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 horizontal control points. The Consultant will establish runway end coordinates and alignments on the California Coordinate System (NAD83) Zone 6 datum, and tie these into the Project survey control.

5.3 Field Work (DBE Subconsultant CL Survey)

The Consultant's subconsultant will perform a field topographic survey of the Project site during off-peak Airport periods, on a pull-back basis. All topographic survey will be RTK ground-based. No personnel will enter any underground vault or manhole nor will any Ground Penetrating Radar, LIDAR, aerial topography, or similar technology, be used. Project Limits are included as *Attachment 1*. Consultant will be on-site providing escort during this work.

The field survey shall include:

- a. Survey control point data for the plan set (minimum of 4) for Contractor layout.
- b. Establishing a site-wide network of horizontal / vertical control to serve as the basis for any subsequent boundary, topographic, or construction surveys that may be required throughout the course of the Project.
- c. Hardscape features including signs, pull boxes, airfield lights, wind cones, and PAPI/VASI, within the survey limits and as indicated on the drawing.
- d. Pavement sections every 1,000 feet along Runway 17-35. Sections are to include centerline, edge of taxiway stripes, edges of pavement, and tie-in points to crossing taxiways. These will be used to verify locations of existing lights and locate new lights relative to distancing requirements from pavement edges per FAA requirements.
- e. Pavement sections at intersections of connector taxiways. Sections are to include centerline, edge of taxiway stripes, edges of pavement, and tie-in points to crossing taxiways. These will be used to verify locations of existing lights and locate new lights relative to distancing requirements from pavement edges per FAA requirements.

Although vertical data will be included in the surveyed points, it is expected that data gathered will be insufficient for a detailed surface design but will be sufficient for general topographical analysis of the lighting system's compliance with elevation requirements relative to the runway's pavement edges and crown.

5.4 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. Sort all data points by layers and description for computer modeling.
- d. Coordinate survey horizontal and vertical control with CAD data.

6.0 GEOTECHNICAL INVESTIGATION – NOT IN CONTRACT (NIC).

No geotechnical analysis will be performed as part of the Project.

7.0 PREPARE PLAN SHEETS FOR PRELIMINARY SUBMITTAL

7.1 Project Layout Sheet

Consultant will complete a Project layout sheet that will identify the limits of work and provide a summary of the demolition and construction required throughout the Project.

7.2 Plan Sheets

Preliminary planimetric sheets will be prepared for the following items:

- Overall Conceptual CSPP Phasing: A one-page conceptual CSPP showing the limits of work and a preliminary project schedule.
- Electrical Demolition: Drawings showing lights, conduit, PAPIs, VASIs, and wires to be removed or salvaged.
- Electrical Improvements: Drawings showing lights, conduits, wires, and PAPIs to be constructed / replaced.

8.0 PRELIMINARY AIRFIELD LIGHTING DESIGN

8.1 Airfield Lighting Evaluation / PAPI OCS Evaluation

A planimetric evaluation of the Runway 17-35 lighting system will be performed. Included in the assessment will be an inventory of lights, signs, and County-owned NAVAIDS (4L PAPI on Runway 35 and 2L VASI on Runway 17) to determine compliance with spatial requirements of 150/5340-30J *Design and Installation Details for Airport Visual Aids*.

The PAPI Obstacle Clearance Surface (OCS) will be evaluated from the previously-completed AGIS survey. Consultant will identify potential conflicts and make adjustments / recommendations to create an unobstructed (OCS). A PAPI OCS Exhibit will be included in the Engineer's Design Report.

8.2 Runway Lighting and Equipment Layout

The Consultant will establish the preliminary lighting layouts and equipment necessary to meet FAA criteria. Included for this work item are the following tasks:

- a. Layout light fixture locations along Runway 17-35.
- b. Visit site to inventory existing Runway 17-35 equipment and identify regulators / controls in the existing vault. Create a vault layout map of the existing system.
- c. Determine functional characteristics of proposed system (e.g. voltage/current, facility control, etc.).
- d. Design new home-run circuiting back to existing vault.
- e. Determine sign legends and sign sizes, where not being reused.
- f. Calculate voltage drop and estimate wire size to meet the National Electrical Code.
- g. Layout conduit locations and sizes.
- h. Calculate fault current.
- i. Verify regulator, transformer, and control equipment sizes.
- j. Prepare narrative discussion (layout, equipment selection, sizes, electrical calculations).

The above tasks requiring field-inspections are visual assessments only. No Consultant personnel will operate / test / megger the existing equipment within the airport vault. Consultant will coordinate with Airport Staff during the Vault Inspection.

8.3 Interview County Field Maintenance Personnel

The Airfield Lighting Evaluation will rely on the expertise of County maintenance personnel to learn of any intermittent or recurring problems that should be addressed in the design. Two field-meetings at the Airport between the Consultant's Engineer and Airport Maintenance / Operations is included as part of this task. County personnel will be responsible for opening any electrical boxes or vaults required as part of this discussion. Also, County knowledge of the field circuit routing will assist in the preparation of accurate plans.

9.0 PREPARE PRELIMINARY SURFACE DRAINAGE ANALYSIS - NIC

No drainage analysis is included in this Project.

10.0 PREPARE PRELIMINARY COST ESTIMATE

10.1 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.

10.2 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.

11.0 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, electrical design, PAPI design, environmental issues, construction phasing plans, a Project schedule, and Engineer's Cost Estimate. 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. This report will also discuss funding, budget, and potential use of bid alternates.

12.0 PREPARE FAA FORM 7460

Consultant will complete a notice of proposed construction or alteration per FAA guidelines, submit the County for review, and submit to the FAA via the on-line portal.

13.0 REVIEW ENVIRONMENTAL DOCUMENTATION

Consultant has prepared a Categorical Exclusion (CatEx per NEPA) under a separate contract. Consultant will review previously submitted CatEx and verify Project is within previously established environmental requirements.

14.0 TASK 2 PROJECT MEETINGS

The Consultant will arrange and lead meetings during Task 2, 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.

14.1 Coordination Meetings (with FAA, local agencies, subconsultants, etc. and site investigation visits)

Consultant will include up to two (2) meetings to discuss /review preliminary plans with County. It is anticipated that one (1) meeting will occur at the Airport and one (1) meeting will occur via teleconference with the FAA LA ADO.

