

EXHIBIT "A"
DETAILED DESCRIPTION OF THE PROJECT
AND
ENGINEER'S SCOPE OF SERVICES

CITY OF FT. PIERCE COMPREHENSIVE VULNERABILITY ASSESSMENT

PROJECT UNDERSTANDING

The City has entered into a Resilient Florida Grant Agreement with the Florida Department of Environmental Protection (FDEP) to complete a comprehensive vulnerability assessment pursuant to Section 380.093, Florida Statutes (F.S.).

SCOPE OF WORK

The City shall hire the Engineer to perform the following key tasks:

Task 1: Acquire Background Data

Description: The Engineer will research and compile the data needed to perform the VA based on the requirements as defined in Section 380.093, F.S. Three main categories of data are required to perform a VA: 1) critical and regionally significant asset inventory, 2) topographic data, and 3) flood scenario-related data. GIS metadata must be included for each dataset compiled and each asset dataset must be classified using the asset groups and types defined in paragraphs 380.093(2)(a)1-4, F.S. GIS files and associated metadata must adhere to the Resilient Florida Program's GIS Data Standards, as referenced in Attachment 6, and raw data sources shall be defined within the associated metadata. Flood-scenario-related data should make use of the best available information through the Florida Flood Hub. If Florida Flood Hub data is unavailable, flood scenario-related data shall include:

- Planning horizons: 2050 and 2080.
- Sea level rise projections: 2022 National Oceanic and Atmospheric Administration intermediate and intermediate-low projections.
- Tidal flooding, if applicable: Using the threshold for tidal flooding published by the Department.
- Storm surge data, if applicable: Equal to or exceeds the 100-year return period (1% annual chance) flood event.
- Rainfall-induced flooding, to the extent practicable: 100-year (1% annual chance) and 500-year (0.2% annual chance) return period flood events.
 - Rainfall-induced flooding analysis is required for all non-coastal communities.

In the process of compiling background data, the Engineer shall identify data gaps, where missing data or low-quality information may limit the VA's extent or reduce the accuracy of the results. The Engineer shall take all practicable steps to rectify any gaps of data necessary to complete analysis of required scenarios

Deliverables: The Engineer will provide the following:

- 1.1: A Background Data Catalog consistent with the GIS Data Standards (Table 1) that outline the datasets compiled and the raw data sources;

1.2: Complete the Flood Risk Scenario Matrix consistent with the GIS Data Standards (Table 2) that outline the different flood risk scenarios, planning horizons, return periods, and similar parameters of the VA; and

1.3: Compiled GIS datasets for each of the three main background data categories. To be provided in a single-file geodatabase or zipped folder, whenever possible.

- GIS files of the critical asset datasets that are not publicly available nor already included in the statewide flood vulnerability and sea level rise data set, containing appropriate metadata, consistent with the GIS Data Standards, and classified using the asset groups and types defined in paragraphs 380.093(2)(a)1-4, F.S.
- Topographic and other Raster Flood Risk Data that are not publicly available nor already included in the statewide flood vulnerability and sea level rise data set.

Task 2: Exposure and Sensitivity Analyses

Description: The Engineer will perform the exposure and sensitivity analyses. The exposure analysis will identify the depth of water caused by each sea level rise, storm surge, and/or flood scenario. The sensitivity analysis measures the impact of flooding on assets by applying the data from the exposure analysis to the inventory of critical assets created in the Acquire Background Data Task. The sensitivity analysis should include an evaluation of the impact of flood severity on each asset and at each flood scenario and assign a risk level. GIS files and associated metadata must adhere to the Resilient Florida Program's GIS Data Standards, as referenced in Attachment 6, and raw data sources shall be defined within the associated metadata.

Deliverables: The Engineer will provide the following:

2.1: GIS data containing the results of the exposure and sensitivity analyses which shall include at minimum:

- Raster layers with results of the exposure analysis (depth of flood water) for each flood scenario as well as the appropriate metadata that identifies the methods used to create the flood layers. Additionally, any other custom, combined or modified flood scenario raster layer used in the assessment and not publicly available; and
- GIS files of the critical asset datasets containing the results of the sensitivity analysis for all flood scenarios required by s. 380.093, F.S., consistent with the GIS Data Standards, and including the appropriate metadata describing the fields or attribution of the analyses results.

Task 3: Identify Focus Areas

Description: The Engineer will identify focus areas following the guidelines in Chapter 2 of the Florida Adaptation Planning Guidebook. Based on the exposure and sensitivity analyses, the Engineer may assign focus areas to locations or assets that are particularly vulnerable and require the development of adaptation strategies. GIS files and associated metadata must adhere to the Resilient Florida Program's GIS Data Standards (Exhibit I), and raw data sources shall be defined within the associated metadata.

Deliverables: The Engineer will provide the following:

3.1: A report summarizing the areas identified as focus areas, with justification for choosing each area;

3.2: Tables listing each focus area with any critical assets that are contained inside the focus area;

3.3: Maps illustrating the location of each focus area compared to the location of all critical assets within the geographic extent of the study; and

3.4: GIS files and associated metadata illustrating geographic boundaries of the identified focus areas.

