



Prepared for the
Service Center Program
San Antonio Water System
San Antonio, TX

Project Management Plan (PMP)
For
Phase 4: Service Center Project

Version 3.3

May 2023



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Exhibit 8
Project Management Plan
Phase 4: Service Center Program – Leon Creek WRC Facility Improvements

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SECTION 1 - OVERVIEW

Objective and Purpose

The objective of the Project Management Plan (“PMP”) is to provide uniformity in the application of project management practice, from the top owner level, for each project within SAWS Service Centers Program. APSI, SAWS’ Program Manager, has developed this PMP based on the Project Management Institute’s “Guide to the Project Management Body of Knowledge” (PMBOK® Guide) to provide broad overarching guidance for the general management of this Project.

This tailored PMP applies to all projects managed by, subcontracted and/or performed under this Project, and applies to the Program Manager, the Design-Build Firm, and third-party contractors who join the program via specific project contract awards for services by SAWS.

This PMP delineates the project organization, the elements of Owner’s and Program Manager’s team, organizational and systems tools/support, and provides guidance on the management processes and procedures for this Project. This PMP will be updated in the future as additional contractors are added by SAWS. At that time those members, roles, responsibilities, and authorities will be added to this document.

Definitions of terms not already defined in the Design-Build Services Agreement but that are used in this PMP are contained in Appendix B. In the event there is any inconsistency or disagreement between the Design-Build Services Agreement and this PMP, the Design-Build Services Agreement shall control. For purposes of clarification any process or procedure provided for in this PMP is to be considered as being in addition to the requirements of the Design-Build Services Agreement and shall not in any way supplant the requirements of the Design-Build Services Agreement.

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SECTION 2 – SCOPE OF WORK

2.1 SAWS SERVICE CENTER PROGRAM

The Service Center Program as defined by the Design-Build Services Agreement means Owner’s program commenced in 2012 for the design, construction, renovation and delivery of all of Owner’s new and upgraded operations centers. The third phase, Phase 3, is as follows:

Phase 3 of the Service Center Program, shall be as defined in the Design Build Services Agreement as the “Project” means the design and new construction of Owner’s Leon Creek WRC Facility Improvements and related facilities, and demolition of certain existing facilities and associated remediation and site construction. This is further described in the Design Criteria Package (“DCP”) (Exhibit 1). These service centers constitute Phase 4 of Owner’s Service Center Project, to be designed and constructed for overall management and operation by the Owner.

The Project shall be designed and constructed in accordance with the most current LEED for New Construction and Major Renovations, such that these Program Phases achieve at least an equivalency of “Silver” certification by the USGBC and GBCI as required by the Design Build Services Agreement and as described in the Design Criteria Package (“DCP”) (Exhibit 1)

The Project will undergo third party commissioning, performed by Program Manager, supported by the Design-Build Firm with time in the Project Schedule and coordination as required. In accordance with the Design-Build Services Agreement, a certificate of Final Completion shall not be issued until all this third-party commissioning is successful.

2.2 PROGRAM MANAGER

The Program Manager has the obligation to assist the Owner in the oversight and management of the Service Center Program and has authority to manage and communicate with the Design-Build Firm on Owner’s behalf in accordance with the Program Management Services Agreement. Unless otherwise directed by Owner, the communications of the Design-Build Firm with respect to the Services and Work shall be directed to the Program Manager, who shall be the single point of contact to Owner for the Design-Build Firm and Design-Build Firm Parties provided, however, nothing in this PMP shall be construed to limit or restrict the right of Owner to communicate directly with a Design-Build Firm at any time.

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SECTION 3 – COMMUNICATIONS PLAN

3.1 CONTACTS

The following are the main contacts on the Project Team. This list should be updated as necessary.

Owner:

San Antonio Water System (SAWS)
2800 US Hwy 281 North
San Antonio, TX 78212

- SAWS Project Manager: Julie Valadez, RA, AIA, Julie.Valadez@saws.org, (210) 233-3078

Program Manager:

APSI Construction Management
12902 Elmington Drive, Cypress, TX 77429

- Project Executive: Robert Morse, robert.morse@apsicm.com, 713-301-9157
- Sr. Project Manager (SPM): Steve Gatto, steve.gatto@apsicm.com, 830-431-1116
- Architectural Representative: Geof Edwards, RA, AIA, Geof.Edwards@alta-architects.com, 210-349-1163

Design-Build Firm “**Key Personnel**” shall be defined as follows: (info to be provided and finalized prior to Notice to Proceed, thereafter updated as required)

Design-Build Firm Project Executive:

- Design-Build Firm Project Manager:
- Design-Build Firm Pre-Construction Manager:
- Design-Build Firm’s DPOR Project Architect:
- Design-Build Firm’s DPOR Project Manager:
- Design-Build Firm’s Senior Superintendent:
- Design-Build Firm’s Assistant Superintendent:
- Design-Build Firm’s Assistant Project Manager:
- Design-Build Firm’s Project Engineer:
- Design-Build Firm’s QC Lead (Design and Construction):
- Design-Build Firm’s Safety Manager:
- Design-Build Firm’s Chief Estimator:
- Design-Build Firm’s Senior Estimator:
- Design-Build Firm’s Estimator:
- Design-Build Firm’s Project Controls Coordinator:

3.2 INITIAL MEETINGS WITH OWNER AND PROGRAM MANAGER

Within seven (7) Days of Notice to Proceed with Design Services, the Design-Build Firm shall meet with the Owner and Program Manager to introduce all Design-Build Firm’s Key personnel, get personnel badged through SAWS’ security protocol for site access, become familiar with the communication protocol and this PMP for the Project, and receive training in access and use of the CPMS. The communication protocol

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process/procedure shall be provided in writing and the Design-Build Firm staff shall receive training on it, specifically:

- proper points of contact and copies for major topics,
- the process for oral and written communications,
- CPMS use to further the communication process and to automatically perform proper distribution,
- Reviewing and establishing drawing exchange protocols CAD & BIM standards,
- Process to upload Project correspondence, documentation, and submittals in the project records (document control within the CPMS), and
- Submitting Applications for Payment and Invoicing within the CPMS
- formal plans and processes to be developed and followed in the Project,
- Review of the CDRL exhibit
- Meeting with SAWS' SWMVB Manager and review of report process in S.P.U.R.
- Tracking of any deviation from the DCP

PROJECT and DCP REVIEW MEETINGS

Within seven (7) Days of Notice to Proceed, the Design-Build Firm shall attend initial meetings with Program Manager and Owner as necessary to discuss the Design-Build Firm's review of the DCP and forthcoming DCP Acceptance and Design Approach Submittal. In connection with such efforts, the Design-Build Firm shall provide the following:

- Cost savings opportunities such as costs of alternative materials or designs, that would benefit the Project.
- Methods of verification for determining that the requirements and responsibilities of the Design-Build Firm and all Program requirements in the DCP are accurately incorporated into the GMP and Drawings and Specifications
- Subcontracts and any other Design-Build Services Agreement documents associated with the performance of Work in connection with the Project.
- Template and schedule for the next deliverable: DCP Acceptance and Design Approach Submittal_Report
- Template of spreadsheet to track DCP variances as a result of the Design-Build Firms Approach Submittal, and as defined in the Design-Build Services Agreement as a tool to track any proposed variances or inconsistencies in design between the DCP, the Design Approach Submittal, and Owner's prior service centers which shall be organized in a spreadsheet with reference to drawing or specification section.

3.3 OTHER CONTRACTORS

As additional contractors are added to the Project by the Owner, or the Design-Build Firm (such as for FF&E, specialty contractors, etc.), the contact information shall be provided to the APSI Senior Project Manager (SPM) within 10 business days and this contact information shall be added by the SPM or Program Manager team as the SPM authorizes and directs. This shall be updated in CPMS so that the Project contact list is current and relevant.

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SECTION 4 – PROGRAM TEAM ORGANIZATION

4.1 ORGANIZATIONAL TABLE

KEY PERSONNEL	PROJECT ROLE	FIRM
Julie Valadez	SAWS Project Manager (PM)	SAWS
Robert Morse	Project Executive	APSI
Steve Gatto	Senior Project Manager (SPM)	APSI
Geof Edwards	Architectural Representative	Alta Architects
	Design-Build Firm Project Executive	
	Design-Build Firm Project Manager	
	Design-Build Firm Preconstruction Manager	
	Design-Build Firm Superintendent	
	Design-Build Firm Assistant Superintendent	
	Design-Build Firm Assistant Project Manager	
	Design-Build Firm Project Engineer	
	Design-Build Firm Chief Estimator	
	Design-Build Firm Estimator	
	Design-Build Firm QA/QC Manager	
	Design-Build Firm CPMS/Document Control Coordinator/Project Admin	Guido Construction
	Design-Build Firm Safety Officer	
	DPOR Architect	
	DPOR Architect	

4.2 PROGRAM MANAGER RESPONSIBILITIES

Program Manager SPM

The SPM is the senior program manager staff member at the project site(s), responsible for the performance of all Program Manager team personnel on the project and is the primary liaison between the DB firm and SAWS, he is directly responsible to the SAWS Project Manager and to the SAWS Contracting Officer for confirming or denying timely and accurate delivery of all DB contract deliverables, for design/construction, and quality oversight, owner’s inspection, CPMS operation, and DB Firm substitution request/order recording/analysis/reporting/submittal reviews/ RFI reviews. He is directly responsible for overall progress reports, DB pay request processing, facility acceptance, facility commissioning, coordination of FF&E installation, SAWS move-in, and ongoing implementation recommendations to SAWS.

In an oversight/review role, the Project Manager:

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• Is the main liaison and first point of all communication between the Design-Build Firm and SAWS.

