



# Instrument Flight Procedure (IFP) Ownership Master Services Agreement Truckee Tahoe Airport (KTRK)

This Ownership Master Services Agreement ("Agreement") is made this \_\_\_\_ day of March, 2021 between Truckee Tahoe Airport District, State of California ("TTAD" or "Sponsor") and Flight Tech Engineering, LLC, a Colorado limited liability company ("Flight Tech" or "FTE"). TTAD and Flight Tech are sometimes individually referred to herein as a "Party" and collectively as the "Parties".

## RECITALS

**-I-** Flight Tech is an FAA approved third party Navigation Services Provider and flight operations engineering consulting firm with expertise and experience in assessing, designing, implementing, and maintaining instrument approaches to airports and obtaining FAA acceptance. Flight Tech also has experience in working with commercial and general aviation aircraft operators to avail themselves of new conventional and PBN flight procedures. Flight Tech is prepared to work on a fixed fee and/or time and materials arrangement with TTAD in furtherance of the Sponsor's goals as stated below.

**-II-** TTAD seeks to study the feasibility and possible subsequent implementation of Performance Based Navigation (PBN) instrument flight procedures (IFPs) capable of supporting all-weather operations at Truckee-Tahoe Airport (FAA ID: KTRK). The navigation method will be Area Navigation (RNAV) utilizing GPS and may include LPV, LP, LNAV, and/or Circling lines of minima. The flight procedures will be tailored to the aircraft fleet currently operating at Truckee Tahoe Airport and will consider the performance and navigation limitations of the target aircraft.

**-III-** At TTAD's election, the flight procedures will be considered privately-owned special approach procedures, which are developed for specific users and are not processed under Title 14, Code of Federal Regulations (14 CFR), Part 97. As such, a special instrument flight procedure is required when the design does not meet the normal standards outlined in the U.S. Standards for Terminal Instrument Procedure Design (TERPS). This usually occurs when high terrain, obstacles, or airspace conflicts prevent developing a procedure using normal criteria, such as the case at airports in mountainous or privately-owned locations.

Alternatively, the flight procedures will be considered privately developed public instrument procedures. They will be available to all users within the National Airspace System (NAS). Public procedures are developed for and are processed in accordance with Title 14, Code of Federal Regulations (14 CFR), Part 97.

## AGREEMENT

NOW, THEREFORE, in consideration of the agreements made herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, TTAD and FTE agree as follows:

### ARTICLE 1. SCOPE OF WORK, TIMING, COMPENSATION

**General:** This Agreement sets forth the Parties' agreement related to FTE's performance of the Scope of Work described in Exhibit A attached hereto and for any new flight procedures developed under the Scope of Work (the "Flight Procedures") and their ongoing maintenance ("Maintenance"), including also the fees, cost reimbursement and other terms and conditions of FTE's engagement pursuant to the Fee Schedule set forth in Exhibit B. Upon request of TTAD, Flight Tech will also provide flight operations consulting services as necessary to develop additional flight procedures and to support operator onboarding as may be requested by TTAD pursuant to the Fee Schedule set forth in Exhibit B ("Consulting Services"). Upon their completion, and subject to the terms of this Agreement including the restrictions and limitations agreed to in Section 15 below, TTAD will be the owner of the Flight Procedures.

- A. **Description of Services:** FTE shall render the services to TTAD described in Exhibit A of this Agreement ("Services") and the tasks included in the Services (each a "Task" and collectively the "Tasks"), at the specified billing rates set forth in Exhibit B of this Agreement. FTE shall be solely responsible for the conduct, actions, and supervision of its officers, directors, members, employees, and subcontractors performing the Services (collectively, "Personnel"). Any changes in the scope, nature, or cost of the Services must be agreed upon in writing between the Parties. All Services shall be performed in a manner consistent with the generally accepted standards of the industry.
- B. **Resources:** Unless otherwise expressly provided, Flight Tech will be solely responsible for the means, methods, and procedures of performing this Agreement, providing all resources and facilities, including, but not limited to, computers, aviation design software, telecommunications systems, storage systems, office facilities, Personnel and other resources necessary to provide the Services. Any services, functions or

responsibilities not specifically described in this Agreement that are incidental to or reasonably necessary to perform the Services will be deemed to be implied by and included within the scope of the Services to the same extent and in the same manner as if specifically described in this Agreement.

- C. **Changes:** TTAD has the right to request additions to or deletions from the Tasks set forth in Exhibit A. Upon a request for any such change, the Parties shall negotiate the change to the fee resulting from such request, based on the formula used to establish the existing fee, or where appropriate using the Flight Tech standard hourly consulting rate. Any changes to this Agreement or any Exhibits hereto shall only become effective when approved in writing by both Parties.

## ARTICLE 2. INVOICING, ADDITIONAL SERVICES, COST REIMBURSEMENT

- A. The fees set forth on Exhibit B for the Tasks contained in Exhibit A are the maximum amount Flight Tech can invoice for each Task. Flight Tech shall invoice TTAD for the fees associated with each Task within 10 business days or as agreed upon by both Parties on the completion of such Task.
- B. TTAD agrees to pay the amount invoiced within 30 days of the submission of an invoice for each Task or other amounts owed hereunder.
- C. Any additional Services which TTAD authorizes Flight Tech to perform shall set forth the fees for such Services and be signed and agreed to in writing pursuant to this Agreement.

## ARTICLE 3. PAYMENT

Payment shall be made by check via United States first-class or certified mail to the following:

Flight Tech Engineering, LLC  
Attn: Accounting  
PO Box 3596  
Englewood, CO 80155

Direct deposit information is available upon request.

## ARTICLE 4. EFFECTIVE DATE and TERM

The effective date of this Agreement is the date on which it is signed by both FTE and TTAD. This Agreement shall continue in effect indefinitely, or until terminated by the Parties per the terms of Article 8 as provided herein.

## ARTICLE 5. AIRPORT ENVIRONMENT CHANGE NOTIFICATIONS

During the term of this Agreement, TTAD shall notify FTE's procedure design team of any changes affecting the airport environment as soon as reasonably possible after its discovery. If necessary, Flight Tech will respond by issuing an FDC Temporary NOTAM specific to the Flight Procedures.

## ARTICLE 6. CHANGES, MODIFICATIONS

Changes and/or modifications to this Agreement shall be in writing and signed by FTE and TTAD. The modification shall cite the subject Agreement and shall state the exact nature of the modification. No oral statement by any person shall be interpreted as modifying or otherwise affecting the terms of this Agreement.

