Office of Physical Plant

Request for Proposal # JIL-PRCH-RFP-1167-B

Project Management Information System (PMIS)

August 14, 2017

Contents

1 Background and Objective

1.1 Request for Proposals

The Pennsylvania State University (PSU) Office of Physical Plant (OPP) is seeking a vendor to provide software and services to implement a web-based Project Management Information System (PMIS) to be used on all future design and construction projects, to improve the effectiveness of design and construction project teams, streamline the facility project process, accelerate turnover, and eliminate many of the project challenges experienced today.

1.2 OPP Overview

1.2.1 About OPP

The Office of Physical Plant (OPP) stewards more than 22,000 acres of land and approximately 32 million square feet of buildings across the University's 28 campuses and research centers spread throughout the Commonwealth. OPP serves more than 80,000 students and 50,000 faculty and staff. OPP's mission is to provide quality facility services and safety programs in support of the University's threefold mission of teaching, research, and service.

1.2.2 Current Project Information Challenge

Currently, OPP project teams work with multiple, disparate systems to gather project information and perform project management procedures related to cost, schedule and quality control. In 2011, OPP implemented IBM Tririga to handle cost control as it relates to the design and construction projects. To date, Tririga provides internal project funding and cost information, and basic contract administration, but lacks the integration and business intelligence tools to support timely, data-driven analysis and decision making. OPP Project Leaders must perform hands-on manipulation of project data in order to monitor progress and generate useful cost reports. Therefore, the PMIS selected will replace Tririga.

OPP does not have any standard tools, processes, or practices in place for organizing and managing its projects, other than the use of Tririga. During project turnover, OPP staff struggle to gather all the project documentation required to operate and maintain the facility. It is expected that the use of the PMIS will enable OPP to implement consistent, standardized processes and practices across all design and construction projects, from conception to close-out. To achieve this, the successful vendor will work with the OPP stakeholders to design and implement standardized workflow processes.

1.2.3 Users and Projects

The system will be utilized by all members of the OPP's project teams, including internal staff and outside service providers. OPP anticipates at least 1,500 PMIS users. Currently, OPP is managing approximately 1,600 projects and sub-projects in Tririga.

2 Glossary

Certain terminology is used throughout this RFP and shall have the following meanings:

- **Data** – Electronic information collected in or generated by the PMIS, which can be viewed, queried, analyzed, and reported. Examples include: data fields (i.e., text, numbers, list values, etc.) entered by participants in workflow processes or forms, calculated values generated by the PMIS, audit trail information generated by the PMIS, and all other machine-readable information in the PMIS.
- **Document** – An electronic file created by a software application and loaded into the PMIS. Examples include PDF, Microsoft Word, Microsoft Excel, CAD files, BIM files, photos, and other types of files.
- **Form** – A collection of related information, which has pre-defined data requirements and may include linked documents.
- **Workflow Process** – A collection of related information that includes one or more forms, additional data, and possibly linked documents. Processes may be generated and managed to completion using an enforced, predefined series of steps, participants, and data requirements at each step. Processes may have a single workflow step (i.e., submit only) or the steps and participants may be flexible and controlled by guidelines rather than system enforcement.

3 System and Implementation Requirements

OPP will use this system across all design and construction projects, from conception to closeout. In addition to the requirements in this section, refer to *Attachment A: Feature Matrix* and *Attachment B: Qualifying Questions* for more details on the system requirements of the PMIS.

3.1 Mandatory Requirements

The PMIS must provide certain fundamental functionality. See section 4.1 in Sourcing Director. By responding to this RFP, the vendor acknowledges that the proposed solution meets all of the mandatory requirements.

3.2 Implementation Requirements

The vendor will be responsible for providing all services required to successfully implement the full scope of the project, including:

- Requirements gathering and documentation
- Solution design
- System configuration and vendor testing
- Acceptance testing
- User documentation
- Training
- Support

OPP will assign a project manager to the implementation and that project manager will assist the vendor with coordinating OPP communications and approvals.