- Maintains current version of the schedule for SAWS Service Center Program
- Oversees the use of the CPMS by Design-Build Firm and that only proper parties are allowed access.
- Ensures all RFIs, ASKs, Submittals, Substitutions, CCDs Pay Applications, and other key documents are processed through the CPMS.
- Produces Program Manager's Monthly Report
- Assists the SAWS SMWVB office with DB firm's compliance with SMWVB goals.
- Ensures receipt of and provides review of Design-Build Firm's schedule submissions and pay requests to SAWS in CPMS
- Provides meeting agendas and action item/decision result memos during the Design Phase
- Observes the Design-Build Firm's regular safety compliance review/oversight and reporting on field efforts, updates SAWS on such, and issues stop notices as appropriate.
- Supports briefings to senior SAWS executives by SAWS PM, including briefing development.
- Archives CPMS material when needed.

4.3 DB TEAM ROLES and Responsibilities

(info to be provided and finalized prior to Notice to Proceed, thereafter updated as required)

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SECTION 5 – RESERVED FOR INTERNAL USE

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SECTION 6 – DESIGN-BUILD FIRM’S REQUIRED PROCEDURES AND PLANS

REQUIREMENTS, CPMS, CAD/BIM AND PLANS

Table A: PLAN AND MANUAL DELIVERY SCHEDULE

<i>Para number</i>	<i>Plan/Manual</i>	<i>Initial due date</i>	<i>Update date</i>
6.1.5	Quality Control Plan	For negotiations	Prior to construction NTP
6.1.6	Cost Control Plan	With CDRL 2	Prior to construction NTP
6.1.7	Materials & Equipment Mgmt Plan	With CDRL 2	Prior to construction NTP
6.1.8	Safety Plan	For negotiations	Prior to construction NTP
6.1.9	Emergency Response Plan	With CDRL 2	Prior to construction NTP
6.1.10	Project Site Logistical Plan	With CDRL 2	Prior to construction NTP
6.1.11	Permitting Plan	With CDRL 2	Updated for each CDRL design submittal
6.1.12	Risk Mgmt & Mitigation Plan	With CDRL 2	Prior to construction NTP
6.1.13	Design-Build Firm Procedures Manual	For negotiations	N/A
Exhibit 10	LEED Equivalency Plan	Per Design Build Services Agreement	Per Design Build Services Agreement

6.1 **Project Management.** The Design-Build Firm will perform its Services and Work and manage the Project in accordance the Design-Build Services Agreement and with the following plans, procedures, guidelines, and protocols:

6.1.2 **Project Management Plan.** Design-Build Firm will comply with the requirements and processes/procedures of the PMP, as developed and updated by the Program Manager and approved by the Owner, for the organized and proper management of the Project. Design-Build Firm shall cooperate with Program Manager in the implementation of the PMP as it relates to the Project, with the objective of maintaining orderly and proper communication, proper document control, and compliance with the scope of the plans listed in Table A, for quality, expedited delivery of the Project.

6.1.3 **Use of the CPMS.** The Design-Build Firm and Design-Build Firm Parties shall use the CPMS, as specified by the Owner and implemented by Program Manager, to provide Owner, Program Manager, and their representatives real time access to all Project information, oversight of all Project data, and general communications throughout the completion of the Project. Design-Build Firm has included in its General Conditions the cost of licenses for the appropriate number of users (seats) for its use of the CPMS as required by the Design-Build Services Agreement. Design-Build Firm shall comply with the requirement of the Design-Build Services Agreement regarding CPMS Meeting and Training.

Program Manager will oversee and review all Project documentation in this system.

The Design-Build Firm and other contractors shall use the CPMS maintained by the Program Manager. The Design-Build Firm shall, without exception, process and track within the CPMS, prior to final approval and Final Completion certification all Project related written documentation and deliverables, including, RFIs, submittals, ASIs, ASKs, Project written correspondence, pay requests, complete design submittals as defined in the CDRL, current construction drawings and specifications, and as-built’s. Responses from the Design-

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Build Firm or Design-Build Firm's Parties, from the DPOR, from the Program Manager, Architectural Representative, and/or from SAWS will be transmitted via the CPMS.

6.1.4 Use of CAD and BIM Technology. The Design-Build Firm shall use and apply computer-aided design (CAD) standards, symbology, and compatibility requirements and building information modeling (BIM) shared file systems, and shall submit their firm's CAD/BIM manual, which shall be a referenced supporting document of the PMP, once the Design-Build Firm is awarded. Design-Build Firm shall provide to the Project Team, free of charge, electronic access to use and make copies of BIM data and electronic files of Construction Documents, subject to their prior execution and compliance with the BIM Protocols (Exhibit 2 to the Design-Build Services Agreement), with respect to such data and electronic files, in accordance with the Design-Build Services Agreement.

The Design-Build Firm *** shall comply with the BIM Protocols (Exhibit 2 to the Design-Build Services Agreement), and maintain and make available to the Project Team, at no additional cost, access to and the use of the data maintained in the BIM, to expedite, manage and coordinate the transfer and exchange of technical data, construction cost estimating and scheduling information among the Project Team with a view toward early identification and resolution of design conflicts, inconsistencies, and interface issues, to update the Control Estimate and Project Schedule where shown in Exhibit 10 (Contract Data Requirements List) and for the GMP.

Design-Build Firm shall use the CPMS system to coordinate and facilitate transfer to Owner of the complete BIM model and As-Built Drawings in electronic native CAD format and in PDF printable format, in accordance with the Design-Build Services Agreement.

6.1.5 Quality Control Plan. Design-Build Firm shall develop and submit its comprehensive Quality Control Plan to the Program Manager for review and Approval which must be obtained and approved before issuance of the Owner's Notice to Proceed. The Design-Build Firm shall make such improvements in its Quality Control Plan as required by Program Manager and as necessary to comply with the PMP and the Design-Build Services Agreement prior to issuance of Owner's Notice to Proceed with the Design or Construction Phases. This plan will at a minimum describe and/or include:

- a) Design-Build Firm's Key Personnel, as designated in Design-Build Firm Staffing Plan (Exhibit 5 of the Design-Build Services Agreement), responsible for Quality Control during the Design and Construction Phases of the Project.
- b) Performance of quality control of all documents during the design stage including timing/frequency and all parties involved in internal peer review sessions
- c) Process in which and frequency that drawing/spec discipline coordination is reviewed, monitored, and reported in both Design and Construction Phases, and the corrective action to remedy any conflicts between disciplines while maintaining the Project Schedule.
- d) Process in which and frequency that errors are reported to Design-Build Firm's management and Program Manager, and how corrections are accomplished, confirmed, and reported in both Design and Construction Phases, and the corrective action to remedy such errors while maintaining the Project Schedule;



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- e) Process in which standard drawing symbols, specification terms, and discipline drawing coordination/conformance will be established, maintained and achieved in deliverables in both Design and Construction Phases,
- f) Process(es) used to ensure compliance with quality and test requirements contained in the CD documents.
- g) Process in which quality of submittals and shop drawings and drawing/specs cross discipline coordination/conformance, and identification of any errors therein, will be established, maintained and achieved in deliverables in the Construction Phase, and the corrective action to remedy any such errors while maintaining the Project Schedule.
- h) List of compliance and corrective action reports that are produced and provided to the Program Manager and Owner in both Design and Construction Phases
- i) List all responsible personnel, any outside training groups, and scheduling of Owner witnessing events at least 2 weeks in advance with all tasks, applicable procedures, interfaces (including witness hold and inspection points) and documents recording attainment of quality, coordination and delivery of such items within the Project Schedule.
- j) The process of timely delivery of QC reports together with the Design-Build Firm’s field personnel’s completed forms as backup to such reports each month with the Program Manager and Owner, to be more fully described in the Design-Build Firm’s QC Plan, and the availability of all QC reports and records for audit by the Program Manager upon request.
- k) Methods to reconcile identified quality control items with project requirements, the current GMP and the Project Schedule
- l) Procedure for incorporating first and second tier subcontractor QC processes, procedures, and reporting into the Design-Build Firm’s QC Plan, and
- m) Process for maintaining the quality of any inspections or tests of the Work of Design-Build Firm Parties as required by the Design-Build Services Agreement, and the corrective action to address any deficiencies in the Work identified by such inspections or tests while maintaining the Project Schedule.
- n) Process to address “pre” punch list items at benchmark points of construction as noted by the Owner or Program Manager
- o) Process for Design-Build Firm’s project manager and DPOR’s project manager and design lead to comprehensively and continuously review all Drawings and Specifications and to monitor the Services and Work of the Design-Build Firm for determination of compliance with the Project requirements, the Approved Construction Documents, the DCP, the GMP, and the Project Schedule. (Such reviews, and the acceptance or rejection of any of the foregoing, by Design-Build Firm’s senior management shall be communicated to the Program Manager in a DCP Compliance communique via CPMS.)
- p) Process for both the Design –Build Firm’s and the DPORs internal punch lists, the timing and combining of these two , into a single master punch-list, delivery of this master punch list to the

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Owner and Program Manager, and remedy of those items prior to scheduling Owner punch list walk throughs.

The Owner and Program Manager shall be notified of all updates to the Quality Control Plan, and supplemental logs and reports and progress logs associated with the Quality Control Plan, and these shall be properly identified, logged, dated and provided by the Design-Build Firm to the Program Manager and posted in the CPMS

Upon Notice to Proceed, Design-Build Firm shall implement the Approved Quality Control Plan for performance of the Services and the Work and consider all aspects of quality from code and functional space program compliance, permitting, adherence to the DCP, through Final Completion of the Project.

Design-Build Firm shall support on-call quality inspections, reviews, audits, commissioning and requests by the Program Manager or Owner through Final Completion of the Project in support of the Program Manager's role to implement, coordinate and manage the quality control and quality assurance processes and all related plans and documents.

Design-Build Firm shall follow all processes and procedures described in its Approved Quality Control Plan, including delivery of a detailed monthly QC reports with supporting field forms, but separate from, the monthly summary report required in Procedure C.

