

Request for Qualifications Progressive Design-Build-Operate Procurement

Prepared for
Portland Water District
Regional Biosolids Facility Project
225 Douglass Street
Portland, Maine 04102
June 9, 2026



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Section 1

General Information

1.01 Definitions

- A. Terms used in this Request for Qualifications (RFQ) have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms have the meanings indicated below:
- Basis of Design Documents: For Design-Build Institute of America (DBIA) Document No. 545, Standard Form of Progressive Design-Build Agreement for Water and Wastewater Projects as amended, the Basis of Design Documents are Owner's Project Criteria, Design-Builder's Statement of Qualifications and the Deviation List, if any.
 - Deliverable: A document, either in hard copy or electronic form, which describes certain performance reporting, operational outcomes or maintenance aspects of the Project.
 - Design-Builder: The entity with the prime design-build contract with the Owner.
 - Design-Build Team: All entities listed by the Design-Builder as providing services or construction on the Project. The Design-Builder is not required to list all members of the Design-Build Team in the Statement of Qualifications. Members of the Design-Build Team may also be referred to as "Team Members."
 - Guaranteed Maximum Price (GMP): A contractually agreed-upon price that is developed by the Design-Builder in accordance with the draft Progressive Design-Build Agreement in Attachment A of this Request for Qualifications.
 - Key Team Member: Individuals who will be assigned to the Project who play an important role in the design, construction, or management of the Project.
 - Maintenance Phase: Period of the Project after Substantial Completion during which the Design-Builder is required to maintain the Facility, in whole or in part, ending on the expiration of the Operations and Maintenance (O&M) Term.
 - Operation Phase: Period of time after Substantial Completion during which the Design-Builder is required to operate the Facility, in whole or in part, ending on the expiration of the O&M Term as set forth in Attachment A (Draft Progressive Design-Build Agreement).
 - Operations and Maintenance (O&M) Services: Services performed by the Design-Builder during each of the Operational Phases and Maintenance Phases
 - Owner: Portland Water District (PWD)
 - Owners Advisor (OA): Consultant who represents the Owner during procurement, contracting, and/or management of the Project.
 - Phase 1A Services: Design-Builder shall perform the services of design, pricing and other services for the Project based on Owner's Project Criteria as set forth in Exhibit A. The Phase 1A Services are defined in Exhibit B to the draft Design-Build Agreement (Attachment A). Upon completion of Phase 1A Services, the Design-Builder shall submit a proposal to Owner for Phase 1B Services.
 - Phase 1B Services: Upon acceptance of Design-Builder's proposal for the Phase 1B Services, Design-Builder shall perform the services of design, pricing and other services for the Project based on Owner's Project Criteria and the Design Documents prepared during

Phase 1A and identified in Design-Builder's Phase 1B Proposal, Design-Builder shall perform the Phase 1B services which shall include developing the design, schedule and pricing to the level of completion required for Design-Builder and Owner to establish the Contract Price for Phase 2.

- Procurement: The Owner's process for selecting a Design-Build Team for this Project.
 - Procurement Documents: All documents issued by the Owner in connection with the Procurement or Project.
 - Progressive Design-Build Agreement (PDB Agreement): Refers to the executed contract between Owner and Design-Builder under DBIA Document No. 545, Standard Form of Progressive Design-Build Agreement for Water and Wastewater Projects (2024 Edition) as amended.
 - Statement of Qualifications (SOQ): The document submitted by a Proposer in response to this Request for Qualifications, including any completed forms, attachments, and exhibits.
 - Projects of Similar Scope and Complexity: Projects that had completion dates within the last five (5) years and that have many or all of the following characteristics:
 - Projects of a similar size and budget that include design, construction, and operation of biosolids facilities;
 - Projects that utilize an integrated delivery method that require strong coordination and integration of the design and construction professionals and operators, including early involvement of the operators and construction professionals during design;
 - Projects where the Design-Builder was selected prior to the establishment of the final price and schedule and where the Design-Builder collaborated with the Owner to develop the final price and schedule;
 - Proposer: An entity that submits a Statement of Qualifications to Owner.
 - Request for Qualifications (RFQ): The Owner's Request for Qualifications.
- B. In addition to terms specifically defined, terms with initial capital letters in the RFQ include references to identified Sections and paragraphs, and the titles of other documents or forms.

1.02 Project Description

The Owner, PWD, is seeking to construct a regional biosolids facility to be owned by PWD and operated by a Design-Build Team. This facility is intended to provide advanced treatment for biosolids generated by the Owner and several of its peer utilities in Maine. Specifically, the project as currently contemplated would include cake receiving, anaerobic digestion, dewatering, thermal drying, and PFAS destruction in landfill leachate. While not included in the current project scope, the Owner wishes to reserve space on site to allow for design flexibility should a thermal destruction solution be necessary in the future.

Based upon planning analysis performed to date, including the Owner's population projections, the expected capacity of this facility is an average of 85 wet tons/day, where 75 wet tons/day are contributions from the Owner's facilities and the remainder are contributions from peer utilities. The Owner has performed preliminary outreach to gauge partner utility interest in this project and will provide anticipated project participation as part of the RFQ.

The Owner has an existing Memorandum of Agreement for a future lease of land for the project at the ecomaine solid waste facility in Portland, ME which can be found in RFQ Attachment F (Other Preliminary Materials and Reports). Site maps, operating constraints, accessibility, and available utilities are provided in RFQ Attachment D (ecomaine Site Areas Assessment). Permitting and

approval requirements for each potential site location are summarized in RFQ Attachment E (Preliminary Permitting Matrix). In addition, PWD's Biosolids Characterization Data for 2025 and 2026 is included in RFQ Attachment F.

1.03 Project Delivery

1.03.1 Delivery Approach

The delivery method for this project will be Design-Build-Operate, using Progressive Design Build with long-term operations. Contractually, the Owner will offer severability to the Design-Builder following successful commissioning, acceptance and warranty period, currently proposed to be 12 months after acceptance. At which time, the Owner will have a long-term operations contract, the Agreement, in place with an operations partner. Exhibit C to the draft PDB Agreement (Attachment A) details the Owner's terms to operate and maintain the Facility. Note that the operations partner does not need to be exclusive unless that is the preferred arrangement of the Design-Builder.

The Owner will engage a Design-Builder early to collaboratively develop the design, refine the basis of project scope, and iteratively update the cost model and schedule to support informed, cost- and schedule-based decision-making throughout design development. The Design-Builder will be responsible for the design milestones outlined in this RFQ and Exhibit B to the draft PDB Agreement (Attachment A). The Owner expects to have direct access to the Design-Build Team during design development, workshops, and meetings.

In addition to design, the Design-Builder is responsible for taking the lead on permitting associated with the project. The OA has prepared a preliminary permitting matrix in Attachment E (Preliminary Permitting Matrix), identifying the likely necessary permits for the facility. This list is not necessarily comprehensive, and it will be the responsibility of the Design-Build Team to identify and manage permitting requirements regardless of whether they are included on a preliminary list. The Owner's staff will be made available to provide information specific to the Owner's operations and biosolids quality and are willing to support permit negotiations with state and local authorities.

The Design-Builder will propose a fixed price for the first ten (10) years, subject to escalation and the exceptions noted below, to operate the facility. This pricing proposal shall be submitted at the time of the GMP negotiations in order to facilitate the Owner's funding assessment. Labor costs will be capped subject to escalation at an agreed upon rate and duration. Maintenance costs will be capped subject to escalation at an agreed upon rate. The Design-Builder will specify the annual amount to be contributed to a reserve fund for repair and replacement costs that exceed \$50,000 (this value to be finalized during negotiations). Design-Builder will guarantee that there are sufficient funds in this account for all future repair and replacement costs during the term of the Agreement.

1.03.2 Milestone 1 Design Deliverable

The initial contracted design deliverable will be the Milestone 1 Design package prepared in accordance with the Owner's standards, as further described in Exhibit B to the draft PDB Agreement (Attachment A), Milestone 1 is intended to establish the technical and planning foundation for the Project by confirming process selection, developing a preliminary site/facility layout, completing concept-level major equipment sizing, and producing the planning-level information needed to support early decision-making and stakeholder coordination.

Milestone 1 will provide sufficient project controls and technical definition to support a meaningful Owner decision at an early stage, including the management framework (e.g., project management plan, coordination meetings and documentation, schedule management, decision/risk tracking, and

QA/QC certifications) and the core technical basis (e.g., data collection/validation, loading projections, design criteria development, and development of the early technical package).

The Agreement will be structured so that Milestone 1 culminates in a formal 30% Design Milestone Review and pause point. The Owner anticipates needing an Owner-led review and decision period after delivery of the 30% package to advance internal approvals, align stakeholders, and continue coordination related to funding and agency requirements before authorizing progression into detailed design. During Milestone 1, the 30% cost estimate shall include operations and maintenance (O&M) projections to support funding and lifecycle considerations, and the Owner also intends to request a draft cost and schedule for the next step (60% or GMP -level design development) based on the 30% concept so the Owner can understand Project cost and schedule as the design develops. Once the Owner selects and approves a concept, the Design-Builder will be expected to design-to-budget consistent with that approved basis; any subsequent budget adjustments must be accompanied by written explanation and be subject to PWD review and sign-off. The Phase 1B Proposal will be developed later through progressive refinement of the design and cost model, and may include Owner-approved early work packages where they clearly reduce cost, schedule, or risk.

1.04 Owner Objectives and Project Goals

By selecting the Progressive Design-Build-Operate delivery method for this Project, the Owner is committed to working in close collaboration with the Design-Builder during Phase 1 to develop a design that achieves the Owner's objectives at a mutually agreeable GMP for delivery of the Project. The Owner also expects the Design-Builder to construct the Project, as designed, within the agreed-upon price and schedule, through commissioning and startup. Finally, the Owner expects the Design-Builder to participate in the operation of the facility for a maximum of fifteen (15) years. The following Project-specific objectives are provided to give Proposers a better understanding of the Project and the work to be performed.

- A. Project Goals. The Project is intended to be procured and executed to meet the following goals which are listed below and further defined in Exhibit B to the draft PDB Agreement (Attachment A).
 1. Procurement Goals
 - Follow open, transparent, and fair procurement methodology
 - Allocate risks in a fair and balanced manner
 - Select a Design-Build Team based on the combined experience of the entities. There is no preference for an operator, builder or designer-led team.
 - Select a Design-Build Team that offers the best-value to PWD and the regional biosolids community.
 2. Performance Goals are listed briefly below and fully defined in Exhibit A to the draft PDB Agreement (Attachment A).
 - This facility is intended to be a reliable outlet for biosolids generated in Maine. Proposers should account for reliability and storage as necessary to maintain continual service/receipt of biosolids from participating utilities.
 - Operations plan developed during Phase 1A should include a backup plan during planned and unplanned (emergency and non-emergency) outages.
 - Key milestones for the Phase 2 delivery will be finalized during the GMP negotiations, but generally will include permitting to allow construction, air and water quality and occupancy to coincide with startup and commissioning, substantial completion,

acceptance testing, and final completion milestones that align with an approved schedule.

- Operations will not interrupt service of PWD in the acceptance of incoming biosolids.
- Other performance requirements determined during design criteria/ Basis of Design Report development and related to equipment and process selection.

3. Public Relations Goals

- Minimize construction impacts on adjacent businesses, residents, and the general public.
- Maintain cooperative relationship with local municipalities, environmental groups, and other stakeholders in coordinating project design and construction with adjacent projects.

1.05 Project Budget

The estimated capital costs for the Project are \$140M (2024 USD). Refer to Economic Evaluation of Regional Biosolids Facility (Attachment C) for additional information regarding the Project budget.

Phase 1A services are expected not to exceed \$1.5 million including the Design-Builder and other Owner consultants. See Exhibit B of RFQ Attachment A for more details outlining the Project Scope of Services.

1.06 Project Funding

The Project is expected to be funded by public sources; however, no public funding has been secured thus far. In the future, the Project may need to comply with State and/or Federal Funding requirements such as the requirements of the Maine Department of Environmental Protection (DEP) State Revolving Fund (SRF) program. Should State and/or Federal Funding be utilized for the Project, the Design-Builder shall comply with funding requirements identified by the Owner. Requirements may include but are not limited to:

- Davis-Bacon Act
- Disadvantaged Business Enterprise Program
- American Iron and Steel
- Build America, Buy America

Should additional funding opportunities become available during Phase 1 of the Project, the Owner may identify additional requirements. The Design-Builder may be required to assist the Owner in submitting applications for potential funding opportunities.

1.07 Project Schedule

The anticipated schedule for Phases 1, 2, and 3 of the Project are shown below:

| Table 1-1. Schedule for Phases 1, 2, and 3 | |
|--|-------------------|
| Activity/Milestone | Date |
| Milestone 1/Phase 1A | Q3 2027 |
| Phase 1B | Q1 2028 - Q1 2029 |
| Negotiate GMP | Q1 2029 - Q3 2029 |
| 90 percent design | Q1 2030 |

| Table 1-1. Schedule for Phases 1, 2, and 3 | |
|---|------------------------------------|
| Activity/Milestone | Date |
| Final design | Q2 2030 |
| Construction Services (Phase 2) Notice to Proceed | Upon successful negotiation of GMP |
| Completion of Acceptance Testing | Q1 2031 |
| Construction Substantial Completion | Q2 2031 |
| Operation Services (Phase 3) Begins | Q2 2031 |

Section 2

Progressive Design-Build-Operate Services

2.01 General

As noted in Section 1 and more fully described in Exhibit B to the draft PDB Agreement (Attachment A) the Design-Builder will provide services in three distinct phases. Preconstruction-phase services generally consist of preliminary engineering, geotechnical investigations, and design development, as well as preparation—working closely with the Owner—of a proposed price and schedule. The proposed price and schedule include the Project’s design (developed to the Owner’s required level of completion), a Milestone 1 Deliverable, Project schedule, and supporting documentation, such as detailed open-book costing for the GMP. Construction-phase services generally encompass completing the Project’s final design, construction, and performance testing. Operation-phase services include long-term operation and maintenance of the completed facility (up to 10-year base operations), performance monitoring, regulatory compliance, and continuous improvement initiatives, all in accordance with agreed service levels and performance guarantees. Permitting activities are included in each phase.

Phase 1A and B: Preconstruction-phase services:

- Phase 1A (contract award to Milestone 1):
 - Develop the Project execution plan, including Project schedule.
 - Produce the Milestone 1 Design as outlined in Exhibit B to the draft PDB Agreement (Attachment A).
 - Prepare a project cost model and provide detailed cost estimates as the design and design alternatives are advanced.
 - Identify Project permitting requirements and initiate certain permitting activities.
- Phase 1B (Milestone 1 to GMP):
 - Develop and submit Phase 1B Proposal containing the GMP or lump-sum price to complete construction-phase services.
 - Perform engineering studies (such as subsurface investigations, pilot studies, raw water/wastewater analyses, etc.) to support design and cost estimating.

Phase 2: Construction-phase services (Future contract):

- Complete the final design (if not included in the Pre-construction phase).
- Procure equipment and subcontractors.
- Secure necessary permits.
- Construct the Project.
- Conduct startup, commissioning, performance testing, and acceptance testing.
- Provide operator training.
- Provide warranty coverage.

Phase 3: Operation-phase services (Future contract)

- Operate the facility in accordance with agreed performance standards.
- Perform routine and preventive maintenance on all systems and equipment.
- Monitor and report on operational performance, including compliance with regulatory requirements.
- Manage staffing, training, and safety programs for operational personnel.
- Implement asset management and lifecycle planning for major components.
- Optimize processes for efficiency, sustainability, and cost control.
- Maintain documentation and records for audits and reporting.
- Coordinate with the Owner on continuous improvement initiatives and future upgrades.

2.02 Roles and Responsibilities

Owner: The Owner will cooperate with the Design-Builder and will fulfill its responsibilities in a timely manner to facilitate the Design-Builder's timely and efficient performance of services. Owner responsibilities include:

- Review submissions and provide comments to Design-Builder.
- Furnish existing studies and provide complete, accurate and reliable data and information regarding the Project, including record drawings, preliminary studies, environmental impact assessments, etc.
- Provide information and provide (or engage Design-Builder to perform) additional studies that may be necessary to complete the Project.
- Provide adequate funding.
- Provide access to the Project site and any necessary easements.
- Obtain the governmental approvals and permits Owner is responsible for and assist Design-Builder in obtaining governmental approvals and permits it is responsible for.
- Provide necessary data and inputs (e.g., raw water, wastewater influent or biosolids) for Project startup and performance testing.

Design-Builder: The Design-Builder will cooperate with the Owner and will provide, in a timely manner, the preconstruction-, construction-, and operation-phase services necessary to complete and operate the Project scope specified in this RFQ. Design-Builder responsibilities include:

- Prepare design and construction documents.
- Supervise subcontractors and Design-Build Team personnel.
- Obtain necessary governmental approvals and permits Design-Builder is responsible for and assist Owner in obtaining governmental approvals and permits it is responsible for.
- Maintain site security during construction and transition to operations.
- Conduct startup, commissioning, and performance testing.
- Implement quality-management procedures across all phases.
- Implement Project health and safety practices.
- Operate and maintain the facility in accordance with agreed performance standards.
- Monitor compliance with regulatory requirements and reporting obligations.
- Manage staffing, training, and safety programs for operational personnel.
- Perform preventive and corrective maintenance and asset management.
- Optimize processes for efficiency and sustainability throughout the operation phase.

Section 3

Procurement Process

3.01 Compliance with Legal Requirements

This Procurement will be in accordance with all applicable federal, state, and local laws, and Owner policies and procedures.

3.02 Conflict of Interest and Communications with the Owner

- A. Consultants who assisted the Owner in the RFQ preparations may not propose or participate on any Design-Build Team on this Project. The following listed Consultants may not propose or participate on any Design-Build Team on this Project.
 - a. Brown and Caldwell: Serving as the Owner Advisor
- B. Proposers are required to conduct the preparation of their SOQs with professional integrity and free of lobbying activities. Communication with the Owner regarding this Project shall be via email or regular mail only and directed to the following Owner's Contact: Wesley Gilbert at wgilbert@pwd.org. Do not communicate about the Project or the Procurement with any other Owner employees, representatives, or consultants. Communication with other Owner employees, representatives, or consultants regarding the Procurement may cause the firm involved to be disqualified from submitting under this Procurement. Any verified allegation that a responding Proposer or Team Member or an agent or consultant of the foregoing has made such contact or attempted to influence the evaluation, ranking, and/or selection of Proposer(s) may be the cause for Owner to disqualify the Proposer team from submitting an SOQ, to disqualify the Team Member from participating in the Procurement, and/or to discontinue any further consideration of such Proposer or Team Member.
- C. Following the Owner's approval of the Proposer, the Owner anticipates that certain communications and contacts will be permitted. The RFQ and/or other written communications from Owner will set forth the rules and parameters of such permitted contacts and communications. To the extent any Proposer intends at any time to initiate contact with the general public regarding the Project, the nature of such intended contact and the substance thereof must be approved in writing by the Owner prior to the commencement of such activities.

3.03 Expenses of Proposer

The Owner accepts no liability for the costs and expenses incurred by firms in responding to this Procurement. Each Proposer that enters into the Procurement process shall prepare the required materials and the SOQ at its own expense and with the express understanding that the Proposer cannot make any claims whatsoever for reimbursement from the Owner for the costs and expenses associated with the process, even in the event the Owner cancels this Project or rejects all SOQs.

3.04 Public Disclosure

All documentation and submittals provided to the Owner may be considered public documents under applicable laws and may be subject to disclosure. Proposers recognize and agree that the Owner will

not be responsible or liable in any way for any losses that the Proposer may suffer from the lawful disclosure of information or materials to third parties.

Any materials requested to be treated as confidential documents, proprietary information, or trade secrets must be clearly identified and readily separable from the balance of the SOQ. Such designations will not necessarily be conclusive, and Proposers may be required to justify why such material should not, upon written request, be disclosed by the Owner under the applicable public records act. The Owner will endeavor to provide at least two (2) Business Days' notice of a public records request for material submitted pursuant to this Procurement. Proposers must respond to the notice in writing with any objection to the production of the documents within two (2) Business Days of receipt of the notice. All costs incurred by Proposers associated with any public records request are the responsibility of the Proposers. In the event Proposer maintains its information is confidential and not subject to disclosure, it shall be the responsibility of Proposer to obtain at its cost, any protective order needed from a court of competent jurisdiction to protect such information from disclosure.

3.05 Protest Procedures

The protest procedures applicable to the Procurement are as follows:

- A. All Protests will be directed to: PWD Purchasing Agent, Wesley Gilbert. wgilbert@pwd.org
- B. Any Protest based on the form or content of the Procurement documents, which is or should have been apparent prior to the date established for submittal of the SOQ, will not be considered if received by the person set forth above later than ten (10) calendar days prior to the specified submittal date.
- C. To be considered, a Protest shall be in writing and shall include: (1) the name, street address, and email address of the aggrieved party; (2) the name of the Project for which the Protest is submitted; (3) a detailed description of the specific grounds for the Protest and any supporting legal and/or factual documentation; and (4) the specific ruling or relief requested.
- D. In computing any period of time prescribed by this procedure, the day of the act or event from which the designated period of time begins to run shall not be included. The last day of the period shall be included. Any document received after the close of regular business hours (8:00 a.m. to 5:00 p.m.) shall be deemed received the following Business Day.
- E. By submitting an SOQ in response to this Procurement, the Proposer acknowledges that it has reviewed and acquainted itself with the protest procedures herein and agrees to be bound by such procedures as a condition of submitting an SOQ.

3.06 Owner Rights and Procurement Conditions

The Owner reserves without limitation, and may exercise at its sole discretion, the following rights and conditions with regard to this Procurement process:

- A. To cancel the Procurement process and reject any and all SOQs;
- B. To waive any informality or irregularity;
- C. To revise the Procurement Documents and Schedule via an Addendum;
- D. To reject any Proposer that submits an incomplete or inadequate response or is not responsive to the requirements of this RFQ;

- E. To require confirmation of information furnished by a Proposer, require additional information from a Proposer concerning its SOQ and require additional evidence of qualifications to perform the work described in this RFQ;
- F. To provide clarifications or conduct discussions, at any time, with one or more Proposers;
- G. To investigate statements on the SOQs and/or qualification of the Proposer and any firms or individuals identified in the SOQ;
- H. To consider Alternative Technical Concepts and/or approaches identified by Proposers;
- I. To take any action affecting the RFQ process or the Project that is determined to be in the Owner's best interests; and
- J. Approve or disapprove of the use of particular Subconsultants, Subcontractors, or Key Team Members and/or substitutions and/or changes to Subconsultants, Subcontractors, or Key Team Members from those identified in the SOQ. Such approval or disapproval shall not be unreasonably exercised.

3.07 Procurement Schedule

The current procurement schedule is as follows and is subject to change as it is presented here for planning purposes only:

| Table 3-1. Procurement Schedule | |
|-------------------------------------|----------------------------------|
| Activity | Date (Eastern Standard Time) |
| Issue RFQ | June 9, 2026 |
| Pre-SOQ meeting | June 25, 2026 at 1:00PM |
| Deadline for questions | July 10, 2026 |
| Final Addendum released (if needed) | July 28, 2026 |
| SOQ submission deadline | August 11, 2026 at 4:00PM |
| Interviews | September 1 - September 15, 2026 |
| Notice of Selection | September 22, 2026 |
| Contract negotiations | September 22 - October 20, 2026 |
| Award contract | November 1, 2026 |
| Milestone 1 Deliverable | Q3 2027 |

3.08 Outline of the Procurement Process

The following is an outline of the Procurement Process that is proposed in Section 3.07 above.

- A. **Issue RFQ:** This RFQ invites firms to submit SOQs describing in detail their technical, management, and financial qualifications to design, permit, construct, commission, and operate the Project. The issuance of this RFQ is the first phase of the Procurement process.
- B. **Pre-SOQ Meeting:** The Owner will conduct a Pre-SOQ meeting that will be held virtually via Microsoft Teams on June 25, 2026 starting at 1:00PM (EST) and is not mandatory. The meeting will be one (1) hour in length. The purpose of the Pre-SOQ meeting is to describe the Project, respond to questions, and identify any issues that warrant an addendum to the RFQ.

Proposers that are interested in attending the Pre-SOQ meeting shall email PWD Purchasing Agent, Wesley Gilbert at wgilbert@pwd.org by June 18, 2026 at 5:00PM (EST). The email shall

include “Pre-SOQ Meeting” in the subject line and include a list of attendees. A Microsoft Teams invite will be forwarded to those Proposers that provided contact information in the email.

- C. **Questions Regarding the RFQ:** Prior to the submission date for SOQs, written questions will be accepted as defined in the RFQ.
- D. **SOQ Submission:** Proposers will submit their SOQ and other deliverables required pursuant to this Procurement at the time and in the manner set forth in this RFQ and any Addenda. The Owner will not consider SOQs or other deliverables that are submitted after the time set forth in the RFQ. Proposers are solely responsible for making sure that the Owner receives the SOQ in a timely fashion.

The Owner will establish an RFQ Evaluation Committee to review and evaluate the SOQs. The Owner will evaluate the information submitted by each Proposer to 1) determine whether the Proposer meets the mandatory minimum requirements and 2) evaluate the SOQ provided by each Proposer pursuant to the evaluation system described below in Section 3.09. Any Proposer who fails to meet the mandatory minimum requirements set forth in this RFQ will be deemed non-responsive and will not be considered further by the Owner in this Procurement.

All SOQs will be evaluated in accordance solely with the criteria established in the RFQ and any Addenda issued thereto. The evaluation criteria are listed below in Section 3.09, including the relative weight or importance given to each criterion.

At its sole discretion, the Owner may ask written questions of Proposers, seek written clarifications, and conduct discussions with Proposers on SOQs.

Design-Build Team Members and individual Key Team Members will be used as a basis for selection. Once selected neither the Proposer nor Team Members that are submitted to the Owner as part of the SOQ may substitute a listed consultant, subconsultant or subcontractor, or any individual listed as a Key Team Member; however, a change to any submitted Team Member or Key Team Member will result in re-evaluation and may result in a change to the evaluation and ranking of the Proposer.

- E. **Interviews:** The highest scoring Proposers will be provided the opportunity to present their Project approach during formal interviews. Interviews are intended to allow the Proposers to further explain their written SOQs. Sales pitches will not be tolerated in these interviews; the purpose of the interviews is to discuss the Proposer’s technical approach and project management approach. Interviews are assumed to be 90 minutes in length and will be limited to 2 hours, providing 45 minutes for the Proposers to discuss their Project approach and where the Proposer’s creativity and innovation will be beneficial to reducing Project cost and risk. The presentation will be followed by up to 45 minutes of questions posed by Evaluation Committee members. The interviews will be held in-person, with a virtual option for attendees unable to participate in-person. Please note there is a strong preference for in-person interviews. Interview attendees are limited to 8 of Proposer’s Key Team Members identified in the Proposer’s SOQ. In ranking the SOQs and interview, the selection committee will use a 200-point scale whereby the maximum points awarded for each of the evaluation criteria will be based on the percentage weight set forth in Section 3.09.
- F. **Selection:** After the evaluation process is complete, the Owner will provide written notification to all Proposers of the selection decision and make a selection summary available to all Proposers at the conclusion of the Procurement. Note that a Proposer’s pricing information submitted under a separate, sealed PDF, will not be opened until after the selection of a Proposer based on the qualifications.

- G. **Contract Negotiations:** At the Owner's discretion, it will initiate negotiations with the Preferred Proposer. The "Preferred Proposer" is the Proposer that the Owner determines achieves the apparent highest ranked firm. If the Owner is unable to execute a contract with the Preferred Proposer, negotiations with the Preferred Proposer may be terminated, and provided that such negotiations are terminated in writing, the Owner may proceed to negotiate with the next Preferred Proposer. The Owner will continue in accordance with this procedure until a contract agreement is reached or the selection process is terminated. Negotiations are at the Owner's sole discretion.
- H. **Milestone 1 Deliverable:** The Milestone 1 Deliverable will serve as a key evaluation point for the Project. The project shall include a formal Design Milestone Review, which will serve as a defined pause point to assess overall project viability, and is further outlined in Exhibit B to the draft PDB Agreement (Attachment A). At this milestone, the Owner will evaluate progress to date, including but not limited to a Basis of Design Report (BODR), scope alignment, schedule, proposed cost model and estimates based on BODR, budget considerations, availability of funding, and the level of required external stakeholder engagement. Following completion of the Milestone 1 Deliverable, the Owner may, at its sole discretion:
- Authorize the Consultant to proceed to the next phase of work;
 - Direct revisions or supplemental coordination to address identified gaps; or
 - Elect to pause, suspend, or terminate the project without further obligation beyond compensation for work satisfactorily completed to date, should external stakeholder involvement, funding, or other enabling conditions be deemed insufficient.
- Proposers should acknowledge this milestone and decision point in their response and reflect it appropriately in their proposed scope, schedule, and fee structure.
- I. **Off Ramp:** After the contract is executed for Phase 1, but before a contract price agreement and execution of the Phase 2 agreement, the Owner also has the option to use the "Off Ramp" and not have the Design-Builder construct the project. Should the Owner choose the "Off Ramp", it will have the exclusive right to require the Design-Builder to complete the design and then proceed as with a traditional design-bid-build procurement.
- J. By submitting a SOQ pursuant to the RFQ, the Proposer represents and warrants that it will enter into the contract provided by the Owner subject to the terms set forth in its SOQ.

3.09 Evaluation and Ranking of Proposers

The RFQ requires Proposers to provide an SOQ that is organized per the required RFQ content categories. This methodology was developed to create consistency among SOQs, and these content categories will be weighted according to the table below (these categories and weightings should be considered preliminary, subject to detailed RFQ development):

| Table 3-2. Summary of SOQ Content and Evaluation Weighting | |
|--|-----------|
| Required SOQ Content Categories | Weighting |
| Pass/Fail | |
| Statement of Proposer's Ability to Provide Performance and Payment Bond | Pass/Fail |
| Statement of Proposer's Ability to Meet the Owner's Insurance Requirements | Pass/Fail |
| Financial Information Requirements | Pass/Fail |

| Table 3-2. Summary of SOQ Content and Evaluation Weighting | |
|--|------------------|
| Required SOQ Content Categories | Weighting |
| Licensing and registration | Pass/Fail |
| Non-Price Criteria | |
| Project Team Organization | 10 |
| Qualifications and Experience of Key Team Members | 30 |
| Demonstrated Past Experience with Successful Projects of Similar Scope and Complexity | 25 |
| Project Delivery Approach | 30 |
| Schedule, Planning, and Sequencing | 25 |
| Safety Record | 10 |
| Interviews | |
| <u>Presentation</u> : Clarity of expression and thoroughness of presentation, firm's understanding of and approach to the requirements of the project. | 20 |
| <u>Responses to Specific Questions</u> : Thoroughness and insight in providing direct and clear answers to the questions asked. | 20 |
| <u>Communication</u> : Overall quality of the team's presentation including interpersonal communications between team members and the interview panel. Quality of questions asked by the firm. | 30 |
| Total Evaluation Scores | |
| Maximum Points | 200 |

3.10 Contract Format

The Owner will enter into negotiations for the Progressive Design-Build Agreement with the Preferred Proposer. The Progressive Design-Build Agreement is anticipated to utilize the Design-Build Institute of America Progressive Design-Build Agreement for Water and Wastewater Projects, Form Number 545, and the DBIA Standard Form of General Conditions of Contract Between Owner and Design-Builder, Form Number 535. Any exceptions to the contract supplied by Owner in the issuance of this RFQ must be made at the time of submission of the Proposers SOQ to the RFQ. Exceptions not made at such time will be entertained at Owner's complete discretion.

3.11 Obtaining and Using RFQ Documents

- A. The RFQ Documents may be viewed and ordered online by registering with the Portland Water District's Purchasing Agent: Wesley Gilbert. wgilbert@pwd.org. Following registration, complete sets of RFQ Documents may be downloaded from the Issuing Office's website as "zipped" portable document format (PDF) files.
- B. Proposers must use complete sets of RFQ Documents in preparing the SOQ. Neither Owner nor Owner's Consultant (if any) assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of RFQ Documents.
- C. Copies of RFQ Documents available on the above terms are only for the purpose of obtaining SOQs and do not confer a license or grant to Proposers for any other use.

Section 4

SOQ Documentation Requirements

4.01 Submittal Place and Deadline

SOQ must be received no later than 04:00 PM (EST) on August 11th, 2026, addressed to:

Name: Welsey Gilbert

Title: Purchasing Agent

Email: wgilbert@pwd.org

Owner: Portland Water District

Address: 225 Douglass St, Portland, ME 04102

Acceptable modes of delivery to Purchasing Agent: PDF format, secure file transfer, thumb drive/physical storage device.

Provide one electronic version of the SOQ in PDF format on a secure file transfer or electronically via email and/or secure website. Submit electronic version of Appendix A (Supporting Financial and Company Documentation) in PDF format and one electronic version of Appendix D (Pricing Information) in PDF format under separate cover.

Proposers must electronically submit one electronic version of the SOQ in PDF format no later than 04:00 PM (EST) of August 11th, 2026. Note that Appendix A (Supporting Financial and company Documentation) and Appendix D (Pricing Information) must each be submitted as separate PDF.

Each Proposer assumes full responsibility for timely delivery of its SOQ at the required location. **Any SOQ received after the submittal deadline will be deemed nonresponsive and returned unopened.**

4.02 SOQ Format Requirements

The SOQs shall comply with the following format requirements:

1. SOQs shall be formatted in searchable .pdf format.
2. The body of the SOQ shall be organized in accordance with the Evaluation Criteria.
3. The body of the SOQ, when printed, shall be limited to a maximum of fifty (50) single-sided pages.
 - a. The **only** documentation that is **not** included in the page count is the following:
 - i. Transmittal Letter and Executive Summary;
 - ii. Statement of Proposer's Ability to Provide a SOQ Bond, or Performance and Payment Bond;
 - iii. Statement of Proposer's Ability to Meet the Owner's Insurance Requirements;
 - iv. Financial Information Requirements (Appendix A)
 - v. Resumes of Key Team Members;
 - vi. Pricing Information (Appendix D)
 - vii. Divider tabs, provided that they contain no substantive content; and
 - viii. Cover pages, provided that they contain no substantive content.

- b. **SOQs that exceed the page limit may be rejected.** The Owner, at its sole discretion, reserves the right to remove pages from the sections of any non-conforming SOQ submittals to bring each non-conforming SOQ submittal within the page count requirement.
- c. A “page” shall be defined as one single-sided piece of paper that has words, charts, tables, pictures, or graphics. Pages shall be 8.5 x 11 inches, with the exception of 5 pages, which may be presented in 11 x 17-inch format; however, larger pages may only contain graphics and/or designs and may not be used for an Proposer’s narrative.
- d. The font shall be no smaller than 10 point.

4.03 SOQ Organization

SOQs shall consist of the following parts:

1. Transmittal Letter and Executive Summary
2. Minimum Qualifications
 - a. Statement of Proposer’s Ability to Provide Performance and Payment Bond. (See Section 5.03 and Appendix A)
 - b. Statement of Proposer’s Ability to Meet the Owner’s Insurance Requirements. (See Section 5.03 and Appendix A)
 - c. Financial Information Requirements (See Section 5.03 and Appendix A)
 - d. Licensing and Registration (See Section 5.03 and Appendix A)
3. Technical & Management Qualifications
 - a. Project Team Organization
 - b. Qualifications and Experience of Key Team Members
 - c. Demonstrated Past Performance with Successful Projects of Similar Scope and Complexity
 - d. Project Delivery Approach
 - e. Schedule, Planning, and Sequencing
 - f. Safety Record
4. Price Criteria (submitted under a separate PDF)
 - a. Combined Phase 1 and Phase 2 Fee (Price)
5. Appendix A: Supporting Financial and Company Documentation (submitted under a separate PDF)
6. Appendix B: Resumes of Key Team Members
7. Appendix C: Draft PDB Agreement Comments
8. Appendix D: Pricing Information (submitted under a separate, sealed PDF)

Section 5

SOQ Evaluation Criteria and Submittal Information

5.01 Evaluation Criteria and Submission Content

The selection committee will evaluate and rank the responsive SOQs by applying the weighted comparative evaluation criteria set forth below. Proposers will also be required to demonstrate they meet certain minimum qualifications indicated as pass/fail elements. Evaluation will be conducted on a best value basis. Pricing to be submitted includes Phase 1 services up to the agreement of the GMP. See table 3-1 in Section 3.09 for evaluation criteria weighting.

The content requirements set forth in this RFQ represent the minimum content requirements for the SOQ. It is the Proposer's responsibility to include information in its SOQ to present all relevant qualifications and other materials. The SOQ, however, should not contain standard marketing or other general materials. It is the Design-Builder's responsibility to modify such materials so that only directly relevant information is included in the SOQ.

5.02 Transmittal Letter and Executive Summary

- A. **Transmittal Letter:** Proposers must submit a transmittal letter (maximum two pages) on the Proposer's letterhead. It must be signed by a representative of the Proposer who is authorized to sign such material and to commit the Proposer to the obligations contained in the SOQ. The transmittal letter must include the name, address, phone number, and email address for the Proposer contact and must specify the Design-Builder's signatory to any contract documents executed with the Owner. The transmittal letter may include other information deemed relevant by the Proposer. The transmittal letter must affirm compliance with the minimum requirements in Section 5.03 and confirm receipt of all addenda.
- B. **Executive Summary:** The executive summary (maximum two pages) must include a concise overview of the key elements of the SOQ. The executive summary shall not be used to convey additional information not found elsewhere in the SOQ.

5.03 Minimum Requirements (Pass/Fail)

Each responsive SOQ will be reviewed to determine whether it meets the minimum requirements outlined in this subsection. At its sole discretion, the selection committee may waive any failure to satisfy such requirements and may request clarification or additional information to address any questions that may arise in this regard. Any SOQ that does not satisfy all of the following minimum requirements may be rejected:

- A. **Statement of Proposer's Ability to Provide Performance and Payment Bond:** As a mandatory minimum requirement, the Proposer must have the ability to obtain a performance and payment bonds each in the amount of one hundred percent (100%) of the Construction Guaranteed Maximum Price (GMP). Proposer shall provide a letter signed by an authorized representative of

Proposer's surety company (or agent) confirming that the Proposer can meet this minimum requirement. Any Proposer who fails to meet this mandatory minimum requirement will be considered non-responsive and will not be considered further by the Owner in this Procurement process. The surety shall be a company authorized to conduct business in the state where the Project is located with a minimum rating of A.M. Best rating of A- (Excellent) or better and Financial Size Category VII or Greater. Letters indicating "unlimited" bonding capability are not acceptable.

- B. Statement of Proposer's Ability to Meet the Owner's Insurance Requirements:** As a mandatory minimum requirement, the Proposer must document that it has the ability to meet the minimum insurance requirements as set forth in Exhibit D to the draft PDB Agreement (Attachment A). Proposer shall provide a letter from Proposer's insurance company or broker indicating that the Proposer is capable of complying with the insurance requirements specified Exhibit D to the draft PDB Agreement (Attachment A). Any Proposer who fails to meet this mandatory minimum requirement will be considered to be non-responsive and will not be considered further by the Owner in this Procurement. The insurer shall be a company authorized to conduct business in the state where the Project is located with a minimum rating of A.M. Best financial strength rating of A- (Excellent) or better.
- C. Financial Stability:** The Owner's evaluation of this category requires a significant assessment of firm's financial capacity (which includes but should go beyond standard construction bonding capacity). This assessment will illustrate a Proposer's depth of resources.
- a. Request financial documents: SEC filings (if public) or audited financial statements going back 5 years (including most recent year), other information needed to determine liquidity (to meet LDs), existing project commitments/backlog, bonding and insurance capacity.
 - b. Required financial and legal information typically applies to the Design-Builder and not to subconsultants/subcontractors. In the case of a joint venture, both parties must provide requested information.
 - c. A communications/clarifications procedure in the event of incomplete data or concerning findings after the assessment is complete.
 - d. All supporting financial and company information should be included in Appendix A.
- D. Licensing and registration:** The Design-Builder and each firm must provide licenses, registrations, and/or other documentation demonstrating legal suitability to practice business in the State of Maine, including evidence of active registration and good standing with the Maine Department of the Secretary of State, as applicable. The Design-Build Team must include an engineer of record registered in Maine, and the architect must be registered in Maine.

5.04 Technical and Management Qualifications

The SOQ shall demonstrate the Design-Build Team's ability to undertake the Project by providing the following technical and management qualifications of the Proposer, Team Members, and individual Key Team Members. The Proposer is responsible for ensuring that contact information contained in their referenced Project profiles is correct. The inability to contact a reference may have a detrimental impact on evaluating qualifications.

Emphasis will be placed on past performance and expertise in performing substantive work on projects that are of Similar Scope and Complexity, as described in the definitions above. The Owner reserves the right to award more points to projects that have more of the characteristics set forth in the definition of Projects of Similar Scope and Complexity. The Owner also reserves the right to

award more points to successful projects in which the Proposer, Team Members, and/or individual Key Team Members had substantial responsibility for their respective scopes of work.

The SOQ will be evaluated on the following technical and management qualifications:

5.04.1 Project Team Organization (10 points)

- A. Provide general information about the Designer, Builder, and Operator, such as lines of business and service offerings, locations of home and other offices, number of employees (professional and nonprofessional), years in business, and evidence of required licenses.
- B. Describe the corporate structure of the Design-Builder and all Team Members. If the prime Design-Builder is a Joint Venture, all Joint Venture partners must have functional responsibilities for the Project. Describe the duties of each Joint Venture partner.
- C. Discuss how the Design-Builder has used this entity structure or similar entity structure to deliver similar projects, lessons learned from those projects, and benefits of the structure to the Owner and this project.
- D. Provide an organization chart (showing Team Members, Key Team Members and their firm affiliation) for all phases of the Project from design through final acceptance and warranty and operations period. Be certain to identify specific individuals for key functions and show interrelationships and reporting hierarchy. Note whether individuals are performing multiple functions. At a minimum, identify the Key Team Members performing the functions identified below. To the extent that the Design-Builder has additional Key Team Members on their team, the Design-Builder should include those individuals.
 - a. Person responsible for the overall management of the Project and Design-Build Agreement;
 - b. Designer of Record;
 - c. Person responsible for overall construction management;
 - d. Person responsible for on-site field supervision and direction and construction (Superintendent);
 - e. Person responsible for safety;
 - f. Person responsible for quality assurance;
 - g. Person responsible for cost controls and budgeting;
 - h. Person responsible for scheduling;
 - i. Person responsible for systems testing, configuration, and commissioning; and
 - j. Person responsible for operations and maintenance.

5.04.2 Qualifications and Experience of Key Team Members (30 points)

Provide a resume for all Key Team Members. Resumes should be no longer than 1 page and should include the following information:

- a) Description of the individual's proposed Project role and committed availability dedicated to this project;
- b) Identification of employer and number of years employed by the firm;
- c) Educational background, professional licenses, and/or certifications;

- d) Experience relevant to their proposed role on the Project and how their past performance on previous projects will benefit this Project; and
- e) Based on the information available to the Design-Builder, proposed percentage of time that the Design-Builder intends to assign this individual to the Project.

5.04.3 Demonstrated Past Performance with Successful Projects of Similar Scope and Complexity (25 points)

The Proposer shall submit a minimum of three and up to five reference project descriptions to demonstrate relevant experience with Projects of Similar Scope and Complexity for municipal clients in the United States, completed in the last five years. At least 3 of the reference projects should be Design-Build-Operate projects, and at least two of the reference projects should include operations of Projects of Similar Scope and Complexity. Each project description shall contain at least the following information:

- a) Project name and location
- b) Name of owner
- c) Owner reference and contact information
- d) Delivery method (DB, PDB, DBO, etc.)
- e) Role of Proposer and/or Key Firm(s)
- f) Initial and final contract value and reason for change
- g) Scheduled and actual completion dates
- h) Description of the project showing relevance to this Project
- i) Names of Key Personnel that participated in project and are included in this SOQ, along with a clear description of the roles and responsibilities of each

Describe the Team's past performance working together and/or describe the steps the Team has taken to promote integration and a collaborative working environment. Include a description of any issues or problems that arose on the projects and how those issues or problems were resolved. Identify any of these projects in which the Team has provided funding support and describe the support provided. The Owner reserves the right to award more points to those teams who have worked together in a collaborative delivery model.

5.04.4 Project Delivery Approach (30 points)

Describe the Team's anticipated approach for delivering this project regarding technical approach and understanding of the Progressive Design-Build-Operate process throughout all phases of the Project. Include in the narrative the Team's approach to the following:

- A. **Integrated Project Delivery Approach:** Outline the Team's overall strategy for executing the project using the Progressive Design-Build-Operate model, including collaboration methods, workshop/meeting coordination, and how the Team will manage all phases from design through long-term operations.
- B. **Technical Approach & Risk Management:** Present the proposed technical solution, key challenges and risks, and the approach for managing and mitigating these issues. Highlight any innovative or alternative concepts that reduce costs, improve performance, or better achieve project objectives. Technical approach should include a description of the process through which the team evaluates and determines treatment approaches including management of incoming solids during planned and unplanned facility shutdowns.

- C. **Operations and Maintenance Strategy and Approach:** Describe the Team's proposed O&M strategy for the Project, with specific reference to the requirements and performance objectives defined in Exhibit A of the PDB Agreement (Attachment A). The O&M approach should describe the key operational challenges and risks, and the approach for managing and mitigating those risks to ensure reliable, compliant, and cost-effective long-term performance. The O&M approach should include a description of the process through which the Team evaluates and refines operational strategies, including staffing, maintenance, performance monitoring, and management of incoming biosolids and facility operations during planned and unplanned shutdown conditions consistent with the requirements defined in Exhibit A of the draft PDB Agreement (Attachment A).
- D. **Comments on the draft PDB Agreement:** Proposers shall include a detailed markup of the draft PDB Agreement, including exhibits (Attachment A) in Appendix C of their SOQ. The detailed markup should demonstrate all requested revisions and comments in tracked-changes. Proposers must explain rationale for proposed revisions and associated benefits to the Owner. See Section 5.06.3 for more details regarding Appendix C. In addition, Proposers shall comment on their position regarding ownership and liability of biosolids.

5.04.5 Schedule, Planning, and Sequencing (25 points)

- A. **Management, Cost, and Procurement Approach:** Explain methods for design-to-budget cost estimating, open-book pricing, contingency development, procurement packaging, self-performance rationale, use of local contractors, and the process for preparing the Phase 2 price proposal.
- B. **Schedule & Sequencing Strategy:** Describe the plan for delivering the project on time by identifying critical path activities, opportunities for schedule optimization (such as phasing, early-work/equipment packages), and construction sequencing techniques that increase efficiency and minimize Owner impacts. Provide a summary-level Project schedule for Phase 1A, Phase 1B and Phase 2 of the Project. The project schedule will not count towards the page limit.
- C. **Construction, Commissioning & Operational Readiness:** Detail how the Team will manage site operations, construction coordination, commissioning, startup, training, acceptance testing, and long-term facility operations, ensuring performance compliance, transparent cost reporting, and minimal disruption to surrounding neighborhoods and stakeholders (Portland Water District, ecomaine, etc.).

5.04.6 Safety Record (10 points)

Provide a summary description of the Design-Builder's corporate safety program and include safety statistics or records indicating categories of accidents and their incidence or frequency rates for the past three years. The following safety records must be provided for the Design-Builder for the current and past three years:

- A. The experience modification rate (EMR) calculated by the National Council on Compensation Insurance or similar rating bureau. (The EMR is also referred to as the experience modification rating, experience modification factor, experience modifier or X-mod.) Where this value is greater than the industry average of 1.0, Proposer may provide mitigating information to explain the reasons for the EMR rating.
- B. The days-away-from-work injury incidence rate. A day-away-from-work injury is an injury that prevents an employee from returning to their next regularly scheduled shift. The incidence rate is calculated by multiplying the number of days-away-from-work injuries for the particular year by 200,000 and then dividing the product by the person-hours worked for that year.

5.05 Price Criteria

The Proposer shall complete the Pricing Information Forms provided in Attachment G. The completed forms with pricing information are to be provided in Appendix D (Pricing Information) as a separate sealed PDF document. Pricing information will not be reviewed until after the selection of a Proposer based on qualifications.

5.05.1 Form 1. Progressive Design-Builder Fee and Rate Proposal Summary

Phase 1A Services

- A. Proposer shall provide the not-to-exceed amount for Phase 1A services to be rendered as Design-Builder, applicable if Proposer is selected as Design-Builder by Owner based on Proposer's qualifications. The proposed Phase 1A Services Fee shall be set forth in a separate document rather than in the SOQ.
- B. The Phase 1A Services Fee shall not be a factor in lowering a Proposer's ranking unless the Phase 1A Services Fee is deemed by Owner to be inconsistent with competitive Phase 1A Services Fees for similar design services.
- C. Owner reserves the right to negotiate the Phase 1A Services Fee, or to propose alternative compensation methods for design services.

Phase 1B Services

- A. Proposer shall provide the not-to-exceed amount for Phase 1B services to be rendered as Design-Builder, applicable if Proposer is selected as Design-Builder by Owner based on Proposer's qualifications. The proposed Phase 1B Services Fee shall be set forth in a separate document rather than in the SOQ.
- B. The Phase 1B Services Fee shall not be a factor in lowering a Proposer's ranking unless the Phase 1B Services Fee is deemed by Owner to be inconsistent with competitive Phase 1B Services Fees for similar design services.
- C. Owner reserves the right to negotiate the Phase 1B Services Fee, or to propose alternative compensation methods for design services.

General Conditions Fee

- A. Proposer shall indicate a proposed General Conditions Fee for Phase 2 Construction, expressed as a percentage of the Cost of the Work, applicable if Proposer is selected as Design-Builder by Owner based on Proposer's qualifications. The General Conditions Fee shall be set forth in a separate PDF document rather than in the SOQ.
- B. The General Conditions Fee shall not be a factor in lowering a Proposer's ranking unless the Design-Builder's Fee is deemed by Owner to be inconsistent with competitive General Conditions Fee for similar projects.
- C. Owner reserves the right to negotiate the General Conditions Fee, or to propose alternative compensation methods.

Design-Builder's Fee

- A. Proposer shall indicate a proposed Design-Builder's Fee for Phase 2 Construction, expressed as a percentage of the Cost of the Work, applicable if Proposer is selected as Design-Builder by Owner based on Proposer's qualifications. The Design-Builder's Fee shall be set forth in a separate PDF document rather than in the SOQ.

- B. The Design-Builder's Fee shall not be a factor in lowering a Proposer's ranking unless the Design-Builder's Fee is deemed by Owner to be inconsistent with competitive Design-Builder's Fees for similar projects.
- C. Owner reserves the right to negotiate the Design-Builder's Fee, or to propose alternative compensation methods.

5.05.2 Form 2. Phase 1A and 1B All-Inclusive Billing Rates

The Design-Builder shall complete Form 2 in Attachment G and provide the all-inclusive billing rates for all personnel who will provide services during Phase 1A and 1B, including Key Personnel and others.

5.06 Appendices

The following Appendices shall be included in the SOQ.

5.06.1 Appendix A: Supporting Financial and Company Documentation

Appendix A must include all information required in Section 5.03.C. In addition, the SOQ must provide the following additional information pertaining to factors or events that have the potential to adversely impact the Design-Builder's ability to perform its contractual commitments. If any of the questions below are answered in a manner that indicates that any of these unfavorable factors or events are present, it is the Proposer's responsibility to (1) describe in detail the unfavorable factor or event, and (2) provide sufficient information to demonstrate that the unfavorable factor or event will not adversely impact the Proposer's ability to perform its contractual commitments. Include the following information in Appendix A (Supporting Financial and Company Documentation):

- A. **Financial Condition:** Provide financial statements for the Design-Builder for the past three years and quarterly financial statements, certified by the chief financial officer, for the current year. For publicly traded companies, reference to US Securities and Exchange Commission 10-K filings and any recent 10-Q findings are adequate. For entities that are not publicly traded, provide audited financial statements for the same period. If the Design-Builder is a joint venture, limited liability company, or partnership, such financial statements must be provided for each partner or member.
- B. **Legal Proceedings and Judgments:** List and briefly describe any pending or past (within five years) legal proceedings and judgments, or any contingent liability that could adversely affect the financial position or ability to perform contractual commitments to Owner. If no such proceedings or judgments are listed, provide a sworn statement to that effect from the Design-Builder's general counsel.
- C. **Completion of Contracts:** Has the Lead Designer, Builder, or Operator failed to complete any contract, or has any contract been terminated due to alleged poor performance or default within the past five years? If so, describe the circumstances.
- D. **Material Adverse Condition:** The Design-Builder must not be subject to a material adverse condition, such as pending litigation, insufficient liquidity, weak operating net income or cash flow, or excessive leverage, that gives rise to reasonable doubt concerning its ability to continue to operate as an ongoing concern, to provide performance bonds or insurance, or to maintain sufficient financial strength to undertake and successfully complete the Project and to mitigate/absorb Project risks

- E. **Debarred from Bidding:** Has the Prime or JV partners in the Design-Builder been debarred within the past five years, or is it currently under consideration for debarment, on public contracts by the federal government or by any state? If so, describe the circumstances.

5.06.2 Appendix B: Resumes

Appendix B must include resumes for all Key Personnel in SOQ, per requirements of Section 5.04.2.

5.06.3 Appendix C: Draft PDB Agreement Comments

Proposers shall include in Appendix C a detailed markup of the draft PDB Agreement (including its exhibits) included in Attachment A, setting forth all revisions requested by the Proposer. Such comments may take any form that is convenient to the Proposer, including a tracked-changes markup of the draft in RFQ Attachment A. Proposers should note that the detailed markup of the draft PDB Agreement and any comments will be taken into consideration when scoring the SOQs.

Appendix C must explain the rationale for proposed revisions and the associated benefits to the Owner. Proposers are encouraged to suggest revisions that would more efficiently allocate risk, improve the parties' understanding of risk allocation, and improve clarity of any terms of the Draft PDB Contract where ambiguities or uncertainties may arise in their application or interpretation. In addition, Proposers shall comment on their position regarding ownership and liability of biosolids.

The Owner is not obligated to accept any of the requested exceptions, modifications, additions, etc., submitted by the Proposer when negotiating and finalizing the PDB Agreement. Furthermore, the Owner may request additional revisions during negotiations and before finalizing the PDB Agreement. Although the Owner will undertake negotiations of the PDB Agreement, the PDB Agreement will be treated as a de facto offer that the Owner can accept as is, which would result in a binding contract between the Design-Builder and Owner without further negotiations or revision.

5.06.4 Appendix D: Pricing Information (Submitted under Separate PDF)

The Proposer must complete Attachment G (Pricing Information Form)—with all required pricing information—and include it in a separate PDF as Appendix D (Pricing Information). The scope of the Design-Builder's services for which pricing is required is defined in Exhibit B to the draft PDB Agreement (Attachment A). The cost information provided in the Pricing Information Form shall be based upon an assumed Project cost and schedule as defined in Section 1 of this RFQ.

When reviewing the pricing information, Owner will consider the Phase 1A and 1B not-to-exceed price, Phase 1A and 1B all-inclusive billing rates, Design-Builder Fee, General Conditions Fee, and the anticipated markup for expected O&M services during Phase 3 (operation). Pricing provided for Phase 3 is nonbinding and will serve as the basis for negotiation between the Owner and Design-Builder prior to the final Operations (Phase 3) contract.



Section 6

List of Attachments

Attachment A: Draft PDB Agreement

Attachment B: DBIA General Conditions

Attachment C: Economic Evaluation of Regional Biosolids Facility

Attachment D: ecomaine Site Areas Assessment

Attachment E: Preliminary Permitting List

Attachment F: Other Preliminary Materials and Report

Attachment G: Pricing Information Form

Attachment A: Draft Progressive Design-Build Agreement

The Draft Progressive Design-Build Agreement contain the following Exhibits:

- Exhibit A: Owner's Project Criteria
- Exhibit B: Project Scope of Services
- Exhibit C: Design-Build Operate & Maintain Exhibit
- Exhibit D: Insurance Requirements E-INS-I
- Exhibit E: Hourly Rate Table for Design, Build, and Operator



REV 3-24

Progressive Design-Build Agreement for Water and Wastewater Projects

*This document has important legal consequences. Consultation with
an attorney is recommended with respect to its completion or modification.*

This **AGREEMENT** is made as of the _____ day of _____ in
the year of 20_____, by and between the following parties, for services in connection with the Project identified
below:

OWNER:

(Name and address)

**Portland Water District
225 Douglass Street
PO Box 3553
Portland, Maine 04104-3553**

DESIGN-BUILDER:

(Name and address)

PROJECT:

(Include Project name and location as it will appear in the Contract Documents)

**Southern Maine Regional Biosolids Facility
Location to be Determined**

In consideration of the mutual covenants and obligations contained herein, Owner and Design-Builder agree as set forth herein.

Article 1

Design-Builder's Services and Responsibilities

1.1 General Services.

1.1.1 Owner shall provide Design-Builder with Owner's Project Criteria describing Owner's program requirements and objectives for the Project as set forth in Exhibit A. Owner's Project Criteria shall include Owner's use, space, price, time, site, performance and expandability requirements. Owner's Project Criteria may include conceptual documents, design specifications, design performance specifications and other technical materials and requirements prepared by or for Owner.

1.1.2 If Owner's Project Criteria have not been developed prior to the execution of this Agreement, Design-Builder will assist Owner in developing Owner's Project Criteria, with such service deemed to be an additional service for which additional compensation shall be paid by Owner to Design-Builder. If Owner has developed Owner's Project Criteria prior to executing this Agreement, Design-Builder shall review and prepare a written evaluation of such criteria, including recommendations to Owner for different and innovative approaches to the design and construction of the Project. The parties shall meet to discuss Design-Builder's written evaluation of Owner's Project Criteria and agree upon what revisions, if any, should be made to such criteria.

1.2 Phased Services.

1.2.1 Phase 1A Services. Design-Builder shall perform the services of design, pricing and other services for the Project based on Owner's Project Criteria, as may be revised in accordance with Section 1.1 hereof, as set forth in Exhibit A, The Phase 1A Services are defined in Exhibit B, Scope of Services. Upon completion of the Phase 1A Services, the Design-Builder shall submit a proposal to Owner for the Phase 1B Services described in Section 1.2.2 below for the Owner's review.

1.2.2 Phase 1B Services. Upon acceptance of Design-Builder's proposal for the Phase 1B Services, Design-Builder shall perform the services of design, pricing and other services for the Project based on Owner's Project Criteria and the Design Documents prepared during Phase 1A and identified in Design-Builder's Phase 1B Proposal, Design-Builder shall perform the Phase 1 B services which shall include developing the design, schedule and pricing to the level of completion required for Design-Builder and Owner to establish the Contract Price for Phase 2, as set forth in Section 1.3 below. The Contract Price for Phase 2 shall be developed during Phase 1B on an "open-book" basis. Design-Builder's Compensation for Phase 1B Services is set forth in Section 6.0 herein. The level of completion required for Phase 1B Services shall be set forth in Design-Builder's proposal for the Phase 1 Services (either as a percentage of design completion or by defined deliverables).

1.2.3 Phase 2 Services. Design-Builder's Phase 2 services shall consist of the completion of design services for the Project, the procurement of all materials and equipment for the Project, the performance of construction services for the Project, the start-up, testing and commissioning of the Project, and the provision of warranty services, all as further described in the Contract Price Amendment. Upon receipt of Design-Builder's proposed Contract Price for Phase 2, Owner may proceed as set forth in Article 1.3.