3.3   Phased Implementation

OPP intends to have the system implemented in two phases. Details of the scope of each phase, including estimated timeframes, are described in the following sections.

3.3.1   Phase 1

The first phase will focus on implementation of document management and business process management to support delivery of OPP's design and construction projects. OPP utilizes multiple project delivery methods including design-bid-build, design-build, CM-at-risk, IPD, CM Agency, and Job Order Contracting (JOC), which may result in the need for variants in some of the configuration and/or workflow processes.

Specific system functionality to be delivered in this phase includes the following items and associated workflows:

- General functionality, including:
    - Document management for all project phases
    - General correspondence and project issue tracking
    - Meeting management, including calendar feature, meeting documentation, and action item tracking
    - Schedule management
    - Mobile access
- Design phase functionality, including:
    - Design collaboration
    - BIM model sharing and review
    - Design milestone review management
    - Consultant invoice tracking (not linked to cost module in this phase)
- Construction phase functionality, including:
    - Requests for Information (RFIs)
    - Construction submittals
    - Bulletins/ASIs
    - Punch lists, QA/QC logs, safety
    - Potential change order and change order tracking (not linked to cost module in this phase)
    - Contractor Pay application tracking (not linked to cost module in this phase)
- Data Management and Turnover
    - Equipment data management, including collection and updates throughout project lifecycle
    - Data and document extraction at project closeout

3.3.1.1   Phase 1 Timeline

Phase 1 implementation is scheduled to commence immediately after contract execution and to be completed no later than October 2018.

3.3.2   Phase 2

The second phase will focus on implementation of cost management in the PMIS and integrations with other OPP financial and accounting applications. Phase 2 also includes the data migration from Tririga and ProCore to the PMIS.

Specific system functionality to be delivered in this phase includes the following information types and associated workflows:

- Capital planning
- Funding management, including allocations and approvals
- Budget management, including approvals and budget changes
- Agreement and contract management, including approvals and tracking of internal commitments and external commitments for professional services consultants and contractors
- Amendment and change order management, including approvals and tracking of potential changes, internal changes and external changes for professional services consultants and contractors
- Invoices, pay applications, and payments, including internal charges and approvals and tracking of external payments for professional services consultants and contractors
- Forecasting and cash flow
- Vendor management, including company information, diversity tracking, prequalification, and performance tracking
- Procurement/bidding
- Reporting, including cost reporting and historical performance reporting
- Integrations with other OPP systems (see *Integrations* section for details)
- Migration of data from Tririga and ProCore to PMIS

3.3.2.1   Integrations

OPP currently uses Tririga software to manage project costs. Tririga currently integrates with OPP's in-house developed billing/financial system (Abacus). It also integrates with the University Financial System (IBIS). PSU is in the process of selecting a new ERP application to replace IBIS.

As part of Phase 2 of the PMIS implementation, the Tririga software will be phased out and its functionality will be replaced with the PMIS. Current integrations with Tririga, which are expected to be required as part of the Phase 2 implementation, are described in *Table 1*. The specific integration requirements will be determined during implementation.

The existing integrations process uses OPP's Nexus application, an OPP-developed integration hub and scheduled task application that moves data from one system to another (performing any transform and

validation needed along the way) and executes certain tasks (regularly scheduled reports, data consistency checks, validation checks, and other periodic processes), records the results of those things (integration and task), and reports the results to those who are interested via email. It is expected that the Nexus middleware will remain in place.

Table 1 - Current integrations with Tririga.