## ARTICLE 7. POINTS OF CONTACT

Flight Tech Engineering, LLC

Attn: Alec Seybold

P.O. Box 3596

Englewood, CO 80155

(303) 957-6010

Truckee -Tahoe Airport District

Attn: Hardy S. Bullock

10356 Truckee Airport Rd.

Truckee, CA 96161

## ARTICLE 8. TERMINATION

- A. At any time after the completion of the Tasks contained within Exhibit A, TTAD may by written notice immediately terminate this Agreement, provided TTAD shall remain liable for any unpaid amounts due from TTAD to FTE hereunder. In addition, should a termination occur during Flight Tech's performance of a Task, then the compensation provided for the completion of such Task shall be reasonably

prorated based on the percentage of the Task already performed.

- B. Flight Tech may terminate this Agreement by written notice if TTAD fails to fulfill its obligations to promptly pay invoices, provided that Flight Tech first advises TTAD in writing that it is in default and gives 10 days to cure such default. In the event of default or breach by TTAD, FTE may collect reasonable costs, statutory interest, and attorney's fees in addition to any amount owed.
- C. If the service agreement for the Maintenance of the Flight Procedures provided for under the Scope of Work terminates, the Flight Procedures will be cancelled (as required by the FAA) per the cancellation process contained in Exhibit A of this Agreement.

## **ARTICLE 9. OWNERSHIP AND POSSESSION OF WORK PRODUCT, DELIVERABLES, CONFIDENTIALITY**

- A. Subject to the terms of this Agreement including the restrictions and limitations agreed to in Section 15 below, all data, information, reports, drawings, renderings or other documents or materials, whether or not electronic, ("Work Product"), except for data, programs, or other material previously owned by or licensed to FTE, shall be owned by TTAD and delivered to it upon the termination of this Agreement or when otherwise requested by TTAD.
- B. Flight Tech may retain a copy of the Work Product for its records.
- C. All information, documents and material provided by one Party to the other Party and not within the public domain shall be marked and treated as confidential and shall not be reproduced, transmitted, used, or disclosed by the other Party except in furtherance of its obligations under this Agreement or with the written consent of the other Party or as otherwise required by law.

## **ARTICLE 10. WARRANTY, DISCLAIMER, LIMITATION OF LIABILITY**

Flight Tech represents and warrants for the sole benefit of TTAD (a) that the Flight Procedures described in Exhibit A, as of the date of final delivery to TTAD, will have been approved by the FAA as a special procedure(s) for Truckee-Tahoe Airport (FAA ID: KTRK) pursuant to relevant FAA criteria, including FAA Order (FAAO) Nos.: 8260.3, 8260.58, 8260.60, and 8260.19 as amended (plus any criteria waivers as required), and not processed under Title 14, Code of Federal Regulations (14 CFR), Part 97, or as public procedure(s) developed in accordance with FAA Advisory Circular (AC) 90-110 (as

amended) and processed in accordance with Title 14, Code of Federal Regulations (14 CFR), Part 97; (b) that the Maintenance of the Flight Procedures will be performed in accordance with Flight Tech's FAA approved maintenance program; and (c) that any other Tasks described in Exhibit A, or the Consulting Services, if any, provided to TTAD will be rendered and provided in accordance with commercially reasonable standards and practices. Flight Tech's sole liability and obligation, and TTAD's exclusive and sole remedy in the event the foregoing FAA approval of the Flight Procedures is suspended or revoked by the FAA during the term of this Agreement due to any deficiency directly caused by Flight Tech is for Flight Tech to use commercially reasonable efforts to secure prompt re-approval of the Flight Procedures by the FAA at no cost to TTAD, it being specifically agreed that Flight Tech shall have no liability or obligation, and TTAD shall have no remedy, in the event the Flight Procedures are suspended or revoked for any other reason, including for acts or omissions directly or indirectly attributable to TTAD's or any other party's misuse of or failure to properly implement use of the Flight Procedures (and any Maintenance thereof). Flight Tech's sole liability and obligation, and TTAD's exclusive and sole remedy in the event of TTAD's claim that the Consulting Services or other Tasks have not been rendered and provided in accordance with commercially reasonable standards and practices is to provide corrections to the Consulting Services and Tasks at no cost to TTAD.

EXCEPT AS EXPRESSLY PROVIDED IN THIS ARTICLE 10, FLIGHT TECH MAKES NO WARRANTY OF ANY KIND, WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE RELATING TO THE FLIGHT PROCEDURES, THE MAINTENANCE OF THE FLIGHT PROCEDURES, OTHER TASKS OR THE CONSULTING SERVICES, AND FLIGHT TECH HEREBY SPECIFICALLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, EVEN IF FLIGHT TECH HAS BEEN MADE AWARE OF SUCH PURPOSE, TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW. TTAD ASSUMES ALL RISK WITH RESPECT TO USE OF THE FLIGHT PROCEDURE, OTHER TASKS AND CONSULTING SERVICES.

THE ENTIRE LIABILITY OF FLIGHT TECH AND ITS MEMBERS, EMPLOYEES, OFFICERS, DIRECTORS, AND AFFILIATES (COLLECTIVELY, THE "REPRESENTATIVES") FOR ANY REASON SHALL BE LIMITED TO AN AMOUNT EQUAL TO THE FEES PAID BY TTAD TO FLIGHT TECH HEREUNDER DURING THE TERM OF THIS AGREEMENT. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, FLIGHT TECH AND ITS REPRESENTATIVES ARE NOT LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO DAMAGES FOR LOSS OF BUSINESS, LOSS OF PROFITS OR INVESTMENT, OR THE LIKE) ARISING UNDER THIS AGREEMENT, OR RELATED TO THE FLIGHT PROCEDURES, MAINTENANCE OF THE FLIGHT PROCEDURES, OTHER TASKS OR CONSULTING SERVICES, WHETHER BASED ON BREACH OF CONTRACT, BREACH OF WARRANTY, TORT (INCLUDING NEGLIGENCE), PRODUCT LIABILITY OR OTHERWISE, EVEN IF FLIGHT TECH OR ITS REPRESENTATIVES HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, AND EVEN IF A REMEDY SET FORTH HEREIN IS FOUND TO HAVE FAILED ITS ESSENTIAL PURPOSE. THE LIMITATIONS OF LIABILITY SET FORTH ABOVE ARE FUNDAMENTAL ELEMENTS OF THE BASIS OF THE BARGAIN BETWEEN FLIGHT TECH AND TTAD. THE PARTIES ACKNOWLEDGE THAT THE

LIMITATIONS SET FORTH IN THIS ARTICLE 10 WERE ARRIVED AT IN CONSIDERATION OF THE MUTUAL AGREEMENTS OF THE PARTIES SET FORTH HEREIN AND ARE INTEGRAL TO THE FEES CHARGED HEREUNDER FOR THE FLIGHT PROCEDURES, OTHER TASKS AND ANY CONSULTING SERVICES PROVIDED HEREUNDER AND RECOGNIZE THAT WERE FLIGHT TECH TO ASSUME ANY FURTHER LIABILITY BEYOND THAT AGREED TO HEREIN, SUCH FEES WOULD BE SUBSTANTIALLY HIGHER.