1.3 Proposal. Upon completion of the Phase 1B Services and any other Basis of Design Documents upon which the parties may agree, Design-Builder shall submit a proposal to Owner (the "Proposal") for the completion of the design and construction for the Project for the Contract Price based on Design-Builder's Fee and Cost of the Work with an option for a Guaranteed Maximum Price (GMP).

1.3.1 The Proposal shall include the following unless the parties mutually agree otherwise:

1.3.1.1 The Contract Price shall be based on a Design-Builder's Fee and Cost of the Work, with a GMP, which shall be the sum of:

- i Design-Builder's Fee as defined in Section 6.4.1 hereof;
- ii The estimated Cost of the Work as defined in Section 6.5 hereof, inclusive of any Design-Builder's Contingency as defined in Section 6.6.2 hereof; and
- iii If applicable, any prices established under Section 6.1.3 hereof;

1.3.1.2 The Basis of Design Documents, which may include, by way of example, Owner's Project Criteria, as such may have been amended or supplemented during Phase 1A or 1B shall be set forth in detail and are attached to the Proposal;

1.3.1.3 A list of the assumptions and clarifications made by Design-Builder in the preparation of the Proposal, which list is intended to supplement the information contained in the drawings and specifications and is specifically included as part of the Basis of Design Documents;

1.3.1.4 The Scheduled Substantial Completion Date upon which the Proposal is based, to the extent said date has not already been established under Section 5.2.1 hereof, and a schedule upon which the Scheduled Substantial Completion Date is based and a Project Schedule for the Work;

1.3.1.5 If applicable, a list of Allowance Items, Allowance Values, and a statement of their basis;

1.3.1.6 If applicable, a schedule of alternate prices;

1.3.1.7 If applicable, a schedule of unit prices;

1.3.1.8 If applicable, a statement of Additional Services which may be performed but which are not included in the Proposal, and which, if performed, shall be the basis for an increase in the Contract Price and/or Contract Time(s);

1.3.1.9 If applicable, a Savings provision;

1.3.1.10 If applicable, Performance Incentives;

1.3.1.11 The time limit for acceptance of the Proposal; and

1.3.1.12 An Owner's permit list, a list detailing the permits and governmental approvals that Owner will bear responsibility to obtain.

1.3.1.13 Design Builder's proposal for the operation and maintenance of the facility based on DBIA Document #E-DBOM – Design-Build Operate & Maintain Exhibit, attached hereto as Exhibit C.

1.3.2 Review and Adjustment to Proposal.

1.3.2.1 After submission of the Proposal, Design-Builder and Owner shall meet to discuss and review the Proposal. If Owner has any comments regarding the Proposal, or finds any inconsistencies or inaccuracies in the information presented, it shall promptly give written notice to Design-Builder of such comments or findings. If appropriate, Design-Builder shall, upon receipt of Owner's notice, make appropriate adjustments to the Proposal.

1.3.2.2 Acceptance of Proposal. Unless the parties agree to extend the time, Owner shall have 120 days to accept the Proposal. If Owner accepts the Proposal, as may be amended by Design-Builder, the Contract Price and its basis shall be set forth in an amendment to this Agreement, when mutually agreed between the parties (Contract Price Amendment). Once the parties have agreed upon the Contract Price and Owner has issued a Notice to Proceed with Phase 2, Design-Builder shall perform the Phase 2 Services, all as further described in the Contract Price Amendment, as it may be revised.

1.3.2.3 Failure to Accept the Proposal. Unless otherwise agreed in writing, if Owner rejects the Proposal, or fails to notify Design-Builder in writing within 120 days from receipt of the Proposal that it accepts the Proposal, the Proposal shall be deemed withdrawn and of no effect. In such event, Owner and Design-Builder shall meet and confer as to how the Project will proceed, with Owner having the following options:

- i Owner may suggest modifications to the Proposal, whereupon, if such modifications are accepted in writing by Design-Builder, the Proposal shall be deemed accepted, and the parties shall proceed in accordance with Section 1.3.2.2 above;
- ii Owner may authorize Design-Builder to continue to proceed with the Work on the basis of reimbursement as provided in Section 6.1.2 hereof without a Contract Price, in which case all references in this Agreement to the Contract Price shall not be applicable; or
- iii Owner may terminate this Agreement for convenience in accordance with Article 8 hereof.

If Owner fails to exercise any of the above options, Design-Builder shall have the right to (a) suspend performance of any Work authorized by Owner in accordance with Section 11.3.1 of the General Conditions of Contract, provided, however, that in such event Design-Builder shall not be entitled to the payment provided for in Article 8 hereof; or (b) may give written notice to Owner that it considers this Agreement completed. If Owner fails to exercise any of the options under Section 1.3.2.3 within ten (10) days of receipt of Design-Builder's notice, then this Agreement shall be deemed completed. If Owner terminates the relationship with Design-Builder under Section 1.3.2.3 iii, or if this Agreement is deemed completed under this paragraph, then Design-Builder shall have no further liability or obligations to Owner under this Agreement.

Article 2

Contract Documents

2.1 The Contract Documents are comprised of the following:

2.1.1 All written modifications, amendments, minor changes and Change Orders to this Agreement issued in accordance with DBIA Document No. 535, *Standard Form of General Conditions of Contract Agreement Between Owner and Design-Builder* (2022 Edition) ("General Conditions of Contract");

2.1.2 The Contract Price Amendment or the Proposal accepted by Owner in accordance with Section 1.3 above;

2.1.3 This Agreement, including all exhibits (list for example, performance standard requirements, performance incentive arrangements, markup exhibits, allowances, unit prices or exhibit detailing offsite reimbursable personnel) but excluding, if applicable, the Contract Price Amendment;

2.1.4 The General Conditions of Contract as amended;

- 2.1.5 Construction Documents prepared and approved in accordance with Section 2.4 of the General Conditions of Contract;
- 2.1.6 Exhibit B, Scope of Services for Phase 1 A and 1B;
- 2.1.7 Design Builders' Proposal for Phase 1B Services, if accepted by Owner; and
- 2.1.8 The following other documents, if any:
 - 2.1.8.1 Exhibit A, Project Criteria as it amended and/or supplemented;
 - 2.1.8.2 Exhibit C, Design-Build Operate & Maintain Exhibit;
 - 2.1.8.3 Exhibit D, Insurance Requirements E-INS-I;
 - 2.1.8.4 Exhibit E, Hourly Rates;

Article 3

Interpretation and Intent

3.1 Design-Builder and Owner, at the time of acceptance of the Proposal by Owner in accordance with Section 1.3 hereof, shall carefully review all the Contract Documents, including the various documents comprising the Basis of Design Documents for any conflicts or ambiguities. Design-Builder and Owner will discuss and resolve any identified conflicts or ambiguities prior to execution of the Agreement, or if applicable, prior to Owner's acceptance of the Proposal.

3.2 The Contract Documents are intended to permit the parties to complete the Work and all obligations required by the Contract Documents within the Contract Time(s) for the Contract Price. The Contract Documents are intended to be complementary and interpreted in harmony so as to avoid conflict, with words and phrases interpreted in a manner consistent with construction and design industry standards. In the event inconsistencies, conflicts or ambiguities between or among the Contract Documents are discovered after Owner's acceptance of the Proposal, Design-Builder and Owner shall attempt to resolve any ambiguity, conflict or inconsistency informally, recognizing that the Contract Documents shall take precedence in the order in which they are listed in Section 2.1 hereof or as such priority be amended or revised in the Contract Price Amendment. Notwithstanding anything to the contrary in the foregoing, in the event of conflicting specifications, standards or requirements, the more stringent specification, standard or requirement shall prevail.

3.3 Terms, words and phrases used in the Contract Documents, including this Agreement, shall have the meanings given them in the General Conditions of Contract.

3.4 If Owner's Project Criteria contain design specifications: (a) Design-Builder is entitled to reasonably rely on the accuracy of the information represented in the design specifications and their compatibility with other information set forth in Owner's Project Criteria, including any design performance specifications unless it has reason to know or should have reason to know exercising its professional judgment that any such information is inaccurate or unreliable; and (b) Design-Builder shall be entitled to an adjustment in its Contract Price and/or Contract Time(s) to the extent Design-Builder's cost and/or time of performance have been adversely impacted by such inaccurate design specification unless it knew or should know that any such information is inaccurate or unreliable.

3.5 The Contract Documents form the entire agreement between Owner and Design-Builder and by incorporation herein are as fully binding on the parties as if repeated herein. No oral representations or other agreements have been made by the parties except as specifically stated in the Contract Documents.

Article 4

Ownership of Work Product

4.1 **Work Product.** All drawings, specifications and other documents and electronic data, including such documents identified in the General Conditions of Contract, furnished by Design-Builder to Owner under this Agreement (“Work Product”) shall become the property of the Owner upon payment for same. All finished or unfinished documents, data studies, surveys, drawings, maps, models, photographs, and reports prepared or provided by the Design-Builder in connection with this Agreement become the property of the Owner, whether the projects are completed or not, and shall be delivered by the Design-Builder to the Owner within ten (10) days after receipt of written notice and upon payment for same. Design Builder shall incorporate this requirement into all agreements with its Design Consultants or any tier. Design-Builder may not use or permit others to use any intellectual property rights of PWD without PWD’s prior express written consent.

4.2 To the extent Work Product shall include elements that are subject to patent or other intellectual property rights, Design Builder shall: (a) identify those elements; (b) notify Owner of each such element and (c) obtain the rights to incorporate each such element into the Work Product.

4.3 **Owner’s Use of Work Product.** Owner may use or transfer to others for use in PWD’s services work projects developed by the Design-Builder in the course of its services for the Project, provided the Design-Builder is credited with work in the development of that product. Design-Builder shall have no responsibility or liability for third party use authorized by PWD. Alteration of the Work Product without the involvement of Design-Builder shall be at Owner’s sole risk and without liability or legal exposure to Design-Builder or anyone working by or through Design-Builder, including Design Consultants of any tier.

Article 5

Contract Time

5.1 **Date of Commencement.** The Phase 1A Services shall commence within five (5) days of Design-Builder’s receipt of Owner’s Notice to Proceed unless the parties mutually agree otherwise in writing and be completed within the time stated on said Notice to Proceed. The Phase 1B Services shall commence and be completed within the time set forth in Design Builder’s proposal for Phase 1B Services, as accepted by Owner. The Work shall commence within five (5) days of Design-Builder’s receipt of Owner’s Notice to Proceed for Phase 2 Services (“Date of Commencement”) if the Proposal is accepted and the Contract Price Amendment is amended to this Agreement unless the parties mutually agree otherwise in writing.

5.2 **Substantial Completion and Final Completion.**

5.2.1 **Substantial Completion,** as defined in Section 1.2.19 of the General Conditions of the entire Work shall be achieved no later than the date set forth in the Contract Price Amendment. _____ (_____) calendar days after the Date of Commencement (“Scheduled Substantial Completion Date”).

5.2.2 **Interim milestones and/or Substantial Completion** of identified portions of the Work, if any, shall be as stated on the Contract Price Amendment.

5.2.3 **Final Completion** of the Work or identified portions of the Work stated on the Contract Price Amendment shall be achieved as expeditiously as reasonably practicable. Final Completion is the date when all Work is complete pursuant to the definition of Final Completion set forth in Section 1.2.8 of the General Conditions of Contract.

5.2.4 All of the dates set forth in this Article 5 (“Contract Time(s)”) shall be subject to adjustment in accordance with the General Conditions of Contract.

5.3 Time is of the Essence. Owner and Design-Builder mutually agree that time is of the essence with respect to the dates and times set forth in the Contract Documents.

Liquidated Damages. Design-Builder understands that if Substantial Completion is not attained by the Scheduled Substantial Completion Date for Phase 2 Services, Owner will suffer damages which are difficult to determine and accurately specify. Design-Builder agrees that if Substantial Completion is not attained by (the Scheduled Substantial Completion Date (the "LD Date")), Design-Builder shall pay Owner the amount stated on the Contract Price Amendment which shall be no less than Ten Thousand _____ Dollars (\$10,000.00) as liquidated damages for each day that Substantial Completion extends beyond the LD Date. Design-Builder understands that if Final Completion is not achieved within _____ days of Substantial Completion Date, Owner will suffer damages which are difficult to determine and accurately specify. Design-Builder agrees that if Final Completion is not achieved within _____ sixty (60) days of Substantial Completion, Design-Builder shall pay to Owner _____ Ten Thousand _____ Dollars (\$10,000.00 _____), as liquidated damages for each calendar day that Final Completion is delayed beyond the above-referenced number of days.

5.4 Any liquidated damages assessed pursuant to this Agreement shall be in lieu of all liability for any and all extra costs, losses, expenses, claims, penalties and any other damages, whether special or consequential, and of whatsoever nature, incurred by Owner which are occasioned by any delay in achieving Substantial Completion, Interim Milestone Dates (if any) or Final Completion.
[The Parties may also desire to cap the liquidated damages payable under this Agreement, in which case the following language should be included at the end of Section 5.5.]

In addition to Design-Builder's right to a time extension for those events set forth in Section 8.2.1 of the General Conditions of Contract, Design-Builder shall also be entitled to an appropriate adjustment of the Contract Price for those events set forth in Section 8.2.1 of the General Conditions of Contract, provided, however, for Force Majeure Events, Design-Builder shall be entitled to an increase in the Contract Price providing that: (i) said events must exceed thirty (30) cumulative days before Design-Builder is entitled to additional compensation; and (ii) said additional compensation shall be limited to: the direct costs and expenses Design-Builder can demonstrate it has reasonably actually incurred as a result of such event.

5.5 Owner's Review Time. The parties have established the following maximum and minimum amount of time for Owner to review Design Submissions and the Project Schedule or any updates thereto unless the parties agree in writing otherwise.

5.5.1 Owner shall have a minimum of 14 days of receipt by Owner to review all Design Submissions, the Project Schedule, and any updates thereto.

5.5.2 Owner shall review and (if applicable) provide a response to Design-Builder on all Design Submissions, the Project Schedule and any updates thereto within 14 days of receipt by Owner.

Article 6

Contract Price

6.1 Contract Price.

6.1.1 Owner shall pay Design-Builder in accordance with Article 6 of the General Conditions of Contract the sum of _____ Dollars (\$ _____) for the Phase 1A and 1B Services, subject to adjustments made in accordance with the General Conditions of Contract. Unless otherwise provided in the Contract Documents, the Phase 1A and 1B Services compensation is deemed to include all sales, use, consumer and other taxes mandated by applicable Legal Requirements.

6.1.2 For Phase 2 Services, Owner shall pay Design-Builder in accordance with Article 6 of the General Conditions of Contract a contract price ("Contract Price") equal to Design-Builder's Fee (as defined in Section 6.4 hereof) plus the Cost of the Work (as defined in Section 6.5 hereof), subject to any GMP established in Section 6.6 hereof or as set forth in the Contract Price Amendment and any adjustments made in accordance with the General Conditions of Contract.

6.1.3 For the specific Work set forth below, Owner agrees to pay Design-Builder:

6.1.3.1 For Phase 1A Services an amount not to exceed \$ _____ for the cost of those Services at the Hourly Rates set forth on Exhibit E together with reimbursable expenses as set forth on Design Builder's proposal for the Phase 1B Services.

6.1.3.2 For Phase 1B Services in accordance with Design Builder's proposal for Phase IB Services as accepted by Owner.

6.2 Intentionally omitted.

6.3 Intentionally omitted. Terms and conditions for Phase 2 Services to be determined.

6.4 Design-Builder's Fee.

6.4.1 Design-Builder's Fee shall be: percent (_____ %) of the Cost of the Work during Phase 2, as adjusted in accordance with Section 6.4.2 below.

6.4.2 Design-Builder's Fee will apply to all changes in the Cost of the Work in Phase 2. The General Conditions Fee will not be applicable unless there is an Owner-requested time extension.

6.4.3

6.5 Cost of the Work.

6.5.1 The term Cost of the Work shall mean costs reasonably incurred by Design-Builder in the proper performance of the Work during Phase 2. The Cost of the Work shall include only the following:

6.5.1.1 Wages of direct employees of Design-Builder performing the Work at the Site or, with Owner's agreement, at locations off the Site, provided, however, that the costs for those employees of Design-Builder performing design services shall be calculated on the basis of prevailing market rates for design professionals performing such services or, if applicable, those Hourly Rates set forth in Exhibit E to this Agreement or as set forth on the Contract Price Amendment.

6.5.1.2 Wages or salaries of Design-Builder's supervisory and administrative personnel engaged in the performance of the Work and who are located at the Site or working off-Site to assist in the production or transportation of material and equipment necessary for the Work.

6.5.1.3 Wages or salaries of Design-Builder's personnel stationed at Design-Builder's principal or branch offices, but only to the extent said personnel are identified in Exhibit E _____ and performing the function set forth in said Exhibit. The reimbursable costs of personnel stationed at Design-Builder's principal or branch offices shall be calculated at

the Hourly Rates set forth on Exhibit E or as set forth on the Contract Price Amendment.
Be

6.5.1.4 Costs incurred by Design-Builder for employee benefits, premiums, taxes, insurance, contributions and assessments required by law, collective bargaining agreements or which are customarily paid by Design-Builder, to the extent such costs are based on wages and salaries paid to employees of Design-Builder covered under Sections 6.5.1.1 through 6.5.1.3 hereof unless such costs are included in the Hourly Rates set forth on Exhibit E or the Contract Price Amendment.

6.5.1.5 The reasonable portion of the cost of travel, accommodations and meals for Design-Builder's personnel necessarily and directly incurred in connection with the performance of the Work as set forth below:

6.5.1.5.1 Meals and Incidental Expenses: Meals and incidental expenses will be limited to the Federal Per Diem rate for meals and incidentals established for the location where lodging is obtained. Federal Per Diem guidelines can be found at www.gsa.gov.

6.5.1.5.2 Lodging: Lodging shall be billed at cost, including applicable taxes, not to exceed Federal Per Diem maximum lodging rate for the location where work is being performed. The Owner may increase this limit in writing when circumstances require.

6.5.1.5.3 Travel: Air Travel, coach class or equivalent, including applicable taxes, to be billed at Cost. Ground transportation by privately owned vehicle, if utilized to be billed at the IRS mileage rate for privately owned vehicles at the time of travel.

6.5.1.6 Payments properly made by Design-Builder to Subcontractors and Design Consultants for performance of portions of the Work, including any insurance and bond premiums incurred by Subcontractors and Design Consultants.

6.5.1.7 Costs, including transportation, inspection, testing, storage and handling of materials, equipment and supplies incorporated or reasonably used in completing the Work.

6.5.1.8 Costs less salvage value of materials, supplies, temporary facilities, machinery, equipment and hand tools not customarily owned by the workers that are not fully consumed in the performance of the Work and which remain the property of Design-Builder, including the costs of transporting, inspecting, testing, handling, installing, maintaining, dismantling and removing such items.

6.5.1.9 Costs of removal of debris and waste from the Site.

6.5.1.10 The reasonable costs and expenses incurred in establishing, operating and demobilizing the Site office, including the cost of facsimile transmissions, long-distance telephone calls, postage and express delivery charges, telephone service, photocopying and reasonable petty cash expenses.

6.5.1.11 Rental charges and the costs of transportation, installation, minor repairs and replacements, dismantling and removal of temporary facilities, machinery, equipment and hand tools not customarily owned by the workers, which are provided by Design-Builder at the Site, whether rented from Design-Builder or others, and incurred in the performance of the Work.

6.5.1.12 Premiums for insurance and bonds required by this Agreement or the performance of the Work.

6.5.1.13 All fuel and utility costs incurred in the performance of the Work.

6.5.1.14 Sales, use or similar taxes, tariffs or duties incurred in the performance of the Work.

6.5.1.15 Intentionally omitted.

6.5.1.16 Costs for permits, royalties, licenses, tests and inspections incurred by Design-Builder as a requirement of the Contract Documents.

6.5.1.17 The cost of defending suits or claims for infringement of patent rights arising from the use of a particular design, process or product required by Owner, paying legal judgments against Design-Builder resulting from such suits or claims, and paying settlements made with Owner's consent.

6.5.1.18 Deposits which are lost, except to the extent caused by Design-Builder's negligence.

6.5.1.19 Costs incurred in preventing damage, injury or loss in case of an emergency affecting the safety of persons and property reasonably incurred in accordance with Article 9 of the General Conditions.

6.5.1.20 Accounting and data processing costs related to the Work.

6.5.1.21 Other costs reasonably and properly incurred in the performance of the Work to the extent approved in writing by Owner.

6.5.2 Non-Reimbursable Costs. The following shall be excluded from the Cost of the Work:

6.5.2.1 Compensation for Design-Builder's personnel stationed at Design-Builder's principal or branch offices, except as provided for in Sections 6.5.1.1, 6.5.1.2 and 6.5.1.3 hereof.

6.5.2.2 Overhead and general expenses, except as provided for in Section 6.5.1 hereof, or which may be recoverable for changes to the Work.

6.5.2.3 The cost of Design-Builder's capital used in the performance of the Work.

6.5.2.4 If the parties have agreed on a GMP, costs that would cause the GMP, as adjusted in accordance with the Contract Documents, to be exceeded.

6.6 The Guaranteed Maximum Price shall be negotiated between the Parties and set forth in the Contract Price Amendment and shall generally be consistent with the terms stated in this Section 6.6 below.

6.6.1

Design-Builder guarantees that it shall not exceed the GMP of _____ Dollars (\$_____). Documents used as basis for the GMP shall be identified as the Contract Price Amendment to this Agreement. Design-Builder does not guarantee any specific line item provided as part of the GMP, provided, however, that it does guarantee the line item for its general project management and general conditions costs, in the amount of _____ Dollars (\$_____), and as set forth in the Contract Price Amendment ("General

Conditions Cap”). Design-Builder agrees that it will be responsible for paying the applicable general conditions costs in excess of the General Conditions Cap, as well as be responsible for all costs of completing the Work which exceed the GMP, as said general conditions line item and the GMP may be adjusted in accordance with the Contract Documents, including but not limited to the markups for Change Orders set forth in Section 6.3 herein.

6.6.2 The GMP includes a Contingency in the amount of _____ Dollars (\$ _____) which is available for Design-Builder’s exclusive use for unanticipated costs it has incurred that are not the basis for a Change Order under the Contract Documents. By way of example, and not as a limitation, such costs may include: (a) trade buy-out differentials; (b) overtime or acceleration; (c) escalation of materials; (d) correction of defective, damaged or nonconforming Work, design errors or omissions, however caused; (e) Subcontractor defaults; or (f) those events under Section 8.2.2 of the General Conditions of Contract that result in an extension of the Contract Time but do not result in an increase in the Contract Price. The Contingency is not available to Owner for any reason, including changes in scope or any other item which would enable Design-Builder to increase the GMP under the Contract Documents. Design-Builder shall provide Owner notice of all anticipated charges against the Contingency, and shall provide Owner as part of the monthly status report required by Section 2.1.2 of the General Conditions of Contract an accounting of the Contingency, including all reasonably foreseen uses or potential uses of the Contingency in the upcoming three (3) months. Design-Builder agrees that with respect to any expenditure from the Contingency relating to a Subcontractor default or an event for which insurance or bond may provide reimbursement, Design-Builder will in good faith exercise reasonable steps to obtain performance from the Subcontractor and/or recovery from any surety or insurance company. Design-Builder agrees that if Design-Builder is subsequently reimbursed for said costs, then said recovery will be credited back to the Contingency.

6.7 Allowance Items and Allowance Values.

6.7.1 Any and all Allowance Items, as well as their corresponding Allowance Values, are set forth in the Contract Price Amendment or the Proposal.

6.7.2 Design-Builder and Owner have worked together to review the Allowance Items and Allowance Values based on design information then available to determine that the Allowance Values constitute reasonable estimates for the Allowance Items. Design-Builder and Owner will continue working closely together during the preparation of the design to develop Construction Documents consistent with the Allowance Values. Nothing herein is intended in any way to constitute a guarantee by Design-Builder that the Allowance Item in question can be performed for the Allowance Value.

6.7.3 No work shall be performed on any Allowance Item without Design-Builder first obtaining in writing advance authorization to proceed from Owner. Owner agrees that if Design-Builder is not provided written authorization to proceed by the date set forth in the Project schedule, due to no fault of Design-Builder, Design-Builder may be entitled to an adjustment of the Contract Time(s) and Contract Price.

6.7.4 The Allowance Value includes the direct cost of labor, materials, equipment, transportation, taxes and insurance associated with the applicable Allowance Item. All other costs, including design fees, Design-Builder’s overall project management and general conditions costs, overhead and Fee, are deemed to be included in the original Contract Price, and are not subject to adjustment notwithstanding the actual amount of the Allowance Item.

6.7.5 Whenever the actual costs for an Allowance Item is more than or less than the stated Allowance Value, the Contract Price shall be adjusted accordingly by Change Order, subject to Section 6.7.4. The amount of the Change Order shall reflect the difference between actual costs incurred by Design-Builder for the particular Allowance Item and the Allowance Value.

Article 7

Procedure for Payment

7.1 Payment for Preliminary Services. Design-Builder and Owner agree upon the following method for partial and final payment to Design-Builder for the services hereunder: *(Insert terms.)*

7.2 Contract Price Progress Payments.

7.2.1 Design-Builder shall submit to Owner on or around the tenth (10th) (_____) day of each month, beginning with the first month after the Date of Commencement, Design-Builder's Application for Payment in accordance with Article 6 of the General Conditions of Contract.

7.2.2 Owner shall make payment within thirty (30) days after Owner's receipt of each properly submitted and accurate Application for Payment in accordance with Article 6 of the General Conditions of Contract, but in each case less the total of payments previously made, and less amounts properly withheld under Section 6.3 of the General Conditions of Contract.

7.2.3 If Design-Builder's Fee under Section 6.4 hereof is a fixed amount, the amount of Design-Builder's Fee to be included in Design-Builder's monthly Application for Payment and paid by Owner shall be proportional to the percentage of the Work completed, less payments previously made on account of Design-Builder's Fee.

7.3 Retainage on Progress Payments.

7.3.1 Owner will retain five percent (5 %) of each Application for Payment provided, however, retainage shall be reduced to two percent (2%) upon Substantial Completion. Owner may, in its sole discretion, reduce retainage for Work completed early in the Project.

7.3.2 Within fifteen (15) days after Substantial Completion of the entire Work or, if applicable, any portion of the Work, pursuant to Section 6.6 of the General Conditions of Contract, Owner shall release to Design-Builder all but two percent (2%) of the retained amounts relating, as applicable, to the entire Work or completed portion of the Work, less an amount equal to: (a) the reasonable value of all remaining or incomplete items of Work as noted in the Certificate of Substantial Completion; and (b) all other amounts Owner is entitled to withhold pursuant to Section 6.3 of the General Conditions of Contract.

7.4 Final Payment. Design-Builder shall submit its Final Application for Payment to Owner in accordance with Section 6.7 of the General Conditions of Contract. Owner shall make payment on Design-Builder's properly submitted and accurate Final Application for Payment (less any amount the parties may have agreed to set aside for warranty work) within ten (10) days after Owner's receipt of the Final Application for Payment, provided that Design-Builder has satisfied the requirements for final payment set forth in Section 6.7.2 of the General Conditions of Contract.

7.5 Interest. Payments due and unpaid by Owner to Design-Builder, whether progress payments or final payment, shall bear interest commencing thirty (30) days after payment is due at the rate of TBD percent (_____ %) per month until paid.

7.6 Record Keeping and Finance Controls. Design-Builder acknowledges that this Agreement is to be administered on an "open book" arrangement relative to Costs of the Work. Design-Builder shall keep full and detailed accounts and exercise such controls as may be necessary for proper financial management, using accounting and control systems in accordance with generally accepted accounting principles and as may be provided in the Contract Documents. During the performance of the Work and for a period of three (3) years after Final Payment, Owner and Owner's accountants shall be afforded access to, and the right to audit from time to time, upon reasonable notice, Design-Builder's records, books, correspondence, receipts, subcontracts, purchase orders, vouchers, memoranda and other data relating to the Work, all of

which Design-Builder shall preserve for a period of three (3) years after Final Payment. Such inspection shall take place at Design-Builder's offices during normal business hours unless another location and time is agreed to by the parties. Any multipliers or markups agreed to by Owner and Design-Builder as part of this Agreement are only subject to audit to confirm that such multiplier or markup has been charged in accordance with this Agreement, but the composition of such multiplier or markup is not subject to audit. Any lump sum agreed to by Owner and Design-Builder as part of this Agreement is not subject to audit.

Article 8

Termination for Convenience

If Design-Builder is terminated for convenience pursuant to Section 11.6 of the General Conditions of Contract, Owner shall pay Design-Builder as set forth in Section 11.6.1 of the General Conditions of Contract.

Article 9

Representatives of the Parties

9.1 Owner's Representatives.

Owner designates the individual listed below as its Senior Representative ("Owner's Senior Representative"), which individual has the authority and responsibility for avoiding and resolving disputes under Section 10.2.3 of the General Conditions of Contract:

Greg Pellerin

Executive director of Asset Management and Planning

gpellerin@pwd.org,

207-523-5258

9.1.1 Owner designates the individual listed below as its Owner's Representative, which individual has the authority and responsibility set forth in Section 3.4 of the General Conditions of Contract: *(Identify individual's name, title, address and telephone numbers.)*

9.2 Design-Builder's Representatives.

9.2.1 Design-Builder designates the individual listed below as its Senior Representative ("Design-Builder's Senior Representative"), which individual has the authority and responsibility for avoiding and resolving disputes under Section 10.2.3 of the General Conditions of Contract: *(Identify individual's name, title, address and telephone numbers.)*

9.2.2 Design-Builder designates the individual listed below as its Design-Builder's Representative, which individual has the authority and responsibility set forth in Section 2.1.1 of the General Conditions of Contract: *(Identify individual's name, title, address and telephone numbers.)*

9.3 Neither Party shall change its designated Representatives without written notice to the other Party thirty (30) days prior to such change. Design Builders designated representatives shall be reasonably acceptable to Owner.

Article 10

Bonds and Insurance

10.1 Insurance. Design-Builder and Owner shall procure the insurance coverages set forth in the Insurance Exhibit attached hereto and in accordance with Article 5 of the General Conditions of Contract.

10.2 Bonds and Other Performance Security. Design-Builder shall provide the following performance bond and labor and material payment bond or other performance security:

Performance and Payment Bonds with the penal sum equal to the full amount of the GMP established in the Contract Price Amendment shall be required for the Phase 2 Work.

Article 11

Other Provisions

11.1 Other provisions, if any, are as follows: (Insert any additional provisions.)

11.2 Listing of Exhibits and documents incorporated herein:

Exhibit A – Owner’s Project Criteria
Exhibit B – Scope of Services for Phase 1A and 1B
Exhibit C – Design-Build Operate & Maintain Exhibit
Exhibit D – Insurance Requirements E-INS-I
Exhibit E – Hourly Rate Table for Design, Build, and Operator

DBIA Document No. 535, Standard Form of General Conditions of Contract Between Owner and Design-Builder (2022 Edition) (“General Conditions of Contract”) as amended.

Contract Price Amendment, if any.

In executing this Agreement, Owner and Design-Builder each individually represents that it has the necessary financial resources to fulfill its obligations under this Agreement, and each has the necessary corporate approvals to execute this Agreement, and perform the services described herein.

OWNER:

DESIGN-BUILDER:

(Name of Owner)

(Name of Design-Builder)

(Signature)

(Signature)

(Printed Name)

(Printed Name)

(Title)

(Title)

Date: _____

Date: _____

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Exhibit A
Owner's Project Criteria

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Section 1 Introduction

1.1 Document Purpose

The Owner's Project Criteria defines the Performance Standards and Requirements, minimum technical design requirements, testing standards and requirements, Acceptance Test requirements, and operations and maintenance (O&M) requirements for the Portland Water District's (Owner) Regional Biosolids Facility (Project). The Project will be executed using the Progressive Design-Build-Operate delivery method.

The Owner's Project Criteria, with certain exceptions, are preliminary and subject to modification as the design progresses through the collaborative delivery process with input from the Owner and Design-Builder.

During the previous planning phase, as described in RFQ Attachment C (Economic Evaluation of Regional Biosolids Facility), the Owner recognizes that the concepts may not be the only acceptable technical approach to satisfying the performance requirements defined by the design criteria, and variations of the concepts may be appropriate and acceptable to the Owner. Proposers are advised that the concepts described in RFQ Attachment C represent only one alternative that the Owner may consider for this Project and should not be construed as representing the Owner's preferred approach to the Project.

The final Owner's Project Criteria, including more extensive design criteria as developed, reviewed and approved during the Phase 1A and 1B delivery, will be incorporated into the Design-Build Contract via the executed Phase 2 amendment.

The Design-Builder shall conform design and construction to the requirements identified in this Exhibit. The performance requirements take precedence over other minimum technical requirements; the Design-Builder shall notify the Owner if they believe an aspect of the minimum technical requirements conflicts with or would preclude their ability to meet the performance requirements. Additionally, the Design-Builder shall notify the Owner if they believe an aspect of the minimum technical requirements conflicts with an existing code or standard. During design and construction, the Design-Builder may propose modifications to the Owner's Project Criteria. Any such modifications are subject to review and approval by the Owner.

1.2 Project Background and Scope

1.2.1 Project Background

The Owner is seeking to construct a regional biosolids facility to be owned by PWD and operated by a third party. This facility is intended to provide advanced treatment for biosolids generated by the Owner and several of its peer utilities in Maine. Specifically, the project as currently contemplated would include cake receiving, anaerobic digestion, dewatering, and thermal drying. While not included in the current project scope, the Owner wishes to reserve space on site to allow for design flexibility should a thermal destruction solution be necessary to address PFAS and other constituents in the future.

Based upon planning analysis performed to date, including the Owner's population projections, the expected capacity of this facility is an average of 85 wet tons/day, where 75 wet tons/day are contributions from the Owner's facilities and the remainder are contributions from peer utilities. The Owner has performed preliminary outreach to gauge partner utility interest in this project and will provide anticipated project participation as part of the RFQ.

The Owner has an existing Memorandum of Agreement for a future lease of land for the project at the ecomaine solid waste facility in Portland, ME. Site maps, operating constraints and accessibility, including available utilities, will be provided as part of the RFQ package, and can be found in Attachment D (ecomaine Site Areas Assessment), Attachment E (Preliminary Permitting Matrix), and Attachment F (Other Preliminary Materials and Report).

With respect to final product, ecomaine is exploring a permit modification that would allow for onsite disposal, but RFQ Proposers should develop a product management plan to be provided during the Phase 1 DB delivery. Accumulation of either incoming biosolids or final product beyond what is received or generated in a 48-hour period will be disallowed and will be subject to penalties or damages incurred by exceed permit limitations and other factors.

1.2.2 Project Scope

During the planning phase, Figure 1 illustrates the Project layout described in RFP Attachment C. Note that this layout was developed for planning purposes and is not a required layout for the Design-Builder.

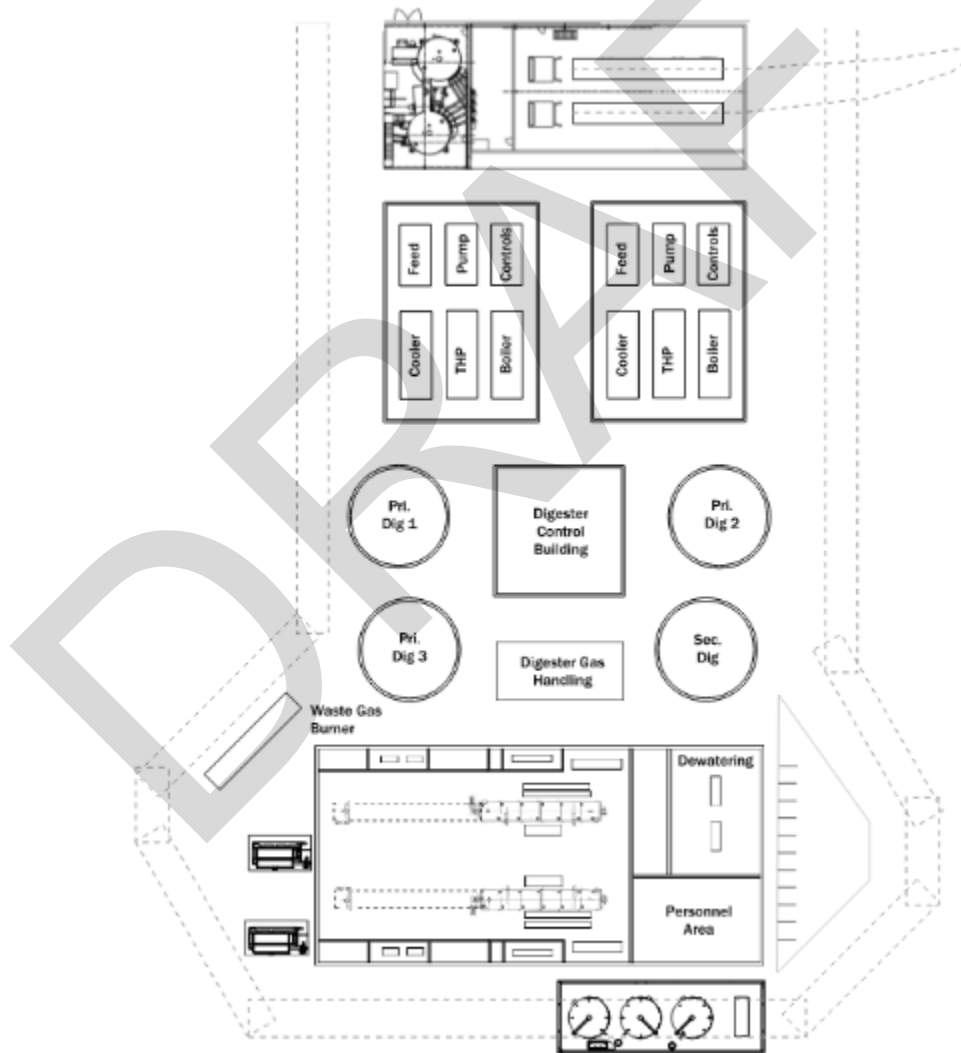


Figure 1. Conceptual Design Report Project Layout

The Project consists of the principal components below. The Project scope of work generally includes the following:

- Sludge/cake receiving with odor control
- Thermal hydrolysis
- Anaerobic digestion with biogas safety controls and management
- Sludge dewatering
- Thermal drying
- Dried solids truck off load
- Dust control

Scope of Services details are included in Exhibit B to the Design-Build Agreement.

1.3 Codes and Standards

Except where specific requirements of this Exhibit, or as modified by the Guaranteed Maximum Price (GMP) Amendment, result in more stringent requirements, the Design-Builder shall design the facilities and systems in accordance with the most recent edition of the following applicable codes and standards listed in Table 1-1. Where codes and standards conflict, each code or standard shall be applied consistently, and the code or standard giving the most conservative design shall govern.

The Design-Builder may propose additions, deletions, or modifications to the cited codes and standards as the design progresses. Subject to Owner approval, a final list of codes and standards will be incorporated into the Owner’s Project Criteria via the GMP Amendment.

Note that Maine Department of Environmental Protection (Maine DEP) Solid Waste Rules may be required depending on the Project Site and regulating authority.

Societies, industry groups, organizations, institutes, and agencies issuing these codes, standards, and guidelines include, but are not limited to, the following codes and standards Listed in Table 1-1. It is the responsibility of the Design-Builder to identify and incorporate the most recent applicable codes and standards.

| Table 1-1. Codes and Standards | | |
|---|--|---|
| Category | Authority / Standard | Applicability |
| Regulatory & Design Guidance (Wastewater / Biosolids) | Maine DEP | Wastewater licensing, solids handling, air emissions permitting |
| | U.S. Environmental Protection Agency (EPA) – 40 CFR Part 503; 40 CFR Parts 122/125 | Biosolids Rule; NPDES/MEPDES requirements |
| | Ten States Standards – Recommended Standards for Wastewater Facilities | Digesters, sludge handling, ventilation, storage |
| | Water Environment Federation (WEF) Manuals of Practice (MOP 8, MOP 11) | Digestion, thickening, dewatering guidance |
| | Maine Subsurface Wastewater Disposal Rules (if applicable) | Land application and subsurface systems |
| | National Institute of Occupational Safety and Health (NIOSH) | Worker health guidance, exposure limits, industrial hygiene |
| | National Institute for Certification in Engineering Technologies (NICET) | Certification of fire protection and engineering technicians |
| Building & Energy Codes (State of Maine) | Maine Office of the State Fire Marshal | Fire code enforcement; adopted NFPA standards |
| | Maine Uniform Building and Energy Code (MUBEC) | Adoption of IBC, IEBC, IRC, IECC, IMC |

| Table 1-1. Codes and Standards | | |
|--------------------------------------|---|---|
| Category | Authority / Standard | Applicability |
| | International Building Code (IBC) – as adopted by Maine | Structural, occupancy, hazardous classification |
| | International Mechanical Code (IMC) – as adopted by Maine | HVAC and ventilation |
| | International Energy Conservation Code (IECC) – as adopted by Maine | Energy compliance |
| | 2010 ADA Standards for Accessible Design | Accessibility compliance |
| | International Association of Plumbing and Mechanical Officials (IAPMO) | Uniform Plumbing Code and mechanical code development |
| | International Conference of Building Officials (ICBO) | Historical building code development and legacy UBC references |
| | Masonry Institute of America (MIA) | Masonry design guidance |
| Fire Protection | National Fire Protection Association (NFPA) 1 | Fire Code |
| | NFPA 13 | Sprinkler systems |
| | NFPA 14 | Standpipe systems |
| | NFPA 72 | Fire alarm systems |
| | NFPA 101 | Life Safety Code |
| | NFPA 37 | Installation of stationary combustion engines such as generators and biogas engines |
| | Underwriters Laboratories (UL) | Listed fire protection equipment |
| | Consumer Product Safety Commission (CPSC) | Product safety compliance for equipment |
| Fire & Hazard Classification | National Fire Protection Association (NFPA) 820 | Wastewater facility hazard classification |
| | NFPA 652 | Combustible dust and dust hazard analysis |
| | NFPA 68 / 69 | Explosion venting and prevention systems |
| | NFPA 54 | Fuel gas systems |
| | NFPA 30 (if applicable) | Flammable and combustible liquids storage |
| Anaerobic Digestion & Biogas Systems | American Society of Mechanical Engineers (ASME) Boiler & Pressure Vessel Code | Digesters, boilers, and pressure vessels |
| | American Petroleum Institute (API) | Gas storage tanks when applicable |
| | The Chlorine Institute | Chlorine systems when applicable |
| | NFPA 70 – NEC | Classified electrical areas |
| | OSHA 29 CFR 1910.119 (if applicable) | Process Safety Management for biogas systems above threshold quantities |
| | American Gas Association (AGA) | Gas piping and combustion system standards |
| | United States Department of Interior Bureau of Reclamation (USDIBR) | Federal infrastructure design standards when federally funded |
| Thermal Drying / Thermal Processing | NFPA 86 | Ovens and furnaces |
| | NFPA 652 | Dust Hazard Analysis |
| | Maine DEP Air Bureau | Air emissions permitting |
| | OSHA 29 CFR 1910 | Worker and process safety |

| Table 1-1. Codes and Standards | | |
|---|---|---|
| Category | Authority / Standard | Applicability |
| | OSHA 29 CFR 1910.146 | Permit-required confined spaces |
| Heating, Ventilation, and Air-Conditioning (HVAC) | American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 15 | Refrigeration safety |
| | ASHRAE 62.1 | Indoor air quality and ventilation |
| | ASHRAE 90.1 | Energy efficiency |
| Odor Control | NFPA 820 | Air withdrawal standards |
| | Ten States Standards | Minimum ventilation rates |
| | Maine Department of Environmental Protection | Odor control air permitting when applicable |
| Plumbing | Maine State Plumbing Code (UPC with Maine amendments) | Plumbing systems |
| | American Water Works Association (AWWA) | Water piping materials |
| | National Sanitation Foundation (NSF) | Potable water certification |
| | AWWA C510 / C511 (if applicable) | Backflow prevention assemblies |
| | Insulated Cable Engineers Association (ICEA) | Cable insulation standards |
| Structural & Materials | American Concrete Institute (ACI 318, 350) | Structural and environmental concrete |
| | ACI 301 | Specifications for structural concrete |
| | ACI 117 | Concrete tolerances |
| | American Institute of Steel Construction (AISC 360) | Structural steel |
| | American Iron and Steel Institute (AISI) | Cold-formed steel |
| | American Society of Civil Engineers (ASCE 7) | Minimum design loads |
| | ASCE 24 (if applicable) | Flood resistant design |
| | Concrete Reinforcing Steel Institute (CRSI) | Reinforcing detailing |
| | American Welding Society (AWS) | Welding standards |
| | Precast/Prestressed Concrete Institute (PCI) | Precast concrete |
| | Steel Deck Institute (SDI) | Metal deck systems |
| | AMPP (formerly NACE International / SSPC) | Corrosion protection and coating standards |
| | American Association of State Highway and Transportation Officials (AASHTO) | Highway structures and traffic loading |
| | Standard Specifications for Public Works Construction (Green Book) | Municipal construction standards |
| Pipe Fabrication Institute | Pipe fabrication standards | |
| Mechanical & Dewatering Equipment | Hydraulic Institute (HI) | Pumps |
| | Manufacturers Standardization Society (MSS) | Valves and fittings |
| | American Society for Testing and Materials (ASTM International) | Materials testing |
| | American Bearing Manufacturers Association (ABMA) | Bearings |
| | Anti-Friction Bearing Manufacturers Association | Bearing standards; legacy reference to ABMA |
| | American Gear Manufacturers Association (AGMA) | Gear reducers |
| | National Electrical Manufacturers Association (NEMA) | Motor enclosures |

| Table 1-1. Codes and Standards | | |
|---------------------------------------|--|---|
| Category | Authority / Standard | Applicability |
| Electrical Systems | National Fire Protection Association (NFPA 70 - NEC) | Electrical installations |
| | NFPA 110 | Emergency power systems |
| | National Electrical Safety Code (NESC) | Utility interconnection |
| | Institute of Electrical and Electronics Engineers (IEEE) | Grounding and arc flash |
| | IEEE 1584 | Arc flash hazard calculations |
| | IEEE 80 | Grounding system safety |
| | American National Standards Institute (ANSI) | Referenced consensus standards |
| | Underwriters Laboratories (UL) | Listed electrical equipment |
| | Federal Communications Commission (FCC) | Communication equipment compliance |
| Instrumentation & Controls | International Society of Automation (ISA) | Automation standards; instrumentation identification (ISA 5.1); alarm management (ISA 18.2); functional safety and Safety Instrumented Systems (ISA 84) |
| | International Electrotechnical Commission (IEC) | International control system standards; hazardous area equipment classification; functional safety (IEC 61511) |
| | Institute of Electrical and Electronics Engineers (IEEE) | Grounding, surge protection, arc flash analysis, power quality, and industrial communications standards |
| | Telecommunications Industry Association (TIA) | Structured cabling, fiber optics, telecommunications pathways, and SCADA communication infrastructure |
| | National Institute of Standards and Technology (NIST) | Calibration traceability; cybersecurity framework guidance for industrial control systems |
| | International Organization for Standardization (ISO) | Quality management systems (ISO 9001); laboratory and calibration accreditation (ISO/IEC 17025) |
| Lighting | Illuminating Engineering Society (IES) | Industrial lighting design |
| Site Civil / Municipal Standards | American Public Works Association (APWA) | Public works standard specifications |
| | Maine DOT Standard Specifications | Roadway and site work |
| | Maine DEP Stormwater Rules | Stormwater permitting |

Section 2 Performance Standards and Requirements

2.1 Performance Standards and Requirements

This facility is intended to be a reliable outlet for biosolids generated in Maine. Proposers should account for reliability and storage as necessary to maintain continual service/receipt of biosolids from participating utilities. It is the Owner's expectation that during the Phase 1 project development, the successful Design-Builder develops an operations plan that includes a backup plan for uninterrupted receipt of material during planned and unplanned and emergency shutdowns.

With respect to final product, ecomaine is exploring a permit modification that would allow for onsite disposal, but the Design-Builder should develop a solids management plan to be provided during the Phase 1A and 1B delivery. Accumulation of either incoming biosolids or final product beyond what is received or generated in a 48-hour period will be disallowed and will be subject to damages or fines, for example, exceeding any operating or other permit limits. Key milestones for the Phase 2 delivery will be finalized during the GMP negotiations, but generally will include permitting to allow construction, air and water quality and occupancy permitting to coincide with startup and commissioning, acceptance testing, substantial completion, and final completion milestones that align with an approved schedule.

Table 2-1 summarizes the design parameters and assumptions for the key components of this project. These are subject to change during Phase 1A and 1B delivery and the incorporation of additional outside utilities' participation.

| Table 2-1. Design Parameters and Assumptions Summary | | | |
|---|--|------------------------------|--|
| Current Facility Loading | | | |
| | East End WWTP | Westbrook-Gorham WWTW | Outside Utilities |
| Type of sludge produced | Raw primary sludge (PS) and waste activated sludge (WAS) | WAS only | Mostly WAS only with some raw PS & WAS |
| Percent (%) total solids (TS) average (range) | 26% (21-30%) | 20% (18-21%) | 25% (14-26%) |
| Percent volatile solids (VS) average (range) | 84% (82-86%) | (unmeasured value, assumed) | 70% (unmeasured value, assumed) |
| Hauled Solids (wet tons per year) | 15,900 | 4,300 | 4,900 |
| Estimated number of days hauled per week | 6 | 3 | 5 (Assumed staggered schedule) |
| Future Facility Loading | | | |
| Hauled Solids (wet tons per year) | 18,900 | 7,700 | 4,900 |
| Estimated Number of days hauled per week | 6 | 5 | 5 (Assumed staggered schedule) |
| Notes | Assuming new centrifuge dewatering equipment are operational | | |

Table 2-2 indicates the Performance Standards and related requirements for the Acceptance Test.

| Table 2-2. Performance Requirements [to stay within permitted limits] | | | | |
|--|--|---|---|--------------|
| Parameter | Performance Standard | How Measured (methods) | Monitoring Location | Notes |
| Cake Receiving | | | | |
| Odor control operation, continuous | Demonstrate uninterrupted odor control of cake receiving area and any holding hoppers, for all solids received during Acceptance Test (AT) | [To be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | |
| Screws/conveyors performance, each | Demonstrate each screw/conveyor operating through full design range, [time frame to be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | |
| Cake Pumps, if applicable | Demonstrate each pump operating through full design range of flows and heads, [time frame to be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | |
| Thermal hydrolysis | | | | |
| Steam boiler operation, continuous | Demonstrate each steam boiler operating at design range, [time frame to be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | |
| Thermal hydrolysis (THP) reactors operation, continuous | Demonstrate each THP system operating through full design range, [time frame to be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | |
| Anaerobic digestion | | | | |
| Digester Pumps, continuous | Demonstrate each pump operating through full design range of flows and heads, [time frame to be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | |
| Mixers, continuous | Demonstrate each mixer operating through full design range, [time frame to be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | |
| Digester safety equipment (pressure vacuum relief valves), continuous | Demonstrate each digester safety equipment operating as designed. | [To be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | |
| Waste gas burner | Demonstrate each mixer operating through full design range, [time frame to | [To be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | |

| Table 2-2. Performance Requirements [to stay within permitted limits] | | | | |
|---|---|--|--|-------|
| Parameter | Performance Standard | How Measured (methods) | Monitoring Location | Notes |
| | be determined with PWD during Phase 1B] | | | |
| Dewatering | | | | |
| Conveyors performance, each | Demonstrate each conveyors operating through full design range, [time frame to be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | |
| Centrifuge operation | Demonstrate each centrifuge operates and produces a cake within design range, using minimal amount of polymer, [time frame to be determined with PWD during Phase 1B] | Total solids of dewater cake and Total suspended solids of centrate | Dewatered cake (composite samples) and centrate line | |
| Polymer system operation | Demonstrate each polymer system operates within design range, [time frame to be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | |
| Thermal Dryer | | | | |
| Thermal dryer | Demonstrate each dryer operating through full design range maintaining internal design temperature and producing at least 92% TS solids, [time frame to be determined with PWD during Phase 1B] | <ul style="list-style-type: none"> Monitoring temperature via SCADA Total solids measurement of solids | <ul style="list-style-type: none"> Temperature measured within dryer via SCADA Composite sample of dried produce | |
| Conveyance | Demonstrate each conveyor operating through full design range, [time frame to be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | [To be determined with PWD during Phase 1B] | |

2.2 Acceptance Test Required Scenarios

Table 2-3 defines some possible required scenarios to be demonstrated during the Acceptance Test. Conducted scenarios that do not meet the Performance Standard are subject to re-testing. Owner approval of acceptance testing plan 180 days prior to scheduled acceptance testing. Table 2-3 will be updated during Phase 1B as the Acceptance Test scenarios may change with the selection of specific equipment and processes. All changes will require Owner approval.

| Table 2-3. Acceptance Test Required Scenarios | |
|---|--|
| Scenario | Performance Standard / Measurement(s) of Success |
| Simulated Power Failure (backup power): Successful automatic engagement of emergency power | No adverse impact to systems or equipment |
| Manual Emergency Shutdown: Full power down of system initiated by operations controls and shutdown procedures | No adverse impact to systems or equipment |

| Table 2-3. Acceptance Test Required Scenarios | |
|---|---|
| Scenario | Performance Standard / Measurement(s) of Success |
| Restoration of operations after simulated or manual shutdown: Power up system and begin operations following simulated power failure and emergency shutdown | No adverse impact to systems or equipment |
| Full system functionality and operation for 30 consecutive days with no interruptions that meet all performance requirements. | No out of compliance functionality for more than 4 hours during the 30-day period or the 30-day period restarts |

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Section 3 Minimum Technical Design Criteria

3.1 Minimum Technical Design Criteria

The Project shall be designed to meet or exceed the minimum technical criteria in Table 3-1. Table 3-1 will continue to be updated during Phase 1B.

| Table 3-1. Minimum Technical Design Criteria and Requirements | |
|---|--|
| Project Element | Requirement |
| Thermal Dryer | Produce a dried biosolids product at least 92% TS and minimal dust |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
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Section 4 Project and Site Constraints

The Design-Builder will assist the Owner in the selection of the ecomaine area to be used for the Project. RFQ Attachment D (ecomaine Site Areas Assessment) includes site maps, operating constraints and accessibility, and available utilities for the four potential site locations. RFQ Attachment E (Preliminary Permitting Matrix) also includes information regarding permits for the four potential site locations.

4.1 Project Constraints

Regarding Design-Builder interactions with the Owner and the community, related to construction activities, the Design-Builder shall adhere to the Project constraints and requirements listed in Table 4-1 below. Project Constraints and Requirements will be updated and negotiated during Phase 1.

| Table 4-1. Project Constraints and Requirements | |
|---|---|
| Project Constraint | Requirement |
| Record Documents | The Design-Builder shall maintain current record documents on-site throughout the duration of the Project, in accordance with Owner standards as modified for the Project and approved by the Owner. |
| Operational Constraints | Operator shall not exceed more than 48 hours of solids accumulation whether incoming or generated. Design and construction as well as operations shall be managed to meet (or perform better than) all permit limits. |
| Coordination with other construction projects | <ul style="list-style-type: none"> Other planned projects (timing uncertain) may result in other contractors working in the vicinity of (but not within) the Project Site. The Design-Builder shall be responsible for coordinating with other contractors to minimize any impedance of work. |
| Protection of Existing Infrastructure | Design-Builder shall protect existing infrastructure (e.g., on-site buildings, equipment, and other infrastructure, any means and methods used that impact infrastructure outside the site such as vibration and noise during construction or operation) from damage during field investigations and construction. |
| Environmental Constraints | Design-Builder shall comply with applicable environmental regulations, including: <ul style="list-style-type: none"> Noise control: Comply with local noise ordinances and applicable permit requirements Dust control: Comply with local regulations Odor control: Comply with local, state, and federal regulations Water Pollution Control, including spill prevention and containment: Comply with local stormwater and other applicable regulations. |

4.2 Site Constraints

NOTE: This section will be updated during Phase 1A upon selection of Project Site.

In addition to the project constraints listed in Table 4-1, the Design-Builder shall adhere to the constraints and requirements specific to the Project Site, listed in Table 4-2 below.

| Table 4-2. Site Constraints and Requirements | |
|--|--|
| Site Constraint | Requirement |
| Project Site Access | <ul style="list-style-type: none"> [To be determined during Phase 1A upon selection of Project Site.] |
| Construction Traffic Control | <ul style="list-style-type: none"> [To be determined during Phase 1A upon selection of Project Site.] |
| Temporary Storage | <ul style="list-style-type: none"> [To be determined during Phase 1A upon selection of Project Site.] |

Table 4-2. Site Constraints and Requirements

| Site Constraint | Requirement |
|------------------------------------|--|
| Temporary Utilities and Facilities | • [To be determined during Phase 1A upon selection of Project Site.] |
| Site Restoration | • [To be determined during Phase 1A upon selection of Project Site.] |

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Section 5 Preliminary Start-up, Commissioning, Acceptance Testing, and Instruction of Operations and Maintenance Personnel Requirements

5.1 Introduction

This section identifies preliminary requirements for startup, commissioning, and Acceptance Testing of the Project. This section also includes preliminary requirements for transitioning the biosolids facility's operations from the current configuration to the configuration with the Project improvements implemented. Most of the requirements in this Exhibit are preliminary. The Design-Builder may propose modifications, subject to Owner approval, and agreed upon modifications shall be incorporated into the GMP Amendment.

During the Project, the Owner and the Design-Builder shall determine the O&M personnel requirements for Startup activities and the Acceptance Test, including any O&M personnel that will be provided by the Design-Builder. The Design-Builder shall identify all required O&M personnel to be provided by the Design-Builder and the Owner in the Startup Plan and the Acceptance Test Plan, to be approved by the Owner.

5.2 Startup and Commissioning

Startup and commissioning includes all work following initial equipment installation such as equipment testing, system testing, and everything else required to have the Project as a whole ready for Acceptance Testing. Startup and commissioning shall be conducted in accordance with the Design-Builder's approved Startup and Commissioning Plan, which shall include all necessary commissioning for each piece of equipment and system according to the manufacturers' requirements, design criteria, and best practices.

5.3 Acceptance Test Plan

5.3.1 Performance Standards and Acceptance Test Intent

The intent of the Acceptance Test is to clearly and unquestionably demonstrate that the Project improvements can (1) meet the Performance Standards in Section 2, as may be modified by the GMP Amendment and (2) operate the biosolids facility efficiently. Acceptance Testing will be required to capture the ability of Project improvements to meet Performance Standards and will be required for substantial completion.

The Acceptance Test is a continuous 30-day test to demonstrate that the design, configuration, and construction of the Design-Builder's completed work is capable of sustained performance compliant with the Performance Standards outlined in Section 2.

The Acceptance Test Plan shall define the procedures required to perform the Acceptance Test, as well as the specific conditions that would warrant a restart or extension to the Acceptance Test. The Design-Builder will submit an Acceptance Test Plan review and obtain approval of the Acceptance Test Plan by the Owner no later than 180 days prior to the scheduled 30-day Acceptance Test.

5.3.2 Acceptance Test Activities

The Design-Builder shall conduct the Acceptance Test(s) in accordance with the approved Acceptance Test Plan(s), including all required coordination with the Owner.

Any modification to the approved Acceptance Test Plan shall be coordinated and approved by the Owner prior to the start of the Acceptance Test.

Any modification or deviation from the approved Acceptance Test Plan during the Acceptance Test shall be coordinated with and approved by the Owner. Any modification or deviation shall be documented for inclusion in the Acceptance Test Report.