TASK 2 DELIVERABLES

Prior to the completion of Task 2, the Consultant will deliver the following information to the County:

- 1) Preliminary Design Report – one (1) copy and electronic submittal.
- 2) Plans in support of preliminary design – one (1) copy and electronic submittal.
- 3) FAA Form 7460 – electronic submittal.

Task 3. Final Design

15.0 PREPARE PLANS

Plan sheets will be prepared depicting the proposed improvements. 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 task, as required.

General:

- G-001 Cover Sheet
- G-002 Sheet Index
- G-003 Legend and Abbreviations
- G-021 Project Layout Plan

- G-041 Survey Control Plan
- G-081 Construction Safety and Phasing Plans (5 sheets)
- G-086 Construction Safety and Phasing Details (3 sheets)

Electrical:

- C-051 Demolition Plans (10 sheets)
- E-201 Electrical Layout Plan (10 sheets)
- E-401 Vault Inventory Plan (1 sheet)
- E-601 Electrical Details (2 sheets)

16.0 PREPARE SPECIFICATIONS

The Consultant will assemble the specifications and bid documents, as stated below, for the County to use in obtaining competitive bids for the work. Documents shall meet current FAA Standards for Airport Improvement Program (AIP) funded projects and incorporate County specifications / provisions as necessary to support FAA specifications, if permitted by the FAA.

16.1 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 Certification forms, DBE Requirements, Sample Construction Contract / Agreement, Bid Bond, Performance Bond, and Payment Bond. All documents shall be based on the current FAA required provisions and bid forms. County standards may be included if necessary, and as allowed by the FAA.

16.2 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.

16.3 FAA General Provisions (Advisory Circular 150-5370-10H)

FAA requires these provisions be included and complied with for all projects funded with federal grant monies through the AIP, as established within the grant assurances. The Consultant will include the FAA General Provisions and provide any Project specific information where indicated. These provisions cannot be modified other than as noted in the document.

16.4 County General Provisions

Consultant will incorporate Airport-specific General Provisions and review them for conflict with FAA & Federal Provisions.

16.5 Prepare Special Provisions for Airport Construction

The Consultant will prepare Special Provisions to address, or expand on, conditions specific to the construction on the Airport that require additional clarification. These may include, 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

16.6 Prepare Technical Specifications

The Consultant will prepare Technical Specifications using FAA Standard Specifications and FAA Specifications format. For work not covered by FAA Standards, "Greenbook", or Caltrans Standard Specifications shall be used. These may include, but are not limited to the following items:

- P-152 Excavation, Subgrade, and Embankment
- P-153 Controlled Low-Strength Material (CLSM)
- P-606 Adhesive Compounds, Two-Component for Sealing Wire and Lights in Pavement
- P-610 Concrete for Miscellaneous Structures
- L-108 Underground Power Cable for Airports
- L-109 Airport Transformer Vault and Vault Equipment
- L-110 Airport Underground Electrical Duct Banks and Conduits
- L-115 Electrical Manholes and Junction Structures
- L-125 Installation of Airport Lighting Systems

17.0 **PREPARE FINAL SURFACE DRAINAGE ANALYSIS - NIC**

No drainage analysis is included in this Project.

18.0 **FINALIZE RUNWAY LIGHTING DESIGN**

A final design for the lighting system will be prepared, based on comments from the preliminary design.

19.0 **AIRPORT SIGNING AND MARKING PLAN**

The Airport does not have a current Signing and Marking Plan. A preliminary Signing and Marking Plan will be created as part of this Project. This includes:

- Identifying existing legends on each movement area sign in the Airport
- Developing a sign naming convention for the Airport
- Identifying current markings, sign locations, and pavement edges from publicly available aerial photography
- Photographing the front, back, and manufacturer identification tag for all airfield signs

This is expected to be 5 pages at 8.5x11. The Signing and Marking Plan will be finalized under a future Construction Administration Scope, after construction is completed.

20.0 **EROSION CONTROL PLAN - NIC**

The Project will disturb less than one acre. Therefore, an Erosion Control Plan and Storm Water Pollution Prevention Plan are not required. Contractor will be required to comply with Best Management Practices and State Laws.

21.0 **PREPARE SPONSOR CERTIFICATIONS, AND MODIFICATION OF AIRPORT CONSTRUCTION STANDARDS**

21.1 Sponsor Certifications

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

21.2 Justifications for Modification of Standards - NIC

It is anticipated there will be no Modifications of Standards for this Project.

22.0 PREPARE 60% SUBMITTAL - NIC

23.0 PREPARE 90% SUBMITTAL

Consultant will review and incorporate comments on the preliminary submittal made by the County.
Consultant will perform the following tasks:

- a. Prepare and submit 90% plans.
- b. Prepare and submit 90% specifications and bid documents.
- c. Prepare and submit 90% Engineer's Estimate of Probable Costs.
- d. Prepare and submit 90% Engineer's Design Report.
- e. Prepare and submit Final CSPP.
- f. Perform internal QA/QC for all documents included in the 90% submittal.
- g. Conduct a 90% review meeting with County to go over submitted data and discuss schedule for final submittal and bidding.

24.0 PREPARE AND SUBMIT FINAL "ISSUED FOR BID" PLANS AND SPECIFICATIONS

Based on County's written review comments on the 90% submittal, prepare the final engineering design of all improvements. This work shall include:

- a. Prepare and submit plans.
- b. Prepare and submit specifications and bid documents.
- c. Prepare and submit cost estimate.
- d. Perform internal QA/QC for all documents included in the IFB submittal.