6.1.6 Cost Control Plan. Design-Build Firm will implement, coordinate, and manage the approved Project cost and schedule control processes, as described in the PMP, and shall provide each of the following:

- a) Estimating: Cost reporting including a comprehensive system for tracking and predicting the cost of all items whether in the design or construction process; independently formulated cost estimates and Applications for Payment projections from NTP through final completion; This system shall be thoroughly described, with examples and templates from previous projects, and submitted as part of the Cost Control Plan;
- b) Cost Control Measures: Ongoing proven cost control measures that include the identification of previously implemented and successful cost control methods to reduce cost, shorten schedule, and/or utilize substitute materials and systems. These measures shall be tracked through a Value Engineering log provided to the Program Manager with each design submittal and at 3 month intervals during construction. These cost control measures shall be thoroughly described, with examples and templates from previous projects, and submitted as part of the Cost Control Plan;
- c) Cost Estimating: During the Design Phase, the Design-Build Firm will prepare updated Control Estimates for each design submittal, as required by the CDRL (Exhibit 10) , reflecting the Cost of the Work and as required and in accordance to the Design-Build Services Agreement. Design-Build Firm shall include a narrative attached to each submitted and updated Control Estimate to include a general summary of how the development of the designs have resulted in any significant increases or decreases (i.e. greater than 5% of previous estimates) to any specific line items, as well as the impact to the Design-Build Firm's contingency line item. The total amount of any such Control Estimate or Final Control Estimate shall not exceed the Guaranteed Maximum Price established in the Pricing Schedule (**Exhibit 3**), as required by the Design Build Services Agreement.

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The Design-Build Firm shall explain their process for estimating each of the required design deliverables (as required in CDRL – Exhibit 10) in a step-by-step narrative, including the Key Personnel responsible for these tasks necessary in producing each Control Estimate. This process and list of tasks shall be thoroughly described, with examples and templates from previous projects, and submitted as part of the Cost Control Plan.

- d) Contingency Control: During the Construction Phase, the Design-Build Firm shall provide monthly logs updating the status of the Design-Build Firm’s contingency and cataloging all approved Design-Build Firm Contingency requests to date.

The Cost Control Plan will be submitted to the Program Manager in accordance with Table A of this PMP. Any updates will be promptly provided to the Program Manager and posted in the CPMS.

6.1.7 Materials and Equipment Management Plan. Design-Build Firm will establish a Materials Management Plan in accordance with requirements and procedures set forth by the Program Manager. The Materials Management Plan shall be specific to construction and installation activities at each Operations Center Project site that covers all activities associated with materials and equipment (M&E) supplied by Design-Build Firm and Design-Build Firm Parties, as appropriate.

The Design-Build Firm shall, as a task of the Materials and Equipment Management Plan:

1. Coordinate with the Program Manager’s procedures and list any additional procedures they will follow for their general M&E activities in a logical order and include references to applicable procedures, plans and documents/reports to be maintained for delivery, receipt, lead times, submittals, substitutions, and inventory protection/management of materials and equipment at the Project Site, or stored off-site, including without limitation records for material receipt, secure and insured storage, issue and surplus.
2. Indicate all off-site storage locations which must be included in the Cost of Work by the Design-Build Firm and be Approved by SAWS in advance of their use.
3. Identify all materials, equipment and other items requiring extended delivery times and shall recommend the early procurement of long lead items to the Program Manager and the Owner
4. Identify the location on-site of these materials and equipment, shall be coordinated and shown within the Site Logistics plan.

The Materials and Equipment Management Plan will be updated by the Design-Build Firm at the Program Manager’s request or as circumstances require in order remain current with site conditions and activities so as to not impact construction limits or interfere with any ongoing SAWS operations.

A Receipt of Materials format and billing procedure for “Materials on Hand” but not installed shall be coordinated prior to construction in a meeting with the SAWS Contracting Manager, the SAWS PM and the Program Manager.

This plan will be submitted to the Program Manager in accordance with Table A of this PMP. Any updates will be promptly provided to the Program Manager and posted in the CPMS.

6.1.8 Safety Plan. The Design-Build Firm shall develop a Safety Plan for the Project that describes the means by which the Design-Build Firm will provide for the protection of persons and property in accordance with the Design-Build Services Agreement. This plan shall be compatible with all Owner Safety, Security and Emergency plans, and shall describe the Design-Build Firm’s safety management system and safety

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documents to include but not be limited to safe work practices, traffic control protocol, material handling and storage, environmental protections, excavation/ trenching/ demolition, heavy and critical lifts.

The Safety Plan shall include:

- 1) a safety procedure and reporting process which is a tabulation of the procedures to follow in all potential anticipated tasks and hazards for the Project that require a safety procedure, and accident reporting protocol.
- 2) a comprehensive manual on the Design-Build Firm's safety Training and Personal Protective Equipment (PPE) given to all employees, including but not limited to Rules and Regulations of the United States Department of Labor, pertaining to Occupational Safety and Health Administration standards as presently existing or as may be modified or amended.
- 3) Staffing plan as part of the Staffing Plan (Exhibit 2 of the Design-Build Services Agreement), whereas the Design-Build Firm identifies all individuals and their roles in the Safety Plan, to include their duties, response effort, reporting requirements and preventative measures. The Design-Build Firm shall identify all or their field personnel that have 10 or 30 hour OSHA training.

The Design-Build Firm shall obtain acceptance of its Safety Plan before Owner's issuance of written Notice to Proceed for design and in accordance with Table A of this PMP. This may include, at the Owner's request, a meeting of the Design-Build Firm's executive, the Design-Build Firm's Project Manager and the Design-Build Firm's safety officer with SAWS PM and any relevant SAWS staff.

Any updates to the Safety Plan will be promptly communicated to the Program Manager and, upon the Program Manager's review, and Owner review and Approval, posted by the Design-Build Firm in the CPMS.

6.1.9 Emergency Response Plan. The Design-Build Firm shall develop an Emergency Response Plan which shall be compatible with all Owner safety, security and emergency plans and procedures and which shall include but not be limited to emergency and accident response procedures, first aid and medical procedure, fire protections, evacuation, egress routes. The Emergency Response Plan shall include an Emergency Incident List which is a spreadsheet of all anticipated events and procedure for each. Design-Build Firm shall as part of the Staffing Plan (Exhibit 2 of the Design-Build Services Agreement) identify all individuals and their roles in the Emergency Response Plan, to include their duties, response effort, reporting requirements and preventative measures, and where Owner staff is onsite, include for their evacuation, safety and muster points.

The Design-Build Firm shall obtain acceptance of its Emergency Response Plan from the Owner before Owner's issuance of written Notice to Proceed for design and in accordance with Table A of this PMP. This may include, at the Owner's request, a meeting of select Design-Build Firm management with the SAWS Risk and Safety Managers and the SAWS PM.

Any updates to the Health and Safety Plan will be promptly provided to the Program Manager and posted in the CPMS.

6.1.10 Project Site Logistical Plan- The Design-Build Firm will develop a Project Site Logistical Plan evaluating the changing logistics and site layouts during construction of each of the Worksites and all areas within the construction limits as well as any egress and construction and Owner traffics lanes and parking

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that may fall outside of the Limits of Construction, but within the Worksite. This plan must be approved by SAWS and coordinated with the Project Schedule, the Materials and Equipment Management Plan, procurements, deliveries and staged sequencing, and at a minimum, shall clearly describe and depict the following:

- 1) Staging and mobilization
- 2) Construction/ delivery entrances
- 3) Ingress / egress for Design-Build Firm and for all SAWS operations
- 4) Parking areas for Design-Build Firm and for all SAWS operations
- 5) Permanent and temporary fencing, and vehicular and pedestrian gates
- 6) Silt fencing and erosion control,
- 7) Wash out pits
- 8) Crane locations (if applicable) and lay down areas
- 9) Security and safety requirements and measures, emergency entrances,
- 10) Location of construction trailer, storage containers and trash dumpsters
- 11) Trenching & underground work or overhead work within SAWS operating areas
- 12) Utility and service outages affecting SAWS operations
- 13) Sequencing of construction and a series of sequenced site plans as needed to correspond with each construction sequence. The plan shall minimize construction traffic by identifying clear controls of methods of delivery, removal of waste and all other environmental considerations.

If the Design-Build's Project Schedule requires sequencing and staging or phasing of various Project requirements, then the Project Site Logistical Plan for that Worksite shall include sequential corresponding and separate plans based on the dates and sequence of the Design-Build's Project Schedule. Owner shall not issue a NTP into Phase or Stage without an updated and Owner accepted and Approved Project Site Logistical Plan for that respective Phase or Stage of the Project.

Any proposed Site Logistical Plan for any Worksite at any Phase or Stage, will be reviewed by the Program Manager and shall be subject to Owner acceptance and Approval. The proposed plan shall be presented to SAWS stakeholder VP and SAWS PM, for review and Approval. The Project Site Logistical Plan for the Worksite shall be finalized and accepted prior to Notice to Proceed for the Construction Phase and in accordance with Table A of this PMP. **Any proposed updates shall be promptly provided to the Program Manager and Owner for review and acceptance at least 15 Days prior to any impact to the site or proposed implementation.** Once accepted and Approved, updates to the Project Site Logistical Plan shall be posted in the CPMS.

6.1.11 Permitting Plan- The Design-Build Firm shall develop a Permitting Plan describing how the Design-Build Firm intends to ensure that all required permits and approvals, including accessibility compliance, are obtained for every permit that is required for the Project. At a minimum, the plan shall include:

- 1) procedures for managing all communications and submittals to the regulatory agencies, including consultation, formal applications, and the review process through to the receipt of all permits, including notification of the Owner of planned submissions prior to submission;
- 2) quality control and quality assurance procedures during both Design and Construction Phases, to ensure that the above procedures are followed and verified through to the receipt of all permits;
- 3) roles and responsibilities of the Design-Build Firm Parties tied to the Staffing Plan (Exhibit 2 of the Design-Build Services Agreement) that identifies all individuals and their roles in the permitting process.