5.3.3 Acceptance Test Monitoring

During the Acceptance Test, the Design-Builder shall, at a minimum, monitor the required parameters of the Performance Standards at the monitoring locations specified in Table 2-3.

5.3.4 Preconditions to the Acceptance Test

The Acceptance Test shall not be conducted until the Startup and Commissioning Plan and Acceptance Plan are approved. In addition, the Acceptance Test shall not begin until all activities in the Startup and Commissioning Plan are completed.

Exhibit B (Project Scope of Services) of the Progressive Design-Build contract, describes the Design-Builder’s scope for developing preliminary, draft, and final, and revised Acceptance Test Plans for the Project. At a minimum, the Acceptance Test Plans shall address the following issues:

Preconditions to the Acceptance Test include:

- All manufacturers’ certificates of proper installation completed and submitted to the Owner.
- All factory test results achieved and submitted to the Owner.
- All equipment testing completed and documented per Design-Builder’s Start-up and Commissioning Plan, as approved by the Owner and as assessed and verified by manufacturers.
- All temporary equipment and systems needed for Acceptance Testing installed and operable.
- Final Acceptance Test Plan approved by the Owner.

Test Team Organization:

- Organization of the Test Team including responsibilities, authority, and decision-making protocols
- Internal and external communication protocols.
- Owner, Design-Builder, and Manufacturer’s roles in operating the Plant during the Acceptance.
- Testing including acknowledgement of Owner override authority during the Acceptance Testing
- Identification of support required from the Owner.

Testing Procedures and Acceptance Test Protocol:

- Specific measurements to be made and instruments to be used, including calibration methods and laboratory testing.
- Certification of calibration of instruments.

5.3.5 Acceptance Test Report

Within 30 days of completing the Acceptance Test, the Design-Builder shall submit to the Owner an Acceptance Test Report documenting the results of the Acceptance Test. The Acceptance Test Report, at a minimum, shall include the following information:

- A certification that testing was conducted in accordance with the approved Acceptance Test Plan.

- A certification of the results of testing, including a determination of the extent to which the Project complies with the Performance Standards and Acceptance Test requirements.
- All data measured and recorded during the Acceptance Test.
- All calculations used in determining results.
- All other data and information reasonably requested by the Owner to be included in the report.

5.4 Instructions for Operations and Maintenance Personnel

The Design-Builder shall provide comprehensive training to the Operator’s designated operations and maintenance (O&M) personnel to support the Operator’s. Training shall be delivered by qualified Supplier and Manufacturer representatives and shall cover the recommended operating and maintenance procedures for all materials, equipment, and packaged treatment processes furnished under the Contract.

Training shall include a combination of classroom and hands-on field instruction conducted at the Project site. The Design-Builder shall develop and submit a proposed training schedule for review and acceptance by both the Operator and the Owner. The schedule shall clearly identify all required training for the installed systems and equipment.

Training instructors shall be factory-trained and certified by the applicable Manufacturer. For each training session, the Design-Builder shall submit a Lesson Plan in advance for review by the Operator and Owner. Lesson Plans shall identify training topics, applicable system components, and instructional procedures, and shall include any supporting handouts or materials.

The Owner shall be kept informed of training activities and shall receive copies of all training materials, including Lesson Plans, handouts, and final O&M manuals. Training sessions may be recorded by the Operator and/or Owner at their discretion, with prior notice provided to the instructor.

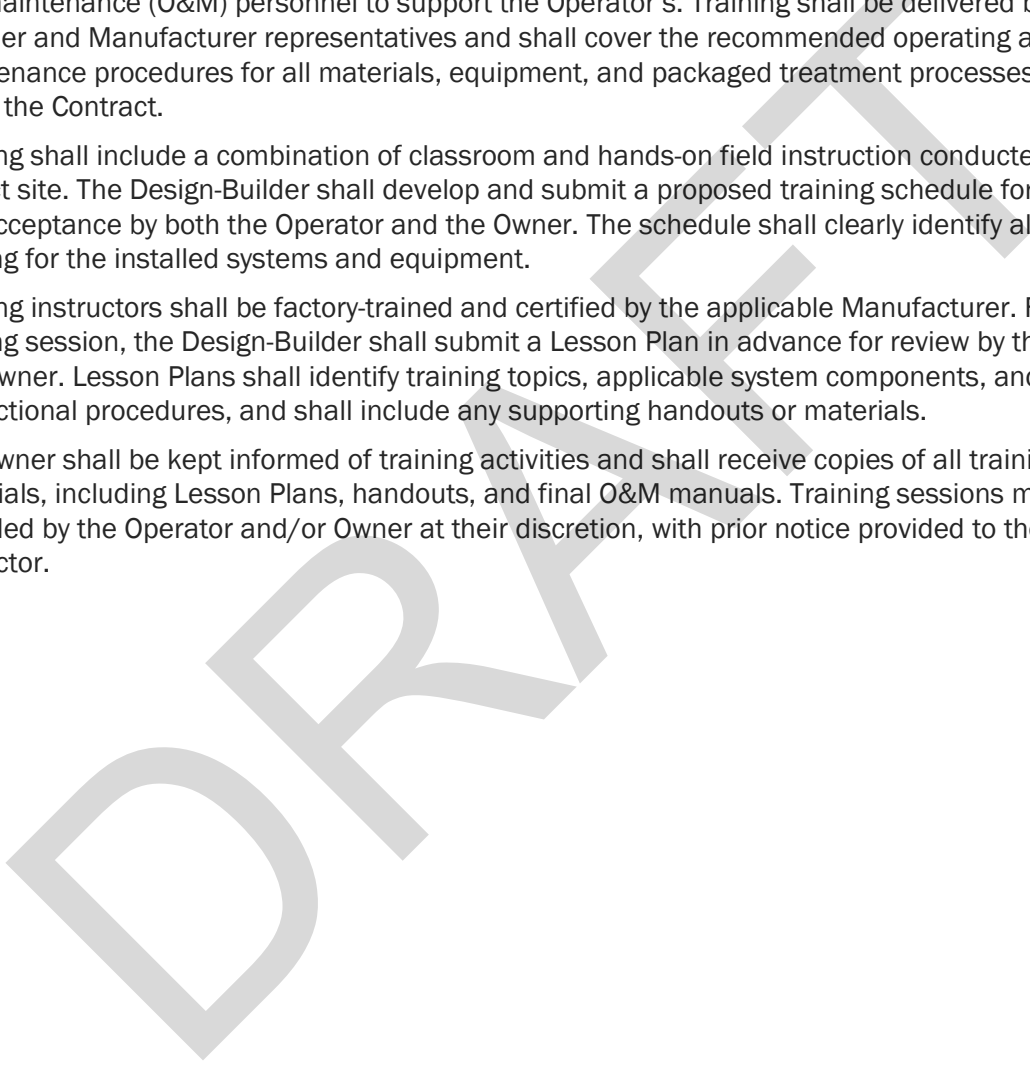


Exhibit B
Project Scope of Services

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Section 1 Background

1.1 Project Understanding and Objectives

The purpose of this Exhibit is to establish the technical and planning foundation for the Southern Maine Regional Biosolids Facility, including process selection, site layout, major equipment sizing, and preliminary cost estimation. The preliminary design will support subsequent phases by defining the major technologies to be employed, identifying siting needs, and summarizing expected costs and funding requirements. The preliminary design will be used to facilitate conversations with stakeholder groups around public/private funding, environmental permitting, interagency coordination, and capital budgeting.

1.2 Introduction

The Design-Builder will provide preconstruction-phase services for the Project in two phases, Phases 1A and 1B, which are described in this Exhibit.

Phase 1A budget is expected not to exceed \$1.5 million.

Phase 1A and 1B: Preconstruction-phase services generally consist of preliminary engineering, geotechnical investigations, and design development, as well as preparation—working closely with the Owner—of a proposed cost model/price and schedule. The proposed cost model, price and schedule include the Project’s design (developed to the Owner’s required level of completion) in collaboration with the Owner, a detailed cost model and early estimate, a Milestone 1 Deliverable, Project schedule, Phase 1B Proposal, and supporting documentation, such as detailed open-book costing for the final GMP.

- **Phase 1A Services:** Development of the Milestone 1 Design Deliverable which will include plans, specifications, and all necessary supporting documentation to help the Portland Water District (Owner) Regional Biosolids Facility Project achieve the following goals:
 - Maintain open communication and collaboration on design development and correlating cost model/pricing evolution throughout Phase 1A with the Owner and Owner’s Advisor’s (OA) representative.
 - Develop the design to approximately 30% with a cost model and pricing component. This will set the parameters for advancement to Phase 1B.
 - Develop a risk register and align risks to contingency items in the cost model and pricing development.
 - Coordinate with ecomaine on access to intended area, existing permits, and current truck routes used for their facility. ecomaine intends to host the Project on their property.
 - Coordinate with any and all necessary State, Local, and Federal jurisdictions pertaining to permits.
 - Develop the basis of the Project, including cake/sludge receiving with odor control approach; anaerobic digestion approach, process and location; sludge dewatering, and thermal drying. The Project shall be designed with best industry practices. This advances the Basis of Design (BODR), as described in Task 8, with design criteria, performance requirements and specifications to an appropriate level and includes early estimates within the approved cost model.

- Develop and design an effective solids management program that has sufficient solids disposition for all solids processed onsite or received at the ecomaine location, to an extent that no more than 48 hours of solids is accumulated onsite.
- This solids management program should investigate other end use alternatives to disposal with potential product sale, as well as hauling and tip fee potential of other utilities received at this facility and revenue sharing.
- Develop an effective solids management program operationally, employing best industry practices and safety practices.
- Identify potential truck routes with the least disturbance to residential neighborhoods.
- Perform engineering studies (such as subsurface investigations, pilot studies, raw water/wastewater analyses, etc.) to support design and cost estimating.
- Submit a project completion estimate within the cost model structure and based on the current design developed through Phase 1A, including but not limited to a risk register, contingency items, schedule, design criteria and specifications, performance requirements, operation and maintenance 5-year cost estimate, pricing estimate – with quotes for known components.
- **Phase 1B Services:** Upon approval of the Milestone 1 Design Deliverable in Phase 1A which will include design progression, cost model, and pricing for project completion, the Design-Builder shall:
 - Advance the design to approximately 60% (or more) in a collaborative approach with the Owner and Owner’s Advisor
 - Continue open book transparency to the cost model, ongoing pricing development and design decision impacts.
 - Continue open communications and collaboration with the Owner and Owner’s Advisor
 - Design a safe and effective project that minimizes nuisance impacts to the public (long-term and during construction).
 - Develop and implement an effective safety program during construction, which follows or exceeds best industry practices.
 - Develop and submit Phase 1B Proposal containing the GMP (may be converted to lump-sum price) to complete the final design and construction-phase services.

1.3 Phase 1A and 1B Scope of Services Tasks

Phase 1A Services shall include the following tasks:

- Task 1: Project Management
- Task 2: Meetings and Workshops
- Task 3: Background Document Review and Validation
- Task 4: Site Selection, Field Investigations, Surveying, Mapping and Reports
- Task 5: Cost Estimating, Implementation Planning, Scheduling, and Constructability Reviews
- Task 6: Permitting and Approvals
- Task 7: Public Outreach
- Task 8: Basis of Design Report
- Task 9: Milestone 1 Design Deliverable

Phase 1B Services shall include the following tasks:

- Task 10: 60% Design Submittal
- Task 11: Construction Sequencing Plan and Subcontracting and Self-Performance Plan
- Task 12: Guaranteed Maximum Price (GMP) Development

Each task describes the minimum required deliverables. All Deliverables shall be reviewed with the Owner. The Design-Builder shall promptly correct deficiencies and shall make modifications to conform to Project requirements and achieve acceptability to the Owner.

The Design-Builder shall provide draft deliverables in the workable format created: e.g. Microsoft® Word for written documents and specifications; Excel for calculations; Primavera® or a similar program for formatting schedules, and the native electronic CAD, BIM, or Revit format for drawings. The Design-Builder shall also provide electronic copies of all draft and final deliverables in .pdf format with any additional requirements described in the individual tasks.

1.4 Assumptions

- For design production tasks (Tasks 8, 9, and 10), Proposers shall price the design level of effort based on the higher level of effort that could result as an outcome of the alternatives analysis. In other words, price the design level of effort for the concept that would result in the greatest design effort.
- The Owner wishes to establish a Not-to-Exceed Price for Phase 1A and 1B that is sufficient for the Project design regardless of the concept selected, with separate line items for Phase 1A and 1B. Where there are exceptions to this, they are identified in notes to specific tasks in this Exhibit.
- All design development will be done in a progressive design-build, collaborative manner following WCDA and DBIA best practices.
- Additional pricing assumptions are included in notes to specific tasks in this Exhibit.

Section 2 Phase 1A Task Details

Task 1: Project Management

Phase 1A and 1B project management and coordination will be provided by the Design-Builder with details defined in the following subtasks:

Subtask 1.1: Project Coordination and Communication

Design-Builder shall be responsible for all required coordination and communication within its team. Communication with the Owner shall include Progress and Coordination Meetings (see Subtask 2.2) and any other written or verbal communication needed to communicate and address project coordination, issues, and needs as they arise.

Design-Builder will incorporate the Project into the Owner's existing records management system (SharePoint) and will utilize it for storing and sharing documents during Phase 1A and 1B.

Subtask 1.2: Project Management Plan (PMP)

The PMP will help the project team understand the basic project and Phase 1A and 1B requirements. The Design-Builder shall prepare and submit the draft PMP within 30 days of Contract Execution. The Design-Builder will finalize the PMP within 10 days of receiving Owner comments and will update the document throughout Phase 1A and 1B. The PMP shall include at a minimum the following documents:

- Project Schedule as discussed in Task 1.3.
- Project Decision Plan details the dependency relationships between key Owner decisions, design progression, workshops, and Design-Builder submittals, as well as the procedures used to document key decisions.
- Project Team Organization Chart details roles and responsibilities of all companies and staff.
- Health and Safety Plan as discussed in Task 1.4.
- Project Quality Plan (PQP) as discussed in Task 1.5.
- Project Communication Plan as discussed in Task 1.6.
- Risk Management Plan as discussed in Task 1.7.

Subtask 1.3: Project Schedule

In accordance with Subtask 1.2 and as part of the PMP, the Design-Builder shall develop a Project Baseline Schedule prepared with Primavera®. The Project Baseline Schedule shall, at a minimum, include the following elements:

- Activities for each task, sub-task, and deliverable in the Scope of Work, including but not limited to:
 - Planning for and conducting field investigations.
 - Conducting evaluations and analyses.
 - Preparing design documents, cost model, estimates, and other deliverables.
 - Owner review periods for deliverables.
 - GMP Proposal.
 - Contract Price Amendment negotiations.
 - Owner Contract Price Amendment approval period (assume 3 months).

- Anticipated date for Contract Price Amendment execution.
- Conducting other activities.
- Planned Deliverable submittal dates, including draft deliverable submission dates, Owner review periods, and final deliverable submission dates. The Owner has a minimum of 3 weeks (15 working days) to provide comments for any deliverable submitted by the Design-Builder and a minimum of 4 weeks (20 working days) to provide comments for any major deliverables which includes the Basis of Design Report, Milestone 1 Design, 60% design and 90% design.
- Start and finish dates for each activity.
- Meeting dates.
- Major milestones.
- Critical path analysis.
- Float.
- Anticipated Phase 2 activity timelines (e.g., construction planning activities, construction activities, testing, startup, commissioning, Acceptance Testing, warranty periods, etc.).
- Tracking progress against the Project Baseline Schedule and developing updated Project Baseline Schedules as needed.
- Identifying and resolving potential scope and schedule changes.
- Identifying and tracking Project issues / action items using an Issue Log, and resolving them in a timely manner.
- The Design-Builder's Phase 1A schedule shall also include, at a summary level, the time required for obtaining all permits and approvals during Phase 1A based on the detailed permitting plan schedule developed under Task 6. As part of this schedule, Design-Builder will provide cash flow forecast for Phase 1A Services.

As discussed in the following Subtask 1.8, the Design-Builder shall submit updates to the Phase 1A and 1B schedule with each monthly report and include in the report progress on Phase 1A and 1B activities and any significant changes and their impact on the timing of overall project delivery.

Subtask 1.4: Health and Safety Plan (HASP)

In accordance with Subtask 1.2 and as part of the PMP, the Design-Builder shall submit a Health and Safety Plan (HASP). The HASP shall discuss the health and safety program and required training to be implemented by the Design-Builder and observed by its staff along with any subconsultants and subcontractors (subcontractors) and their staff participating in Phase 1A and 1B.

Subtask 1.5: Project Quality Plan (PQP)

In accordance with Subtask 1.2 and as part of the PMP, the Design-Builder shall submit a Project Quality Plan (PQP). Throughout Phase 1A and 1B, the Design-Builder shall implement all aspects of its PQP and shall ensure that all Project personnel and subconsultants are familiar with and implement the PQP's requirements.

The Plan shall identify the Design-Builder's process to assure quality during design and construction planning. The PQP will include quality management roles and responsibilities, the quality assurance/quality control (QA/QC) program, and corrective action procedures. The major components of the PQP should include:

- Schedule of quality activities, aligned with the scope of work.
- Description of specific quality processes to be applied and planned deliverables/outputs.

- Roles and responsibilities specific to quality activities and identification of the individuals who will perform those roles.
- List of quality review documentation and records required to be maintained on file and shared with the Owner, if requested.
- The level of effort allocated for quality tasks should be identified clearly within the fee estimate. The PM will review the PQP for inclusion of the components requested and will request modification and resubmittal if needed.
- The Design-Builder shall submit a Project Quality Plan that includes, at a minimum, description and schedule of quality activities, identification of quality reviewers and their roles and

Subtask 1.6: Project Communication Plan

In accordance with Subtask 1.2 and as part of the PMP, the Design-Builder shall submit a Project Communication Plan. The Project Communication Plan shall describe all communication procedures for the Design-Builder's team. These include written, electronic, and verbal communications, and detail the procedures for the Design-Builder within its team including subcontractors, with the Owner, with any permitting body, and with external stakeholders.

Subtask 1.7: Risk Management Plan

In accordance with Subtask 1.2 and as part of the PMP, the Design-Builder shall submit a Risk Management Plan which shall include Phase 1A and 1B and Phase 2 risks that become evident as the Project development progresses. The Design-Builder shall prepare and provide updates to a Project Risk Register that includes the following information:

1. Risk identification and description.
2. Designated leads for managing each risk on both the Design-Builder's and Owner's teams.
3. Estimated percent likelihood that risk may occur.
4. Potential schedule impact should risk occur.
5. Potential cost impact should risk occur.
6. Potential quality or other impact should risk occur.
7. Risk management / mitigation strategy.

The Design-Builder shall update the Project Risk Register for submittal to the Owner at major decision or design submittal milestones, or when significant changes to the project risk profile or risk mitigation strategies occur.

Subtask 1.8: Project Progress Reporting

The Design-Builder shall submit monthly reports summarizing Project progress. The monthly progress reports shall include a narrative summarizing the progress of the Project and shall identify any recommended actions by the Owner or the Design-Builder to mitigate risks or modify the Project approach and scope.

During the monthly progress reports, the Design-Builder shall update the Decision Log, Issue Log, Action Item Log, and Risk Register. The Design-Builder shall make these logs accessible and visible to the Owner, Owner Advisor, and all other members of the Project Team at all times.

Attachments to the monthly progress report shall include:

1. Monthly progress schedule showing the status of activities against the Baseline Schedule.
2. Any recommended modifications to the Baseline Schedule (changes in activities or logic) for Owner approval.

3. Updated Decision Log
4. Updated Issue Log.
5. Updated Action Item Log.
6. Updated Risk Register (if changed).
7. Monthly invoice and backup.
8. Budget status updates.
9. Monthly updates suitable to support public outreach activities by the Owner.

Subtask 1.9: Invoicing

Each billing period (usually monthly) the Design-Builder will submit their invoice and monthly report, earned value, and schedule updates summarizing project progress. The invoice must be organized by the tasks shown in the WBS, with totals on the subtask, task, and project level shown on the invoice summary table. The invoice should include separate detailed information by task, including each staff person who worked on the task, their title, number of hours worked, and billing rate. In addition, invoices should include back up documentation for expenses, and any subcontractor charges.

Invoices should be submitted monthly and use the Standard Invoice Format. The Design-Builder must also submit the project schedule, monthly report, earned value metrics, and cash flow projections with the invoice.

With the invoice, the Design-Builder must also submit a report outlining the work performed and milestones achieved over the previous month. The Design-Builder should use the “Invoice Activity Summary” template to describe the month’s key decisions made, work planned for the next billing period, and information/decisions needed. The project manager will use the Invoice Review Checklist to ensure the proper items are included in the report.

The Design-Builder shall utilize Earned Value for invoice preparation and progress reporting. At the beginning of each project, Design-Builder is required to submit an Earned Value spreadsheet showing the costs associated with each task or subtask (as appropriate). Design-Builder will update and re-attach the Earned Value form to each monthly report/invoice.

Subtask 1.10: Support for State Revolving Fund (SRF) Funding

The Design-Builder shall support the Owner’s compliance reports for SRF low-interest loan requirements. This reporting information will include quarterly and annual cash flow projections and the weekly Davis-Bacon wage reports. The program requirements can be found at the Maine DEP website (<https://www.maine.gov/dep/water/grants/srfparag.html>).

Task 1 Deliverables

1. Draft and Final PMP, with revised PMP as necessary.
2. Draft and Final Cost Model and regular Estimate updates (weekly)
3. Monthly progress reports including updated schedule and earned value updates with attachments listed below:
 - I. Monthly progress schedule showing the status of activities included in the Baseline Schedule.
 - II. Any recommended modifications to the Baseline Schedule (changes in activities or logic) for Owner approval.
 - III. Updated Action Item Log.

- IV. Updated Risk Register (if changed).
 - V. Monthly invoice and backup, including budget status update.
 - VI. Earned value update including relevant metrics.
4. SRF quarterly and annual cash flow projections and weekly Davis-Bacon wage reports.

Task 1 Assumptions

- Monthly project progress meetings will average 2 hours in duration with an average of 4 members of the Design-Builder's team including the Project Manager and Design Manager (virtual).
- Project Management Task duration shall be through 100 percent design completion, including Phases 1A and 1B.

Task 2: Meetings and Workshops

The Design-Builder shall schedule, prepare for, and conduct meetings with the Owner necessary for Project coordination, communication, and decision making throughout Phases 1A and 1B. At a minimum, Project meetings shall include the following:

Subtask 2.1: Project Kickoff Meeting

The Design-Builder shall schedule, prepare for, and conduct a Project Kickoff Meeting with the Owner, including key firms and individuals from the Design-Builder's project team, and participating utilities and stakeholders. The Project Kickoff Meeting is intended to confirm project procedures and communications protocols, critical success factors, project scope, schedule and deliverable milestones, and work sequencing, including any proposed Early Work Packages.

As an element of the Project Kickoff Meeting, the Design-Builder shall organize a 1-day partnering exercise with a third-party facilitator, intended to foster open communication, trust, understanding, and teamwork between the Design-Build team and the Owner project team.

Subtask 2.2: Progress Meetings

The Owner's and Design-Builder's teams will meet bi-weekly to discuss progress updates at a time that is mutually agreed upon by the Owner and the Design-Builder. The Design-Builder shall include any necessary staff as required. The purpose of the meetings will be to facilitate the work of the Design-Builder and any subcontractor or other organization that is not progressing to schedule, resolve conflicts, identify and resolve any potential delays and, in general, coordinate and facilitate the execution of the Work.

- These progress meetings may include an agenda topic to resolve any outstanding comments for technical deliverables.
- The Design-Builder shall prepare agendas at least 2 days in advance of each progress meeting in consultation with the Owner and shall prepare and distribute draft meeting minutes for Owner review within 3 days following each progress meeting. Meeting agendas will include the time, date, location, attendees, and outline of discussion topics. The Design-Builder will prepare and send meeting minutes to all attendees after each meeting, site visit, or conference call. Minutes should include the time, date, location, attendees, a summary of items discussed, decisions made, and a list of action items with the responsible party and due date for each action item.
- During these meetings, the Decision Log, Issue Log, Action Item Log, and Risk Register will be updated. The Design-Builder shall also address any updates to the cost estimate and project schedule.

Subtask 2.3: Technical Workshops

The Design-Builder shall prepare for, schedule and conduct technical workshops with the Owner throughout Phase 1A and 1B. The scheduling and topics for these workshops shall be jointly agreed upon between the Owner and the Design-Builder and shall be intended to facilitate and support Owner decisions regarding the project configuration and design, permitting, and construction planning progression. Up to 15 workshops are anticipated during Phase 1A. Meeting topics may include, as needed:

- Field investigation results and implications (e.g., Geotechnical and hydrogeological; surveying and mapping).
- Alternatives analysis.
- Cost modeling/estimating and project scheduling (minimum bi-weekly updates).
- Layout and configuration of existing improvement and new infrastructure(s)
- Control systems and strategies.
- Electrical, I&C, SCADA
- Coordination with authorities having jurisdiction.
- Coordination with ecomaine.
- Coordination with other Utilities.
- Construction Sequencing and Phase 2 Schedule Development.
- Strategy to procure long-lead items and equipment.
- Subcontractor, Equipment, and Self-Performance Planning
- Environmental, Permitting and Approvals review.
- Basis of Design Report review.
- Milestone 1 Design review
- Phase 1B GMP Proposal planning.
- Value Engineering review.
- 60% design review.
- 90% design review.
- GMP Proposal review.

Subtask 2.4: Guaranteed Maximum Price (GMP) Proposal Workshops

After delivery of the draft Guaranteed Maximum Price (GMP) Proposal with the Milestone 1 Design Deliverable, the Design-Builder shall meet with the Owner during workshops totaling up to 16 hours to present, review, and answer questions about the content of the GMP Proposal. Ideally, much of these discussions have occurred during the design development to avoid surprises with the GMP. The Design-Builder will conduct additional workshops and meetings as needed to obtain Owner agreement to move on to 60% design.

Once approval is received to move forward with the project, a second GMP Proposal will be submitted with the 60% design for similar reviews and workshop to achieve acceptance and move into Phase 2.

All effort for coordinating working meetings, developing agendas and meeting notes, preparing working meeting materials, and conducting working meetings is included under this task.

Task 2 Deliverables

1. Draft and final kickoff meeting and partnering session agenda and notes.
2. Cost Model and regular Estimates of work
3. Draft and final progress meeting agendas and notes.
4. Draft and final working technical meeting agendas, notes and action items.
5. Topic-specific workshop materials for all workshops and meetings.
6. GMP workshops and follow-up meetings: Draft and final GMP Proposal Workshop agenda and notes.

Task 2 Assumptions

- All effort for coordinating working meetings, developing agendas and meeting notes, preparing working meeting materials, and conducting working meetings is included under this task.
- Bi-weekly project progress meetings will average 1 hour in duration with an average of 4 members of the Design-Builder's team including the Project Manager and Design Manager (virtual).
- The exact timing for each technical workshop will be dependent on scheduling around other concurrent projects for the Owner.
- Up to 15 technical workshops of 4 hours (each) in duration and attended by up to 5 members of Design-Builder's team (in-person for key staff).
- Design-Builder shall collaborate with Owner to finalize subject(s) for each workshop.
- Additional technical workshops may be required to collaborate on technical subject matter not included in the previously listed technical workshops.
- Technical workshops are in addition to meetings, site visits and workshops listed under other tasks and subtasks.
- Assume 1 GMP workshop lasting 4 hours and 2 follow-up meetings lasting 2 hours each, attended by 4 members of Design-Builder's team.

Task 3: Background Document Review and Validation

The Design-Builder shall obtain, review, and conduct due diligence related to all reference documents identified in the RFQ Package and Design-Build Agreement, including all applicable record drawings. The Design-Builder shall conduct a thorough due diligence on any potential utility, yard piping and other infrastructure conflicts and necessary relocations. The Design-Builder will conduct any additional due diligence efforts it deems necessary to identify and manage potential conflicts.

The Owner may update the list of reference documents to the Design-Build Agreement prior to executing the Design-Build Agreement.

Subtask 3.1: General Background Document Review

The Design-Builder shall review reference documents and consult with the Owner to develop a better understanding of project requirements, site constraints, and other important project information. The Design-Builder will prepare a letter verifying review of the listed documents and identifying any follow-up questions for the Owner to address. As part of this process, the Design-Builder will assemble and assess the following information to confirm the basis for design, identify data gaps, and ensure alignment with Owner expectations and regional biosolids projections:

- **Document Review:** Collect and review existing documentation, including:
 - Facility master plans and feasibility studies
 - Current and projected solids generation data from contributing wastewater treatment plants (WWTPs)
 - As-built drawings, GIS data, and survey information for the proposed site(s)
 - Regional biosolids management and hauling data collected by Owner.
- **Site Reconnaissance:** Conduct site visits to assess existing site conditions, access, utilities, topography, and potential constraints (wetlands, floodplains, adjacent land uses).
- **Flow and Load Projections:** Verify current and projected biosolids flows and solids loading rates through data collection from regional WWTPs. Develop 20-year and 40-year design loading scenarios to support long-range facility sizing.
- **Utility and Infrastructure Data:** Identify available and required utilities: power, water, gas, and sewer connections. Document existing capacities and connection points. Assess existing pump station on-site for capacity from proposed facility.
- **Regulatory Data Collection:** Compile applicable regulations, permits, and environmental standards that will inform the design (EPA Part 503, state biosolids management regulations, air quality standards, local permitting requirements).
- **Data Gap Identification:** Prepare a summary of missing or insufficient information and recommend additional investigations (survey, geotechnical, environmental, flow monitoring, etc.) for future phases.

Task 3 Deliverables

1. Technical Memorandum (TM) verifying Reference Document information review and identifying follow-up questions and requests for the Owner.

Task 3 Assumptions

- For the purpose of developing pricing, assume that field investigations will provide the appropriate level of information for planning, design, and construction.

Task 4: Site Selection, Field Investigations, Surveying, Mapping and Reports

The Design-Builder will perform Task 4 work using Maine licensed professional land surveyor, Maine licensed geotechnical engineer, and appropriately certified hydrogeologists and hazardous materials testing professionals.

Subtask 4.1: Site Selection

The Design-Builder will support the Owner in evaluating and selecting the ecomaine site area to be used for the Project. As part of this effort, the Design-Builder will review RFQ Attachment D (ecomaine Site Areas Assessment), which includes site maps, operating constraints, accessibility considerations, and available utilities for the four (4) potential site locations.

The Design-Builder will verify the information provided in RFQ Attachment D through field investigations, surveying, mapping, and reports as outlined in the subsequent Subtasks. The Design-Builder will identify any discrepancies, risks, or additional considerations that may affect site suitability.

The Design-Builder will perform a comparative cost-benefit analysis of the four (4) potential site locations. The analysis will consider, at a minimum, capital costs, operational impacts, constructability, site constraints, schedule implications, utility availability, and impacts to ongoing operations.

The Design-Builder will prepare a Technical Memorandum (TM) summarizing the evaluation and analysis of each site and providing a clear recommendation for the preferred site location, including the basis for selection.

Subtask 4.2: Geotechnical and Groundwater Field Exploration and Evaluation

The Design-Builder shall develop a draft field exploration plan to identify geotechnical explorations and groundwater/dewatering investigations and submit it to the Owner for review. The Design-Builder shall finalize the plan within 10 days following receipt of Owner comments. Once approved, the Design-Builder shall complete the field explorations described in its plan and document the results in field notes and TM described below. At a minimum, testing of soils collected from borings will include moisture content and dry- density determinations, Atterberg limit determinations, sieve analysis, modified compaction and direct shear tests, pH, and resistivity.

The Design-Builder shall define geotechnical/structural design criteria and recommend construction methods (e.g. excavation, shoring, and dewatering methods) through a TM which shall include:

- Site plan with approximate exploration locations on a base map, including previously completed borings and Design-Builder supplemental borings.
- Descriptive logs of subsurface explorations.
- Description of surface, soil, groundwater, and seismic conditions.
- Soil corrosivity conclusions.
- Ground and groundwater conditions conclusions to determine construction and dewatering methods
- Recommendations for:
 - Seismic design parameters.
 - Site preparation.
 - Utility trench excavations with temporary slope angles and excavation support.
 - Trench backfill.
 - Ground stabilization.
 - Temporary and permanent drainage systems.
 - Design criteria for structures.
 - Construction monitoring.
 - Any other recommendations necessary to support the Design-Builder's design and construction.

The Design-Builder will submit the draft TM to the Owner for comment. Owner comments shall be limited to requests for clarification and questions and shall not modify the results of the evaluation or recommended criteria. Within 15 days of receiving Owner comments, the Design-Builder shall provide the Owner with a final TM. Any remaining comments will be discussed and resolved with the Owner as part of a follow up meeting, which may be part of the bi-weekly progress meeting. The Design-Builder will incorporate this into the Milestone 1 Design Deliverable.

Geotechnical Investigation Standards. When geotechnical work is required, the Design-Builder will submit a Geotechnical Interpretation Report (GIR), addressing all information needed for code

compliance, structural design, buried piping, roads, walkways, and other design elements. The GIR will emphasize specific construction concerns and concerns regarding the integrity of sewers, pipelines, pavement and structures. The Design-Builder will provide GIS data consisting of one Shapefile (shp) that includes the location of each soil boring, using Maine State Plane Coordinates Zone III in feet.

Subtask 4.3: Contaminated Soils and Groundwater Testing and Evaluation`

The Design-Builder shall develop a draft plan for sampling soils and groundwater at the site for potential petroleum, metals, and other contaminants and will identify sampling locations, frequencies along with the specific contaminant to be tested, and submit it to the Owner for review. The Design-Builder shall finalize the plan within 10 days following receipt of Owner comments. Once approved, the Design-Builder shall complete the field explorations described in its plan and document the results in field notes and TM described below.

The Design-Builder shall perform the sampling of soil and groundwater per its approved plan, analyze testing results, and prepare a Contaminated Soils and Groundwater Testing and Evaluation TM summarizing the results of testing soil and groundwater samples for potential contaminants. Based on the testing results, the report shall identify any regulatory limits that have been exceeded or where special measures for monitoring, excavation, soils/groundwater handling, and/or disposal will be required for construction. The TM shall also identify the need for any supplemental testing that should be conducted prior to developing the Guaranteed Price in order to reduce the risk of encountering unexpected contaminated soils or groundwater during construction.

The Design-Builder shall provide the draft TM to the Owner for review. Within 15 days of receiving Owner comments, the Design-Builder shall provide the Owner with a final TM. Any remaining comments will be discussed and resolved with the Owner as part of a follow up meeting, which may be part of the bi-weekly progress meeting. The Design-Builder will incorporate this into the Milestone 1 Design Deliverable

Subtask 4.4: Surveying and Mapping

The Design-Builder shall conduct surveying to develop site mapping. Surveys and mapping shall include:

- Topographic and wetland data.
- Visible surface features.
- Below ground information from geotechnical and groundwater field exploration TM (Subtask 4.2) as applicable.

The Design-Builder will submit the draft electronic drawings (Adobe PDF and AutoCAD®, Civil 3D, or Revit) to the Owner for comment. After the Owner completes its review, the Design-Builder shall submit the final drawings (Adobe PDF and AutoCAD®, Civil 3D, or Revit) within 15 days. Any remaining comments will be discussed and resolved with the Owner as part of a follow up meeting, which may be part of the bi-weekly progress meeting. The Design-Builder will incorporate this into the Milestone 1 Design Deliverable.

Surveying Standards. All surveying work will be done under the supervision of a licensed land surveyor or licensed civil engineer qualified to practice surveying in the state of Maine and will conform to the State of Maine Professional Land Surveyors Act and all state and local regulations. The surveyor will report all survey data in Maine State Plane Coordinate System, Zone III using NAD83 for horizontal control and NAVD88 for vertical control. The surveyor shall report all survey data in AutoCAD format in decimal feet with all associated object data on features. The Design-

Builder must also provide GIS data consisting of one Shapefile (.shp) that includes the outline of each surveying area, using Maine State Plane Coordinates Zone III in feet.

Subtask 4.5: Traffic Study

The Design-Builder shall conduct sight distance, traffic operations and safety analysis at the proposed Regional Biosolids Facility hosted potentially ecomaine property.

This work will include:

- Turning movement counts for 8 hours of the day.
- Signal warrant analysis.
- Sight distance study with observations.
- Speed study with observations.

Once the studies are complete, the Design-Builder will develop recommendations for access road and site plan.

The Design-Builder will submit the draft TM to the Owner for comment. After the Owner completes its review, the Design-Builder shall submit the final TM within 15 days. Any remaining comments will be discussed and resolved with the Owner as part of a follow up meeting, which may be part of the bi-weekly progress meeting. The Design-Builder will incorporate this into the Milestone 1 Design Deliverable.

Task 4 Deliverables

1. Draft and Final Site Selection TM
2. Draft and Final Exploration Plan.
3. Draft and Final Geotechnical and Groundwater Evaluation TM.
4. Draft and Final Soil and Groundwater Contamination TM.
5. Draft and Final Site Survey Files and Drawings.
6. Draft and Final Traffic Study TM.

Task 4 Assumptions

- \$50,000 allowance for geotechnical field explorations.
- \$25,000 allowance for soil and groundwater contaminant sampling, testing, and reporting.
- \$50,000 allowance for lead and asbestos sampling, testing, and reporting.
- \$50,000 for surveying and mapping,
- \$25,000 for traffic study,
- These values may be adjusted up or down during negotiations

Task 5: Cost Estimating, Implementation Planning, Scheduling, and Constructability Reviews

The Design-Builder shall develop a comprehensive understanding of project cost, phasing, and delivery strategies to support Phase 1A design activities, as described in the following subtasks.

Subtask 5.1: Preliminary Cost Estimating

The Design-Builder shall prepare a conceptual-level cost estimate (AACE Class 4) based on Phase 1A documentation, defining major cost elements, contingencies, and assumptions outlined below:

- **Estimate Development Basis:** Establish the Basis of Estimate (BoE), documenting cost assumptions, design maturity, sources of cost data, and estimating methodology (unit rates, historical data, vendor quotes).
- **Direct Construction Costs:** Prepare estimates for the following major categories:
 - Sitework, grading, and civil improvements
 - Yard piping and utilities
 - Process mechanical systems (dewatering, digestion, drying, etc.)
 - Electrical power distribution and I&C
 - Structural and building systems
 - HVAC, plumbing, and architectural finishes
 - Odor control and air handling systems
- **Indirect Costs:** Include allowances for contractor overhead and profit, temporary facilities, construction management, testing and commissioning, and Owner-provided equipment (OPE).
- **Soft Costs and Contingencies:** Apply engineering, legal, permitting, and administrative cost factors based on Owner guidance. Include design contingency (typically 20–30% for Class 4) and escalation to mid-point of construction.
- **Vendor Input:** Obtain preliminary budget quotes for critical process equipment (dryers, digesters, centrifuges, odor control units, etc) to validate cost assumptions.
- **Estimate Review and Validation:** Conduct an internal QA/QC review and a cost validation workshop with the Owner to review key assumptions, cost drivers, and sensitivities.

Subtask 5.2: Operations and Maintenance (O&M) Cost Evaluation

The Design-Builder shall develop a conceptual operating cost model to support lifecycle analysis and budget planning that includes but is not limited to the following:

- Estimate annual O&M costs for staffing, chemicals, power, fuel, polymer, maintenance, and hauling/disposal of solids output.
- Incorporate energy recovery benefits (biogas-to-power, thermal energy reuse).
- Summarize annualized costs per dry ton of biosolids processed and per unit of product produced.
- Compare O&M costs of the selected process with alternative technologies evaluated in Task 8.1.
- Identify high-cost operational components and potential efficiency opportunities.

Subtask 5.3: Implementation Phasing and Sequencing Plan

The Design-Builder shall develop a high-level plan for project implementation that defines how and when the facility will be constructed, commissioned, and brought into service, considering funding, logistics, and operational constraints. The plan shall include but is not limited to the following:

- **Phasing Strategy:** Identify logical implementation phases (site preparation, civil works, process facilities, support systems). Develop phased construction and commissioning sequences to minimize disruptions to existing operations and to align with funding availability.
- **Interim Handling and Transition Plan:** Define how biosolids will be managed during construction and startup periods.
- **Future Expansion Provisions:** Incorporate provisions for future process expansion, additional units, or technology upgrades without major rework.

- **Integration with Regional Partners:** Coordinate implementation sequencing with participating utilities and existing WWTF schedules to ensure alignment in biosolids hauling and transfer logistics.

Subtask 5.4: Project Schedule Development

As outlined in Subtask 1.3, the Design-Builder shall prepare a high-level integrated schedule identifying major milestones for design, permitting, procurement, construction, and commissioning which shall include but is not limited to the following:

- Develop a Baseline Schedule showing key activities for:
 - Milestone 1 Design Deliverable, 60% and 100% design milestones
 - Environmental and regulatory permitting
 - Procurement of long-lead equipment
 - Construction phases and commissioning activities
- Identify critical path elements and potential schedule risks.
- Include allowances for regulatory reviews and interagency coordination.
- Provide schedule sensitivity scenarios (accelerated delivery vs. phased funding).

All Design-Build Schedules shall be consistent with the following requirements:

- Schedules shall be submitted electronically in both Primavera® and Adobe PDF format.
- Phase 2 schedule shall include any remaining Phase 1A and 1B work to be completed following the Contract Price Amendment.
- The Design-Builder shall provide the Owner all baseline schedule software settings (e.g. Calendar Settings, User Preferences, Administrative Preferences, Schedule Settings).
- Design-Builder must incorporate separate calendars as appropriate to identify all tasks subject to permits and work restrictions described in the specifications.

Construction schedules will include the critical path, number of days after notice to proceed (NTP) that items will be complete and any identified schedule constraints such as permits and work restrictions. The initial network diagram will be prepared from a sorted activity list indicating straight "early start-total float." Design-Builder will prepare tabulated reports showing the following:

- Contractor or subcontractor and the Work or activity;
- Description of activity;
- Main events of activity;
- Immediately preceding and succeeding activities;
- Early and late start dates;
- Early and late finish dates;
- Activity duration in workdays;
- Total float or slack time;
- Average size of workforce; and
- Dollar value of activity (coordinated with the schedule of pay items).

Some additional concerns include:

- Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by the Owner. The durations shall be determined based upon resource planning under contractually-defined on-site work conditions. The CM may require that the duration of major

activities be calculated by the scheduling software based on of the planned rate of daily production. In calculating activity durations, normal inclement weather shall be considered.

- Critical Path Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Critical path cycle activities include, but are not limited to, submittals, acceptance, purchasing, fabrication, and delivery.
- Submittal Review Time: Include review and resubmittal times indicated in Section 01 33 00.
- Submittal Requirements, in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule. Contractor must submit all submittals 90 days prior to startup to allow for review and approval by the Owner, unless another time frame is specified elsewhere in the Contract Documents.

Subtask 5.5: Constructability Reviews

The Design-Builder shall develop constructability reviews of the design at the Milestone 1 Design Deliverable and 60% design submittals and submit a draft TM for each one. The Design-Builder will then conduct a workshop with the Owner to provide updates on any constructability issues and the Design-Builder's recommendations. As necessary, the Design-Builder will conduct additional activities to resolve remaining issues and submit a final TM to the Owner after reviewing comments. Any remaining comments will be discussed and resolved with the Owner as part of a follow up meeting, which may be part of the bi-weekly progress meeting.

As part of the constructability reviews, value engineering (VE) will be performed. VE is a process in which a design is evaluated by a third party for constructability, cost-saving measures, operational considerations, and other factors. Value is achieved through the balance of scope, budget, and quality. The goal of VE is not only to reduce construction costs, but also to improve project performance and, in some cases, accelerate the schedule. The output of a VE process is a list of recommendations and associated cost/savings for consideration by the project team. VE workshops typically last three to five days.

The Design-Builder's Project Manager and essential team members are expected to participate in the initial VE team project briefing session and a two-hour in-person VE conclusion session. The Design-Builder will assist the Owner in providing the needed project information to the VE team - including current cost estimates, project schedule, plans, and reports - no later than two weeks prior to the start of the VE workshop. The Design-Builder shall incorporate the results of the VE workshop, as directed from the Owner PM, into the project design, though it is understood that large design changes may require a contract amendment.

Task 5 Deliverables

1. Class 4 Cost Estimate
2. Conceptual Operating Cost Model
3. Draft and Final Implementation Phasing and Sequencing Plan
4. Level 2 Schedule
5. Draft and Final Constructability TM for Milestone 1 Design Deliverable and 60% design submittals

Task 6: Permitting and Approvals

The Design-Builder shall be responsible for obtaining all necessary permits and approvals including, but not limited to, the permits and approvals identified and defined in RFQ Attachment E (Preliminary Permitting List).

Subtask 6.1: Permitting and Approvals Plan

The Design-Builder shall develop a draft Project Permitting and Approvals Plan which identifies all permits and approvals needed for the project, includes timeline and both the primary and supporting parties consistent with RFQ Attachment E (Preliminary Permitting List). This plan would also include any other permits/approvals identified by the Design-Builder. The Design-Builder shall prepare a draft plan and submit it to the Owner for review. The Design-Builder shall finalize the plan within 10 days following receipt of Owner comments and update as necessary with substantial changes. The updated plan should be provided to the Owner during BODR, Milestone 1 design deliverable, 60% design submittal, phasing plan, any early works package proposal, and Phase 1B GMP Proposal.

The plan will include a detailed schedule, and identify discrete activities necessary for each permit and approval (e.g. draft application, supporting materials, Owner review, revised application, application submittal, responses to comments, Owner review, to the approving entity, preparing responses to approving entity comments, Owner review of responses, resubmittal of application).

For each identified permit/approval, the plan shall include permit tracking procedures and the protocols for incorporating conditions into design and construction. In addition, a preliminary data needs list has been included below.

Subtask 6.2: Permits and Approvals Prior to Contract Price Amendment

The Design-Builder shall implement the plan described in Task 6.1 to obtain all necessary permits and approvals for the Project. The Design-Builder shall:

- Meet with the Owner regarding the strategy for and status of obtaining those permits (this could occur during the bi-weekly progress meetings).
- As needed, conduct any additional field studies, technical analysis, or evaluations to support the permit/approval applications.
- Develop permit/approval applications and supporting documentation to meet the requirements of the governmental and non-governmental entities issuing the permits and approvals for permits and approvals identified as Design-Builder responsibilities.
- Submit drafts of all applications for to the Owner for review and approval prior to submittal to the approving entity. Obtain signatures as needed for the applications.
- Support development of permit/approval applications and develop supporting documentation necessary for each permit/approval for permits and approvals identified as Owner responsibilities.
- Actively monitor the status of permit/approval processing and respond to requests for clarification, additional information, and application revisions by the approving entities.
- Attend meetings with the approving entities to expedite permit processing. Notify the Owner in advance of such meetings for possible Owner attendance. Develop and distribute draft and final agenda and meeting minutes to the approval entities and Owner, incorporating comments.
- Report to the Owner once the permit or approval has been obtained.

Task 6 Deliverables

1. Draft, final, and updated Project Permitting and Approvals Plans

2. Draft, final, and revised applications for all permits and approvals listed as Design-Builder Responsibility in the Design-Build Agreement, as may be modified during Phase 1.
3. Draft, final, and revised technical studies and supporting documentation for permit and approval applications, including both Design-Builder and Owner-obtained permits and approvals.
4. Draft and final agenda and meeting minutes from meetings with permitting entities.

Task 7: Public Outreach

Throughout Phase 1A and 1B, the Design-Builder shall provide supporting technical information regarding the Project to support the Owner's stakeholder outreach activities. During Phase 1B, the Design-Builder shall support the Owner in outreach activities with municipalities in Southeast Maine.

Task 7 Deliverables

As requested by the Owner. Some deliverables could include:

1. Design-Builder POC participates in regular, internal outreach team meetings
2. Design-Builder contributes or reviews outreach content
3. Design-Builder presents at two (2) public meetings

Task 7 Assumptions

- \$50,000 allowance to provide public outreach support for the Project.

Task 8: Basis of Design Report

The Design-Builder shall work collaboratively with the Owner and Owner staff to evaluate alternatives as needed to arrive at a final project concept to carry forward into design. The final project concept shall be capable of meeting the Performance Standards set forth in Exhibit A of the Design-Build Agreement, as may be modified based on input from the Design-Builder and concurrence of the Owner. The concept will be further defined as part of the Basis of Design Report (BODR).

Subtask 8.1: Process Alternatives Evaluation

The Design-Builder shall evaluate and compare feasible biosolids treatment technologies to identify the preferred process configuration that meets the project's technical, regulatory, and sustainability goals. Alternatives analysis shall specifically be conducted for:

- **Technology Screening:** Identify and review available biosolids stabilization and drying technologies, such as:
 - Anaerobic digestion (mesophilic, thermophilic, and advanced digestion)
 - Thermal hydrolysis pretreatment
 - Dewatering (centrifuge, belt filter press)
 - Drying (thermal drying)
 - Energy recovery (combined heat and power, biogas upgrading, thermal conversion)
 - PFAS Treatment in Leachate (foam-fractionation)
- **Evaluation Criteria Development:** Establish a quantitative framework for comparing alternatives, to be determined, but should consider:
 - Capital and O&M cost
 - Regulatory compliance (pellets suitable for landfilling at ecomaine Ash Landfill)

- Energy demand and recovery potential
- Flexibility to accommodate variable source material
- Odor control and environmental footprint
- Operational complexity and staffing requirements
- Future expansion capability
- **Disposal Alternatives:** Determine feasible final disposal alternatives/locations for dried product.
- **Operational Alternatives:** Determine feasible long-term operational alternatives and associated costs.

Subtask 8.2: Basis of Design Report

Based on the alternatives analyses in Subtask 8.1, The Design-Builder shall prepare and submit to the Owner a BODR which will include the Design-Builder's evaluation findings and specific recommended preliminary design for Project Improvements. The draft BODR will explain how the proposed preliminary design will meet the Owner's performance, operational, and maintenance requirements for the Project and comply with all legal and regulatory requirements. The BODR will include information on alternatives considered and evaluated and information on the rationale or method by which the recommended design was selected.

Information considered in the evaluation of alternatives and selection of a recommended design shall include but not be limited to:

- **Preliminary Process Design:** Develop a concept-level design of the selected biosolids treatment process, including equipment sizing, process configuration, and instrumentation framework.
 - **Process Flow Diagrams (PFDs):** Finalize PFDs for the selected process, showing all major process streams, flow directions, and interconnections.
 - **Mass and Energy Balances:** Prepare mass and energy balance calculations for biosolids flow, solids concentration, polymer demand, digester gas generation, and energy recovery potential.
 - **Major Equipment Sizing:** Perform preliminary sizing for all primary process units, including:
 - Sludge thickening and dewatering equipment
 - Digesters or stabilization reactors
 - Dryer units
 - Odor control systems (RTO and non-RTO system)
 - Conveyance and storage systems
 - PFAS Treatment in Leachate
 - **Equipment List and Data Sheets:** Develop a preliminary equipment list which summarizes design capacities, power requirements, and footprints. Prepare concept-level data sheets for major process equipment to aid in early vendor engagement.
- **Site Layout and Civil Design:** Define the preliminary site configuration and supporting civil works necessary to house and integrate the process facilities
 - **Site Layout and General Arrangement:** Develop a preliminary site layout plan which shows major process buildings, access roads, yard piping, utilities, and support facilities. Optimize layout for constructability, operational efficiency, and identify future expansion options.
 - **Utility Coordination:** Identify required utility connections (power, water, natural gas, sewer, and fiber). Coordinate with utility providers to confirm availability and service entry points.

- **Vehicle Access and Traffic Flow:** Identify truck access routes for biosolids delivery and product hauling. Ensure site circulation meets operational safety and efficiency goals.
- **Structural, Architectural, and Building Systems:** Develop preliminary concepts for all structures, enclosures, and building systems that support process equipment and operations.
 - **Structural Concepts:** Develop conceptual designs and layouts for key structures, such as digesters, storage tanks, and process buildings. Identify preliminary conceptual foundation design approaches to support accurate cost estimates.
 - **Architectural Concepts:** Prepare conceptual floor plans, elevations, and building sections for enclosed process areas and support facilities (control room, maintenance shop, electrical room). Address aesthetic considerations, materials, and functional requirements.
 - **Building Systems:** Develop concept-level requirements for HVAC, lighting, plumbing, and fire protection systems.
- **Electrical, Instrumentation, and Control (I&C) Design:** Develop the concept-level electrical power distribution, control system, and instrumentation approach.
 - **Electrical Load Summary:** Estimate connected and demand loads for process and support systems.
 - **Power Supply and Reliability:** Identify utility power source and backup generation needs. Outline preliminary electrical service requirements and standby power configuration.
 - **Instrumentation Strategy:** Identify major process instrumentation devices (flow, pressure, temperature, solids analyzers) and locations.
- **Odor and Air Management Systems:** Develop a preliminary odor and air emissions management design to protect worker health, mitigate off-site impacts, and comply with permitting requirements.
 - **Odor Control and Air Emissions Management Concepts:** Identify primary and secondary odor sources (dewatering, digestion, storage, truck loading/unloading). Define enclosure and ventilation strategies for each odor-generating area.
 - **Odor Control and Air Emissions Management Alternatives:** Evaluate odor control technologies (RTO, chemical scrubbers, biofilters, carbon adsorption). Prepare conceptual layouts for odor control equipment and air conveyance systems. Estimate ventilation rates and energy requirements for odor control operations.
- **Additional topics to be included in the BODR:**
 - Estimated capital
 - Operations and maintenance costs
 - Reliability, robustness, and flexibility of the recommended processes and equipment
 - Ease of Owner operation and maintenance
 - Flexibility, compliance with existing and future regulatory requirements
 - Public safety
 - Compatibility with Maine DEP and Owner environmental objectives and requirements.

The Design-Builder shall prepare the BODR and submit it to the Owner for review. Within 15 days of receiving Owner comments, the Design-Builder shall prepare a final BODR. The final BODR will include:

Project Basis and Preliminary Performance Guarantees. The final BODR will include information on:

- The basis for the Project, including Preliminary Performance Guarantees for the selected design, including conditions required to meet Project goals and Owner operation and maintenance requirements.
- Construction conditions including existing site conditions; geotechnical conditions; hazardous materials conditions, Project Site constraints; traffic conditions; vehicular and pedestrian access, parking for the Design-Builder’s workforce and Owner personnel and egress and materials and equipment staging area locations, size and security.

Task 8 Deliverables

1. Prepare a comparative matrix and life-cycle cost analysis (20-year basis). Present results in a technical workshop with the Owner and stakeholders.
2. Draft and Final BODR

Task 9: Milestone 1 Design Deliverable

The Milestone 1 Design Deliverable will serve as a key evaluation point for the Project. The project shall include a formal Milestone 1 Review, at approximately 30% design, which will serve as a defined pause point to assess overall project viability. At this milestone, the Owner will evaluate progress to date, including but not limited to design development, scope alignment, schedule, proposed cost model and estimates based on BODR, budget considerations, availability of funding, and the level of required external stakeholder engagement. Following completion of the Milestone 1 Design Review, the Owner may, at its sole discretion:

- Authorize the Consultant to proceed to the next phase of work;
- Direct revisions or supplemental coordination to address identified gaps; or
- Elect to pause, suspend, or terminate the project without further obligation beyond compensation for work satisfactorily completed to date, should external stakeholder involvement, funding, or other enabling conditions be deemed insufficient.

Subtask 9.1: Milestone 1 Design Review

This submittal should describe the design alternatives considered, final process design, design criteria, equipment selection, building concepts, basic alignments, preliminary physical arrangement, and site design. The information in this submittal should allow the Owner to review the approach and overall concepts put forth by designer. Supporting documentation such as calculations and equipment data sheets should be included in this submittal to support analyses of equipment or design alternative selection and recommendations as reflected in the submittal.

The Design-Builder will prepare Milestone 1 Design documents sufficient for Owner review of the design concepts and methods. The Milestone 1 Design Deliverable will include design drawings, specifications table of contents, and calculations described in Tasks 3, 4, 5,6, and 8.

The design parameters include: all design criteria established, utility requirements, design safety requirements, major equipment type and capacity, piping materials and sizing; criteria corrosion control recommendations.

The Milestone 1 Design Deliverable will include:

- Updated Baseline Schedule
- Operational Assessment discussing long-term operational costs, biosolids disposal, and transportation.
- Process/Mechanical: Layout plans and sections.

- Civil: Site grading and paving plan (1:20 scale max), yard piping plan (1:20 scale max) existing utilities identified; major structure locations identified.
- Structural: Structure type selected, building plans.
- Architectural: Building elevations.
- Calculations.
- Instrumentation & Controls.
- Electrical.
- Updated cost model including current estimate based on Milestone 1 design and draft GMP proposal at Milestone 1. The update cost model should include a project completion estimate within the cost model structure and based on the current design developed through Phase 1A, including but not limited to a risk register, contingency items, schedule, design criteria and specifications, performance requirements, operation and maintenance 5-year cost estimate, pricing estimate – with quotes for known components.
- Updated Risk Register

Draft Documents. Drafts of submittal documents shall be prepared for review by the PM or other Owner staff prior to the submission of final design documents. All draft documents will include “DRAFT” in the document title and file name as well as visual indication on each page with at least one of the following methods:

- “DRAFT” watermark.
- “DRAFT” included in document header or footer.
- “DRAFT” included in the title block (for design drawings).

The Design-Builder will work with the PM to ensure that draft documents are submitted with sufficient time for Owner to review and comment for Design-Builder to address all comments for Owner approval and acceptance prior to submission of final documents.

The Design-Builder may submit draft submittal documents for review and comment by the PM prior to final document submittal. Any draft documents submitted for preliminary review will bear visual marking of “draft” status on each page. Draft documents must be submitted with sufficient time for review prior to final document submission. The PM will determine how many days prior to final submission is required for review of each submittal. Draft documents submitted after this time may not receive full review and comment before final document submission.

Final Documents. Final documents will be produced in PDF and 3D model files.

Final documents shall be submitted for final review and acceptance to confirm all comments and conditions of the draft document have been addressed and approved by the Owner. The Owner shall review the final Milestone 1 Design Deliverable and design development shall not proceed until the Owner approves the Milestone 1 Design and notifies the Design-Builder that design development may proceed.

The PDF copy shall contain bookmarks and be able to be printed on 8.5x11 size and 11x17 size paper. Digital copies of submittals, including PDF and 3D model files, will be submitted to the PM on electronic file sharing system (e.g., SharePoint) to be determined ahead of time by the Design-Builder and Owner. PM will upload the files to the SharePoint project folder. PDF files of all CAD drawings must adhere to the file, layer, and discipline naming conventions outlined in the Portland Water District Program CAD Guidelines Manual. CAD drawing layers within PDF files must be accessible for individual layer review. The Design-Builder will produce a digital PDF and 3D Model of all final design drawings, specifications, reports, calculations, 3D Models and other supplemental design information.

Task 9 Deliverables

1. Draft and final Milestone 1 Design Deliverable.
2. Comment log with responses for draft and final document.

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Section 3 Phase 1B Task Details

Upon the Owner's approval of Milestone 1 Design Deliverable, the Design-Builder shall proceed to Phase 1B tasks as outlined below.

Task 10: 60% Design Submittal

Upon approval of the Milestone 1 Design Deliverable in Phase 1A the Design-Builder shall advance the design to approximately 60% (or more) in a collaborative approach with the Owner and Owner's Advisor.

Subtask 10.1: 60% Design Submittal

This submittal should provide a comprehensive set of design documents sufficient for a thorough review by Owner staff. Major design decisions should be made by this submittal stage, such as pipeline alignments, materials selections, and major equipment. Supporting documentation such as calculations and equipment data sheets should be included in this submittal for design decisions made between Milestone 1 Design Deliverable and 60%.