## ARTICLE 11. INSURANCE

Flight Tech will maintain the following insurance:

- A. Workers Compensation and Employer's Liability.
- B. Commercial General Liability.
- C. Automobile Liability.
- D. Professional Liability.

## ARTICLE 12. OPERATOR RESPONSIBILITIES

If developed as private special flight procedures, TTAD, or approved users pursuant to Article 15 herein, are solely responsible for obtaining an FAA letter of authorization or other required FAA approval for use of the Flight Procedures. TTAD is solely responsible for proper use of and assumes all risks with respect to use of the Flight Procedures.

Additionally, if developed as private special flight procedures, the Flight Procedures require a tailored chart and navigation database subscription. As part of this Agreement, Flight Tech will provide the required ARINC 424 data to TTAD's navigation and chart database provider; however, TTAD is solely responsible for all tailored database creation and subscription costs therefor. Unless otherwise specifically stated in the Agreement, the following services are not provided under this Agreement: development of aircraft operator training programs (i.e., Advanced Qualification Programs), production grade approach charts, take-off and landing performance data, single engine missed approach, and development of single engine departure procedures.

The Flight Procedures will utilize satellite-based navigation to provide lateral and vertical course and range guidance. When flown as designed, the Flight Procedures are intended to provide obstacle clearance in instrument conditions, and for approaches, down to the Minimum Descent Altitude (MDA), Decision Altitude (DA), or Missed Approach Point (for a "Fly Visual" segment) at which time: if the pilot can acquire and maintain visual contact

with the runway and/or its associated elements, a landing can be initiated. Descent below the MDA/DA or beyond the MAP is not allowed if the runway cannot be identified. Initiation of the missed approach is required if visual references are not acquired and maintained until landing. If visual contact of the runway environment is obtained, it is the responsibility of the pilot in command (PIC) to determine if a transition to a stabilized visual approach to the runway can be made. For a "Fly Visual" segment, obstacle and terrain avoidance from the MAP to the landing surface may be the responsibility of the pilot and a missed approach procedure may NOT be provided between the MAP and the landing surface.

If the PIC perceives that conditions are unsafe while in flight, or believes the assigned course is unreasonably hazardous, the PIC should reject the approach and divert to another airport or hold at the established point. Air traffic controllers and FTE do not have the capability for determining whether a given weather situation is "safe for landing;" the final decision as to whether to undertake the landing is solely with the PIC.

It is the responsibility of TTAD or any other authorized operator and/or the PIC to discontinue use of the Flight Procedures if any of the following scenarios arise:

- i. Navigational facilities required for navigation are out of service, impaired, or unavailable.
- ii. Satellite reception for the Flight Procedures is lost or degraded below the capability required by the GPS/FMS operations manual.
- iii. The airport environment and/or runway is not suitable for landing.
- iv. Runway Friction Values do not meet the minimum required to safely land the aircraft per the Aircraft Flight Manual (AFM).
- v. Weather conditions are below the approach minimums established for use.
- vi. Tailwind limitations have been exceeded for the approach procedure or the approved aircraft/company operations manual.
- vii. The aircraft, PIC, or flight crew does not meet the necessary equipment or training requirements per the FAA 8260-7B and/or the aircraft manufacturer minimum equipment list.
- viii. An active FDC NOTAM exists that states the approach is 'NA'.
- ix. The local altimeter setting is not received (and an approved alternate is not available).
- x. Aircraft not properly configured for landing.
- xi. The PIC and/or flight crew does not meet the regulatory and/or company requirements to conduct the Flight Procedures.
- xii. Active NOTAMs have not been reviewed.
- xiii. Or for any other reason in which the PIC cannot safely continue the Flight Procedures.



## ARTICLE 13. INDEMNIFICATION

TTAD agrees to save, defend, indemnify and hold harmless Flight Tech and its subcontractors from and against all claims, demands and liabilities (including claims and demands by and liabilities to third parties), and costs and expenses (including attorneys' fees) incident thereto or incident to successfully establishing the right to indemnification (a) arising from or related to TTAD's or any other party's use of the Flight Procedures, other Tasks or the Consulting Services; (b) arising from or related to injury to or death of any person or persons, including employees of TTAD (but not employees of Flight Tech), or arising from or related to loss of or damage to any property, whether or not arising in tort or occasioned by the negligence of Flight Tech, except to the extent due solely to the willful or reckless misconduct of Flight Tech or (c) arising from or related to TTAD's breach of this Agreement. For purposes of this Article 13, the term 'Flight Tech' includes its parent company, its divisions, subsidiaries and affiliates, the assignees of each, and their respective directors, officers, employees, members, and agents.

## ARTICLE 14. FORCE MAJEURE

If the performance of any part of this Agreement (except for TTAD's payment obligations under this Agreement) by either Party is prevented, restricted, interfered with or delayed by an event or circumstance of force majeure (including, fire, flood, epidemic, pandemic, embargo, power shortage or failure, acts of war, insurrection, riot, terrorism, strike, lockout or other labor disturbance or acts of God) that is not within the reasonable control, directly or indirectly, of the Party seeking to have its performance excused thereby, the Party so affected shall, upon giving written notice to the other Party, be excused from such performance to the extent of such prevention, restriction, interference or delay; provided that the affected Party shall use its reasonable efforts to avoid or remove such causes of non-performance and shall continue performance with the utmost dispatch whenever such causes are removed. The Parties agree that a Party's financial inability or other inability to obtain funds sufficient to perform its obligations hereunder shall not be grounds for obtaining relief under this Article 14.

## ARTICLE 15. EXCLUSIVE USE BY TTAD

TTAD agrees that if the Flight Procedures are developed as private special approach and departure procedures, except as permitted in the next sentence, the Flight Procedures developed and provided hereunder are for TTAD's exclusive use and are not intended or developed for resale or distribution to or use by any party other than TTAD and accordingly TTAD agrees that TTAD will not directly or indirectly duplicate, distribute, resell, license, lease or otherwise convey to or allow use of the Flight Procedures and Work

Product by any third-party (including without limitation TTAD's affiliates or subsidiaries or lessee of TTAD's aircraft) without Flight Tech's prior written consent which Flight Tech may withhold or grant in its sole discretion. Furthermore, such third-party must execute a use and hold harmless agreement between Flight Tech and third-party in a form designated by Flight Tech. Third-party use of the Flight Procedures is also subject to such third-party's receipt of all required FAA authorizations and approvals.

## **ARTICLE 16. PROFESSIONAL REGISTRATION**

This Agreement does not include the production and stamp and seal of drawings specifications, or calculations.

## **ARTICLE 17. STANDARD OF CONDUCT**

Flight Tech will perform or cause to be performed the Tasks in accordance and compliance with all laws, regulations, and applicable codes (federal, state, and local) and within the provisions of this Agreement, using best efforts to conduct the Services in an expeditious and timely manner.