Integration Name	Description	Integration Flow
Funding	Including CAFs (Construction Authorization Forms), SBFRs (Special Budget Funding Requests) and Fund Transfers	From Tririga to Nexus to Abacus
Vendor	Vendor address	From Tririga to Nexus to Abacus and IBIS
Job Numbers	Project billing number	From Nexus to Tririga
Budget Numbers	PSU Valid Account Numbers	From Central Accounting to Nexus to Tririga
Customer Billing Numbers	Accounting customer billing numbers (a 4-digit number which is linked to a budget number)	From Abacus to Nexus to Tririga
Contract PO Numbers	University generated purchase order numbers for Contracts and Agreements	From Nexus to Tririga
External Agreements	External [professional services] agreements and amendments	From Tririga to Nexus to Abacus and IBIS
Internal Agreements	Internal agreements with in-house Design Services	From Tririga to Nexus to Abacus
External Contracts	External [construction] contracts and change orders	From Tririga to Nexus to Abacus and IBIS
Internal Contracts	Internal contracts to manage internal labor costs	From Tririga to Nexus to Abacus Direct integration from the Tririga database to Maximo

Integration Name	Description	Integration Flow
AE Payments	Payments approved against AE agreements	From Tririga to Nexus to Abacus and IBIS
Contract Payments	Payments approved against construction contracts	From Tririga to Nexus to Abacus and IBIS
Actuals	Actuals and encumbrances	From Abacus to Nexus to Tririga
Miscellaneous Charges	Includes charges against the project such as purchase order (PO), journal vouchers (JV), internal labor/material charges, mail charges, meal charges, etc.	From Abacus to Nexus to Tririga
Direct Billing	Billable charges to PSU customer funded budgets from the OPP transfer budget, which is an internal OPP account that accumulates project costs	From Abacus to Nexus to Tririga
Projects	Project information	From Tririga to Nexus to Abacus
Pre-qualified Vendor Listing	Listing of Prequalified Vendors	Direct integration with Tririga database that displays information on the website

3.3.2.2   Phase 2 Timeline

Phase 2 implementation is scheduled to commence after the completion of Phase1 and conclude during 2020.

4   Proposal Requirements

Each proposal is to include the following sections.

4.1   Technical Proposal

4.1.1   Executive Summary

Provide an overview of the proposal describing the general approach or methodology for the implementation, and how the system will meet the goals and fulfill the requirements set forth in this RFP.

4.1.2   Vendor Implementation Approach

Provide a statement of understanding of the project scope and describe your proposed approach to implementing the entire scope of work. Identify participation required from PSU resources. Include any assumptions. Suggest innovative thoughts or ideas related to the approach, requirements, and/or schedule.

4.1.3   Implementation Schedule

Provide a proposed implementation schedule by phase, and include key milestones.

4.1.4   Attachment A: Feature Matrix

Using the provided Feature Matrix form, provide responses to all items.

4.1.5   Attachment B: Qualifying Questions

Provide responses to all parts of all questions. Include screenshots or illustrations where they would help explain your response, but only if they are directly related to the question. Please limit the response to each question to approximately one-half page, or one-full page if screenshots or illustrations are included.

4.1.6   Vendor Profile

Provide an overview of the company; its history; number of years in operation; litigation history; any parent, subsidiaries, or affiliations; current software and service offerings.

4.1.7   Diversity

PSU encourages diversity in the workforce, retaining diverse employees, and fostering a welcoming, nurturing, and inclusive work environment. Penn States' Statement on Diversity, Equity, and Inclusion can be found at http://equity.psu.edu/psu-diversity-statement. Provide details of your company's diversity policies and practices in hiring and subcontracting activity. Vendors are encouraged to share success stories in their response on how their company aligns with PSU's diversity philosophy.

4.1.8   Implementation Experience

Provide a description of three (3) comparable implementations. Strong preference for higher education. Include:

- Explain how customer is similar to OPP in terms of capital program size (in dollars and number of projects), number of system users, and number and types of system modules used
- Project description that explains the implementation scope and how it was effectively achieved and completed on time and within the allocated budget
- Dollar value of the project
- Dates and duration of the project
- Staffing, including vendor and any subcontractors used
- Contact name, position, company, telephone number, and email address

4.1.9 Service Provider References

Provide three (3) written testimonials from non-owner service providers (i.e., AEs, CMs, or contractors) reflecting satisfaction with your system supplied for their use by the owner.