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- 4) a listing of any risks the Design-Build Firm foresees in performing the permitting process and securing all required permits.
- 5) detailed description of the scope and timing from the Owner that the Design-Build Firm requires to complete the permitting process.
- 6) a format for tracking the permitting process in a report format to be reviewed in conjunction with monthly status meetings.

This plan shall be coordinated with the Project Schedule, milestone dates within the Project Schedule to receive the building permits, Substantial Completion, milestone dates within the Project Schedule to receive the Occupancy permits, and Owner's move sequencing. A draft of the proposed Permitting Plan shall be reviewed by the Program Manager and is subject to the comment and feedback of the Owner before final submittal.

A draft of the proposed plan shall be submitted per Table A, i.e., submitted with CDRL 2 and the final Permitting Plan shall be Approved prior to submittal of CDRL 3.

6.1.12 Risk Management and Mitigation Plan - The Design-Build Firm shall prepare a Risk Management Plan which describes the system they shall use for identifying, evaluating, assessing and mitigating all risks of all types (e.g. financial, technical, safety, environment.). The Risk Management Plan shall also describe how risk management is integrated and implemented into planning, work prioritization, and decision-making by the DB and how risks are identified as such in those steps. This Plan provides assurance to the Owner that the Design-Build Firm has an active and comprehensive approach to manage the design and construction operations to meet the GMP and the schedule completion dates.

The Risk Management Plan shall include:

- 1) List of each identified risk and the person in the Design-Build Firm Staffing Plan identified as the risk mitigator.
- 2) Appropriate action items and innovative technologies used to mitigate the risks,
- 3) Risk control methods and measure of each identified risk. Each risk shall have an assessment of probability of occurrence as a percentage and anticipated cost and/or schedule impact along with a low/high, as a +/- percent of potential variance in that impact.
- 4) The Risk Management Plan shall include a Risk Management Event Log which is a spreadsheet of all anticipated events and procedures for each event and/or successful mitigation of events.

The Design-Build Firm shall obtain acceptance of its Risk Management and Mitigation Plan before Owner's issuance of written Notice to Proceed for design and in accordance with Table A of this PMP. Any proposed updates shall be promptly provided to the Program Manager and Owner for review and approval at least 15 Days prior to any impact to the Project. Once approved, updates to the Risk Management Plan shall be posted in the CPMS.

Risk status shall be reported regularly in Design-Build Firm's Monthly reports submitted with pay applications. This shall include identification of new risks, changes in risk status or impact by the assigned risk mitigator along with actions accomplished by that person since the last report, risks that did not occur or are no longer relevant with reasons why. The Program Manager and/or Owner is informed of any perceived risk that they could address to help the Design-Build Firm meet the contract goals without changes to scope or DCP unless those changes are via the RFI and change request process described in the Agreement.

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6.1.13 Design-Build Firm Procedures Manual. The Design-Build Firm shall develop a Procedures Manual establishing and detailing the Design-Build Firm's standard procedures and formats for subcontracting, purchasing, progress reporting and report formats, documenting meetings, field reports, RFI/ASK/submittal development & review, invoicing procedures and other matters that require uniformity with the Project and Project implementation. The Procedures Manual shall be reviewed by the Program Manager and shall be subject to the acceptance by the Owner.

The Procedures Manual shall be submitted with CDRL 2 and accepted prior to the CDRL 3 submittal. Any proposed updates shall be promptly provided to the Program Manager and Owner for review and acceptance at least 15 Days prior to any impact to the Project. Once approved, updates to the Procedures Manual shall be posted in the CPMS.

6.1.14 Support for Implementation of Commissioning Plans. Program Manager in accordance with the Program Manager Services Agreement with the Owner shall establish and implement all commissioning protocols and commissioning plans for all Phases and for all impacted facilities. Enhanced Commissioning as described by LEED Energy and Atmospheric Credit 3, is not required as part of the Program Manager's scope of basic services, Enhanced Commissioning of the LCWRC Administration building may be performed by the Design-Build Firm, should the Design-Build Firm determine that those credits will be needed and pursued in order for the Design-Build Firm to fulfill the LEED Silver Equivalency. Separate Commissioning Plans are developed for each site during the Design Phase in consultation with the Design-Build firm. Each Commissioning Plan shall document all activities in chronological order from the initial drawings of the Design Phase through the Construction Phase including manufacturing/construction, process controls, final testing, and documentation/certification, in accordance with the Program Manager Services Agreement. The Program Manager shall develop the Commissioning Plan. The Design-Build Firm shall be actively coordinating with the Program Manager on these efforts and shall provide input as required.

The first draft plan of the Commissioning Plan shall be developed after receipt of the Design Phase 90% CD deliverable, a second draft plan developed after receipt of the Design Phases 100% CD deliverable, and a final plan developed shortly after NTP for construction.

Program Manager shall perform functional testing and startup of all Project components in accordance with the commissioning plan. Design-Build Firm shall cooperate with the Program Manager in its duty to have the Program Manager's commissioning agent implement the Program Manager's commissioning protocols and plans. The Design-Build Firm shall support the Program Manager's commissioning services for the Project, in accordance with the current LEED New Construction and Major Renovations requirements.

Design-Build Firm shall contract with a third-party independent testing and balancing services for mechanical, electrical and plumbing systems and other equipment installed in the Project, and provide schedule of proposed testing to the Program Manager and documentation of all test results to Owner and Program Manager, for the Program Manager's preparation of a commissioning report in matrix format for each equipment item installed in the Project.

Design-Build Firm shall cooperate with Program Manager in its performance of commissioning of the Project to enable Program Manager to timely complete all commissioning activities, including submission of all items for inclusion in Program Manager's commissioning reports, plans and other verification documents.

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A completed and approved Final commissioning report is required prior to the issuance of the Certificate of Final Completion. It is incumbent upon the Design-Build Firm to allow for adequate time in the Project Schedule for the Program Manager's third party testing and commissioning, any items of non-compliance, and any remedies by the Design-Build Firm to achieve compliance and maintain the Project Schedule dates.

6.1.15 Warranty Plans. The Design-Build Firm shall develop separate Warranty Plans for each Worksite during the Design Phase. The Warranty Plan(s), in accordance with the Design-Build Firm's Services Agreement and in accordance with the Warranty Protocol (Exhibit 18), shall be developed with input from the Program Manager and Owner, with a first draft plan developed after SAWS receipt of the 90% CD Design Phase deliverable, a second draft plan developed after receipt of the 100% CD Design Phase deliverable, and a final plan developed shortly after NTP for construction. The Warranty Plan shall be updated after completion of commissioning services and issuance of Substantial Completion certificates and then added to this PMP. Design-Build Firm will update the Warranty Plan after Final Completion.

The Warranty Plan, shall include each of the following:

- (i) A comprehensive spreadsheet listing all Project items, systems, equipment, and materials under warranty, whether items were part of the Commissioning Plan; any testing performed or required on equipment, installer and install date, warranty expiration date (for both the Design-Build Firm's warranty, and also the manufacturer's warranty, follow-up date prior to warranty expiration;
- (ii) Records/documentation produced for such warranted items; and
- (iii) Approval signatures by Program Manager, Design-Build Firm and others as required.
- (iv) Process for Owner to notify Design-Build Firm of warranty requests, completion, and approval signatures that work was completed.
- (v) Form for each Warranty request with description and signatures
- (vi) A log of all warranty requests with requested date, description, completion date and status/remedy.

6.2 Requirements for Street, Parking Area, Site, and Drainage Work. Design-Build Firm shall provide cut sheets, for review and coordination purposes, to the Owner and Program Manager, fourteen (14) Days prior to construction of any site utility work, street and drainage work, and shall not proceed with any such utility or street work without Owner's prior Approval.

Design-Build Firm shall establish the necessary offsets, hubs and guards marked showing control designation and offsets for all required utility Work, including SAWS, CPS Energy, and other utilities, and including sewer profiles and water profiles, as applicable. Design-Build Firm is responsible for all locating, pot holing and utility condition prior to start of the Work. Design-Build Firm shall provide staking and preparation of cut sheets after receiving notice to proceed from Owner. Design-Build Firm shall be responsible for maintaining and preserving baseline and temporary benchmarks indicated on the drawings for duration of construction. If such marks are destroyed, Design-Build Firm shall replace them at its own expense. At the end of construction of the Project, Design-Build Firm shall provide Owner a grade certificate prepared by a Registered Professional Land Surveyor. This certificate shall state that the infrastructure is constructed in accordance with the Construction Documents, as prepared by the DPOR, and approved by Owner.

6.3 Testing by Owner. Through the Program Manager, the Owner shall provide independent testing of the Work as required by Applicable Law. Owner may also designate one or more construction inspectors of its own who shall be given access to the Work as requested or needed. Design-Build Firm shall not be relieved of its obligations, responsibilities or duties to perform the Services and Work in strict accordance with the

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Design-Build Services Agreement either by any activities or duties of Owner in Owner's administration of the Design-Build Services Agreement or by tests, inspections or approvals required or performed by Owner or any person other than the Design-Build Firm.

6.4 Use of Design-Build Firm's Contingency. The Design-Build Firm's Contingency shall be as defined in the Design Build Services Agreement.

The Design-Build Firm's Contingency is part of the GMP, and not a part of the Cost of the Work.

Design-Build Firm shall notify the Owner in writing, in accordance with the DB Agreement, for use of the Design-Build Firms Contingency line item.

Any changes in the Design-Build Firm's Contingency shall be indicated with each Control Estimate submittals and described in narrative form as indicated herein in Section 6.1.6 Cost Control Plan and logged and tracked throughout the Project in a comprehensive spreadsheet, with the starting amount being the amount as listed on the GMP.