## **ARTICLE 18. CHOICE OF LAW, JURISDICTION, VENUE, SERVICE OF PROCESS**

This Agreement shall be governed by and construed and interpreted according to the laws of the State of Colorado. In the event of any litigation or suit arising out of or relating to this Agreement, such litigation or suit may be brought in the courts of the State of Colorado, County of Jefferson, or, if it has or can acquire jurisdiction, in the United States District Court for the District of Colorado, and each of the Parties irrevocably submits to the exclusive jurisdiction of each such court in any such proceeding, waives any objection it may now or hereafter have to venue or to convenience of forum, agrees that all claims in respect of the litigation or suit shall be heard and determined only in any such court and agrees not to bring any proceeding arising out of or relating to this Agreement in any other court.

## **ARTICLE 19. NOTICE**

Any notice, request, or other communication to be given by either Party to the other under this Agreement shall be in writing and personally delivered or sent certified or registered mail return receipt requested, to the addresses set forth in Article 7 of this Agreement, or such other address as either Party may from time to time designate by giving the other Party written notice.

## ARTICLE 20. ASSIGNMENT & SUBCONTRACTING

This Agreement shall be binding upon, inure to the benefit of and be enforceable by and against the Parties and their respective successors and assigns in accordance with the terms hereof. Neither Party may assign or transfer this Agreement or any rights or obligations hereunder, in whole or in part, without the prior written consent of the other Party, except that Flight Tech may make such an assignment or transfer without TTAD's consent to a successor to all or substantially all of the business of Flight Tech, whether by way of merger, consolidation, sale of stock, sale of assets or other transaction. Any assignment or attempted assignment by either Party in violation of the terms of this Article 20 shall be null, void and of no legal effect. Flight Tech may not sub-contract its obligations hereunder without the written consent of TTAD, which shall not be unreasonably withheld, conditioned, or delayed.

## ARTICLE 21. OTHER TERMS

**Survival.** The following provisions of this Agreement shall survive the expiration, termination, or completion of this Agreement and shall remain in effect after any such termination, expiration or completion: Articles 2, 3, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, and 21.

**Waivers.** No waiver by any Party of any default or breach of this Agreement, whether intentional or not, shall be deemed to extend to any prior or subsequent default or hereunder or affect in any way any rights arising by virtue of any prior or subsequent such occurrence.

**Severability.** Any term or provision of this Agreement that is invalid or unenforceable in any situation in any jurisdiction shall not affect the validity or enforceability of the remaining terms and provisions hereof or the validity or enforceability of the offending term or provision in any other situation or in any other jurisdiction.

**Construction.** In the event an ambiguity or question of intent or interpretation arises, this Agreement shall be construed as if drafted jointly by the Parties and no presumption or burden of proof shall arise favoring or disfavoring any Party by virtue of the authorship of any of the provisions of this Agreement. Any reference to any federal, state, local, or foreign statute or law shall be deemed also to refer to all rules and regulations promulgated thereunder, unless the context requires otherwise. The word "including" shall mean including without limitation.

**Incorporation of Exhibits, and Schedules.** Any Exhibits and Schedules identified in this Agreement are incorporated herein by reference and made a part hereof.

**Entire Agreement.** This Agreement constitutes the entire agreement between the Parties

as to its subject matter, and supersedes all previous and contemporaneous agreements, proposals, or representations, written or oral, concerning the subject matter of this Agreement. In the event TTAD issues a purchase order in connection with the Flight Procedures and/or this Agreement, this Agreement will govern and take precedence over all terms and conditions contained in or referenced in such purchase order.

**Attorneys' Fees.** In the event of litigation concerning this Agreement or any agreement or schedule provided for hereunder, the prevailing party in such litigation shall be entitled to recover its costs and reasonable attorney fees from the non-prevailing party.

**Counterparts.** This Agreement may be executed in one or more counterparts, each of which, whether an original or delivered electronically (including PDF counterparts), shall be deemed an original but all of which together will constitute one and the same instrument.

[signature page follows]

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first set forth above.

FLIGHT TECH ENGINEERING, LLC

TRUCKEE TAHOE AIRPORT DISTRICT

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: Alec Seybold  
(type or print)

Name: \_\_\_\_\_  
(type or print)

Title: President

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

Date: \_\_\_\_\_

Date: \_\_\_\_\_

## EXHIBIT A – SCOPE OF WORK



### **Feasibility Study and Instrument Flight Procedure Development**

Submitted to Truckee Tahoe Airport District

#### OVERVIEW

Truckee Tahoe Airport (FAA ID: KTRK) is a General Aviation public airport two miles east of Truckee, California. Residing at an elevation of 5,903 feet MSL, the airport lies within the Oakland ARTCC and is supported by the Reno Flight Service Station. KTRK serves the city of Truckee and the surrounding communities in both Nevada County and Placer County. Truckee Tahoe features runway 11/29, which is a 7,001 foot x 100 foot grooved asphalt runway, and runway 2/20 which is 4,654 feet x 75 feet. Additionally, the airport incorporates an Air Traffic Control Tower, standard non-precision approach and runway lighting and markings, and multiple Instrument Flight Procedures (IFPs) serving on-demand charter, business/corporate jet, and general aviation traffic.

Flight Tech Engineering is an FAA Authorized Instrument Flight Procedure (IFP) designer focusing on fixed wing and rotorcraft operations. While FTE specializes in challenging mountainous locations in the western U.S. and Alaska, Flight Tech works with airports, heliports, and operators of all sizes to improve access to their local facilities. Flight Tech Engineering performs feasibility and obstacle assessments using the same tools as the FAA and can recommend, design, validate, and implement specialized IFP solutions. The GPD and TARGETS software utilized by Flight Tech allows it to recreate the actual flight paths and obstacles an aircraft encounters which are different than those covered by FAR Part 77 protection surfaces.

#### PRIVATE APPROACH OVERVIEW

When existing (or the absence of) flight procedures prevent reliable IFR flight operations to a runway, an FAA authorized service provider can develop and implement special flight procedures on behalf of a proponent such as an airport owner or air carrier. These flight procedures are referred to as 'Private Special' procedures and can be implemented

for instrument approaches, departures, and company routes.

A Private Special instrument procedure is not available to the public, and instead is developed solely for the proponent, who may be an operator or other entity (e.g., air carrier, airport owner, or government agency). These special procedures are developed at an operator's/proponent's request, so that the operator may conduct scheduled or nonscheduled passenger or cargo operations in instrument flight rules (IFR) conditions where published standard instrument procedures are unavailable. While these procedures are initially developed by a non-FAA service provider, they still receive full FAA quality assurance reviews and approval similar to a public procedure. Special Instrument Procedures require non-FAA funding for development and maintenance.