4.1.10 Key Staff Resumes

Provide resumes of the key members of the proposed implementation team, indicating the number of years' experience in the architecture, engineering, and construction industry; number of years' experience with this product; and number of successful implementations completed.

4.1.11 List of Exceptions

State whether the proposal does or does not fully comply with all requirements set forth in this RFP. If applicable, list any exceptions to the scope of work or requirements, including identification of the page, section number, provision, and specific exception, noncompliance, or substitute language proposed. Failure to identify any specific exceptions will result in an assumption of full compliance.

4.1.12 Service Level Agreement

Include a copy of your Service Level Agreement (SLA).

4.1.13 License Agreement

Include a copy of your standard license agreement.

4.2 Price Proposal

The University intends to negotiate and execute a five-year contract with an option to extend for five additional years at one-year increments. No contract will be automatically renewable at the end of the contract term. Both the University and the Supplier will be required to provide intent of renewal or termination of the contract ninety (90) days prior to the expiration of the contract.

Pricing must include all software, licensing, hosting, data storage, maintenance, implementation services, training, support, software escrow, and any other anticipated costs. Include any assumptions made.

Provide your license costs per user and options for unlimited users. Describe license costs during implementation period (no users) and during initial rollout (less-than-full user count).

Please use the provided Microsoft Excel template to complete all parts of *Attachment C: Price Proposal*. The price proposal must be submitted as a separate file.

5 Procurement Approach

5.1 Procurement Timeline

Table 2 below lists the anticipated timeline for this RFP.

Table 2 – Procurement Timeline

Event	Date/Time
RFP Issued	August 14, 2017
Vendor Questions Due	August 21, 2017
Issue Response to Vendor Questions	August 30, 2017
RFP Response Due	September 15, 2017, 12:00 PM Eastern Time
Presentations	*October 17-18, 2017 (tentative)*
Vendor Selection	*End of October 2017 (tentative)*

5.2   Questions

Questions regarding this RFP are to be submitted using the Sourcing Director tool.

6   Evaluation

All proposals will be evaluated on the basis of "Best Value" to PSU. Refer to the Sourcing Director tool for evaluation information.

7   Proposal Requirements Checklist

Each respondent must submit adequate documentation to certify the respondent's compliance with the requirement of the RFP. Respondents should focus specifically on the information requested. Additional information, unless specifically relevant, may detract from, rather than enhance the overall evaluation.

The entire proposal must be submitted as multiple electronic files, as itemized below:

- File 1: **Technical Proposal, Part 1** in PDF format with bookmarks to include the following items, in the order listed:

  ☐ 4.1.1 Executive Summary
  ☐ 4.1.2 Vendor Implementation Approach
  ☐ 4.1.3 Implementation Schedule
  ☐ 4.1.5 Attachment B: Qualifying Questions
  ☐ 4.1.6 Vendor Profile
  ☐ 4.1.7 Diversity
  ☐ 4.1.8 Implementation Experience
  ☐ 4.1.9 Service Provider References
  ☐ 4.1.10 Key Staff Resumes
  ☐ 4.1.11 List of Exceptions
  ☐ 4.1.12 Service Level Agreement

☐ 4.1.13 License Agreement

- File 2: **Technical Proposal, Part 2** in Microsoft Excel format using the provided template, to include:

  ☐ 4.1.4 Attachment A: Feature Matrix

- File 3: **Price Proposal** in Excel format using the provided template, to include:

  ☐ 4.2 Attachment C: Price Proposal

8   Attachments

8.1 Attachment A: Feature Matrix

Please use the provided Microsoft Excel template. For each item in this section, respond by placing a "1" in the column indicating the extent to which the proposed solution matches the statement. Use the following response options (1-5) and enter only one response per item. If any responses are in the 2 or 3 column, provide an explanation.