The Design-Builder will prepare 60% design documents sufficient for a thorough review of the design structures and processes. The 60% submittal will include design drawings, specifications, and calculations.

The additional design parameters beyond Milestone 1 Design Deliverable include: proposed equipment and potential equipment manufacturers.

The 60% Design Submittal will include, but is not limited to:

- Updated schedule
- Updated operational assessment
- Process/Mechanical: Plans and sections, significant refinement from Milestone 1 Design Deliverable
- Civil: Site grading and paving plan and yard piping plan, demo plans and earthwork details (60%)
- Structural: Preliminary plans, sections, and details for all structures.
- Architectural: Preliminary plans, sections, and details for all structures.
- Calculations: Updated hydraulic calculations, required AWWA calculations complete.
- Instrumentation & Controls: Final P&IDs, installation details, control strategies, specs (instruments chosen and setpoint defined).
- Electrical: Power plan for all equipment, updated one-line diagrams, electrical system model, and final coordination with local utility.
- Cost Model: Updated cost model.

Draft Documents. See Task 9: Milestone 1 Design Deliverable

Final Documents. See Task 9: Milestone 1 Design Deliverable.

The Owner shall review the 60% Design Submittal and design development shall not proceed until the Owner approves the 60% Design Submittal and notifies the Design-Builder that design development may proceed.

Task 10 Deliverables

1. Draft and final 60% Design Submittal which includes:

- Drawing plans and sections showing buildings, major equipment, piping, and processes, less details.
- Specifications TOC updates and major equipment specifications.
- All comments from Owner review of prior submittals will be addressed and incorporated into subsequent submittal packages.

Task 11: Construction Sequencing Plan and Subcontracting and Self-Performance Plan

Subtask 11.1: Construction Sequencing Plan

The Design-Builder shall evaluate the alternative construction sequencing concepts and recommend a construction sequencing plan. The Design-Builder will submit the draft plan to the Owner for comment and will lead meeting to discuss recommendations with the Owner. After the Owner completes its review, the Design-Builder shall submit the final plan within 15 days. Any remaining comments will be discussed and resolved with the Owner as part of a follow up meeting, which may be part of the bi-weekly progress meeting.

This plan will be drafted after the Milestone 1 Design Deliverable and then similarly updated and reviewed after the 60% and 90% design packages. This plan will synchronize with the Phase 2 Schedule (Task 5.4) and may consider an Early Works Package. On-site construction cannot start until the Concrete Tanks Project has been completed and the Concrete Tanks' Contractor has been demobilized. It may consider additional proposed Early Work Package(s) or other methods to allow construction to commence before the design is completed on the entire project. The Design-Builder shall complete the following tasks for the recommended plan:

- Write overall description with key elements of the approach.
- Detailed schedule with design and construction activity inter-relationships.
- Identify Owner required assistance, pre-purchased cost and quantity of materials, and any risks or benefits (e.g. deferred permits).
- Plant operation maintenance plan during construction including work restrictions and constraints.
- Detailed plan for proposed plant shut downs and tie-ins
- Identify critical events and milestones.
- Perform risk assessment and contingency planning to maintain water production/distribution and for unexpected delays and mitigations required to meet critical deadlines.
- Coordination planning with ongoing plant operations and maintenance activities
- Draft start-up, commissioning, and acceptance testing plan
 - Owner approval of acceptance testing plan 180 days prior to scheduled acceptance testing.
- Draft SCADA integration plan
- Draft asset management plan
- Draft training plan

Subtask 11.2: Subcontracting and Self-Performance Plan

The Design-Builder shall develop a proposed Subcontracting and Self-Performance Plan. The Design-Builder will submit the draft plan to the Owner for comment. After the Owner completes its review, the Design-Builder shall submit the final plan within 15 days. Any remaining comments will be discussed and resolved with the Owner as part of a follow up meeting, which may be part of the bi-

weekly progress meeting. This plan will be drafted prior to the 60% design package and then similarly updated, reviewed and finalized prior to the 90% design package. It shall include:

- Expected work packages with estimated values.
- Details on what work packages to be competitively procured vs. self-performed (including by key firms) and the rationales.
- Confirm Owner’s right on every subcontract the right to require competitive best value proposals or competitive bidding.
- Competitive subcontracting process:
 - Work packages to be competitively bid.
 - Work packages where the Owner might benefit from a prequalification process and/or best value type competition.
 - Local participation and outreach.
 - Subcontractor prequalification process.
 - Subcontractor selection process for each recommended best value type competition.
- Procurement plan for subcontractors, equipment vendors, and material suppliers.
- Project schedule coordination with long lead items.
- Minimum equipment experience requirements.

Task 11 Deliverables

1. Draft and Final Phasing Plan at Milestone 1 Design Deliverable and updates at 60% and 90%.
2. Draft and Final Self-Performance and Subcontracting Plan for Owner review at 60% and updates at 90%.

Task 12: Guaranteed Maximum Price (GMP) Development

The Design-Builder shall advance the design to approximately 60% (or more) in a collaborative approach with the Owner and Owner’s Advisor, develop the Phase 1B GMP Proposal, and submit to the Owner for comment. When developing the Phase 1B GMP Proposal, the Design-Builder shall:

- Continue open book transparency to the cost model, ongoing pricing development and design decision impacts.
- Continue open communications and collaboration with the Owner and Owner’s Advisor
- Design a safe and effective project that minimizes nuisance impacts to the public (long-term and during construction).
- Develop and implement an effective safety program during construction, which follows or exceeds best industry practices.

The Design-Builder will present the GMP Proposal to the Owner during a 4- hour workshop. After the Owner completes its review, the Design-Builder shall submit a revised GMP. As necessary, the Design-Builder and Owner will have additional workshops to resolve any additional comments. After Owner acceptance of the proposed GMP, the Design-Builder shall submit a proposed Phase 1B Amendment in accordance with the requirements of the Design-Build Agreement.

As part of the process, the Design-Builder will make sure costs are transparent and the Owner is able to see all details with nothing hidden or “locked”.

The Phase 1B Proposal Submittal(s) shall meet the requirements set forth in the Design-Build Agreement. Unless the Owner agrees to an Early Work Package(s), completion of Tasks 1–11 to the

Owner's satisfaction shall be a precondition to the Design-Builder submitting its Phase 1B Proposal(s).

The Phase 1B Proposal shall include the following information:

- 100 Percent-IFC Design issued for construction drawings and specifications necessary to define the Project. Note that this is assumed to occur at around 100 Percent Design, but portions of the Design, upon agreement with the Owner could be more or less advanced.
- Proof of all permits and approvals that the Design-Builder was responsible for obtaining prior to the Contract Price Amendment.
- Updated list of permits and approvals identifying the status and responsibilities for all project permits and approvals.
- Updated Operational Assessment
- Accepted Self-Performance and Subcontracting Plan.
- Proposed Phase 2 Health and Safety Plan.
- Proposed Phase 2 PQP.
- Proposed Asset Tagging Protocols.
- Phase 2 Price Proposal, using the Project Cost Model, including all backup information to support the Phase 2 Price Proposal. Supporting documentation shall include, at a minimum:
 - Subcontractor and materials/equipment vendor bids and quotations.
 - Details supporting estimates for self-performed construction work (labor, materials, and equipment).
 - Expense rates such as mileage charges, per diem for meals and lodging, and personnel vehicle rentals.
 - Unburdened rental rates on construction equipment, trailers, storage, and staging space and major tools.
 - Allowances (where appropriate).
 - Labor and expense costs for engineering construction support consistent with the Phase 2 professional services billing rates included in Exhibit E to the Design-Build Agreement.
 - Details for any other relevant labor, expense, or other costs.
 - Design-Builder contingency based on probabilistic assessment of risks and cost consequences if realized, weighted for probability of occurring.
 - Information to support estimates of Pass-Through Costs as defined in the Design-Build Agreement.
 - All other proposed assumptions and clarifications on terms and conditions used not covered in the preceding items.
- Design-Build Schedule including identification of Design-Builder commitments (dates) for achieving Substantial Completion, Acceptance, and Final Completion.
- Descriptive information on all engineering, procurement, materials, construction labor, equipment, design gap narratives, and other services necessary to perform the Design-Build work as required under the Design-Build Agreement.
- Revised Plan for Maintenance of Plant Operations during Construction.
- Draft Preliminary Operator and Maintenance Staff Training Plan.
- Proof of Phase 2 insurance.

- Commitment of Surety to providing Payment and Performance Bonds for 100 percent of the Phase 2 Guaranteed Maximum Price.
- Revised Exhibits A, B, C, and E, to the Design-Build Agreement reflecting information developed by the Design-Builder and changes to the project scope, design criteria, and Performance Standards.

Task 12 Deliverables

1. Phase 2 Proposal and revisions.
2. Negotiated Contract Price Amendment.

Task 12 Assumptions

- GMP may be converted to lump-sum price upon approval from the Owner.

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Exhibit C
Design-Build Operate & Maintain Exhibit

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Design-Build Operate
& Maintain Exhibit

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Document No. E-DBOM

First Edition, 2019

© Design-Build Institute of America
Washington, D.C.





Design-Build Institute of America - Contract Documents

LICENSE AGREEMENT

By using the DBIA Contract Documents, you agree to and are bound by the terms of this License Agreement.

- 1. License.** The Design-Build Institute of America ("DBIA") provides DBIA Contract Documents and licenses their use worldwide. You acknowledge that DBIA Contract Documents are protected by the copyright laws of the United States. You have a limited nonexclusive license to: (a) Use DBIA Contract Documents on any number of machines owned, leased or rented by your company or organization; (b) Use DBIA Contract Documents in printed form for bona fide contract purposes; and (c) Copy DBIA Contract Documents into any machine-readable or printed form for backup or modification purposes in support of your permitted use.
- 2. User Responsibility.** You assume sole responsibility for the selection of specific documents or portions thereof to achieve your intended results, and for the installation, use, and results obtained from the DBIA Contract Documents. You acknowledge that you understand that the text of the DBIA Contract Documents has important legal consequences and that consultation with an attorney is recommended with respect to use or modification of the text. You will not represent that any of the contract documents you generate from DBIA Contract Documents are DBIA documents unless (a) the document text is used without alteration or (b) all additions and changes to, and deletions from, the text are clearly shown.
- 3. Copies.** You may not use, copy, modify, or transfer DBIA Contract Documents, or any copy, modification or merged portion, in whole or in part, except as expressly provided for in this license. Reproduction of DBIA Contract Documents in printed or machine-readable format for resale or educational purposes is expressly prohibited. You will reproduce and include DBIA's copyright notice on any printed or machine-readable copy, modification, or portion merged into another document or program.
- 4. Transfers.** You may not transfer possession of any copy, modification or merged portion of DBIA Contract Documents to another party, except that a party with whom you are contracting may receive and use such transferred material solely for purposes of its contract with you. You may not sublicense, assign, or transfer this license except as expressly provided in this Agreement, and any attempt to do so is void.
- 5. Term.** The license is effective for one year from the date of purchase. DBIA may elect to terminate it earlier, by written notice to you, if you fail to comply with any term or condition of this Agreement.
- 6. Limited Warranty.** DBIA warrants the electronic files or other media by which DBIA Contract Documents are furnished to be free from defects in materials and workmanship under normal use during the Term. There is no other warranty of any kind, expressed or implied, including, but not limited to the implied warranties of merchantability and fitness for a particular purpose. Some states do not allow the exclusion of implied warranties, so the above exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. DBIA does not warrant that the DBIA Contract Documents will meet your requirements or that the operation of DBIA Contract Documents will be uninterrupted or error free.
- 7. Limitations of Remedies.** DBIA's entire liability and your exclusive remedy shall be: the replacement of any document not meeting DBIA's "Limited Warranty" which is returned to DBIA with a copy of your receipt, or at DBIA's election, your money will be refunded. In no event will DBIA be liable to you for any damages, including any lost profits, lost savings or other incidental or consequential damages arising out of the use or inability to use DBIA Contract Documents even if DBIA has been advised of the possibility of such damages, or for any claim by any other party. Some states do not allow the limitation or exclusion of liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you.
- 8. Acknowledgement.** You acknowledge that you have read this agreement, understand it and agree to be bound by its terms and conditions and that it will be governed by the laws of the District of Columbia. You further agree that it is the complete and exclusive statement of your agreement with DBIA which supersedes any proposal or prior agreement, oral or written, and any other communications between the parties relating to the subject matter of this agreement.

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CHECKLIST

For DBIA Design-Build Operate & Maintain Exhibit, E-DBOM (2019 Edition)

Use this Checklist to ensure that the Agreement is fully completed, and all exhibits are attached.

| | | |
|-------|----------------|---|
| _____ | Page 1 | Project name and address |
| _____ | Page 1 | Facility identification |
| _____ | Page 1 | Design-Builder's name and address |
| _____ | Page 1 | Owner's name and address |
| _____ | Page 1 | Effective date of the Exhibit |
| _____ | Section 1.7 | Check appropriate box to identify the form of agreement between Owner and Design-Builder |
| _____ | Section 2.4 | Insert applicable industry or Owner-provided performance standards, or refer to Appendix A |
| _____ | Section 4.1.1 | Complete the blank for the number of years for the Operating Plan duration |
| _____ | Section 4.2.1 | Complete the blank for the number of years for the Operating Plan duration |
| _____ | Section 4.3.1 | Complete the blank for the number of years for the Operating Plan duration |
| _____ | Section 5.8.1 | Complete the blank for the maximum number of hours of post completion consultation and for the number of on-site visits post completion |
| _____ | Section 6.2.1 | Complete the blank for the aggregate per incident amount for emergency expenditures |
| _____ | Section 7.2.1 | Complete the blanks for the Handback Inspection schedule |
| _____ | Section 7.2.7 | Complete the blanks for the Handback Letter of Credit renewals or replacements |
| _____ | Section 7.3 | Complete the blanks for the amount of liquidated damages (if any) and note the optional provisions that are provided, including inserting an amount if the parties select the option for a maximum amount of liquidated damages payable by Design-Builder |
| _____ | Section 8.1 | Check appropriate box for alternative payment structures (8.1.1 and 8.1.2) and fill in the blanks for the payment structure selected |
| _____ | Section 8.2.2 | Complete the blank for the Annual Operating Fee |
| _____ | Section 8.3.2 | Check the box for alternative flat monthly payments; fill in the blank for percentages |
| _____ | Section 8.4.1 | Complete the blank for the percentage applied to the Pre-Tax New Income formula |
| _____ | Section 8.4.3 | Complete the blank for the maximum number of injuries as affecting the Incentive Fee |
| _____ | Section 8.4.4 | Complete the blank for the maximum Incentive Fee per Project Year, or aggregate |
| _____ | Section 8.5.1 | Complete the blanks for the Design-Builder's fee |
| _____ | Section 8.5.2 | Complete the blanks for the Capital Improvements Cap and Design-Builder's fee |
| _____ | Section 9.2 | Insert Owner's O&M Representative information |
| _____ | Section 9.3 | Insert Design-Builder's O&M Representative information |
| _____ | Section 10.1.1 | Complete the blanks for the aggregate limitation of liability for all Project Years |

| | | |
|-------|--------------|--|
| _____ | Section 11.3 | Identify other exhibits to the Agreement |
| _____ | Section 11.4 | Insert any other provisions (optional) |
| _____ | Last Page | Owner's and Design-Builder's execution of the Agreement |
| _____ | Appendix B | Par. C, insert here any other maintenance to be included as Scheduled Maintenance |
| _____ | Appendix B | Par. D, insert here any other maintenance to be included as Scheduled Maintenance |
| _____ | Appendix C | Identify any Third-Party Agreements here |
| _____ | Appendix D | Par. D.2, complete the blank for the period of years beyond the end of the O&M Term |
| _____ | Appendix D | Par. D.3.1, complete the blank for the number of months prior to expiration of the O&M Term that the parties will meet to discuss the schedule of Handback Inspections |
| _____ | Appendix D | Par. D.4.1, insert the handback tests specific to the Facility for this Project |

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GENERAL INSTRUCTIONS

| No. | Subject | Instruction |
|-----|---------------------------------------|--|
| 1. | Standard Forms | Standard form contracts have long served an important function in the United States and international construction markets. The common purpose of these forms is to provide an economical and convenient way for parties to contract for design and construction services. As standard forms gain acceptance and are used with increased frequency, parties are able to enter into contracts with greater certainty as to their rights and responsibilities. |
| 2. | DBIA Standard Form Contract Documents | Since its formation in 1993, the Design-Build Institute of America (“DBIA”) has regularly evaluated the needs of Owners, Design-Builders, and other parties to the design-build process in preparation for developing its own contract forms. Consistent with DBIA’s mission of promulgating best design-build practices, DBIA believes that the design-build contract should reflect a balanced approach to risk that considers the legitimate interests of all parties to the design-build process. DBIA’s Standard Form Contract Documents reflect a modern risk allocation approach, allocating each risk to the party best equipped to manage and minimize that risk, with the goal of promoting best design-build practices. |
| 3. | Use of Non-DBIA Documents | To avoid inconsistencies among documents used for the same project, DBIA’s Standard Form Contract Documents should not be used in conjunction with non-DBIA documents unless the non-DBIA documents are appropriately modified on the advice of legal counsel. Moreover, care should also be taken when using different editions of the DBIA Standard Form Documents on the same project to ensure consistency. |
| 4. | Legal Consequences | DBIA Standard Form Contract Documents are legally binding contracts with important legal consequences. Contracting parties are advised and encouraged to seek legal counsel in completing or modifying these Documents. |
| 5. | Reproduction | DBIA hereby grants to purchasers a limited license to reproduce its Documents consistent with the License Agreement accompanying these Documents. At least two original versions of the Exhibit should be signed by the parties. Any other reproduction of DBIA Documents is strictly prohibited. |
| 6. | Modifications | <p>Effective contracting is accomplished when the parties give specific thought to their contracting goals and then tailor the contract to meet the unique needs of the project and the design-build team. For that reason, these Documents may require modification for various purposes including, for example, to comply with local codes and laws, or to add special terms. DBIA’s latest revisions to its Documents provide the parties an opportunity to customize their contractual relationship by selecting various optional contract clauses that may better reflect the unique needs and risks associated with the project.</p> <p>Any modifications to these Documents should be initialed by the parties. At no time should a document be re-typed in its entirety. Re-creating the document violates copyright laws and destroys one of the advantages of standard forms-familiarity with the terms.</p> |
| 7. | Execution | It is good practice to execute two original copies of the Exhibit. Only persons authorized to sign for the contracting parties may execute the Exhibit. |

SPECIFIC INSTRUCTIONS

| Section | Title | Instruction |
|---------|---|--|
| General | Purpose of This Agreement | DBIA's Design-Build Operate & Maintain Exhibit ("Exhibit") should be used only when the parties intend for the Design-Builder, in addition to furnishing the design and construction of the Project as set forth in the Design-Build Agreement, to operate and maintain the completed Project for the Term set forth herein (the "O&M Term"). |
| General | Purpose of These Instructions | These Instructions are not part of this Exhibit, but are provided to aid the parties in their understanding of the Exhibit and in completing the Exhibit. |
| General | Related Documents | This Exhibit shall be used in conjunction with the DBIA Document No. 525, Standard Form of Agreement Between Owner and Design-Builder - Lump Sum (2010 Edition), or DBIA Document No. 530, Standard Form of Agreement Between Owner and Design-Builder - Cost Plus Fee with an Option for a Guaranteed Maximum Price (2010 Edition), DBIA Document No. 544, Standard Form: Progressive Design-Build Agreement (PDB) (2019 Edition), or DBIA Document No. 545, Standard Form: Progressive Design-Build Agreement for Water & Wastewater Projects (2017 Edition). |
| General | Date | On Page 1, enter the date when both parties reach a final understanding. |
| General | Project, Facility and Parties: Owner and Design-Builder | On Page, 1 enter the name and location of the Project and the portion of the Project (the "Facility") to which this Exhibit applies. Also enter the legal name and full address of Owner and Design-Builder, as well as the legal form of each entity, e.g., corporation, partnership, limited partnership, limited liability company, or other. |
| 1.13 | Handback Requirements | A critical part of this Exhibit is to identify the terms, conditions, requirements and procedures set out in Article 7 and Appendix D of this Exhibit governing the condition in which Design-Builder is to deliver the Facility upon expiration or earlier termination of the O&M Phases. |
| 1.19 | Operating Plan | Explained with more detail in Article 4, the Operating Plan shall describe, in detail reasonably acceptable to Owner, anticipated maintenance and overhaul schedules, planned outages, staffing plans, equipment acquisitions and spare parts and Consumables, inventories (including a breakdown of capital items and expense items), schedules of Subcontractor and Design Consultant services, Facility performance data, data regarding required environmental performance, projected fuel or energy usage, and such other matters as Owner may reasonably require. |
| 1.22 | O&M Plan | The O&M Plan is a written document which describes the operations and maintenance of the completed Project including how the operations and maintenance will be addressed over the period of the O&M Term. This shall include the management structure and approach, the proposed period of and approach to operations and maintenance, routine maintenance, and emergency response. |
| 1.25 | Performance Criteria | Performance Criteria are essential terms which set out the performance metrics and outcomes established by the Owner and agreed to by the Design-Builder for the four stages of the O&M Services, including: 1. End of Construction, which criteria defines the conditions to which the Project must be designed and constructed for the Design-Builder to achieve final acceptance and qualify for final payment under the Design-Build Agreement and certificate signifying the end of the Design and Construction Phase. 2. Maintenance Phase, which criteria defines the condition to which the Facility must be maintained during the Maintenance Phase, as defined in this Article 1. 3. Operational Phase, which criteria defines the condition to which the Facility must be operated during the Operational Phase, as defined in this Article 1. 4. Handback, which criteria defines the final condition requirements of the Facility at the end of the O&M Term, as defined in Article 7 and Appendix D of this Exhibit. |

| | | |
|-----|--------------------------|---|
| 2.3 | Third-Parties | The Owner and Design-Builder should incorporate this Exhibit into their respective contracts with any third parties who will participate during the O&M Phases of the Project including, but not limited to, any Subcontractor or Design Consultant, and their lower tier contracts. Those contracts are identified in Appendix C to this Exhibit. |
| 2.4 | Performance Standards | It is important that the parties agree on the performance standards by which the Design-Builder's Services are to be judged. Those are to be identified here or set out in Appendix A, which are incorporated herein by reference. |
| 4.1 | Operating Plan | Each year during the term of the Operational Phase and Maintenance Phase, the Design-Builder shall prepare and submit to Owner in writing a proposed operating and maintenance plan for the upcoming Project Year. The Operating Plan shall describe, in detail reasonably acceptable to Owner, anticipated maintenance and overhaul schedules, planned outages, staffing plans, equipment acquisitions and spare parts and Consumables, inventories (including a breakdown of capital items and expense items), schedules of Subcontractor and Design Consultant services, Facility performance data, data regarding required environmental performance, projected fuel or energy usage, and such other matters as Owner may reasonably require. |
| 4.2 | O&M Budget | Together with the Operating Plan, the Design-Builder is required to submit to the Owner for its review and approval a proposed budget for operating and maintaining the Facility during the upcoming Project Year and, with respect to Scheduled Maintenance, for the next five (5) Project Years (or the then-remaining portion of the O&M Term, whichever is less) (the "O&M Budget"). |
| 4.3 | Annual Plan | The Operating Plan and the O&M Budget are sometimes together called the "Annual Plan". When approved pursuant to Section 4.3.2 of the Exhibit, the Annual Plan shall be an "Approved Annual Plan" and shall consist of an "Approved Operating Plan" and an "Approved O&M Budget." An Approved Annual Plan shall constitute authorization for Design-Builder to expend money to operate and maintain the Facility in accordance with such Approved Annual Plan. |
| 5.1 | Operational Phase Duties | Section 5.1 sets out the duties the Design-Builder will perform to operate the Facility on behalf of the Owner, as the Owner's agent, for the period of the O&M Term as set out herein and in Appendix A to this Exhibit. |
| 5.2 | Maintenance Phase Duties | Section 5.2 sets out the duties the Design-Builder will perform for all Scheduled Maintenance activities necessary to meet the specified standards during the O&M Term and to minimize the occurrence of Defects. The required Scheduled Maintenance activities are set out in Appendix B to this Exhibit. |
| 5.8 | Post Completion Services | Section 5.8 sets out the duties the Design-Builder will perform for a period of twelve (12) months after the end of the O&M Term to consult with the Owner on any aspect of the operation, maintenance, and repair of the Facility, at no additional cost to Owner up to an agreed upon maximum number of hours, in the aggregate, and a maximum number of on-site visits to the Project site. Any consultation beyond these limits shall be paid as Additional Services on an hourly rate basis, lump sum, or other method of compensation agreed to by the parties in writing, as well as required travel in connection with any such post-completion services. |

| | | |
|-----------|--------------------------------|---|
| 6.1 | Outages | The Design-Builder is required to coordinate with the Owner and any parties to Third-Party Agreements, if any, identified in Appendix C to this Exhibit as required: (a) when production of the Facility output (e.g. treated wastewater, water, steam or generation of electricity) is to be initiated, interrupted, or curtailed, and (b) by making all reasonable efforts to schedule all outages at the Facility that will reduce the output of the Facility at the most appropriate times for the Owner and any parties to Third-Party Agreements. This Section also addresses unplanned interruptions or curtailments of Facility output. |
| 6.2 | Emergencies | If an emergency situation arises during the O&M Term endangering the safety or protection of persons, the Facility, the Project, or property located near the Project, this Section addresses the notifications and Services provided by the Design-Builder to attempt to prevent or mitigate any such threatened damage, injury, or loss (including making payments and incurring expenses on behalf of Owner in the nature of capital or operating expenses or otherwise) deemed by Design-Builder to be reasonably necessary or advisable under the circumstances to prevent, avoid, or mitigate injury, damage, or loss to persons or property. This Section also provides for the parties to agree upon an aggregate amount per incident for which the Design-Builder does not need to seek Owner approval before performing emergency Services. |
| Article 7 | Handback Requirements | This Article, as well as Appendix D, addresses the requirements at the end of the O&M Term, when the Owner assumes responsibility for the operation and maintenance of the Facility, known as the "Handback Requirements" for the Design-Builder. This Article also addresses the schedule for Handback Inspections prior to the expiration of the O&M Term. |
| 7.3 | Liquidated Damages | Owner should make a good faith evaluation of the amount that is reasonably necessary to compensate it for delay. Owner should not establish liquidated damages to penalize Design-Builder. This Section permits the Owner and Design-Builder to agree on liquidated damages for late completion of the Handback Requirements, with an option to place a cap (or maximum) on such liquidated damages. |
| 8.1 | Monthly Payments | The parties will need to agree on how the Design-Builder will be paid during the O&M Phases for O&M Costs, whether scheduled monthly payments (i.e., one-twelfth of the annual O&M Budget, or variable monthly payments based on itemized applications for actual costs incurred during the month. |
| 8.2 | Annual Operating Fee | In addition to the Monthly Payments, the Owner shall pay Design-Builder an Annual Operating Fee in the amount agreed to by the parties, as set out in this Section. |
| 8.3 | Reimbursable Expenses | In addition to the payments required by Sections 8.1 and 8.2 above, the Owner shall reimburse Design-Builder for all costs incurred by Design-Builder in performing the O&M Services to the extent the nature and amount of such costs and expenses: (a) are incurred in connection with the performance of any Unscheduled Maintenance, as approved in advance by Owner; or (b) are incurred in connection with an emergency under Section 6.2 hereof (collectively, the "Reimbursable Expenses"). There is an optional Section if the parties elect for flat monthly payments also. |
| 8.4 | Annual Incentive Fee | As incentive for Design-Builder to maximize profitability and efficiency of operation of the Facility, the parties should agree on an incentive fee payable to the Design-Builder at the end of each Project Year, based on Owner's Pre-Tax Net Income ("PTNI") from the Facility for such Project Year. The incentive is only paid if the Design-Builder achieves certain metrics set out in Section 8.4.3, and is subject to a cap, or maximum. |
| Article 9 | Representatives of the Parties | Enter the name, title, address and telephone number of Owner's O&M Representative at Section 9.2. Enter the name, title, address and telephone number of Design-Builder's O&M Representative in Section 9.3. If Representatives are identified after execution of the Exhibit, an appropriate amendment should be made to the Exhibit at the time these individuals are designated. |

| | | |
|------|-------------------------|--|
| 10.1 | Limitation of Liability | The parties may choose to limit the liability of the Design-Builder to the Owner for the O&M Services. Section 10.1.2 contains certain “carve outs” to the limitation for such things as: (a) intentional, fraudulent or willful misconduct, or gross negligence of Design-Builder; and (b) any claim by Owner for indemnity and defense related to a claim by a third-party against Owner, where such third-party is not an affiliate, subsidiary, parent or related entity of the Owner. |
| 11.4 | Other Provisions | Insert any other provisions here or attach supplemental terms and conditions as a new appendix to the Exhibit. |

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DESIGN-BUILD OPERATE & MAINTAIN EXHIBIT

This document has important legal consequences. Consultation with an attorney is recommended with respect to its completion or modification and its relation to the other Contract Documents set forth in DBIA Document No. 525, *Standard Form of Agreement Between Owner and Design-Builder - Lump Sum* (2010 Edition) or DBIA Document No. 530, *Standard Form of Agreement Between Owner and Design-Builder - Cost Plus Fee with an Option for a Guaranteed Maximum Price* (2010 Edition), DBIA Document No. 544, *Standard Form: Progressive Design-Build Agreement (PDB)*, or DBIA Document No. 545, *Standard Form: Progressive Design-Build Agreement for Water & Wastewater Projects (PDB)*.

This Exhibit is attached to and made a part of the Design-Build Agreement for reference purposes only during Phase 1A contracting. Specific terms will be negotiated with the Phase 2 contract.

PROJECT:

(Include Project name and location as it appears in the Design-Build Agreement)

FACILITY:

(Identify that portion, or portions, of the Project to which this Exhibit applies)

DESIGN-BUILDER:

(Hereinafter "Design-Builder")

OWNER:

(Hereinafter "Owner")

DATE:

(Insert the effective date of this Exhibit)

ARTICLE 1 DEFINITIONS

1.1 *Annual Operating Fee* means an annual operating fee, if any, paid to Design-Builder during each year of the O&M Term as set forth in Section 8.2 of this Exhibit.

1.2 *Annual Plan* shall have the meaning set forth in Section 4.1 of this Exhibit.

1.3 *Consumables* shall mean collectively all chemicals, lubricants, hand tools, laboratory supplies, and other items (other than water and fuel) used or needing periodic replacement during the normal operation of the Facility.

1.4 *Defect* means failure of the Facility to meet the Performance Criteria under this Exhibit and any deficiency in design or construction that is covered by a warranty from the Design-Builder to the Owner.

1.5 *Deliverable* means a document, either in hard copy or electronic form, which describes certain performance reporting, operational outcomes or maintenance aspects of the Project.

1.6 *Design and Construction Phase* means the services to be performed pursuant to Article 2 of the General Conditions of Contract, which commence on the date set out in the Design-Build Agreement and end upon the issuance of final acceptance and the making of final payment by Owner to Design-Builder for those services.

1.7 *Design-Build Agreement* means the Agreement identified below between the Design-Builder and Owner for the design and construction of the Project. Definitions in this Exhibit shall be the same as the definitions set forth in DBIA Document No. 535, *Standard Form of General Conditions of Contract Between Owner and Design-Builder* (2010 Edition). The Design-Build Agreement is based on the following:

(check one box below)

DBIA Document No. 525, *Standard Form of Agreement Between Owner and Design-Builder - Lump Sum* (2010 Edition) ("DBIA 525").

DBIA Document No. 530, *Standard Form of Agreement Between Owner and Design-Builder - Cost Plus Fee with an Option for a Guaranteed Maximum Price ("GMP")* (2010 Edition) ("DBIA 530").

DBIA Document No. 544, *Standard Form: Progressive Design-Build Agreement (PDB)*, (2019 Edition) ("DBIA 544")

DBIA Document No. 545, *Standard Form: Progressive Design-Build Agreement for Water & Wastewater Projects* (2017 Edition) ("DBIA 545").

1.8 *Facility* means that portion of the Project described on page one of this Exhibit.

1.9 *Finance Plan* means a written plan, if any, provided by the Owner describing the proposed financing of the Project which identifies the source of funds to design, construct, operate and maintain the Facility including, as appropriate, Design-Builder's equity, commercial debt, loans, Owner-provided funds, and the projected Project revenue stream, if applicable. If User Fees or other revenue streams will be generated by the Facility, then a description of the User Fee structure must be included in the Finance Plan.

1.10 *Force Majeure Event* means an event as described in Section 1.2.8 of the General Conditions of Contract.

1.11 *General Conditions of Contract* means the General Conditions of Contract attached to the Design-Build Agreement and is based on the DBIA Document No. 535 *Standard Form of General Conditions of Contract Between Owner and Design-Builder* (2010 Edition).

1.12 *Handback* means the end of the O&M Term, when the Owner assumes responsibility for the operation and maintenance of the Facility.

1.13 *Handback Requirements* means the terms, conditions, requirements and procedures set out in Article 7 and Appendix D of this Exhibit governing the condition in which Design-Builder is to deliver the Facility upon expiration or earlier termination of the O&M Phases.

1.14 *Information* means any information, data, drawings, reports, test results, submittals, calculations, or any other information which describes certain performance reporting, operational outcomes or maintenance aspects of the Facility.

1.15 *Legal Requirements* shall have the meaning set forth in the General Conditions of Contract.

1.16 *Maintenance* shall have the meaning set forth in Appendix B to this Exhibit, and may refer to both Scheduled Maintenance and Unscheduled Maintenance.

1.17 *Maintenance Phase* means the period of the Project after Substantial Completion during which the Design-Builder is required to maintain the Facility, in whole or in part, ending on the expiration of the O&M Term.

1.18 *O&M Budget* shall have the meaning set forth in Section 4.2 of this Exhibit.

1.19 *Operating Plan* shall have the meaning set forth in Section 4.1 of this Exhibit.

1.20 *Operation Phase* means the period of time after Substantial Completion during which the Design-Builder is required to operate the Facility, in whole or in part, ending on the expiration of the O&M Term.

1.21 *O&M Phases* means the combined Operational Phase and Maintenance Phases, as set forth herein.

1.22 *O&M Plan* is a written document which describes the operations and maintenance of the completed Project including how the operations and maintenance will be addressed over the period of the O&M Term. This shall include the management structure and approach, the proposed period of and approach to operations and maintenance, routine maintenance, and emergency response.

1.23 *O&M Services* means those Services performed by the Design-Builder during each of the Operational Phases and Maintenance Phases.

1.24 *O&M Term* means the duration of the combined Operational Phase and Maintenance Phases, during which the Design-Builder is responsible to operate and maintain the completed Project and Facility.

1.25 *Performance Criteria* means those performance metrics and outcomes established by the Owner and agreed to by the Design-Builder for the following four stages:

1. End of Construction, which criteria define the conditions to which the Project must be designed and constructed for the Design-Builder to achieve final acceptance and qualify for final payment under the Design-Build Agreement and certificate signifying the end of the Design and Construction Phase.

2. Maintenance Phase, which criteria define the condition to which the Facility must be maintained during the Maintenance Phase, as defined in this Article 1.

3. Operational Phase, which criteria define the condition to which the Facility must be operated during the Operational Phase, as defined in this Article 1.

4. Handback, which criteria define the final condition requirements of the Facility at the end of the O&M Term, as defined in Article 7 and Appendix D of this Exhibit.

1.26 *Planned Outage* shall mean the cessation of operation of the Facility for Scheduled Maintenance.

1.27 *Project* means the entire Project described and set forth on page 1 of this Exhibit, which is the subject of the Design-Build Agreement. The Facility may consist of the entire Project or a portion thereof, as stated on page 1 of this Exhibit.

1.28 *Project Year* shall mean any calendar year during the O&M Term, commencing with the first activities of the earlier of the Operational Phase or the Maintenance Phase.

1.29 *Scheduled Maintenance* shall have the meaning set forth in Appendix B to this Exhibit.

1.30 *Subcontractor* or *Design Consultant* and their lower tier *Sub-Subcontractors* and *Design Sub-Consultants* shall have the meanings set forth in the General Conditions of Contract.

1.31 *Subcontract* or *Design Consultant Agreement* shall mean an agreement between the Design-Builder, and a Subcontractor or a Design Consultant to perform a portion of the Work set forth in the Design-Build Agreement.

1.32 *Third-Party Agreement* shall refer to written contracts between Owner and third parties identified in Appendix C to this Exhibit.

1.33 *Unscheduled Maintenance* shall mean any and all maintenance, repair and replacement requirements of the Facility during a Project Year, other than the Scheduled Maintenance described in Appendix B to this Exhibit.

1.34 *User Fee* shall mean payments made by users of the Facility during the O&M Phase, collected by the Owner as a charge for use of the Facility or its function.

ARTICLE 2 GENERAL TERMS

2.1 The Owner desires for the Design-Builder, in addition to furnishing the design and construction of the Project set forth in the *Design-Build Agreement*, to operate and maintain the completed Project for the Term set forth herein (hereafter the "O&M Term"). The purpose of this Exhibit is to describe the duties and responsibilities of the Owner and Design-Builder for the Operational and Maintenance Phases of the Project (hereafter the "O&M Phases").

2.2 The Owner and Design-Builder will, in connection with the meeting set forth in Section 2.1.4 of the General Conditions of Contract, determine the following:

2.2.1 The scope of operational and maintenance duties for the Project, including but not limited to the roles, duties, overlap, coordination and duration of such as performed by the Design-Builder and by the Owner;

2.2.2 The Information and Deliverables to be submitted by the Design-Builder during the O&M Phases of the Project, including but not limited to the format for the Information and/or Deliverable;

2.2.3 The identities of any Subcontractor or Design Consultant who will participate on behalf of the Design-Builder during the O&M Phases of the Project.

2.2.4 The identities of any of the Owner's employees, independent contractors or design consultants who will participate on behalf of the Owner during the O&M Phases of the Project; and

2.2.5 Establish submission schedules for Information and Deliverables.

2.3 Owner and Design-Builder will incorporate this Exhibit into their respective contracts with any third parties who will participate during the O&M Phases of the Project including, but not limited to, any Subcontractor or Design Consultant, and their lower tier contracts.

2.4 Design-Builder shall perform the Services required under this Exhibit, including those set forth in Appendix A, in a prudent, reasonable, and efficient manner and in accordance with the following standards, which are incorporated herein by reference, and Legal Requirements:

[insert here any applicable industry or Owner-provided performance standards, or refer to Appendix A]

2.5 Design-Builder will operate and maintain the Facility, and equipment in or at the Facility, in accordance with the manufacturers' recommendations and requirements, and per industry standards, so as not to void or limit any manufacturers' warranties on such Facility and equipment.

2.6 Design-Builder has been retained by Owner as an independent contractor to operate and maintain the Project on behalf of Owner. Neither Design-Builder nor any of its employees, Subcontractors, Design Consultants or agents shall be deemed to have any other status, except that Design-Builder is the agent of Owner to the limited extent that this Exhibit expressly grants Design-Builder the authority to act on behalf of Owner.

2.7 Although it is Design-Builder's obligation to operate and maintain the Facility, Owner shall have the right throughout the O&M Term, upon reasonable written notice, to inspect Design-Builder's records of operation, permit compliance, past maintenance and scheduled maintenance for the Facility including, but not limited to, those records identified in Section 5.1.4 of this Exhibit. Such records shall be inspected at Design-Builder's office listed on page 1 of this Exhibit, or at such other location agreed to by the parties where such records are maintained. The Owner may request copies of any such documents, which copies shall be made at Owner's expense, whether electronic or paper.

2.8 Design-Builder shall be solely responsible for the performance of any of its employees, agents, or subcontractors under this Exhibit. Design-Builder shall report to the Owner any and all employees, agents, and contractors performing work in connection with this Facility, and all shall be subject to the approval of the Owner, which approval shall not unreasonably be withheld. The Owner shall not make any federal or state tax withholdings on behalf of Design-Builder.

ARTICLE 3 OWNER'S RESPONSIBILITIES

3.1 The Owner shall provide, at Owner's sole cost and expense:

(a) all regulatory and governmental permits, operating licenses (other than those required to be obtained by Design-Builder under this Exhibit or Legal Requirements) and authorizations (including such permits, licenses and authorizations required by additional regulations or changes to regulations);

(b) drawings and operations manuals for any existing equipment (not supplied or installed by Design-Builder);

(c) rights of ingress and egress to and from the Project site, the Facility, and all components thereof;

(d) electricity, fuel and water;

(e) an initial supply and inventory of operating supplies, Consumables, maintenance tools, and spare parts, with additions to such initial inventory as may be required from time to time (all as recommended by Design-Builder and approved by Owner);

(f) means of waste disposal (including payment of waste disposal charges, if any);

(g) insurance as required pursuant to the Design-Build Agreement and Article 5 of the General Conditions of Contract; and

(h) all other rights, services and materials reasonably required for the operation and maintenance of the Facility in compliance with this Exhibit, excepting only those goods and services specifically identified herein as being provided by Design-Builder.

3.2 Owner shall provide to Design-Builder any notices received by Owner in connection with Owner's performance of its responsibilities under this Article 3 including, but not limited to, notices from any governmental entity or manufacturer of equipment, or notices of any legal claim or suit by any third party or employee of the Owner participating in either operation or maintenance of the Project and Facility.

3.3 Owner shall designate in Article 9 of this Exhibit an individual who will act on behalf of Owner with respect to communicating decisions and directions to Design-Builder under this Exhibit. Such individual shall be available to receive such communications and provide appropriate responses at any time. The Owner's Designated Representative shall be permitted reasonable access to the Facility during the O&M Term for the purpose of gaining knowledge of the progress, workmanship and character of the materials used and persons employed in operating and maintaining the Facility. The Owner's Designated Representative shall be responsible for his or her safety at all times when entering the Facility during the O&M Term, and shall comply with any reasonable safety requests of the Design-Builder, including the wearing of personal protective equipment, as required.

3.4 Site visits and inspections by the Owner's Designated Representative or any consultant retained by Owner shall not relieve the Design-Builder of its obligations under this Exhibit or Legal Requirements.

3.5 Owner shall provide Design-Builder with all vendor manuals, as-built or record drawings of the Project and Facility, spare parts lists, Project data books and drawings which are in the possession of Owner or of any other separate contractor to Owner who is responsible for construction, installation, repair or maintenance of the Project or a part thereof, and any other documents that define the Project's operating requirements. Design-Builder shall be entitled to rely upon such information in performance of the O&M Services.

3.6 The Owner shall procure, obtain and maintain during the O&M Term any governmental or agency consents to enable Design-Builder to perform its duties at the Facility. The Owner shall deal directly with all such governmental departments and agencies on all matters that require consultation and discussion about the operation and/or maintenance of the Facility during the O&M Term, such that the Design-Builder is able to perform its obligations. The Design-Builder will provide, at the Owner's request, all reasonable assistance, documentation and support to the Owner for this purpose.

ARTICLE 4 ANNUAL PLAN

4.1 Operating Plan.

4.1.1 Not later than the first day of July of each calendar year, Design-Builder shall prepare and submit to Owner in writing a proposed operating and maintenance plan for the upcoming Project Year and, with respect to Scheduled Maintenance, for the next 5 Project Years (or the then-remaining portion of the O&M Term, whichever is less) (the "Operating Plan"). The Operating Plan for the first Project Year shall be submitted to Owner for approval not later than

sixty (60) days prior to the scheduled Substantial Completion Date under the Design-Build Agreement.

4.1.2 The Operating Plan shall describe, in detail reasonably acceptable to Owner, anticipated maintenance and overhaul schedules, planned outages, staffing plans, equipment acquisitions and spare parts and Consumables, inventories (including a breakdown of capital items and expense items), schedules of Subcontractor and Design Consultant services, Facility performance data, data regarding required environmental performance, projected fuel or energy usage, and such other matters as Owner may reasonably require.

4.2 O&M Budget

4.2.1 Any actions proposed under the Operating Plan shall be consistent with manuals and procedures prepared or established by Owner, Design-Builder, Owner's separate contractors, or equipment manufacturers, industry standards, and this Exhibit. Together with the Operating Plan, Design-Builder shall submit to Owner for its review and approval a proposed budget for operating and maintaining the Facility during the upcoming Project Year and, with respect to Scheduled Maintenance, for the next 5 Project Years (or the then-remaining portion of the O&M Term, whichever is less) (the "O&M Budget").

4.3 Annual Plan

4.3.1 The O&M Budget shall include the estimated cost, based on time and materials and all fees, for all anticipated operation and maintenance services to be provided by Design-Builder during each month of the upcoming Project Year and, with respect to Scheduled Maintenance, for the next 5 Project Years (or the then-remaining portion of the O&M Term, whichever is less) (the Operating Plan and the O&M Budget are hereinafter sometimes together called the "Annual Plan"). When approved pursuant to Section 4.3.2 below, the Annual Plan shall be an "Approved Annual Plan" and shall consist of an "Approved Operating Plan" and an "Approved O&M Budget."

4.3.2 Owner shall give its written approval or disapproval of the Annual Plan no later than sixty (60) days after receipt thereof from Design-Builder. In the event Owner does not give its approval or disapproval of the Annual Plan within such sixty (60) day period, the entire Annual Plan shall be deemed approved by Owner. If Owner disapproves all or any portion of the proposed Annual Plan, Owner and Design-Builder shall make all reasonable efforts to agree upon the items and associated costs included in the Annual Plan.

4.3.3 In the event that Owner and Design-Builder cannot agree on the Annual Plan, those elements of the Annual Plan which are in dispute shall be revised on an interim basis in accordance with the reasonable specifications of Owner, and Owner and Design-Builder agree to continue the O&M Services pursuant to such revised Annual Plan, pending the written final resolution of their disagreement. The Owner-specified O&M Budget or Annual Plan will be deemed an Approved O&M Budget or an Approved Annual Plan until such written resolution. However, in no event shall such revised Annual Plan require Design-Builder to: (a) deviate from its standard practices regarding salary administration, compensation, personnel practices and staffing levels; or (b) perform services that might conflict with Design-Builder's duties under this Exhibit or Legal Requirements.

4.3.4 An Approved Annual Plan shall constitute authorization for Design-Builder to expend money to operate and maintain the Facility in accordance with such Approved Annual Plan. Design-Builder shall notify Owner as soon as reasonably possible of any significant deviations or discrepancies between the costs and expenses actually incurred by Design-Builder during each Project Year and the costs and expenses projected to be incurred by Design-Builder as set forth in the Approved O&M Budget for such Project Year.

4.3.5 In the event either party hereto desires to request an adjustment to an Approved Annual Plan at any time during the Project Year, such party shall submit in writing a proposed revised Annual Plan for the other party's consideration, which proposal such other party shall approve or

disapprove in writing within thirty (30) days after receipt thereof. If the proposed revised Annual Plan is disapproved in writing within such thirty (30) day period, the disapproving party shall furnish the other party in writing with the reasons for such disapproval and shall immediately begin good faith discussions in an effort to reach a mutually agreeable revised Annual Plan. Until the revised Annual Plan is approved in writing by Owner, Design-Builder shall not, except in an emergency as described in Article 6 hereof, act outside of the Approved Annual Plan for such Project Year without the prior written consent of Owner. Once approved, Design-Builder's authority with respect to a revised Annual Plan shall be the same as that authorized for the original Approved Annual Plan.

4.3.6 As stated in Section 5.4 of this Exhibit, the cost of all major equipment teardowns and overhauls and all capital improvements above a cost of \$50,000 shall be the responsibility of Owner. To the extent reasonably possible, the costs of all anticipated major equipment teardowns and overhauls and anticipated capital improvements shall be incorporated into the Approved Annual Plan and Approved O&M Budget. If such costs have been incorporated into the applicable Approved Annual Plan and Approved O&M Budget, or if Owner has otherwise consented in writing to reimburse Design-Builder for such costs, Design-Builder shall schedule, coordinate, contract and oversee the performance of such activities.

ARTICLE 5 DESIGN-BUILDER'S RESPONSIBILITIES

5.1 Operational Phase Duties.

5.1.1 Design-Builder will perform duties to operate the Facility on behalf of the Owner, as the Owner's agent, for the period of the O&M Term as set out herein and in Appendix A to this Exhibit.

5.1.2 Owner shall develop requirements for what information is to be reported, how it is to be reported, and who is to receive any Deliverable required dealing with the operation of the Facility, or any portion thereof.

5.1.3 The Facility shall meet the standards specified in the Performance Criteria during the Operational Period. Failure to meet the Performance Criteria shall be deemed a Defect. Whenever a Defect is identified, either by the Design-Builder's inspections, by the Owner, or by any third party authorized and acting on the Owner's behalf, the Design-Builder shall act promptly to remedy and repair the Defect, which may include contacting manufacturers, suppliers, vendors and Owner's separate contractors to provide such remedy and repair pursuant to any warranty obligations running to the Design-Builder or to the Owner. Design-Builder shall not, however, initiate any legal action in Owner's name, without Owner's written approval and agreement on allocation of legal costs and attorney's fees. As long as Design-Builder has acted promptly in the case of contacting such entities on Owner's behalf, then the Design-Builder shall not be liable to Owner for any delay or loss caused by such entities' failure to remedy the Defect.

5.1.4 Design-Builder shall maintain, at a location acceptable to Owner, the Facility operating logs, records, and reports that document the operation and maintenance of the Facility, all in form and substance sufficient to meet Owner's reporting requirements if applicable and identified in the Performance Criteria or in an Appendix to this Exhibit.

5.1.5 Design-Builder shall maintain current revisions of drawings, specifications, lists, clarifications and other materials related to operation and maintenance of the Facility.

5.1.6 Design-Builder shall provide Owner reasonably necessary assistance in connection with Owner's compliance with reporting requirements under any Third-Party Agreements, Legal Requirements or any other agreement to which Owner is a party relating to the Project or Facility. Such assistance shall include providing reports, records, logs and other information that Owner may reasonably request as to the Facility or its operation, as stated in Section 2.7 of this Exhibit.

5.1.7 Design-Builder shall perform all Operational Phase services consistent with the equipment manufacturer's recommendations and requirements, prudent industry practices and the contractual obligations of Owner under any relevant Third-Party Agreements identified in Appendix C to this Exhibit (e.g. power purchase agreement, steam sales agreement, and any other side letters or other agreements directly relating to the same).

5.1.8 Design-Builder shall provide adequate quality assurance and maintain the Facility in good overall condition and appearance, for the safe and proper operation of the Facility and all equipment therein.

5.1.9 Design-Builder shall comply with all Legal Requirements and permits applicable to Design-Builder's Operational Phase services, including, without limitation, obtaining and maintaining, at Design-Builder's expense, all licenses and permits required to qualify Design-Builder to perform the Operation Phase services and to do business in the jurisdiction in which the Facility is located.

5.2 Maintenance Phase Duties.

5.2.1 The Design-Builder is responsible for all Scheduled Maintenance activities necessary to meet the specified standards during the O&M Term and to minimize the occurrence of Defects. The required Scheduled Maintenance activities are set out in Appendix B to this Exhibit.

5.2.2 Maintenance shall include, subject to the limitations of an Approved O&M Budget, performing or causing to be performed all services, and making or causing to be made all repairs and replacements, necessary so that at all such times the Facility shall be maintained in good, safe and operating condition, and shall include, without limitation, maintaining a reasonable stock of operating supplies, maintenance tools and spare parts of comparable quality to the initial spare parts provided by Owner; inspecting and repairing or replacing all portions of the Facility that may become defective, worn, damaged or incapable of operation as a result of normal and routine operations; and performing periodic maintenance in accordance with the manufacturers' requirements and recommendations, the Performance Criteria, and industry standards; and the services described in Appendix B to this Exhibit. Maintenance Phase services do not include Unscheduled Maintenance.

5.2.3 Owner agrees that operating supplies, maintenance tools and spare parts may in part be stored by Design-Builder at a location other than the Facility, so long as: (a) such location and storage is sufficiently convenient to allow the efficient operation and maintenance of the Facility pursuant to this Exhibit; and (b) records are kept as to inventory and location of all such items; and (c) the method of allocating the costs of such materials to the Facility has been approved in advance by Owner.

5.2.4 Design-Builder shall develop and maintain the operational use of a Computerized Maintenance Management System (CMMS) to track and document O&M activities. The CMMS shall contain a complete and up-to-date Asset Registry. All maintenance activities performed shall be tracked as work orders against the assets. Design-Builder shall be able to produce and share data from the CMMS related to assets and work orders at any time throughout the O&M term. Design-Builder shall hand over all CMMS documentation in mutually accessible file formats at Handover.

5.2.5 In addition to the provisions in Section 6.2 related to emergencies, in the event that the Facility or major equipment suffers a failure (or Design-Builder reasonably believes that such an occurrence is imminent), and Design-Builder has made reasonable, but unsuccessful, efforts to notify and communicate with Owner regarding such occurrence or imminent occurrence in accordance with the terms of this Exhibit, then Design-Builder is authorized to, and shall, take all reasonable and necessary action to prevent or to mitigate such failure and make reasonable efforts to minimize any cost associated with such remedial action. Design-Builder shall continue to attempt to notify and communicate with Owner regarding the occurrence and the remedial

action. However, Design-Builder shall not be required to expend for such purposes more than the amount set out in Section 6.2.1 for such remedial action.

5.2.6 The Design-Builder is responsible for providing all management, supervision, professional and technical services; quality management; and labor, materials, utilities, and equipment for performing all of the duties and obligations to maintain the Facility during the Maintenance Period.

5.2.7 Design-Builder and Owner understand that new methods, procedures, and products may present opportunities for improvements during the Maintenance Period. Both parties mutually agree to consider the use of such new technologies and methods provided that they are agreed to by the Design-Builder and the Owner in writing prior to use, with allocation of costs for any betterments which will accrue to the Owner upon completion of the O&M Term.

5.3 Correcting Defects.

5.3.1 The Design-Builder shall investigate and inspect the underlying cause or origin of any Defect before commencing repair work and shall prepare and submit for the Owner's review a remedial action plan recommending the most appropriate treatment to restore the affected portion of the Facility to its operable condition. The Owner shall communicate its approval or rejection of the Design-Builder's remedial action plan within two (2) business days of receipt or shall be deemed to have made no objection to the same.

5.3.2 The Design-Builder shall remedy at its expense, unless otherwise stated or agreed to in writing by Owner, any Defect caused by a failure of the Facility to meet Owner's Performance Criteria and which failure is due solely to Design-Builder's negligence or breach of the Design-Build Agreement (including any Defect caused by a Subcontractor or Design Consultant to the Design-Builder). This shall not apply, however, to a Defect that is the sole responsibility of manufacturers, suppliers, vendors and Owner's separate contractors who are obligated to remedy and repair a Defect pursuant to any warranty obligations running to the Owner as stated in Section 5.1.3 of this Exhibit.

5.4 Overhaul of Major Equipment and Capital Improvements.

5.4.1 The cost of all major equipment teardowns and overhauls and all capital improvements shall be the responsibility of Owner. Design-Builder shall promptly notify Owner in writing of any such teardowns and overhauls of major equipment or capital improvements that Design-Builder believes are necessary or advisable together with a proposed schedule for completing such repairs or improvements. Owner may contract with a separate contractor to perform any such major equipment teardowns and overhauls and all capital improvements, or Owner may permit Design-Builder to submit a proposal to perform the same, in whole or in part, for additional compensation either by separate written agreement or as Additional Services under Article 8 of this Exhibit.

5.4.2 As stated in Section 4.3.6 of this Exhibit, if such costs have been incorporated into the applicable Approved Annual Plan and Approved O&M Budget, or if Owner has otherwise consented in writing to reimburse Design-Builder for such costs, Design-Builder shall schedule, coordinate, contract and oversee the performance of such activities as Additional Services, under Article 8 of this Exhibit.

5.4.3 Design-Builder also shall be responsible for monitoring and enforcing contract compliance by the Owner's contractor performing major equipment teardowns and overhauls and capital improvements, including taking such reasonable steps, subject to Section 5.5.1, below, to enforce any warranties granted to Owner by such manufacturer, supplier, or contractor.

5.5 Litigation, Permit Lapses.

5.5.1 When acting on Owner's behalf to correct a Defect, or to enforce any warranties granted to Owner, the Design-Builder shall not initiate any legal action in Owner's name, without Owner's written approval and agreement on allocation of legal costs and attorney's fees.

5.5.2 Upon obtaining knowledge thereof, Design-Builder shall promptly notify Owner in writing of: (i) any litigation, claims, disputes or actions, threatened or filed by any third party, concerning the Project, the Facility or the O&M Services; (ii) any refusal or threatened refusal by a public or private agency or authority to grant, renew or extend (or any action pending or threatened that might affect the granting, renewal or extension of) any license, easement, permit, warranty, approval, authorization or consent relating to the Facility or the O&M Services; and (iii) any dispute with any public or private agency or authority relating to the Facility or the O&M Services.

5.6 Fines and Penalties.

5.6.1 If during the O&M Term any governmental or regulatory authority or agency assesses any fine(s) or penalty(ies) against Design-Builder or Owner arising solely from Design-Builder's failure to operate and maintain the Facility in accordance with the terms of this Exhibit or any Legal Requirements, without Owner's prior written consent, such fines and penalties shall, subject to any limitations of liability agreed to by the Parties in Article 10, be the sole responsibility of Design-Builder and shall not be deemed a Reimbursable Cost. To the fullest extent permitted by law, and subject to Article 10, Design-Builder shall defend and indemnify Owner from any damages, costs, or expense (including reasonable attorney's fees), or any legal or administrative proceedings caused by such failure on the part of the Design-Builder.

5.7 Protection of the Environment.

5.7.1 Notwithstanding any other provision of this Exhibit, the Design-Builder shall take all reasonable steps to protect the environment in the area of the Facility and to limit damage and nuisance to people and property resulting from pollution, noise and other results of the fulfillment of its obligations under this Exhibit and shall take reasonable steps to ensure that air emissions and surface discharges from the Facility shall not exceed the values prescribed by applicable laws or permits, wherever possible.

5.8 Post Completion Services.

5.8.1 For a period of twelve (12) months after the end of the O&M Term, the Design-Builder must make available competent and experienced personnel or consultants to consult with the Owner on any aspect of the operation, maintenance and repair of the Facility. Such consultation shall be provided at no additional cost to Owner up to a maximum of 200 hours, in the aggregate, and 20 on-site visits to the Project site. Any consultation beyond these limits shall be paid as Additional Services on an hourly rate basis, lump sum or other method of compensation agreed to by the parties in writing. Required travel in connection with any such post-completion services shall be reimbursable by Owner at the direct cost incurred by Design-Builder, with no markup.

ARTICLE 6 OUTAGES AND EMERGENCIES

6.1 Outages.

6.1.1 Design-Builder shall coordinate with the Owner and any parties to Third-Party Agreements, if any, identified in Appendix C to this Exhibit as required: (a) when production of the Facility output (e.g. treated wastewater, water, steam or generation of electricity) is to be initiated, interrupted or curtailed, and (b) by making all reasonable efforts to schedule all outages at the Facility that will reduce the output of the Facility at the most appropriate times for the Owner and any parties to Third-Party Agreements.

6.1.2 In the case of unplanned interruptions or curtailments of Facility output, Design-Builder shall give the Owner and authorized representatives of parties to any Third-Party Agreements notice identified in Appendix C to this Exhibit as soon as practical, stating the reason therefor and the probable duration thereof, and containing any other information necessary for the notice to conform to the requirements of the Third-Party Agreement.

6.1.3 The Design-Builder shall have additional means of biosolids disposal available in the event the facility is unable to process materials. Disposal shall be completed at the Design-Builder's cost.

