



**APPENDIX A
SCOPE OF SERVICES
SAN MARCOS REGIONAL AIRPORT
AIRPORT MASTER PLAN UPDATE**

GENERAL

The City of San Marcos (City) and Texas Aviation Partners (TAP), the operator of the San Marcos Regional Airport (HYI or Airport), have requested that Garver, LLC (Garver) provide a scope of services related to the following item:

- Airport Master Plan Update – Due to potential changes in the aircraft fleet mix at the Airport, a series of updates are needed to the existing Airport Master Plan that was adopted by the San Marcos City Council on April 20, 2021. The updates will focus on amending the facility requirements, alternatives, and Capital Improvement Plan (CIP) portions of the existing Airport Master Plan based on aircraft fleet mix changes. Additionally, some updates will be made to the Airport Layout Plan (ALP).

The remainder of this scope of services further defines Garver's proposed approach to accomplishing the Airport Master Plan (AMP) update. The specific goals of this project are:

- Identify the ultimate size and location of a new fuel farm that would serve larger (e.g., single aisle commercial) aircraft.
- Identify the best location of a possible terminal complex.
- Re-evaluate whether Runway 8-26 should be decommissioned.
- Determine a preliminary site for the relocation of the existing air traffic control tower (ATCT).
- Update the ALP (Airport Layout Drawing, Terminal Area Drawing, and Land-Use Drawing only)
- Evaluate the need and location of a new electrical vault.
- Analyze the roadway configuration needed to serve the proposed terminal location.
- Provide an updated CIP based on the fleet mix change.

Some of these updates will also incorporate findings from the separate Gap Analysis and Pavement Analysis Study conducted in 2023 and early 2024. These updates are specifically noted within this scope of services.

ELEMENT 1 – GENERAL COORDINATION AND PROJECT ADMINISTRATION

Task 1.1 – General Coordination and Project Administration

This task includes support for the general coordination of items related to this project and the administration of the project. This includes:

- Project status updates,
- Up to four (4) virtual meetings for two (2) Garver personnel,
- Reviewing documents or other materials as requested by the City or TAP. Up to eight (8) hours each for two (2) Garver staff are assumed.



Task 1.2 – Documentation of Large Aircraft Assumptions

Garver will coordinate with City and TAP staff to develop a low and high growth scenario for large aircraft operations. The high and low growth scenario will be developed in a single virtual meeting. The meeting is expected to be one (1) hour and will be attended by two (2) Garver personnel. The following aspects of the high and low growth scenarios will be established:

- Estimated number of large aircraft departures per day
- Estimated number of large aircraft departures per week
- Type of aircraft (assumes two types of aircraft)

The results of the meeting will be documented in meeting minutes that will be developed by Garver.

ELEMENT 2 – FACILITY REQUIREMENTS

Task 2.1 – Fuel Farm Facility Requirements

Garver will conduct a facility requirement analysis to determine the capacity needs of an expanded fuel farm facility assuming that large aircraft are operating at the Airport. This facility requirements analysis will be based on the following guidance materials and benchmarking work:

- International Air Transport Association (IATA) Guidance on Airport Fuel Storage Capacity, Edition 1
- Benchmarking effort identifying the size of fuel farms at five (5) other comparable airport locations serving large aircraft.

Capacity requirements will be developed for both the high and low growth scenarios discussed in Task 1.2.

Task 2.2 – Airfield Electrical Vault Review

One (1) Garver electrical engineer will complete a one (1) day site visit to the Airport to review the Airport's existing airfield electrical infrastructure. Only visual inspections of airport electrical infrastructure will be performed. This includes visiting the existing electrical vault for the airfield. Based on the site visit, Garver will develop recommendations for future electrical infrastructure improvements to be considered further in the Alternatives and CIP phases of the project.

Task 2.3 – Updated Facility Requirement Report

Based on the results of Task 2.1 and 2.2, Garver will prepare an addendum to the 2021 Facility Requirements Chapter of the HYI Airport Master Plan. The addendum will be in the form of a memorandum that will be attached as an appendix to the original chapter. The addendum is expected to be approximately three (3) to five (5) pages.

