Stage 2 Preliminary Assessment

2.1 General Information

Agency or State Entity Name:

Department of Housing and Community Development (HCD)

Organization Code:

2240

Proposal Name:

Consolidated Housing Accountability Application Procurement Project (CHAAPP)

Department of Technology Project Number:	2240-053

2.2 Preliminary Submittal Information

Contact Information:

Contact First Name:	Contact Last Name:
Lori	Staffler
Contact Email:	**Contact Phone:**
Lori.Staffler@hcd.ca.gov	(916) 215-8840
Preliminary Submission Date:	**Preliminary Assessment Transmittal**:
N/A	N/A

2.3 Stage 2 Preliminary Assessment

2.3.1 Impact Assessment

	Yes	No
1. Has the Agency/state entity identified and committed subject matter experts from all business sponsors and key stakeholders?	☒	☐
2. Are all current baseline systems that will be impacted by this proposal documented and current (e.g., data classification and data exchange agreements, privacy impact assessments, design documents, data flow diagram, data dictionary, application code, architecture descriptions)?	☒	☐
3. Does the Agency/state entity anticipate needing support from the California Department of Technology (CDT) Statewide Technology Procurement (STP) to conduct market research for this proposal (Market Survey, Request for Information)?	☐	☒
4. Does the Agency/state entity anticipate submitting a budget request to support the procurement activities of this proposal?	☒	☐
5. Could this proposal involve the development and/or purchase of systems to support activities included in Financial Information System for California (FI$Cal) (e.g., financial accounting, asset management, human resources, procurement/ordering, inventory management, facilities management)?	☐	☒
6. Does the Agency/state entity have a designated Chief Architect or Enterprise Architect to lead the development of baseline and alternative solutions architecture descriptions?	☒	☐
7. Will the Agency/state entity's Information Security Officer be involved in the development and review of any security related requirements?	☒	☐
8. Does the Agency/state entity anticipate performing a business-based procurement to have vendors propose a solution?	☒	☐

2.3.2 Business Complexity Assessment

Business Complexity:	2.6	Business Complexity Zone:	☐ High	☒ Medium	☐ Low

2.4 Submittal Information	
Contact Information:	
Contact First Name:	**Contact Last Name:**
Lori	Staffler
Contact Email:	**Contact Phone:**
Lori.staffler@hcd.ca.gov	(916) 215-8840
Submission Date:	**Project Approval Executive Transmittal**:
7/1/2021	SIMM 19G – Project Approval Executive Transmittal HCD
Submission Type:	

Stage 2 Alternatives Analysis

California Department of Technology, SIMM 19B (Rev. 2.1), Revision 5/21/2018

☒ New Submission	☐ Updated Submission (Post-Approval)
☐ Updated Submission (Pre-Approval)	☐ **Withdraw Submission**
	Reason: Select...
	If "Other," specify:

Sections Updated (For Updated Submissions Only) – (check all that apply)

- ☐ **2.1 General Information**
- ☐ **2.2 Preliminary Submittal Information**
- ☐ **2.3 Stage 2 Preliminary Assessment**
  - ☐ **2.3.1 Impact Assessment**
  - ☐ **2.3.2 Business Complexity Assessment**
- ☐ **2.4 Submittal Information**
- ☐ **2.5 Baseline Processes and Systems**
  - ☐ **2.5.1 Description**
  - ☐ **2.5.2 Business Process Workflow**
  - ☐ **2.5.3 Current Architecture Information**
  - ☐ **2.5.4 Current Architecture Diagram**
  - ☐ **2.5.5 Security Categorization Impact Table**
- ☐ **2.6 Mid-Level Solution Requirements**
- ☐ **2.7 Assumptions and Constraints**
- ☐ **2.8 Dependencies**
- ☐ **2.9 Market Research**
  - ☐ **2.9.1 Market Research Methodologies/Timeframes**
  - ☐ **2.9.2 Results of Market Research**
- ☐ **2.10 Alternative Solutions**
  - ☐ **2.10.1 Solution Type)**
    - ☐ **Recommended**
    - ☐ **Alternative**
  - ☐ **2.10.2 Name**
  - ☐ **2.10.3 Description**
  - ☐ **2.10.4 Benefit Analysis**
  - ☐ **2.10.5 Assumptions and Constraints**

- ☐ **2.10.6 Implementation Approach**
- ☐ **2.10.7 Architecture Information**
- ☐ **2.11 Recommended Solution**
  - ☐ **2.11.1 Rationale for Selection**
  - ☐ **2.11.2 Technical/Initial IT Project Oversight Framework Complexity Assessment**
  - ☐ **2.11.3 Procurement and Staffing Strategy**
  - ☐ **2.11.4 Enterprise Architecture Alignment**
  - ☐ **2.11.5 Project Phases**
  - ☐ **2.11.6 High Level Proposed Project Schedule**
  - ☐ **2.11.7 Cost Summary**
- ☐ **2.12 Staffing Plan**
  - ☐ **2.12.1 Administrative**
  - ☐ **2.12.2 Business Program**
  - ☐ **2.12.3 Information Technology (IT)**
  - ☐ **2.12.4 Testing**
  - ☐ **2.12.5 Data Conversion/Migration**
  - ☐ **2.12.6 Training and Organizational Change Management**
  - ☐ **2.12.7 Resource Capacity/Skills/Knowledge for Stag 3 Solution Development**
  - ☐ **2.12.8 Project Management**
    - ☐ **2.12.8.1 Project Management Maturity Assessment**
    - ☐ **2.12.8.2 Project Management Planning**
  - ☐ **2.12.9 Organization Charts**
- ☐ **2.13 Data Conversion/Migration**
- ☐ **2.14 Financial Analysis Worksheets**

Summary of Changes:

Condition(s) from Previous Stage(s):

Condition #	N/A
Condition Category	Select
Other, specify	
Condition Sub-category	Select
Other, specify	
Condition	
Assessment	Select...
Other, specify	

Agency/state Entity Response	
Status	**Select**
Other, specify	
Select + to add conditions.	

2.5 Baseline Processes and Systems

2.5.1 Description

In fulfilling its statutory responsibility to promote safe, affordable homes and vibrant, inclusive sustainable communities for all Californians, the Department of Housing and Community Development (HCD) oversees more than 80 programs that award loans and grants for construction, acquisition, rehabilitation and preservation of affordable rental and ownership housing, homeless shelters and transitional housing, public facilities, and infrastructure. HCD's current information management systems are insufficient to meet operational needs and State and Federal reporting requirements.

The goal of the Consolidated Housing Accountability Application Procurement Project (CHAAPP) is to implement a robust and scalable enterprise data collection and management system to accurately capture, organize, track, award, manage, and report on essential housing elements, Federal and State loans and grants, annual progress reports, and program financial information. The system must be configurable and flexible to accommodate new programs, and changes to existing programs, and help ensure compliance with applicable statutes, regulations, and reporting requirements.

HCD's baseline business processes focus on HCD's legacy system "as-is" business processes, including capturing, organizing, tracking, awarding, managing, and reporting on essential housing elements, Federal and State loans and grants, annual progress reports, and program financial information. The legacy systems' lack of necessary functionality and features requires HCD staff to consolidate data from multiple manual and automated data collection sources using applications like MS Word and MS Excel to support daily operations and tracking application items including Program Income and Demographic information.

BASELINE SYSTEMS:

Consolidated Automated Program Enterprise Systems (CAPES) is HCD's enterprise-level data collection and organization system that manages and reports essential State and Federal program and funding information. CAPES supports more than 80 Federal and State programs and is used to award, track, monitor, and report housing loan and grant information for its $7 billion housing portfolio. Each loan and grant award is monitored individually using CAPES *and* necessary manual tools and processes (primarily MS Excel) to reconcile data for reporting.

CAPES was deployed in 2007 and was turned over to HCD for maintenance and operations (M and O) without adequate system process documentation or knowledge transfer. As a result, CAPES is not easily maintained and supported and has a large backlog of necessary application software fixes, required enhancements to meet operational need, and hardware and system upgrades.