Should the FAA approve one or more of the Flight Procedures as a Private Special procedure, the owner (TTAD) may allow other operators to use the Private Special procedure. It is the sole responsibility of any operator, including the owner, to obtain the required FAA authorizations via Letter of Authorization (LOA) or Operation Specification (OpSpec) and any required training, in order to legally utilize the Private Special procedure. In addition to the indemnification provisions of the Master Services Agreement to which this SOW is a part, and notwithstanding anything to the contrary therein, should TTAD provide any Private Special procedure developed under this Scope of Work to any third-party operator ("Operator"), TTAD shall require Operator also execute a separate use and hold harmless agreement in favor of Flight Tech in a form agreeable to Flight Tech. TTAD shall also provide acceptable evidence to Flight Tech that Operator has obtained all required FAA authorizations and training for use of the Private Special approach.

## **PUBLIC APPROACH OVERVIEW**

When a new approach procedure is needed to support public flight access to an airport but cannot be implemented by the FAA due to time, resource, facility, or other constraints, an alternative implementation option exists. The FAA allows approved third-party Service Providers to develop public space-based procedures that are funded and implemented privately. This is in accordance with FAA Advisory Circular (AC) 90-110 (as revised). This is a good option when standard design criteria can be utilized, and multiple users are intended to be served by the approach. This allows aircraft operators to fly the approach without having to apply for a Letter of Authorization (LOA) or add the approach to an OpSpec. The design method is limited to PBN space-based approaches such as RNAV (GPS) and RNAV (RNP). Procedures for public use and distribution usually take longer to implement due to additional FAA approvals, charting, and ARINC processing requirements. In addition to implementation, the Sponsor is required to ensure the procedure is maintained per FAA standards throughout its life cycle. The Sponsor may petition the FAA to takeover long-term maintenance of the procedure; however, unless

the procedure is deemed vital to the National Airspace System, the FAA is not obligated to do so.

## TTAD AIRPORT IFP CONSULTING TASKS

FTE will provide OE/AAA, TERPS, and Instrument Flight Procedure Design Specialists, and the necessary software systems to perform Instrument Flight Procedure (IFP) Consulting to include the following Tasks detailed in this section subject to the fees set forth in Exhibit B - Section 1.

- 1) Preparation of the TRK Airport Procedure Design Workspace using the FAA's TARGETS system to include best available navigational and obstacle data sources.
- 2) Evaluation and deconfliction of obstacle data and assess impacts on current IFPs and related minima.
- 3) In coordination with the Airport, develop new RNAV (GPS) departure procedure prototypes for runway 11/29 to address noise sensitive areas.
- 4) Meet with local ARTCC facility and TWR to ensure ATC compatibility and coordination of new flight procedures.
- 5) Meet with relevant stakeholders, provide status updates, travel, and final presentation (in-person or virtual).
- 6) Document proposed procedures in FAA TARGETS file for new prototype IFP concepts.
- 7) Submit new procedure proposals through the FAA's IFP Gateway website.
- 8) Coordinate procedure implementation with FAA Western Region IFP Office.

### Consulting Deliverables:

All Departure Procedure (DP) submissions will be submitted to the FAA on behalf of TTAD. FTE will make every effort to advance the design as submitted; however, it is at the FAA's sole discretion to grant, or deny, any waivers contained therein. As such, FTE cannot guarantee final certification by the FAA of any flight procedure. Should certification not occur, Sponsor understands and agrees to compensate FTE on a Time and Materials basis pursuant to the General Consulting Pricing detailed in Exhibit B - Section 5 for the work done under this Agreement.

Should TTAD decide to have FTE proceed with the formal design, development, implementation, submittal, and maintenance of the Flight Procedures described in the Tasks above, the following sections of this Exhibit A describe the necessary requirements subject to the fees set forth in Exhibit B - Sections 2 and 3.



## NEW FLIGHT PROCEDURE DESIGN TARGETS

The actual weather minimums achieved will be determined after the initial assessment and FAA approval process. The following procedure target points have been established to serve as a general estimate based on preliminary terrain assessments. Area Navigation (RNAV) IAPs and DPs utilizing Global Positioning System (GPS) technology will be developed to achieve a single straight-in line of minima with preference first to LPV, then LP, then LNAV. Obstacles in the 20:1 and/or 34:1 visual surface may cause additional procedure constraints.

The design targets for the flight procedures at **KTRK** are as follows:

- (1) **KTRK RNAV (GPS) RWY 11** approach with LPV minima:
  - LPV line of minima with a corresponding **250'-500' HAT**
  - Visibility: 1 to 3 statute miles
  - Supports Category A through B aircraft (C&D if possible)
  - Vertical Descent Angle: 3.77 to 4.2 degrees
  - Offset Final Approach Course
  - Night Landing Capable (If surveyed visual surface is clear)
  - Non-Standard Missed Approach climb gradient (CG) 200-425 ft/nm
  
- (2) **KTRK RNAV (GPS) RWY 29** approach with LNAV minima and may include a Point-in-Space "Fly Visual" segment:
  - LNAV or LP line of minima with a corresponding **1000'-2,000' HAT**
  - Visibility: 1 to 5 statute miles
  - Supports Category A through C aircraft
  - Vertical Descent Angle: 3.0 to 3.77 degrees
  - Runway aligned or offset Final Approach Course
  - Standard Missed Approach climb gradient (CG) 200-425 ft/nm
  - May be offered as an IFR Procedure with Fly Visual or RNAV Visual (RVFP)
  
- (3) **RWY 11 RNAV Departure Procedure**
  - Departure Minima: **Standard**
  - Climb Gradient: 775 ft/NM (RNAV-1)
  - Supports Category A through C aircraft
  - Design Criteria: RNP-1 or A-RNP 0.30
  - Offered as an Obstacle (ODP or Standard (SID)
  - Prop & Jet aircraft capable.
  
- (4) **RWY 29 RNAV Departure Procedure**
  - Departure Minima: **Standard**
  - Climb Gradient: 475-500 ft/NM (RNAV-1)
  - Supports Category A through C aircraft

- Design Criteria: RNP-1 or A-RNP 0.30
- Offered as an Obstacle (ODP or Standard (SID)
- Prop & Jet aircraft capable.

## PROCEDURE IMPLEMENTATION PROCESS

The following events outline the different stages of procedure assessment, development, and implementation process.

### A. Timeline

The process for a Non-FAA Service Provider to develop a private special instrument flight procedure takes approximately 8-12 months and a public IFP can take 12-18 months. This may take longer if the FAA environmental filing and/or criteria deviations require additional review and processing. If approved as Private Specials by the FAA, operators can be authorized to add the procedure to their OpSpec or as an LOA through coordination with the Flight Standards District Office (FSDO).

### B. Initial Coordination

Prior to designing new procedure concepts, FTE will meet with all stakeholders to determine the aircraft, avionics, training, and airspace requirements needed to facilitate the most effective flight procedures for the Sponsor utilizing the approach. Approach procedures can have varying levels of accuracy (WAAS, Baro VNAV, etc.) which affects the resulting minimums (ceiling/visibility). If an aircraft operator expects future improvements to their avionics, those capabilities can also be assessed and planned for. Below is a list of the proposed coordination events that will take place.