Response Options:

1. Feature is not available.
2. Feature will be implemented in a future release. In Comments column, provide scheduled release date and indicate if cost of feature is included in the price quoted.
3. Feature must be customized during implementation. The customization can be completed within the OPP-required implementation period and is included in the price quoted.
4. Feature is available but is not yet used in customer production environments. Any necessary configuration is included in the price quoted.
5. Feature is available and is used in customer production environments. Any necessary configuration is included in the price quoted.

Section				Response					
▼	#	Feature	1	2	3	4	5	Comments	
Document Management									
	Organization								
	1	Documents can be organized into folders and subfolders, with an unlimited number of subfolders.					✅		
	2	Folder structures can be created in one step by dragging and dropping or uploading an entire folder structure from a user's computer.					✅		
	3	Templates can be applied to create a standard set of folders and permissions on one or more projects.					✅		

8.2 Attachment B: Qualifying Questions

Make sure to answer all parts of all questions. Include screenshots or illustrations where they would help explain your response, but only if they are directly related to the question. Please limit the response to each question to approximately one-half page, or one-full page if screenshots or illustrations are included. Responses must be formatted and numbered to coincide with the RFP.

8.2.1 Document Management

1. Describe methods in your system for uploading and downloading large numbers of documents. What methods exist for validating filenames and parsing filenames to populate document metadata? How can documents that require placement in specific folders and subfolders, be efficiently uploaded to the correct folders, subfolders? How can the destination folders and subfolders be efficiently created if they don't already exist prior to uploading the documents?

2. Describe how versions of documents are managed. How is a set of issued-for-construction documents maintained through all revisions created during the course of the project? Who can be allowed to update the documents? How are users notified of changes to documents? How can previous versions be accessed? If previous versions are attached to a workflow process, form, or other object in the system, how does the system ensure that the version that was originally attached remains attached, and how does the system identify any newer versions that may be available?

3. Provide a list of file formats and versions that are viewable in your document viewer. Provide a list of file formats that can be marked up in your markup tool.

8.2.2 Business Process Management

4. What standard workflow processes and forms are available in your system? To what extent can these be customized, including adding/removing data fields, adding/removing steps, adding/removing available actions to move between steps, changing participant roles?

5. Describe how the OPP system administrator can create new workflow processes and forms to be used in addition to, or in place of, the standard ones.

6. Describe how workflow processes are assigned to users and moved through the workflow steps. To what extent is the assignment pre-defined by the system administrator versus selected ad-hoc by end users during process routing? If a process instance is assigned to multiple users, do they all need to take an action for the process instance to move to another step, or can one user's action move the process? How are parallel reviews by multiple users in different roles handled?

7. Projects may run for several years and users involved in those projects may come and go. Describe how all of one user's work may be reassigned to another user when the first user leaves

permanently. Describe how individual tasks (i.e., process instances, forms, etc.) may be assigned from one user to another, even if the first user remains a member of the project. How does the system make clear which actions were taken by the originally-assigned user and which were taken by the replacement user? When a new user is added to a project, what access does that user have to information that pre-dated their arrival?

8. Multiple users may add comments and/or attach documents during various steps in the lifecycle of a workflow process. Describe how the system makes clear which comments and attachments were added by which users, when (date/time), and during which steps of the workflow process.

9. In some cases, a non-user of the system may need to be contacted to review a particular document or provide input on a particular workflow process or form instance. What options are available for non-users of the system to receive access to specific information (i.e., documents, workflow processes, forms, etc.) and to provide input directly back into the system?

10. OPP uses Bluebeam Revu Enterprise to manage reviews of milestone design submittals. Describe how your system handles collaborative reviews of design drawings, specifications, and other related documents. How are standard and one-off reviewers invited to review? How are individual comments captured, responded to, and closed out? What types of document markup and commenting tools are available (i.e., text, shapes, documents attached to specific areas of a drawing, etc.)? Can reviewers see other reviewers' comments/markups in real-time?