6.2 Emergencies.

6.2.1 If an emergency situation arises during the O&M Term endangering the safety or protection of persons, the Facility, the Project, or property located near the Project, the correction of which falls within the Design-Builder's duties, Design-Builder shall promptly notify Owner when possible and take all necessary action to attempt to prevent or mitigate any such threatened damage, injury or loss (including making payments and incurring expenses on behalf of Owner in the nature of capital or operating expenses or otherwise) deemed by Design-Builder to be reasonably necessary or advisable under the circumstances to prevent, avoid or mitigate injury, damage or loss to persons or property. Provided, however, that Design-Builder shall not make any such expenditures if the aggregate amount per incident exceeds \$10,000.00 unless Owner has approved the same or Design-Builder has been unable to contact Owner notwithstanding its diligent efforts to do so. Design-Builder shall make reasonable efforts to minimize any cost associated with remedial action in case of such an emergency.

6.2.2 If the above emergency creates an imminent threat to persons or property, the Design-Builder may act before giving written notice to the Owner, but shall promptly give such notice as soon as practicable, but in no event later than the close of business on the following business day. If, as a result of action taken in response to such an emergency, Design-Builder incurs costs or expenses in connection therewith, the Approved Annual Plan shall be revised to properly incorporate and reflect such costs and expenses. However, if the event giving rise to the emergency was caused by Design-Builder's breach of its duties hereunder, costs and expenses incurred in responding to such emergency will not cause revision of the Approved Annual Plan and will not be reimbursed by Owner.

6.2.3 If an emergency situation arises as described above which creates an imminent threat to persons or property, and the Design-Builder has not performed the remedial work within twenty-four (24) hours after written notice from the Owner, then the Owner may give written notice to Design-Builder and perform the remedial work with other forces at the Design-Builder's expense. Remedial work performed by others will not alter the Design-Builder's obligations under the Design-Build Agreement.

6.2.4 If the Owner considers that an emergency has arisen in relation to the Facility, the Owner may give written notice to the Design-Builder specifying the nature of the emergency which it has identified. Promptly upon receipt of such Owner notice, the Design-Builder shall, to the extent it is practicable to do so, rectify such emergency. If, however, the Design-Builder considers that the emergency is outside its capacity to rectify as the operator of the Facility, it shall notify the Owner promptly and the Owner shall take such actions as may be necessary to rectify the emergency itself.

ARTICLE 7 HANDBACK REQUIREMENTS

7.1 At the end of the O&M Term, when the Owner assumes responsibility for the operation and maintenance of the Facility, the Facility shall be free from any Defect other than those due to normal and customary wear and tear and shall comply with any other Handback Requirements set out in Appendix D to this Exhibit.

7.2 Handback Inspection.

7.2.1 According to the following schedule, prior to the expiration of the O&M Term, upon written notice to Owner, the Design-Builder and Owner will jointly carry out three (3) Handback Inspections to determine what portions of the Facility will need repairs or replacement in order to achieve the Handback Requirements.

1. The initial Handback Inspection shall take place at a time, specified by the Owner following consultation with the Design-Builder, that is at least TBD months, but not more than TBD months, prior to the end of the O&M Term.
2. The second Handback Inspection shall take place at a time, specified by the Owner following consultation with the Design-Builder, that is at least TBD months and not more than TBD months prior to the end of the O&M Term.
3. The third Handback Inspection shall take place at a time, specified by the Owner following consultation with the Design-Builder, that is not more than TBD months prior to the end of the O&M Term.

7.2.2 If, during any of the first two of the above Handback Inspections, any portion of the Facility is not in a condition consistent with the Handback Requirements, then the Design-Builder shall provide to the Owner a program and schedule for correcting any portions not meeting the Handback Requirements, plus a cost estimate of the amount to be expended to bring those portions of the Facility into compliance with the Handback Requirements.

7.2.3 If the third Handback Inspection shows any portion of the Facility that is still not in a condition consistent with the Handback Requirements, then the Owner, at its sole option, may elect to accept the Facility in its non-conforming condition, in whole or in part, instead of requiring its removal and correction and, in that situation, Owner may deduct the cost of remedying or repairing any non-conforming condition from amounts then, or thereafter, due the Design-Builder. Such deduction shall not exceed the fair and reasonable cost to remedy or repair the non-conforming condition.

7.2.4 The Design-Builder shall have the option and the right, however, to perform such remedial work as necessary to correct the non-conforming condition(s) identified by the Owner or to accept the deduction offered by the Owner. Such election must be made in writing by Design-Builder within seven (7) days of receipt of Owner's proposed cost deduction(s). The right to correct such conditions is subject, however, to liquidated damages as set forth in Section 7.3.

7.2.5 If Design-Builder elects to perform the remedial work, but fails to deliver a workplan and schedule in accordance with Appendix D of this Exhibit or, having delivered it, fails in any material respect to diligently carry out the workplan in accordance with the schedule, then the Owner may hold back from any amounts thereafter becoming payable to Design-Builder under this Exhibit an aggregate amount (the "Handback Requirements Holdback") that the Owner considers sufficient to achieve the Handback Requirements at the end of the O&M Term, including with respect to the spares inventory, in the event that Design-Builder were to fail to do so.

7.2.6 The Handback Requirements Holdback shall be released to Design-Builder, without interest, as the work to achieve the Handback Requirements is done by Design-Builder (but not more frequently than monthly). If the Handback Requirements are not achieved by the expiration of the O&M Term, the Owner may release Design-Builder from its obligation to achieve the Handback Requirements and may retain the remaining balance of the Handback Requirements Holdback.

7.2.7 Design-Builder may at any time call for release of the remaining balance of the Handback Requirements Holdback upon delivering to the Owner an irrevocable, unconditional, on sight letter of credit in the amount of the remaining balance of the Handback Requirements Holdback (the "Handback Letter of Credit"), issued by a bank authorized to do business in the state in which the Facility is located (or issued by such other financial institution approved in advance for the

purposes of this Section 7.2.7 by the Owner, who may grant or decline such approval in its absolute discretion). The Owner may present the Handback Letter of Credit for payment if:

- (a) upon expiration of the O&M Term, the Handback Requirements are not met;
- (b) Design-Builder fails to deliver a renewal of the Handback Letter of Credit at least [] days before the expiration of the Handback Letter of Credit; or
- (c) any of the long-term credit ratings of the issuer of the letter of credit becomes unstable and Design-Builder fails to deliver a replacement of the Handback Letter of Credit no later than [] days after being so requested by the Owner in writing.

As the work to achieve the Handback Requirements is done by Design-Builder (but not more frequently than monthly), the Owner shall permit, on written application by Design-Builder, a corresponding reduction in the amount of the Handback Letter of Credit.

7.3 Liquidated Damages. If the Design-Builder elects to perform the work necessary to complete all corrections identified in the Handback Inspections by the end of the O&M Term, then in lieu of accepting the Facility as-is and deducting the cost to repair under Section 7.2.3, above, the Owner may permit the Design-Builder to continue to perform repairs at Design-Builder's expense, but assess liquidated damages for late completion until such repairs are completed to Owner's satisfaction. The parties agree that Owner will suffer damages which are difficult to determine and accurately specify. Design-Builder agrees that if completion of all Handback Requirements is not attained by the end of the O&M Term, Designer-Builder shall pay Owner [] Dollars (\$ []) as liquidated damages for each day thereafter until completion of all Handback Requirements.

[The parties may want to consider the following supplemental language within Section 7.3 if they want to assess liquidated damages subject to a maximum amount.]

Owner and Design-Builder agree that the maximum amount of liquidated damages payable by Design-Builder under this Section 7.3 shall be [] Dollars (\$ []), regardless of the actual date that all Handback Requirements are completed and accepted.

[At the parties' option, the following may be used]:

In addition, the Owner may require the Design-Builder to post a performance bond issued by an approved surety, guaranteeing the proper and timely performance of any Handback Requirements as a condition of continued performance. The bond shall be posted in an amount equal to one hundred and fifty percent (150%) of the Owner's estimated deductions to complete the work, as proposed in Section 7.2.3. Upon final completion by Design-Builder of the Handback Requirements, and written acceptance by Owner, the Owner shall issue a letter of discharge and irrevocable consent to release the surety of the performance bond.

7.4 Disputes Over Handback Requirements. Any dispute under this Article 7 as to the condition of the Facility, the cost or schedule for repairs, the value of Owner's offered deductions, the assessment of liquidated damages, or otherwise, shall be resolved pursuant to the provisions of Article 10 of the General Conditions of Contract.

ARTICLE 8 COMPENSATION

[Note to User: the dollar amounts, limitations, percentages and multipliers shown in this Article of this Exhibit and elsewhere are as an example only, not a recommendation, and the parties are free to negotiate actual dollar amounts, limitations, percentages and multipliers to be inserted].

The Owner will pay the Design-Builder during the O&M Term the amounts set out in this Article 8, for Monthly Payments, Annual Operating Fee, Reimbursable Expenses, Annual Incentive Fee (if any), and for Additional Services, as follows:

8.1 Monthly Payment.

8.1.1 Flat Monthly Payments. A monthly payment equivalent to one-twelfth of the Approved O&M Budget for the Project Year based on the approved annual payment schedule. The Design-Builder will receive the monthly agreed upon payment regardless of the actual quantity of work performed and services provided during that month. The scheduled monthly payment shall be deemed full compensation for all inspection, testing, documentation, reporting, design, maintenance, construction, and reconstruction required to fulfill the O&M Services requirements.

8.1.2 The scheduled monthly payments will be fixed for the duration of the O&M Term, with the exception of the following potential adjustments:

- .1 Withholding of, or reduced, payment resulting from the Design-Builder's failure to comply with, or delay in complying with, the service level requirements of this Exhibit;
- .2 Adjustment to compensate for the effects of inflation or deflation based on changes in the Consumer Price Index, U.S. Department of Labor for all Urban Consumers for the [] region (hereafter the "Consumer Price Index").

[At the parties' option, the following clauses may be used in lieu of Sections 8.1.1 and 8.1.2]:

8.1.1 Variable Monthly Payments. Owner shall pay Design-Builder on a monthly basis, upon submission of itemized applications for payment, substantiated by such documentation as Owner may reasonably require to verify Design-Builder's actual costs, the following costs and expenses incurred by Design-Builder (the "O&M Costs"):

- (a) the delivered cost of supplies, Consumables, spare parts, replacement components, rental equipment and all other items Design-Builder is required to provide and does provide for the Facility on behalf of Owner;
- (b) the wages and salaries (together, "Direct Pay") and bonuses, for all of Design-Builder's on-site personnel, together with an allowance of ____ percent (_ %) of Direct Pay to cover the cost of associated payroll taxes, unemployment and disability insurance, worker's compensation, vacation, holidays, fringe benefits and other statutory compensation (a present breakdown of such costs is included for reference purposes only as Attachment II hereto, although the above __ _ percent (_ %) allowance will remain fixed), plus an administrative overhead allocation equal to ____ percent (_ %) of base salaries;
- (c) the costs of any of Design-Builder's non-site specialists or other personnel, calculated at Design-Builder's standard markup (provided such cost shall not exceed, on a prorated basis, __ _ times the base salary for such personnel);
- (d) costs of special training conducted off-site or conducted by Design-Builder's non-site personnel or non-Design-Builder personnel, as approved in advance and in writing by Owner;
- (e) relocation and recruitment costs of salaried employees and recruitment costs (but not relocation costs) of non-salaried employees;
- (f) travel costs and related expenses, as approved in advance and in writing by Owner;
- (g) all costs of insurance and bonds to be carried by Design-Builder pursuant to the Design-Build Agreement;

(h) the costs of suppliers, subcontractors, attorneys, certified public accountants and other third-party advisors to the extent of work performed specifically for the Facility;

(i) upon Owner's request and subject to Owner's prior written approval, the cost of services (other than the O&M Services) at mutually agreed upon prices, terms and conditions; and

(j) the delivered cost of certain materials such as tools, office equipment, furniture and office supplies.

8.1.2 On or before the fifteenth (15th) day of each month commencing after the initiation of O&M Services, Design-Builder shall deliver to Owner a detailed schedule of expenditures prepared by Design-Builder for the cost of all O&M Services ("O&M Costs") incurred during the preceding month. Upon request, Design-Builder shall make available to Owner all relevant documentation reasonably necessary for Owner to verify the accuracy of such schedule and necessity of such O&M Costs, including copies of all relevant invoices for supplies, spare parts, Consumables and replacement components and labor costs and benefits computations incurred by Design-Builder for its employees, Subcontractors or other personnel, plus lien waivers. Each invoice for O&M Costs submitted to Owner shall be paid in full by Owner to Design-Builder not later than thirty (30) days after the date Owner received such invoice, unless Owner elects to dispute such invoice. If Owner disputes any amount set forth in any such invoice, Owner shall pay the undisputed portion within said period and Owner and Design-Builder shall attempt in good faith to resolve all disputed items as soon as reasonably practicable.

8.2 Annual Operating Fee.

8.2.1 In addition to the Monthly Payment, Owner shall pay Design-Builder an Annual Operating Fee in the amount set out below (or a pro rata portion thereof in the case of a Project Year of less than 12 months).

8.2.2 For the first Project Year and each subsequent Project Year, Owner shall pay to Design-Builder the sum of \$_____ per month of the Project Year, an annual fee of \$_____ (the "Annual Operating Fee"). Beginning on the first day of the second Project Year and on the first day of each subsequent Project Year thereafter, the Annual Operating Fee (and the corresponding Monthly Payments) shall be adjusted to reflect changes in the Consumer Price Index per Section 8.1.2.

8.3 Reimbursable Expenses.

8.3.1 In addition to the payments required by Sections 8.1 and 8.2 above, the Owner shall reimburse Design-Builder for all costs incurred by Design-Builder in performing the O&M Services to the extent the nature and amount of such costs and expenses: (a) are incurred in connection with the performance of any Unscheduled Maintenance, as approved in advance by Owner; or (b) are incurred in connection with an emergency under Section 6.2 hereof (collectively, the "Reimbursable Expenses").

[If the parties elect Flat Monthly Payments under Sections 8.1.1 and 8.1.2, then the following clauses may be used as well]:

8.3.2 Design-Builder shall not incur Reimbursable Expenses unless they are incurred in accordance with the applicable Annual Budget, or are permitted by Section 8.3.1, above. If Design-Builder becomes aware that Reimbursable Expenses exceed or will exceed the amount provided in the applicable Annual Budget by _____ percent (____%) or more, Design-Builder shall use all reasonable efforts to notify Owner in writing within ten (10) days and shall not, without Owner's approval to amend the applicable Annual Budget or Owner's authorization for Design-Builder to make such expenditure, perform any further Services that will cause or increase a budget overrun, except as provided in Sections 6.2.1 and 8.3.1 (Unscheduled Maintenance or emergencies). If Owner refuses to authorize expenditures in excess of the Annual Budget,

Design-Builder shall be relieved of those duties or obligations of this Exhibit that cannot be performed without the expenditures the Owner refuses to approve.

8.4 Annual Incentive Fee.

8.4.1 As incentive for Design-Builder to maximize profitability and efficiency of operation of the Facility, Design-Builder shall be entitled to receive at the end of each Project Year an additional fee (the "Incentive Fee") based on Owner's Pre-Tax Net Income ("PTNI") from the Facility for such Project Year. The Incentive Fee shall be calculated in accordance with the following formula:

Incentive Fee = (____% x PTNI), where PTNI shall be equal to the positive difference (if any) between the amount of the Facility's net pre-tax net income before payment of the Incentive Fee, as determined in accordance with generally accepted accounting principles, and the projected pre-tax net income as set forth in the annual profit plan prepared by Owner for such year.

8.4.2 As soon as practicable, but in no event later than ninety (90) days after the end of each Project Year, Owner shall deliver to Design-Builder a statement, together with all reasonable, necessary and appropriate supporting documentation, calculating the amount of Incentive Fee due to Design-Builder. Such Incentive Fee, if any, shall be due and payable by Owner to Design-Builder within ten (10) days after receipt of Design-Builder's statement agreeing to such calculation.

8.4.3 Notwithstanding the foregoing provisions, no Incentive Fee will be paid to Design-Builder for a Project Year if in such Project Year either (or both) of the following events occurs:

1. **Safety Standard:** The number of accidental injuries at the Facility, incurred by Design-Builder's personnel, *[or Owner's personnel under Design-Builder's direction and supervision]* which injuries cause lost work time, require professional medical care, and are not caused by forces or events which are completely beyond Design-Builder's reasonable control and which do not relate to work at the Facility, is greater than:
 - (i) _____ as to the period beginning with the commencement of the Project Year and ending upon the end of December 31 of that year; or
2. **Environmental Standard:** An environmental or other regulatory fine which: (1) relates to operation of the Facility, and (2) arises by sole reason of Design-Builder's negligent or willful misconduct, is levied against Owner or Design-Builder, after any appeals are exhausted.

8.4.4 Notwithstanding the foregoing provisions, in no event will any Incentive Fee exceed \$_____per Project Year, or \$_____in the aggregate during the O&M Term.

8.5 Additional Services.

8.5.1 Major Equipment Teardowns and Overhauls. The costs of all major equipment teardowns and overhauls required by normal operations of the Facility (not caused by a Defect in the Facility attributable to the Design-Builder), shall be performed by Design-Builder for additional compensation, not included in Sections 8.1 through 8.4, above. For all such work, the parties shall enter into a Change Order as a supplement to this Exhibit and Owner shall reimburse Design-Builder for such costs either on a Lump Sum basis, or on a Cost-Plus Fee basis, where the Design-Builder's fee shall be _____ percent (____%) of the actual verified cost of the work.

8.5.2 Capital Improvements. Any capital improvements made to the Facility by the Owner during the O&M Term shall be made by Owner's separate contractors unless the cost of such improvement is less than \$_____ per year (the "Capital Improvements Cap"). For all such

improvements within the Capital Improvements Cap, the parties shall enter into a Change Order as a supplement to this Exhibit and Owner shall reimburse Design-Builder for such costs either on a Lump Sum basis, or on a Cost-Plus Fee basis, where the Design-Builder's fee shall be [] percent ([]%) of the actual verified cost of the work.

8.5.2.1 If, however, Owner makes capital improvements in excess of the Capital Improvements Cap, then Design-Builder shall have the right to submit a proposal for such work. If the Owner hires another contractor to perform such capital improvements, then Design-Builder shall for an agreed additional fee, schedule, coordinate and oversee the performance of such activities on the Owner's behalf as Owner's agent and construction manager. The parties shall enter into an appropriate separate written agreement or amendment to the Design-Build Agreement for such construction management services.

8.6 Taxes. In addition to any other compensation to be paid to Design-Builder under this Article 8, Owner shall pay and shall indemnify and hold Design-Builder harmless from any taxes (including without limitation any gross receipt taxes), levies, imposts, duties, charges or withholdings of any nature whatsoever imposed upon the Facility, the real property or leasehold interest upon which the Facility or any part thereof is located, by any federal, state or local government or taxing authority; or upon or with respect to any receipts or earnings arising therefrom (excepting only any taxes, levies, duties, charges or withholdings imposed upon Design-Builder or its employees by virtue of the fees payable to Design-Builder hereunder).

8.7 Interest. Payments due and unpaid by Owner to Design-Builder, whether progress payments or final payment, shall bear interest commencing five (5) days after payment is due at the rate specified in the Design-Build Agreement. If no such rate is specified, then interest shall accrue at the highest applicable statutory rate.

ARTICLE 9 REPRESENTATIVES AND NOTICE

9.1 Owner and Design-Builder shall each designate a representative (hereafter "Designated O&M Representative") to act on its behalf in overseeing the performance of the services required by this Exhibit during the O&M Phases. Owner and Design-Builder may change their respective Designated O&M Representatives upon seven (7) days' written notice to the other party. Designated O&M Representative shall be the primary means for communication and all other interactions between Owner and Design-Builder that are required during the O&M Phases. Designated O&M Representatives shall have the power and authority to bind their respective principals under this Exhibit. In the event of temporary leave due to normal vacation, sickness, or other cause, the parties shall designate an interim representative in writing who shall have full authority to act on behalf of such party until the Designated O&M Representative returns to full-time duties.

9.2 Owner's O&M Representative.

(Identify individual's name, title, address and telephone numbers, including emergency number)

9.3 Design-Builder's O&M Representative.

(Identify individual's name, title, address and telephone numbers, including emergency number)

ARTICLE 10 FINANCIAL LIMITATIONS

10.1 Limitation of Liability.

10.1.1 The total aggregate liability of Design-Builder with respect to this Exhibit and the O&M Services, under any theory of recovery, whether based on contract, in tort (including negligence and strict liability), under warranty, or otherwise, and notwithstanding any other provision of the Design-Build Agreement, shall be limited for any act, error or omission that occurs in any Project Year to the amount of compensation under Article 8 received by the Design-Builder in that Project Year. For any claim that relates to one or more continuous acts, errors or omissions that occur over several Project Years, then the aggregate liability of Design-Builder for the same shall be the total amount received by Design-Builder under this Exhibit for all such Project Years in the aggregate, but in no event more than _____ (\$_____). Each claim by Owner shall be identified separately and distinctly for each act, error or omission and the Project Year in which it occurred, and not combined solely for the purpose of increasing the aggregate limitation of liability over multiple Project Years.

10.1.2 The limitation on the aggregate liability of Design-Builder under this Section 10.1.1 shall not apply to: (a) intentional, fraudulent or willful misconduct, nor gross negligence of Design-Builder, nor (b) any claim by Owner for indemnity and defense related to a claim by a third-party against Owner, where such third-party is not an affiliate, subsidiary, parent or related entity of the Owner. The availability of insurance proceeds or lack thereof shall not affect Design-Builder's liability as contemplated in this Section 10.1.1.

10.2 Warranty and Disclaimer.

10.2.1 Design-Builder makes no guarantees or warranties of any kind in connection with its performance of O&M Services under this Exhibit other than that it shall perform the O&M Services in a good and workmanlike manner in accordance with prevailing industry standards.

10.2.2 EXCEPT AS STATED IN SECTION 10.2.1, DESIGN-BUILDER EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES OF ANY NATURE WHATSOEVER WHETHER STATUTORY, ORAL, WRITTEN, EXPRESS, OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Owner and Design-Builder hereby acknowledge that this Exhibit is not intended to and does not replace or mitigate any of the express warranties provided by Design-Builder under the Design-Build Agreement, which warranties shall survive as relates to the Work performed under that agreement, and not the O&M Services under this Exhibit.

ARTICLE 11 MISCELLANEOUS

11.1 This Exhibit shall not modify or alter the Design-Build Agreement, except as expressly set forth in this Exhibit.

11.2 Disputes arising out of this Exhibit shall be resolved pursuant to Article 10 of the General Conditions of Contract.

11.3 The following Appendices are attached hereto and incorporated herein by this reference:

- Appendix A: SCOPE OF O&M SERVICES
- Appendix B: SCHEDULED MAINTENANCE
- Appendix C: THIRD-PARTY AGREEMENTS
- Appendix D: HANDBACK REQUIREMENTS

11.4 Other provisions:

[Either insert additional terms here, or reference supplemental terms as an Appendix]

OWNER:

DESIGN-BUILDER:

(Name of Owner)

(Name of Design-Builder)

(Signature)

(Signature)

(Printed Name)

(Printed Name)

(Title)

(Title)

Date: _____

Date: _____

Caution: You should sign an original DBIA document which has this caution printed in blue. An original assures that changes will not be obscured as may occur when documents are reproduced.

APPENDIX A SCOPE OF O&M SERVICES

DESIGN-BUILDER SHALL PERFORM EACH OF THE SERVICES LISTED IN THIS APPENDIX A IN ACCORDANCE WITH THE STANDARDS REQUIRED UNDER THIS EXHIBIT.

[Note to User: The specific obligations of the Design-Builder will depend on the Facility. The following provisions are illustrative only, and are provided to identify some of the possible areas of O&M Services and show the level of detail that may be appropriate].

A.1. Programs and Standards.

In addition to those responsibilities described in the Design-Build Agreement, Design-Builder shall be responsible for the establishment and implementation of the following programs, standards and procedures, which require Owner's written approval and which are included in the O&M Services to be provided by Design-Builder:

- A. A program for establishing specific operating goals for each functional area of the Facility, for managing resources to minimize personnel turnover, and for qualifying personnel, to operate and maintain the Facility (including the basis for qualification of personnel).
- B. A program for communicating and cooperating with Owner, with Third-Parties and governmental agencies.
- C. Facility management standards for conduct of operations, safety, conduct of maintenance, housekeeping, material condition, and records management.
- D. A program for preparing supporting documentation, equipment and meter readings and information necessary to accurately prepare, justify and support monthly invoices in accordance with the terms and conditions of the Owner's Third-Party Agreements.
- E. Developing procedures used to operate the Facility as well as monitoring, evaluating, and proposing revisions to such procedures.
- F. A Facility operations and monitoring program which provides the requirements for:
 - 1. Monitoring of Facility Performance
 - 2. Monthly Facility Performance Calculations and Report
 - 3. Monthly Fuel Consumption Calculations and Report
 - 4. Facility Permitting and Environmental Reporting
 - 5. Shift Routines / Operating Practices
 - 6. Control of Equipment
 - 7. Facility Chemistry Control and Water Treatment
 - 8. Training Programs
 - 9. Design-Builder Qualifications
 - 10. Operating Procedures
 - 11. Status of Major Equipment
- G. A maintenance program which provides the requirements for:
 - 1. Maintenance Planning
 - 2. Maintenance Procedures
 - 3. Preventive Maintenance
 - 4. Predictive Maintenance
 - 5. Maintenance Training
- H. A materials management program which provides the requirements for:
 - 1. Procuring Materials and Tools
 - 2. Inventory Levels and Control
 - 3. Renewal of Inventories

- I. A diagnostic testing program for maintaining the Facility and Project equipment, including both system and component level testing.
- J. A housekeeping / cleanliness program which provides the requirements for:
 - 1. Hazardous Material Control
 - 2. General Facility Cleanliness
 - 3. Equipment Condition Inspections
 - 4. Hazardous Waste Program
- K. A problem assessment program which provides the procedure for determining the cause(s) of operational or equipment failures and preventing future failures through recommended improvements, including justification for such recommendations (i.e., basis of recommendation and economic analysis).
- L. A records management program for maintaining the traceability and documentation of Facility performance.
- M. A Facility safety program which provides the requirements for establishing:
 - 1. Safety Monitoring
 - 2. Accident Prevention Program
 - 3. Accident Reporting
- N. Monthly and yearly reporting systems of Facility performance to Owner.
- O. A security program for maintaining the security of the Facility and surrounding area.

A.2. O&M Services.

Design-Builder shall be responsible for the following O&M Services to be provided, furnished or performed by Design-Builder:

- A. Review as-built drawings of the Facility for accuracy, after such drawings become available.
- B. Maintain all spare parts, tools, equipment, goods, and other items and materials that are necessary to operate and maintain the Facility in accordance with industry standards and the requirements, if any, of Third-Party Agreements. Design-Builder shall also maintain an inventory listing of spare parts, tools, equipment, goods, and other items and materials provided to Design-Builder by Owner or its contractors, vendors or suppliers.
- C. Inspect and check equipment and systems at the Facility at the start of the O&M Phases and at such regular intervals as are agreed to by Owner and Design-Builder, or are required by: (a) Legal Requirements; or, (b) Third-Party Agreements.
- D. Training and Staffing.
 - 1. Provide all operating and maintenance personnel to be trained, and coordinate training of Owner's personnel by Design-Builder.
 - 2. Establish and maintain a sufficient management staff to oversee, and work force to perform, the O&M Services.
 - 3. Schedule, hire, and supervise employees, subcontractors, vendors and (if applicable) Owner's employees as may be necessary for the performance of services hereunder.
- E. Startup Activities.
 - 1. Establish startup and operating procedures for the Facility.
 - 2. Coordinate startup activities of the Facility with Owner and any third parties, such as steam host, fuel suppliers and any purchasing utilities.

3. Furnish qualified startup personnel and operators during, and participate in, pre-startup, startup, mechanical check-out and testing.
- F. Prepare an operation and maintenance manual for the Facility.
- G. Establish, in conjunction with the Owner, safety rules for the Facility consistent with all Legal Requirements and permits and industry practices.
- H. To the extent not provided by Owner, acquire, on behalf of Owner an initial supply and stock of operating supplies and consumables for the Facility.
- I. To the extent not provided by Owner, acquire, on behalf of Owner an initial stock of maintenance tools, and prepare an initial inventory of spare parts.
- J. Monitor performance tests, and review with Owner the results of such checks and tests.
- K. Third-Party Agreements.
 1. Cooperate with the authorized representatives of Owner and any parties to Third-Party Agreements identified in Appendix C to this Exhibit (e.g. steam host, purchasing utilities, fuel suppliers) in the various activities and duties to be performed under the provisions of the applicable Third-Party Agreements, if any.
 2. Respond to requests, if any, from parties to Third-Party Agreements in writing, with a copy to Owner, which relate to the operation or maintenance of the Facility.
- L. Operating and Maintenance Records.
 1. Monitor and record all daily operating and maintenance data and information for the Facility that: (a) Owner has identified in writing that it must report to any person or entity; (b) Owner must report to any government agency or other person or entity under Legal Requirements; and, (c) Owner reasonably requests. Design-Builder shall furnish such information in writing to the Owner containing such information as Owner may reasonably request on a monthly basis by the fifth (5th) day of each month in such format as is required by Owner, or by any Third-Party Agreements.
 2. Maintaining adequate records of emissions data for the Facility, if required by environmental control agencies and Owner's standard practices, and furnishing to the Owner and any governmental agencies any reports and other information required to comply with Legal Requirements, regulations, ordinances, and permits, with any such reports and information maintained by Design-Builder being the property of Owner and being transferred to Owner on termination of the O&M Services.
 3. Maintain appropriate records for and preparing, presenting and prosecuting applications for all permits, licenses and approvals (or renewals thereof) required for operation and maintenance of the Facility.
- M. Report to Owner any material failure or reasonably anticipated material failure to operate and maintain the Facility in accordance with any laws, Third-Party Agreements, manufacturers' warranties, or permits applicable to the operation and maintenance of the Facility, any actual or reasonably anticipated disruption in production or operation of the Facility, any actual or reasonably anticipated disputes with any parties to Third-Party Agreements or suppliers to Owner, and any actual or reasonably anticipated labor disorders;
- N. Coordinate on-site actions with regard to and documenting support for any and all warranty and other claims against suppliers of materials and equipment to the Facility, and any claims against any insurance carriers for payment of claims, liabilities or losses in connection with the Facility or its operation covered by such insurance, all as may be from time to time requested by the Owner.
- O. Cooperate with Owner and Owner's designated auditor(s), accountant(s) and lawyer(s) with respect to any audit or review of Facility operating and maintenance practices; provided,

however, that no such auditor will be, in Design-Builder's reasonable discretion, a competitor to Design-Builder.

P. Dispose of waste products from the Facility in compliance with all Legal Requirements, regulations, ordinances, and permits.

Q. Safety.

1. Cause Design-Builder's employees, personnel, agents, visitors, and subcontractors to comply with any safety rules and standards: (a) required by applicable law; (b) implemented pursuant to this Exhibit, if any; (c) as Owner may from time to time promulgate and make known to Design-Builder, including those regarding access to the Site.

2. Maintain adequate records of any accidents occurring at the Facility, including the frequency, cause and severity and corrective action taken with respect thereto.

3. Cooperate with Owner in reporting to any insurers and responsible parties on any accidents that result in personal injury or property damage.

4. Promptly and effectively responding to emergencies pertaining to the Facility or the Project site, subject to Section 6.2 of this Exhibit.

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APPENDIX B SCHEDULED MAINTENANCE

Scheduled Maintenance includes any and all maintenance, repair and replacement requirements of the Facility during a Project Year, which include:

B.1 Those maintenance activities contemplated, either generally or specifically, in the Approved Annual Plan, or any approved revision thereof, for such Project Year; and

B.2 Routine maintenance of the Facility, including but not limited to, prompt repairs of holes, joints, drains; patching; crack sealing and temporary repairs and patching of Defects with appropriate materials and workmanship to operate that portion of the Facility until a permanent repair can be made.

B.3 Minor maintenance, repair and replacement requirements typically performed by operators of similar Facilities as part of their basic maintenance obligations and compensation. It is agreed and understood that maintenance items capable of being performed at a cost of less than _____ (\$_____) (or at an aggregate cost, including all such items in such Project Year, in an amount that will be agreed upon by the parties in each Approved Annual Plan), do not constitute Unscheduled Maintenance and are to be considered as covered by the Approved Annual Plan.

B.4 Other maintenance:

[For example, clarify if the Design-Builder is responsible for such things as repairing cracks, leaks, equipment failures, vegetation control, litter removal, sign maintenance, guardrail, pavement markings, traffic signals, winter maintenance, snow and ice removal, emergency response services, maintenance of traffic, etc.]

APPENDIX C THIRD-PARTY AGREEMENTS

Owner identifies the following Third-Party Agreements which set out any operation and/or maintenance duties required of Owner, to be fulfilled by Design-Builder (e.g. power purchase agreement, steam sales agreement, and any other side letters or other agreements directly relating to the same).

[List such Third-Party Agreements here]

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APPENDIX D HANDBACK REQUIREMENTS

At the end of the O&M Term, when the Owner assumes responsibility for the operation and maintenance of the Facility, the Facility shall be free from any Defect other than those due to normal and customary wear and tear and shall comply with any other Handback Requirements set out below:

D.1 GENERAL

This Appendix D sets forth the minimum requirements for handback of the Facility at the end of the O&M Term, including exit plans, procedures, standards and reporting.

D.2 HANDBACK REQUIREMENTS

At the end of the O&M Term, Design-Builder shall hand back the Facility to the Owner in a condition that meets or exceeds the requirements in Section 7.1 of this Exhibit and the Facility shall:

- Fully comply with the requirements of any applicable governmental authority, Legal Requirements, standards, guidelines, permits and approvals;
- Be in good condition and operating order, excluding normal customary wear and tear, and shall not have any structural faults or Defects; and
- Be in a condition such that the Facility (including, for greater certainty, any existing facilities included in the Facility) shall continue to function in accordance with the Owner's technical requirements, and Design-Builder's design, subject to normal customary wear and tear for a period of [REDACTED] (____) years beyond the end of the O&M Term with no requirement for capital expenditure provided that the Facility is operated and maintained by the Owner from the expiration of the O&M Term in accordance with good industry practice.

D.3 HANDBACK INSPECTIONS

D.3.1 Not less than [REDACTED] months prior to the expiration of the O&M Term, Design-Builder and the Owner will meet to discuss the schedule of Handback Inspections contemplated in Section 7.2 of this Exhibit.

D.3.2 Following each Handback Inspection under Section 7.2.1, Design-Builder shall within:

- (a) 45 days of the initial Handback Inspection;
- (b) 30 days of the second Handback Inspection; and,
- (c) 15 days of the third Handback Inspection,

prepare and deliver to the Owner a comprehensive workplan and schedule acceptable to the Owner, acting reasonably, designed to verify that the Facility will meet the Handback Requirements upon expiration of the O&M Term, including a valuation of the existing spares inventory and a plan for remedying any shortages. Following delivery and acceptance of such workplan and schedule, Design-Builder shall keep the Owner fully advised of all activity and progress in carrying out the workplan.

D.4 HANDBACK TEST PROCEDURES

D.4.1 General

Design-Builder shall perform and record the handback test procedures in accordance with this Appendix D including:

[list applicable tests here, specific to the Facility for this Project]

The Facility will be deemed to have passed the handback tests if the results for every component listed above comply with the Owner's technical requirements and the test standards and criteria identified above, and all components and systems operate successfully throughout the tests without any Unplanned Maintenance or other unplanned operator intervention.

D.4.2 Monitoring Requirements
[list any monitoring requirements here]

D.5 HANDBACK STANDARDS

The ability of the Facility to meet the Owner's technical requirements shall be demonstrated during handback testing, including demonstration of the following:

- The Facility operates properly with only the normal staffing of employees, with the exception of additional Design-Builder staffing deployed specifically to perform the handback test activities;
- The Facility complies with the requirements of any applicable governmental authority, Legal Requirements, standards, guidelines, permits and approvals at all times;
- The Facility operates properly in automatic control, including automatic shut-down and startup of equipment as intended in Design-Builder's design.

D.6 HANDBACK REPORT

The handback report(s) shall be prepared in accordance with this Appendix D, and the handback test procedures set out herein and shall include at a minimum:

- A certification that testing was conducted in accordance with the accepted handback test procedures and standards;
- A certification of the results of the testing with respect to each of the handback test procedures and standards, each of which shall be addressed separately and the basis for the determination presented and this certification of results of the testing shall include a determination of the extent to which the facilities comply with the applicable performance requirements;
- All data measured and recorded during the handback tests including laboratory analyses, instrument calibrations and measurement;
- All calculations used in determining test results;
- Record of equipment outages, failures and preventative maintenance performed during the handback tests; and
- Any other data reasonably requested by the Owner to be included in the handback report.

All certifications shall be signed and sealed by the Design-Builder's Engineer of Record.

D.7 HANDBACK TEST FAILURE

Any failure to meet handback test procedures and standards during the handback testing shall require the failed handback test to be repeated. Failure to continuously demonstrate the handback test procedures and standards during the period of the handback tests shall constitute a failure of the handback test. Any failure of a handback test shall require: (i) correction of those components or conditions that resulted in the failure; and (ii) performance of a repeat of the handback test after proper notification is provided to the Owner.

D.8 FINAL EVALUATION

Before the end of the O&M Term, Design-Builder shall provide the Owner with a full set of Facility management data including, but not be limited to, the following:

- Up to date Facility inventory;

- Complete set of performance data of the Facility;
- Complete records of repair, renewal and replacement for the Facility;
- Current Facility condition status;
- Current spares inventory status;
- Design-Builder's current Facility predictive and preventive maintenance programs; and
- An updated list of recommended spare parts requirements at the end of the O&M Term.

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dbia@dbia.org

Exhibit D
Insurance Requirements E-INS-I

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Insurance Exhibit

Design-Builder’s Insurance Requirements

(The Parties should consult their insurance advisors prior to completing this Exhibit)

1.1 Insurance Types and Limits.

1.1.1 Design-Builder shall purchase and maintain insurance of the types, with the limits required, containing such endorsements and subject to such terms and conditions as follows, as well as Article 5 of DBIA Document No. 535, *Standard Form of General Conditions of Contract Between Owner and Design-Builder* (2022 Edition):

- **Additional Insured Endorsements:**
- Owner (Portland Water District) and its officers, directors, employees, members, agents, consultants, and subcontractors included on:
 - General Liability
 - Automobile Liability
 - Umbrella/Excess Liability
 - Contractors Pollution Liability
- Coverage includes ongoing **operations and products/completed operations**.
- ISO Endorsements **CG 20 10 10 01** and **CG 20 37 10 01**, or equivalent.
- **Waiver of Subrogation:** Workers’ Compensation and applicable policies in favor of Owner.
- Professional Liability: Retroactive date must pre-date project service commencement. Coverage maintained through duration of project plus 3-year post Substantial Completion reporting period.

| Type of Insurance A-VII or higher | Limits Required Per Claim/Occurrence | Limits Required Aggregate Policy Limits |
|---|---|--|
| 1. Worker’s Compensation | Statutory Limits | Statutory Limits |
| 2. Employer’s Liability (Bodily Injury by Accident) | \$1,000,000 | \$1,000,000 |
| Waiver of Subrogation in favor of Owner-Yes | | |
| 3. Commercial General Liability | \$1,000,000 | \$2,000,000 |
| b. Bodily Injury/Property Damage aggregate limit | | \$1,000,000 |
| c. Products/Completed Operation aggregate limit | | \$2,000,000 |

| Type of Insurance A-VII or higher | Limits Required Per Claim/Occurrence | Limits Required Aggregate Policy Limits |
|---|---|--|
| d. Personal and Advertising Injury aggregate limit | \$1,000,000 | |
| 4. Professional Liability (Design-Builder) | \$10,000,000 | \$10,000,000 |
| 5. Commercial Automobile Liability | Combined Single Limit \$1,000,000 | |
| 6. Contractor's Pollution Liability including coverage for microbial matter (if applicable) | \$10,000,000 | \$10,000,000 |
| 7. Umbrella/Excess Liability Insurance | \$10,000,000 | \$10,000,000 |
| 8. Other Coverages required: | \$ | \$ |

1.1.2 The insurance required by Section 1.1.1 shall be written for not less than the limits required in the table above or required by law, whichever coverage is greater. Coverages, whether written on an occurrence or claims-made basis, shall be maintained without interruption from date of commencement of the Work until date of Final Payment, unless noted below.

1.1.3

1.1.3(A) Professional Liability Insurance To Be Provided By Design Consultant. Such policies must provide coverage for the scope of professional services to be provided by or on behalf of Design Consultant. *[Note: Design-Builder should obtain its own professional liability coverage.]*

The requirement for professional liability coverage on this Project shall be the standard form practice policy provided by Design Consultant.

Design-Builder shall provide Owner with prior written notice of any cancellation or non-renewal of Design Consultant's practice policy and shall include in the Design Consultant Agreement a provision requiring Design Consultant to give Design-Builder 30 Days' written notice of any cancellation or non-renewal.

1.1.3(A).1 Faulty Work exclusion, limitation or restriction can only be applicable to the work self-performed by Design Consultant.

1.1.3(A).2 If any portion of the design or other professional service is to be performed by any person or entity other than Design Consultant then it is the responsibility of Design Consultant to require that such person or entity provide Design-Builder and Design Consultant with evidence of insurance to comport with this Exhibit.

1.1.3(B) Professional Liability Insurance To Be Provided By Design-Builder. Such policies must provide coverage for the scope of professional services to be provided by or on behalf of Design-Builder.

The requirement for professional liability coverage on this Project shall be the standard form practice policy provided by Design-Builder.

Design-Builder shall provide Owner with prior written notice of any cancellation or non-renewal of Design-Builder's practice policy.

1.1.3(B).1 Faulty Work exclusion, limitation or restriction can only be applicable to the work self-performed by Design-Builder.

1.1.3(B).2 If any portion of the design or other professional service is to be performed by any person or entity other than Design-Builder then it is the responsibility of Design-Builder to require that person or entity provide Design-Builder with evidence of insurance to comport with this Exhibit.

1.1.4 Any coverage required to be maintained after Final Payment shall be identified below.

1. **Professional Liability (Errors & Omissions):** 3 years after Substantial Completion.
2. **Contractors Pollution Liability:** 3 years after Substantial Completion.
3. **Products & Completed Operations:** 3 years after Substantial Completion.

2.1 Coverage Parameters and Endorsements.

2.1.1 Commercial General Liability Insurance shall be written on an occurrence basis, utilizing standard ISO unmodified coverage form (latest edition) or equivalent. Endorsements excluding, restricting or limiting coverage may be acceptable under certain circumstances provided the same are agreed upon by Owner and Design-Builder.

2.1.2 General Liability, Automobile Liability, Worker's Compensation/Employer's Liability and Umbrella/Excess Liability policies shall each include the following endorsements:

2.1.2.1 Unintentional Errors and Omissions Endorsement

2.1.2.2 Notice of Occurrence Endorsement

2.1.2.3 Knowledge of Occurrence Endorsement

2.1.3 Commercial Automobile Liability coverage shall be provided by standard ISO Commercial Automobile Policy covering all Owned, Non-Owned and Hired Vehicles.

2.1.4 Umbrella/Excess Liability must schedule Commercial General Liability, Automobile Liability and Employer's Liability as underlying policies. The Umbrella/Excess Liability policies shall be written in accordance with the scheduled underlying policies and must be as broad as the underlying policies.

2.1.5 Contractor's Pollution Liability shall either be written on an occurrence or claims-made basis. If written on a claims-made basis, the policy must comport to Section 4.1.4.

2.1.5.1 If applicable, the policy is to provide coverage for off-site transportation. When required, coverage is also to be provided for claims involving materials removed from the site and brought to non-owned off-site disposal, treatment and storage facilities.

2.1.5.2 Any restriction, limitation or exclusion related to naturally occurring substances must be modified so as not to apply to microbial matter and the release of such naturally occurring substances as a result of the performance of operations or materials/equipment brought to the site by Design-Builder.

3.1 Additional Insureds

3.1.1 Owner and Owner's officers, directors and employees shall be included as an additional insured on general liability, umbrella/excess and automobile liability policies of insurance required above of Design-Builder and its Subcontractors and Design Consultants. If required, as set forth above, Owner shall also be included as an additional insured on Design-Builder's Contractor's Pollution Liability policy of insurance. No person shall be named as an additional insured on any professional liability or worker's compensation/employer's liability policies. Coverage granted to an additional insured shall be primary and that coverage independently carried by an additional insured shall not contribute. Design-Builder shall furnish to Owner a copy of all Certificates of Insurance showing Owner as additional insured as set forth above. Design-Builder shall require Subcontractors and Design Consultants of any tier to furnish such certificates, and upon request of the same will furnish them to Owner. Owner shall not be an additional insured on any other of Design-Builder's policies except for those which are specifically listed below:

- **Commercial General Liability** (including ongoing and completed operations)
- **Automobile Liability**
- **Umbrella / Excess Liability**
- **Contractors Pollution Liability**

3.1.2 Each of the policies designated in section 3.1.1 is to provide a waiver of subrogation in favor of those persons or entities included as additional insureds. A waiver of subrogation is also to be provided to such entities under Worker's Compensation/Employer's Liability policies, where allowed by law. List here any other coverages required to provide a waiver of subrogation in favor of those persons or entities included as additional insureds:

- **Commercial General Liability**
- **Automobile Liability**
- **Umbrella/ Excess Liability**
- **Contractors Pollution Liability**
- **Workers' Compensation/Employer's Liability**

3.1.3 Additional Insured coverage provided under the Commercial General Liability/Umbrella/Excess and, if applicable, Design-Builder's Contractor's Pollution Liability policies, shall cover both the premises/operations and completed operations hazards.

4.1 Terms and Effective Dates.

4.1.1 If the General Liability coverages are provided by a Commercial General Liability Policy on a claims-made basis, the policy date or retroactive date shall predate the Agreement.

4.1.2 If Contractor's Pollution Policy is made on a claims-made basis, the policy date or retroactive date shall predate the Agreement.

4.1.3 Professional Liability coverage shall be retroactive to the date that professional services first commenced.

4.1.4 All claims-made policies, including without limitation, Professional Liability coverage provided on a Project specific basis, must be maintained by Design-Builder for three years from Substantial Completion or shall include an extended reporting period of three years beyond the date for Substantial Completion of the Project, unless otherwise specified.

4.1.5 List here any coverage required to be maintained after Final Payment:

Exhibit E

Hourly Rate Table for Design, Build, and Operator

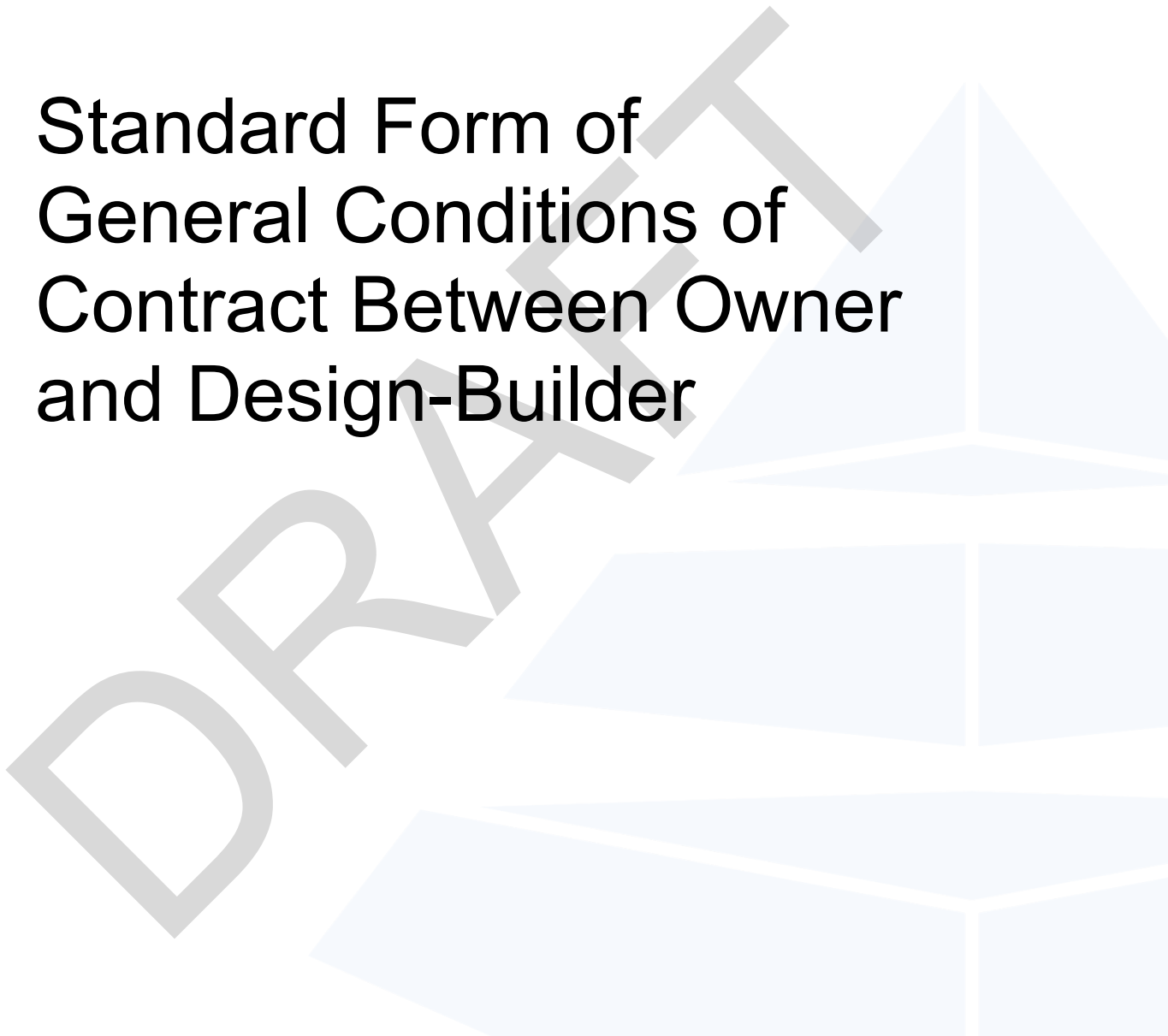
Pricing information to be inserted after negotiations with the selected Design-Builder. RFQ Attachment G outlines the Pricing Information, including hourly rates.

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Attachment B: DBIA General Conditions

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Standard Form of
General Conditions of
Contract Between Owner
and Design-Builder



Document No. 535

Third Edition, 2022

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Washington, D.C.



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Article 1

General

1.1 Mutual Obligations.

1.1.1 *Owner and Design-Builder* commit at all times to cooperate fully with each other and proceed on the basis of trust and good faith, to permit each party to realize the benefits afforded under the Contract Documents.

1.2 Basic Definitions.

1.2.1 *Agreement* refers to the executed contract between Owner and Design-Builder under DBIA Document No. 545, *Standard Form of Progressive Design-Build Agreement for Water and Wastewater Projects* (2024 Edition) as amended.

1.2.2 *Basis of Design Documents* are as follows: For DBIA Document No. 545, *Standard Form of Progressive Design-Build Agreement for Water and Wastewater Projects as amended*, the Basis of Design Documents are Owner's Project Criteria, Design-Builder's Proposal and the Deviation List, if any.

1.2.3 *Construction Documents* are the documents, consisting of Drawings and Specifications, to be prepared or assembled by Design-Builder consistent with the Basis of Design Documents unless a deviation from the Basis of Design Documents is specifically set forth in a Change Order executed by both Owner and Design-Builder, as part of the design review process contemplated by Section 2.4 of these General Conditions of Contract.

1.2.4 *Day or Days* shall mean calendar days unless otherwise specifically noted in the Contract Documents.

1.2.5 *Design-Build Team* is comprised of Design-Builder, Design Consultant, and key Subcontractors identified by Design-Builder.

1.2.6 *Design Consultant* is a qualified, licensed design professional who is not an employee of Design-Builder, but is retained by Design-Builder, or employed or retained by anyone under contract with Design-Builder, to furnish design services required under the Contract Documents. A Design Sub-Consultant is a qualified, licensed design professional who is not an employee of Design Consultant but is retained by Design Consultant or employed or retained by anyone under contract to Design Consultant, to furnish design services required under the Contract Documents.

1.2.7 *Design Submission* means any and all documents, shop drawings, electronic information, including computer programs and computer generated materials, data, plans, drawings, sketches, illustrations, specifications, descriptions, models, and other information developed, prepared, furnished, delivered or required to be delivered by, or for, Design-Builder.

1.2.8 *Final Completion* is the date on which all Work is complete in accordance with the Contract Documents, including but not limited to, any items identified in the punch list prepared under Section 6.6.1 and the submission of all documents set forth in Section 6.7.2.

1.2.9 *Force Majeure Events* are those events that are beyond the control of both Design-Builder and Owner, including the events of war, floods, labor disputes, earthquakes, epidemics, adverse weather conditions not reasonably anticipated, and other acts of God.

1.2.10 *General Conditions of Contract* refer to this DBIA Document No. 535, *Standard Form of General Conditions of Contract Between Owner and Design-Builder* (2022 Edition) as amended.

1.2.11 *Intentionally omitted.*

1.2.12 *GMP Proposal or Proposal* means that proposal developed by Design-Builder in accordance with Section 1.3 of DBIA Document No. 545, *Progressive Design-Build Agreement for Water and Wastewater Projects*.

1.2.13 *Hazardous Conditions* are any materials, wastes, substances and chemicals deemed to be hazardous under applicable Legal Requirements, or the handling, storage, remediation, or disposal of which are regulated by applicable Legal Requirements.

1.2.14 *Legal Requirements* are all applicable federal, state and local laws, codes, ordinances, rules, regulations, orders and decrees of any government or quasi-government entity having jurisdiction over the Project or Site, the practices involved in the Project or Site, or any Work.

1.2.15 *Owner's Project Criteria* are developed by or for Owner to describe Owner's program requirements and objectives for the Project, including use, space, price, time, site and expandability requirements, as well as submittal requirements and other requirements governing Design-Builder's performance of the Work. Owner's Project Criteria may include conceptual documents, design criteria, design performance specifications, design specifications, and LEED® or other sustainable design criteria and other Project-specific technical materials and requirements.

1.2.16 *Site* is the land or premises on which the Project is located.

1.2.17 *Subcontractor* is any person or entity retained by Design-Builder as an independent contractor to perform a portion of the Work and shall include materialmen and suppliers.

1.2.18 *Sub-Subcontractor* is any person or entity retained by a Subcontractor as an independent contractor to perform any portion of a Subcontractor's Work and shall include materialmen and suppliers.

1.2.19 *Substantial Completion* is the date on which the Work, or an agreed upon portion of the Work, is sufficiently complete in accordance with the Contract Documents so that Operator can occupy and use the Project or a portion thereof for its intended purposes, provided, however, that Substantial Completion shall be deemed to have been achieved no later than the date of issuance of a Temporary Certificate of Occupancy issued by the local building official, if a Temporary Certificate of Occupancy is applicable to the Project." **1.2.20** *Work* is comprised of all Design-Builder's design, construction and other services required by the Contract Documents, including procuring and furnishing all materials, equipment, services and labor reasonably inferable from the Contract Documents.

Article 2

Design-Builder's Services and Responsibilities

2.1 General Services.

2.1.1 Design-Builder's Representative shall be reasonably acceptable to and available to Owner and shall have the necessary expertise and experience required to supervise the Work. Design-Builder's Representative shall communicate regularly with Owner and shall be vested with the authority to act on behalf of Design-Builder. Design-Builder's Representative may be replaced only with the mutual agreement of Owner and Design-Builder. The Design-Builder's Representative shall not be changed without the Owner's approval which shall not be unreasonably withheld or delayed.

2.1.2 Unless the parties agree on a different time period for submission of a status report,

Design-Builder shall provide Owner with a monthly status report detailing the progress of the Work, including (i) whether the Work is proceeding according to schedule; (ii) whether discrepancies, conflicts, or ambiguities exist in the Contract Documents that require resolution; (iii) whether health and safety issues exist in connection with the Work; (iv) status of the contingency account to the extent provided for in the *Standard Form of Agreement Between Owner and Design-Builder – Cost Plus Fee With an Option for a Guaranteed Maximum Price*; and (v) other items that require resolution so as not to jeopardize Design-Builder's ability to complete the Work for the Contract Price and within the Contract Time(s). Status reports shall be submitted with Design-Builder's draft Payment Applications as a pre-requisite to payment.

2.1.3 Unless a schedule for the execution of the Work has been attached to the Agreement as an exhibit at the time the Agreement is executed, Design-Builder shall prepare and submit, at least three (3) days prior to the meeting contemplated by Section 2.1.4 hereof, a schedule for the execution of the Work for Owner's review and response. The schedule shall be prepared in a critical path format and shall indicate the dates for the start and completion of the various stages of Work, including the dates when Owner information and approvals are required to enable Design-Builder to achieve the Contract Time(s). The schedule shall be updated no less frequently than monthly and be revised as required by conditions and progress of the Work, but such revisions shall not relieve Design-Builder of its obligations to complete the Work within the Contract Time(s), as such dates may be adjusted in accordance with the Contract Documents. Owner's review of, and response to, the schedule shall not be construed as relieving Design-Builder of its complete and exclusive control over the means, methods, sequences and techniques for executing the Work.

2.1.4 The parties will meet within seven (7) days after execution of the Agreement to discuss issues affecting the administration of the Work and to implement the necessary procedures, including those relating to submittals and payment, to facilitate the ability of the parties to perform their obligations under the Contract Documents.

2.2 Design Professional Services.

2.2.1 Design-Builder shall, consistent with applicable state licensing laws, provide through qualified, licensed design professionals employed by Design-Builder, or procured from qualified, independent licensed Design Consultants, the necessary design services, including architectural, engineering and other design professional services, for the preparation of the required drawings, specifications and other design submittals to permit Design-Builder to complete the Work consistent with the Contract Documents. Nothing in the Contract Documents is intended or deemed to create any legal or contractual relationship between Owner and any Design Consultant.

2.2.2 Design-Builder shall employ only Design Consultants and/or Design Subconsultants reasonably acceptable to Owner who are duly licensed and qualified to perform the Work consistent with the Contract Documents. Prior to the date that Design Consultants and/or Design Subconsultants perform Work on the Project, Design-Builder shall identify in writing to Owner all Design Consultants and Design Subconsultants. To the extent that Design-Builder has not selected a Design Consultant or Design Subconsultant prior to performing the Work, Design-Builder shall provide Owner in writing a list of any subsequently added Design Consultants and/or Design Subconsultants and their scope of Work prior to their performing Work on the Project. Owner may reasonably object to Design-Builder's selection of any Design Consultant or Design Subconsultant, provided that the Contract Price and/or Contract Time(s) shall be adjusted to the extent that Owner's decision impacts Design-Builder's cost and/or time of performance. Design-Builder shall not substitute a listed Design Consultant or Subconsultant without obtaining Owner's prior written consent; such consent shall not be unreasonably withheld. Nothing in the Contract Documents is intended or deemed to create any legal or contractual relationship between Owner and any Design Consultant or Design Subconsultant, including but not limited to any third-party beneficiary rights.

2.3 Standard of Care for Design Professional Services.

2.3.1 The standard of care for all design professional services performed to execute the Work

shall be the care and skill ordinarily used by members of the applicable profession practicing under similar conditions at the same time.

2.4 Design Development Services.

2.4.1 Design-Builder and Owner shall, consistent with any applicable provision of the Contract Documents, agree upon any interim Design Submissions that Owner may wish to review, which interim Design Submissions may include design criteria, drawings, diagrams and specifications setting forth the Project requirements.