CAPES custom designed web-based software comprises nine primary high-level modules:

1. Program
2. Notice of Funding Availability (NOFA)
3. Application
4. Contract/Project
5. Monitoring
6. Fund
7. PCA/SL (Service Location)
8. State Ops
9. Bonds Proceeds Account (BPA)

There are six additional application modules in use:

1. Admin
2. Underwriting
3. Award
4. Proposition
5. Standard Agreement
6. Reports

Each CAPES module is customizable to capture information required to complete the business processes to disburse and monitor various housing grants and loans. Each customization requires gathering user requirements and design specifications so the Information Technology Branch (ITB) staff can develop the Java interface and/or Oracle database to meet the business needs. These requirements are varied and unique to each HCD Program, providing customized data entry fields and menu selections based on the type of data collected and the necessary reporting outputs.

Grant Management Systems (GMS) - In recent years, Housing and Urban Development (HUD) monitoring and various audits resulted in documented findings and concerns around HCD's ability to effectively monitor housing program funds. In response to the latest audits, HUD withheld $124 million of Community Development Block Grant (CDBG) and Community Development Block Grant – Disaster Recovery (CDBG-DR) funding allocated to the State of California to address unmet long-term recovery needs arising from damage caused by the 2017 wildfires, flooding, mudflows, and debris flows.

As a result, HCD leadership decided to fast-track a procurement, serving as a stop-gap solution, to pilot a new GMS for two Federal programs: (1) CDBG-DR and (2) CDBG-DR. Given the timeframe of procurement through implementation, HCD procured an out-of-the-box, Software-as-a-Service (SaaS), cloud hosted system that manages and reports on federal funding information. GMS software offers an online grants management platform to track non-disclosure agreements, contracts, and funds requests.

The goal was to pilot the GMS and evaluate the feasibility of adopting a product for enterprise implementation and was intended to pave the path for a comprehensive enterprise solution. The full implementation for CDBG and CDBG-DR was completed in June 2020. While the GMS SaaS solution successfully addressed the HUD requirements for these Federal programs, the solution did not provide functionality to address both loans and grants.

eGrants System – Owner Occupied Reconstruction (OOR) works directly with disaster impacted homeowners to help determine their eligibility for a CDBG-DR grant for gap funding to assist with reconstruction and assist grant recipients through the reconstruction process. The OOR program consists of program management, construction management, case management, and financial management features within the new software system. This SaaS solution allows HCD personnel and external users (e.g., applicants, project managers) to effectively link, track, manage, analyze, search and report all project information throughout a project's lifecycle from the initial homeowner's survey and grant application through construction and closeout.

The effort to replace CAPES with a new Consolidated Housing Accountability Application will provide HCD a loans and grants management solution that will serve as the Department's enterprise system across State and Federal funding sources encompassing functionalities needed to support HCD's end-to-end operations from solicitation, evaluation, loan management, grant management, closure, compliance reporting, monitoring, and integration with key State and Federal information systems.

As noted above, CAPES' lack of necessary functionality, system documentation, and disciplined business processes resulted in program staff developing and using manual data collection workarounds. Manual MS Excel spreadsheets and MS Word documents are used to capture and calculate critical financial data. There is no system to accurately

track bond funded awards against a statutory allocation or bond proceed accounts. There also is no loan servicing system that can accurately calculate principal and interest of those awards for different interest types (e.g., compounding or amortized).

HCD's legacy systems do not provide the functionality HCD needs to perform at their potential to meet or exceed Federal and State requirements and provide consistently exceptional service to California citizens in need of these programs.

Housing Element Tracking System(HETS) – HETS is the Division of Housing Policy Development's (HPDs) internal system for tracking specific housing elements and annual progress report data. HETS tracks required data elements for jurisdictions to include in their mandated local general plans. HETS captures project level data for the 539 California city and county jurisdictions, including reporting dates, data elements and iterations of reports from draft through adoption by HCD with built-in data validation business rules that benefit the annual progress reporting. Additionally, HETS tracks and allows HCD to monitor jurisdiction progress toward achieving goals established for the housing element each year and recently added capability to track Accessory Dwelling Unit Ordinances for jurisdiction.

Annual Progress Reporting (APR) is the public-facing portal to HETS where jurisdictions upload their annual progress reports into the APR system. The data uploaded to APR are available in HETS for HCD reviewing, tracking, monitoring and reporting.

2.5.2 Business Process Workflow

Attachment: Attach file to email submission.

2.5.3 Current Architecture Information

Consolidated Automated Program Enterprise Systems (CAPES)

Business Function/Process(es)	Award, track, manage, monitor, and report on Federal and State housing loan and grant information.
Select + to add a business process with the same application, system, or component; COTS, MOTS or custom solution; runtime environment; system interfaces, data center location; and, security.	
Application, System or Component	System
	Select + to add an application, system, or component.
COTS, MOTS or Custom	Custom application
Name/Primary Technology:	Oracle (On-Premise)

Runtime Environment	Cloud Computing Used?	☐ Yes ☒ No	If "Yes," specify:	Select…
	Server/Device Function	Hyper-V Host Server with Clustering and High Availability		
	Hardware	Dell PowerEdge Servers R600 Series		
	Operating System	Windows Server OS, Oracle Linux OS		
	System Software	Oracle Enterprise Database, WegLogic, Java, Docker, and Linux		
		Select + to add system software.		

System Interfaces	Web Browser
Data Center Location / Other, specify	State data center operated by CDT

Security	Access (check all that apply)	☐ Public ☒ Internal State Staff ☐ External State Staff ☐ Other, specify:
	Type of Information (check all that apply)	☐ Personal ☐ Health ☐ Tax ☒ Financial ☒ Legal ☒ Confidential ☒ Other, specify: Interest Reporting
	Protective Measures (check all that apply)	☒ Technical Security ☒ Identity Authorization and Authentication ☒ Physical Security ☒Backup and Recovery ☐ Other, specify:

Data Management	Data Owner	Name: Jennifer Seeger and Geoffrey Ross
		Title: Division of State Financial Assistance (DSFA) and Division of Federal Financial Assistance (DFFA) Deputy Directors
		Business Program: DSFA and DFFA
	Data Custodian	Name: HCD
		Title: Chief Information Officer (CIO)
		Business Program: Information Technology Branch (ITB)
Business Function/Process(es)		**Grants Management System (GMS)**
Business Function/Process(es)		Manages and reports on federal funding information. GMS software offers an online grants management platform, to track non disclosuregreements, contracts, program income, and fund requests for two Federal programs CDBG and CDBG-DR
Select + to add a business process with the same application, system, or component; COTS, MOTS or custom solution; runtime environment; system interfaces, data center location; and, security.		
Application, System or Component		System
		Select + to add an application, system, or component.
COTS, MOTS or Custom		Commerical off-the-shelf (COTS)
Name/Primary Technology:		eCivis GMS
Runtime Environment	Cloud Computing Used?	☒ Yes ☐ No If "Yes," specify: Software as a Service (SaaS)
	Server/Device Function	N/A
	Hardware	N/A
	Operating System	eCivis SaaS
	System Software	SaaS GMS
		Select + to add system software.
System Interfaces		Integrated Disbursement and Information System (IDIS)
Data Center Location		Commercial data center
	Other, specify	Cloud
Security	Access (check all that apply)	☒ Public ☒ Internal State Staff ☐ External State Staff ☐ Other, specify:
	Type of Information (check all that apply)	☐ Personal ☐ Health ☐ Tax ☒ Financial ☒ Legal ☒ Confidential ☐ Other, specify:
	Protective Measures (check all that apply)	☒ Technical Security ☒ Identity Authorization and Authentication ☒ Physical Security ☒ Backup and Recovery ☐ Other, specify:
Data Management	Data Owner	Name: HCD
		Title: Jennifer Seeger and Geoffrey Ross
		Business Program: Deputy Directors of DSFA and DFFA
	Data Custodian	Name: eCivis
		Title: Vendor
		Business Program: N/A
Business Function/Process(es)		**eGrants System**
Select + to add a business process with the same application, system, or component; COTS, MOTS or custom solution; runtime environment; system interfaces, data center location; and, security.		
Application, System or Component		OOR works directly with disaster impacted homeowners to help determine their eligibility for a CDBG-DR grant for gap funding to