11. Construction submittals may go through several revise-and-resubmit cycles (i.e., versions), with some attached documents approved in each cycle. When each new version is submitted, only the documents that were not approved in the previous version are resubmitted. At the end of the process, all the approved documents must be easily identifiable. Explain how your system supports this functionality.

12. Explain how workflow routing for a process type can be different on different project types (e.g., RFI process on design-build project vs. RFI process on design-bid-build project)? If the workflow steps are different on different project types, how can the system automatically determine the appropriate routing? If the workflow steps are the same, but need to be executed by different role members, how can the system automatically assign to the appropriate users?

13. Describe how workflow process permissions can be configured to control access to specific steps of a workflow process so that it is initially blocked for users in specific roles and later made visible to users in those roles (e.g., a potential change order process is started by the project manager and must remain invisible to the contractor until the owner decides to request a proposal from the contractor). How do these access controls carry over to reports and audit trails?

14. Describe how data field permissions can be configured to control access to specific data fields within a process so that they are initially blocked for users in specific roles and later made visible to users in those roles, while always remaining invisible to some users (e.g., owner's estimate for a potential change order must remain invisible to the designer until the designer has developed their independent estimate; later, the owner's estimate can be made visible to the designer, but must always remain invisible to the contractor). How do these access controls carry over to reports and audit trails?

15. Describe how users can select which comments and documents attached to a workflow process or form are visible to other participants in that process or form (e.g., design consultant has solicited comments on an RFI process from subconsultants, but does not want those comments to be visible to the contractor). What if the design consultant wants to make one of the subconsultant comments visible to the contractor, but keep the others hidden?

8.2.3 Cost Management

16. Explain how funding is managed in the system. How can the total amount of funding available from each funding source be entered, updated, and reported, even if not all funding has been allocated to projects? How is funding allocated to individual projects and at what level within the projects (i.e., overall project, budget line items, individual commitments, etc.)? How is funding transferred from one project to another?

17. The funding source(s) for payment of an invoice can be assigned at time of payment and can be different than the funding source(s) assigned to the commitment for that invoice. Explain how the system supports this.

18. Each potential change order process has its own data, attached documents, comments, and status. Multiple potential change orders can be bundled into a single change order for bulk review and bulk approval. Explain how your system allows multiple potential change order processes to be bundled under a single change order process, and how approval of the change order can automatically approve all the included potential change orders.

19. Describe your system's available cost controls. What controls are available to prevent allocations of funding from exceeding available funding? What controls are available to prevent commitments from exceeding approved budgets? What controls are available to prevent invoices or actual costs from exceeding approved commitment amounts? What happens when these controls are exceeded and what options are available to the user to continue?

8.2.4   Data Management and Turnover

20. Explain how facility equipment, with different custom data fields for different equipment types, can be captured as data in your system. How does your system support the incremental updating of equipment data by multiple users throughout the project lifecycle? At the end of the project, this equipment data needs to be extracted, all or in part. Explain how your system supports the bulk extraction of specific equipment data based on equipment type?

21. At closeout, OPP needs to be able to extract a complete archive of the project, including but not limited to all project information, documents, data, and audit trails. The information needs to be in a format that is readable and searchable. Explain how such a complete project archive can be generated. Does it require the PMIS application or other special software to view and search? Is there any information that is accessible in the PMIS, which is not included in the archive? Can role-specific views be extracted (e.g., contractor's view of only data and documents they had permission to see)?

22. At closeout, OPP needs to be able to extract specific documents and data for transfer to other systems for operations and maintenance (e.g., DocFinity, Maximo, etc.). The information extracted in this case would be limited to certain documents and data (e.g., approved construction submittals, warranty documents, O&M manuals, equipment item data, etc.), which exist in multiple document folders and multiple workflow process and forms. Explain how your system supports the bulk extraction of specific documents based on their type and approval status (e.g., only extract approved documents attached to approved construction submittal items). Explain how your system supports the bulk extraction of data based on type and approval status.