During the Design Phase and subsequent buyout and prior to the Owner's issuance of the NTP into the Construction Phase, the Design-Build firm may utilize the Design-Build Firm's Contingency without Owner Approval given that the Design-Build Firm, in doing so, provide a report with each Application for Payment, stating the amount and date drawn from the Design-Build Firm's Contingency, and for what purpose, and shall include the Design-Build Firm's Project Executive written approval.

Design-Build Firm shall submit updated Control Estimates and a Final Control Estimate as required by the CDRL (Exhibit 10) in the format that aligns with Exhibit 3 - Pricing schedule. These Control Estimates shall show the Design-Build Firm's Contingency as a single line item.

Upon receiving a NTP into Construction, or in reference to expending cost for Early Work Packages:

- 1) Design-Build Firm shall notify the Owner in writing, in accordance with the DB Agreement, for use of the Design-Build Firms Contingency line item prior to shifting or applying any funds during the Construction Phase or during any Approved Early Work Packages from the Design-Build Firm's Contingency line item in Exhibit 3 Cost of Work to any other line item in Exhibit 3.
- 2) Design-Build Firm shall number, date and track all use of the Design-Build Firm's Contingency as individual line items with dates and amounts and reference to any related documentation, (RFI's ASIs, , etc) and keep a comprehensive numerical log that is current and accessible to the Project Team on the CPMS.

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PROCEDURES

The procedures below apply to all transactions of participants within the Design-Build Firm and Design-Build Firm Personnel as well as to interactions of the Design-Build Firm with other parties such as Owner, Program Manager, and AHJs or governmental authorities, particularly interactions between the Design-Build Firm's executives, the DPOR, and Design-Build Firm Parties.

PROCEDURE A: PROPOSAL REQUESTS AND CONSTRUCTION CHANGE DIRECTIVES

As a result of Owner's written request for a cost estimate to add Services and/or Work for the Project after Owner has issued Notice to Proceed with construction. Design-Build Firm must provide Owner a Proposal Request for equitable adjustment to the GMP for such design change within ten (10) business days after receipt of Owner's request.

In accordance with the Design Build Services Agreement, if accepted, the Owner will attach the Proposal Request to a Construction Change Directives (CCD) and issue it to the Design-Build Firm. The Owner will use the Construction Change Directive (CCD) form (Appendix C.3). The Design-Build Firm shall confirm receipt on the form and return within one day. The Program Manager shall number, date and track all Construction Change Directives (CCDs) and keep a numerical log that is current and accessible to the Project Team on the CPMS.

PROCEDURE B: APPLICATIONS FOR PAYMENT

The Design-Build Firm shall make Applications for Payment in accordance with the Design-Build Services Agreement.

Additional supporting information to the Applications for Payment as described in the Design-Build Services Agreement is as follows:

- The format for the Application for Payment is an Excel spreadsheet version of the form shown in Section D Reports and Forms.
- One hardcopy (11x 17 format), kept in file on the project site, and complete electronic copy in native format (MS Project or Primavera) plus one pdf version.
Coordinated and in accordance with the Design Build Firm's approved Materials and Equipment Mgmt Plan and such stored materials not yet installed must be witnessed by Program Manager within 3 business days of receipt of Application for Payment

Payment by Owner will be in accordance with the Design-Build Services Agreement.

Additional procedures:

- Design-Build Firm shall submit two original signed and sworn copies of their Applications for Payment and copies of all subcontractors and vendors applications for payment.
- For materials' applications for payments where the material is not yet installed, copies of vendor invoices shall be included with the Applications for Payment and all paperwork shall be included and approved by the require Design-Build Firm Parties and signed in accordance with the Materials Management Plan.
- A monthly payment meeting including Design-Build Firm and Program Manager, will be held, at least five (5) business days prior to the Design-Build Firm's issuing or input of their Applications for Payment

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into CPMS, to discuss the amount of prospective payment and review the supporting documentation. Project Schedule and Schedule activity dates, percent complete and the proposed Application for Payment amounts will be confirmed or revised at this meeting. During this meeting, the Program Manager will review all documentation and observe the claimed material but not installed, that is listed in the Application for Payment. All documentation shall be submitted in accordance with the Design Build Services Agreement and the Materials Management Plan.

- If required, Design-Build Firm will promptly revise & resubmit their schedule update and cost reports as necessary to reflect those dates and amounts agreed to in the payment meeting prior to submitting and uploading the Application for Payment.
- In accordance with the Design Build Services Agreement, Design-Build Firm shall ensure that subcontractor payment information for all Design-Build Firm Parties, is submitted monthly utilizing the Owner's Subcontractor Payment and Utilization Reporting (S.P.U.R.) system.

PROCEDURE C: MONTHLY REPORTING & SCHEDULE UPDATING

The Design-Build Firm shall in accordance the Design-Build Services Agreement submit to Owner and Program Manager a Monthly Progress Report and an Application for Payment for any Services and Work referenced in the approved Schedule of Values that has been completed during the previous calendar month.

All requirements of reporting and schedule updates, shall be copied into the CPMS, without exception, using the full WBS referenced in the document and shall be within the CPMS RFI/submittal system or placed in the appropriate WBS enumerated project folder under document.

The Monthly Progress Report shall be in accordance with the Design Build Services Agreement Section II. Scope of Services, and Section XII. Processing of Payments, and shall address the status of the work, cost/schedule performance to plan, issues and accomplishments, quality control, and arrival/departure of major subcontractors for the work by each site.

Specifically, this Monthly Progress Report shall include all items per the Design Build Services Agreement as well as:

- **Summary Report.** A not more than 4-page narrative summary of the Project works to date, near term forecast, risk report and any Key Personnel changes to the Project Team. This summary report shall at a minimum, also include the following supporting documents (beyond the 4-page narrative):
 - The SAWS Variance Report (in section D Reports and Forms, an Excel file to be provided by Program Manager)
 - The Project Schedule, showing baseline (planned) dates/durations based on the Project Schedule submitted at the execution of the Design Build Services Agreement and which is Project Schedule (Exhibit 6) and current progress Schedule , and if any variations in milestones, this shall be presented in the form of a Recovery Schedule, and both schedules shall be depicted on both bars in a Gantt format and columns with both actual and forecast start and finish dates and showing total float for:
 - Design submittals, or
 - Construction works, delineated by each Worksite, each building and all site works (collectively) as well as all control milestones as per Design-Build Services Agreement to at least the division level of Masterformat
 - Industry standard CSSR report format
 - Quality control issues found, to be corrected and correction completions, and
 - A separate safety report of safety training and any incident reports.



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○ Action Items Log and status of each item from the OAC meeting from the previous month.

- **Report by Each Site.** A structured set of information for each Worksite, each building or item, and overall siteworks, and, if active, major Masterformat divisions within those buildings or siteworks using:
 - The SAWS Variance Report
 - Industry standard CSSR report format, and
 - Quality control issues found, to be corrected and correction completion.
- **Electronic submission in CPMS.** A pdf version of the complete report will be filed in the CPMS at the same time as hardcopy delivery to the Program Manager (2 copies) and PROJECT MANAGER OR OWNER (1 copy).

PROCEDURE D: CORRESPONDENCE & TRANSMITTALS

All correspondence and transmittals, including full distribution lists, shall be copied into the CPMS, without exception; using the full WBS referenced in the document and shall be within the CPMS RFI/submittal system or placed in the appropriate WBS enumerated project folder under document control.

E-Mails: Significant Incoming and Outgoing E-mails shall be filed in the applicable WBS enumerated correspondence file under document control. This includes any emails regarding change in cost, change in schedule, change in scope, emails directed to the Architectural Representative, Program Manager or Owner, actual or possible delays, any Key Personnel changes of Design-Build Firm or Design-Build Firm Parties, safety or onsite accident reports, Design Build Services Agreement discussions or disputes, SMWVB discussions, or any other items significant in nature that resulted in the items appearing in the Action Items Log from the OAC meeting.

Transmittals: Transmittals are memos or cover letters that accompany project documents or items, such as material samples. Use transmittals to: accompany items to indicate what, when, and why they were forwarded; communicate efficiently with vendors and contractors; create a permanent record of the action taken regarding an issue; trace an item if it is lost, misplaced, misdirected; and track the status of items that are the responsibility of others.

All Transmittals including full distribution lists of parties sending or sent to, shall be managed, transmitted and logged via the CPMS, without exception, using the full WBS which shall be referenced in each document and shall be within the CPMS Transmittal subsystem.

- Transmittals are to be produced for all items sent, except for general correspondence.
- Transmittals shall be sequentially numbered.
- Transmittals shall clearly identify all items being sent, the method(s) of delivery, the quantity of items being delivered, the date sent and any specific information the recipient may need to know about the items.

PROCEDURE E: REQUESTS FOR INFORMATION

All Requests for Information (RFIs), including full distribution lists of parties sending or sent to, shall be managed, transmitted, and approved via the CPMS, without exception, using the full WBS which shall be referenced in each document and shall be within the CPMS RFI subsystem.

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All RFI's shall be addressed to a particular named party for action and recorded in the CPMS Ball-in-Court log with a desired response date from that particular party. If there is a cost or time impact if a response is not received by that response date, the impact shall be described in the RFI request. If an RFI comes to the Program Manager or Owner, the proposed solution by the Design-Build Firm and/or DPOR, and cost/schedule impact, if known, shall be included.

- RFIs shall be sequentially numbered, dated and a brief description with outcome given in a spreadsheet "RFI log" that can be queried.
- An Approved RFI form and log shall be added to this PMP upon selection of the Design-Build Firm and no later than acceptance of the GMP.

PROCEDURE F: SUBMITTALS

All submittals, including full distribution lists of Design-Build Firm Parties, sending, or sent to, shall be made via the CPMS, without exception, using the full WBS referenced in the document and shall be within the CPMS submittal. If supporting material is too large for loading as attachments to the submittal itself, then those attachments must be uploaded into the appropriate WBS delineated document control folder and referenced as such in the submittal document.