### C. Planned Outreach Meetings

- **Aircraft Operators:** FTE will meet with relevant aircraft operators at TRK to determine their level of aircraft equipage and crew training. Each operator/fleet type has the potential for different levels of procedure accuracy which drive IFP minimums. This requirement gathering process will determine aircraft speed limitations, final descent limitations, climb gradients necessary for the approach or departure. Throughout the assessment, FTE will provide feedback on stakeholder preferences and design updates through e-mail and telecon updates.
- **Airport Owner:** FTE will meet with Airport staff for an initial kickoff event to outline the design tasks and gather survey information. A discussion and review of recent changes to runway protection surfaces, planned development around

the airfield, local weather patterns, noise abatement preferences, airfield restrictions, and categorical exclusion (CATEX) planning will occur.

- **OAKLAND ARTCC:** FTE will meet with Oakland Center airspace personnel to solicit feedback on current enroute transitions, approach, and departure flows, holding areas, and airspace improvements to consider for the new procedure proposal. FAA ATC is a key partner in any new flight procedure proposals and will ultimately provide the approval to move forward with new submissions.

#### D. Development & Implementation

The implementation process begins by first reviewing the obstacle survey data to determine low close-in obstacles that may affect the approach. These will be used in developing the new approach flight procedures. This includes the submission of the final 8260 procedure packet and FAA coordination. At the end of this event the approach/departure will be ready for commissioning flight validation. Completion of flight validation triggers the activation of the maintenance contract as described below. In the event the procedure cannot be distributed at the completion of flight validation, then the activation of ongoing maintenance will be delayed or cancelled depending on the decision of the airport and participating aircraft operators.

#### Detailed list of Development and Implementation:

<b>Development &amp; Implementation</b>
Prepare Initial IAP Concept Including Design Workspace
Prepare FAA RAPT Submission Paperwork & Submission to FAA AFS
Submit WAAS Channel Request
Complete Environmental Pre-screening
Prepare CATEX filing to FAA Environmental
Non-Approved Criteria Waiver consultation w/ AFS
NFDC Waypoint Request (new reservation or modification)
Final IAP Procedure Development based on ATC/AFS/PRB coordination
Complete 8260-1, 7A, 9 Forms for IAP
Complete 8260-15 Forms for Departure
Prepare TARGETS workspace for FAA validation
Complete 8260-2 Radio Fix and Holding Data Records for IAP/DP
Package Submission: Create IAP Overlay & Obstacle Maps
Package Submission: Prepare Flight Inspection Graphic (FLIP)
Package Submission: Prepare ARINC 424 package (8260-10 & ARI File)

Package Submission: Compile overview letter and IFP documents for FAA submission
FAA Procedure Review Board (Coordination & change control)

### E. Development and Implementation Deliverables

FTE will prepare an FAA Form 8260 procedure package that documents the procedure minimums and coding for each phase of the flight segments (Departure, Initial, Intermediate, Final, and Missed Approach). This will be delivered to the FAA and TTAD.

Unless specifically stated in the Agreement, the costs associated with the following services are not covered as part of this agreement: development of aircraft operator training programs (i.e., Advanced Qualification Programs), production grade approach charts, take-off and landing performance data, single engine missed approach, and development of single engine departure procedures.

### F. Commissioning Flight Validation

Upon completion of procedure development, the new flight procedures must be inspected by appropriately equipped aircraft prior to approval by the FAA. This confirms the flyability of the procedure, avionics compatibility and to ensure any unknown obstacles are clear of the flight path. TTAD may identify a local operator to provide the flight validation aircraft or use the FAA's Flight Inspection Service (FIS) to accomplish the validation.

Utilizing this method, the procedure Sponsor shall be responsible for all costs for the provision of aircraft, flight crews, fuel, and related fees for the flight validation. Flight Tech shall provide an FAA qualified observer pilot who performs the procedure validation checks and data collection necessary for the FAA submission. The flight validation is only performed once as part of the initial commissioning inspection unless there is a major amendment to the procedure. The entire portion of the flight procedure will be flown including the missed approach and controlling obstacles will be documented. Post processing of GPS NMEA data, controlling obstacles, and the inspection report will be performed for submission in the final procedure packet submission to the FAA.

## ONGOING MAINTENANCE OVERVIEW

After the successful flight validation, the FAA requires all instrument approach procedures to be continually monitored for changes to the airport and airspace environment to ensure the safety, quality, and currency of the procedure. The maintenance provisions of

this Agreement are necessary to keep the procedure active and must remain in place upon the approval of the flight procedure. Continuous NOTAM and OE/AAA monitoring, periodic procedure reviews, and reoccurring airborne obstacle assessments shall be provided by FTE utilizing its approved maintenance program on file with the FAA. The following provides an overview of each reoccurring task of the maintenance provisions of this Agreement:

#### **A. Obstacle Evaluation (OE)/NOTAM Monitoring (Continuous)**

This is an ongoing task that occurs continuously and utilizes Airport/Airspace analysts and TERPS specialists who verify the latest obstacle submissions from the FAA OE/AAA filing website. The most common data points FTE reviews are FCC antenna tower proposals and new building construction. The goal of this process is to ensure a new construction proposal does not threaten the TRK flight procedure minimums or safety of flight which is why this task is so critical. The second component is a weekly review of all applicable airspace NOTAMs from the FAA (Cranes & NAVAID impacts, etc.). This data is reviewed to determine the impact to the instrument procedure. If changes that affect the safety of the procedures are identified, an FDC Temporary NOTAM will be issued by Flight Tech to caution end users of the procedure (pilots/dispatchers). A minor procedure amendment may also be issued if required. Due to the weekly staffing commitments this is payable quarterly and starts upon the commissioning of the approach procedure.

#### **B. Periodic Obstacle Review and Evaluation (Every 540 days)**

The FAA requires all RNAV flight procedures (both private and public) to be validated every 540 days to ensure the final and missed approach segments of the procedure are clear of any potentially new obstacles. Identification of new obstacles are required in the final and missed approach sections of the flight procedure. Depending on the terrain and accessibility, this is performed using air or ground assessment techniques. FTE maintains FAA authorization to perform both functions. At TRK, portions of the 540-day validation could be performed from the ground but will require airport owner assistance for accessing private property (if controlling obstacles are off airport property).

#### **C. Biennial Procedure Review (Every Two Years)**

The final component once the periodic validation is complete is a biennial review of the flight procedure. This requires a full review of changes to the FAA criteria and regulations to determine if any updates to the procedure need to be applied. The review will be performed by an FTE TERPS specialist. If the results of the review indicate a need to amend an IFP, changes will be coordinated (including FDC NOTAMs) in advance with the applicable end users and FAA stakeholders. Although unlikely, if a major procedure amendment is required, a new

commissioning flight inspection is required at an additional expense.