8.2.5   Mobile

23. Explain how the system can be accessed from mobile devices including smartphones and tablets. Do you have a dedicated mobile app and/or a mobile-optimized browser interface? Which features of the full system are available in your mobile application and which features are not available? Does your mobile solution work on iOS and Android phones? On iPad and Surface tablets?

24. What options are available for working offline in the mobile application? How can users retrieve a local copy of documents and data while online, and access that information while offline (e.g., access construction drawings, RFI processes, etc.)? How can users stage draft responses to workflow process and forms while offline and later post that information when online? How can users stage new information (i.e., documents, data) while offline and later post that information when online (e.g., add and update punch list items while offline)?

8.2.6   Reporting and Dashboards

25. Provide a list of your system's most commonly-used and standard reports for all modules.

26. How are reports developed for custom workflow processes, forms, and data, which are not part of the standard configuration? Who can create reports for these items? Are there any limitations to what can be reported? Are access controls maintained?

27. Explain how reports and/or dashboards, which include both graphical elements (i.e., charts) and tabular elements from multiple modules, can show summaries of key program and project information. To what extent are these reports/dashboards interactive, such that users can drill down into deeper levels of information, can roll up to more summarized information, and can apply filters at run-time to easily change options without having to create a new report/dashboard?

28. Certain users may want to be automatically notified about projects, workflow processes, forms, and cost data that meet specific conditions (e.g., members of a specific technical review group want to be notified when projects that include work in their discipline will start construction in the near term; a director may want to be notified when actual costs reach a specific percent of committed amount; etc.). Describe how your system can automatically provide such notifications. Can users configure such notifications for themselves, or does a system administrator need to configure them?

8.2.7   Integrations

29. Describe options for integrating your system with other applications. Include discussion on types of exports and imports including file-based transfers and direct connections using application programming interfaces (APIs). Include discussion of options and recommendations for scheduling and frequency of transfers. Are there any limitations in terms of throttling, size of data set, and/or timing of transfers?

30. List the ERP applications that have been successfully integrated with your system. For each application, describe the integration.

8.2.8   Technology Platform and Operations

31. Describe your hosting facility including characteristics, location, operator, and physical site security. What regular audits do you and/or third-parties conduct on your hosting facilities?

32. Describe your process for system upgrades and maintenance. Are there regular maintenance periods and when are they scheduled? Do updates affect the service level and, if so for how long? How are customers and users notified of upcoming maintenance and how long in advance?

33. Describe the long-term strategic plan for your system. What is your strategic vision for the next Ten(10) years?

34. Describe your process for release of new system features. Are there regular releases and how frequent? Provide a list of updates and new features introduced over the past twelve (12) months. How are customers and users notified of upcoming releases and how long in advance? What opportunities do customers have to test the upcoming features prior to release? Can customers test upcoming features with their configurations and data?

35. Describe the security measures used to ensure safety of data, during transmission and at rest.

36. Describe your backup, basic recovery, and disaster recovery procedures. Assuming loss of the primary data center, how long would it be before OPP was back in operation? What would be the maximum data loss in terms of hours? What guarantee do you provide for overall system uptime, network availability, and maximum response time to reports of problems?

37. Describe the architecture of the proposed solution, including major hardware and software components and any third party products. Does the system use a multi-tenant or single tenant architecture? Please provide a system architecture diagram.

38. Describe the minimum and recommended hardware and software requirements, including supported operating systems, browser applications and versions. Do any software applications need to be installed? Are any plug-ins or add-ons required to use the system features as proposed? Do users require administrator or super-user permissions to their computers to use the system?