		assist with reconstruction and assist grant recipients through the reconstruction process.		
		Select + to add an application, system, or component.		
COTS, MOTS or Custom		Commerical off-the-shelf (COTS)		
Name/Primary Technology:		eGrants System		
Runtime Environment	Cloud Computing Used?	☒ Yes ☐ No	If "Yes," specify:	
	Server/Device Function	N/A		
	Hardware	N/A		
	Operating System	CIVIX SaaS		
	System Software	CIVIX SaaS		
		Select + to add system software.		
System Interfaces		N/A		
Data Center Location				
Other, specify		Click here to enter text.		
Security	Access (check all that apply)	☒ Public ☒ Internal State Staff ☐ External State Staff ☐ Other, specify:		
	Type of Information (check all that apply)	☐ Personal ☐ Health ☐ Tax ☒ Financial ☒ Legal ☒ Confidential ☐ Other, specify:		
	Protective Measures (check all that apply)	☒ Technical Security ☒ Identity Authorization and Authentication ☒ Physical Security ☒ Backup and Recovery ☐ Other, specify:		
Data Management	Data Owner	Name: Jennifer Seeger and Geoffrey Ross		
		Title: Deputy Directors of DSFA and DFFA		
		Business Program: DSFA and DFFA		
	Data Custodian	Name: CIVIX		
		Title: Vendor		
		Business Program: N/A		
Business Function/Process(es)		**Housing Element Tracking System (HETS)**		
Select + to add a business process with the same application, system, or component; COTS, MOTS or custom solution; runtime environment; system interfaces, data center location; and, security.				
Application, System or Component		System		
		Select + to add an application, system, or component.		
COTS, MOTS or Custom		Custom application		
Name/Primary Technology:				
Runtime Environment	Cloud Computing Used?	☐ Yes ☒ No	If "Yes," specify:	
	Server/Device Function	Hyper-V Host Server with Clustering and High Availability		
	Hardware	Dell PowerEdge Servers R600 Series		
	Operating System	Windows Server OS, Oracle Linux OS		
	System Software	Oracle Enterprise Database, WebLogic, Java, Docker, and Linux		
		Select + to add system software.		
System Interfaces		N/A		
Data Center Location		State data center operated by CDT		
Other, specify		Click here to enter text.		
Security	Access (check all that apply)	☐ Public ☒ Internal State Staff ☐ External State Staff ☐ Other, specify:		

	Type of Information (check all that apply)	☐ Personal ☐ Health ☐ Tax ☒ Financial ☐ Legal ☒ Confidential ☐ Other, specify:
	Protective Measures (check all that apply)	☒ Technical Security ☒ Identity Authorization and Authentication ☒ Physical Security ☒ Backup and Recovery ☐ Other, specify:
Data Management	Data Owner	Name: Megan Kirkeby
		Title: Deputy Director HPD
		Business Program: HPD
	Data Custodian	Name: HCD
		Title: CIO
		Business Program: ITB
Business Function/Process(es)		Tracking specific housing elements and annual progress report data.
Select + to add a business process with the same application, system, or component; COTS, MOTS or custom solution; runtime environment; system interfaces, data center location; and, security.		
Application, System or Component		**Annual Progress Reporting (APR)**
		Select + to add an application, system, or component.
COTS, MOTS or Custom		Custom application
Name/Primary Technology:		APR
Runtime Environment	Cloud Computing Used?	☐ Yes ☒ No If "Yes," specify:
	Server/Device Function	Hyper-V Host Server with Clustering and High Availability
	Hardware	Dell PowerEdge Servers R600 Series
	Operating System	Windows Server OS, Oracle Linux OS
	System Software	Oracle Enterprise Database, WegLogic, Java, Docker, and Linux
		Select + to add system software.
System Interfaces		N/A
Data Center Location		State data center operated by CDT
	Other, specify	Click here to enter text.
Security	Access (check all that apply)	☒ Public ☒ Internal State Staff ☐ External State Staff ☐ Other, specify:
	Type of Information (check all that apply)	☐ Personal ☐ Health ☐ Tax ☒ Financial ☒ Legal ☒ Confidential ☐ Other, specify:
	Protective Measures (check all that apply)	☒ Technical Security ☒ Identity Authorization and Authentication ☒ Physical Security ☒ Backup and Recovery ☐ Other, specify:
Data Management	Data Owner	Name: Megan Kirkeby
		Title: Deputy Director Housing Policy Division (HPD)
		Business Program: HCD
	Data Custodian	Name: HCD
		Title: CIO
		Business Program: ITB
Select + to add business functions/processes.		

2.5.4 Current Architecture Diagram

Attachment: Attach file to email submission.

2.5.5 Security Categorization Impact Table

Attachment: Attach file to email submission.

SECURITY CATEGORIZATION IMPACT TABLE SUMMARY

SECURITY OBJECTIVE	LOW	MODERATE	HIGH
Confidentiality	☐	☐	☒
Integrity	☐	☐	☒
Availability	☐	☒	☐

2.6 Mid-Level Solution Requirements

Attachment: Attach file to email submission.

2.7 Assumptions and Constraints-	
Assumptions/Constraints	**Description/Potential Impact**
Sufficient project funding will be approved and remain available throughout the project lifecycle.	Funding will remain available as agreed upon throughout the project lifecycle. A lack of funding would end this project. It is assumed that required funding will be granted and timely made available.
There are many qualified vendors from which to choose once the competitive bid period is completed.	HCD assumes there will be multiple qualified and available vendors to bid. HCD's choices will be limited if the pool of qualified vendors is limited.
HCD Program staff will be available to participate in the project.	Program staff availability is essential to the Project success. It is assumed that HCD Program staff with the requisite skills and experience will be available during business hours (Monday through Friday from 8:00 a.m. to 5:00p.m.), excluding State holidays. Standard availability will provide a foundation for the success of project planning, implementation, post go-live evaluation, M and O transition and future operations.
Select + to add assumptions/constraints.	
2.8 Dependencies -	
Element	**Description**
Funding Approval	HCD is dependent on funding approval for the procurement and implementation of an enterprise solution to replace HCD's legacy applications. HCD also is dependent upon funding approval for the various supporting consulting services to assist during the HCD legacy system replacement.
Select + to add dependencies.	

2.9 Market Research

2.9.1 Market Research Methodologies/Timeframes

Methodologies Used To Perform Market Research (check all that apply)**:**

☐	Request for Information (RFI)	☒	Trade shows
☒	Internet Research	☐	Published Literature
☒	Vendor Forums/Presentation	☐	Leveraged Agreements
☐	Collaboration with other Agencies/state entities or governmental entities	☐	Other, specify:

Time spent conducting market research:	4 months
Date market research was started:	2/1/2021
Date all market research was completed:	5/31/2021

2.9.2 Results of Market Research

HCD conducted a broad evaluation of the market to capture pertinent information relative to this proposal. HCD conducted various market research efforts, including participating in product and solution demonstrations, internet research, and a review of leveraged agreements. Following is a summary of these efforts.

Product/Solution Demonstrations:

HCD coordinated several demonstrations of loan and grant management solutions to help attendees understand the various features and solution capabilities available.

HCD hosted demonstrations:
- CGI (3/17/2021)
- Salesforce (3/22/2021)
- ProLink (3/29/2021)
- Emphasys (4/30/2021)

The sessions included demonstrations of the products currently offered, which allowed an opportunity to better understand the capabilities currently available in the marketplace.

Internet Research Extensive:

HCD conducted Internet research, including researching additional information about the solutions vendors presented. This research helped validate vendor-provided demos and enhanced staff understanding of the capabilities of each demonstrated system. The research also confirmed vendor viability and details of each company's advertised project successes and failures where available.

Market Research Results:

HCD considered several criteria when selecting the best alternative for this proposal to allow HCD to meet the project goals and objectives, minimize risk, accelerate implementation timeframes, be cost effective, and align with the strategic direction of CDT, HUD, and HCD. A Software- as-a-service (SaaS) solution, replacing HCD's legacy systems is the best solution based on the criteria outlined above.

2.10 Alternative Solutions
2.10.1 Solution Type
☒ **Recommended**
2.10.2 Name
Alternative 1: Procure and implement a new Software-as-a-Service (SaaS) Solution
2.10.3 Description

HCD recommends the procurement, configuration and implementation of a Software-as-a-Service (SaaS) solution to achieve an enterprise Consolidated Housing Accountability Application to capture, organize, track, award, manage, and report on essential housing elements, Federal and State loans and grants, annual progress reports, and program financial information. Through market research evaluation and analysis, this approach was determined to be cost-effective and valuable in reducing key areas of project risk including requirements definition and organizational change management and eliminating the risk area of data conversion. Additionally, the SaaS solution would provide a flexible solution helping to ensure the system can continue to meet HCD's business needs as business processes mature and the technology landscape evolves.