2.4.1.1 Design Submissions shall be consistent with the Owner's Project Criteria as well as the Basis of Design Documents, as the Basis of Design Documents may have been changed or supplemented through the design process set forth in this Section 2.4.1. By submitting Design Submissions, Design-Builder represents to the Owner that the Work depicted and otherwise shown, contained, or reflected in Design Submissions may be constructed in compliance with the then current Contract Price and Contract Time. Notwithstanding the above, Design-Builder may propose Design Submissions that may alter the Basis of Design Documents, the Contract Price and/or Contract Time; however, Design-Builder must provide notice thereof in accordance with Article 10 of the General Conditions and obtain a Change Order before such proposed Design Submissions are incorporated into the Construction Documents.

2.4.1.2 On or about the time of the Design Submissions, Design-Builder and Owner shall meet and confer about the Design Submissions, with Design-Builder identifying during such meetings, among other things, the evolution of the design and any changes to the Basis of Design Documents, or, if applicable, previously submitted Design Submissions. Changes to the Basis of Design Documents, including those that are deemed minor changes under Section 9.3.1, shall be processed in accordance with Article 9. Minutes of the meetings, including a full listing of all changes including any minor changes, will be maintained by Design-Builder and provided to all attendees for review. Following the design review meeting, Owner shall review and approve the interim Design Submissions and meeting minutes in a time that is consistent with the turnaround times set forth in Design-Builder's schedule.

2.4.1.3 Owner shall review and respond to Design Submissions, providing any comments and/or concerns about the Design Submissions. Owner shall provide all comments on the Design Submissions within the time provided by the Contract Documents. Design-Builder shall revise the Design Submissions (and any other deliverables) in response to Owner's comments and incorporate said responses into the next submission of Design Submissions.

2.4.1.4 If incorporation of Owner's comments results in a design that is inconsistent with or otherwise gives rise to a change in Owner's Project Criteria, the Basis of Design Documents, the Contract Price and/or the Contract Time, Design-Builder shall provide notice thereof in accordance with Articles 9 and 10 of the General Conditions. Changes to the Basis of Design Documents, the Contract Price and/or the Contract Time, including those that are deemed minor changes, shall be processed in accordance with Article 9 of the General Conditions.

2.4.2 Design-Builder shall submit to Owner Construction Documents setting forth in detail drawings and specifications describing the requirements for construction of the Work. The Construction Documents shall be consistent with the latest set of interim Design Submissions, as such submissions may have been modified in a design review meeting and recorded in the meeting minutes. The parties shall have a design review meeting to discuss, and Owner shall review and approve, the Construction Documents in accordance with the procedures set forth in Section 2.4.1 above. Design-Builder shall proceed with construction in accordance with the approved Construction Documents and shall submit one set of approved Construction Documents to Owner

prior to commencement of construction.

2.4.3 Owner's review and approval of interim Design Submissions, meeting minutes, and the Construction Documents is for the purpose of mutually establishing a conformed set of Contract Documents compatible with the requirements of the Work. Neither Owner's review nor approval of any interim Design Submissions, meeting minutes, and Construction Documents shall be deemed to transfer any design liability from Design-Builder to Owner. Design-Builder shall provide Owner with sufficient time in the Project Schedule to review and approve the Design Submissions.

2.4.4 To the extent not prohibited by the Contract Documents or Legal Requirements, with Owner's prior approval Design-Builder may prepare interim Design Submissions and Construction Documents for a portion of the Work to permit construction to proceed on that portion of the Work prior to completion of the Construction Documents for the entire Work.

2.5 Legal Requirements.

2.5.1 Design-Builder shall perform the Work in accordance with all Legal Requirements and shall provide all notices applicable to the Work as required by the Legal Requirements.

2.5.2 The Contract Price and/or Contract Time(s) shall be adjusted to compensate Design-Builder for the effects of any changes in the Legal Requirements enacted after the date of the Agreement unless such changes had been proposed prior thereto, were known of by Design-Builder and were reasonably expected to be enacted affecting the performance of the Work, or if a Guaranteed Maximum Price is established after the date of the Agreement, the date the parties agree upon the Guaranteed Maximum Price. Such effects may include, without limitation, revisions Design-Builder is required to make to the Construction Documents because of changes in Legal Requirements.

2.6 Government Approvals and Permits.

2.6.1 Except as identified in an Owner's Permit List attached as an exhibit to the Agreement, Design-Builder shall obtain and pay for all necessary permits, approvals, licenses, government charges and inspection fees required for the prosecution of the Work by any government or quasi-government entity having jurisdiction over the Project.

2.6.2 Design-Builder shall provide reasonable assistance to Owner in obtaining those permits, approvals and licenses that are Owner's responsibility.

2.7 Design-Builder's Construction Phase Services.

2.7.1 Unless otherwise provided in the Contract Documents to be the responsibility of Owner or a separate contractor, Design-Builder shall provide through itself or Subcontractors the necessary supervision, labor, inspection, testing, start-up, material, equipment, machinery, temporary utilities and other temporary facilities to permit Design-Builder to complete construction of the Project consistent with the Contract Documents.

2.7.2 Design-Builder shall perform all construction activities efficiently and with the requisite expertise, skill and competence to satisfy the requirements of the Contract Documents. Design-Builder shall at all times exercise complete and exclusive control over the means, methods, sequences and techniques of construction.

2.7.3 Design-Builder shall employ only Subcontractors who are duly licensed and qualified to perform the Work consistent with the Contract Documents. Prior to the date that Subcontractors perform Work on the Project, Design-Builder shall identify in writing to Owner all Subcontractors. To the extent that Design-Builder has not selected a Subcontractor prior to performing the Work, Design-Builder shall provide Owner in writing a list of any subsequently added Subcontractors prior to their performing Work on the Project. Owner may reasonably object to Design-Builder's selection

of any Subcontractor, provided that the Contract Price and/or Contract Time(s) shall be adjusted to the extent that Owner's decision impacts Design-Builder's cost and/or time of performance. Design-Builder may not substitute listed Subcontractors without Owner's prior written consent; such consent shall not be unreasonably withheld.

2.7.4 Design-Builder assumes responsibility to Owner for the proper performance of the Work of Subcontractors and any acts and omissions in connection with such performance. Nothing in the Contract Documents is intended or deemed to create any legal or contractual relationship between Owner and any Subcontractor or Sub-Subcontractor, including but not limited to any third-party beneficiary rights.

2.7.5 Design-Builder shall coordinate the activities of all Subcontractors. If Owner performs other work on the Project or at the Site with separate contractors under Owner's control, Design-Builder agrees to reasonably cooperate and coordinate its activities with those of such separate contractors so that the Project can be completed in an orderly and coordinated manner without unreasonable disruption.

2.7.6 Design-Builder shall confine its operations to those areas designated by Owner and keep the Site reasonably free from debris, trash and construction wastes to permit Design-Builder to perform its construction services efficiently, safely and without interfering with the use of adjacent land areas. Upon Substantial Completion of the Work, or a portion of the Work, Design-Builder shall remove all debris, trash, construction wastes, materials, equipment, machinery and tools arising from the Work or applicable portions thereof to permit Owner to occupy the Project or a portion of the Project for its intended use.

2.8 Design-Builder's Responsibility for Project Safety.

2.8.1 Design-Builder recognizes the importance of performing the Work in a safe manner so as to prevent damage, injury or loss to (i) all individuals at the Site, whether working or visiting; (ii) the Work, including materials and equipment incorporated into the Work or stored on-Site or off-Site; and (iii) all other property at the Site or adjacent thereto. Design-Builder assumes responsibility for implementing and monitoring all safety precautions and programs related to the performance of the Work. Design-Builder shall, prior to commencing construction, designate a Safety Representative with the necessary qualifications and experience to supervise the implementation and monitoring of all safety precautions and programs related to the Work. Unless otherwise required by the Contract Documents, Design-Builder's Safety Representative shall be an individual stationed at the Site who may have responsibilities on the Project in addition to safety. The Safety Representative shall make routine daily inspections of the Site and shall hold weekly safety meetings with Design-Builder's personnel, Subcontractors and others as applicable.

2.8.2 Design-Builder and Subcontractors shall comply with all Legal Requirements relating to safety, as well as any Owner-specific safety requirements set forth in the Contract Documents, provided that such Owner-specific requirements do not violate any applicable Legal Requirement. Design-Builder will immediately report in writing any safety-related injury, loss, damage or accident arising from the Work to Owner's Representative and, to the extent mandated by Legal Requirements, to all government or quasi-government authorities having jurisdiction over safety-related matters involving the Project or the Work.

2.8.3 Design-Builder's responsibility for safety under this Section 2.8 is not intended in any way to relieve Subcontractors and Sub-Subcontractors of their own contractual and legal obligations and responsibility for (i) complying with all Legal Requirements, including those related to health and safety matters; and (ii) taking all necessary measures to implement and monitor all safety precautions and programs to guard against injuries, losses, damages or accidents resulting from their performance of the Work.

2.9 Design-Builder's Warranty.

2.9.1 Design-Builder warrants to Owner that the construction, including all materials and equipment furnished as part of the construction, shall be new unless otherwise specified in the Contract Documents, of good quality, in conformance with the Contract Documents and free of defects in materials and workmanship. Design-Builder's warranty obligation excludes defects caused by abuse, alterations, or failure to maintain the Work in a commercially reasonable manner. Design-Builder shall, to the extent allowed, assign all manufacturer's warranties to Owner and warrants that it will install all such equipment in a manner that will not impair any such warranty. Nothing in this warranty is intended to limit any manufacturer's warranty which provides Owner with greater warranty rights than set forth in this Section 2.9 or the Contract Documents. Design-Builder will provide Owner with all manufacturers' warranties upon Substantial Completion.

2.10 Correction of Defective Work.

2.10.1 Design-Builder agrees to correct any Work that is found to not be in conformance with the Contract Documents, including that part of the Work subject to Section 2.9 hereof, within a period of one year from the date of Substantial Completion of the Work or any portion of the Work, or within such longer period to the extent required by any specific warranty included in the Contract Documents.

2.10.2 Design-Builder shall, within seven (7) days of receipt of written notice from Owner that the Work is not in conformance with the Contract Documents, take meaningful steps to commence correction of such nonconforming Work, including the correction, removal or replacement of the nonconforming Work and any damage caused to other parts of the Work affected by the nonconforming Work. If Design-Builder fails to commence the necessary steps within such seven (7) day period, Owner, in addition to any other remedies provided under the Contract Documents, may provide Design-Builder with written notice that Owner will commence correction of such nonconforming Work with its own forces. If Owner does perform such corrective Work, Design-Builder shall be responsible for all reasonable costs incurred by Owner in performing such correction. If the nonconforming Work creates an emergency requiring an immediate response, the seven (7) day period identified herein shall be deemed inapplicable.

2.10.3 The one-year period referenced in Section 2.10.1 above applies only to Design-Builder's obligation to correct nonconforming Work and is not intended to constitute a period of limitations for any other rights or remedies Owner may have regarding Design-Builder's other obligations under the Contract Documents.

Article 3

Owner's Services and Responsibilities

3.1 Duty to Cooperate.

3.1.1 Owner shall, throughout the performance of the Work, cooperate with Design-Builder and perform its responsibilities, obligations and services in a timely manner to facilitate Design-Builder's timely and efficient performance of the Work and so as not to delay or interfere with Design-Builder's performance of its obligations under the Contract Documents.

3.1.2 Owner shall provide timely reviews and approvals of interim Design Submissions and Construction Documents consistent with the turnaround times set forth in Design-Builder's schedule.

3.1.3 Owner shall give Design-Builder timely notice of any Work that Owner notices to be defective or not in compliance with the Contract Documents.

3.2 Furnishing of Services and Information.

3.2.1 Unless expressly stated to the contrary in the Contract Documents, Owner shall provide, at its own cost and expense, for Design-Builder's information and use the following, all of which Design-Builder is entitled to rely upon in performing the Work:

3.2.1.1 Surveys describing the property, boundaries, topography and reference points for use during construction, including existing service and utility lines;

3.2.1.3 Temporary and permanent easements, zoning and other requirements and encumbrances affecting land use, or necessary to permit the proper design and construction of the Project and enable Design-Builder to perform the Work;

3.2.1.4 A legal description of the Site;

3.2.1.5 To the extent available, record drawings of any existing structures at the Site; and

3.2.2 Owner is responsible for securing and executing all necessary agreements with adjacent land or property owners that are necessary to enable Design-Builder to perform the Work. Owner is further responsible for all costs, including attorneys' fees, incurred in securing these necessary agreements.

3.3 Financial Information.

3.3.1 At Design-Builder's written request, Owner shall promptly furnish reasonable evidence satisfactory to Design-Builder that Owner has adequate funds available and committed to fulfill all of Owner's contractual obligations under the Contract Documents. If Owner fails to furnish such financial information within 30 days of a written request from Design-Builder, Design-Builder may stop Work under Section 11.3 hereof or exercise any other right permitted under the Contract Documents.

3.3.2 Design-Builder shall cooperate with the reasonable requirements of Owner's lenders or other financial sources. Notwithstanding the preceding sentence, after execution of the Agreement Design-Builder shall have no obligation to execute for Owner or Owner's lenders or other financial sources any documents or agreements that require Design-Builder to assume obligations or responsibilities greater than those existing obligations Design-Builder has under the Contract Documents.

3.4 Owner's Representative.

3.4.1 Owner's Representative shall be responsible for providing Owner-supplied information and approvals in a timely manner to permit Design-Builder to fulfill its obligations under the Contract Documents. Owner's Representative shall also provide Design-Builder with prompt notice if it observes any failure on the part of Design-Builder to fulfill its contractual obligations, including any errors, omissions or defects in the performance of the Work. Owner's Representative shall communicate regularly with Design-Builder and shall be vested with the authority to act on behalf of Owner.

3.5 Government Approvals and Permits.

3.5.1 Owner shall obtain and pay for all necessary permits, approvals, licenses, government charges and inspection fees set forth in Owner's Permit List attached as an exhibit to the Agreement.

3.5.2 Owner shall provide reasonable assistance to Design-Builder in obtaining those permits, approvals and licenses that are Design-Builder's responsibility.

3.6 Owner's Separate Contractors.

3.6.1 Owner is responsible for all work performed on the Project or at the Site by separate contractors under Owner's control. Owner shall contractually require its separate contractors to cooperate with and coordinate their activities so as not to interfere with Design-Builder in order to enable Design-Builder to timely complete the Work consistent with the Contract Documents.

Article 4

Hazardous Conditions and Differing Site Conditions

4.1 Hazardous Conditions.

4.1.1 Unless otherwise expressly provided in the Contract Documents to be part of the Work, Design-Builder is not responsible for any Hazardous Conditions encountered at the Site. Upon encountering any Hazardous Conditions, Design-Builder will stop Work immediately in the affected area and duly notify Owner and, if required by Legal Requirements, all government or quasi-government entities with jurisdiction over the Project or Site. Notwithstanding anything to the contrary in the foregoing, the Design-Builder shall be responsible for any additional harm caused by its negligent act or omission once a Hazardous Condition has been or should reasonably have been identified.

4.1.2 Upon receiving notice of the presence of suspected Hazardous Conditions, Owner shall take the necessary measures required to ensure that the Hazardous Conditions are remediated or rendered harmless. Such necessary measures shall include Owner retaining qualified independent experts to (i) ascertain whether Hazardous Conditions have actually been encountered, and, if they have been encountered, (ii) prescribe the remedial measures that Owner must take either to remove the Hazardous Conditions or render the Hazardous Conditions harmless.

4.1.3 Design-Builder shall be obligated to resume Work at the affected area of the Project only after Owner's expert provides it with written certification that (i) the Hazardous Conditions have been removed or rendered harmless; and (ii) all necessary approvals have been obtained from all government and quasi-government entities having jurisdiction over the Project or Site.

4.1.4 Design-Builder will be entitled, in accordance with these General Conditions of Contract, to an equitable adjustment in its Contract Price and/or Contract Time(s) to the extent Design-Builder's cost and/or time of performance have been unavoidably adversely impacted by the presence of Hazardous Conditions.

4.1.5 To the fullest extent permitted by law, Owner shall indemnify, defend and hold harmless Design-Builder, Design Consultants, Subcontractors, anyone employed directly or indirectly by any of them, and their officers, directors, employees and agents, from and against any and all claims, losses, damages, liabilities and expenses, including reasonable attorneys' fees and expenses including any fines or penalties, arising out of or resulting from the presence, removal or remediation of Hazardous Conditions at the Site, except as provided in Section 4.1.1.

4.1.6 Notwithstanding the preceding provisions of this Section 4.1, Owner is not responsible for Hazardous Conditions introduced to the Site by Design-Builder, Subcontractors or anyone for whose acts they may be liable. To the fullest extent permitted by law, Design-Builder shall indemnify, defend and hold harmless Owner and Owner's officers, directors, employees and agents from and against all claims, losses, damages, liabilities and expenses, including attorneys' fees and expenses, arising out of or resulting from those Hazardous Conditions introduced to the Site by Design-Builder, Subcontractors or anyone for whose acts they may be liable.

4.2 Differing Site Conditions.

4.2.1 Concealed or latent physical conditions or subsurface conditions at the Site that (i) materially differ from the conditions indicated in the Contract Documents or (ii) are of an unusual nature, differing materially from the conditions ordinarily encountered and generally recognized as inherent in the Work, are collectively referred to herein as “Differing Site Conditions.” If Design-Builder encounters a Differing Site Condition, Design-Builder will be entitled to an equitable adjustment in the Contract Price and/or Contract Time(s) to the extent Design-Builder’s cost and/or time of performance are adversely impacted by the Differing Site Condition.

4.2.2 Upon encountering a Differing Site Condition, Design-Builder shall provide prompt written notice to Owner of such condition, which notice shall not be later than fourteen (14) days after such condition has been encountered. Design-Builder shall, to the extent reasonably possible, provide such notice before the Differing Site Condition has been substantially disturbed or altered.

Article 5

Insurance and Bonds

5.1 Design-Builder’s Insurance Requirements.

5.1.1 Design-Builder is responsible for procuring and maintaining the insurance for the coverage amounts all as set forth in the Insurance Exhibit to the Agreement. Coverage shall be secured from insurance companies authorized to do business in the state in which the Project is located, and with a minimum rating set forth in the Agreement.

5.1.2 Design-Builder’s insurance shall specifically delete any design-build or similar exclusions that could compromise coverages because of the design-build delivery of the Project.

5.1.3 Prior to commencing any construction services hereunder, Design-Builder shall provide Owner with certificates evidencing that (i) all insurance obligations required by the Contract Documents are in full force and in effect and will remain in effect for the duration required by the Contract Documents; and (ii) endorsed to provide that no insurance coverage will be canceled, renewal refused, or materially changed unless at least thirty (30) days’ prior written notice is given to Owner. If any of the foregoing insurance coverages are required to remain in force after final payment is reasonably available, an additional certificate evidencing continuation of such coverage shall be submitted with the Final Application for Payment. If any information concerning reduction of coverage is not furnished by the insurer, it shall be furnished by Design-Builder with reasonable promptness according to Design-Builder’s information and belief.

5.2 Owner’s Liability Insurance.

5.2.1 Owner shall procure and maintain from insurance companies authorized to do business in the state in which the Project is located such liability insurance as set forth in the Insurance Exhibit to the Agreement to protect Owner from claims which may arise from the performance of Owner’s obligations under the Contract Documents or Owner’s conduct during the course of the Project.

5.3 Owner’s Property Insurance.

5.3.1 Unless otherwise provided in the Contract Documents, Owner shall procure and maintain from insurance companies authorized to do business in the state in which the Project is located property insurance upon the entire Project to the full insurable value of the Project, including professional fees, overtime premiums and all other expenses incurred to replace or repair the insured property. The property insurance obtained by Owner shall be the broadest coverage commercially available, and shall include the interests of Owner, Design-Builder, Design

Consultants and Subcontractors of any tier. Such insurance shall include but not be limited to the perils of fire and extended coverage, theft, vandalism, malicious mischief, collapse, flood, earthquake, debris removal and other perils or causes of loss as called for in the Contract Documents. The property insurance shall include physical loss or damage to the Work, including materials and equipment in transit, at the Site or at another location as may be indicated in Design-Builder's Application for Payment and approved by Owner. Owner is responsible for the payment of any deductibles under the insurance required by this Section 5.3.1.

5.3.2 Unless the Contract Documents provide otherwise, Owner shall procure and maintain boiler and machinery insurance that will include the interests of Owner, Design-Builder, Design Consultants, and Subcontractors of any tier. Owner is responsible for the payment of any deductibles under the insurance required by this Section 5.3.2.

5.3.3 Prior to Design-Builder commencing any Work, Owner shall provide Design-Builder with certificates evidencing that (i) all Owner's insurance obligations required by the Contract Documents are in full force and in effect and will remain in effect until Design-Builder has completed all of the Work and has received final payment from Owner; and (ii) no insurance coverage will be canceled, renewal refused, or materially changed unless at least thirty (30) days' prior written notice is given to Design-Builder. Owner's property insurance shall not lapse or be canceled if Owner occupies a portion of the Work pursuant to Section 6.6.3 hereof. Owner shall provide Design-Builder with the necessary endorsements from the insurance company prior to occupying a portion of the Work.

5.3.4 Any loss covered under Owner's property insurance shall be adjusted by Owner, subject to any applicable mortgage clause. All insurance proceeds received as a result of any loss will be placed in a separate account and distributed in accordance with such agreement as the interested parties may reach. Any disagreement concerning the distribution of any proceeds will be resolved in accordance with Article 10 hereof.

5.3.5 Owner and Design-Builder waive against each other and Owner's separate contractors, Design Consultants, Subcontractors, agents and employees of each and all of them, all damages covered by property insurance provided herein, except such rights as they may have to the proceeds of such insurance. Design-Builder and Owner shall, where appropriate, require similar waivers of subrogation from Owner's separate contractors, Design Consultants and Subcontractors and shall require each of them to include similar waivers in their contracts. These waivers of subrogation shall not contain any restriction or limitation that will impair the full and complete extent of its applicability to any person or entity unless agreed to in writing prior to the execution of this Agreement.

5.4 Bonds and Other Performance Security.

5.4.1 If Owner requires Design-Builder to obtain performance and labor and material payment bonds, or other forms of performance security, the amount, form and other conditions of such security shall be as set forth in the Agreement.

5.4.2 All bonds furnished by Design-Builder shall be in a form satisfactory to Owner. The surety shall be a company qualified and registered to conduct business in the state in which the Project is located.

Article 6

Payment

6.1 Schedule of Values.

6.1.1 Unless required by Owner upon execution of this Agreement, within ten (10) days of execution of the Agreement, Design-Builder shall submit for Owner's review and approval a schedule of values for all of the Work. The Schedule of Values will (i) subdivide the Work into its respective parts; (ii) include values for all items comprising the Work; and (iii) serve as the basis for monthly progress payments made to Design-Builder throughout the Work.

6.1.2 Owner will timely review and approve the schedule of values so as not to delay the submission of Design-Builder's first application for payment. Owner and Design-Builder shall timely resolve any differences so as not to delay Design-Builder's submission of its first application for payment.

6.2 Monthly Progress Payments.

6.2.1 On or before the date established in the Agreement, Design-Builder shall submit for Owner's review and approval its Application for Payment requesting payment for all Work performed as of the date of the Application for Payment. The Application for Payment shall be accompanied by all supporting documentation required by the Contract Documents and/or established at the meeting required by Section 2.1.4 hereof as well as any documents reasonably required by Owner's lender.

6.2.2 The Application for Payment may request payment for equipment and materials not yet incorporated into the Project, provided that (i) Owner is satisfied that the equipment and materials are suitably stored at either the Site or another acceptable location; (ii) the equipment and materials are protected by suitable insurance; and (iii) upon payment, Owner will receive the equipment and materials free and clear of all liens and encumbrances.

6.2.3 All discounts offered by Subcontractors, Sub-Subcontractors, and suppliers to Design-Builder for early payment shall accrue one hundred percent to Design-Builder to the extent Design-Builder advances payment prior to receipt of payment from Owner. If the Design-Builder pays a Subcontractor, Subcontractor or supplier prior to receiving payment from Owner for the services or materials provided, Design-Builder may include in its Application for Payment the full undiscounted cost of the item for which payment is sought.

6.2.4 The Application for Payment shall constitute Design-Builder's representation that the Work described therein has been performed consistent with the Contract Documents, has progressed to the point indicated in the Application for Payment, and that title to all Work will pass to Owner free and clear of all claims, liens, encumbrances, and security interests upon the incorporation of the Work into the Project, or upon Design-Builder's receipt of payment, whichever occurs earlier.

6.3 Withholding of Payments.

6.3.1 On or before the date established in the Agreement, Owner shall pay Design-Builder all amounts properly due. If Owner determines that Design-Builder is not entitled to all or part of an Application for Payment as for the reasons set forth in Section 6.3.1.1 it will notify Design-Builder in writing at least five (5) days prior to the date payment is due. The notice shall indicate the specific amounts Owner intends to withhold, the reasons and contractual basis for the withholding, and the specific measures Design-Builder must take to rectify Owner's concerns. Design-Builder and Owner will attempt to resolve Owner's concerns prior to the date payment is due. If the parties cannot resolve such concerns, Design-Builder may pursue its rights under the Contract Documents, including those under Article 10 hereof.

6.3.1.1 Owner may withhold payment in whole or in part, to the extent reasonably necessary to protect the Owner from loss for which the Design-Builder is responsible including:

- .1** defective Work not remedied;
- .2** third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by Design-Builder;

- .3 failure of Design-Builder to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
- .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum or Guaranteed Maximum Price;
- .5 damage to the Owner;
- .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay; or
- .7 repeated failure to carry out the Work in accordance with the Contract Documents.

6.3.2 Notwithstanding anything to the contrary in the Contract Documents, Owner shall pay Design-Builder all undisputed amounts in an Application for Payment within the times required by the Agreement.

6.4 Right to Stop Work and Interest.

6.4.1 If Owner fails to pay timely Design-Builder any undisputed amount that becomes due, Design-Builder, in addition to all other remedies provided in the Contract Documents, may stop Work pursuant to Section 11.3 hereof. All payments due and unpaid shall bear interest at the rate set forth in the Agreement.

6.5 Design-Builder's Payment Obligations.

6.5.1 Design-Builder will pay Design Consultants and Subcontractors within seven (7) days all the amounts Design-Builder has received from Owner on account of their work. Design-Builder will impose similar requirements on Design Consultants and Subcontractors to pay those parties with whom they have contracted. Design-Builder will indemnify and defend Owner against any claims for payment and mechanic's liens as set forth in Section 7.3 hereof.

6.6 Substantial Completion.

6.6.1 Design-Builder shall notify Owner when it believes the Work, or to the extent permitted in the Contract Documents, a portion of the Work, is Substantially Complete. Within five (5) days of Owner's receipt of Design-Builder's notice, Owner and Design-Builder will jointly inspect such Work to verify that it is Substantially Complete in accordance with the requirements of the Contract Documents. If such Work is Substantially Complete, Owner shall prepare and issue a Certificate of Substantial Completion that will set forth (i) the date of Substantial Completion of the Work or portion thereof; (ii) the remaining items of Work that have to be completed before final payment; (iii) provisions (to the extent not already provided in the Contract Documents) establishing Owner's and Design-Builder's responsibility for the Project's security, maintenance, utilities and insurance pending final payment; and (iv) an acknowledgment that warranties commence to run on the date of Substantial Completion, except as may otherwise be noted in the Certificate of Substantial Completion.

6.6.2 Upon Substantial Completion of the entire Work or, if applicable, any portion of the Work, Owner shall release to Design-Builder all retained amounts relating, as applicable, to the entire Work or completed portion of the Work, less an amount equal to one hundred fifty percent (150%) the reasonable value of all remaining or incomplete items of Work as noted in the Certificate of Substantial Completion.

6.6.3 Owner, at its option, may use a portion of the Work which has been determined to be Substantially Complete, provided, however, that (i) a Certificate of Substantial Completion has been issued for the portion of Work addressing the items set forth in Section 6.6.1 above; (ii) Design-Builder and Owner have obtained the consent of their sureties and insurers, and to the extent applicable, the appropriate government authorities having jurisdiction over the Project; and (iii) Owner and Design-Builder agree that Owner's use or occupancy will not interfere with Design-

Builder's completion of the remaining Work.

6.7 Final Payment.

6.7.1 After receipt of a Final Application for Payment from Design-Builder, Owner shall make final payment by the time required in the Agreement, provided that Design-Builder has achieved Final Completion.

6.7.2 At the time of submission of its Final Application for Payment, Design-Builder shall provide the following information:

6.7.2.1 An affidavit that there are no claims, obligations or liens outstanding or unsatisfied for labor, services, material, equipment, taxes or other items performed, furnished or incurred for or in connection with the Work which will in any way affect Owner's interests;

6.7.2.2 A general release executed by Design-Builder waiving, upon receipt of final payment by Design-Builder, all liens and other claims, except those claims identified on the Final Application for Payment and remaining unsettled at the time of final payment;

6.7.2.3 Consent of Design-Builder's surety, if any, to final payment;

6.7.2.4 All operating manuals, warranties and other deliverables required by the Contract Documents; and

6.7.2.5 Certificates of insurance confirming that required coverages will remain in effect consistent with the requirements of the Contract Documents.

6.7.3 Upon making final payment, Owner waives all claims against Design-Builder except claims relating to (i) Design-Builder's failure to satisfy its payment obligations, if such failure affects Owner's interests; (ii) Design-Builder's failure to complete the Work consistent with the Contract Documents, including defects appearing after Substantial Completion; (iii) the terms of any special warranties required by the Contract Documents; and any claim arising under the Design-Build Operate and Maintain Exhibit

6.7.4 Deficiencies in the Work discovered after Substantial Completion, whether or not such deficiencies would have been included on the punch list if discovered earlier, shall be deemed warranty Work. Such deficiencies shall be corrected by Design-Builder under Sections 2.9 and 2.10 herein and shall not be a reason to withhold final payment from Design-Builder, provided, however, that Owner shall be entitled to withhold from the Final Payment one hundred fifty percent (150%) of the reasonable value of completion of such deficient work until such work is completed.

Article 7

Indemnification

7.1 Patent and Copyright Infringement.

7.1.1 Design-Builder shall defend any action or proceeding brought against Owner based on any claim that the Work, or any part thereof, or the operation or use of the Work or any part thereof, constitutes infringement of any United States patent or copyright, now or hereafter issued. Owner shall give prompt written notice to Design-Builder of any such action or proceeding and will reasonably provide authority, information and assistance in the defense of same. Design-Builder shall indemnify and hold harmless Owner from and against all damages and costs, including but not limited to attorneys' fees and expenses awarded against Owner or Design-Builder in any such

action or proceeding. Design-Builder agrees to keep Owner informed of all developments in the defense of such actions.

7.1.2 If Owner is enjoined from the operation or use of the Work, or any part thereof, as the result of any patent or copyright suit, claim, or proceeding, Design-Builder shall at its sole expense take reasonable steps to procure the right to operate or use the Work. If Design-Builder cannot so procure such right within a reasonable time, Design-Builder shall promptly, at Owner's option and at Design-Builder's expense, (i) modify the Work so as to avoid infringement of any such patent or copyright; or (ii) replace said Work with Work that does not infringe or violate any such patent or copyright.

7.1.3 Sections 7.1.1 and 7.1.2 above shall not be applicable to any suit, claim or proceeding based on infringement or violation of a patent or copyright (i) relating solely to a particular process or product of a particular manufacturer specified by Owner and not offered or recommended by Design-Builder to Owner; or (ii) arising from modifications to the Work by Owner or its agents after acceptance of the Work. If the suit, claim or proceeding is based upon events set forth in the preceding sentence, Owner shall defend, indemnify and hold harmless Design-Builder to the same extent Design-Builder is obligated to defend, indemnify and hold harmless Owner in Section 7.1.1 above.

7.1.4 The obligations set forth in this Section 7.1 shall constitute the sole agreement between the parties relating to liability for infringement of violation of any patent or copyright.

7.2 Tax Claim Indemnification.

7.2.1 If, in accordance with Owner's direction, an exemption for all or part of the Work is claimed for taxes, Owner shall indemnify, defend and hold harmless Design-Builder from and against any liability, penalty, interest, fine, tax assessment, attorneys' fees or other expenses or costs incurred by Design-Builder as a result of any action taken by Design-Builder in accordance with Owner's directive. Owner shall furnish Design-Builder with any applicable tax exemption certificates necessary to obtain such exemption, upon which Design-Builder may rely.

7.3 Payment Claim Indemnification.

7.3.1 Provided that Owner is not in breach of its contractual obligation to make payments to Design-Builder for the Work, Design-Builder shall indemnify, defend and hold harmless Owner from any claims or mechanic's liens brought against Owner or against the Project as a result of the failure of Design-Builder, or those for whose acts it is responsible, to pay for any services, materials, labor, equipment, taxes or other items or obligations furnished or incurred for or in connection with the Work. Within three (3) days of receiving written notice from Owner that such a claim or mechanic's lien has been filed, Design-Builder shall commence to take the steps necessary to discharge said claim or lien, including, if necessary, the furnishing of a mechanic's lien bond. Upon written request from Owner, Design-Builder shall file a petition to discharge the lien pursuant to 10 M.R.S. § 3263 within seven (7) days. If Design-Builder fails to do so, Owner will have the right to either discharge the claim or lien or file a petition under 10 M.R.S. § 3263 and hold Design-Builder liable for costs and expenses incurred, including attorneys' fees.

7.4 Design-Builder's General Indemnification.

7.4.1 Except as set forth in Section 7.4.2 below, Design-Builder, to the fullest extent permitted by law, shall indemnify, hold harmless and defend Owner, its officers, directors, and employees from and against claims, losses, damages, liabilities, including attorneys' fees and expenses, for non-party bodily injury, sickness or death and non-party property damage or destruction (other than to the Work itself) but only to the extent resulting from the negligent acts or omissions of Design-Builder, Design Consultants, Subcontractors, anyone employed directly or indirectly by any of them or anyone for whose acts any of them may be liable.

7.4.2 For indemnity obligations that arise from professional errors and omissions, Design-Builder, to the fullest extent permitted by law, shall indemnify Owner, its officers, directors, and employees from and against claims, losses, damages, liabilities, including attorneys' fees and expenses, for non-party bodily injury, sickness, or death and non-party property damage or destruction (other than to the Work itself) but only to the extent resulting from the negligent acts or omissions of Design-Builder, Design Consultants, Subcontractors, anyone employed directly or indirectly by any of them or anyone for whose acts any of them may be liable.

7.4.3 If an employee of Design-Builder, Design Consultants, Subcontractors, anyone employed directly or indirectly by any of them or anyone for whose acts any of them may be liable has a claim against Owner, its officers, directors, employees, or agents, Design-Builder's indemnity obligations set forth in Sections 7.4.1 and 7.4.2 above shall not be limited by any limitation on the amount of damages, compensation or benefits payable by or for Design-Builder, Design Consultants, Subcontractors, or other entity under any employee benefit acts, including workers' compensation or disability acts. Design-Builder expressly waives any claim of immunity under the Maine Workers' Compensation Act in the event of any such claim.

7.5 Owner's General Indemnification.

7.5.1 Owner, to the fullest extent permitted by law, shall indemnify, hold harmless and defend Design-Builder and any of Design-Builder's officers, directors, and employees, from and against claims, losses, damages, liabilities, including attorneys' fees and expenses, for bodily injury, sickness or death, and property damage or destruction (other than to the Work itself) but only to the extent resulting from the negligent acts or omissions of Owner, Owner's separate contractors or anyone for whose acts any of them may be liable.

7.5.2 Notwithstanding anything to the contrary in this Agreement or the Contract Documents Owner shall not be construed to waive any defense, immunity or limitation of liability which may be available to the Owner or their respective officers, agents and employees, under the Maine Tort Claims Act or any other privileges and/or immunities provided by law.

7.6 Limited Recourse.

7.6.1 None of the obligations set forth in this Agreement (on behalf of any party) constitute personal obligations of any natural persons who are the officers, shareholders, members, partners, employees, or agents of any party unless the natural person is expressly identified as a contracting party. All Parties to this Agreement shall not seek recourse against any natural person described herein. This provision, however, shall not protect such natural persons from liability for willful misconduct, illegal acts or intentional violation of any duty of corporate loyalty.

Article 8

Time

8.1 Obligation to Achieve the Contract Times.

8.1.1 Design-Builder agrees that it will commence performance of the Work and achieve the Contract Time(s) in accordance with Article 5 of the Agreement.

8.2 Delays to the Work.

8.2.1 If Design-Builder is delayed on the critical path in the performance of the Work due to acts, omissions, conditions, events, or circumstances that are not reasonably foreseeable and that are beyond its control and due to no fault of its own or those for whom Design-Builder is responsible,

the Contract Time(s) for performance shall be reasonably extended by Change Order. By way of example, events that will entitle Design-Builder to an extension of the Contract Time(s) include acts or omissions of Owner or anyone under Owner's control (including separate contractors), changes in the Work, Differing Site Conditions, Hazardous Conditions, and Force Majeure Events.

8.2.2 In addition to Design-Builder's right to a time extension for those events set forth in Section 8.2.1 above, Design-Builder shall also be entitled to an appropriate adjustment of the Contract Price for costs which cannot reasonably be avoided provided, however, that the Contract Price shall not be adjusted for Force Majeure Events unless otherwise provided in the Agreement.

Article 9

Changes to the Contract Price and Time

9.1 Change Orders.

9.1.1 A Change Order is a written instrument issued after execution of the Agreement signed by Owner and Design-Builder, stating their agreement upon all of the following:

9.1.1.1 The scope of the change in the Work;

9.1.1.2 The amount of the adjustment to the Contract Price; and

9.1.1.3 The extent of the adjustment to the Contract Time(s).

9.1.2 All changes in the Work authorized by applicable Change Order shall be performed under the applicable conditions of the Contract Documents. Owner and Design-Builder shall negotiate in good faith and as expeditiously as possible the appropriate adjustments for such changes.

9.1.3 If Owner requests a proposal for a change in the Work from Design-Builder and subsequently elects not to proceed with the change, a Change Order shall be issued to reimburse Design-Builder for reasonable and necessary costs incurred for estimating services, design services and services involved in the preparation of proposed revisions to the Contract Documents.

9.2 Work Change Directives.

9.2.1 A Work Change Directive is a written order prepared and signed by Owner directing a change in the Work prior to agreement on an adjustment in the Contract Price and/or the Contract Time(s).

9.2.2 Owner and Design-Builder shall negotiate in good faith and as expeditiously as possible the appropriate adjustments for the Work Change Directive. Upon reaching an agreement, the parties shall prepare and execute an appropriate Change Order reflecting the terms of the agreement.

9.3 Minor Changes in the Work.

9.3.1 Minor changes in the Work do not involve an adjustment in the Contract Price and/or Contract Time(s) and do not materially and adversely affect the Work, including the design, quality, performance and workmanship required by the Contract Documents. Design-Builder may make minor changes in the Work consistent with the intent of the Contract Documents, provided, however, that Design-Builder shall promptly inform Owner, in writing, of any such changes and record such changes on the documents maintained by Design-Builder. Owner shall provide prompt notice to the Design-Builder of any objection to the claimed minor change.

9.4 Contract Price Adjustments.

9.4.1 The increase or decrease in Contract Price resulting from a change in the Work shall be determined by one or more of the following methods:

9.4.1.1 Unit prices set forth in the Agreement or as subsequently agreed to between the parties;

9.4.1.2 A mutually accepted lump sum, properly itemized and supported by sufficient substantiating data to permit evaluation by Owner;

9.4.1.3 Costs, fees and any other markups set forth in the Agreement; or

9.4.1.4 If an increase or decrease cannot be agreed to as set forth in items 9.4.1.1 through 9.4.1.3 above and Owner issues a Work Change Directive, the cost of the change of the Work shall be determined by the reasonable expense or savings in the performance of the Work resulting from the change, including a reasonable adjustment for overhead and profit, as may be set forth in the Agreement.

9.4.2 If unit prices are set forth in the Contract Documents or are subsequently agreed to by the parties, but application of such unit prices will cause substantial inequity to Owner or Design-Builder because of differences in the character or quantity of such unit items as originally contemplated, such unit prices shall be equitably adjusted.

9.4.3 If Owner and Design-Builder disagree upon whether Design-Builder is entitled to be paid for any services required by Owner, or if there are any other disagreements over the scope of Work or proposed changes to the Work, Owner and Design-Builder shall resolve the disagreement pursuant to Article 10 hereof. As part of the negotiation process, Design-Builder shall furnish Owner with a good faith estimate of the costs or documentation for the costs actually incurred to perform the disputed services in accordance with Owner's interpretations. If the parties are unable to agree and Owner expects Design-Builder to perform the services in accordance with Owner's interpretations, Design-Builder shall proceed to perform the disputed services, conditioned upon Owner issuing a written order to Design-Builder (i) directing Design-Builder to proceed; and (ii) specifying Owner's interpretation of the services that are to be performed. If this occurs, Design-Builder shall be entitled to submit in its Applications for Payment an amount equal to fifty percent (50%) of its reasonable estimated direct cost to perform the services, and Owner agrees to pay such amounts, with the express understanding that (i) such payment by Owner does not prejudice Owner's right to argue that it has no responsibility to pay for such services; and (ii) receipt of such payment by Design-Builder does not prejudice Design-Builder's right to seek full payment of the disputed services if Owner's order is deemed to be a change to the Work.

9.5 Emergencies.

9.5.1 In any emergency affecting the safety of persons and/or property, Design-Builder shall act, at its reasonable discretion, to prevent threatened damage, injury or loss. Any change in the Contract Price and/or Contract Time(s) on account of emergency work shall be determined as provided in this Article 9.

Article 10

Contract Adjustments and Disputes

10.1 Requests for Contract Adjustments and Relief.

10.1.1 If either Design-Builder or Owner believes that it is entitled to relief against the other for any event arising out of or related to the Work or Project, such party shall provide written notice to the other party of the basis for its claim for relief. Such notice shall, if possible, be made prior to incurring any cost or expense and in accordance with any specific notice requirements contained in applicable sections of these General Conditions of Contract. In the absence of any specific notice requirement, written notice shall be given within a reasonable time, not to exceed fourteen (14) days, after the occurrence giving rise to the claim for relief or after the claiming party reasonably should have recognized the event or condition giving rise to the request, whichever is later. The claimant shall provide more complete information with respect to the claim within fourteen (14) days of the initial notice. The more complete information shall include sufficient information to advise the other party of the circumstances giving rise to the claim for relief, the specific contractual adjustment or relief requested and the basis of such request.

10.2 Dispute Avoidance and Resolution.

10.2.1 The parties are fully committed to working with each other throughout the Project and agree to communicate regularly with each other at all times so as to avoid or minimize disputes or disagreements. If disputes or disagreements do arise, Design-Builder and Owner each commit to resolving such disputes or disagreements in an amicable, professional and expeditious manner so as to avoid unnecessary losses, delays and disruptions to the Work.

10.2.2 Design-Builder and Owner will first attempt to resolve disputes or disagreements at the field level through discussions between Design-Builder's Representative and Owner's Representative which shall conclude within fourteen (14) days of the written notice provided for in Section 10.1.1 unless Owner and Design-Builder mutually agree otherwise.

10.2.3 If a dispute or disagreement cannot be resolved through Design-Builder's Representative and Owner's Representative, Design-Builder's Senior Representative and Owner's Senior Representative, upon the request of either party, shall meet as soon as conveniently possible, but in no case later than thirty (30) days after such a request is made, to attempt to resolve such dispute or disagreement. Five (5) days prior to any meetings between the Senior Representatives, the parties will exchange relevant information that will assist the parties in resolving their dispute or disagreement.

10.2.4 If after meeting the Senior Representatives determine that the dispute or disagreement cannot be resolved on terms satisfactory to both parties, the parties shall submit within thirty (30) days of the conclusion of the meeting of Senior Representatives the dispute or disagreement to non-binding mediation. The mediation shall be conducted by a mutually agreeable impartial mediator, or if the parties cannot so agree within thirty (30) days, either party may submit a demand for mediation with the American Arbitration Association ("AAA") pursuant to its Construction Industry Mediation Rules. The mediation will be governed by and conducted pursuant to a mediation agreement negotiated by the parties or, if the parties cannot so agree, by procedures established by the mediator. Unless otherwise mutually agreed by Owner and Design-Builder and consistent with the mediator's schedule, the mediation shall be conducted in Portland, Maine and commence within ninety (90) days of the submission of the dispute to mediation. Representatives of the parties with authority to resolve the dispute shall be present at any mediation.

10.3 Arbitration.

10.3.1 Any claims, disputes or controversies between the parties arising out of or relating to the Agreement, or the breach thereof, which have not been resolved in accordance with the procedures set forth in Section 10.2 above, shall be decided by arbitration conducted in Portland, Maine in accordance with the Construction Industry Arbitration Rules of the AAA then in effect, unless the parties mutually agree otherwise.

10.3.2 The award of the arbitrator(s) shall be final and binding upon the parties without the right of appeal to the courts. Judgment may be entered upon it in accordance with applicable law by any

court having jurisdiction thereof.

10.3.3 Design-Builder and Owner expressly agree that any arbitration pursuant to this Section 10.3 may be joined or consolidated with any arbitration involving any other person or entity (i) necessary to resolve the claim, dispute or controversy; or (ii) substantially involved in or affected by such claim, dispute or controversy. Both Design-Builder and Owner will include appropriate provisions in all contracts they execute with other parties in connection with the Project to require such joinder or consolidation.

10.3.4

10.4 Duty to Continue Performance.

10.4.1 Unless provided to the contrary in the Contract Documents, Design-Builder shall continue to perform the Work and Owner shall continue to satisfy its payment obligations for undisputed amounts to Design-Builder as well as any further amounts pursuant to Section 9.4.3, pending the final resolution of any dispute or disagreement between Design-Builder and Owner.

10.5 CONSEQUENTIAL DAMAGES.

10.5.1 NOTWITHSTANDING ANYTHING HEREIN TO THE CONTRARY (EXCEPT AS SET FORTH IN SECTION 10.5.2 BELOW OR AS MAY BE SET FORTH IN THE DESIGN-BUILD OPERATE & MAINTAIN EXHIBIT), NEITHER DESIGN-BUILDER NOR OWNER SHALL BE LIABLE TO THE OTHER FOR ANY CONSEQUENTIAL LOSSES OR DAMAGES, WHETHER ARISING IN CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE, INCLUDING BUT NOT LIMITED TO LOSSES OF USE, PROFITS, BUSINESS, REPUTATION OR FINANCING.

10.5.2 The consequential damages limitation set forth in Section 10.5.1 above is not intended to affect the payment of liquidated damages or lost early completion bonus, if any, set forth in Article 5 of the Agreement, which both parties recognize has been established, in part, to reimburse Owner or reward Design-Builder for some damages that might otherwise be deemed to be consequential.

Article 11

Stop Work and Termination

11.1 Owner's Right to Stop Work.

11.1.1 Owner may, without cause and for its convenience, order Design-Builder in writing to stop and suspend the Work. Such suspension shall not exceed sixty (60) consecutive days or aggregate more than ninety (90) days during the duration of the Project.

11.1.2 Design-Builder is entitled to seek an equitable adjustment of the Contract Price and/or Contract Time(s) if its cost or time to perform the Work has been adversely impacted by any suspension of stoppage of the Work by Owner.

11.2 Owner's Right to Perform and Terminate for Cause.

11.2.1 If Design-Builder persistently fails to (i) provide a sufficient number of skilled workers, (ii) supply the materials required by the Contract Documents, (iii) comply with applicable Legal Requirements, (iv) timely pay, without cause, Design Consultants or Subcontractors, (v) prosecute the Work with promptness and diligence to ensure that the Work is completed by the Contract Time(s), as such times may be adjusted, or (vi) perform material obligations under the Contract

Documents, then Owner, in addition to any other rights and remedies provided in the Contract Documents or by law, shall have the rights set forth in Sections 11.2.2 and 11.2.3 below.

11.2.2 Upon the occurrence of an event set forth in Section 11.2.1 above, Owner may provide written notice to Design-Builder that it intends to terminate the Agreement unless the problem cited is cured, or commenced to be cured, within seven (7) days of Design-Builder's receipt of such notice. If Design-Builder fails to cure, or reasonably commence to cure and pursue the cure with diligence to completion, such problem, then Owner may give a second written notice to Design-Builder of its intent to terminate within an additional seven (7) day period. If Design-Builder, within such second seven (7) day period, fails to cure, or reasonably commence to cure and pursue the cure with diligence to completion, such problem, then Owner may declare the Agreement terminated for default by providing written notice to Design-Builder of such declaration.

11.2.3 Upon declaring the Agreement terminated pursuant to Section 11.2.2 above, Owner may enter upon the premises and take possession, for the purpose of completing the Work, of all materials, equipment, scaffolds, tools, appliances and other items thereon, which have been purchased or provided for the performance of the Work, all of which Design-Builder hereby transfers, assigns and sets over to Owner for such purpose, and to employ any person or persons to complete the Work and provide all of the required labor, services, materials, equipment and other items. In the event of such termination, Design-Builder shall not be entitled to receive any further payments under the Contract Documents until the Work shall be finally completed in accordance with the Contract Documents. At such time, if the unpaid balance of the Contract Price exceeds the cost and expense incurred by Owner in completing the Work, such excess shall be paid by Owner to Design-Builder. Notwithstanding the preceding sentence, if the Agreement establishes a Guaranteed Maximum Price, Design-Builder will only be entitled to be paid for Work performed prior to its default. If Owner's cost and expense of completing the Work exceeds the unpaid balance of the Contract Price or the amount paid to Design-Builder under contract with a Guaranteed Maximum Price, then Design-Builder shall be obligated to pay the difference to Owner. Such costs and expense shall include not only the cost of completing the Work, but also losses, damages, costs and expense, including attorneys' fees and expenses, incurred by Owner in connection with the procurement and defense of claims arising from Design-Builder's default, subject to the waiver of consequential damages set forth in Section 10.5 hereof.

11.2.4 If Owner improperly terminates the Agreement for cause, the termination for cause will be converted to a termination for convenience in accordance with the provisions of Section 11.6 hereof.

11.3 Design-Builder's Right to Stop Work.

11.3.1 Design-Builder may, in addition to any other rights afforded under the Contract Documents or at law, stop the Work for the following reasons:

11.3.1.1 Owner's failure to provide financial assurances as required under Section 3.3 hereof; or

11.3.1.2 Owner's failure to pay amounts properly due under Design-Builder's Application for Payment.

11.3.2 Should any of the events set forth in Section 11.3.1 above occur, Design-Builder has the right to provide Owner with written notice that Design-Builder will stop the Work unless said event is cured within seven (7) days from Owner's receipt of Design-Builder's notice. Design-Builder shall not stop work unless it provides such written notice and Owner has failed to cure the reason for default within the seven (7) day cure period. If Owner does not cure the problem within such seven (7) day period, Design-Builder may stop the Work. In such case, Design-Builder shall be entitled to make a claim for adjustment to the Contract Price and Contract Time(s) to the extent it has been adversely impacted by such stoppage.

11.4 Design-Builder's Right to Terminate for Cause.

11.4.1 Design-Builder, in addition to any other rights and remedies provided in the Contract Documents or by law, may terminate the Agreement for cause for the following reasons:

11.4.1.1 The Work has been stopped for sixty (60) consecutive days, or more than ninety (90) days during the duration of the Project, because of court order, any government authority having jurisdiction over the Work, or orders by Owner under Section 11.1.1 hereof, except to the extent that such stoppages are not due to the acts or omissions of Design-Builder or anyone for whose acts Design-Builder may be responsible.

11.4.1.2 Owner's failure to provide Design-Builder with any information, permits or approvals that are Owner's responsibility under the Contract Documents which result in the Work being stopped for sixty (60) consecutive days, or more than ninety (90) days during the duration of the Project, even though Owner has not ordered Design-Builder in writing to stop and suspend the Work pursuant to Section 11.1.1 hereof.

11.4.1.3 Owner's failure to cure the problems set forth in Section 11.3.1 above after Design-Builder has stopped the Work.

11.4.2 Upon the occurrence of an event set forth in Section 11.4.1 above, Design-Builder may provide written notice to Owner that it intends to terminate the Agreement unless the problem cited is cured, or commenced to be cured, within seven (7) days of Owner's receipt of such notice. If Owner fails to cure, or reasonably commence to cure, such problem, then Design-Builder may give a second written notice to Owner of its intent to terminate within an additional seven (7) day period. If Owner, within such second seven (7) day period, fails to cure, or reasonably commence to cure, such problem, then Design-Builder may declare the Agreement terminated for default by providing written notice to Owner of such declaration. In such case, Design-Builder shall be entitled to recover in the same manner as if Owner had terminated the Agreement for its convenience under Article 8 of the Agreement.

11.5 Bankruptcy of Owner or Design-Builder.

11.5.1 If either Owner or Design-Builder institutes or has instituted against it a case under the United States Bankruptcy Code (such party being referred to as the "Bankrupt Party"), such event may impair or frustrate the Bankrupt Party's ability to perform its obligations under the Contract Documents. Accordingly, should such event occur:

11.5.1.1 The Bankrupt Party, its trustee or other successor, shall furnish, upon request of the non-Bankrupt Party, adequate assurance of the ability of the Bankrupt Party to perform all future material obligations under the Contract Documents, which assurances shall be provided within ten (10) days after receiving notice of the request; and

11.5.1.2 The Bankrupt Party shall file an appropriate action within the bankruptcy court to seek assumption or rejection of the Agreement within sixty (60) days of the institution of the bankruptcy filing and shall diligently prosecute such action.

If the Bankrupt Party fails to comply with its foregoing obligations, the non-Bankrupt Party shall be entitled to request the bankruptcy court to reject the Agreement, declare the Agreement terminated and pursue any other recourse available to the non-Bankrupt Party under this Article 11.

11.5.2 The rights and remedies under Section 11.5.1 above shall not be deemed to limit the ability of the non-Bankrupt Party to seek any other rights and remedies provided by the Contract Documents or by law, including its ability to seek relief from any automatic stays under the United States Bankruptcy Code or the right of Design-Builder to stop Work under any applicable provision of these General Conditions of Contract.

11.6 Termination for Convenience.

11.6.1 Upon ten (10) days' written notice to Design-Builder, Owner may, for its convenience and without cause, elect to terminate this Agreement. In such event, Owner shall pay Design-Builder for the following:

11.6.1.1 All Work executed prior to receipt of the notice of termination;

11.6.1.2 The reasonable costs and expenses attributable to such termination, including demobilization costs and amounts due in settlement of terminated contracts with Subcontractors and Design Consultants; and

11.6.1.3 The amount, if any, set forth in Article 8 of the Agreement.

11.6.2 If Owner terminates this Agreement pursuant to Section 11.6.1 above and proceeds to design and construct the Project through its employees, agents or third parties, Owner's rights to use the Work Product shall be as set forth in Section 4.3 of the Agreement.

Article 12

Electronic Data

12.1 Electronic Data.

12.1.1 The parties recognize that Contract Documents, including drawings, specifications and three-dimensional modeling (such as Building Information Models) and other Work Product may be transmitted among Owner, Design-Builder and others in electronic media as an alternative to paper hard copies (collectively "Electronic Data").

12.1.2 Design-Builder, its Design Consultants, Subcontractors and any parties for whom they are responsible shall not use any artificial intelligence ("AI") system or generative AI tool in connection with the Project, including for the preparation of bids, estimates, schedules, design analyses, submittals, or any other Project-related deliverables, without the prior written consent of Owner which shall not be unreasonably withheld or delayed. No Electronic Data may be uploaded to, processed by, or used to train any AI system without such consent. Any approved use of AI shall comply with the Owner's data-security requirements and shall not diminish Design-Builder's obligations under the Agreement.

12.2 Transmission of Electronic Data.

12.2.1 Owner and Design-Builder shall agree upon the software and the format for the transmission of Electronic Data. Each party shall be responsible for securing the legal rights to access the agreed-upon format, including, if necessary, obtaining appropriately licensed copies of the applicable software or electronic program to display, interpret and/or generate the Electronic Data.

12.2.2 Neither party makes any representations or warranties to the other with respect to the functionality of the software or computer program associated with the electronic transmission of Work Product. Unless specifically set forth in the Agreement, ownership of the Electronic Data does not include ownership of the software or computer program with which it is associated, transmitted, generated or interpreted.

12.2.3 By transmitting Work Product in electronic form, the transmitting party does not transfer or assign its rights in the Work Product. The rights in the Electronic Data shall be as set forth in Article 4 of the Agreement. Under no circumstances shall the transfer of ownership of Electronic Data be deemed to be a sale by the transmitting party of tangible goods.

12.3 Electronic Data Protocol.

12.3.1 The parties acknowledge that Electronic Data may be altered or corrupted, intentionally or otherwise, due to occurrences beyond their reasonable control or knowledge, including but not limited to compatibility issues with user software, manipulation by the recipient, errors in transcription or transmission, machine error, environmental factors, and operator error. Consequently, the parties understand that there is some level of increased risk in the use of Electronic Data for the communication of design and construction information and, in consideration of this, agree, and shall require their independent contractors, Subcontractors and Design Consultants to agree, to the following protocols, terms and conditions set forth in this Section 12.3.

12.3.2 Electronic Data will be transmitted in the format agreed upon in Section 12.2.1 above, including file conventions and document properties, unless prior arrangements are made in advance in writing.

12.3.3 The Electronic Data represents the information at a particular point in time and is subject to change. Therefore, the parties shall agree upon protocols for notification by the author to the recipient of any changes which may thereafter be made to the Electronic Data, which protocol shall also address the duty, if any, to update such information, data or other information contained in the electronic media if such information changes prior to Final Completion of the Project.

12.3.4 The transmitting party specifically disclaims all warranties, expressed or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose, with respect to the media transmitting the Electronic Data. However, transmission of the Electronic Data via electronic means shall not invalidate or negate any duties pursuant to the applicable standard of care with respect to the creation of the Electronic Data, unless such data is materially changed or altered after it is transmitted to the receiving party, and the transmitting party did not participate in such change or alteration.

Article 13

Miscellaneous

13.1 Confidential Information.

13.1.1 Confidential Information is defined as information which is determined by the transmitting party to be of a confidential or proprietary nature and: (i) the transmitting party identifies as either confidential or proprietary; (ii) the transmitting party takes steps to maintain the confidential or proprietary nature of the information; and (iii) the document is not otherwise available in or considered to be in the public domain. The receiving party agrees to maintain the confidentiality of the Confidential Information and agrees to use the Confidential Information solely in connection with the Project.

13.2 Assignment.

13.2.1 Neither Design-Builder nor Owner shall, without the written consent of the other assign, transfer or sublet any portion or part of the Work or the obligations required by the Contract Documents.

13.3 Successorship.

13.3.1 Design-Builder and Owner intend that the provisions of the Contract Documents are binding upon the parties, their employees, agents, heirs, successors and assigns.

13.4 Governing Law.

13.4.1 The Agreement and all Contract Documents shall be governed by the laws of the State of Maine, without giving effect to its conflict of law principles and, except as specifically provided Section 10.3 any claim arising out of or in connection with the Agreement shall be subject to the exclusive jurisdiction of the Courts of the State of Maine.

13.5 Severability.

13.5.1 If any provision or any part of a provision of the Contract Documents shall be finally determined to be superseded, invalid, illegal, or otherwise unenforceable pursuant to any applicable Legal Requirements, such determination shall not impair or otherwise affect the validity, legality, or enforceability of the remaining provision or parts of the provision of the Contract Documents, which shall remain in full force and effect as if the unenforceable provision or part were deleted.