## NOTICES & LIMITATIONS

### A. Guarantees

Due to reliance on automated weather reporting capabilities, government/airport owned navigational facilities, visual aids, changing airport conditions, FAA TERPS criteria updates, uncontrolled obstacle environments outside of the airport boundaries, weather, and other forces outside of FTE's control, FTE cannot guarantee the approach minimums or procedure routes, and capabilities will remain unchanged. As information is made available to FTE, it will make updates in accordance with its FAA approved maintenance program. Furthermore, FTE cannot guarantee the performance or completion factor of aircraft using the approach due to pilot and equipment differences, weather factors, and safety factors outside of its control. It is up to the end user (pilot in command) to ultimately determine if the procedure can be safely flown.

### B. Expense Variances

The scope of this proposal only covers the initial development and ongoing maintenance costs described in the scope of work above. Additional costs, including but not limited to Environmental Assessments, additional site visits, travel, flight inspections due to local obstacle changes, modifications to the instrument procedure due to aircraft/operator requests, and any other expense not within the scope of this Agreement are the responsibility of TTAD. FTE will prepare a cost estimate based on Time & Materials established in Exhibit B - Section 5 and provide to TTAD.

### C. Charting & NavData Services

Flight Tech Engineering will provide the necessary FAA forms, ARINC 424 data, and prototype procedure depictions necessary for the charting and encoding of the instrument flight procedures. FTE does not provide the final procedure chart or the database encoding for use in the end user's GPS/FMS. However, FTE will assist TTAD and any approved end users of the procedure with submitting the data to OEM (i.e., Honeywell, Collins, Thales, Garmin, etc.) and/or the charting provider (i.e., Jeppesen, LIDO, etc.). Private Special flight procedures require tailored charting and NavData subscriptions and the customer (end user) is responsible for all costs. For Public procedures the FAA will publish charts and distribute NavData coding to a third-party data supplier (i.e., Jeppesen, Garmin, etc.).

### D. Future Airport & Runway Changes

Procedure availability is dependent on clear Vertically Guided Surfaces (VGS) and nighttime use is dependent on clear 20:1 surface. Flight Tech will utilize the best available data at the time of procedure submission to achieve the lowest possible

minimums. If the terrain or obstacle status changes after submission and/or FAA approval of the procedure, a contract amendment will be required. Modifying the procedure is considered a major amendment and requires a new flight validation and FAA approval process.

#### **E. Airport Access, Weather, & Travel Delays**

Should weather or other unforeseen delays prevent FTE flight and obstacle validation crews from performing a Task, which results in additional travel and labor expenses beyond what is originally budgeted, this will be billed to Sponsor at the Time & Materials rates in Exhibit B - Section 5.

#### **F. Procedure Cancellation Process**

Should the procedure be deemed necessary for cancellation per the terms of this Agreement or should this Agreement or the Master Services Agreement to which this is a part, be terminated, the following process will occur. Flight Tech Engineering in coordination with TTAD and FAA AFS-400/Flight Procedures and Airspace Group (FPAG) will determine the timing of the cancellation of the Flight Procedures. FTE will notify FAA AFS-400, and if they are in concurrence, will immediately issue an FDC NOTAM suspending use of the procedure(s). FTE or the FAA AFS-400 will also notify the end users (i.e., air carriers) that the procedure is being cancelled.

*Note: In the unlikely circumstance that a lapse of procedure maintenance occurs in excess of 60 calendar days, a complete procedure review will be conducted before reissue, or the procedure will be canceled.*

FTE will prepare an original 8260-series form per Order 8260.19, Chapter 8 with the required information including cancellation reason. The form will be sent to the FAA AFS-400 for processing and distribution. Form 8260-2, Radio Fix and Holding Data Record (Fix Data) applicable to the procedure will also be included. FTE will continue to maintain the procedure until canceled by the FPAG.

FTE will coordinate with FAA AFS-400 to provide the necessary notifications for the cancellation of operator authorizations (i.e., Form 8260-7B). This will be done by memorandum to the operator, stating they are no longer authorized to use the procedure. A copy of this cancellation memorandum must be provided to the FSDO/CMO/POI, as applicable, and AFS-400.

## EXHIBIT B - FEE SCHEDULE



### Submitted to Truckee Tahoe Airport District

The pricing outlined in this section includes the activities, milestones, deliverables, and costs required to design, develop, assess, and/or implement the Tasks described in Exhibit A of this Agreement.

### Section 1 – IFP Consulting Services

Task Description	Navaid/ Electrical Engineer	PM & Senior IFP/Aero Engineer	TERPS/Aero Engineer	Project Engineer (QA)	Subtotal Hours	Fees	Subtotal Cost	Subtotal Task
Hourly Rate		\$185	\$155	\$125				
<b>Task One - IFP Consulting</b>								<b>\$18,115.00</b>
FAA Navigation Data Review		4	2		6		\$1,050.00	
Assemble, Deconflict, & Review Obstacle Data for IFP evaluation		4	3		7		\$1,205.00	
RWY 11 Departure TARGETS File Creation		2	6	1	9		\$1,425.00	
RWY 11 Departure -ATC Coordination		4	4	0	8		\$1,360.00	
RWY 11 - FAA Departure Submission & Consulting		16	10	1	27		\$4,635.00	
RWY 29 Departure TARGETS File Creation		2	6	1	9		\$1,425.00	
RWY 29 Departure -ATC Coordination		4	4	0	8		\$1,360.00	
RWY 29 - FAA Departure Submission & Consulting		16	10	1	27		\$4,635.00	
Administrative & Document Preparation		4	1	1	6		\$1,020.00	
<b>Task Eight - Deliverables &amp; Meetings</b>								<b>\$4,735.00</b>
Noise Abatement Planning & Review		4	4	1	9		\$1,485.00	
Meeting with Airport to Review IFP Assessment		4	4	1	9		\$1,485.00	
Create Draft Instrument Procedure Charts		2	1	1	4		\$650.00	
Administrative Tasks		4		3	7		\$1,115.00	
<b>Project Total</b>	0 \$0	70 \$12,950	55 \$8,525	11 \$1,375	136	\$0		<b>\$22,850.00</b>



## Section 2 - Instrument Approach, RNAV Visual, and RNAV Departure Procedure Development Costs

### Section 2.1 - One-time development costs listed by procedure option

One Time Development Costs	
<b>Instrument Approach Procedures (IAPs)</b>	<b>Amount</b>
RNAV (GPS) RWY 11 (A-RNP to LPV Approach)	\$65,000.00
RNAV (GPS) RWY 29 w/ Fly Visual Segment ( <b>*see note 1</b> )	\$55,000.00
<b>RNAV Visual (RVFPs) - **OPTIONAL (see note 2)</b>	
Option #1: RVFP RWY 29 – Lake Tahoe South Arrival	\$40,000.00
Option #1: RVFP RWY 29 – Donner Lake - West Arrival	\$40,000.00
<b>RNAV Departure Procedures ***OPTIONAL (see note 3)</b>	<b>Amount</b>
RNAV RWY 11	\$18,000.00
RNAV RWY 29	\$18,000.00
<b>Commissioning Flight Inspection</b>	<b>Amount</b>
Sponsor Aircraft or FIS w/Flight Tech Evaluator (includes travel, process & submit FAA inspection report). Price is dependent on number of procedures being implemented.	13,000.00- \$20,000.00

**Note #1:** If an RNAV (GPS) to RWY 29 cannot be created due to Flight Standards criteria issues, then alternatively an RNAV Visual Flight Procedure (RVFP) can be implemented instead.