Considering the lessons learned resulting from the GMS pilot implementation, HCD anticipates using a Request for Proposal (RFP) process to acquire a system integrator (SI) and cloud-based SaaS system. This solution must interface with other applications, as described in the midlevel non-functional mandatory requirements. The system must be a scalable, robust, data collection, management and real-time reporting system. HCD would release one or more solicitations to onboard a vendor(s) to configure and implement the SaaS and replace HCD's legacy systems. The existing business process diagrams, functional and system requirements, and other associated documentation developed during HCD's planning activities would be leveraged to streamline the SaaS configuration. HCD also anticipates the vendor(s) will develop "to-be" use case and/or user story documentation to support successful development and testing activities. HCD and ITB, with the guidance of CDT, would score the solicitation responses to determine the vendor(s) who could provide the best value with the least risk to the State is/are selected.

In addition to the procurement of the configuration/implementation vendor(s) for the SaaS, HCD would release supplemental solicitations for additional project support for Project Management, Independent Verification and Validation (IV&V), Testing, Organizational Change Management (OCM), and Training.

HCD's recommended SaaS solution approach would provide prioritized functionality by implementing the Minimum Viable Product (MVP) during the first year of the project. HCD would pursue additional incremental functional enhancements during subsequent iterations. This approach, rather than a "big bang" or "rip and replace" approach, reflects HCD's desire to minimize risk and maximize value through the release of prioritized functionality through incremental implementation using an agile development, test and implementation methodology. This approach will allow HCD to realize the benefits of key business process improvements, including online application submission and grant and loan awards early in the project. These early and significant process improvements would increase stakeholder confidence, constituent satisfaction, and Program Area adoption and support.

Approach (Check all that apply)**:**

☒	Increase staff – new or existing capabilities
☒	Modify the existing business process or create a new business process
☐	Reduce the services or level of services provided
☒	Utilize new or increased contracted services
☐	Enhance the existing IT system
☒	Create a new IT system
☐	Perform a business-based procurement to have vendors propose a solution
☐	Other, specify:

2.10.4 Benefit Analysis

Benefits/Advantages

Implementing a configurable SaaS product reduces the systems development time, project cost, and schedule risks.

SaaS products are tested for all defects and evaluated against elaborate usability tests and are ready for use on implementation.

SaaS products are vendor maintained and enhanced and maintenance and enhancement costs are included in the licensing costs.

Select + to add benefits/advantages.

Disadvantages

A SaaS product that meets all program requirements with no adjustments most likely does not exist.

A SaaS product likely will require customization and configuration to meet HCD requirements.

Costs might be greater based on the required customizations.

Select + to add disadvantages.

Anticipated Time to Achieve Objectives After Project Go-Live

Objective Timeframe

Objective Number	Within 1 Year	2 Years	3 Years	4 Years	Over 4 Years
1.1	☒	☐	☐	☐	☐
2.1	☐	☒	☐	☐	☐
3.1	☒	☐	☐	☐	☐
4.1	☒	☐	☐	☐	☐
4.2	☐	☒	☐	☐	☐
4.3	☐	☒	☐	☐	☐

Select + to add objectives.

Anticipated Time to Achieve Financial Benefits After Project Go-Live

Financial Benefit	Within 1 Year	2 Years	3 Years	4 Years	Over 4 Years
Increased Revenues	☐	☐	☐	☐	☐
Cost Savings	☐	☐	☐	☐	☐
Cost Avoidance	☒	☐	☐	☐	☐
Cost Recovery	☐	☐	☒	☐	☐

2.10.5 Assumptions and Constraints

Select + to add assumptions/constraints

2.10.6 Implementation Approach

Identify the type of existing IT system enhancement or new system proposed (check all that apply):

- ☐ Enhance the current system
- ☐ Develop a new custom solution
- ☐ Purchase a Commercial off-the-Shelf (COTS) system
- ☐ Purchase or obtain a system from another government agency (Transfer)
- ☒ Subscribe to a Software as a Service (SaaS) system
- ☐ Other, specify:

Identify cloud services to be leveraged (check all that apply):

- ☐ Software as a Service (SaaS) provided by OTech
- ☒ Software as a Service (SaaS) provided by commercial vendor
- ☐ Platform as a Service (PaaS) provided by OTech
- ☐ Platform as a Service (PaaS) provided by commercial vendor
- ☐ Infrastructure as a Service (IaaS) provided by OTech
- ☐ Infrastructure as a Service (IaaS) provided by commercial vendor
- ☐ No cloud services will be leveraged by this alternative. Provide a description of why cloud services are not being leveraged:

Identify who will modify the existing system or create the new system (check all that apply)**:**	
☐	Agency/state entity IT staff
☒	A vendor will be contracted
☐	Inter-agency agreement will be established with another governmental agency. Specify Agency name(s):
☐	Other, specify:
Identify the implementation strategy:	
☐	All requirements will be addressed in this proposed project in a single implementation.
☒	Requirements will be addressed in incremental implementations in this proposed project.
☐	Some requirements will be addressed in this proposed project. The remaining requirements will be addressed at a later date.
	Specify the year when the remaining requirements will be addressed:
Identify if the technology for the proposed project will be mission critical and public facing:	
☒	The technology implemented for this proposed project will be considered mission critical and public facing.
2.10.7 Architecture Information	

Business Function/Process(es)	Accurately capture, organize, track, award, manage, and report on essential housing elements, Federal and State loans and grants, annual progress reports, and program financial information.
Select + to add a business process with the same application, system, or component; COTS, MOTS or custom solution; runtime environment; system interfaces, data center location; and, security.	
Application, System or Component	System
	Select + to add an application, system, or component.
COTS, MOTS or Custom	SaaS
Name/Primary Technology:	SaaS

Runtime Environment	Cloud Computing Used?	☒ Yes ☐ No	If "Yes," specify:	Software-as-a-Service (SaaS)
	Server/Device Function	TBD		
	Hardware	TBD		
	Operating System	TBD		
	System Software	TBD		

Select + to add system software.		

System Interfaces	This solution must interface with other applications, as described in the midlevel non-functional mandatory requirements. The system must be a scalable, robust, data collection, management and real-time reporting system.
Data Center Location	Other
Other, specify	Vendor's Data Center

Security	Access (check all that apply)	☒ Public ☒ Internal State ☒ External State Staff ☐ Other, specify:
	Type of Information (check all that apply)	☐ Personal ☐ Health ☐ Tax ☒ Financial ☒ Legal ☒ Confidential ☒ Other, specify: Interest Rates and Calculations
	Protective Measures (check all that apply)	T Technical Security T Identity Authorization and Authentication T Physical Security TBackup and Recovery ☐ Other, specify:

Data Management	Data Owner	Name: Jennifer Seeger and Geoffrey Ross
		Title: Deputy Directors
		Business Program: DSFA and DFFA
	Data Custodian	Name: HCD
		Title: CIO
		Business Program: ITB

Select + to add business functions/processes.

2.10.1 Solution Type

☒ **Alternative**

2.10.2 Name

Alternative 2: Augment the existing Grants Management System (GMS)

2.10.3 Description

The alternative was evaluated as augmenting the existing HCD GMS system. The GMS system is in use for two Federal funding programs, CDBG and CDBG-DR.

Approach (Check all that apply)**:**

☒	Increase staff – new or existing capabilities
☐	Modify the existing business process or create a new business process
☐	Reduce the services or level of services provided
☒	Utilize new or increased contracted services
☒	Enhance the existing IT system
☐	Create a new IT system
☒	Perform a business-based procurement to have vendors propose a solution
☐	Other, specify:

2.10.4 Benefit Analysis

Benefits/Advantages

The GMS system is in use and additional modules can be added.

Many staff are already trained to use GMS.

The SaaS product is maintained and enhanced by the vendor, and the maintenance and enhancement costs are included in the licensing costs.

Select + to add benefits/advantages

Disadvantages

A Non-competitive Bid (NCB) procurement methodology must be used, which requires control agency approvals.

A SaaS product may not have the capability of supporting some of the HCD requirements and will require customization.

The GMS system may not have sufficient functionality and features to provide a comprehensive solution to replace HCD's legacy systems.