13.6 No Waiver.

13.6.1 The failure of either Design-Builder or Owner to insist, in any one or more instances, on the performance of any of the obligations required by the other under the Contract Documents shall not be construed as a waiver or relinquishment of such obligation or right with respect to future performance.

13.7 Headings.

13.7.1 The headings used in these General Conditions of Contract, or any other Contract Document, are for ease of reference only and shall not in any way be construed to limit or alter the meaning of any provision.

13.8 Notice.

13.8.1 Whenever the Contract Documents require that notice be provided to the other party, notice will be deemed to have been validly given (i) if delivered in person to the individual intended to receive such notice; (ii) four (4) days after being sent by registered or certified mail, postage prepaid to the address indicated in the Agreement; (iii) if transmitted by facsimile, by the time stated in a machine-generated confirmation that notice was received at the facsimile number of the intended recipient; or (iv) by electronic mail, by the time frame stated in the email-generated confirmation that notice was received by the email of the intended recipient.

13.9 Amendments.

13.9.1 The Contract Documents may not be changed, altered, or amended in any way except in writing signed by a duly authorized representative of each party.

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Attachment C: Economic Evaluation of Regional Biosolids Facility

DRAFT



Technical Memorandum

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Phase 3 Memorandum

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Limitations:

This is a draft memorandum and is not intended to be a final representation of the work done or recommendations made by Brown and Caldwell. It should not be relied upon; consult the final report.

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List of Abbreviations

| | |
|-------------|---|
| BC | Brown and Caldwell |
| BMP | Biosolids Master Plan |
| CHP | combined heat and power |
| DSST | digested sludge storage tanks |
| dtpd | dry tons per day |
| FM | Force Main |
| hr | hour |
| MAD | mesophilic digestion |
| MOA | Memorandum of Agreement |
| mmbtu | million British thermal units |
| MGD | million gallons per day |
| MG | million gallons |
| NPCs | net present costs |
| OMB | Office of Management and Budget |
| PFAS | per- and polyfluoroalkyl substances |
| PWD | Portland Water District |
| kg | kilogram |
| LF | linear foot |
| lbs-TS/d | pounds total solids per day |
| lbs-VS/cf-d | pounds volatile solids per cubic foot per day |
| PS | Primary Solids |
| PU | peer utilities |
| RFEI | Request for Expressions of Interest |
| RFQ | Request for Qualifications |
| TM | Technical Memorandum |
| THP | Thermal Hydrolysis |
| TWAS | thickened WAS |
| WAS | Waste Activated Sludge |
| wt | wet ton |
| wtpd | wet tons per day |

Executive Summary

The Portland Water District (PWD) is advancing a multi-phase biosolids master planning effort to address increasing regulatory, operational, and financial risks associated with long-term biosolids management in Maine. Legislative requirements related to per- and polyfluoroalkyl substances, limited in-state disposal capacity, and escalating disposal costs have heightened the need for a more resilient and controllable biosolids processing strategy. This Technical Memorandum (TM 3) presents the Phase 3 economic evaluation supporting development of a Regional Biosolids Facility capable of processing all PWD-generated biosolids while also providing capacity for potential regional partner utilities.

This evaluation builds upon the Biosolids Master Plan (Phase 1) and the market sounding and technology screening completed under Phase 2. The Phase 3 effort focuses on refining digestion and facility configuration alternatives and evaluating key decision points, including the economic value of anaerobic digestion for East End solids, onsite versus offsite digestion, sludge conveyance methods to an offsite facility, and the implications of incorporating biosolids from peer utilities (PU).

Updated solids flows and loads were developed using recent operational data and growth projections. Results confirm that overall solids quantities are generally consistent with prior phases, with moderate growth projected at the East End facility over the planning horizon. Peaking factors were refined using statistical analysis of historical data, resulting in selection of a maximum 14-day design basis for East End solids to balance reliability and capital cost.

A peer utility survey was conducted to assess regional interest in participating in a shared biosolids processing facility. Seven utilities expressed a clear willingness to participate, citing service reliability and long-term cost stability as primary drivers, while additional utilities indicated conditional interest depending on hauling distance, tipping fees, and contractual structure. These results informed evaluation of both PWD-only and regional facility sizing scenarios.

Eight alternatives were evaluated using a 20-year life-cycle cost framework. Alternatives ranged from a dewatering-only baseline to various configurations of mesophilic anaerobic digestion (MAD), thermal hydrolysis with digestion (THP+MAD), onsite versus offsite digestion, multiple conveyance methods, and inclusion of peer utility solids. Net present cost (NPC) comparisons incorporated capital, operations and maintenance, energy, labor, hauling, and biosolids management costs.

At current disposal rates, dewatering alone remains the lowest-cost option. However, increases in disposal costs to those already observed elsewhere in Maine make THP+MAD economically competitive. Comparisons between onsite and offsite digestion show relatively small differences in NPC. The final decision on site location and whether to include PU can be driven primarily by non-economic factors such as site constraints, constructability, operational complexity, and long-term flexibility. Incorporating peer utility solids does not materially affect PWD's costs and offers the opportunity to support regional biosolids management goals without financial disadvantage to PWD.

Section 1: Introduction

1.1 Project Background

Portland Water District (PWD) completed a Biosolids Master Plan (BMP) in April 2023 with Brown and Caldwell (BC) to identify a path forward for addressing wastewater solids management challenges. The BMP was spurred by legislative action requiring wastewater solids managed in-state be landfilled due to concerns for per- and polyfluoroalkyl substances (PFAS). The BMP also sought to integrate PWD's programmatic goals

of enhancing reliability and regulatory resiliency and support the public’s confidence in PWD’s environmental stewardship. The BMP is also known as “Phase 1” of the overall project.

In the BMP, volume reduction was identified as a key strategy in reducing the risks associated with PWD’s current biosolids management strategy. Recommendations of this plan included giving consideration to dewatering improvements, anaerobic digestion, and thermal drying. A “no regrets” recommendation for a new dewatering system was implemented by PWD and is currently in design.

One pathway of the dynamic roadmap recommends that PWD collaborate with regional partners to evaluate the feasibility of jointly developing an offsite regional biosolids processing facility. This facility would utilize solids processing technologies such as anaerobic digestion, drying, and thermal treatment to achieve PWD’s goals and objectives.

In 2023, PWD issued a Request for Expressions of Interest (RFEI) from project developers and technology providers. This resulted in 29 Responses that provided an overview of commercially available technologies and project delivery models. Responses were evaluated and screened to develop alternatives either for regional solids processing or for processing PWD’s solids onsite as a basis for comparison. BC supported this effort and developed preliminary project costs and layouts based upon several of the top scoring submittals. Several such scenarios were subsequently modeled in 2023, based upon information received during the RFEI process. The RFEI and further evaluation of the technologies and regional/onsite alternatives is also known as “Phase 2” of the overall project.

Because the East End Wastewater Treatment Facility (East End) produces raw primary sludge, which is a less desirable feedstock for thermal drying, the Phase 2 Technical Memorandum (TM) recommended mesophilic anaerobic digestion and drying following the new dewatering system. The Phase 2 TM is available on PWD’s website ([Biosolids Management - Portland Water District](#)). However, the East End site does not have adequate space for both unit processes and does not have the space to accept solids from other facilities. The Phase 2 TM recommended offsite drying. A current Memorandum of Agreement (MOA) has been signed with ecomaine as the host site for a solids dryer.

Acting as the Owner Advisor for PWD, Brown and Caldwell (BC) has now completed a further study to assist PWD with developing a scope and project for a biosolids facility (“Phase 3”). The results of this study are presented in this TM.

1.2 Goals and Objectives

After Phase 2, the determination of a location for the digester had yet to be defined. Both onsite and offsite facilities have advantages and disadvantages. This evaluation was completed to assist PWD with developing a scope and project for a biosolids facility. This was further developed into the following objectives:

- To define the mass and characteristics of the sludge leaving East End in the near- and long-term for the facility.
- To define the mass of the sludge leaving Westbrook/Gorham/Windham Wastewater Treatment Facility (Westbrook) in the near- and long-term for the regional facility.
- To determine if anaerobic digestion is economically beneficial to implement onsite at East End.
- To determine whether the anaerobic digestion would be more beneficial onsite at East End or offsite at ecomaine.
- To determine potential configuration and sizing of the offsite regional facility.

Concurrently with the results of this study, PWD is issuing a Request for Qualifications (RFQ) to design, permit, construct, and operate a new regional biosolids processing facility (Project) to process biosolids generated at PWD’s treatment plants, with the capacity to incorporate biosolids from other Maine utilities.



Section 2: Basis of Evaluation

Following the Phase 2 study, discussion around evaluation criteria established a desire to employ a proven technology as the primary processing technology. For the purposes of this evaluation, “proven” is defined as installed at commercial scale on domestic wastewater sludge and operational for more than five years. This led to a focus on thermal drying, a proven process in the wastewater industry. Processing undigested primary sludge can create significant operational issues and downtime. PWD thus elected to include anaerobic digestion for East End solids to the scope of the potential project. For the purposes of this analysis, the project considered drying all of PWD’s solids and included anaerobic digestion and dewatering at a minimum for East End’s solids.

Due to site constraints at the East End plant, PWD entered into a MOA with a nearby solid waste site, ecomaine. While this site is within 10 miles of the East End plant, it nevertheless represents a remote or external location that will be difficult for PWD to operate and maintain. This MOA would allow for development of a regional biosolids processing facility. ecomaine is currently exploring whether the existing landfill permit will allow for the disposal of dried biosolids generated as part of the project, thus removing a risk factor for respondents. However, for this analysis it was assumed that the dried material produced would be managed based on PWD’s current disposal contract.

Phase Two of this project developed a suite of onsite and offsite alternatives that were examined in detail in section 3 of the Phase 2 TM. The variety of tradeoffs between onsite and offsite options did not lead to a clear leader, and PWD elected to have BC further refine and study the options in this third phase of the project. BC and PWD held a series of workshops to discuss economic and non-economic factors and develop a second set of alternatives to evaluate. These alternatives are discussed in section 3 of this TM.

The initial analysis presented assumes a traditional design bid build project for a municipality with redundancies. The evaluation detailed in this report assumes that PWD will own and operate the facility. These assumptions will be described and detailed below. Ultimately, this is not how the facility may be designed, built, and operated, as there may be significant cost savings resulting from alternative design/build/operations strategies resulting from responses to the concurrent RFQ.

2.1 Updated Flows and loads

As part of the objective to define the mass and characteristics of the sludge leaving all of PWD’s facilities, BC further refined its estimates to update the flows and loads from Phase 2. The current flows and loads were confirmed with updated data. Data were evaluated from June 1, 2023, to May 14, 2024, using interquartile range methodology for outlier detection. The current flows and loads from Phase 1 and 2 did not change significantly during Phase 3. The primary impacts were to the future flows/loads at the East End WWTP. For this Phase 3 scenario, instead of assuming East End design capacity, the project flows and loads increased annually by 0.82 percent for 20 years based on Cumberland County, Maine census data (www.census.gov). Additionally, the projected loads from the new North Windham facility were included starting in 2028 as provided by the design team. The flows and loads from Westbrook did not change from Phase 2. Table 1 summarizes the loads from East End and Westbrook in 2024 and in the future.

| Table 1. A Summary of PWD's Flows and Loads | | | |
|--|------------|--------|--------|
| Parameter | Units | 2024 | 2045 |
| East End Wastewater Treatment Facility (including Windham WWTF) | | | |
| PS Solids | lbs TS/day | 14,430 | 17,100 |
| WAS Solids | lbs TS/day | 13,900 | 16,500 |
| Annual Average at 21%TS | wtpd | 46 | 58 |
| Westbrook Gorham Wastewater Treatment Facility | | | |
| Annual Average at 19%TS | wtpd | 13 | 16 |

PS = primary sludge
WAS = waste activated sludge
TS = total solids
% = percent
lbs TS/day = pounds total solids per day
wtpd = wet tons per day

As part of this initial evaluation, selection of appropriate peaking factors at East End were determined. Peaking factors are calculated using the rolling average methodology as detailed in Phase 1.

Table 2 summarizes the peaking factors used for onsite and offsite evaluations. Due to the nature of treatment and flow at East End, a standard max day or max 7 day was not automatically selected as the default peaking factor. Solids frequency and risk were evaluated and discussed with the team to make an informed decision. For instance, Figure 1 illustrates the frequency in which thickened sludge is at or above various values in a year. After discussions, PWD decided that max 14 day would be the default peaking factor. PWD determined that designing to max day would oversize process equipment, significantly increasing costs as well.

| Table 2. East End peaking factors | | | | | |
|-----------------------------------|----------------|---------|-----------|------------|------------|
| Parameter | Annual Average | Max Day | Max 7-Day | Max 14-Day | Max 30-Day |
| WAS Load | 1 | 2.80 | 2.09 | 1.88 | 1.62 |
| Primary Sludge | 1 | 2.60 | 1.78 | 1.67 | 1.38 |
| Hauled Product | 1 | 2.47 | 1.45 | 1.40 | 1.35 |

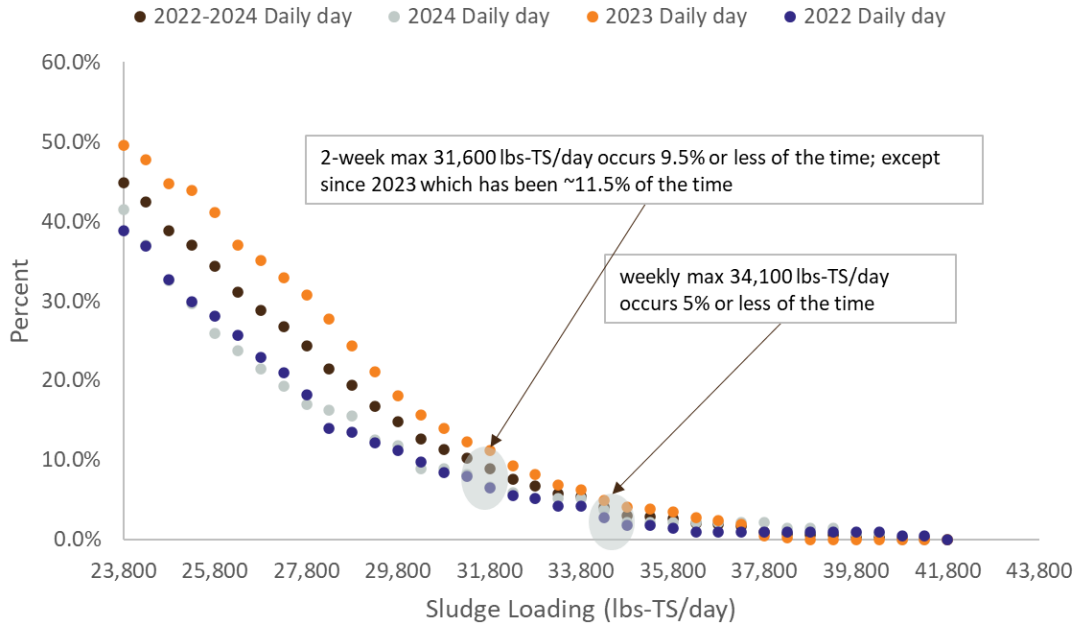


Figure 1. Frequency of Thickened Blend Sludge

2.2 Peer Utility Survey

PWD’s overall vision for the project is to include capacity for PU/regional partners to encourage local management and potentially offset or reduce overall costs and fees. Accordingly, PWD issued a survey to potential regional partners to gauge interest in the project and willingness to pay. Twenty utilities responded to this survey, with seven expressing a willingness to formally participate in a regional processing facility as a means of stabilizing biosolids management costs. The remaining respondents cited cost, proximity to facility, service reliability and environmental benefits as key attributes that would impact their decision to use a regional facility.

Table 3. A Summary of PWD’s Peer Utility Survey

| Respondent Category | Number of Respondents | Range of Acceptable Tip Fees | Range of Current Management Fees | Preferred Transportation Distance |
|---------------------|-----------------------|------------------------------|----------------------------------|-----------------------------------|
| “Yes” Response | 7 | \$200-\$350/wet ton | \$123-\$550/wet ton | Up to 100 miles |
| “Maybe” Response | 13 | \$150-\$200/wet ton* | \$88-\$218/wet ton | 25-50 miles |

Note: *Two small facilities noted a willingness to pay up to \$350/wet ton

Among the “yes” responses, tip fees tended to be higher than those of the utilities responding “maybe”, and willingness to haul biosolids a longer distance in exchange for service reliability was higher. Collectively, the “yes” responses represent treatment plants totaling approximately 8.5 million gallons per day (MGD) of flow, while the “maybe” responses represent just over 33 MGD of flow. Of note, the Lewiston Auburn Clean Water Authority is the largest of these “maybe” facilities and already has anaerobic digestion in place at its facility. Further details of the survey can be found on TM 1: Market Sounding for Regional Facility Delivery.



2.3 Design Parameters and Assumptions Summary

Based on the updated flows and loads analysis and the potential volume of solids available from partner utilities, various alternatives were sized as summarized in Table 4. The following sections will detail each alternative and assumptions.

| Table 4. Assumptions Summary of Anticipated Regional Facility Sludge Characteristics | | | |
|--|----------------|---------------------------------|--|
| Current Facility Loading | | | |
| | East End WWTP | Westbrook-Gorham WWTW | Outside Utilities |
| Type of sludge produced | Raw PS and WAS | WAS only | Mostly WAS only with some raw PS & WAS |
| Percent total solids average (range) | 26% (21-30%)* | 20% (18-21%) | 25% (14-26%) |
| Percent volatile solids average (range) | 84% (82-86%) | 82% (unmeasured value, assumed) | 70% (unmeasured value, assumed) |
| Hauled Solids (wet tons per year) | 15,900 | 4,300 | 4,900 |
| Estimated number of days hauled per week | 6 | 3 | 5 (Assumed staggered schedule) |
| Future Facility Loading | | | |
| Hauled Solids (wet tons per year) | 18,900 | 7,700 | 4,900 |
| Estimated Number of days hauled per week | 6 | 5 | 5 (Assumed staggered schedule) |

Note: *Assuming new centrifuge dewatering equipment are operational

Section 3: Economic Evaluation Methodology

One outcome of the workshops conducted under this phase of the study was a revised set of alternative facility configurations and technologies for analysis. This resulted in 8 alternatives, 5 onsite and 3 offsite. Alternative 6 was further segmented to three sub-alternatives (a-c), representing different conveyance and pretreatment options. A stepwise approach was taken to systematically determine an optimal facility configuration for PWD.

1. Step 1: Develop a baseline (alternative 1)
2. Step 2: Evaluate the feasibility of anaerobic digestion at East End, in a variety of configurations (alternatives 2-4)

Note that for the first 5 alternatives, neither the cost associated with separately managing Westbrook’s solids nor the cost of drying was evaluated.

3. Step 3: Evaluate onsite versus offsite digestion based on the most economically viable onsite digestion alternative at the offsite location for East End sludge only assuming dewatered solids conveyance. (alternative 4-5)

Next determine the method of transporting East End sludge to the offsite facility.

4. Step 4: The methods of transporting East End sludge to an offsite facility were evaluated, resulting in Alternatives 6a through 6c variations. The different scenarios were evaluated to determine the most cost-effective digestion and hauling method as rewetting dewatered sludge for mesophilic digestion (MAD) without a pretreatment step has not been a proven solution.

Note that alternatives 6a-6c include drying and management of Westbrook sludge at the offsite facility. However, only East End sludge would be digested. None of the variations of alternative 6 include regional capacity for PU.

5. Step 5: Evaluate adding in capacity for PU that responded yes (approx. 8.5 MGD total capacity) at the offsite location.
 - a. Alternative 7 includes sizing the digester complex only for East End sludge only but sizing the dryer for PU and Westbrook.
 - b. Alternative 8 includes sizing both the digester complex and the dryer for PU.

Putting all the alternatives together into a complete list, the resulting analysis was completed on these 8 options:

1. Dewatering: Baseline, no digestion, with dewatering upgrades in the existing building.
2. PS MAD: PS MAD only with new dewatering. Biogas used for electricity and heat recovery.
3. MAD: PS and WAS MAD with new dewatering. Biogas used for electricity and heat recovery.
4. THP+MAD: THP pretreatment followed by MAD with new dewatering. Biogas used in steam boiler for heat.
5. East End only Offsite: Hauled dewatered East End solids to offset facility. THP+MAD of all of the solids East End followed by dewatering and cake management.
6. PWD only: In these variations, the digester and dryer would be located at ecomaine. These alternatives do not include the PU.
 - a. PWD only - Dewatered: Dewatered East End cake and Westbrook cake would be hauled to ecomaine. THP+MAD of both primary and waste activated sludge (WAS) from East End, followed by dewatering. Both sludges would then be thermally dried.
 - b. PWD only - Thickened and Trucked: In this variant, the THP system would be eliminated. Digested primary and waste activated solids from East End would be thickened to approximately 5 percent and trucked to the offsite drying facility where it is digested prior to drying. Cake from Westbrook would be hauled directly to ecomaine for drying.
 - c. PWD only - Force Main (FM): Same as 6b but replacing trucking with a force main from East End to ecomaine.
7. PWD + PU: This variant is the same as 6a, but with the dryer available for use by PU.
8. THP+MAD ALL: All components would be sized for and available to both PWD and PU.

3.1.1 Basis of Equipment Sizing and Costs

As described in section 2.1, the peaking factors were updated to max 14-day loads. For this evaluation the peaking factor was only applied to the East End solids. Westbrook and PU contributions did not increase using the peaking factors as Westbrook and the PU deliveries could be managed so that they are staggered.

The major construction elements are summarized in Table 5 and Table 6. The proposed layouts for the onsite alternatives are shown in Appendix A as well as the table of assumptions for sizing.

Table 5. Summary of Onsite Alternative Features

| PWD Only Onsite Alternatives | | | | |
|--|---|---|--|---|
| Alt 1: Dewatering | Alt 2: PS digestion | Alt 3: MAD | Alt 4: THP+MAD (Onsite) | Alt 5: THP+MAD (Offsite) |
| Major Construction Elements | | | | |
| <ul style="list-style-type: none"> New centrifuge dewatering in existing building | <ul style="list-style-type: none"> New centrifuge dewatering in existing building Existing FM rerouting 118,000 gal TWAS storage with aeration 3 x 0.62 MG digesters 0.62MG DSST Gas conditioning and 435 kW CHP facility | <ul style="list-style-type: none"> New centrifuge dewatering in existing building Existing FM rerouting 118,000 gal TWAS storage with aeration 3 x 0.77 MG digesters 2 x 0.49MG DSST Gas conditioning and 435 kW CHP facility | <ul style="list-style-type: none"> New centrifuge dewatering in existing building Existing FM rerouting 1 x B2 THP system 3 x 0.53 MG digesters 0.43MG DSST | <ul style="list-style-type: none"> New centrifuge dewatering in existing building Cake receiving 1 x B2 THP system 3 x 0.53 MG digesters 0.43MG DSST |

CHP = combined heat and power
 DSST = digested sludge storage
 MG = million gallons
 TWAS = thickened WAS
 kW = kilowatts
 FM = Force Main

Table 6. Summary of Offsite Alternatives Features

| Offsite Alternatives | | | | |
|---|---|---|---|---|
| Alt 6a: PWD only - Dewatered | Alt 6b: PWD only - Thickened and Trucked | Alt 6c: PWD only - FM | Alt 7: PWD + PU | Alt 8: THP+MAD ALL |
| Major Construction Elements | | | | |
| <ul style="list-style-type: none"> Cake receiving 1 x B2 THP system 3 x 0.77 MG digesters 0.45MG DSST Thermal drying with building and dried material load out (1,200 kg water remove/hr capacity) | <ul style="list-style-type: none"> Cake and thickened sludge receiving 3 x 0.53 MG digesters 0.90MG DSST Thermal drying with building and dried material load out (1,900 kg water remove/hr capacity) | <ul style="list-style-type: none"> 39,600 LF of FM 3 x 0.77 MG digesters 0.90MG DSST Thermal drying with building and dried material load out (1,900 kg water remove/hr capacity) | <ul style="list-style-type: none"> Cake receiving 1 x B2 THP system 3 x 0.58 MG digesters 0.45MG DSST Thermal drying with building and dried material load out (1,600 kg water remove/hr capacity) | <ul style="list-style-type: none"> Cake receiving 1 x B2 THP system 3 x 0.88 MG digesters 0.70MG DSST Thermal drying with building and dried material load out (930 kg water remove/hr capacity) |

Common Construction Elements to All Alternatives
 New centrifuge dewatering in existing building at East End
 Centrifuge dewatering at ecomaine
 kg = kilogram
 hr = hour
 LF = linear foot

The capital costs are based on Class 5 conceptual cost estimates per the Association for the Advancement of Cost Engineering International, which carry a level of accuracy of -50 to +100 percent. Major equipment



costs were performed based on vendor budgetary estimates and comparable recent project costs. Where a vendor budgetary quote was obtained, the equipment cost was multiplied by a sequence of standard cost estimate planning factors to develop an overall estimated project cost.

3.1.2 Annual operating and maintenance costs

All of the alternatives were compared after dewatering to allow for an equitable comparison. To compare operational costs among alternatives, the annual operating costs for each alternative were developed and 20-year life cycle costs were calculated based on facility operation. Table 7 provides the unit cost assumptions used for calculation of the business case evaluation.

| Table 7. Economic Unit Costs for Lifecycle Cost Analysis | | | |
|---|---------------|----------------|---|
| Cost element | Units | Value in Model | Basis |
| Solids Handling and Disposition | | | |
| Solids management (hauling and tip fee) | \$/wet ton | \$131 | blended rate based on current contract |
| Hauling transfer fee to regional facility from PWD facility | \$/wet ton | 20 | based on information provided from haulers |
| Central Maine Annualize Demand Charge | \$/kWh | \$3.99 | based on rate schedule |
| Standby Charge | \$/kWh | \$0.095 | based on rate schedule |
| Generation energy charge | \$/kWh | \$0.004 | based on rate schedule |
| Natural gas | \$/mmbtu | \$12.85 | blended rate from Sept -May |
| Polymer cost | \$/lb-polymer | \$1.98 | estimate for centrifuge polymer |
| Regional partner tip fee | \$/wet ton | \$200 | Estimated |
| Operator/maintenance labor cost | \$/hr | \$53.34 | loaded rate based on average PWD labor |
| Repair and replacement (R&R) | % | 2% | assumed to be of the mechanical equipment costs |
| Nominal discount rate, annual percentage | % | 2.2% | based on Office of Management and Budget (OMB) Circular 94 Appendix C revised December 23, 2023 |
| Escalation rate | % | 4.7% | based on OMB Cir 94 Appendix C revised December 23, 2023 |

mmbtu = million British thermal units

Section 4: Alternatives Analysis Results

This evaluation ultimately compared ten alternatives in a stepwise fashion to assess the economic feasibility of anaerobic digestion either onsite or offsite as well as the inclusion of PU. These alternatives were detailed previously in Section 3. They are also summarized in Table 8. The overall NPC graph of all the alternatives is presented in Figure 2. Further analysis of the various options follows, using the same stepwise approach laid out in Section 3. The detailed NPC breakdowns for each alternative are presented in Appendix B. Note that all of the NPC graphs are shown assume biosolids management fees at \$131/wet tons (wt) unless otherwise stated.

The analysis completed here assumes a traditional design bid build with full to partial redundancy. These redundancies, if managed properly, could allow excess capacity to be used by PU. Although this could help to offset the overall costs, the use of excess capacity for PU was not assumed in this analysis unless specified and accounted for in the sizing. For instance, if the offsite facility were sized for PWD only (option 6a), the



facility would still have enough additional capacity to accept 19 wtpd in 2045 at 25 percent TS (more can be received in early years). This equates to all of the PU that responded yes to the survey and a portion of the additional respondents.

| Table 8. A Summary of Alternative Features Analyzed in This Comparison | | | | | | | | | | |
|--|----------|-------------|------------|----------------|----------------|-------------|-------------------------|---------------------|-------------|-------------|
| | Alt 1 | Alt 2 | Alt 3 | Alt 4 | Alt 5 | Alt 6a | Alt 6b | Alt 6c | Alt 7 | Alt 8 |
| Primary Location | East End | East End | East End | East End | ecomaine | ecomaine | ecomaine | ecomaine | ecomaine | ecomaine |
| Onsite Digestion type | None | PS only MAD | PS+WAS MAD | PS+WAS THP+MAD | PS+WAS THP+MAD | | | | | |
| East End Solids Conveyance Type | | | | | Hauled cake | Hauled cake | Hauled thickened sludge | FM thickened sludge | Hauled cake | Hauled cake |
| Hauled Westbrook cake | | | | | | X | X | | | |
| Hauled PU cake | | | | | | X | | | X | X |
| THP + MAD - East End only Solids | | | | | | X | | | X | |
| MAD - East End only Solids | | | | | | | X | X | | |
| THP - all | | | | | | | | | | X |
| Thermal drying | | | | | | X | X | X | X | X |

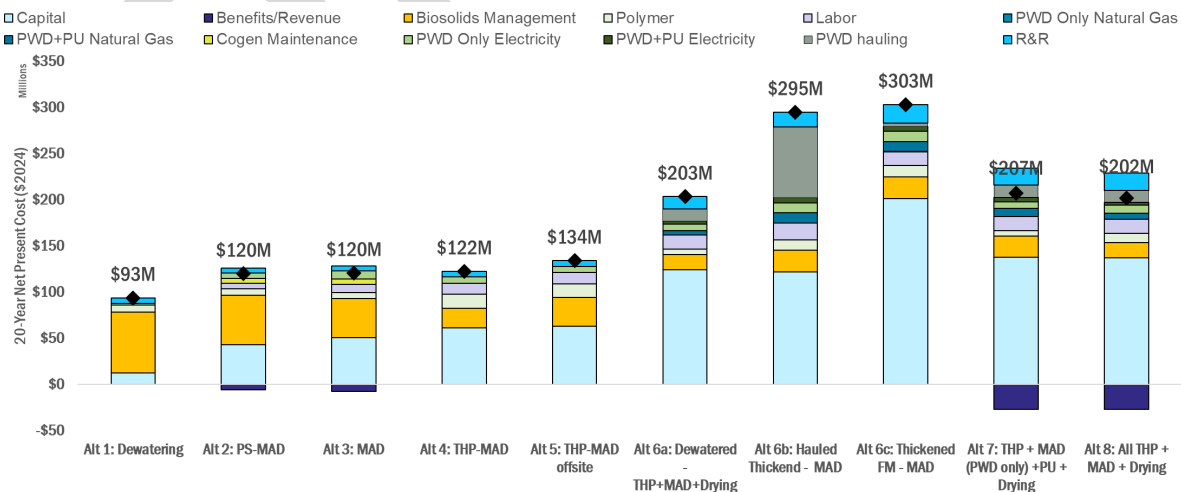


Figure 2. Net Present Costs Summary of all of the Alternatives



With Alternatives 1-5, only East End was considered as part of the evaluation as the team wanted to determine the effectiveness of digestion of East End sludge either onsite or offsite. Once the benefits of offsite MAD it were determined, the evaluation then included Westbrook (Alternative 6a-6c). There is a significant increase in the overall NPCs starting in Alternative 6. As noted, these alternatives now include management of Westbrook, which includes hauling to the offsite facility as well as drying of both Westbrook dewatered solids and East End dewatered digested solids (offsite digestion). Finally, the addition of PU (Alternatives 7-8) were included as part of the evaluation. These NPCs, while summarized above, will be described in detail in this section.

An assessment of the cost effectiveness of anaerobic digestion at East End over a 20-year period indicates that the baseline scenario (Alternative 1) of installing new dewatering equipment is the most cost-effective option, as illustrated in Figure 3. Additionally, the three onsite digestion variations show minimal differences in overall NPCs.

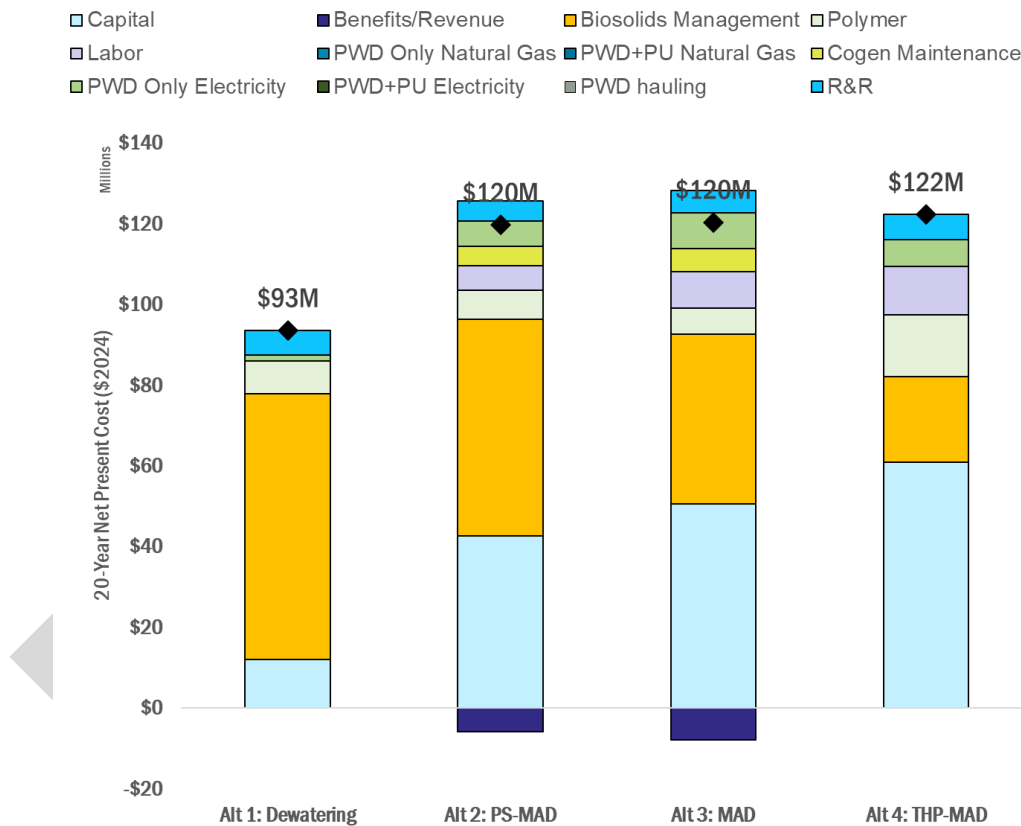


Figure 3. Onsite Alternative Cost Comparison

However, Figure 4 highlights that biosolids management after dewatering (e.g., hauling and landfilling) constitutes the largest expenditure for PWD, with significant variation among the four alternatives. Although at first glance choosing the baseline seems to be the least cost, this option opens PWD to significant future risk. Dewatering alone leaves PWD with the largest volume of solids to manage.

The THP+MAD approach substantially reduces disposal cost by decreasing the volume of solids during digestion and improving dewaterability after digestion, but at the expense of additional capital cost. The breakeven point for THP+MAD onsite is \$215/wt. If biosolids management fees increase from the current price of \$131/wt to \$215/wt, then Dewatering (Alternative 1) and THP+MAD (Alternative 4), would have equal NPCCs as shown in Figure 4.

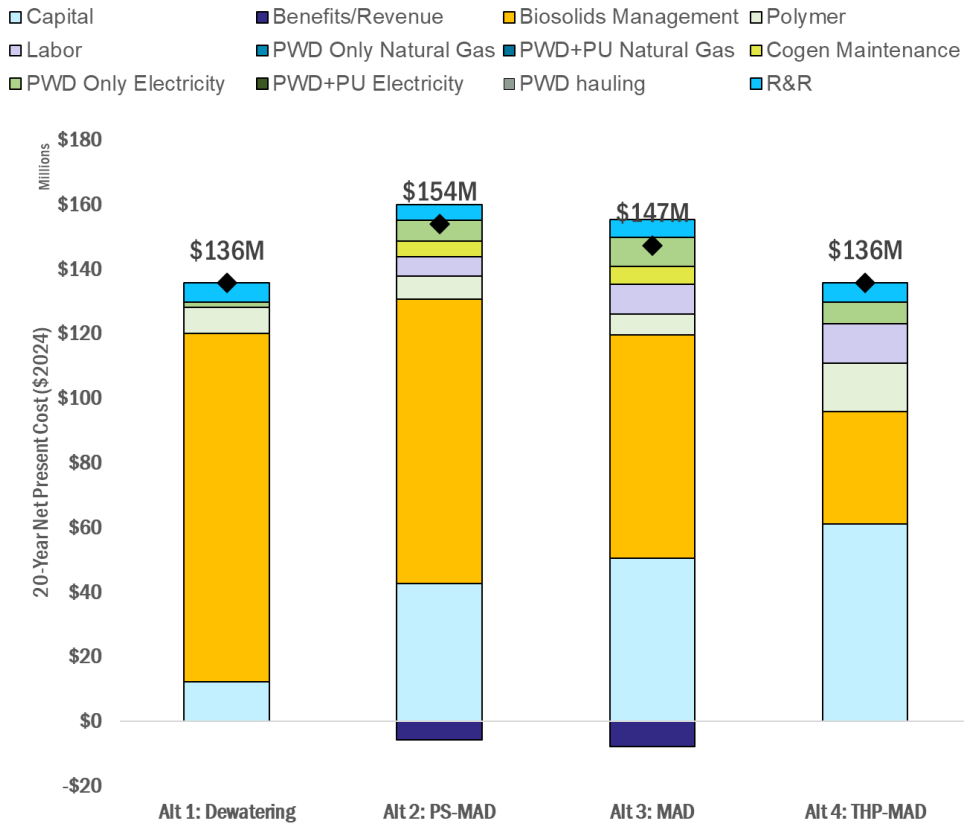


Figure 4. Onsite Alternative Cost Comparison with Disposal Hauling and Tip Fee at \$215/wt

There are currently utilities paying over \$200/wt in Maine, and this tip fee is considered a representative market rate. Given the uncertainty surrounding biosolids disposal options in Maine, along with limited landfill space, biosolids management costs above \$215/wet ton are a distinct possibility. Additionally, the Bluefield Market Report (2025) indicates that fees for Maine will increase by 116 percent by 2035. Above \$215/wt, Alternative 4 gives the lowest NPC.

THP+MAD (Alternative 4) stands out as the optimal onsite digestion setup for PWD thanks to the greatly reduced solids volumes remaining for disposal. However, any digestion option would increase operational complexity at East End, especially because available space is restricted. Keeping the digester onsite would introduce complexity during construction to maintain existing operations. Implementing this alternative includes, for example, relocation of an existing influent FM.

If PWD decides to have digestion offsite, conveyance of East End sludge to ecomaine becomes a critical consideration. This impacts not only operational costs but capital costs as it drives the type of receiving required as well as any pretreatment ahead of MAD. For this assessment, conveyance of thickened sludge

either hauled (6b) or piped (6c) was compared to hauled dewatered cake (6a). These NPCs are shown in Figure 5. Even with the additional capital expenditure of THP, hauling dewatered cake (6a) to ecomaine was the lowest NPC conveyance methodology. Note that all three of these options included the costs of drying the digested sludge as well as Westbrook sludge.

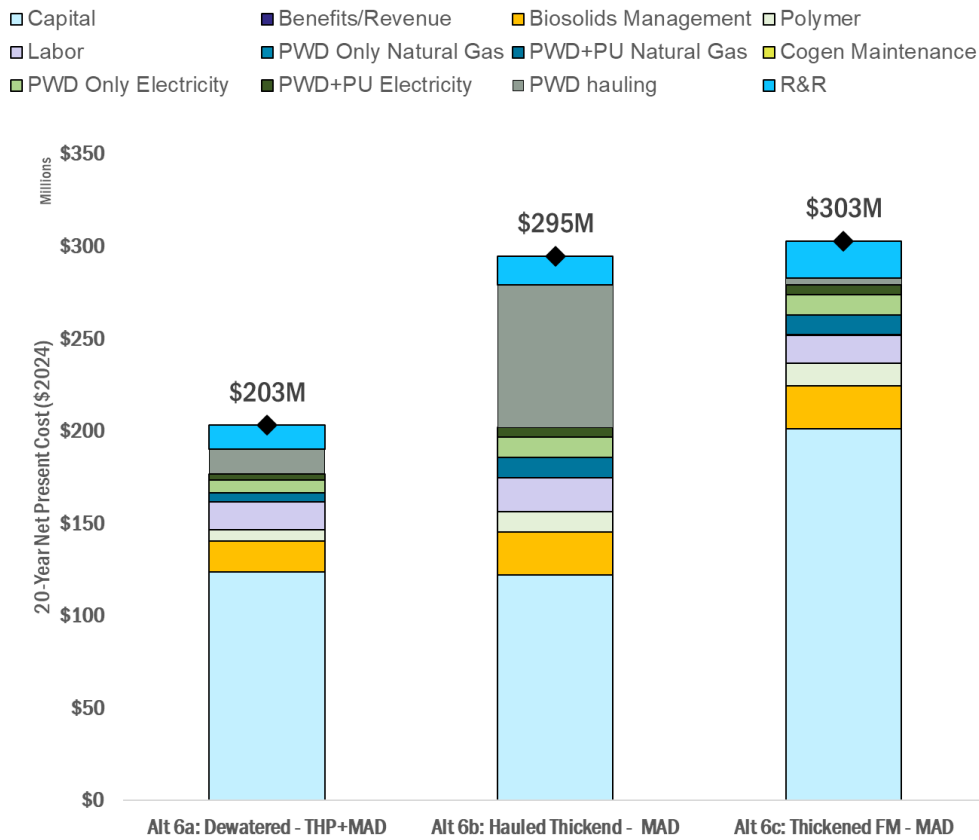


Figure 5. East End Conveyance to Offsite Location Cost Comparison

The next step was to compare costs between onsite versus offsite MAD, as shown in Figure 6. As noted previously, this analysis compared Alternatives 4 and 5 for East End only sludge. The main difference between these alternatives are the location of digestion and cake receiving at the offsite facility. When comparing Alternatives 4 and 5, there is roughly a 10 percent difference between these two alternatives, which at this phase of design are essentially equal. This means that there is not an appreciable difference in cost between locating solids processing facilities on site or off site under the Alternative 5 configuration.

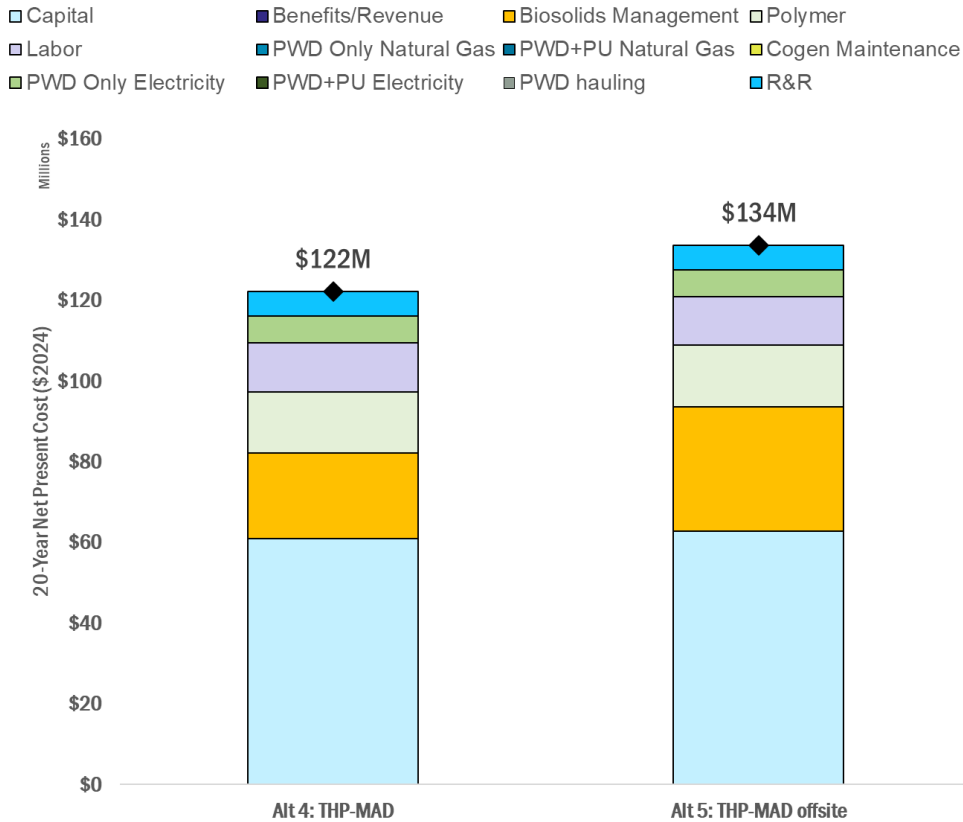


Figure 6. Onsite Versus Offsite Anaerobic Digestion of East End Sludge Cost Comparison

At this level of analysis, the decision to have digestion onsite or offsite comes down largely to non-economic factors such as constructability, logistical considerations, etc. Given the high risk from increased costs related to disposing of wet solids, BC continues to recommend installing a thermal dryer for volume reduction. The most favorable PWD-only solution that incorporates Westbrook solids and minimizes the risk of future cost escalations then becomes offsite Alternative 6a.

Finally, the team evaluated the inclusion of solids from PU versus option 6a. In Alternative 7, we increased the size of the thermal dryers to handle PU solids but sized the digester complex only to handle PWD solids from East End. In Alternative 8, we increased the size of the digesters to include PU as well as Westbrook solids. As indicated in Figure 7, if PU pay a \$200/wt tipping fee, all 3 options are very nearly equal in terms of NPC. But while there were additional capital costs associated with MAD, the reduced mass of biosolids to be managed after digestion results in approximately 60 percent less thermal drying capacity required (Alternative 7 versus Alternative 8). While inclusion of PU at \$200/wt does not increase PWD’s fees, it does not account for reducing the true cost of the facility for PWD. This value would need to account for capital costs as well as operational costs. If PWD wanted to share some of the capital cost risk with PU, the resulting tipping fee could be over \$300/wt for PU.

Should fees to dispose of the remaining solids rise in the future, alternatives 6a and 8 would provide the most protection from further risk. Again, the decision to proceed comes down to non-economic factors. Provided the PU are willing to enter contractual agreements, Alternative 8 provides the lowest risk of cost escalation due to increased disposal fees and adds capacity and market stability for the region as a whole with no increased cost to PWD. BC recommends Alternative 8 as it offers the best balance of NPC and risk



management, while providing a “good neighbor option” for smaller PU that could help stabilize runaway biosolids management costs across Southern Maine.

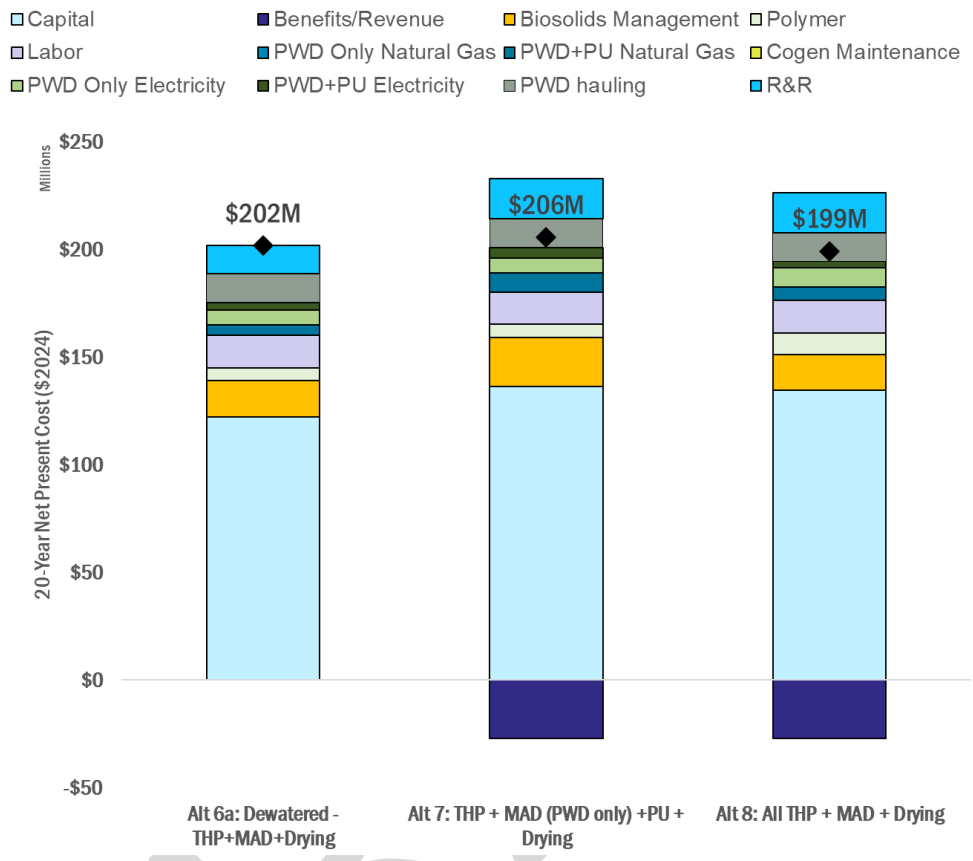


Figure 7. Regional Facility Cost Comparison

Section 5: Summary

This economic evaluation was conducted to support PWD’s decision-making as it advances toward implementation of a long-term biosolids management solution in an increasingly uncertain regulatory and disposal environment.

At current disposal rates, the baseline dewatering-only alternative remains the lowest-cost option over the 20-year planning horizon. However, the analysis shows that increases in biosolids disposal costs to levels already experienced by other Maine utilities significantly change the economic landscape. Under these conditions, incorporating THP and mesophilic anaerobic digestion for volume reduction becomes a cost-competitive strategy.

Comparisons between onsite and offsite digestion alternatives indicate that the NPC are relatively similar. As a result, the choice between onsite and offsite digestion is driven less by economics and more by non-economic considerations, including available space at the East End facility, construction complexity, operational flexibility, and long-term site control. Locating digestion offsite offers advantages related to footprint limitations and constructability at East End but introduces additional conveyance and coordination considerations.



Among offsite alternatives, hauling dewatered cake to the ecomaine site provides the lowest lifecycle cost relative to hauling or force-main conveyance of thickened sludge. Even with the added capital cost of THP, this configuration minimizes hauling volumes and downstream biosolids management costs, resulting in the most favorable economic outcome among the conveyance options evaluated.

The inclusion of peer utility solids in a regional facility does not significantly affect PWD's overall lifecycle costs under the assumptions used in this analysis. As such, the decision to size the facility for regional participation should be guided primarily by strategic and programmatic objectives rather than economics alone. A regional facility could provide long-term biosolids management stability for multiple southern Maine utilities, provided that appropriate contractual commitments are secured to minimize PWD's financial risk.

This evaluation assumes a traditional design-bid-build delivery model with conservative redundancy. In practice, alternative delivery approaches, operational strategies, and use of excess capacity could further improve economic performance and flexibility but were not relied upon in this analysis. Accordingly, the results presented here provide a conservative basis for advancing the project.