**Note #2:** This is an optional expense If an RNAV (GPS) to RWY 29 cannot be created due to Flight Standards criteria issues.

**Note #3:** This is an optional one-time expense if the FAA will not allow the RWY 11 or 29 Departures to be public procedures.

**DP Note:** The first RNAV Departure Procedure may serve one or more runway ends so long as they all terminate at a common point. Similarly, should Sponsor elect to have additional Departure Procedures, they may serve multiple runways so long as they terminate at a common point.

### Section 2.2 - Summary of one-time development costs

The one-time cost table in Section 2.1 represents all possible one-time development costs for 'Private Special' Procedure Development. The one-time costs will be lower if the FAA chooses to implement the departure procedures on a timeline that is acceptable to TTAD.

<b>Development Cost Options &amp; Summary</b>	
<b>Option A</b> (FAA DP Consulting & IAP Implementation Only)	<b>Amount</b>
IFP Consulting Services (Tasks 1-8)	\$22,850.00
RNAV (GPS) RWY 11 (A-RNP to LPV Approach)	\$65,000.00
RNAV (GPS) RWY 29 w/ Fly Visual Segment	\$55,000.00
Flight Inspection	\$15,000.00
Total	\$157,850.00
<b>Option B</b> (FAA DP Consulting & IAP & 1 DP)	<b>Amount</b>
IFP Consulting Services (Task 1-8)	\$22,850.00
RNAV (GPS) RWY 11 (A-RNP to LPV Approach)	\$65,000.00
RNAV (GPS) RWY 29 w/ Fly Visual Segment	\$55,000.00
RWY 11 RNAV Departure	\$18,000.00
Flight Inspection	\$15,000.00
Total	\$175,850.00
<b>Option C</b> (Implement all Procedures as Private Specials)	<b>Amount</b>
IFP Consulting Services (Task 1-8)	\$22,850.00
RNAV (GPS) RWY 11 (A-RNP to LPV Approach)	\$65,000.00
RNAV (GPS) RWY 29 w/ Fly Visual Segment	\$55,000.00
RWY 11 RNAV Departure	\$18,000.00
RWY 29 RNAV Departure	\$18,000.00
Flight Inspection	\$20,000.00
Total	\$198,850.00

### Section 3 - Maintenance Fees for Instrument Approach Procedures

<b>Reoccurring Maintenance Fees</b>		
Description	Frequency	Amount
OE/AAA Obstacle & NOTAM Monitoring Service	Continuous (billed biannually)	\$25,000/yr.
Flight Segment Obstacle Validation & FAA report submission	Every 540 Days	\$5,900.00
IFP Periodic Review**	Every Two Years	\$4,500.00

*\*\*Note: The pricing for the IFP periodic review is based on an evaluation that results in no changes to the flight procedure. If ATC, aircraft technology, operating environment, or FAA criteria changes result in a major update to the procedure, the pricing will be based on time and materials rate as determined in Section 5 of this Exhibit.*

### Section 3.1 - Payments for Maintenance and Periodic Reviews

Payments for Maintenance services are due prior to the commencement of the approach Maintenance and will be billed on a biannual basis as agreed upon by TTAD & FTE. Upon receipt of the payment for the Maintenance and periodic reviews, the approach will remain active and available for use by approved aircraft operators. The decision to continue with payments either for periodic Maintenance, or for the periodic review, will be made by TTAD either 60 days prior to the end of the annual Maintenance period and/or 60 days prior to the recurring 540-day cycle for periodic review and evaluation. In the event TTAD does not wish to continue payment for the Maintenance of the approach, or the periodic 540-day review, Flight Tech will continue maintaining the approach for the duration of which the previous payment covered but will begin the public outreach process to notify existing users of the deactivation of the approach as required by the FAA. Once the approach is deactivated the ability to reactivate the procedure will require the Periodic Review process to be initiated and accepted by the FAA. Except as provided for in ARTICLE 8. TERMINATION, should FTE be unable to fulfil its Maintenance obligations under the terms of this Agreement, FTE agrees to assign the FAA required Maintenance to an FAA approved third party maintainer of TTAD's choosing.

### Section 3.2 – Maintenance Pricing Review

Pricing for maintenance services such as OE/AAA filings and NOTAM monitoring is based on historical estimates of previous activity. This is dependent on the airport's location (rural vs city, etc.). Each OE/AAA filing and NOTAM that has the potential to impact the flight procedure must be uploaded to the flight procedure design system and reviewed by an FTE TERPS specialist. On a yearly basis, FTE will review the amount of time spent to monitor and maintain the flight procedure and reserves the right to modify the maintenance service pricing, as necessary. If a rate increase is required to cover additional time, FTE will submit the maintenance cost increase as a contract amendment.

### Section 4 - Milestone Payments

Over the course of the project, FTE will invoice TTAD based on the following milestone achievements in accordance with billing terms of the Master Service Agreement.

Milestone Payments		
Milestone Number	Description of completed Work:	Amount
One	Execution of Agreement	\$20,000.00
Two	Completion of Flight Validation or Inspection Services	Flight Validation/Inspection Costs (\$13,000.00 - \$20,000.00) plus the balance of the IFP Consulting Services and 50% of the selected Procedure Cost from Section 2
Three	Upon FAA approval of each IFP	The balance of the selected Procedure Cost from Section 2

### Section 5 – General Consulting Pricing

Flight Tech will provide professional consulting services on request for any additional services outside of the agreed upon scope at the request of TTAD. This will be quoted as fixed price or on a time and materials basis and authorized through the issuance of a signed task order by TTAD.

Rate ID	Task Description	Fee	Term
GCR1	Standard Consulting Fee for Aeronautical Engineer (TERPS & ARINC coding specialist, Air Carrier/operator assistance, incl software licensing)	\$160/hr.	Time & Materials
GCR2	Standard Consulting Fee for Sr. Aeronautical Engineer (Approach Development, Air Carrier/operator assistance, incl software licensing)	\$190/hr.	Time & Materials

- End of Fee Schedule -