Select + to add disadvantages

Anticipated Time to Achieve Objectives After Project Go-Live

Objective Timeframe

Objective Number	Within 1 Year	2 Years	3 Years	4 Years	Over 4 Years
1.1	☐	☒	☐	☐	☐
2.1	☐	☒	☐	☐	☐
3.1	☐	☒	☐	☐	☐
4.1	☐	☒	☐	☐	☐
4.2	☐	☒	☐	☐	☐
4.3	☐	☒	☐	☐	☐

Select + to add objectives

Anticipated Time to Achieve Financial Benefits After Project Go-Live

Financial Benefit	Within 1 Year	2 Years	3 Years	4 Years	Over 4 Years

Increased Revenues	☐	☐	☐	☐	☐
Cost Savings	☐	☐	☒	☐	☐
Cost Avoidance	☐	☒	☐	☐	☐
Cost Recovery	☐	☐	☐	☐	☐

2.10.5 Assumptions and Constraints

HCD assumes it will be constrained to its current contractor to provide additional services, necessitating approval to conduct an NCB, which requires control agency approval. The current contractor will have to supply additional support services over its current contracted minimums. As such, HCD anticipates needing additional funds to modify GMS.

Select + to add assumptions/constraints

2.10.6 Implementation Approach

Identify the type of existing IT system enhancement or new system proposed (check all that apply)**:**

- ☒ Enhance the current system
- ☐ Develop a new custom solution
- ☐ Purchase a Commercial off-the-Shelf (COTS) system
- ☐ Purchase or obtain a system from another government agency (Transfer)
- ☒ Subscribe to a Software as a Service (SaaS) system
- ☐ Other, specify:

Identify cloud services to be leveraged (check all that apply)**:**

- ☐ Software as a Service (SaaS) provided by OTech
- ☒ Software as a Service (SaaS) provided by commercial vendor
- ☐ Platform as a Service (PaaS) provided by OTech
- ☐ Platform as a Service (PaaS) provided by commercial vendor
- ☐ Infrastructure as a Service (IaaS) provided by OTech
- ☐ Infrastructure as a Service (IaaS) provided by commercial vendor
- ☐ No cloud services will be leveraged by this alternative. Provide a description of why cloud services are not being leveraged:

Identify who will modify the existing system or create the new system (check all that apply)**:**

- ☐ Agency/state entity IT staff
- ☒ A vendor will be contracted
- ☐ Inter-agency agreement will be established with another governmental agency. Specify Agency name(s):

- ☐ Other, specify:

Identify the implementation strategy:

- ☐ All requirements will be addressed in this proposed project in a single implementation.
- ☒ Requirements will be addressed in incremental implementations in this proposed project.
- ☐ Some requirements will be addressed in this proposed project. The remaining requirements will be addressed at a later date.
  Specify the year when the remaining requirements will be addressed:

Identify if the technology for the proposed project will be mission critical and public facing:

- ☐ The technology implemented for this proposed project will be considered mission critical and public facing.

2.10.7 Architecture Information

Stage 2 Alternatives Analysis

Business Function/Process(es)	Accurately capture, organize, track, award, manage, and report on essential housing elements, Federal and State loans and grants, annual progress reports, and program financial information.
Select + to add a business process with the same application, system, or component; COTS, MOTS or custom solution; runtime environment; system interfaces, data center location; and, security.	
Application, System or Component	System
	Select + to add an application, system, or component.
COTS, MOTS or Custom	SaaS
Name/Primary Technology:	SaaS

Runtime Environment	Cloud Computing Used?	☒ Yes ☐ No	If "Yes," specify:	Software as a Service (SaaS)
	Server/Device Function	Solr Servers, Citrix NetScaler, SQL Server		
	Hardware	N/A		
	Operating System	N/A		
	System Software	eCivis application		

Select + to add system software	
System Interfaces	This solution will interact with interfaces as identified in the midlevel non-functional mandatory requirements to provide a scalable, robust data abstraction capable of interfacing and providing data in real-time.
Data Center Location Other, specify	Other – eCivis GMS data center

Security	Access (check all that apply)	☒ Public ☒ Internal State Staff ☐ External State Staff ☐ Other, specify:
	Type of Information (check all that apply)	☐ Personal ☐ Health ☐ Tax ☒ Financial ☒ Legal ☒ Confidential ☐ Other, specify:
	Protective Measures (check all that apply)	☒ Technical Security ☒ Identity Authorization and Authentication ☐ Physical Security ☒ Backup and Recovery ☐ Other, specify:

Data Management	Data Owner	Name: Jennifer Seeger and Geoffrey Ross
		Title: Deputy Directors of DSFA and DFFA
		Business Programs and DFFA
	Data Custodian	Name: HCD
		Title: CIO
		Business Program: ITB

Select + to add business functions/processes

2.10.1 Solution Type

☒ **Alternative**

2.10.2 Name

Alternative 3 – Procurement of existing system used in a different state

2.10.3 Description

This alternative is adopting, configuring, and supporting an existing system in use in a different state for the same business programs.

Approach (Check all that apply)**:**

☐	Increase staff – new or existing capabilities
☒	Modify the existing business process or create a new business process
☐	Reduce the services or level of services provided
☒	Utilize new or increased contracted services
☒	Enhance the existing IT system
☐	Create a new IT system
☐	Perform a business-based procurement to have vendors propose a solution
☐	Other, specify:

2.10.4 Benefit Analysis

Benefits/Advantages

Eliminates the systems development lifecycle and associated time, cost, and risks.

Potentially minimizes need for enhancements.

Decreases implementation timeframe as Product should be free of critical defects having gone through elaborate usability tests prior to implementation in the other state.

Potential cost savings as the software is in the public domain.

Costs should be limited to consulting services for configuration and annual subscriptions for underlying software.

Select + to add benefits/advantages

Disadvantages

Product may need significant modification to support California's unique laws and policies, which would eliminate the benefits of low customization and reduced risk.

Product vendor may have a monopoly on maintenance and operations of the solution if it was custom built.

Select + to add disadvantages

Anticipated Time to Achieve Objectives After Project Go-Live

Objective Timeframe

Objective Number	Within 1 Year	2 Years	3 Years	4 Years	Over 4 Years
1.1	☐	☒	☐	☐	☐
2.1	☐	☒	☐	☐	☐
3.1	☐	☒	☐	☐	☐
4.1	☐	☒	☐	☐	☐
4.2	☐	☒	☐	☐	☐
4.3	☐	☒	☐	☐	☐

Select + to add objectives

Anticipated Time to Achieve Financial Benefits After Project Go-Live

Financial Benefit	Within 1 Year	2 Years	3 Years	4 Years	Over 4 Years

Increased Revenues	☐	☐	☐	☐	☐
Cost Savings	☐	☐	☐	☐	☐
Cost Avoidance	☐	☒	☐	☐	☐
Cost Recovery	☐	☐	☐	☐	☐

2.10.5 Assumptions and Constraints

Procuring another state's application may result in requiring modifications to support California's unique laws and policies. In addition, the solution would require an Inter-Agency Agreement (IAA) with another State.

Select + to add assumptions/constraints

2.10.6 Implementation Approach

Identify the type of existing IT system enhancement or new system proposed (check all that apply):

- ☐ Enhance the current system
- ☐ Develop a new custom solution
- ☐ Purchase a Commercial off-the-Shelf (COTS) system
- ☒ Purchase or obtain a system from another government agency (Transfer)
- ☐ Subscribe to a Software as a Service (SaaS) system
- ☐ Other, specify:

Identify cloud services to be leveraged (check all that apply):

- ☐ Software as a Service (SaaS) provided by OTech
- ☒ Software as a Service (SaaS) provided by commercial vendor
- ☐ Platform as a Service (PaaS) provided by OTech
- ☐ Platform as a Service (PaaS) provided by commercial vendor
- ☐ Infrastructure as a Service (IaaS) provided by OTech
- ☐ Infrastructure as a Service (IaaS) provided by commercial vendor
- ☐ No cloud services will be leveraged by this alternative. Provide a description of why cloud services are not being leveraged:

Identify who will modify the existing system or create the new system (check all that apply):

- ☒ Agency/state entity IT staff
- ☒ A vendor will be contracted
- ☒ Inter-agency agreement will be established with another governmental agency. Specify Agency name(s): N/A

- ☐ Other, specify:

Identify the implementation strategy:

- ☒ All requirements will be addressed in this proposed project in a single implementation.
- ☐ Requirements will be addressed in incremental implementations in this proposed project.
- ☐ Some requirements will be addressed in this proposed project. The remaining requirements will be addressed at a later date.
  Specify the year when the remaining requirements will be addressed:

Identify if the technology for the proposed project will be mission critical and public facing:

- ☐ The technology implemented for this proposed project will be considered mission critical and public facing.