25.0 PREPARE AND SUBMIT FINAL COST ESTIMATE

25.1 Calculate Estimated Final Quantities

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 (EDR) in conformance with FAA requirements. The report will include a summary and explanation of the electrical design, environmental issues, phasing plans, and a Project schedule. The report will also contain any alternative design concepts that were investigated and evaluated. This report will also include details for bidding the Project and recommended bid alternates. The report shall include, as applicable, the following:

- a. Project Scope
- b. Design Standards
- c. Runway Edge Lighting and Threshold Considerations
- d. Runway PAPI Considerations
- e. Operational Safety on Airports During Construction

- f. Construction Estimate
- g. Project Schedule and Construction Phasing
- h. Summary of Contract Documents
- i. Deviations from FAA Standards
- j. Sponsor / Engineer's Certification for Project Plans and Specifications
- k. Sponsor Certification for Equipment / Construction Contract

27.0 PREPARE CONSTRUCTION SAFETY AND PHASING PLAN

Prepare Construction Safety and Phasing Plan (CSPP) in conformance with FAA Standards and AC 150/5370-2G, *Operational Safety on Airports During Construction*. The CSPP will be uploaded to the FAA online portal for review and approval. The final CSPP will be included in the Bid Document package and may 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

28.0 TASK 3 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 discussion. The following meetings shall be included in Task 3:

- a. 90% Submittal review meeting (1) by phone.
- b. Coordination meetings with County and FAA (2) by phone.
- c. Coordination meetings with County (4) by phone

TASK 3 DELIVERABLES

During the Task 3 design effort, the Consultant will deliver the following information to the County:

- 1) 90% Plans, Specifications, and Contract Documents – electronic and three (3) copies each.
- 2) 90% Engineer's Design Report – three (3) Copies.
- 3) Final Plans, Specifications and Contract Documents – one set of full and half size plans, one set of original Contract Documents, and electronic files of all documents.
- 4) Final Engineer's Design Report – one (1) bound copy and one electric copy.
- 5) Construction Safety and Phasing Plan – electronic (copies of the final CSPP will be included in the final Specifications Bid Book.)

- 6) Signing and Marking Plan – four (4) copies each and electronic files.

Task 4. Bid Administration

29.0 PREPARE ADVERTISEMENT FOR BIDS

Required advertisement dates and bidding dates will be established by Consultant and approved by the County. 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 will 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 physical bids to the County; no online bid submittal features from Quest will be used.

31.0 PREPARE AND DISTRIBUTE ADDENDA

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. Consultant will issue up to two (2) bid addenda as appropriate to interpret, clarify, or change the bidding documents as required by the Airport or the FAA. Addenda will be made available to the plan holders electronically via QuestCDN.

32.0 PRE-BID CONFERENCE

Consultant will arrange for and conduct a Pre-Bid Conference. The PM and Project Engineer will attend and conduct the Pre-Bid Conference with potential contractors and 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.

33.0 BID OPENING

Consultant will attend the bid opening at the site, as identified in the Bid Advertisement.

34.0 BID REVIEW AND BID TABULATION

Consultant will advise County as to the completeness of the apparent low-bid and to the acceptability of substitute materials, equipment, or methodology 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 the name of the Apparent Low Bidder.

35.0 FINAL COORDINATION PRIOR TO CONSTRUCTION GRANT EXECUTION

Upon acceptance of a bid by County, Consultant will coordinate with the County on contractual issues required prior to execution of the construction grant. These include and are limited to:

- a. Preparation of the Construction contract between County and Contractor.
- b. Two (2) 2-hour coordination meetings with County and FAA by phone.
- c. One (1) 1-hour coordination meeting with County and Contractor by phone.
- d. One (1) review of the Contractor's Preliminary Construction Schedule.

36.0 PREPARE RECOMMENDATION FOR AWARD AND CONFORMED PLANS AND SPECIFICATIONS

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

Upon acceptance of a bid by the County, Consultant will prepare a set of Conformed Plans and Specifications that will be labeled "Issued For Construction." The Conformed Set will include all addenda and any changes made to the construction drawings during the bidding task. If a Bid Alternate is not awarded, plans will be modified to show what work is not in Contract.

TASK 4 DELIVERABLES

- 1) Bid Documents – One (1) copy and electronic files
- 2) Bid Tabulation – One (1) copy and electronic files
- 3) Recommendation for Award – One (1) copy and electronic files
- 4) Conformed Plans & Specifications – Two (2) printed copies and electronic PDF of documents

SCHEDULE OF COMPLETION

- 1) The Consultant will complete all work called for under Task 2 – Preliminary Design within ninety (90) calendar days from the date that County issues the Notice to Proceed with the work.
- 2) The Consultant will complete the 90% submittal detailed in Task 3 – Final Design within sixty (60) calendar days of receipt of County's review comments on the preliminary submittal.
- 3) The Consultant will complete the final Engineer's Design Report and final contract documents for use in bidding within thirty (30) calendar days of receipt of County and FAA review comments on the 90% submittal.
- 4) The Consultant will complete the Conformed Documents for construction within thirty (30) calendar days of receipt of final County and FAA grant / contract documents.

EXCLUDED SERVICES

The following services are not included in the Contract and will be considered extra in accordance with *Compensation for Services, Section 2*.

- 1) Any costs associated with public notifications / bid advertisements
- 2) Public outreach and coordination
- 3) Modifications to Standards
- 4) Reimbursable Agreement
- 5) Construction Administration Services
- 6) Repackaging of unawarded bid alternates
- 7) Rehabilitation / expansion / replacement of the electrical vault
- 8) Off Airfield Obstruction Survey