Any substitution requests to the DPOR shall be processed as a submittal, flagging that it includes a substitution request, and requires formal acceptance by the DPOR prior to sending to the Owner for Approval as required by the Design-Build Services Agreement.

Document deliverables, such as design deliverables and plans, as required by the CDRL (Exhibit 10) shall be uploaded in full in both pdf and native file modes. For submittals that include physical samples, the shipping label/airbill shall be included with the submittal overview/description paper and will show when shipped, recipients, and other relevant data.

- Submittals shall be sequentially numbered, dated and a brief description with outcome given in a spreadsheet "Submittal log" that can be queried.

An Approved Submittal form and log shall be added to this PMP upon selection of the Design-Build Firm and no later than acceptance of the GMP.

PROCEDURE G: ACTION ITEM TRACKING

Any item requiring action to keep the project going (see next para) that is identified, communicated, or observed, between the Design-Build Firm's Parties, will be recorded and tracked in the CPMS Ball-in-Court system, and listed/added to a tracking chart log attached to every OAC meeting agenda. Action items can be originated by any member of the Project Team to/in the CPMS system.

General Definition: An action item is a result of any item identified throughout the course of the Project, by any member of the Project Team, that, if left unaddressed, would impact the GMP, Project Schedule milestone dates, deliverables or the requirements of the CDRL (Exhibit 10), or is identified to not be in compliance with the DCP, Construction Documents, or the Design-Build Services Agreement.

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Action item tracking numbers and any associated files are created as a method to document and organize all applicable information concerning the issue, into one easy to reference file.

The following are provided as examples of action items that would require a response from either the Design-Build Firm, Owner or Program Manager:

- Answers needed from any member of the Project Team to complete a task or services or work.
- Request for pre-review layout of rooms by any member of the Project Team prior to a submittal
- Delivery of incorrect material/equipment
- Corrections needed to any deliverables to properly coordinate between Design-Build Firm's Parties
- Rework/correction of improper construction or QC discovery
- Delays caused by poor coordination or scheduling of subcontractors
- Supplier or subcontractor delays
- Failure to aggressively prosecute/execute the work
- Weather delays potential impact

If any action item has potential cost or time impact to the GMP or to the Project Schedule, the Project participant must give written notice in accordance with the Design Build Services Agreement.

Action item tracking process: Upon noticing a potential issue, create a Tracking Number in the CPMS and, if necessary, create a new action item file to collect all relevant and related documentation.

- Tracking number files for each action item should contain the following:
 - Detailed Description of the issue
 - Date(s) of occurrence
 - Parties involved
 - All related correspondence, drawings, photos, and other relevant documentation
 - If known, the action item pending to resolve the issue
 - Targeted response due date and
 - Assigned member of the Project Team for the BIC for this item
- Following the identification of any item, the Design-Build Firm shall locate and address this item, and if applicable the affected area on the Worksite, and identify any other corresponding items, trades, or drawing sheets that could be impacted. This may involve videos/photos and notification of field inspectors to properly document the activity in this area.
- When logged into the CPMS Ball-in-Court system, action/response dates should be established according to the following guidance:
 - If life or public safety is in flux, the Design-Build Firm shall proceed in accordance with the Design-Build Services Agreement.
 - For issues that have the potential to affect the current project budget, control estimate, or GMP, the Owner and Program Manager shall be notified in writing in accordance with the Design Build Services Agreement.
 - All issues shall be resolved or moved to an RFI or other procedures within 10 Days

Note: Any internal issues tracking log sheets, generated by the Design-Build Firm, that are separate from this Action items log, must be appended to their Monthly Report to the Program Manager.

PROCEDURE H: AS-BUILTS DOCUMENT MANAGEMENT

As-Built Drawings and Specifications: The Design-Build Firm shall update drawings (as-built drawings) and specifications (as-built specifications), at least monthly, to document any and all changes that occur

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during the Construction Phase. As part of the Closeout Phase, the Design-Build Firm shall update all CAD files, & all BIM models, and all construction drawings and electronic specifications to document changes that occurred during construction (such drawings will be provided in native CAD and BIM formats and pdf and hardcopy sets as required by the CDRL (Exhibit 10)

Design-Build Firm shall maintain current As-built record documents at each respective Worksite at the Design-Build Firm's site trailer throughout the Construction Phase, making the as-builts available to the Program Manager, Owner and/or Architectural Representative, upon request. Such documents will be maintained in a current status by implementing the following procedures.

- **Bulletins** - All drawing sheets revised and issued by the DPOR as Bulletins, are to be incorporated into the final set of drawings by the Design-Build Firm.
 - Highlight all of the items that were changed on the revised sheets included in the Bulletin.
 - Insert the revised Bulletin sheets into the final set of drawings by placing the new sheet on top of the old sheet, so the most current plan sheet is always on top. Fold the bottom right-hand corner of the old sheet over and note "Superseded by Bulletin #XX".
 - Update the Drawings Log to note the latest changes to each drawing sheet.
 - Note any changes to the Specifications - use a red pencil to cloud the changed specification sections and reference the applicable Bulletin or RFI.
- **Post RFI's** – any changes made through the RFI process should be noted by the Design-Build Firm on the monthly updated As-Builts and in the Final set of As-Builts.
 - If the change made in the RFI can be easily noted on the drawings, such as a dimension change, simply use a red pencil and make the change to the final set. Cloud the changes made and reference the applicable RFI.
 - If the changes made on the RFI are too extensive to clearly transfer, or if a sketch has been provided in the RFI response, make a copy of the RFI (reduced by 50%) and tape it to the back of the sheet adjacent to the one you are updating for quick and easy reference to the RFI. The changed areas should still be clouded on the drawing and the applicable RFI referenced.
 - Posted RFI's / Modifications Log – keep a log of all RFI's and modifications that have been posted to the final set to ensure that all are incorporated.
- **Submittals** – any changes made through the submittal process should be noted on the final set of As-Builts by the Design- Build Firm.
 - If the change made via the submittal can be easily noted on the drawings, such as a dimension change, simply use a red pencil and make the change to the final set. Cloud the changes made and reference the applicable submittal.
 - If the changes made on the submittal are too extensive to clearly transfer, or if a sketch has been provided in the submittal response, make a copy of the submittal (reduced by 50%) and tape it to the back of the sheet adjacent to the one you are updating for quick and easy reference to the submittal. The changed areas should still be clouded on the drawing and the applicable submittal referenced.
 - Posted submittal's / Modifications Log – keep a log of all submittals and modifications that have been posted to the final set to ensure that all are incorporated.

PROCEDURE I: QUALITY CONTROL

The Program Manager has, with input and review by the Owner, developed, a state-of-the-art Quality Plan. This Quality Plan includes project and site-specific quality processes that considers all aspects of quality from code and functional space program compliance through Project completion for all Phases and all impacted facilities.

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The Design-Build Firm shall, in coordination with the Program Manager's Quality Plan, develop, implement, manage and enforce their Approved Quality Control Plan. This Quality Control Plan is separate from the Program Manager's Quality Plan but shall be coordinated with and shall follow the processes and procedures developed in the Program Manager's Quality Plan. The Design-Build Firm's Quality Control Plan shall also include at a minimum the following for both Design and Construction Phases:

- 1) Identification of all Key Personnel of the Project team and shall include the Quality Control Manager and their role and tasks related to Quality.
- 2) Specifically define each function of the plan. Determine the role of each individual performing accountability evaluations for Design-Build Firm's Quality Control. Describe their credentials and responsibility. Determine corrective measures and who will evaluate and correct deficiencies
- 3) Review of the specifications and determine what materials will be tested and the physical location where they will be tested. Specify the frequency with which the tests will be conducted
- 4) A list of testing equipment. Describe the equipment and how it is capable of determining the properties of the materials. Describe how the equipment will be calibrated, maintained, and used for the duration of the Project.
- 5) Incorporate testing procedures. Attach any relevant procedures used to report compliance by the Design-Build Firm Parties.
- 6) Incorporate performance monitoring procedures during the Design and Construction Phases. Attach any relevant procedures used to report performance for all Design-Build Firm's Parties.
- 7) Incorporate permitting and code compliance requirements and process for measuring performance of those plans.
- 8) Define the processes and activities in place for verification of the DCP during the Design Phases to include 1) internal QC and QA processes of the DPOR 2) intermittent and continuous inspections by the Design-Build Firm of DPOR processes, 3) reviews prior to Design Phase deliverables as required by the CDRL (Exhibit 10)
- 9) Define the processes for inspections and verification activities during the Construction Phase to include 1) intermittent and continuous inspections by the Design-Build firm, 2) inspections prior to major deliverable or Construction Phase benchmarks or any CLIN SC or FC date 3) QC and QA testing.
- 10) Describe the Quality Control record-keeping system and documentation. Define the types of reports generated and the frequency of reporting, to include documentation of QC and QA in daily reports and in inspection and testing report forms
- 11) Production and implementation of Quality Control Reports which shall be a detailed monthly report with field forms at the same time, but separate from, the Monthly Report of Procedure C.
- 12) Methodology to incorporate Quality Control Plan to all Design-Build Firm Parties
- 13) Process for identification of deficiencies to include deficiency identification, non-conformance reporting, deficiency correction and preventative actions

Once Approved, Design-Build Firm's Quality Control Plan shall be referenced as a supporting document to the PMP in accordance with TABLE A. Any updates will be promptly provided to the Program Manager and posted in the CPMS.

The Program Manager shall audit and oversee the Design-Build Firm's Services and Work for adherence to their Quality Control Plan, this oversight by the Program Manager includes the receipt and review of the Design-Build Firm's QC reports and exceptions, the Program Manager's observations, efforts, and review the Design-Build Firm's 3rd party testing services, the Program Manager's assurance of coordinated and completed commissioning efforts in accordance with the Design-Build Services Agreement. The Program Manager shall provide the Owner with a written report of total start to finish QA process, ensuring all was

Exhibit 8

Project Management Plan

Phase 4: Service Center Program – Leon Creek WRC Facility Improvements



provided properly throughout the Project in both Design and Construction Phases and including, FF&E installation, and commissioning.