2.10.7 Architecture Information

Stage 2 Alternatives Analysis

Business Function/Process(es)	Accurately capture, organize, track, award, manage, and report on essential housing elements, Federal and State loans and grants, annual progress reports, and program financial information.
Select + to add a business process with the same application, system, or component; COTS, MOTS or custom solution; runtime environment; system interfaces, data center location; and, security.	
Application, System or Component	System
	Select + to add an application, system, or component.
COTS, MOTS or Custom	Modified off-the-shelf (MOTS)

	Name/Primary Technology:	TBD

Runtime Environment	Cloud Computing Used?	☒ Yes ☐ No	If "Yes," specify:	Select...
	Server/Device Function	TBD		
	Hardware	TBD		
	Operating System	TBD		
	System Software	TBD		

Select + to add system software	
System Interfaces	This solution must interface with other applications, as described in the midlevel non-functional mandatory requirements. The system must be a scalable, robust, data collection, management and real-time reporting system.
Data Center Location	Other - TBD
Other, specify	

Security	Access (check all that apply)	☒ Public ☒ Internal State Staff ☒ External State Staff ☐ Other, specify:
	Type of Information (check all that apply)	☐ Personal ☐ Health ☐ Tax ☒ Financial ☒ Legal ☒ Confidential ☐ Other, specify:
	Protective Measures (check all that apply)	☒ Technical Security ☒ Identity Authorization and Authentication ☐ Physical Security ☒ Backup and Recovery ☐ Other, specify:

Data Management	Data Owner	Name: Jennifer Seeger, Geoffrey Ross and Megan Kirkeby
		Title: Deputy Directors DSFA, DFFA, and HPD
		Business Program: DSFA, DFFA, and HPD
	Data Custodian	Name: HCD
		Title: CIO
		Business Program: ITB

Select + to add business functions/processes.

2.11 Recommended Solution

2.11.1 Rationale for Selection

HCD recommends procurement and configuration of an enterprise Software-as-a-Service (SaaS) solution to replace HCD's legacy systems to accurately capture, organize, track, award, manage, and report on essential housing elements, Federal and State loans and grants, annual progress reports, and program financial information. This alternative was chosen because it is considered the best value to HCD and meets all the objectives stated in the project's Stage 1 Business Analysis (S1BA) document. The recommended solution aligns with HCD's strategic direction regarding using Cloud services whenever possible and is aligned with the State of California's Cloud First policy. Additionally, the recommended solution was deemed to be the best fit considering the degree to which the solution satisfies the business objectives, leverages existing marketplace technology, provides an acceptable timeframe for implementation, and aligns with HCD's and the state of California Information Technology strategic direction. Through market research, it was determined that this approach will be cost-effective and valuable in reducing key areas of project risk, including poor quality legacy data, requirements definition, and organizational change management. Additionally, the SaaS solution would provide an open-architected and customizable solution helping to ensure the system can continue to meet HCD's business needs as technology and business processes mature along with State and Federal regulations.

HCD anticipates using a Request for Proposal (RFP) process to acquire the SaaS solution. The existing business process diagrams, functional and system requirements, and other associated documentation developed during HCD's planning activities will be leveraged to streamline the SaaS configuration . HCD also anticipates requiring "to-be" use cases and /or user story documentation to be developed by the vendor to support development and testing activities. HCD, with the guidance of CDT, will score the responses to the solicitation(s) to ensure the best value with the least risk to the State is selected.

HCD's recommended SaaS solution approach would provide prioritized functionality by implementing the Minimum Viable Product (MVP) during the first year of the project. HCD would pursue additional incremental functional enhancements during subsequent iterations. This approach, rather than a "big bang" or "rip and replace" approach, reflects HCD's desire to minimize risk and maximize value through the release of prioritized functionality through incremental implementation using an agile development, test and implementation methodology. This approach will allow HCD to realize the benefits of key business process improvements, including online application submission and grant and loan awards early in the project. These early and significant process improvements would increase stakeholder confidence, constituent satisfaction, and Program Area adoption and support.

Attachment: Attach file to email submission.

2.11.2 Technical/Initial CA-PMM Complexity Assessment

Complexity		Complexity Zone	
Technical Complexity Score:	2.6	☐ Zone I	Low Criticality/Risk
		☒ Zone II/III	Medium Criticality/Risk
		☐ Zone IV	High Criticality/Risk

2.11.3 Procurement and Staffing Strategy

Activity

Solicitation Development

Responsible (check all that apply)	When Needed (check all that apply)	Cost Estimate Verification (check all that apply)

☒ Agency/state entity staff ☒ STP staff ☒ CDT Project Approvals and Oversight staff ☐ CA-PMO staff ☐ DGS staff ☒ Contractor ☐ Other, specify:	☒ Stage 3 Solution Development ☒ Stage 4 Project Readiness and Approval ☐ After project is approved (after Stage 4 Project Readiness and Approval)	☒ Market research conducted (MR) ☐ Cost estimate provided (CE) ☐ CDT CE ☐ DGS CE ☒ Request for Information (RFI) conducted ☒ Comparable vendor services have been used on previous contracts (CV) ☒ Leveraged Procurement Agreement (LPA)

Complete Only if Contractor Responsible for Activity

Procurement Vehicle	Request for Proposal/Information Technology Consulting Services (ITMSA)	Contract Type	Fixed Price (FP)
If "Other," specify:		If "Other," specify:	

Independent Verification and Validation (IV&V)

Responsible (check all that apply)	When Needed (check all that apply)	Cost Estimate Verification (check all that apply)
☒ Agency/state entity staff ☐ STP staff ☒ CDT Project Approvals and Oversight staff ☐ CA-PMO staff ☐ DGS staff ☒ Contractor ☐ Other, specify:	☐ Stage 3 Solution Development ☒ Stage 4 Project Readiness and Approval ☒ After project is approved (after Stage 4 Project Readiness and Approval)	☒ Market research conducted (MR) ☐ Cost estimate provided (CE) ☐ CDT CE ☐ DGS CE ☐ Request for Information (RFI) conducted ☒ Comparable vendor services have been used on previous contracts (CV) ☒ Leveraged Procurement Agreement (LPA)

Complete Only if Contractor Responsible for Activity

Select + to add activities.

	Yes	No
Will any of the activities identified above result in a competitive or non-competitive solicitation that will be over the Agency/state entity's DGS delegated purchasing authority?	☒	☐

2.11.4 Enterprise Architecture Alignment

The recommended solution identified in this alternative's analysis document aligns with HCD's target enterprise architecture.

Information Technology Capability Table		
Information Technology Capability	**Existing Enterprise Capability to be Leveraged**	**New Enterprise Capability Needed**
Public or Internal Portal/Website	☐	☒
Public or Internal Mobile Application	☐	☒
Enterprise Service Bus	☐	☒

Identity and Access Management	☒	☐
Enterprise Content Management (including document scanning and eForms capabilities)	☐	☒
Business Intelligence and Data Warehousing	☐	☒
Master Data Management	☐	☐
Big Data Analytics	☐	☐

2.11.5 Project Phases

Phase	Project Approval

Description	Phase Deliverable
During the Project Approval phase, IT will complete and submit the required PAL documentation and request Agency and CDT project and funding approval.	• PAL Stage 1 Business Analysis – approved June 14, 2021 • PAL Stage 2 Alternative Analysis • Budget Change Proposal • Financial Analysis Worksheet

Phase	Initiating and Planning

Description	Phase Deliverable
Establish the HCD project team, solicit, hire and onboard consulting services to support procurement and project planning. Develop procurement and project planning approach and draft project charter.	• Procurement Approach • Project Planning Appriach • Project Charter • Project Scope • Project Objectives • Milestones and Deliverables • Work Breakdown Structure • Defined Project Roles and Responsibilities • Stakeholder Register • Budget • Human Resources Plan • Risk Management Plan • Communication Plan • Stakeholder Management Plan • Change Management Plan

Phase	Procurement Phase

Description	Phase Deliverable
Refine business requirements, conduct market surveys, develop and release RFP to select a solution. Procure solution. Solicit, hire, and onboard consulting services to manage and oversee all aspects of the project in collaboration with HCD from planning, configuration, implementation and post go-live evaluation through IV&V and transition to M and O.	• Market Research documentaiton • Solution Requirements • Required RFPs • Procured Solution • Onboarded Consulting Services