COMPENSATION FOR SERVICES

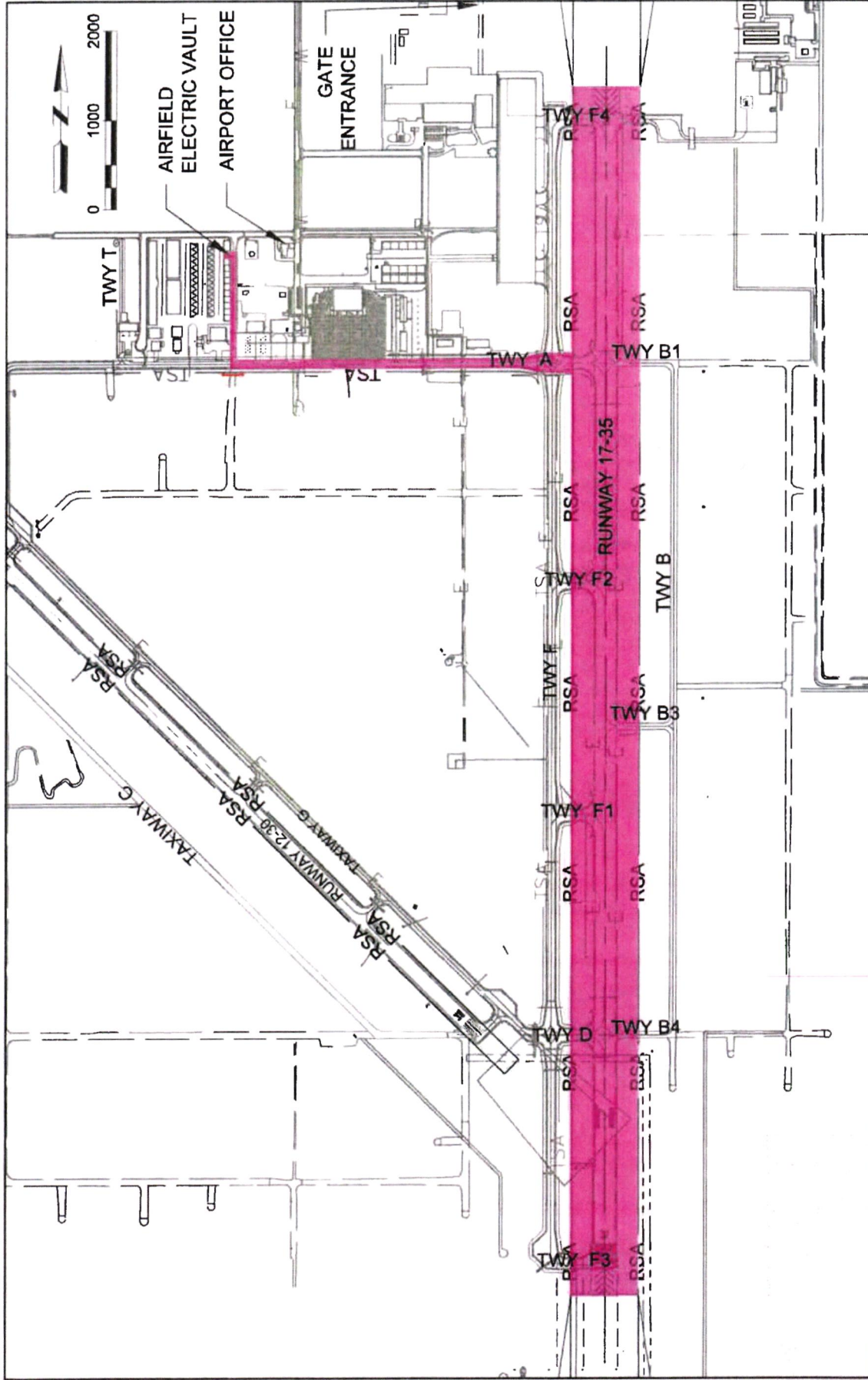
- 1) Payment for all work outlined in Scope of Services, Tasks 1, 2, 3, and 4 shall be a fixed fee of One Hundred Seventy Thousand Six Hundred One Dollars and Twenty Cents (\$170,601.20). This fee shall include labor, materials, expenses, and incidentals necessary to complete the work as described herein. The Design Engineering Fee Breakdown is included as *Attachment 2* to this Scope of Services. Payments will be made monthly based on the percentage of work complete. Billing for these tasks will be broken down on Consultant's Invoices as follows:
 - Phase 1: Task 1 Contract Administration and QAQC (\$31,516.00)
 - Phase 2: Task 2-3 Preliminary and Final Design (\$95,838.00)
 - Phase 3: Task 1-4 Sub-Consultant (\$25,369.00)
 - Phase 4: Task 4 Bid Administration (\$15,804.20)
 - Phase 5: Tasks 1-4 Expenses (\$2,074.20)
- 2) Payment for any additional services requested by County will be performed on a time-and-expense basis in conformance with the Mead & Hunt, Inc. 2022 *California Billing Rate Schedule*, included as *Attachment 3* to this Scope of Services.

Attachments:

- 1 – *Survey and Project Limits*
- 2 – *Design Engineering Fee Breakdown*
- 3 – *2022 California Billing Rate Schedule*

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Exhibit A



JACQUELINE COCHRAN REGIONAL AIRPORT

RUNWAY 17-35: ELECTRIC, LIGHTING,
AND PAPI REHABILITATION

123456

02/09/22

**Mead
& Hunt**

SURVEY AND PROJECT LIMITS EXHIBIT

ATTACHMENT 1

Design Engineering Fee Breakdown

AIRPORT: Jacqueline Cochran Regional Airport
LOCATION: Thermal, California
AIP PROJECT NO. TBD
PROJECT DESCRIPTION: Runway 17-35; Electric, Lightning, and PAPI Rehabilitation