39. Describe the support package included in your pricing, including hours of support, who may contact support, and how requests are prioritized and escalated. What are your goals and average times for resolution of support requests? What are your goals and average times for resolution of confirmed product defects? Do you provide support details and metrics to the customers for support provided on their account?

40. OPP is a champion of PSU's commitment to sustainability. Discuss measures taken within your own organization and at your data centers to minimize environmental impacts, including greenhouse gas emissions, water use, waste, and recycling. What metrics or methods are used to determine effectiveness of these measures tied specifically to IT energy infrastructure and equipment in the data center facilities?

8.2.9　General

41. Describe and provide examples of the types of customizations that could not be configured by the OPP system administrator and which would require the vendor to configure.

42. Describe how templates can be used to set up new projects and update existing projects. Can any existing projects be used to set up a new project? Can multiple templates or existing projects be

applied and only selected parts of the template or existing project be used to set up only those parts of a new project?

43. Explain how your system handles hierarchical relationships between projects, including relating sub-projects to master projects, viewing and rolling up projects by program, campus, building, etc.

44. Explain how permission roles are configured. How can a user have the same role on all projects (e.g., user is always a director, regardless of project)? How can a user have the combined permissions from multiple roles on one project and only the permission from one of those roles on another project (e.g., user is both a director and a project manager on first project, and is only a director on second project)? How can a user have permissions from different roles on different projects (e.g., user is a contractor on one project, a construction manager on another project, and a subcontractor on another project)?

45. Explain how access to documents and data are configured. What permission levels are available for documents? How is a user's access to a particular module, workflow process, and form controlled? How is a user's access to individual instances of a workflow process and form controlled? How is a user's access to data fields and attached documents within a workflow process and form controlled?

46. Your system may have features that this RFP is not requesting, but which may be of interest to OPP in the near or distant future. Provide a list of all available system modules and identify those that are included in this proposal and those that are not. For any module not included, indicate if adding that module has an additional cost.

47. Certain documents, such as contracts, may require signed approvals. What types of electronic approvals are available in your system, including user authentication features, graphical signature "stamps", true digital signatures with encrypted certificates from signature authorities, etc.?

48. Describe training or certification programs available for System Administrators, along with any associated costs for these programs not included with the price proposal.

8.3 Attachment C: Price Proposal

Please use the provided Microsoft Excel template to complete all parts of the Price Proposal.

	Vendor Comment	Phase 1 Implementation Year 1	Phase 2 Implementation Year 2	Year 3	Year 4	Year 5	Option Year 6	Option Year 7	Option Year 8	Option Year 9	Option Year 10	TOTAL
Software												$ -
User licenses - per user (not included in TOTAL below)												
User licenses - unlimited users												$ -
Hosting												$ -
Data storage												$ -
Escrow												$ -
Other one-time software-related fees (please specify)												$ -
Other recurring software-related fees (please specify)												$ -
Phase 1 Implementation												$ -
Requirements gathering, documentation, solution design												$ -
System configuration, testing, acceptance												$ -
User documentation												$ -
Training												$ -
Phase 2 Implementation												$ -
Cost module and business processes:												$ -
Requirements gathering, documentation, solution design												$ -
System configuration, testing, acceptance												$ -
User documentation												$ -
Training												$ -
Integrations:												$ -
Requirements gathering, documentation, solution design												$ -
Configuration, testing, acceptance												$ -
Integration documentation												$ -
Training												$ -
Data migration:												$ -
Requirements gathering, documentation, planning												$ -
Configuration, testing, acceptance												$ -
Execution of migration, acceptance												$ -
Support and Maintenance												$ -
Support												$ -
Annual upgrades												$ -
Maintenance (e.g., integrations, etc.)												$ -
Other Costs (please itemize)												$ -
												$ -
												$ -
												$ -
												$ -
TOTAL (not including per-user licenses)		$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Hourly professional services rates for:												
Consulting												
Development/integration												
Training												
Other (please specify)												