Phase	Configure and Implement

Description	Phase Deliverable
Using an agile development methodology, develop scope and sprints. This will continuously engage Project Stakeholders and Team members, soliciting timely feedback on each sprint to ensure the product backlog accurately and comprehensively reflects Stakeholder needs. Each sprint includes an initial review of the use case and/or user story inventory to ensure sufficient detail and acceptance criteria are documented to support sprint activities including: • Sprint documentation • Complete development • System, unit and integration testing • User acceptance testing (UAT) • Regression Testing	• Sprint work products (to be defined in Phase 3) • PMP updates as needed • Schedule updates • Status Reports • Training • Requirements Traceability • Defect and Enhancement Tracking System • Daily Scrum Meetings

Phase	Warranty and Maintenance and Operations

Description	Phase Deliverable
The transition to M and O will commence oonce the final group of use cases and/or user stories is migrated to production (post Configure and Implement Phased Enhancements P). During the M and O phase the SI will transition the system maintenance and operations to State staff. Knowledge transfer will occur throughout the project and staff training will be scheduled and conducted to prepare for the M&O transition.	• M and O Transition Management Plan • Training Plan • Delivered Training • Knowledge Transfer documentation

Phase	Ccloseout

Description	Phase Deliverable
The Close Out phase includes administrative closure and contract close out. At a later date the Post Implementation Evaluation Report (PIER) will be submitted to formally close out the project from a reporting perspective.	• Contract Close Out • Lessons learned • Finalized Risk Register • Issue Log • Recommendations for successful sustaining M and O

Select + to add project phases.

2.11.6 High Level Proposed Project Schedule

Proposed Project Planning Start Date:		**Proposed Project Planning End Date:**

Proposed Project Start Date:		Proposed Project End Date:	

Activity Name	Start Date	End Date
Stage 3 Solution Development		
Stage 4 Project Readiness and Approval		
Initiate/Plan		
Requirements ELDesign, Configure and Implement MVP		
Configure and Implement Phased Enhancements – Multiple Sprint Cycles		
Transition to Maintenance and Operations		
Close Out		
Select + to add activities		

2.11.7 Cost Summary

Total Proposed Planning Cost:	0
Total Proposed Project Cost:	$25,218,053
Total Proposed Future Operations IT Staff & OE&E Costs (Continuing):	$20,686,648
Total Proposed Annual Future Operations IT Costs (M&O):	$3,345,806

2.12 Staffing Plan

In this preliminary staffing plan, HCD identified how and when labor needs will be met to ensure the project has sufficient staff with the required skill sets and experience. Below are the identified roles and responsibilities. These roles and responsibilities will be further expanded in the project control documentation.

2.12.1 Administrative

HCD Contract Manager:
- Provides oversight of the SaaS subscription contracts
- Ensures HCD review and approval of contracts is completed on schedule
- Provides interpretation of project contracts to project team
- Recommends course of action on contractual issues
- Participates in procurement and contract meetings
- Monitors, analyzes and mitigates procurement-related risks and issues
- Leads the development of RFP solicitations
- Prepares and processes solicitation documents
- Participates in procurement and contract meetings
- Coordinates contract activities
- Communicates progress weekly to the PM
- Escalates issues and concerns to the PM

HCD Vendor Selection PM Consultant:
- Creates the Procurement Approach
- Creates and maintains solicitation document(s) including the Statement of Work
- Creates and maintains the evaluation and acceptance criteria
- Facilitates the evaluation of supplier proposals/offers
- Develops the evaluation and selection report
- Supports the procurement(s) and award as necessary
- Works with the HCD ITB/CDT teams and assigned staff as required

2.12.2 Business Program

HCD will provide program subject matter experts (SMEs) for the project who will work with the selected vendors, Project Managers and Project Management Consultant(s) to define business requirements, test and implement the solution. This team will be familiar with the programs' business needs and knowledgeable in the programs' business rules and requirements. Program Management, ITB, and the HCD Executive Team will assist in daily work reassignments and other workload assignments as needed to allow SMEs assigned to the project to fully focus their attention on project activities. For the project to be successful, staff must be dedicated to this project to ensure the availability and support necessary to ensure timely completion of tasks and responsibilities for project success.

HCD Executive Project Steering Committee and Sponsors:
- Champion, own and are accountable for the overall Project success
- Provide HCD executive support and strategic direction
- Establish and prioritize project objectives
- Ensure project is adequately funded
- Ensure sustained buy-in and project support across the enterprise at all levels
- Advocate for the project within the enterprise and with internal and external stakeholders
- Serve as the highest escalation for issues/decisions
- Ensure resources are available for risk management as needed
- Approve the Project Charter, PMPs, and significant changes in scope, cost or schedule
- Empower the Project Director(s) and Manager(s) with the appropriate authority
- Ensure an appropriately skilled Project Manager is selected for the project
- Provide final approval of project deliverables
- Chair Steering Committee

HCD Project Director:
- Provides project oversight
- Ensures deliverables and functionality are achieved as defined in the Project Charter and project plans
- Coordinates and ensures business organizational, policy, and procedure changes are implemented
- Facilitates sustained buy-in from business resources
- Ensures timely availability of needed business resources
- Ensures effective management of business resources assigned to the project
- Escalates decisions and issues, as needed, to the Project Sponsor
- Coordinates project-related issues with other efforts
- Reviews and resolves significant issues that the Project Manager or Team cannot resolve
- Works directly with the Project Manager to ensure project management practices are being employed, including risk management as identified in the Risk Management Plan
- Assists in resolving risks and/or issues that have been escalated to this level by the Project Manager
- Reviews changes to the Project Schedule

HCD Project Manager:
- Plans the Project, including the creation and maintenance of the PMP
- Ensures deliverables and functionality are achieved as defined in the governing documents
- Perform overall management of the project for HCD including day-to-day responsibility for activities within each phase, and management of the schedule for the project
- Acts as the principle interface to the contractors
- Accountable to the Project Directors and Project Sponsor for all Project Management Office (PMO) related activities
- Plans, directs, and oversees the day-to-day activities of the technical and program project teams
- Develops and/or oversees the master project schedule and all other project work plans
- Principal point of contact for control agencies, project contractors, and stakeholders
- Ensures that the project is implemented within the budget constraints

- Directs and manages project work in conformance with project scope, schedule, cost and quality and all other subsidiary plans incorporated into the overall Project Management Plan
- Accountable for the development, maintenance, and adherence to the PMO methodologies (e.g., processes, procedures, standards, and templates) that follow best practices and policies
- Communicates project progress weekly to the HCD Business Owners and HCD Project Sponsors
- Communicates project status to the HCD Project Sponsors, Project Team, Project Directors, HCD staff, and external stakeholders
- Reviews deliverables and change requests and makes a recommendation to the HCD Business Owners and HCD Project Sponsor
- Coordinate project and stakeholder resource needs
- Identify, assess, prioritize, and manage risks/issues

HCD Business Lead(s)
- Serve as Product Owners
- Represent the business to the SI and Vendor development team
- Manage product backlog
- Must be available to the development team at all time

The program SMEs selected from the DSFA, DFFA, HPD and the Administration and Management Division (AMD) will be dedicated to the project and include the following resources:
- Business Owner , Business Managers, Key decision makers on system functionality – All will work closely with the Project Manager and vendor team daily throughout the project lifecycle.
- SMEs will:
    - Serve as Specialists to recommend decisions on issues concerning business objectives; develop and agree to the project scope; review deliverables and recommend approval of deliverables and project acceptance
    - Support training and organizational change management consultant(s) and train staff on using the new system
    - Communicate process and procedural changes resulting from the new system implementation to trainees to help the users with the transition to the new system and processes.
    - Serve as user acceptance testers, develop test documentation and execute testing activities as prioritized by the Business Owners, Project Manager, Project Management Consultant, and Testing Consultant
    - Support Go/No-Go production implementation decisions

2.12.3 Information Technology (IT)

Department of Technology IT Project Oversight (ITPOC)
- Coordinate Department of Technology oversight activities
- Evaluate the Project to ensure that it is following a structured and defined approach
- Collaborate with the Project Manager regarding project risks, risk mitigation and contingency strategies, and issue monitoring, mitigation and resolution
- Provide feedback and direction as needed