PROJECT NUMBER: 3172800-212036.01
DATE: 3/28/22
VERSION 2

TASK 1 - CONTRACT ADMINISTRATION AND COORDINATION		ENGINEERING FEES
1.0	Preliminary Meetings	\$2,888.00
2.0	Quality Control/Assurance	\$11,048.00
3.0	Project Coordination and Contract Administration	\$7,180.00
4.0	Grant Application and Administration	\$10,400.00
	Expenses	\$105.30
TOTAL TASK 1 - CONTRACT ADMINISTRATION AND COORDINATION		\$31,621.30
TASK 2 - PRELIMINARY DESIGN		
5.0	Topographical Surveying	\$13,706.00
6.0	Geotechnical Investigation - NIC	\$0.00
7.0	Prepare Plan Sheets for Preliminary Submittal	\$8,106.00
8.0	Preliminary Airfield Lighting Design	\$16,724.00
9.0	Prepare Preliminary Surface Drainage Analysis - NIC	\$0.00
10.0	Prepare Preliminary Cost Estimate	\$1,360.00
11.0	Prepare Preliminary Design Report (PDR)	\$4,116.00
12.0	Prepare FAA Form 7460	\$473.00
13.0	Review Environmental Documentation	\$639.00
14.0	Task 2 Project Meetings	\$2,520.00
	Expenses	\$1,047.70
TOTAL TASK 2 - PRELIMINARY DESIGN		\$48,991.70
TASK 3 - FINAL DESIGN		
15.0	Prepare Plans	\$19,251.00
16.0	Prepare Specifications	\$18,010.00
17.0	Prepare Final Surface Drainage Analysis - NIC	\$0.00
18.0	Finalize Runway Lighting Design	\$3,360.00
19.0	Airport Signing and Marking Plan	\$5,668.00
20.0	Erosion Control Plan - NIC	\$0.00
21.0	Prepare Sponsor Certifications, and Modification of Airport Construction Standards	\$440.00
22.0	Prepare 50% Submittal - NIC	\$0.00
23.0	Prepare 90% Submittal	\$3,112.00
24.0	Prepare and Submit Final "Issued For Bid" Plans and Specifications	\$3,112.00
25.0	Prepare and Submit Final Cost Estimate	\$1,005.00
26.0	Prepare and Submit Engineer's Design Report (EDR)	\$2,304.00
27.0	Prepare Construction Safety and Phasing Plan (CSPP)	\$2,572.00
28.0	Task 3 Project Meetings	\$3,380.00
	Expenses	\$565.90
TOTAL TASK 3 - FINAL DESIGN		\$48,759.90
TASK 4 - BID ADMINISTRATION		
29.0	Prepare Advertisement for Bids	\$440.00
30.0	Bid Documents Distribution	\$440.00
31.0	Prepare and Distribute Addenda	\$4,394.00
32.0	Pre-Bid Conference	\$2,454.00
33.0	Bid Opening	\$420.00
34.0	Bid Review and Bid Tabulation	\$1,874.00
35.0	Final Coordination Prior to Construction Grant Execution	\$3,258.00
36.0	Prepare Recommendation for Award and Conformed Plans and Specifications	\$2,724.00
	Expenses	\$355.30
TOTAL TASK 4 - BID ADMINISTRATION		\$16,189.30
TOTAL MEAD & HUNT FEES		\$145,232.20
TOTAL SUBCONSULTANT FEES		\$25,369.00
TOTAL PROJECT FEES		\$170,601.20

DIRECT SUB CONSULTANTS FEES	
6.3 - Topographical Field Survey	\$22,060.00
7.3 - Geotechnical Field Work and Lab Testing - NIC	
TOTAL DIRECT SUB CONSULTANTS	\$22,060.00
Markup 15%	\$3,309.00
TOTAL SUB-CONSULTANT FEE	\$25,369.00

Item No.		Senior Associate	Senior Project Engineer	Senior Engineer / PM	Senior Technician	Engineer II	Engineer I	Admin. Assistant	Total Hours		Cost Summary
		\$337.00	\$261.00	\$210.00	\$189.00	\$151.00	\$136.00	\$115.00			
TASK 1 - CONTRACT ADMINISTRATION AND COORDINATION											
1.0	Preliminary Meetings										
	Estimated Total Man-hours	0	0	8	0	8	0	0	16		\$ 2,888.00
	Summary Costs	\$0.00	\$0.00	\$1,680.00	\$0.00	\$1,208.00	\$0.00	\$0.00			\$ 2,888.00
2.0	Quality Control/Assurance										
	Estimated Total Man-hours	8	32	0	0	0	0	0	40		\$ 11,048.00
	Summary Costs	\$2,696.00	\$8,352.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			\$ 11,048.00
3.0	Project Coordination and Contract Administration										
	Estimated Total Man-hours	0	0	32	0	0	0	4	36		\$ 7,180.00
	Summary Costs	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.00	\$460.00			\$ 7,180.00
4.0	Grant Application and Administration										
	Estimated Total Man-hours	0	0	32	0	0	0	32	64		\$ 10,400.00
	Summary Costs	\$0.00	\$0.00	\$6,720.00	\$0.00	\$0.00	\$0.00	\$3,680.00			\$ 10,400.00
Expenses										Rate	
	Auto Rental	0	0	0	0	0	0	0	0 Days		\$ -
	Mileage	0	0	180	0	0	0	0	180 Miles	\$ 0.585	\$ 105.30
	Lodging	0	0	0	0	0	0	0	0 Days	\$ 110.00	\$ -
	Airline Costs	0	0	0	0	0	0	0	0 Trips	\$ 200.00	\$ -
	Meals	0	0	0	0	0	0	0	0	\$ 25.00	\$ -
	Trips	0	0	0	0	0	0	0	0 Days		\$ -
	Miscellaneous	0	0	0	0	0	0	0	0		\$ -
	Printing	0	0	0	0	0	0	0	0	\$ 1.00	\$ -
	Other	0	0	0	0	0	0	0	0		\$ -
	Other	0	0	0	0	0	0	0	0		\$ -
										Total Expenses	\$ 105.30
										TOTAL	\$ 31,621.30

Item No.	Senior Associate	Senior Project Engineer	Senior Engineer / PM	Senior Technician	Engineer II	Engineer I	Admin. Assistant	Total Hours	Cost Summary
	\$337.00	\$261.00	\$210.00	\$189.00	\$151.00	\$136.00	\$115.00		