Task 4: Final Vulnerability Assessment Report

Description: The Engineer will finalize the VA Report pursuant to the requirements in s. 380.093, F.S. The final VA Report must include all results from the exposure and sensitivity analyses, as well as a summary of identified risks as well as any assigned focus areas (if applicable). It should contain a list of critical and regionally significant assets that are impacted by flooding and sea-level rise, specifying for each asset the flood scenario(s) impacting the asset.

Deliverables: The Engineer will provide the following:

4.1: A Final VA Report that provides a summary of results and conclusions based on the statutorily required scenarios and standards in s. 380.093, F.S., to include:

- Findings of the gap analysis;
- Recommendations to address the identified data gaps and actions taken to rectify them, if applicable;
- Details on the modeling process and type of models used during the exposure and sensitivity analyses; and
- A summary of assigned focus areas, if applicable.

4.2: Completed Critical Assets Basic Attributes Schema (Table 3), Critical Assets Groups and Types (Table 4), and VA Results Attribute Scheme (Table 5) consistent with the GIS Data Standards; and

4.3: A signed VA Compliance Checklist Certification (Exhibit I).

Task 5: Public Outreach Meetings and Stakeholder Engagement

Description: The Engineer will conduct public outreach meetings and stakeholder engagement for the project. Project meetings will be conducted to ensure effective project execution, stakeholder engagement, and compliance with grant requirements. Meeting types include, but are not limited to, the types and descriptions below.

- **Kick-off Meeting**

The purpose of a kick-off meeting is to discuss the project scope, project goals, schedule, key milestones, and deliverables in order to develop a consistent project approach. The kick-off meeting would be hosted by the Engineer and attendees should be key stakeholders in the project. Prior to the meeting, the Engineer should develop an overall project management plan and address initial actions, identify and invite key stakeholders, prepare the sign-in sheet, draft a project schedule, and prepare any other meeting materials as necessary.

Deliverables: The Engineer will provide the following:

5.1: Kick-off meeting agenda (including location, date, and time); a copy of the presentation, if applicable, and all materials created for the meeting; and a summary report or meeting minutes that includes the meeting purpose, stakeholder input, and outcomes.

Task 6: Local Mitigation Strategy

Description: The results of the VA can be used to inform a Local Mitigation Strategy (LMS) as required by the Florida Division of Emergency Management (FDEM). The LMS is usually developed at the county level and serves to reduce the risks associated with natural and man-made disasters, including sea level rise. The Engineer will work with the Local Mitigation Strategy Working Group (LMSWG) to ensure the Vulnerability Assessment Report is in alignment with the existing county LMS Plan and will be utilized during the planning process of future county LMS Plan updates.

Deliverables: The Engineer will provide the following:

6.1: A letter to the Department and FDEM Mitigation Bureau Planning Unit, signed by the LMSWG Chair, or Designee, to include the following: Vulnerability Assessment Report will be incorporated as a reference and annex in the next iteration of the LMS Plan, i.e., the next five-year update; and the entity/entities that composed the VA report will be involved with the LMSWG through any of the following: at a minimum, be added to the contact list, attend meetings, participate in the planning process of the next major update; participate in the adoption of the LMS plan; and submit projects to the LMSWG to be included on LMS Prioritized Project List.

PERFORMANCE SCHEDULE

The following tasks shall be completed within the number of months indicated below as counted from the date the City issues notice to proceed of this Agreement.

<u>TASK</u>	<u>DESCRIPTION</u>	<u>MONTHS</u>
Task 1.	Acquire Background Data	on or before 3/31/26
Task 2.	Exposure Analysis and Sensitivity Analysis	on or before 3/31/26
Task 3.	Identify Focus Area	on or before 3/31/26
Task 4.	Final Vulnerability Assessment Report	on or before 3/31/26
Task 5.	Public Outreach Meetings and Stakeholder Engagement	on or before 3/31/26
Task 6.	Local Mitigation Strategy	on or before 3/31/26

PROJECT BUDGET

LUMP SUM TASKS

		<u>FEE</u>
Task 1.	Acquire Background Data	\$ 20,000
Task 2.	Exposure and Sensitivity Analysis	\$ 72,000
Task 3.	Identify Focus Area	\$ 20,000
Task 4.	Final Vulnerability Assessment Report	\$ 35,000
Task 5.	Public Outreach Meetings and Stakeholder Engagement	\$ 5,500
Task 6.	Local Mitigation Strategy	\$ 7,165
Total =		\$ 159,665

The Engineer will provide those services described in Task 1 through Task 6 on the basis of the lump sum amount listed above.

INFORMATION PROVIDED BY CLIENT

At no cost to the Engineer, the Client shall provide all pertinent data, permits, records, as-built plans, etc. within the Client's possession and required by the Engineer to conduct a thorough and comprehensive study.