HCD IT Project Director
- Ensures timely availability of required IT resources
- Facilitates sustained adoption and support from all IT resources
- Ensures effective management of all IT resources assigned to the project
- Escalates decisions and issues, as needed, to the Project Sponsor
- Reviews and resolves significant IT issues that the Project Manager/Project Team cannot resolve
- Works directly with the Project Manager to ensure project management practices are being employed, including Risk Management as identified in the Risk Management Plan
- Assists in resolving risks and/or issues that have been escalated to this level
- Reviews and approves changes to the Project Schedule
- Communicates project status to external stakeholders in cooperation with the HCD Business Project Director and HCD Project Manager

HCD Information Security Manager
- Coordinates HCD information security activities
- Reviews and analyzes security and privacy risks and proposed mitigation strategies
- Validates the adequacy of proposed security controls
- Ensures the proposed system development and implementation adhere to State security policies and guidelines
- Supports HCD ITB staff as needed

HCD Enterprise Architect
- Provides input to the overall architecture of the proposed solution
- Participates in the review and revision of technical design documentation
- Oversees alignment of the solution with the Enterprise Architecture goals of the Department
- Escalates issues and concerns to the HCD Project Manager and/or the IT Project Director

HCD IV&V Consultant
- Provides independent perspective for reviews and meetings
- Monitors project activities and documents and presents potential risks, issues and challenges
- Evaluates project's adherence to industry standard Project Management methodologies
- Evaluates project Risk Management efforts
- Evaluates project progress toward completion of the project

HCD Project Management Consultant(s)
- Manages the project for HCD including day-to-day responsibility for planning and coordinating activities within each project phase
- Leads the management and organization of State staff assignments
- Leads contractor oversight
- Tracks and reports deliverables status against the Project Charter and Schedule
- Is accountable to the HCD Project Manager, HCD Project Director, and HCD Executive Project Sponsor for all HCD PMO activities
- Plans, guides, and oversees the day-to-day internal activities that support the HCD PMO
- Provides guidance on PMBOK methodology and other industry-standard project management techniques

- Leads the effort to identify, document, manage and track risks and risk mitigation/contingencies on the project, leading risk identification sessions, ensuring regular reviews and follows the risk escalation process
- Oversees and coordinates the Change Management process
- Identifies resistance and performance gaps, and works to develop and implement corrective actions

HCD IT Technical staff (Business Analyst, Database Developers)
- Works closely with the Project Manager, Business Owners, and vendor to address technical related issues
- Determines IT team assignments and oversees execution of IT assignments
- Provides technical expertise as needed during configuration analysis and testing activities
- Performs testing activities
- Reviews technical related deliverables and recommends approval/disapproval of these deliverables
- Provides input as requested to Go/No-Go production implementation decisions
- Works with the Business SMEs to identify legacy data requiring correction and determines the most efficient and effective approach to modifying said data
- Executes queries on the HCD legacy system databases
- Helps the SI in the development, testing, and deployment of the interface(s) between the solution and other systems

2.12.4   Testing

HCD IT Testing Staff
- Collaborates with Project Manager and SI to develop and secures approval for the HCD Test Management Plan
- Sets up and maintains the test artifact repository
- Trains UAT SMEs team members on testing processes and procedures
- Works closely with the IT Test Coordinator, PM, PMC, Business Owners, SMEs, and SI vendor to facilitate all user acceptance test (UAT) related activities and production implementation verification
- Leads the planning and execution of all UAT Activities
- Collaborates with the SI Vendor in coordinating Go/No-Go decisions across the various State and vendor/consultant teams
- Works closely with the HCD T Management Consultant, SMEs, and SI vendor to provide guidance to all user acceptance test (UAT) related activities, develops plans and executes
- Provides guidance to the Test Management Consultant in the development of the HCD Test Management Plan and recommendations to the PM for approval/improvement/changes etc.
- Prepares test scripts with a focus on area of expertise
- Performs preparation and execution of testing activities
- Performs production validation activities
- Documents any issues identified in a defect and incident tracking tool

SI Vendor
- Responsible for creating a Master Test Plan to guide testing activities within their scope
- Performs unit testing, integration testing, system testing, security, regression, performance and load testing, and end-to-end testing
- Fully documents test activities and outcomes in the Project Repository

HCD Business SMEs
- Participate in requirements development, analysis and configuration meetings, demonstrations and working sessions to prepare for testing activities
- Serve as a Trainer for coworkers
- Participate in User Acceptance Testing

2.12.5 Data Conversion/Migration
GMS, eGrants, HETS, APR, CAPES data cleanup TBD

2.12.6 Training and Organizational Change Management

HCD anticipates a "Train-the-Trainer" approach will be used throughout the project, with the SI vendor providing thorough system documentation and training to the Business SMEs assigned to the project. SMEs will be responsible for developing training curriculum and documentation to support their training activities for users within their Program Area. System technical training and knowledge transfer will be provided by the SI vendor and other applicable consultants to HCD's ITB staff.

No significant business disruption or customer impact is expected during solution implementation or staff training:

SI Vendor will:
- Provide thorough system functional training to the Business SMEs assigned to the project
- Provide thorough system technical training and knowledge transfer to HCD identified technical SMEs

HCD OCM and Training Consultant(s) will

- Lead the Organizational Change Management and Training efforts required for project success
- Develop the OCM and Training Plans
- Create and execute a "Train the Trainer" methodology for the project
- Support the SMEs responsible for developing training curriculum and documentation to support their training activities for users within their respective Program Area (s)
- Work closely with the business owners and SMEs to develop a plan and execution strategy to support the changes required for the proposed solution
- Facilitate HCD staff awareness of, desire to, knowledge of, ability to and reinforcement of adoption and use of the new system and new processes and procedures to embrace and successfully use the new system.

2.12.7 Resource Capacity/Skills/Knowledge for Stage 3 Solution Development

HCD and CDT have the requisite experience to assist in the procurement activities for the PAL Stage 3 Solution Development effort. HCD procurement staff have robust experience working with the procurement vehicles identified for this project. Aside from leading the procurement phases of large projects with similar scope (CAPES and GMS), HCD staff have successfully executed the purchased many items using leveraged procurement agreements. HCD will assign dedicated resources to the project procurement effort who have extensive procurement knowledge and experience with the proposed procurement methodology, bidding, evaluation, contract deliverables, protest types and the use of Public Contract Code PCC 6611. HCD has in place a comprehensive governance framework which includes procurement-related and project-related decision-making protocols.

HCD has assigned a dedicated team to focus on development of the detailed functional, non-functional, and project transition requirements for PAL Stage 3. Members of this team have extensive business program knowledge and experience in detailed requirements definition, management, and traceability. This team also will define HCD-specific requirements processes to support requirement management, traceability, and verification throughout the Consolidated Housing Accountability Application Procurement Project.

The HCD PM will be actively involved in management, progress tracking, and risk management activities during HCD's completion of PAL Stage 3 activities. In addition, the HCD PM will develop all required project control documentation. The HCD PM has extensive experience and knowledge required to help ensure successful completion and submission of PAL Stage 3 documentation.

2.12.8 Project Management

2.12.8.1 Project Management Risk Assessment

Project Management Risk Score:	.5
Attachment: Attach file to email submission.	

2.12.8.2 Project Management Planning

Are the following project management plans or project artifacts complete, approved by the designated Agency/state entity authority, and available for Department of Technology review?

Project Charter	No
Scope Management Plan	No
Risk Management Plan	No
Issue and Action Item Management Plan	No
Communication Management Plan	No
Schedule Management Plan	No
Human Resource Management Plan	Not Applicable
Staff Management Plan	Not Applicable
Stakeholder Management Plan	No
Governance Plan	No

2.12.9 Organization Charts

Attachment: Attach file to email submission.

2.13 Data Conversion/Migration

Identify the status of each of the following data conversion/migration activities:

Data Conversion/Migration Planning	In Progress	Data Quality Assessment	Not Started
Data Conversion/Migration Requirements	Not Started	Data Quality Business Rules	Not Started
Current Environment Analysis	Not Started	Data Dictionaries	Not Started
Data Profiling	Not Started	Data Cleansing and Correction	Not Started

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Attachment: Attach files to email submission.

2.14 Financial Analysis Worksheets

Attachment: Attach file to email submission.

Preliminary Assessment – Department of Technology Use Only

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