PROCEDURE J: SAFETY PROCEDURES

The Design-Build Firm shall enact and follow the processes and procedures described in its accepted Safety plan, and in accordance with the Design-Build Services Agreement. The Monthly Report of Procedure C shall include a separate safety report of safety training and any incident reports.

PROCEDURE K: CLOSEOUT PROCEDURES

Substantial Completion and Final Completion shall be in accordance with the Design-Build Services Agreement.

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SECTION 7 – RESERVED FOR INTERNAL USE

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Phase 4: Service Center Program – Leon Creek WRC Facility Improvements



SECTION 8 – APPENDIX

- A Program WBS**
- B Definitions**
- C Forms and Templates**

Exhibit 8

Project Management Plan

Phase 4: Service Center Program – Leon Creek WRC Facility Improvements



A

PROGRAM WBS

Following is the major levels of the Program Work Breakdown Structure (WBS) that will be used to manage the document control, cost, schedule, and communications throughout the program execution.

New contracts will originate at these levels or lower. If a new professional services or design/build contract is executed later, then the WBS number will be assigned.

- 1.0 Total Program
 - 1.1 Program Manager Services
 - 1.2 Reserved
 - 1.3 Reserved
 - 1.4 Reserved
 - 1.5 Reserved
 - 1.6 Reserved
 - 1.7 Reserved
 - 1.8 Reserved
 - 1.9 Phase 4 LCWRC
 - 1.9.1 Reserved
 - 1.9.2 Reserved
 - 1.9.3 Design Phase
 - 1.9.4 Construction Phase
 - 1.9.5 Reserved
 - 1.9.6 Reserved
 - 1.10 Reserved

Exhibit 8

Project Management Plan

Phase 4: Service Center Program – Leon Creek WRC Facility Improvements



B

DEFINITIONS

Refer to the Design-Build Services Agreement and the Program Manager Services Agreement for Definitions.



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Project Management Plan
Phase 4: Service Center Program – Leon Creek WRC Facility Improvements

C. REPORTS AND FORMS

Exhibit 8

Project Management Plan

Phase 4: Service Center Program – Leon Creek WRC Facility Improvements



1. Pay Request Form (XL template form)



Exhibit 8
Project Management Plan
Phase 4: Service Center Program – Leon Creek WRC Facility Improvements

APPLICATION AND CERTIFICATE FOR PAYMENT					
		Application Period:		Application Date:	
To (Owner):		From (Design-Build Firm):		Via DPOR:	
Project:		Contract No.:		Contract Date:	
Owner's Project No.:		D-B Firm's Project No.:		Contract For:	
Distribution to:		D-B Firm:		DPOR:	
Owner:				Program Manager:	
DESIGN-BUILD FIRM'S APPLICATION FOR PAYMENT			DESIGN-BUILD FIRM'S CERTIFICATION		
Change Order Summary			The undersigned Design-Build Firm certifies that: (1) all previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Design-Build Firm's legitimate obligations incurred in connection with Work covered by prior Applications for Payment; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to Owner at time of payment free and clear of all claims, liens, security interests and encumbrances (except such as are covered by a Bond acceptable to Owner indemnifying Owner against any such claims, liens, security interests or encumbrances); and (3) all Work covered by this Application for Payment has been completed in accordance with the Contract Documents and is not defective.		
Approved Change Orders					
Number	Additions	Deductions			
TOTAL:					
NET CHANGES BY CHANGE ORDER		#VALUE!			
1. ORIGINAL CONTRACT SUM		\$			
2. NET CHANGES BY CHANGE ORDER		\$			
3. CONTRACT SUM TO DATE (Line 1 +/- 2)		\$			
4. TOTAL EARNED ON WORK COMPLETED & STORED TO DATE		\$			
(Column G Total on Continuation Sheet)					
5. RETAINAGE:					
a. 5% % of Completed Work					
(% RET x Columns D+E Total on Continuation Sheet)					
b. 5% % of Stored Material					
(% RET x Column F Total on Continuation Sheet)					
Total Retainage (Column I Total on Continuation Sheet)		\$			
6. TOTAL EARNED LESS TOTAL RETAINAGE WITHHELD TO DATE		\$			
(Line 4 Less Line 5 Total)					
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT		\$			
(Line 6 from prior Certificate)					
8. CURRENT PAYMENT DUE		\$			
9. BALANCE TO FINISH, INCLUDING RETAINAGE					
(Line 3 less Line 6)		\$			
APPROVAL OF CERTIFICATE FOR PAYMENT			DESIGN PROFESSIONAL OF RECORD'S CERTIFICATE FOR PAYMENT		
In accordance with the Contract Documents, the undersigned hereby certifies to the Owner that to the best of the undersigned's knowledge, information and belief the Design-Build Firm is entitled to payment of the AMOUNT CERTIFIED.			In accordance with the Contract Documents, based on on-site observations and the data comprising this application, the Design Professional of Record certifies to the Owner that to the best of the Design Professional of Record's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Design-Build Firm is entitled to payment of the AMOUNT CERTIFIED.		
PROGRAM MANAGER or ARCHITECTURAL REPRESENTATIVE:			DESIGN PROFESSIONAL OF RECORD:		
BY:			BY:		
Date:			Date:		



Exhibit 8

Project Management Plan

Phase 4: Service Center Program – Leon Creek WRC Facility Improvements



2. CONSTRUCTION CHANGE DIRECTIVE FORM

Construction Change Directive



New Service Center Project

CCD No. _____

Date: _____

To Design-Build Firm:

WBS Number	Service Center	Building/Site Segment

1. Design-Build Firm shall perform the Services and/or Work described below:

Attach additional pages and reference documents as needed.

2. Owner authorizes the following adjustments to the GMP and/or Project Schedule in connection with this CCD:

GMP presently is \$ _____

This CCD will result in (check one of the following):

[__ increase/ __ (decrease)/__ no change] to the GMP, in the amount of \$ _____

The GMP, as adjusted by this CCD, will be..... \$ _____

The Date of Substantial Completion prior to this CCD is, 20__

The Date of Final Completion prior to this CCD is, 20__

The Project Schedule will be adjusted by this CCD to (check one of the following): [__ increase/ __ (decrease)/__ make no change to] the time to perform, as shown below, by..... __ Calendar Days

This CCD will result in a Date of Substantial Completion of, 20__

This CCD will result in a Date of Final Completion of, 20__

Issued by:

SAWS Project Manager

Name _____

Signature _____

Date _____

Receipt Acknowledged by Design-Build Firm:

Name _____

Signature _____

Date _____

Acceptance of Above CCD Adjustments Confirmed by Design-Build Firm:

Name _____

Signature _____

Date _____

Exhibit 8

Project Management Plan

Phase 4: Service Center Program – Leon Creek WRC Facility Improvements



3. AIA Best Practices Checklist

Project Number:

Date:

Prepared By:

Updated:

Action

Notes

General Objectives of Phase		
<input type="checkbox"/>	Drawings and other documents to fix and describe the size and character of the Project as to architectural, structural, mechanical and electrical systems, materials and such other elements as may be appropriate	
<input type="checkbox"/>	Building areas and volumes fixed	
<input type="checkbox"/>	Predominate production phase expanding upon representative work of Schematic Design	
<input type="checkbox"/>	Foundation or Superstructure permit if called for in the agreement	
<input type="checkbox"/>	Primary consultant coordination effort well underway	
<input type="checkbox"/>	Specialty consultant coordination begun	
<input type="checkbox"/>	Draft of Project Manual	
<input type="checkbox"/>	Initial GMP pricing and/or select early bid package	
<input type="checkbox"/>	Project performance criteria refined/confirmed	

Phase Task Checklist

MANAGEMENT / QUALITY MANAGEMENT / SCHEDULES

<input type="checkbox"/>	Update project area / program / budget	
<input type="checkbox"/>	Maintain binder and check set of all work prepared during this phase	
<input type="checkbox"/>	Conduct brief weekly team meeting with the team	
<input type="checkbox"/>	Obtain authorization to proceed with Design Development Phase.	
<input type="checkbox"/>	Finalize Owner/Architect agreement if not already done	
<input type="checkbox"/>	Primary consultant agreements completed	
<input type="checkbox"/>	Specialty proposals completed and target wrapping up agreements	
<input type="checkbox"/>	Review project schedule / manpower	
<input type="checkbox"/>	Confirm project delivery method	
<input type="checkbox"/>	Make necessary adjustments to mock-up set and drawing index for the anticipated Construction Documents drawings	
<input type="checkbox"/>	Confirm/update project data and relation to Owner/Architect agreement (i.e., Owner's name, contact information, legal entity, etc.)	
<input type="checkbox"/>	Monitor design firm's fees and manpower versus actual progress Take corrective action if fee and/or schedule is slipping	
<input type="checkbox"/>	Monitor design team's billings	
<input type="checkbox"/>	Confirm peer review schedule for this phase	

**Name of Project Design
Development**

Quality Management Phase

Project Number:

Date:

Prepared By:

Updated:

Action

Notes

<input type="checkbox"/>	Update the estimate of the Cost of the Work B101-2007 - 3.3.2	
<input type="checkbox"/>	Submit Design Development package to Owner and for Peer Review B101-2007 - 3.3.3	
<input type="checkbox"/>	Prepare approval letter for Design Development phase completion B101-2007 - 3.3.3	
<input type="checkbox"/>	Modify the checklist for the next phase per the project's particular needs	