Task 2.4 – Building Assessments

While not part of this scope of services, assessments of existing City buildings located at the Airport could be completed as part of this AMP project. A separate scope and fee will be drafted for this work, if requested, for inclusion in the AMP.



ELEMENT 3 – ALTERNATIVES

Task 3.1 – Runway Configuration Alternatives

As part of the 2021 Airport Master Plan, it was determined that Runway 8-26 would ultimately be decommissioned while Runway 17-35 and Runway 13-31 would remain active. The intent of this task is to re-evaluate whether Runway 8-26 should still be decommissioned based on the potential larger fleet mix of aircraft that could use the airport in the future. This analysis will include a review of the costs and benefits associated with the following scenarios:

- Scenario 1 – Maintaining the preferred runway alternative as established in the 2021 Airport Master Plan (i.e., extending and strengthening Runway 17-35 while shortening and strengthening Runway 13-31).
- Scenario 2 – Extending and strengthening Runway 17-35 as shown in the 2021 Airport Master Plan while maintaining Runway 8-26 at its current length but strengthening the pavement. Runway 13-31 would be decommissioned. Instrument approach minimums of ¼ mile will be assumed for each end of Runway 8-26.

The results of the 2023/2024 Gap Analysis and Pavement Analysis Study will be used significantly for this task. The pros and cons of each option related to the following considerations will be analyzed:

- Rough order of magnitude costs
- Surrounding development constraints/impacts
- Available runway length

To support the runway length discussion, an industry benchmarking analysis will be completed, to review runway lengths and current commercial aircraft operations at the following airports:

- Key West International Airport (EYW)
- John Wayne/Organon County (SNA)
- Hilton Head Airport (HXD)

Once the draft analysis is complete, a two (2) hour in person meeting will be completed at the Airport to review the analysis and determine the preferred alternative. The meeting will be attended by one (1) Garver staff member. The result of this task will be used to inform the terminal complex analysis discussed in Task 3.2.

Task 3.2 – Terminal Complex Alternatives

Garver will analyze up to two (2) potential locations for a terminal building complex at the Airport. The locations for the terminal will be based on the following information contained in the 2021 Airport Master Plan:

- Environmental considerations (e.g., wetlands, floodplains, landfills, etc.)
- Roadway access (existing and future)
- Available land parcels (the size of the area that could potentially be dedicated to the terminal and to support its future expansion)
- Airspace considerations (14 CFR Part 77 surfaces)
- Utility locations
- NAVAID Critical Areas
- Proximity to runways shown in the preferred development plan



Garver will prepare initial exhibits showing the potential locations and identifying the pros and cons of each site. The exhibits will be presented to the City and TAP in a virtual meeting. The meeting is expected to be two (2) hours and will be attended by one (1) Garver staff member. The intended result of the meeting is to identify a preferred terminal complex location before proceeding with Task 3.3.

Task 3.3 – Roadway Alternatives/Analysis

Garver will prepare three (3) roadway alignment alternatives defining how the existing and proposed future roadway infrastructure will connect to the preferred terminal location. Data from the previous 2020 traffic study will be used to develop existing 2023 traffic volumes. Additionally, traffic generated by high and low growth aircraft traffic scenarios discussed in Task 1.2 will be developed. Each roadway alternative will be analyzed related to cost and traffic implementations. The traffic evaluation will include operational analysis for the AM and PM peak hours using Synchro software.

Garver will prepare initial exhibits showing the potential layouts and identifying the pros and cons of each roadway layout. The exhibits will be presented to the City and TAP in a virtual meeting. The meeting is expected to be two (2) hours and will be attended by two (2) Garver personnel. The intended result of the meeting is to identify a preferred roadway concept.

Task 3.4 – Fuel Farm, Electrical Vault, and ATCT Alternatives

Garver will analyze up to two (2) potential locations for the fuel farm, electrical vault, and ATCT at the Airport.