TASK 2 - PRELIMINARY DESIGN										
5.0	Topographical Surveying									
5.1	Coordination to Collect Existing Data and Locate Existing Facilities and Utilities	0	0	0	2	0	42	0	44	\$ 6,090.00
5.2	Survey Control	0	0	0	2	0	2	0	4	\$ 650.00
5.3	Field Work (DBE Subconsultant CL Survey)	0	0	0	0	0	40	0	40	\$ 5,440.00
5.4	Convert Survey Data for Design Software	0	0	0	2	4	4	0	10	\$ 1,526.00
	Estimated Total Man-hours	0	0	0	6	4	88	0	98	\$ 13,706.00
	Summary Costs	\$0.00	\$0.00	\$0.00	\$1,134.00	\$604.00	\$11,968.00	\$0.00		\$ 13,706.00
6.0	Geotechnical Investigation - NIC									
6.1	Coordination for Geotechnical Work	0	0	0	0	0	0	0	0	\$ -
6.2	Establish Project Testing Requirements	0	0	0	0	0	0	0	0	\$ -
6.3	Field Work and Laboratory Testing (Consultant Portion Only)	0	0	0	0	0	0	0	0	\$ -
6.4	Analyze data	0	0	0	0	0	0	0	0	\$ -
6.5	Prepare Proposed Pavement Design Alternatives	0	0	0	0	0	0	0	0	\$ -
	Estimated Total Man-hours	0	0	0	0	0	0	0	0	\$ -
	Summary Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$ -
7.0	Prepare Plan Sheets for Preliminary Submittal									
7.1	Project Layout Sheet	0	0	2	2	4	4	0	12	\$ 1,946.00
7.2	Plan Sheets	0	0	4	16	8	8	0	36	\$ 6,160.00
	Estimated Total Man-hours	0	0	6	18	12	12	0	48	\$ 8,106.00
	Summary Costs	\$0.00	\$0.00	\$1,260.00	\$3,402.00	\$1,812.00	\$1,632.00	\$0.00		\$ 8,106.00
8.0	Preliminary Airfield Lighting Design									
8.1	Airfield Lighting Evaluation / PAPI OCS Evaluation	0	0	16	0	40	0	0	56	\$ 9,400.00
8.2	Runway Lighting and Equipment Layout	0	0	16	0	4	0	0	20	\$ 3,964.00
8.3	Interview County Field Maintenance Personnel	0	0	16	0	0	0	0	16	\$ 3,360.00
	Estimated Total Man-hours	0	0	48	0	44	0	0	92	\$ 16,724.00
	Summary Costs	\$0.00	\$0.00	\$10,080.00	\$0.00	\$6,644.00	\$0.00	\$0.00		\$ 16,724.00
9.0	Prepare Preliminary Surface Drainage Analysis - NIC									
9.1	Calculate Estimated Preliminary Quantities	0	0	0	0	0	0	0	0	\$ -
9.2	Prepare Preliminary Cost Estimate	0	0	0	0	0	0	0	0	\$ -
	Estimated Total Man-hours	0	0	0	0	0	0	0	0	\$ -
	Summary Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$ -

Item No.		Senior Associate	Senior Project Engineer	Senior Engineer / PM	Senior Technician	Engineer II	Engineer I	Admin. Assistant	Total Hours		Cost Summary
		\$337.00	\$261.00	\$210.00	\$189.00	\$151.00	\$136.00	\$115.00			
10.0	Prepare Preliminary Cost Estimate										
10.1	Calculate Estimated Preliminary Quantities	0	0	0	0	0	8	0	8		\$ 1,088.00
10.2	Prepare Preliminary Cost Estimate	0	0	0	0	0	2	0	2		\$ 272.00
	Estimated Total Man-hours	0	0	0	0	0	10	0	10		\$ 1,360.00
	Summary Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,360.00	\$0.00			\$ 1,360.00
11.0	Prepare Preliminary Design Report (PDR)										
	Estimated Total Man-hours	0	0	4	0	12	4	8	28		\$ 4,116.00
	Summary Costs	\$0.00	\$0.00	\$840.00	\$0.00	\$1,812.00	\$544.00	\$920.00			\$ 4,116.00
12.0	Prepare FAA Form 7460										
	Estimated Total Man-hours	1	0	0	0	0	1	0	2		\$ 473.00
	Summary Costs	\$337.00	\$0.00	\$0.00	\$0.00	\$0.00	\$136.00	\$0.00			\$ 473.00
13.0	Review Environmental Documentation										
	Estimated Total Man-hours	0	1	0	2	0	0	0	3		\$ 639.00
	Summary Costs	\$0.00	\$261.00	\$0.00	\$378.00	\$0.00	\$0.00	\$0.00			\$ 639.00
14.0	Task 2 Project Meetings										
14.1	Coordination Meetings	0	0	12	0	0	0	0	12		\$ 2,520.00
	Estimated Total Man-hours	0	0	12	0	0	0	0	12		\$ 2,520.00
	Summary Costs	\$0.00	\$0.00	\$2,520.00	\$0.00	\$0.00	\$0.00	\$0.00			\$ 2,520.00
Expenses										Rate	
	Auto Rental	0	0	0	0	0	0	0	0 Days	\$ -	\$ -
	Mileage	1620	0	0	0	0	0	0	1620 Miles	\$ 0.585	\$ 947.70
	Lodging	0	0	0	0	0	0	0	0 Days	\$ 110.00	\$ -
	Airline Costs	0	0	0	0	0	0	0	0 Trips	\$ 200.00	\$ -
	Meals	0	0	0	0	0	0	0	0	\$ 25.00	\$ -
	Trips	0	0	0	0	0	0	0	0 Days	\$ -	\$ -
	Miscellaneous	0	0	0	0	0	0	0	0	\$ -	\$ -
	Printing	100	0	0	0	0	0	0	100	\$ 1.00	\$ 100.00
	Other	0	0	0	0	0	0	0	0	\$ -	\$ -
	Other	0	0	0	0	0	0	0	0	\$ -	\$ -
Total Expenses										\$	1,047.70
TASK 2 - PRELIMINARY DESIGN TOTAL \$ 48,691.70											

Item No.		Senior Associate	Senior Project Engineer	Senior Engineer / PM	Senior Technician	Engineer II	Engineer I	Admin. Assistant	Total Hours		Cost Summary
		\$337.00	\$261.00	\$210.00	\$189.00	\$151.00	\$136.00	\$115.00			
TASK 3 - FINAL DESIGN											
15.0	Prepare Plans										
	General										
	G-001 Cover Sheet	0	0	0	1	0	0	0	1		\$ 189.00
	G-002 Sheet Index	0	0	0	1	0	0	0	1		\$ 189.00
	G-003 Legend and Abbreviations	0	0	0	1	0	0	0	1		\$ 189.00
	G-021 Project Layout Plan	0	0	0	2	0	2	0	4		\$ 650.00
	G-041 Survey Control Plan	0	0	0	2	0	2	0	4		\$ 650.00
	G-081 Construction Safety & Phasing Plans (5 sheets)	0	0	0	8	0	4	0	12		\$ 2,056.00
	G-086 Construction Safety & Phasing Details (3 sheets)	0	0	0	8	0	4	0	12		\$ 2,056.00
	Electrical										
	C-051 Demolition Plans (10 sheets)	0	0	0	12	0	2	0	14		\$ 2,540.00
	E-201 Electrical Layout Plan (10 sheets)	0	0	0	12	0	2	0	14		\$ 2,540.00
	E-401 Vault Inventory Plan (1 sheet)	0	0	0	4	0	1	0	5		\$ 892.00
	E-601 Electrical Details (2 sheets)	0	0	0	4	0	4	0	8		\$ 1,300.00
	Estimated Total Man-hours	0	0	0	56	0	21	0	76		\$ 13,251.00
	Summary Costs	\$0.00	\$0.00	\$0.00	\$10,395.00	\$0.00	\$2,856.00	\$0.00			\$ 13,251.00
16.0	Prepare Specifications										
16.1	Prepare Bidding and Contract Documents	0	0	2	0	0	0	1	3		\$ 535.00
16.2	Required Federal Provisions	0	0	2	0	0	0	1	3		\$ 535.00
16.3	FAA General Provisions (Advisory Circular 150-5370-10H)	0	0	2	0	0	0	1	3		\$ 535.00
16.4	County General Provisions	0	0	2	0	0	0	1	3		\$ 535.00
16.5	Prepare Special Provisions for Airport Construction	0	0	8	0	0	0	2	10		\$ 1,910.00
16.6	Prepare Technical Specifications	0	0	24	0	0	0	8	32		\$ 5,960.00
	Estimated Total Man-hours	0	0	40	0	0	0	14	54		\$ 10,010.00
	Summary Costs	\$0.00	\$0.00	\$8,400.00	\$0.00	\$0.00	\$0.00	\$1,610.00			\$ 10,010.00
17.0	Prepare Final Surface Drainage Analysis - NIC										
	Estimated Total Man-hours	0	0	0	0	0	0	0	0		\$ -
	Summary Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			\$ -