PROGRAM / CONSTRUCTION COSTS / REGULATORY REQUIREMENTS

<input type="checkbox"/>	Review any adjustment in the Project requirements B101-2007- 3.1.1	
<input type="checkbox"/>	Review any adjustment in the Project budget for the Cost of the Work B101-2007- 3.1.1	
<input type="checkbox"/>	Update zoning analysis and make any necessary adjustments to the project	
<input type="checkbox"/>	Fully develop the code compliance sheets with fire resistive rated construction, occupancy classifications and exiting analysis Finalize the accessibility compliance drawings	
<input type="checkbox"/>	Conduct any necessary meetings / contact with code / accessible governmental authorities B101-2007 - 3.1.6	

PERFORMANCE CRITERIA

<input type="checkbox"/>	Review and confirm with the Owner project performance requirements of the project	
<input type="checkbox"/>	Update Structural Design Criteria	
<input type="checkbox"/>	Update MEP/FP Performance Criteria	
<input type="checkbox"/>	Update Building envelope performance Criteria	
<input type="checkbox"/>	Update Acoustical performance Criteria	
<input type="checkbox"/>	Update Building system durability / maintainability performance Criteria	
<input type="checkbox"/>	Aesthetic performance, cultural performance, inspirational performance and/or other more intangible performance	
<input type="checkbox"/>	Update Sustainability performance Criteria and goals	

CIVIL / SITE DESIGN

<input type="checkbox"/>	Coordinate utility connections	
<input type="checkbox"/>	Final grades and drainage finalized	

**Name of Project Design
Development**

Quality Management Phase

Project Number:

Date:

Prepared By:

Updated:

Action

Notes

<input type="checkbox"/>	Paving patterns, paving details and site lighting delineated	
<input type="checkbox"/>	All site elements are defined	
<input type="checkbox"/>	Site plan graphically fixed and site geometry fixed	
<input type="checkbox"/>	Landscape plans indicate planting and hardscape, plant schedule complete, irrigation scope determined	
<input type="checkbox"/>	Site detailing initiated	

DESIGN / ARCHITECTURE

<input type="checkbox"/>	Plans are generally graphically complete except for minor coordination	
<input type="checkbox"/>	Exterior envelope modules and primary exterior dimension strings are complete	
<input type="checkbox"/>	Representative area interior dimensioning	
<input type="checkbox"/>	Rooms labeled and numbered	
<input type="checkbox"/>	Partition types tagging generally represented	
<input type="checkbox"/>	Doors tagged	
<input type="checkbox"/>	Reflected ceiling plans for all typical and major areas of the project drawn with light fixtures and diffusers indicated	
<input type="checkbox"/>	Representative ceiling details drawn, focus on covering scope	
<input type="checkbox"/>	Structure and MEP/FP coordination well underway	
<input type="checkbox"/>	Exterior elevations are graphically complete	
<input type="checkbox"/>	All building sections are cut and structure is coordinated with the current structural drawings	
<input type="checkbox"/>	MEP/FP horizontal collection and distribution zones addressed in building sections where applicable	
<input type="checkbox"/>	Complete typical wall sections at 1/2" or 3/4" scale with notes and dimensions	
<input type="checkbox"/>	Representative larger scale partial details at 1 1/2" or 3" scale	
<input type="checkbox"/>	Foundation / basement sections complete	
<input type="checkbox"/>	Draft of specification sections pertaining to exterior envelope including roofing, waterproofing, aluminum & glass systems and opaque wall systems	
<input type="checkbox"/>	Vertical circulation elements, stairs, elevators and elevator cabs, are completely dimensioned and coordinated in plans and sections	
<input type="checkbox"/>	Draft of elevator and stair specifications	

**Name of Project Design
Development**

Quality Management Phase

Project Number:

Date:

Prepared By:

Updated:

Action

Notes

<input type="checkbox"/>	Block out unit kitchens/ bathrooms, laboratory or other such spaces with casework and built-in fixtures, equipment and appliances	
<input type="checkbox"/>	Interior material selections are scheduled and/or specified	
<input type="checkbox"/>	Finish design of lobbies, amenities and other finish spaces is initiated	
<input type="checkbox"/>	Draft of specifications for finish sections	
<input type="checkbox"/>	The majority of partition types are detailed (those in high finish areas may not be detailed)	
<input type="checkbox"/>	Representative typical interior details drawn	
<input type="checkbox"/>	Door schedules for typical areas complete with draft of specifications for doors, frames and hardware	
<input type="checkbox"/>	Typical door details are drawn	
<input type="checkbox"/>	Typical area room finish scheduled is complete	
<input type="checkbox"/>	Interior finishes are tabulated or specified citing as much specific manufacturer, model, type, color information as possible	
<input type="checkbox"/>	Updated outline specification or prepare draft specification for finishes and doors (if preparing draft specifications must include as much project specific information as possible)	

STRUCTURAL

<input type="checkbox"/>	All column sizes and lateral design structural elements fixed and included in architectural drawings	
<input type="checkbox"/>	All floor framing plan sheets drawn denoting slab thicknesses, any beams and showing major slab openings	
<input type="checkbox"/>	Foundation design completed	
<input type="checkbox"/>	Structural design complete with regard to wind loading and/or seismic	
<input type="checkbox"/>	Framing diagrams for all miscellaneous framing assemblies	
<input type="checkbox"/>	Structural / architectural / MEP coordination ongoing	
<input type="checkbox"/>	Draft of specification sections	
<input type="checkbox"/>	Scope of all miscellaneous structural items defined	
<input type="checkbox"/>	Slab depressions and balcony conditions addressed	
<input type="checkbox"/>	General CMU reinforcing design and loose lintels are shown	
<input type="checkbox"/>	Typical masonry design and/or other cladding interfaces reflected in typical details	

**Name of Project Design
Development**

Quality Management Phase

Project Number:

Date:

Prepared By:

Updated:

Action

Notes

MEP / FP

<input type="checkbox"/>	Design criteria including indoor and outdoor conditions, ventilation, air circulation, minimum exhaust, sound levels, system diversities and building envelope thermal characteristics reaffirmed in the documents	
<input type="checkbox"/>	All riser diagrams are complete	
<input type="checkbox"/>	Typical floor(s) coordination is complete with all risers, chases and interstitial ceiling areas coordinated	
<input type="checkbox"/>	Major equipment rooms are laid out and final space requirements are confirmed	
<input type="checkbox"/>	Plans other than the typical floor are sufficiently developed giving a reasonable expectation that final coordination will not adversely impact the architectural layout, structural design, etc.	
<input type="checkbox"/>	Mechanical floor plans are nearly graphically complete with double line ductwork	
<input type="checkbox"/>	Plumbing floor plans are nearly graphically complete showing horizontal collection and distribution piping	
<input type="checkbox"/>	Coordinate mechanical, fire protection and plumbing risers with the floor plans	
<input type="checkbox"/>	Coordinate horizontal distribution of major ductwork, plumbing piping, sprinkler mains, etc. with architectural reflected ceiling plans such that the ceiling heights can be confirmed Locate diffusers, light fixtures and other principal devices	
<input type="checkbox"/>	There is enough coordination between the various MEP/FP disciplines to confirm interstitial spaces and large structural openings in slabs and shear walls	
<input type="checkbox"/>	Equipment cuts that are exposed to view in public areas are finalized	
<input type="checkbox"/>	For projects where DD is a preliminary GMP issue, all equipment schedules are completed and a draft technical specification needs to be prepared	
<input type="checkbox"/>	Reaffirm Energy code analysis	
<input type="checkbox"/>	Coordinate Utility requirements	

OTHER CONSULTANTS

<input type="checkbox"/>	Continued coordination with Owner's consultants B101-2007 3.1.2	
<input type="checkbox"/>	All miscellaneous consultant work sufficiently developed that could impact building design, performance and coordination	
<input type="checkbox"/>	Reports, drawings, specifications in line with project schedule requirements	
<input type="checkbox"/>	For high-rise buildings: Prepare wind analysis for building structure	
<input type="checkbox"/>	Elevator consultant reviews and confirms layouts, dimensions for hoistway, pits and machine rooms and prepares specification	

**Name of Project Design
Development**

Quality Management Phase

Project Number:

Date:

Prepared By:

Updated:

Action

Notes

<input type="checkbox"/>	Curtain wall consultant reviews typical wall sections and details, prepares specification sections	
<input type="checkbox"/>	Acoustical consultant reviews development of drawings and prepares a written report covering MEP acoustical isolation, architectural partitions / floor details, etc. Prepares or contributes to acoustical isolation specification	
<input type="checkbox"/>	Obtain report from parking consultant	
<input type="checkbox"/>	Definition of security systems and tele/data including preliminary specifications	
<input type="checkbox"/>	Building maintenance / window washing	
<input type="checkbox"/>	Laboratory, food service, pool, and other specialty consultants	
<input type="checkbox"/>	Finalize LEED or other sustainable requirements	

Deliverables for Phase		
Drawings		
<input type="checkbox"/>	Civil plans, landscape plans and architectural site plans are generally complete	
<input type="checkbox"/>	Plans generally complete	
<input type="checkbox"/>	Reflected ceiling plans of typical areas drawn and coordinated	
<input type="checkbox"/>	Partial elevations drawn with dimensions, notes and sections referenced	
<input type="checkbox"/>	Typical wall sections drawn	
<input type="checkbox"/>	Representative larger scale section details drawn	
<input type="checkbox"/>	Majority of partition types drawn	
<input type="checkbox"/>	Door and room finish schedules for typical areas complete	
<input type="checkbox"/>	Structural plans generally complete; columns, beams, slabs, lateral design elements scheduled and detailed	
<input type="checkbox"/>	MEP/FP plans generally complete, equipment scheduled, riser diagrams generally complete	
<input type="checkbox"/>	Coordination is well underway	
Project Manual		
<input type="checkbox"/>	General statement of purpose of Design Development Package	
<input type="checkbox"/>	Outline Specification expanded or edited down as draft full sections are included	
<input type="checkbox"/>	Draft of select full specification sections	
<input type="checkbox"/>	GMP or early bid packages - the following sections may be required for preliminary bidding; 1) foundation system, 2) structure, 3) major building envelope systems, and 4) elevators	