The proposed locations for the fuel farm will be based on the following information:

- Environmental considerations (e.g., wetlands, floodplains, landfills, etc.)
- Roadway access (existing and future)
- Proximity to preferred terminal location
- Proposed future development impacts
- Airspace considerations (14 CFR Part 77 surfaces)
- Utility locations
- NAVAID Critical Areas

The proposed locations for the electrical vault will be based on:

- Environmental considerations (e.g., wetlands, floodplains, landfills, etc.)
- Proximity to existing electrical systems and power supply
- Proposed future development impacts
- Airspace considerations (14 CFR Part 77 surfaces)
- NAVAID Critical Areas

The proposed locations for the ATCT will be based on:

- Environmental considerations (e.g., wetlands, floodplains, landfills, etc.)
- Proximity to existing electrical systems and power supply
- Proposed future development impacts
- Airspace considerations (14 CFR Part 77 surfaces)

Garver will prepare initial exhibits showing the potential locations and identifying the pros and cons of each site. The exhibits will be presented to the City and TAP in a virtual meeting. The meeting is



expected to be one (1) hour and will be attended by two (2) Garver personnel. The intended result of the meeting is to identify a preferred fuel farm and electrical vault location before proceeding with Task 3.5.

Task 3.5 – Updated Alternatives Report

Based on the results of Task 3.1 through 3.4, Garver will prepare an addendum to the 2021 Alternatives Chapter of the HYI Airport Master Plan. The addendum will be in the form of a memorandum that will be attached as an appendix to the original chapter. The addendum is expected to be approximately twenty-five (25) to thirty (30) pages. This will also include the development of a new composite preferred development alternative for the Airport based on the results of the preceding project elements and the results of the HYI Gap Analysis project completed in 2023.

Additionally, a two (2) hour virtual meeting will also be conducted with TxDOT Aviation to review the updated to the preferred alternative.

Task 3.6 – Public Open House

Based on the results of Task 3.1 through 3.4, Garver will complete a public open house at the Airport. The intent of the public open house is to provide the public with an opportunity to review the draft alternatives and provide feedback on the proposed development plan. Garver will prepare display board (6 boards are assumed) showing the proposed development concepts for use at the public open house. The open house will be conducted in a single two (2) hour period and will be attended by two (2) Garver personnel. The open house will be conducted in a manner to allow participants to come-and-go as desired. A formal presentation will not be provided.

ELEMENT 4 – CIP AND FINANCIAL PLAN

Task 4.1 – Prepare an Updated CIP/Financial Plan Chapter

Garver will prepare an updated version of the CIP/Financial Plan Chapter based on the results of the preceding project elements and the results of the HYI Gap Analysis and Pavement Analysis project completed in 2023/2024. Planning level cost estimates will be prepared for any projects not contained in either one of the aforementioned studies. Additionally, this CIP will include cost estimates related to taxiway rehabilitation on the existing main apron and security improvements to the existing fence line. Cost estimates from the previous studies (the 2021 AMP and the HYI Gap Analysis study) will be updated to reflect current year costs. All cost estimates will be planning level cost estimates that should be used for planning purposes only.

An updated financial plan will be prepared that describes the proposed funding mechanisms to be used for each project. This task includes up to three (3) in-person or virtual meetings with City and TAP staff to formulate and revise the proposed CIP and Financial Plan. Each meeting is assumed to be up to two (2) hours. Additionally, a two (2) hour in-person meeting will also be conducted with TxDOT Aviation to review the updated CIP.

Garver will prepare a new CIP/Financial Plan Chapter for the AMP. The new chapter is expected to be approximately twenty-five (25) to thirty (30) pages. This will also include the development of a near/mid-term (next 10 years) CIP graphic and a long-term CIP graphic.



Task 4.2 – Airport Board Meeting

Garver will provide support for the acceptance/adoption of the Airport Master Plan Update locally through attendance at one (1) San Marcos Airport Board meeting. One (1) Garver staff member is expected to attend this meeting. This will include preparing a brief presentation describing the results of the planning process and the proposed future development plan.