Item No.		Senior Associate	Senior Project Engineer	Senior Engineer / PM	Senior Technician	Engineer II	Engineer I	Admin. Assistant	Total Hours	Cost Summary
		\$337.00	\$261.00	\$210.00	\$189.00	\$151.00	\$136.00	\$115.00		
18.0	Finalize Runway Lighting Design									
	Estimated Total Man-hours	0	0	16	0	0	0	0	16	\$ 3,360.00
	Summary Costs	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0.00	\$0.00		\$ 3,360.00
19.0	Airport Signing and Marking Plan									
	Estimated Total Man-hours	0	0	8	0	12	16	0	36	\$ 5,668.00
	Summary Costs	\$0.00	\$0.00	\$1,680.00	\$0.00	\$1,812.00	\$2,176.00	\$0.00		\$ 5,668.00
20.0	Erosion Control Plan - NIC									
	Estimated Total Man-hours	0	0	0	0	0	0	0	0	\$ -
	Summary Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$ -
21.0	Prepare Sponsor Certifications, and Modification of Airport Construction Standards									
21.1	Sponsor Certifications	0	0	1	0	0	0	2	3	\$ 440.00
21.2	Justifications for Modification of Standards - NIC	0	0	0	0	0	0	0	0	\$ -
	Estimated Total Man-hours	0	0	1	0	0	0	2	3	\$ 440.00
	Summary Costs	\$0.00	\$0.00	\$210.00	\$0.00	\$0.00	\$0.00	\$230.00		\$ 440.00
22.0	Prepare 60% Submittal - NIC									
	Estimated Total Man-hours	0	0	0	0	0	0	0	0	\$ -
	Summary Costs	0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00		\$ -
23.0	Prepare 90% Submittal									
	Estimated Total Man-hours	0	0	4	0	12	0	4	20	\$ 3,112.00
	Summary Costs	\$0.00	\$0.00	\$840.00	\$0.00	\$1,812.00	\$0.00	\$460.00		\$ 3,112.00
24.0	Prepare and Submit Final "Issued For Bid" Plans and Specifications									
	Estimated Total Man-hours	0	0	4	0	12	0	4	20	\$ 3,112.00
	Summary Costs	\$0.00	\$0.00	\$840.00	\$0.00	\$1,812.00	\$0.00	\$460.00		\$ 3,112.00
25.0	Prepare and Submit Final Cost Estimate									
25.1	Calculate Estimated Final Quantities	0	0	0	0	0	4	0	4	\$ 544.00
25.2	Prepare Final Cost Estimate	0	0	0	1	0	2	0	3	\$ 461.00
	Estimated Total Man-hours	0	0	0	1	0	6	0	7	\$ 1,005.00
	Summary Costs	\$0.00	\$0.00	\$0.00	\$189.00	\$0.00	\$816.00	\$0.00		\$ 1,005.00
26.0	Prepare and Submit Engineer's Design Report (EDR)									
	Estimated Total Man-hours	0	0	4	0	0	4	8	16	\$ 2,304.00
	Summary Costs	\$0.00	\$0.00	\$840.00	\$0.00	\$0.00	\$544.00	\$920.00		\$ 2,304.00

Item No.		Senior Associate	Senior Project Engineer	Senior Engineer / PM	Senior Technician	Engineer II	Engineer I	Admin. Assistant	Total Hours		Cost Summary
		\$337.00	\$261.00	\$210.00	\$189.00	\$151.00	\$136.00	\$115.00			
27.0	Prepare Construction Safety and Phasing Plan (CSPP)										
	Estimated Total Man-hours	0	0	2	0	4	8	4	18		\$ 2,572.00
	Summary Costs	\$0.00	\$0.00	\$420.00	\$0.00	\$604.00	\$1,088.00	\$460.00			\$ 2,572.00
28.0	Task 3 Project Meetings										
	Estimated Total Man-hours	0	0	16	0	0	0	0	16		\$ 3,360.00
	Summary Costs	\$0.00	\$0.00	\$3,360.00	\$0.00	\$0.00	\$0.00	\$0.00			\$ 3,360.00
Expenses										Rate	
	Auto Rental	0	0	0	0	0	0	0	0 Days	\$ -	\$ -
	Mileage	540	0	0	0	0	0	0	540 Miles	\$ 0.585	\$ 315.90
	Lodging	0	0	0	0	0	0	0	0 Days	\$ 110.00	\$ -
	Airline Costs	0	0	0	0	0	0	0	0 Trips	\$ 200.00	\$ -
	Meals	0	0	0	0	0	0	0	0	\$ 25.00	\$ -
	Trips	0	0	0	0	0	0	0	0 Days	\$ -	\$ -
	Miscellaneous	0	0	0	0	0	0	0	0	\$ -	\$ -
	Printing	250	0	0	0	0	0	0	250	\$ 1.00	\$ 250.00
	Other	0	0	0	0	0	0	0	0	\$ -	\$ -
	Other	0	0	0	0	0	0	0	0	\$ -	\$ -
										Total Expenses	\$ 565.90
TASK 3 - FINAL DESIGN TOTAL \$ 48,759.90											

Item No.		Senior Associate	Senior Project Engineer	Senior Engineer / PM	Senior Technician	Engineer II	Engineer I	Admin. Assistant	Total Hours		Cost Summary
		\$337.00	\$261.00	\$210.00	\$189.00	\$151.00	\$136.00	\$115.00			
TASK 4 - BID ADMINISTRATION											
29.0	Prepare Advertisement for Bids										
	Estimated Total Man-hours	0	0	1	0	0	0	2	3		\$ 440.00
	Summary Costs	\$0.00	\$0.00	\$210.00	\$0.00	\$0.00	\$0.00	\$230.00			\$ 440.00
30.0	Bid Documents Distribution										
	Estimated Total Man-hours	0	0	1	0	0	0	2	3		\$ 440.00
	Summary Costs	\$0.00	\$0.00	\$210.00	\$0.00	\$0.00	\$0.00	\$230.00			\$ 440.00
31.0	Prepare and Distribute Addenda										
	Estimated Total Man-hours	0	0	16	0	2	2	4	24		\$ 4,394.00
	Summary Costs	\$0.00	\$0.00	\$3,360.00	\$0.00	\$302.00	\$272.00	\$460.00			\$ 4,394.00
32.0	Pre-Bid Conference										
	Estimated Total Man-hours	0	0	8	0	0	4	2	14		\$ 2,454.00
	Summary Costs	\$0.00	\$0.00	\$1,680.00	\$0.00	\$0.00	\$544.00	\$230.00			\$ 2,454.00
33.0	Bid Opening										
	Estimated Total Man-hours	0	0	2	0	0	0	0	2		\$ 420.00
	Summary Costs	\$0.00	\$0.00	\$420.00	\$0.00	\$0.00	\$0.00	\$0.00			\$ 420.00
34.0	Bid Review and Bid Tabulation										
	Estimated Total Man-hours	0	0	4	0	4	0	2	10		\$ 1,674.00
	Summary Costs	\$0.00	\$0.00	\$840.00	\$0.00	\$604.00	\$0.00	\$230.00			\$ 1,674.00
35.0	Final Coordination Prior to Construction Grant Execution										
	Estimated Total Man-hours	4	0	8	0	0	0	2	14		\$ 3,258.00
	Summary Costs	\$1,348.00	\$0.00	\$1,680.00	\$0.00	\$0.00	\$0.00	\$230.00			\$ 3,258.00
36.0	Prepare Recommendation for Award and Conformed Plans and Specifications										
	Estimated Total Man-hours	0	0	2	4	0	8	4	18		\$ 2,724.00
	Summary Costs	\$0.00	\$0.00	\$420.00	\$756.00	\$0.00	\$1,088.00	\$460.00			\$ 2,724.00

Item No.	Senior Associate	Senior Project Engineer	Senior Engineer / PM	Senior Technician	Engineer II	Engineer I	Admin. Assistant	Total Hours		Cost Summary
	\$337.00	\$261.00	\$210.00	\$189.00	\$151.00	\$136.00	\$115.00			
Expenses									Rate	
Auto Rental	0	0	0	0	0	0	0	0 Days	\$ -	\$ -
Mileage	180	0	0	0	0	0	0	180 Miles	\$ 0.585	\$ 105.30
Lodging	0	0	0	0	0	0	0	0 Days	\$ 110.00	\$ -
Airline Costs	0	0	0	0	0	0	0	0 Trips	\$ 200.00	\$ -
Meals	0	0	0	0	0	0	0	0	\$ 25.00	\$ -
Trips	0	0	0	0	0	0	0	0 Days	\$ -	\$ -
Miscellaneous	0	0	0	0	0	0	0	0	\$ -	\$ -
Printing	250	0	0	0	0	0	0	250	\$ 1.00	\$ 250.00
Other	0	0	0	0	0	0	0	0	\$ -	\$ -
Other	0	0	0	0	0	0	0	0	\$ -	\$ -
									Total Expenses	\$ 355.30
TASK 4 - BID ADMINISTRATION TOTAL \$ 16,159.30										

MEAD & HUNT, Inc.
Standard Billing Rate Schedule
Effective January 2022

Standard Billing Rates

• Clerical	\$90.00 / hour
• Technical Editor	\$123.00 / hour
• Senior Editor	\$180.00 / hour
• Registered Land Surveyor	\$140.00 / hour
• Accounting, Administrative Assistant	\$115.00 / hour
• Technician I, Technical Writer	\$107.00 / hour
• Technician II, Surveyor - Instrument Person	\$124.00 / hour
• Technician III	\$144.00 / hour
• Technician IV	\$151.00 / hour
• Senior Technician	\$189.00 / hour
• Engineer I, Scientist I, Architect I, Interior Designer I, Planner I	\$136.00 / hour
• Engineer II, Scientist II, Architect II, Interior Designer II, Planner II	\$151.00 / hour
• Engineer III, Scientist III, Architect III, Interior Designer III, Planner III	\$163.00 / hour
• Construction Resident Project Representative (RPR)	\$172.00 / hour
• Senior Engineer, Senior Scientist, Senior Architect, Senior Interior Designer, Senior Planner, Senior Economist	\$210.00 / hour
• Project Engineer, Project Scientist, Project Architect, Project Interior Designer, Project Planner	\$221.00 / hour
• Senior Project Engineer, Senior Project Scientist, Senior Project Architect, Senior Project Interior Designer, Senior Project Planner	\$261.00 / hour
• Senior Associate, Principal, Senior Client/Project Manager	\$337.00 / hour

Expenses

- Geographic Information or GPS Systems \$100.00 / day
- Total Station Survey Equipment \$110.00 / day
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 \$ IRS rate / mile*
* Rates will be charged at Current IRS rate
- Air and Surface Transportation cost plus 15%
- Lodging and Sustenance cost plus 15%

Billing and 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.

This schedule of billing rates is effective January 1, 2022, and will remain in effect until December 31, 2022, unless unforeseen increases in operational costs are encountered. We reserve the right to change rates to reflect such increases.