Task 4.3 – City Council Approval

Garver will provide support for the acceptance/adoption of the Airport Master Plan Update locally through attendance at one (1) City of San Marcos Council meeting. One (1) Garver staff member is expected to attend this meeting. This will include preparing a brief presentation describing the results of the planning process and the proposed future development plan.

ELEMENT 5 – AIRPORT LAYOUT PLAN UPDATES

Task 5.1 – Airport Layout Drawing

Garver will prepare an updated version of the Airport Layout Drawing (ALD) based on the results of the preceding project elements. The ALD will be prepared in accordance with Federal Aviation Administration (FAA) Standard Operating Procedure (SOP) 2.00.

Task 5.2 – Terminal Area Drawing

Garver will prepare an updated version of the Terminal Area Drawing (TAD) on the results of the preceding project elements. The TAD will be prepared in accordance with Federal Aviation Administration (FAA) Standard Operating Procedure (SOP) 2.00.

Task 5.3 – Land-Use Drawing

Garver will prepare an updated version of the Land-Use Drawing on the results of the preceding project elements. The Land-Use Drawing will be prepared in accordance with Federal Aviation Administration (FAA) Standard Operating Procedure (SOP) 2.00.

Task 5.4 – ALP Administration

Garver will submit the revised ALP sheets to TxDOT Aviation and FAA for review and approval. Once approved, an electronic version of the approved ALP will be provided to TxDOT and the City/TAP. Two (2) printed copies of the ALP will also be provided to the City/TAP.

SCOPE EXCLUSIONS:

For clarification purposes, the proposed scope of services specifically does not include any of the following items/tasks stated below:

- Airport Layout Plan (ALP) updates beyond those specifically identified in the scope
- Pavement weight bearing capacity analysis, evaluations, or cost estimates
- Survey work
- Preparation of any documents required to obtain certifications under 14 CFR Part 139 and/or 49 CFR Part 1542
- Support for City Council adoption beyond the utilization of the meetings identified in the scope of services



- Utility and drainage analysis or investigation
- Aerial photography
- Development or modification to GIS systems or tools
- Revisions to, or the development of language to revise, Airport leases, rules and regulations, minimums standards, or other airport policies
- Detailed facility assessments/reviews
- Property/Title Research
- Pavement or facility condition testing or the establishment of a pavement maintenance program
- Environmental work or analysis
- Geotechnical evaluation
- Site visits to observe pavement conditions outside of those specifically identified in the scope
- Environmental testing or investigation work
- Graphic conceptual renderings of existing or future facilities
- The preparation of materials and exhibits for leases, development contracts, or other documents/materials
- Detailed engineering cost estimates
- Design or conceptual design work
- Forecasting
- Terminal planning
- Public outreach/engagement other than what is specifically identified in the scope

Appendix B

City of San Marcos
San Marcos Regional Airport - Airport Master Plan Update 2024

WORK TASK DESCRIPTION	P-4	P-2	P-1	E-5	E-4	E-3	E-1	X-2	MANHOURL SUBTOTALS	FEE SUBTOTALS
	\$304.00	\$235.00	\$198.00	\$329.00	\$271.00	\$230.00	\$165.00	\$148.00		
	hr	hr	hr	hr	hr	hr	hr	hr		
ELEMENT 1 – GENERAL COORDINATION AND PROJECT ADMINISTRATION										
Task 1.1 – General Coordination and Project Administration										
- Project Status Updates		8								
- 4 Virtual Meetings	8	8								
- Review Additional Documents/Materials		8	8							
Task 1.2 – Documentation of Large Aircraft Assumptions										
- High and Low Growth Scenarios Meeting	1	2	2							
- High and Low Growth Scenario Meeting Minutes/Documentation	1	2	2							
- QC	0.5								1	
ELEMENT 2 – FACILITY REQUIREMENTS										
Task 2.1 – Fuel Farm Facility Requirements										
- High and Low Growth Fuel Farm Capacity Analysis	1	3	6							
- Benchmarking Analysis	1	2	6							
- QC	0.5									
Task 2.2 – Airfield Electrical Vault Review										
- Electrical Vault Review/Site Visit						6				
- Electrical Vault Analysis/Recommendations						6				
- QC	1				1					
Task 2.3 – Updated Facility Requirement Report										
- Develop Updated Facility Requirements Report	1	2	12							
- QC	1								2	
Task 2.4 – Facility Assessment (Scope to be defined later)										
ELEMENT 3 – ALTERNATIVES										
Task 3.1 – Runway Configuration Alternatives										
- Alternatives Development	4	6	16							
- Alternatives Analysis	4	6	8			12				
- Benchmarking	2		4							
- Alternatives Review Meeting Prep, Meeting Execution, and Alternatives Refinement	4	2	6							
- QC	2									
Task 3.2 – Terminal Complex Alternatives										
- Alternatives Development	1.5	3	8					4		
- Alternatives Analysis	1.5	3	8							
- Alternatives Review Meeting Prep, Meeting Execution, and Alternatives Refinement	3	2	12							
- QC	2									
Task 3.3 – Roadway Alternatives/Analysis										
- Alternatives Development	2			2	12	16	28			
- Traffic Analysis	1			2	6	54	12			
- Alternatives Cost Analysis	1			2	12	16	38			
- Alternatives Review Meeting Prep, Meeting Execution, and Alternatives Refinement	1			2	8	20	35			
- QC	2			2						
Task 3.4 – Fuel Farm, Electrical Vault, and ATCT Alternatives										
- Alternatives Development	1	2	10			5				
- Alternatives Analysis	1	2	6			5				
- Alternatives Review Meeting Prep, Meeting Execution, and Alternatives Refinement	2	2	4							
- QC	1									
Task 3.5 – Updated Alternatives Report										
- Develop Updated Alternatives Report	1	4	24							
- QC	2								4	
Task 3.6 – Public Open House										
- Public Open House Planning and Execution	6	6	4						14	
- QC	1									
ELEMENT 4 – CIP AND FINANCIAL PLAN										
Task 4.1 – Prepare an Updated CIP/Financial Plan Chapter										
- Prepare Draft CIP Phasing Plan	2	4	8					4		
- Prepare Updated Cost Estimates	1					6	46			
- CIP Review Meeting Prep, Meeting Execution, and Refinement	4	2	6			4	6			
- CIP Report Development	2	3	16						2	
- QC	2									
Task 4.2 – Airport Board Meeting										
- Presentation Development and Delivery	4		1							
- QC		0.25								
Task 4.3 – City Council Approval										
- Presentation Development and Delivery	4		1							
- QC		0.25								
ELEMENT 5 – AIRPORT LAYOUT PLAN UPDATE										
Task 5.1 – Airport Layout Drawing										
- Drawing Development	0.5	2	20							
Task 5.2 – Terminal Area Drawing										
- Drawing Development	0.5	2	12							
Task 5.3 – Land-Use Drawing										
- Drawing Development	0.5	2	8							
Task 5.4 – ALP Administration										
- QC and Administration	0.5	2	4							
	83	90.5	222	10	39	150	173	23	790.5	\$ 170,763.50

SUBTOTAL - SALARIES: \$170,763.50

DIRECT NON-LABOR EXPENSES

Document Printing/Reproduction/Assembly	\$100.00
Open House Boards	\$300.00
Travel Costs	\$300.00

SUBTOTAL - DIRECT NON-LABOR EXPENSES: \$700.00

SUBTOTAL: \$171,463.50

TOTAL FEE: \$171,463.50

Appendix C

City of San Marcos

San Marcos Regional Airport - Airport Master Plan Update 2024

Project Schedule

Project Phases	August 2024	September 2024	October 2024	November 2024	December 2024	January 2025	February 2025
Facility Requirements Phase	■						
Alternatives Phase		■	■				
CIP/Funding Phase			■	■	■	■	
Development of the ALD			■	■	■	■	