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Appendix A: Onsite Layouts and Equipment Sizing Assumptions

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Figure A 1. Alternative 1 Dewatering Layout

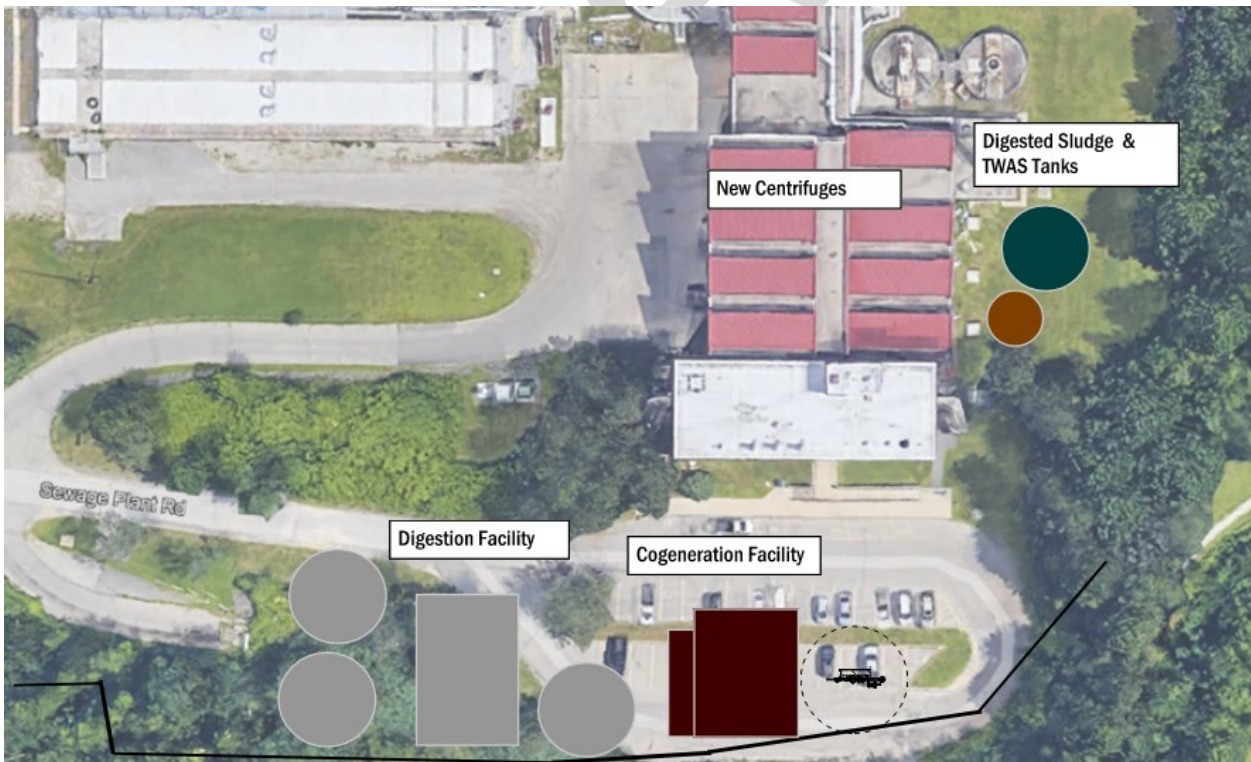


Figure A 2. Alternative 2 Onsite Primary Sludge Only Digestion with Cogeneration





Figure A 3. Alternative 3 Onsite Digestion with Cogeneration

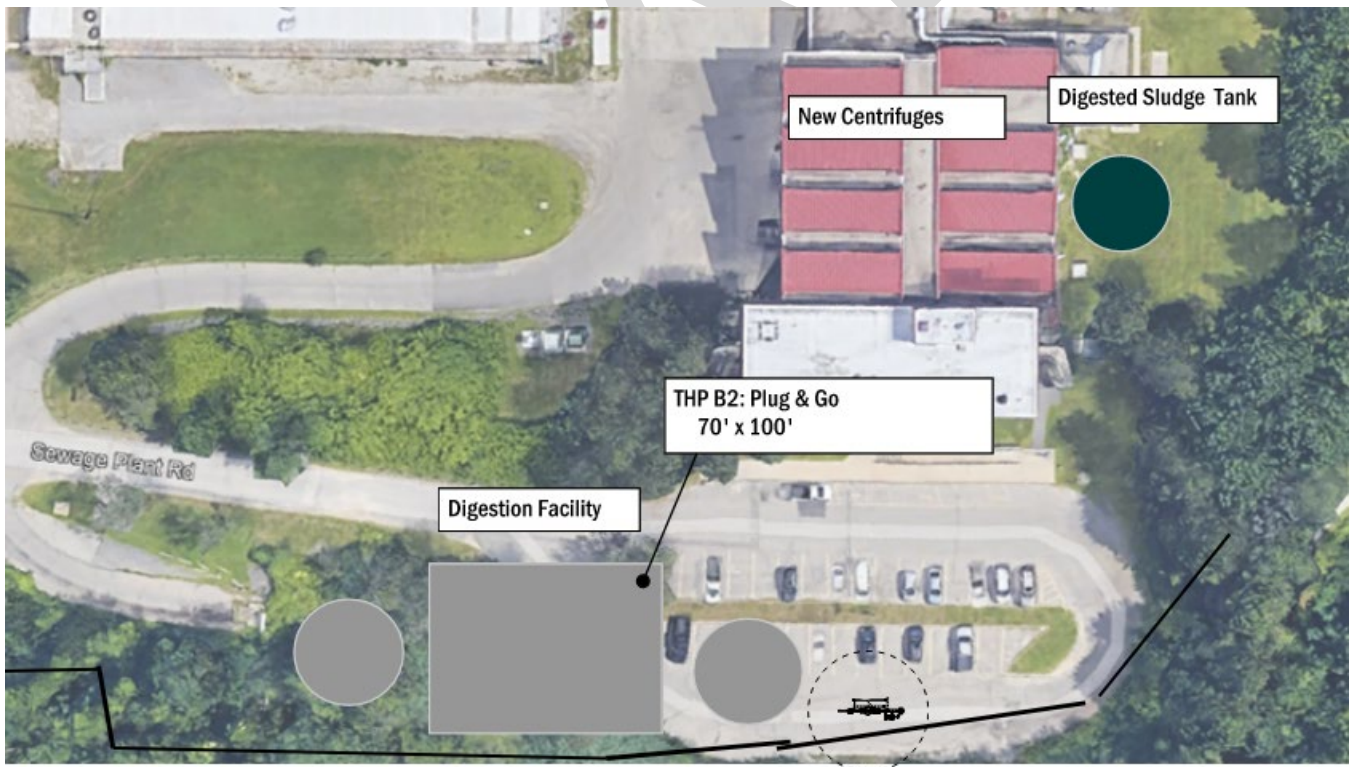


Figure A 4. Alternative 4 Onsite Thermal Hydrolysis with Digestion

Table A 1. Major Process Equipment Assumptions Sized for the Evaluation

| | |
|-----------------------------|--|
| Material Receiving | Sized based on receiving cake from utilities up to 6 days a week as described in Table 4 (includes odor control) |
| | Cake receiving (6a- 8) |
| | Thickened sludge receiving for East End only sludge (6b and 6c only), cake receiving for Westbrook |
| Dewatering | Max 30-day peaking factor |
| | Centrifuges & ancillary equipment such as conveyance, odor control, cake load out |
| | Onsite alternatives - located in existing dewatering building |
| | Offsite alternatives - post digestion dewatering located in dryer building |
| Storage | 3 days of storage |
| | Max 7-day peaking factor (1.4) |
| | If undigested sludge storage (Thickened WAS storage), then aeration and odor control were included |
| | If DSST, assume that the tanks are connected to the biogas system for odor control |
| Digestion | THP: All variations based on a capacity of 25 dtpd with no redundancy |
| | Digesters - Stainless steel Lipp tanks |
| | Designed flow and load based on max 2 week (1.3 peaking factor). |
| | <ul style="list-style-type: none"> Hydraulic retention time = 12 day when have THP; 15 day without THP Organic loading rate = 0.4 pounds volatile solids per cubic foot per day (lbs-VS/ cf-d) for THP + MAD; 0.18 lbs-VS/ cf-d for MAD only Assumes N+1 redundancy for digestion |
| | |
| Thermal Drying (Off) | Belt dryers assumed; with partial redundancy |
| | Includes building and all ancillary equipment (e.g. dried material load out, odor control, dust control, heating) |
| | Continuous operation, with down time for maintenance |
| | Max 14 day for East End, based on estimated reduced volume of sludge after digestion plus other cake received |
| | Total solids feed between 21 and 25 percent |
| | Dried material at 92 percent total solids |
| Cogeneration | Onsite alts only |
| | MAD: internal combustion engines with waste heat recovered for digester heating |
| | THP+MAD: biogas used in steam boilers. If combined heat and power (CHP) is added, then turbines were assumed |
| | Both are sized for biogas only, with no natural gas blending |

Appendix B: Net Present Cost Values

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| Table B 1. A Summary of 20-year Net Present Costs | | | | | | | | | | |
|--|----------------------|---------------|---------------|----------------------------|-----------------------------|--|--------------------------------------|----------------------------------|---|----------------------------------|
| | Alt 1: Dewatering | Alt 2: PS-MAD | Alt 3: MAD | Alt 4: THP-MAD (Onsite) | Alt 5: THP-MAD (Offsite) | Alt 6a: Dewatered - THP+MAD+Drying | Alt 6b: Hauled Thickened - MAD | Alt 6c: Thickened FM - MAD | Alt 7: THP + MAD (PWD only) +PU + Drying | Alt 8: All THP + MAD + Drying |
| Benefits/Revenue | \$0 | -\$5,910,000 | -\$7,870,000 | \$0 | \$0 | \$0 | \$0 | \$0 | -\$27,090,000 | -\$27,090,000 |
| Biosolids Management | \$65,740,000 | \$53,570,000 | \$42,080,000 | \$21,200,000 | \$30,940,000 | \$16,810,000 | \$23,280,000 | \$23,280,000 | \$22,910,000 | \$16,690,000 |
| Polymer | \$8,100,000 | \$7,250,000 | \$6,570,000 | \$15,170,000 | \$15,170,000 | \$6,050,000 | \$11,330,000 | \$12,450,000 | \$6,050,000 | \$9,940,000 |
| Labor | \$0 | \$6,030,000 | \$9,040,000 | \$12,050,000 | \$12,050,000 | \$15,060,000 | \$18,080,000 | \$15,060,000 | \$15,060,000 | \$15,060,000 |
| PWD Only Natural Gas | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$220,000 | \$220,000 | \$0 | \$0 |
| PWD+PU Natural Gas | \$0 | \$0 | \$0 | \$0 | \$0 | \$4,840,000 | \$10,830,000 | \$10,830,000 | \$9,010,000 | \$6,360,000 |
| Cogen Maintenance | \$0 | \$4,840,000 | \$5,550,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| R&R | \$6,000,000 | \$4,870,000 | \$5,520,000 | \$6,110,000 | \$6,110,000 | \$13,120,000 | \$15,860,000 | \$20,240,000 | \$18,610,000 | \$18,610,000 |
| PWD hauling | \$0 | \$0 | \$0 | \$0 | \$0 | \$13,170,000 | \$76,960,000 | \$3,440,000 | \$13,170,000 | \$13,170,000 |
| PWD Only Electricity | \$1,590,000 | \$6,290,000 | \$8,980,000 | \$6,720,000 | \$6,720,000 | \$6,890,000 | \$10,900,000 | \$10,900,000 | \$6,890,000 | \$8,790,000 |
| PWD+PU Electricity | \$0 | \$0 | \$0 | \$0 | \$0 | \$3,510,000 | \$5,470,000 | \$5,470,000 | \$4,820,000 | \$3,130,000 |
| Capital | \$12,020,000 | \$42,610,000 | \$50,420,000 | \$60,900,000 | \$62,660,000 | \$122,170,000 | \$120,750,000 | \$199,950,000 | \$136,130,000 | \$134,510,000 |
| NPC | \$93,450,000 | \$119,550,000 | \$120,270,000 | \$122,140,000 | \$133,640,000 | \$201,630,000 | \$293,670,000 | \$301,850,000 | \$205,560,000 | \$199,180,000 |

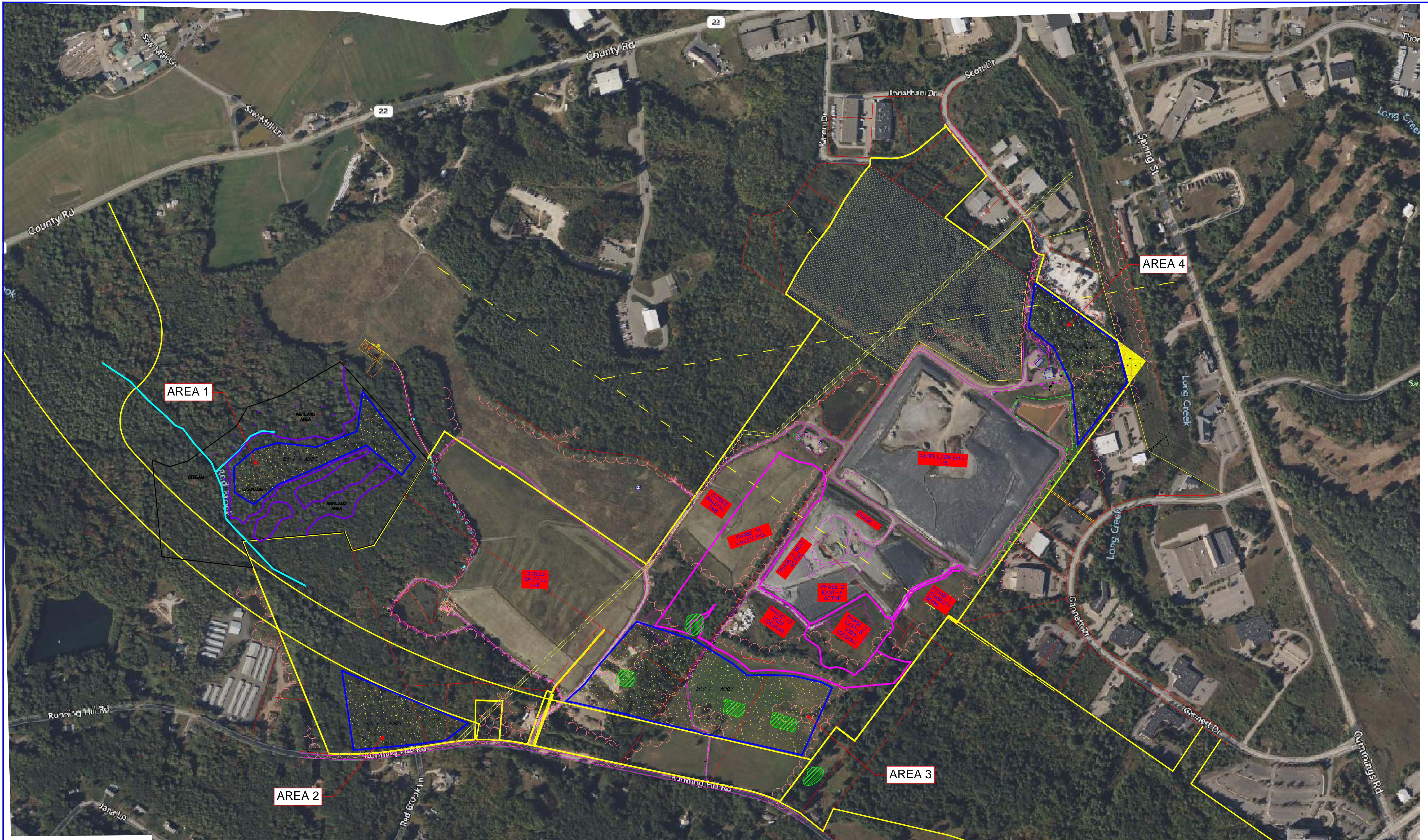


Attachment D: ecomaine Site Areas Assessment

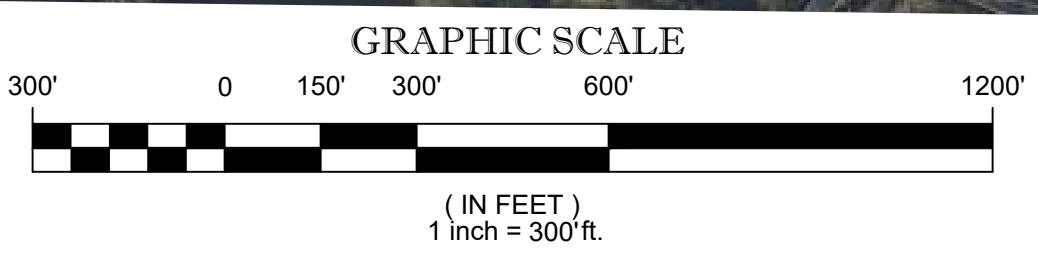
| Area | 1 | 2 | 3 | 4 |
|-------------|--|---|---|---|
| Description | Area 1 is ~6.5 acres and located within forest land north of Red Brook Stream and surrounded by wetland area to the north, west, and south. It is located west of Closed Balefill 1-6. Site located in Town of Scarborough. | Area 2 is ~ 6.0 acres and is located adjacent to Running Hill Road. It transects three lots (outlined red) and is an undeveloped site. It is not located within a wetland area. Site located in Town of Scarborough. | Area 3 is ~20 acres and is located approximately 300 feet north of Running Hill Road and immediately east of Closed Balefill 1-6. The site is partially developed and cleared of trees and has some features running through it, as well as being made up of 4 separate partial lots. Site located in Town of Scarborough. | Area 4 is ~7.5 acres north of Ashfill/Balefill 1-6 and is adjacent to Long Creek. It is undeveloped (wooded) and composed of a single lot. It is located within two separate jurisdictions for permitting (Westbrook and South Portland). |
| Advantages | No existing easements. Close proximity to sewer forcemain. | Street access. Two parcels are included in the existing waste property. Close proximity to sewer forcemain. | Street access. Three parcels are included in the existing waste property. Close proximity to sewer forcemain. | Located within existing waste property boundaries. Close proximity to sewer forcemain. |
| Challenges | Wetlands and streams* are directly adjacent to site on multiple sides. There is a local 10ft setback and 15ft no disturb zone from wetlands. MaineDEP may establish additional buffer zones following a pre-application meeting. | There is a stream* just to the west of the site, and the site is composed of multiple parcels (2 are owned by Regional Waste Systems and one is owned by Northern New England Telephone). There may need to be a lease or purchase of the third parcel**. Possible setback requirements and adjacent to a ROW on northern boundary and easement on eastern boundary. Adjacent to a private parcel and across the street from residential parcels (noise, odor, traffic). Adjacent to inland waterfowl and wading bird habitat. | Wetlands* identified within proposed site boundaries (identified in Maine GIS as an emergent freshwater wetland), but the aerial shows the parcel largely converted to what appears to be an agricultural field. One of the parcels within Area 3 appears to be privately owned (noise, odor, traffic). There may need to be a lease or purchase** of the third parcel. Adjacent to inland waterfowl and wading bird habitat. | Site is composed of multiple tracts. Would require a Soil Quality Permit specific to South Portland. Proximity to residential area. |

* Wetland delineation and potentially habitat assessment likely to be required.

** Due diligence, including Phase I site assessment and potential for Phase II investigation possible



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Portland, Maine

| | | | | | |
|----------------|--|------|-------|----------|----------|
| FIELD DATE | AVAILABLE LAND AREAS | | | | |
| FIELD BOOK NO. | ECOMAINE | | | | |
| FIELD BOOK PG. | SCOTT DRIVE & RUNNING HILL ROAD LOT 3A MAP 86 CITY OF SOUTH PORTLAND LOTS 1 & 1A MAP 35, LOTS 2, 4, 5, 7, 8, 9 & 10 MAP R17 TOWN OF SCARBOROUGH LOTS 13, 41, 44, 45 & JONATHAN DR. MAP 2, CITY OF WESTBROOK CUMBERLAND COUNTY, STATE OF MAINE | | | | |
| FIELD CREW | | | | | |
| DRAWN | | | | | |
| REVIEWED | APPROVED | DATE | SCALE | FILE NO. | DWG. NO. |
| | | | | | 1 OF 1 |

Attachment E: Preliminary Permitting Matrix

| A to Z List | Applicability | Federal | State | Local | Other/Non-permit | Federal Nexus | Phase | Permittee | Prep Time | Process Time | Notes |
|--|--|---------|-------|-------|------------------|---------------|--------------|------------------|------------|---|--|
| Air Permits | <p>Areas 1-4 Federal (CAA): Subject to 40 CFR Part 60 (New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants) Maine DEP: Part 70 (Title V) Significant Modification to Existing Air Emission Permit - Add coverage for digester and/or natural gas - No notification is required. A copy must also be submitted to EPA Region 1. - Link to Maine DEP site: https://www.maine.gov/dep/air/permits/major.html *Specifically Chapter 140: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.maine.gov%2Fsos%2Fsites%2Fmaine.gov.sos%2Ffiles%2Fcontent%2Fassets%2F096c140-2024-157-20-AMD-.docx&wdOrigin=BROWSELINK</p> | x | x | | | | Operation | Operator/owner | 1 month | <p>Comment Periods - DEP: 30 days (for public and states) - EPA: 45 days (starts on day they receive the application) *Latest renewal took over a year to be approved/filed.</p> | <p>Existing: 2005 - Incinerator Air Emissions License (#A-283-70-A-1) 2006 Amendment - Incinerator Air Emissions License (#A-283-70-B-A) 2010 Amendment - Incorporate Mercury Requirement (#A-283-77-3-M) 2014 Renewal - Air Emissions License at Closed Balefill (#A-697-71-E-R) 2019 Renewal (#A-283-70-5-R/A)</p> |
| Air Permits - generators | <p><i>Rental, purchase, or use of a large generator.</i> <i>Facilities or projects which store petroleum or hazardous materials in ASTs or USTs.</i></p> | | x | | | | | | | | |
| AST/UST | <p>Currently, there are no registered ASTs or USTs at Areas 1-4, Area 2 and part of Area 3 are in an area of a mapped sand and gravel aquifer (10-50 GPM). https://www.maine.gov/dep/waste/abovegroundtanks/dtree.html Areas 1-4 Specific to AST Oil Bulk Plants: (1) Any oil storage tank larger than 60 gallons and not connected directly to an oil burning appliance must be permitted by the State Fire Marshal's Office (https://www.maine.gov/dps/fmo/plans-review/aboveground). (2) If the oil storage tank is larger than 1,320 gallons or multiple tanks exceed 1,320 gallons, then a SPCC Plan must be implemented (https://www.maine.gov/dep/waste/spcc/index.html). (3) If the facility has an AST with underground product piping, then the underground piping must be installed, inspected and maintained in accordance with Chapter 691 (https://www.maine.gov/dep/waste/ust/index.html). *Only underground piping associated with aboveground motor fuel tanks must be registered with the Maine DEP. * (4) Annual Inventory Reporting and registration fee for 10,000 lbs or more of hazardous substances, including petroleum, is required under Maine Emergency Management Agency. Link to Maine DEP UST Facility registration form: https://www.maine.gov/dep/waste/ust/documents/registrationform2019.pdf Link to Portland on-line permitting system (Tank Permit): https://selfservice.portlandmaine.gov/EnerGov_Prod/SelfService#/home</p> | x | x | x | | | Operation | Operator/owner | 2-4 weeks | <p>Form must be submitted 10 business days (2 weeks) prior to installation.</p> <p>Image to the right is from: https://maine.maps.arcgis.com/apps/webappviewer/index.html?id=8a333f637d3d4ce9b108e93445b138d4</p> | |
| City/County Building Permits | <p><i>Generally required for new construction of buildings or structures, mitigation or retrofit work, alterations, repairs, or additions to existing buildings or structures, rehabilitation of historic properties, changes to electrical, mechanical, and plumbing systems, and development in the floodplain.</i></p> <p>Required Local Permits: Areas 1-3: Scarborough, ME A Commercial Building Permit is required for the Town of Scarborough, ME (https://resources.finalseite.net/images/v1678364461/scarboroughmaineorg/b6tmbeoamewqkezegcp2/2018CommercialBuildingPermit.pdf). Applications can be submitted via email at submittals@scarboroughmaine.org. If a confirmation is not received within 24 business hours, contact the submittals group to verify receipt of the application. Prior to occupancy, a Business Certificate of Occupancy Request must be submitted, along with a \$50 check, to the Code Enforcement Office (https://resources.finalseite.net/images/v1643737977/scarboroughmaineorg/pvewb8og6hczsfkrhnmg/CertificateofOccupancyRequest.pdf). Area 4: Split between Westbrook and South Portland, ME A Surface Drainage Plan, Driveway Permit and Sewer Connection Permit must be approved/obtained by the Town of Westbrook, ME (https://www.westbrookmaine.com/DocumentCenter/View/4516/PreBuilding-Permit-App-Full-Package-Fillable) prior to submitting the Building Permit Application Package (https://www.westbrookmaine.com/DocumentCenter/View/4457/New-and-Addition-Building-Permit-Application-).</p> | | | x | | | Construction | Varies | 2-4 months | 2-12 months | |
| Construction General Permit (stormwater) | <p><i>Construction projects where one or more acres of land will be disturbed.</i> Areas 1-4 https://www.maine.gov/dep/land/stormwater/index.html Maine Construction General Permit (CGP): https://www.maine.gov/dep/land/stormwater/2024MCGP.pdf - Construction Activity is defined as "including one acre or more of disturbed area, or activity with less than one acre of total land area that is part of a common plan of development or sale, if the common plan of development or sale will ultimately disturb equal to or greater than one acre; or any other construction activity designated by the Department based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to waters of the State." Maine DEP: submit a Notice of Intent (NOI)*: https://www.maine.gov/dep/land/stormwater/mcgp_noi.pdf *However, if you'd like for Maine DEP to rely in whole or part on a submission that is part of a Site Law or Stormwater Management Law application, you should submit a letter with the NOI describing the previous submission and the extent to which it should be relied upon, and listing the standards addressed by any supplementary material.</p> | | x | | | | Construction | Owner/consultant | 2-4 weeks | 1 week | |

| A to Z List | Applicability | Federal | State | Local | Other/Non-permit | Federal Nexus | Phase | Permittee | Prep Time | Process Time | Notes |
|---|--|---------|-------|-------|------------------|---------------|----------------------|------------------|------------|--------------|-------|
| Electrical permit | <p><i>Installation of new wiring or alterations, extensions, or additions to existing electrical installations.</i></p> <p>Required Local Permits: Areas 1-3: Scarborough, ME An Electrical Permit Application is required with the Town of Scarborough, ME (https://resources.finalsite.net/images/v1698931786/scarboroughmaineorg/jsoqfhdhftpo9zhhpndn/ELECTRICPERMIT.pdf). Applications can be submitted via email at submittals@scarboroughmaine.org. If a confirmation is not received within 24 business hours, contact the submittals group to verify receipt of the application. Area 4: Split between Westbrook and South Portland, ME - Electrical Permit Application (Westbrook): https://www.westbrookmaine.com/DocumentCenter/View/3934/Electrical-Application-2024 - Electrical Permit Application (South Portland): https://www.southportland.org/DocumentCenter/View/311/Electrical-Permit-Application---Fillable-PDF</p> | | | x | | | Construction | Owner | 1-2 weeks | 1-2 weeks | |
| Environmental Justice Review/Socioeconomic Impacts | <p><i>Required as part of NEPA process. Analysis must be included in EIR/EIS.</i></p> <p>Areas 1-4 In accordance with Section 2.0 of the MaineDOT Guidance on Environmental Justice, there is greater than 15% of minority or low-income block groups within the project area. See map to far right. Since the work is not proposed to impact the EJ community (per Section 3.0 of the Guidance), the review is complete and no issues were raised.</p> | | x | | | x | Planning | Owner/consultant | 2-4 months | 2-12 months | |
| Erosion and Sediment Control Approval | <p><i>Construction and redevelopment projects that clear, grade, or in any way disturb the earth's surface.</i></p> <p>Areas 1-4 Maine DEP requires that, per Erosion and Sedimentation Control (ESC) requirements, a comprehensive erosion and sedimentation control plan be submitted, designed in accordance with the "Maine Environmental Quality Handbook", the U.S.D.A., Soil Conservation Service's "Engineering Field Manual", or another appropriate reference, which includes the following information: (a) A description and location of the limits of all proposed construction activities which result in the disturbance of the land. (b) A description and location of all existing and proposed on-site drainage. (c) The timing and sequence of all proposed land disturbances. (d) A description and location of all proposed temporary and permanent erosion and sedimentation control measures, including the timing and sequence of their completion. (e) A proposed program for the maintenance of all erosion and sedimentation control facilities which will remain after the project is completed, including a designation of the responsible party. Link to Regulations: https://www.maine.gov/dep/land/rules/index.html</p> <p>Maine DEP CGP: Additional ESC requirements for that application can be found in Appendix A (https://www.maine.gov/dep/land/stormwater/2024MCGPAppendices.pdf).</p> | x | x | | | | Construction | Owner/consultant | 2-4 weeks | 2-12 months | |
| Federal Aviation Administration/Proximity to Airport(s) - Restriction to building height (permits and licenses for the construction, operation, or alteration of structures of certain heights near airports) - plan for 90 days for response | <p><i>Construction or alteration of buildings over 200 feet. Areas 1-4 are within 20,000 feet of the nearest airport (Portland International Jetport).</i></p> <p>Federal Aviation Administration (FAA): "You must file with the FAA at least 45 days prior to construction if: your structure will exceed 200ft above ground level; your structure will be in proximity to an airport and will exceed the slope ratio; your structure involves construction of a traverseway (i.e. highway, railroad, waterway etc...) and once adjusted upward with the appropriate vertical distance would exceed a standard of 77.9(a) or (b); your structure will emit frequencies, and does not meet the conditions of the FAA Co-location Policy; your structure will be in an instrument approach area and might exceed part 77 Subpart C; your proposed structure will be in proximity to a navigation facility and may impact the assurance of navigation signal reception; your structure will be on an airport or heliport; or filing has been requested by the FAA." FAA Criteria Tool: https://oeaaa.faa.gov/oeaaa/external/gisTools/gisAction.jsp?action=showNoNoticeRequiredToolForm#:~:text=The%20requirements%20for%20filing%20with,been%20requested%20by%20the%20FAA FAA 7460-1 - Notice of Proposed Construction or Alteration Requirements and Form: https://www.faa.gov/documentLibrary/media/Form/FAA_Form_7460-1_052026.pdf</p> | x | | | | | Planning | Owner/consultant | 2-4 weeks | 45 days | |
| Fire Protection requirements | <p><i>Prescribes minimum safeguards for construction, alteration, and demolition operations to provide reasonable safety to life and property from fire during such operations.</i></p> <p>Required Local Permits: Areas 1-3: Scarborough, ME - Alarm Permit: https://resources.finalsite.net/images/v1695049095/scarboroughmaineorg/q2vonutol5lclldazmb/2021applicationforalarmsystempermit.pdf - Commercial Site Plan Submission: https://resources.finalsite.net/images/v1647972234/scarboroughmaineorg/nsgh7ysb31crjtlp7i/CommercialSitePlanSubmissionProcess.pdf - Construction Plan Review: https://resources.finalsite.net/images/v1647972537/scarboroughmaineorg/dddr13zt5kvqfeett3wf/ConstructionPlanReviewProcess1.pdf - Construction Permit: https://resources.finalsite.net/images/v1647972830/scarboroughmaineorg/agownzicnovptznappnd/ConstructionPermitProcess.pdf - Fire Suppression System Permit: https://resources.finalsite.net/images/v1690973124/scarboroughmaineorg/gpkk7f2fyozyri7ihisq/FireSuppressionSystemPermit.pdf</p> | | | x | | | Demolition/Operation | Operator/owner | 2-4 weeks | 2-12 months | |

| A to Z List | Applicability | Federal | State | Local | Other/Non-permit | Federal Nexus | Phase | Permittee | Prep Time | Process Time | Notes |
|---|---|---------|-------|-------|------------------|---------------|--------------------------------|------------------|-------------|----------------------|-------|
| Grading/drainage permits | <p>Required for excavation, fill, or other earth disturbing activities over a certain threshold amount.</p> <p>Required Local Permits: Areas 1-3: Scarborough, ME A Drainage Plan must be reviewed by City Engineer prior to the start of any work (https://www.scarboroughmaine.org/departments/engineering-technical-services/engineering/stormwater-management) Area 4: Split between Westbrook and South Portland, ME A Pre-Building Permit Application must be completed for the Town of Westbrook, ME (https://www.westbrookmaine.com/DocumentCenter/View/4516/PreBuilding-Permit-App-Full-Package-Fillable). The City of South Portland, ME has set Drainage Plan Standards (https://www.southportland.org/DocumentCenter/View/310/Drainage-Plan-Standards-of-Code-Section-27-1536-PDF) to be followed when completing the Drainage Plan Review Request (https://www.southportland.org/DocumentCenter/View/312/Drainage-Plan-Review-Request-PDF)</p> | | | x | | | Construction | Consultant | 2-4 weeks | 2-12 months | |
| Hazardous Materials/Site Remediation - Hazardous Material Sites with Activity and Use Limitations (AUL) | <p>If a site has been remediated, it will have been remediated to a certain standard and may limit activities and uses on a site. This needs to be understood so that proposed projects are within the standard.</p> <p>Areas 1-4 USEPA RCRA Site Search: https://enviro.epa.gov/envirofacts/multisystem/search Maine DEP Hazardous Oil Spill System Sites: https://maine.maps.arcgis.com/apps/webappviewer/index.html?id=67cf3519cd0b4bb2be7097ddafc21892 <i>Currently, there are no recorded spills (USEPA or Maine DEP) at Areas 1-4</i></p> | x | x | | x | | Due Diligence/Pre-Construction | N/A | N/A | N/A | |
| Hazardous Waste and Oil Storage | <p>Applies to facilities storing or handling certain amounts of oils or hazardous materials (or mixes).</p> | x | x | | | | Operation | | | | |
| Hazardous Waste Disposal (RCRA) | <p>To be determined during operations</p> | | x | | | | Operation | | | | |
| Land Disturbance permits | <p>Required for projects performing earthwork or disturbing a certain threshold of land. Maine DEP Site Law application if it exceeds 20 acres or includes large "structures". Structures are, "Buildings, parking lots, roads, paved areas, wharves or areas to be stripped or graded and not to be revegetated that cause a total project to occupy a ground area in excess of 3 acres. Stripped or graded areas that are not revegetated within a calendar year are included in calculating the 3-acre threshold." https://www.maine.gov/dep/land/sitelaw/index.html https://www.mainelegislature.org/legis/statutes/38/title38sec482.html *See State Permits section below for more information</p> <p>Required Local Permits: Areas 1-3: Scarborough, ME: none Area 4: Split between Westbrook and South Portland, ME - Excavation Permit Application (South Portland): https://www.southportland.org/DocumentCenter/View/312/Excavation-Permit-Application---Fillable-PDF</p> | | x | x | | | Construction | Owner | 1-2 weeks | 1-2 weeks | |
| Mechanical permit | <p>May be required for replacement of boilers, chimney liners, condensing units, duct systems, fireplace logs, furnaces, fuel oil piping, gas pipes, generators, heat venting systems, pool heaters, and gas water heaters.</p> <p>Required Local Permits: Areas 1-3: Scarborough, ME - Heating Appliance Application: https://resources.finalsite.net/images/v1643737980/scarboroughmaineorg/eppjd7rrsjmcyufe5jvr/HeatingApplianceApplication.pdf Area 4: Split between Westbrook and South Portland, ME - Heating Appliance Application (Westbrook): https://www.westbrookmaine.com/DocumentCenter/View/341/Heating-Permit-Application-PDF - Heating/HVAC Application (South Portland): https://www.southportland.org/DocumentCenter/View/316/HeatingHVAC-Permit-Application-PDF</p> | | | x | | | Construction | Varies | 1-2 weeks | 1-2 months | |
| Natural Hazard Analysis | <p>Evaluate for cold wave, drought, earthquake, hail, heat wave, ice storm, lightning, strong wind, tornado, wildfire and winter weather</p> | | | | x | | Planning | Consultant | 2-4 weeks | 2-4 weeks | |
| NEPA Review | <p>Projects or activities with Federal nexus (e.g., involves federal funding, land, or permits). Some states have SEPA process that fulfills this requirement.</p> | x | | | | x | Planning | | 2-12 months | 3 months - 24 months | |
| Noise Study | <p>Areas 1-4 Maine DEP: Chapter 375, #10 - This regulation applies to proposed developments within municipalities without a local quantifiable noise standard and in unorganized areas of the State. When a proposed development is located in a municipality which has duly enacted by ordinance (see below) an applicable quantifiable noise standard, which (1) contains limits that are not higher than the sound level limits contained in this regulation by more than 5 dBA, and (2) limits or addresses the various types of noises contained in this regulation or all the types of noises generated by the development, that local standard, rather than this regulation, shall be applied by the Maine DEP within that municipality for each of the types of sounds the ordinance regulates. This regulation applies to developments located within one municipality when the noise produced by the development is received in another municipality and, in these cases, the Department will also take into consideration the municipalities' quantifiable noise standards, if any. https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.maine.gov%2Fsos%2Fsites%2Fmaine.gov.sos%2Ffiles%2Finline-files%2F096c375-2025-163.docx&wdOrigin=BROWSELINK The Town of Scarborough, ME (https://resources.finalsite.net/images/v1634836878/scarboroughmaineorg/r6ecwe3dhxmvpeclats/616-Good-Neighbor-Ordinance.pdf) and City of South Portland, ME (https://www.southportland.gov/DocumentCenter/View/1446/CH-30-Noise-Ordinance) have noise ordinances in effect. The Town of Westbrook, ME does not appear to have one.</p> | | x | | | | Planning | Owner/consultant | 2-4 weeks | 1-2 months | |

| A to Z List | Applicability | Federal | State | Local | Other/Non-permit | Federal Nexus | Phase | Permittee | Prep Time | Process Time | Notes |
|--|--|---------|-------|-------|------------------|---------------|------------------|------------------|------------|--|--|
| Section 404/Federal Wetland Permitting | <p><i>Required when work involves a discharge of dredged or fill material into any waters of the United States.</i></p> <p>Area 1: Wetlands present but no planned discharge of fill material into the wetland USACE CWA Section 404: establishes a program to regulate the discharge of excavated or fill material into waters of the United States, including wetlands. - Can be National, Regional or Individual permit. Recommend meeting to discuss options. - File application online here: https://rrs.usace.army.mil/rrs <i>Activities with the potential to affect listed species.</i></p> | x | | | | x | Pre-Construction | Consultant | 30-60 days | 45 days after 401 has been issued | |
| Section 7 of ESA (rare, threatened and/or endangered species)/Migratory Bird Treaty Act/USFWS Incidental Take Permit | <p>Listed species include: northern long-eared bat, tricolored bat, monarch butterfly. <u>All areas</u> will require some tree removal. There are no critical habitats. See results to far right.</p> <p>Fish and Wildlife Services: If the proposed action may affect any listed species or critical habitat, then the agency must begin a formal consultation. If the proposed action will not affect any species or critical habitat, we will issue a concurrence statement stating that the action is not likely to affect any listed species, and no further action is needed. Request a formal consultation and obtain a conclusion of the biological opinion through IPaC. Formal consultation may last up to 90 days and the agency has 45 days after completion of the formal consultation to write the biological opinion. The biological opinion usually includes conservation recommendations to further the recovery of listed species, and it also may include reasonable and prudent measures, as needed, to minimize any take of listed species. Maine DEP: Chapter 375, #15 - Submission of the location of natural buffer strips and adequate provision for their maintenance, and plans to mitigate adverse effects on wildlife and fisheries through proper means and methods (https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.maine.gov%2Fsos%2Fsites%2Fmaine.gov.sos%2Ffiles%2Finline-files%2F096c375-2025-163.docx&wdOrigin=BROWSELINK).</p> | x | x | | | x | Pre-Construction | Owner/consultant | 30-60 days | If species are present and could be impacted: 8 -12 months. FWS formal consultation could last 90 days; the conclusion is due 45 days after completion of the formal consultation. | |
| Sewage Disposal | <p>Areas 1-4 Maine DEP: Modify the current leachate disposal permit. Would there be a shared pump station and/or outfall? Would the sanitary and process water go to PWD?</p> <p>Required Local Permits: Areas 1-3: Scarborough, ME - Must contact the Superintendent at least 45 days in advance from the first discharge (Article II, #1): https://scarboroughsanitarydistrict.com/wp-content/uploads/2024/01/2020-sewer-regulations.pdf Area 4: Split between Westbrook and South Portland, ME (assume discharge to PWD) - Apply for a Pretreatment Permit (Section 3.6) (South Portland - PWD): https://content.civicplus.com/api/assets/9e11ef98-f16d-4e5b-9dfc-332ed67a6e9c</p> | | x | x | | | Operation | Operator/owner | 2-4 weeks | 1-2 months | <u>Existing:</u> 1987 - Sewer Leachate to PWD Treatment Plant (#L-013127-07-F-M) 1989 - Modifying Leachate Approval (#S-013127-07-B-M; 7A-J-C; 7A-L-C; 7A-M-C) |
| Sewer/water service lines/laterals | <p>Required Local Permits: Areas 1-3: Scarborough, ME Submit a Building Connection Permit (https://scarboroughsanitarydistrict.com/wp-content/uploads/2025/11/APPLICATION-FOR-BUILDING-CONNECTION-PERMIT-Revised-11.20.25.pdf) through the Town of Scarborough, ME. Applications can be submitted via email at submittals@scarboroughmaine.org. If a confirmation is not received within 24 business hours, contact the submittals group to verify receipt of the application Area 4: Split between Westbrook and South Portland, ME Submit a Pre-Building Permit Application for Sewer Connection Permit (https://www.westbrookmaine.com/DocumentCenter/View/4516/PreBuilding-Permit-App-Full-Package-Fillable) to the Town of Westbrook, ME. Submit a Sewer Connection Permit (https://www.southportland.org/DocumentCenter/View/323/Sewer-Connection-Permit-Application-PDF) to the City of South Portland, ME.</p> | | | x | | | Construction | Operator/owner | 2-4 weeks | 1-2 months | <u>Existing:</u> 1988 - Construct Leachate Pump Station and Force Main (#L-001171-7A-P-M and #L-013127-7A-I-M) 1991 - Construct and Operate Pre-Treatment Facility (#S-13127-7A-P-M) |
| Sign permit | <p><i>Required to install, replace, reconstruct, expand, intensify, or relocate any sign.</i></p> <p>Required Local Permits: Areas 1-3: Scarborough, ME Submit a Sign Permit Application (https://resources.finalseite.net/images/v1698935231/scarboroughmaineorg/gtsaahvzyeaiw5nbo0j/SignPermitPackage.pdf). Applications can be submitted via email at submittals@scarboroughmaine.org. If a confirmation is not received within 24 business hours, contact the submittals group to verify receipt of the application Area 4: Split between Westbrook and South Portland, ME Submit a Sign Permit Application (https://www.westbrookmaine.com/DocumentCenter/View/2588/Sign-Application-080520) to the Town of Westbrook, ME. Submit a Sign Permit Application (https://www.southportland.org/DocumentCenter/View/324/Sign-Permit-Application-PDF) to the City of South Portland, ME.</p> | | | x | | | Construction | Operator/owner | 1-2 weeks | 2-12 months | |
| Site Plan review/approvals | <p><i>Proposed site plan applications should be submitted to local zoning authorities for approval to begin construction.</i></p> <p>Required Local Permits: Areas 1-3: Scarborough, ME Submit a Zone Changing Application (https://resources.finalseite.net/images/v1682433298/scarboroughmaineorg/sh8jmijkmg2skmhvzofu/ZoningApplication2023.pdf). Applications can be submitted via email at submittals@scarboroughmaine.org. If a confirmation is not received within 24 business hours, contact the submittals group to verify receipt of the application Area 4: Split between Westbrook and South Portland, ME Submit a Change in Use Application (https://www.westbrookmaine.com/DocumentCenter/View/348/Change-of-Use-Permit-Application-PDF) to the Town of Westbrook, ME. The City of South Portland, ME does not appear to have an application.</p> | | | x | | | Pre-Construction | Operator/owner | 1-2 weeks | 1-2 months | |
| Site Surveys | <p>ALTA Survey, Topographic & Boundary Survey, Tree Location Survey, Title Report Review, Set Property Corners, etc. Surveys could be performed during due diligence phase.</p> | | | | x | | Planning | Owner/consultant | 2-4 months | 1-2 months | |

| A to Z List | Applicability | Federal | State | Local | Other/Non-permit | Federal Nexus | Phase | Permittee | Prep Time | Process Time | Notes |
|--|---|---------|-------|-------|------------------|---------------|-----------|------------------|-------------|--------------|---|
| Soils Review - USDA Natural Resource Conservation Service (NRCS) Web Soil Survey mapping | <p>Required Local Permits: Areas 1-3: Scarborough, ME: none Area 4: Split between Westbrook and South Portland, ME For the City of South Portland, ME, Chapter 32 was amended in 2020 (https://www.southportland.org/DocumentCenter/View/2043/Soil-Quality-for-New-Permit-Projects-PDF-Updated-July-2023) to include soil quality requirements for new development projects that result in 2,000 square feet or more of soil disturbance that will not be covered with impervious surfaces (e.g., buildings or pavement). These provisions, which became effective in November 2021 and were amended in July 2023, include: - The site must have at least 6 inches of topsoil containing a minimum of 4.5% organic material and a pH level between 5.8 and 7.2 for areas that will have turf, vegetation, and/or plantings. o Soil Quality Permit Application: must be completed prior to the start of any construction. o Soil analysis: must be completed to verify compliance with organic content and pH requirements. - Soil compaction: penetrometer readings must be measured at a depth of 10" below the surface and no more than 50% of the readings can exceed a penetrometer reading of 300 psi. o If the construction site area consists of 50% or more of ledge, then the penetrometer readings will be measured at a depth of 6". - Any fertilizer applied to the topsoil in project area must be organic and must be incorporated to a depth of 2-3 inches.</p> <p>Link to Soil Quality Permit Application: https://www.southportland.org/DocumentCenter/View/325/Soil-Quality-Permit-Application-PDF S&G aquifer 10-50gpm on a portion of the Site; Site outside of water supply buffers and source protection areas. There are no sole source aquifers in Areas 1-4: https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=9ebb047ba3ec41ada1877155fe31356b</p> | | | x | x | | Planning | Owner | 1-2 weeks | 6 months | |
| Sole Source Aquifers Review | | | | | x | | Planning | | | | |
| Solid Waste Disposal (treated biosolids) | <p>Areas 1-4 Maine DEP: Solid Waste Permit for a Processing Facility Application (https://www.maine.gov/dep/waste/solidwaste/documents/409app.pdf) In accordance with Chapter 409.2.A, the proposed facility may not be located: (1)Closer than 100 feet to the solid waste boundary of an active, inactive or closed solid waste landfill; (2)Within a 100 year flood plain; (3)Within 100 feet of a protected natural resource; (4)In, on or over a protected natural resource, or on land adjacent to the following areas, without first obtaining a permit pursuant to 38 M.R.S.A. section 480-A et seq.: (a)A coastal wetland, great pond, river, stream or brook, or significant wildlife habitat contained within a freshwater wetland; or (b)Freshwater wetlands consisting of or containing: (i)under normal circumstances, at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, except for artificial ponds or impoundments; or (ii)peatlands dominated by shrubs, sedges and sphagnum moss; (5)Closer than 300 feet to off-site water supply wells or water supply springs; (6)Closer than 100 feet to public roads and property boundaries; (7)Closer than 10,000 feet to any airport runway used by turbojet aircraft, or within 5,000 feet of any airport runway used by only piston-type aircraft, when putrescible waste is to be handled outdoors in an uncovered or exposed condition; and SPCC plans are required for facilities that store oil and oil-containing products exceeding certain capacity thresholds where there is a possibility that an oil spill would reach a navigable water.</p> <p>Finding: A SPCC Plan will be required if aboveground storage exceeds 1,320 gallons.</p> <p>Areas 1-4 Federal: Oil storage facilities with a storage capacity greater than 1,320 gallons (for tanks 55-gallons or greater) and where a discharge could reach a navigable water body, either directly or indirectly. Maine DEP: Authorized to inspect aboveground oil storage facilities that exceed the federal 1,320 gallon storage capacity threshold and are used to market and distribute oil for compliance with the federal SPCC requirements.</p> <p>Link to Maine DEP site: https://www.maine.gov/dep/waste/solidwaste/</p> | | x | | | | Operation | Operator/owner | 2-4 weeks | 2-12 months | <p>Existing: 1974 - Construct and Operate Balefill Cells 1-6 (#91-1171-05200) 1984 - Landfill Expansion Balefill Cells 7-8 (#L-1171-07-A-A) 1986 - Solid Waste, Stream Alteration and 300 Foot Variance Order (#L-013127-07-A-N) 1987 - Grits and Screenings Disposal (#L-013127-07-B-M) 2004 - Landfill Expansion Phases 1-4 (#S-013127-WD-AH-N) 2012 - Authorization to Operate (#S-013127-WD-U-R [with Conditions]) Miscellaneous Approvals: New Cell Construction Plans (required per initial approval for each cell [Cells 1-9]), Adjusting Final Elevations of Cell 1, Regrade Top Slope of Cell 1A, Bale Mining, As-Built Cell Plan Submittal (required per initial approval for each cell [Cells 1-9]), Perimeter Fence, Interim Cover/Drainage Improvements, Revised Environmental Monitoring Plan (EMP), Conditional Requirement Testing Submittals, Metals Removal from Ash, Use of Alternate Daily Covers, One Time Asbestos Disposal</p> |
| Spill Prevention Control & Countermeasures | | x | x | | | | Operation | Consultant | 2-4 months | 1-2 months | |
| State Permits | <p>Maine DEP has a Site Location of Development, or Site Law, that must be followed by developments that may have a substantial effect upon the environment (https://www.maine.gov/dep/land/sitelaw/). A pre-application meeting, public informational meeting, and pre-submission meeting are required. A public notice must also be submitted. Specifics on what must be submitted in the application can be found in the application packet here: https://www.maine.gov/dep/land/sitelaw/Site-Law.pdf</p> <p>Maine DEP requires that it be proven that there are no adverse environmental effects by the proposed development. This compliance work falls under Chapter 375 (https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.maine.gov%2Ffiles%2Fmaine.gov.sos%2Ffiles%2Fmaine.gov.sos%2F096c375-2025-163.docx&wdOrigin=BROWSELINK). A summary of each item (1-18) and their submittal requirements are below: 1. Air Quality - Submission of Air Emission License and modeling to show that increased traffic will not significantly impact the ambient air quality. 2. Climate - Submission of evidence that the development will not unreasonably alter the existing cloud cover, fog, or rainfall characteristics of the area. 3. Natural Drainage Ways - Submission of a plan showing all existing water courses, drainage ways, channels, or streams to be affected by the development, and the nature, width and location of proposed easements, rights-of-way, culverts, catch basins or other means of channeling surface water within the development and over adjacent parcels of land, and deed covenants which establish the easements or rights-of-way and provide for their continued maintenance.</p> | | | x | | | Planning | Owner/consultant | 6-12 months | 6-12 months | |

| A to Z List | Applicability | Federal | State | Local | Other/Non-permit | Federal Nexus | Phase | Permittee | Prep Time | Process Time | Notes |
|---|---|---------|-------|-------|------------------|---------------|------------------|------------------|------------|--------------|---|
| State rare, threatened and/or endangered species | Analysis and permits are required for all projects which have potential to impact rare, threatened and/or endangered species. <u>Areas 2 and 3</u> Maine FWS: adjacent to inland waterfowl and wading bird habitat (obtained from: https://experience.arcgis.com/experience/5b9801ea9adc4534bfb845cb5dd553d0). A request can be made to complete an environmental review (https://www.maine.gov/ifw/docs/MDIFW%20ER%20Request%202023.pdf) which can be a preliminary review/recommendation list for the potential project site. <i>Required for construction projects with at least 1 acre of disturbed soil surface.</i> | | x | | | | Planning | Owner/consultant | 1-2 months | 2-12 months | |
| Stormwater Pollution Prevention Plan | <u>Areas 1-4</u> Maine DEP: Prepare a SWPPP and NOI in accordance with Part III of the 2024 Maine CGP: https://www.maine.gov/dep/land/stormwater/2024MCGP.pdf https://www.maine.gov/dot/sites/maine.gov.dot/files/docs/traffic/docs/229c305-22.pdf <u>Chapter 305, Part 3, Section B - appears to meet exemption as a solid waste facility</u> | x | x | | | | Construction | Contractor | 1-4 weeks | 1-3 months | |
| Traffic Study/Traffic Impact Analysis (Access) | | | | | x | | Planning | | | | |
| Utility Review - local water (supply)/sewer authority and dry utility providers | Should be done internally to better understand what utility companies they'd like to use. -PWD will provide water/sewer; electricity? | | | | x | | Planning | N/A | N/A | N/A | |
| Water Quality Certification | <i>Projects requiring a Section 404 permit/projects discharging to waters of the U.S. or state.</i> <i>Wetland alterations.</i> Not likely unless wetland filling is proposed | | x | | | | Pre-Construction | Consultant | 1 month | 2 months | |
| Wetland determination/delineation/buffer(s) | <u>Area 1</u> Maine DEP Natural Resources Protection Act: protected natural resources consist of coastal sand dune systems, coastal wetlands, significant wildlife habitat, fragile mountain areas, freshwater wetlands, great ponds and rivers, streams or brooks. See Chapter 310: https://www.maine.gov/dep/land/nrpa/index.html - Meets one of the criteria for a freshwater wetlands of special significance (#8), a meeting with Maine DEP is encouraged to determine the most applicable permit. - MaineDEP may establish buffer zones after the pre-application meeting. Scarborough Conservation Commission: 10ft setback and 15ft no disturb zone from wetlands https://www.scarboroughmaine.org/government/boards-committees/conservation-commission <u>Areas 2-4:</u> not applicable | | x | x | | | Planning | Operator/owner | 2-4 months | 2-4 months | <u>Existing:</u> 1995 - Wetlands Alteration to Install an Access Road (#S-13127-WD-AB-M [with Conditions]) |

Attachment F: Other Preliminary Materials and Reports

- PWD Biosolids Characteristics Data for 2025 and 2026
- Memorandum of Agreement (draft)

Biosolids Characterization Data

The following data represents the biosolids monthly averages for the Westbrook WWTF and East End WWTF for 2025 and 2026. This data is considered general information only.

East End WWTF Biosolids Monthly Averages

| Month | EEWWTF-B iosolids Cadmium Montly Avg. mg/kg | EEWWTF-B iosolids Chromium Monthly Avg mg/kg | EEWWTF-B iosolids Copper Monthly Avg. mg/kg | EEWWTF-B iosolids Iron Monthly Avg mg/kg | EEWWTF-B iosolids Lead Monthly Avg mg/kg | EEWWTF-B iosolids Molybdenu m Monthly Avg mg/kg | EEWWTF-B iosolids Nickel Monthly Avg mg/kg | EEWWTF-B iosolids Zinc Monthly Avg mg/kg | EEWWTF-B iosolids Calcium Monthly Avg mg/kg | EEWWTF-B iosolids Magnesiu m Monthly Avg mg/kg | EEWWTF-B iosolids CaCO3 Equiv. Monthly Av % % | EEWWTF-B iosolids Potassium Monthly Avg mg/kg | EEWWTF-B iosolids Sodium Monthly Avg mg/kg |
|----------|--|---|--|---|---|--|---|---|--|---|---|--|---|
| Jan 2025 | 2.5 | 17 | 200 | 6,600 | 22 | 2.5 | 8 | 370 | 4,000 | 3,400 | 2.4 | 3,800 | 1,700 |
| Feb 2025 | 2.9 | 19 | 240 | 6,100 | 18 | 2.9 | 9 | 480 | 4,800 | 3,700 | 2.7 | 7,700 | 2,300 |
| Mar 2025 | 2.4 | 24 | 200 | 9,800 | 25 | 2.4 | 16 | 460 | 6,500 | 4,900 | 3.6 | 7,000 | 2,200 |
| Apr 2025 | 2.5 | 23 | 220 | 11,000 | 32 | 2.5 | 8 | 550 | 7,400 | 4,600 | 3.7 | 7,900 | 1,900 |
| May 2025 | 1.4 | 23 | 250 | 14,000 | 44 | 4.9 | 18 | 630 | 8,000 | 4,800 | 4.0 | 6,600 | 1,700 |
| Jun 2025 | 1.1 | 19 | 270 | 12,000 | 33 | 5.5 | 19 | 640 | 7,300 | 4,100 | 3.5 | 5,400 | 2,200 |
| Jul 2025 | 1.0 | 17 | 275 | 10,000 | 28 | 6.2 | 14 | 640 | 8,100 | 4,400 | 3.8 | 5,100 | 2,500 |
| Aug 2025 | 1.0 | 18 | 290 | 8,800 | 26 | 6.3 | 14 | 690 | 8,900 | 4,700 | 4.2 | 4,500 | 3,500 |
| Sep 2025 | 0.9 | 15 | 300 | 8,000 | 24 | 7.0 | 14 | 640 | 7,000 | 4,700 | 3.7 | 4,700 | 4,000 |
| Oct 2025 | 1.4 | 24 | 500 | 15,000 | 35 | 13.0 | 22 | 910 | 14,000 | 8,600 | 7.0 | 9,100 | 5,400 |
| Nov 2025 | 0.5 | 12 | 250 | 7,700 | 22 | 5.5 | 12 | 420 | 6,000 | 3,800 | 3.1 | 4,700 | 2,600 |
| Dec 2025 | 0.7 | 14 | 240 | 8,400 | 22 | 5.8 | 12 | 450 | 6,400 | 3,500 | 3.0 | 4,800 | 2,900 |
| Minimum | 0.5 | 12 | 200 | 6,100 | 18 | 2.4 | 8 | 370 | 4,000 | 3,400 | 2.4 | 3,800 | 1,700 |
| Maximum | 2.9 | 24 | 500 | 15,000 | 44 | 13.0 | 22 | 910 | 14,000 | 8,600 | 7.0 | 9,100 | 5,400 |
| Average | 1.5 | 19 | 270 | 9,783 | 28 | 5.4 | 14 | 573 | 7,367 | 4,600 | 3.7 | 5,942 | 2,742 |
| Limit | | 1000 | 1000 | | 300 | 75 | 200 | 2000 | | | | | |

Westbrook WWTF Biosolids Monthly Averages

| Month | WGWWTF- Biosolids Cadmium Montly Avg. mg/kg | WGWWTF- Biosolids Chromium Monthly Avg mg/kg | WGWWTF- Biosolids Copper Monthly Avg. mg/kg | WGWWTF- Biosolids Iron Monthly Avg mg/kg | WGWWTF- Biosolids Lead Monthly Avg mg/kg | WGWWTF- Biosolids Molybdenu m Monthly Avg mg/kg | WGWWTF- Biosolids Nickel Monthly Avg mg/kg | WGWWTF- Biosolids Zinc Monthly Avg mg/kg | WGWWTF- Biosolids Calcium Monthly Avg mg/kg | WGWWTF- Biosolids Magnesium Monthly Avg mg/kg | WGWWTF- Biosolids CaCO3 Equiv. Monthly Av % Monthly Av | WGWWTF- Biosolids Potassium Monthly Avg mg/kg | WGWWTF- Biosolids Sodium Monthly Avg mg/kg |
|----------|--|---|--|---|---|--|---|---|--|--|--|--|---|
| Jan 2025 | 2.6 | 42 | 200 | 3,900 | 8 | 8.0 | 51 | 410 | 4,300 | 3,000 | 2.3 | 4,100 | 550 |
| Feb 2025 | | | | | | | | | | | | | |
| Mar 2025 | | | | | | | | | | | | | |
| Apr 2025 | 2.5 | 20 | 200 | 7,600 | 19 | 2.5 | 18 | 490 | 7,900 | 3,400 | 3.4 | 5,600 | 920 |
| May 2025 | | | | | | | | | | | | | |
| Jun 2025 | | | | | | | | | | | | | |
| Jul 2025 | 0.5 | 23 | 240 | 4,400 | 11 | 7.7 | 26 | 970 | 7,000 | 3,800 | 3.3 | 6,600 | 770 |
| Aug 2025 | | | | | | | | | | | | | |
| Sep 2025 | | | | | | | | | | | | | |
| Oct 2025 | 1.1 | 62 | 600 | 11,000 | 23 | 24.0 | 110 | 1,100 | 13,000 | 10,000 | 7.4 | 16,000 | 1,900 |
| Nov 2025 | | | | | | | | | | | | | |
| Dec 2025 | | | | | | | | | | | | | |
| Minimum | 0.5 | 20 | 200 | 3,900 | 8 | 2.5 | 18 | 410 | 4,300 | 3,000 | 2.3 | 4,100 | 550 |
| Maximum | 2.6 | 62 | 600 | 11,000 | 23 | 24.0 | 110 | 1,100 | 13,000 | 10,000 | 7.4 | 16,000 | 1,900 |
| Average | 1.7 | 37 | 310 | 6,725 | 15 | 10.6 | 51 | 743 | 8,050 | 5,050 | 4.1 | 8,075 | 1,035 |

Westbrook WWTF Biosolids Monthly Averages

| Month | WGWWTF- Biosolids Chloride Monthly Avg mg/kg | WGWWTF- Biosolids Total-P Monthly Avg mg/kg | WGWWTF- Biosolids Arsenic Monthly Avg mg/kg | WGWWTF- Biosolids Mercury Monthly Avg mg/kg | WGWWTF- Biosolids Selenium Monthly Avg mg/kg | WGWWTF- Biosolids TKN Monthly Avg % | WGWWTF- Biosolids ORG-N Monthly Avg % | WGWWTF- Biosolids Ammonia- N Monthly Avg % | WGWWTF- Biosolids Nitrate+Nit rite-N MAvg mg/kg | WGWWTF- Biosolids Carbon % Monthly Avg % | WGWWTF- Biosolids Barium Monthly Avg mg/kg | WGWWTF- Biosolids Silver Monthly Avg mg/kg | WGWWTF- Biosolids %TS Monthly Avg % | WGWWTF- Biosolids VS % Monthly Avg % |
|----------|---|--|--|---|---|--|--|---|--|---|---|---|--|---|
| Jan 2025 | 2,600 | 17,000 | 5.5 | 0.1 | 3.9 | 8.7 | 8.3 | 0.41 | 270.00 | 47 | 36 | 14 | 18.2 | 86 |
| Feb 2025 | | | | | | | | | | | | | 19.1 | 87 |
| Mar 2025 | | | | | | | | | | | | | 20.6 | 85 |
| Apr 2025 | 1,585 | 14,000 | 6.7 | 0.2 | 3.8 | 7.2 | 6.7 | 0.55 | 240.00 | 48 | 78 | 3 | 21.0 | 86 |
| May 2025 | | | | | | | | | | | | | 19.6 | 80 |
| Jun 2025 | | | | | | | | | | | | | 15.5 | 84 |
| Jul 2025 | 540 | 18,000 | 4.9 | 0.3 | 1.5 | 7.0 | 6.5 | 0.48 | 2.75 | 47 | 57 | 6 | 17.2 | 87 |
| Aug 2025 | | | | | | | | | | | | | 18.0 | 85 |
| Sep 2025 | | | | | | | | | | | | | 19.5 | 85 |
| Oct 2025 | 415 | 49,000 | 8.4 | 0.3 | 4.9 | 3.1 | 3.0 | 0.15 | 6.50 | 42 | 110 | 25 | 19.5 | 82 |
| Nov 2025 | | | | | | | | | | | | | 19.9 | 87 |
| Dec 2025 | | | | | | | | | | | | | 19.2 | 88 |
| Minimum | 415 | 14,000 | 4.9 | 0.1 | 1.5 | 3.1 | 3.0 | 0.15 | 2.75 | 42 | 36 | 3 | 15.5 | 80 |
| Maximum | 2,600 | 49,000 | 8.4 | 0.3 | 4.9 | 8.7 | 8.3 | 0.55 | 270.00 | 48 | 110 | 25 | 21.0 | 88 |
| Average | 1,285 | 24,500 | 6.4 | 0.2 | 3.5 | 6.5 | 6.1 | 0.40 | 129.81 | 46 | 70 | 12 | 18.9 | 85 |

East End WWTF Biosolids Monthly Averages

| Month | EEWWTF-B iosolids Cadmium Montly Avg. mg/kg | EEWWTF-B iosolids Chromium Monthly Avg mg/kg | EEWWTF-B iosolids Copper Monthly Avg. mg/kg | EEWWTF-B iosolids Iron Monthly Avg mg/kg | EEWWTF-B iosolids Lead Monthly Avg mg/kg | EEWWTF-B iosolids Molybdenum Monthly Avg mg/kg | EEWWTF-B iosolids Nickel Monthly Avg mg/kg | EEWWTF-B iosolids Zinc Monthly Avg mg/kg | EEWWTF-B iosolids Calcium Monthly Avg mg/kg | EEWWTF-B iosolids Magnesium Monthly Avg mg/kg | EEWWTF-B iosolids CaCO3 Equiv. Monthly Av % | EEWWTF-B iosolids Potassium Monthly Avg mg/kg | EEWWTF-B iosolids Sodium Monthly Avg mg/kg |
|----------|--|---|--|---|---|---|---|---|--|--|--|--|---|
| Jan 2026 | 1.2 | 18 | 212 | 9,810 | 25 | 5.0 | 14 | 442 | 6,840 | 4,010 | 3.4 | 5,630 | 3,700 |
| Feb 2026 | 2.3 | 18 | 270 | 10,700 | 36 | 7.1 | 14 | 547 | 8,620 | 5,050 | 4.2 | 6,350 | 5,600 |
| Mar 2026 | 2.0 | 18 | 214 | 9,450 | 23 | 4.4 | 21 | 554 | 7,830 | 3,720 | 3.5 | 5,460 | 3,040 |
| Apr 2026 | 1.7 | 19 | 218 | 11,200 | 30 | 4.4 | 15 | 483 | 7,970 | 4,360 | 3.8 | 5,030 | 2,920 |
| May 2026 | | | | | | | | | | | | | |
| Jun 2026 | | | | | | | | | | | | | |
| Jul 2026 | | | | | | | | | | | | | |
| Aug 2026 | | | | | | | | | | | | | |
| Sep 2026 | | | | | | | | | | | | | |
| Oct 2026 | | | | | | | | | | | | | |
| Nov 2026 | | | | | | | | | | | | | |
| Dec 2026 | | | | | | | | | | | | | |
| Minimum | 1.2 | 18 | 212 | 9,450 | 23 | 4.4 | 14 | 442 | 6,840 | 3,720 | 3.4 | 5,030 | 2,920 |
| Maximum | 2.3 | 19 | 270 | 11,200 | 36 | 7.1 | 21 | 554 | 8,620 | 5,050 | 4.2 | 6,350 | 5,600 |
| Average | 1.8 | 18 | 229 | 10,290 | 29 | 5.2 | 16 | 507 | 7,815 | 4,285 | 3.7 | 5,618 | 3,815 |
| Limit | | 1000 | 1000 | | 300 | 75 | 200 | 2000 | | | | | |

Westbrook WWTF Biosolids Monthly Averages

| Month | WGWWTF- Biosolids Cadmium Montly Avg. mg/kg | WGWWTF- Biosolids Chromium Monthly Avg mg/kg | WGWWTF- Biosolids Copper Monthly Avg. mg/kg | WGWWTF- Biosolids Iron Monthly Avg mg/kg | WGWWTF- Biosolids Lead Monthly Avg mg/kg | WGWWTF- Biosolids Molybdenu m Monthly Avg mg/kg | WGWWTF- Biosolids Nickel Monthly Avg mg/kg | WGWWTF- Biosolids Zinc Monthly Avg mg/kg | WGWWTF- Biosolids Calcium Monthly Avg mg/kg | WGWWTF- Biosolids Magnesiu m Monthly Avg mg/kg | WGWWTF- Biosolids CaCO3 Equiv. Monthly Av % Monthly Av | WGWWTF- Biosolids Potassium Monthly Avg mg/kg | WGWWTF- Biosolids Sodium Monthly Avg mg/kg |
|----------|--|---|--|---|---|--|---|---|--|---|--|--|---|
| Jan 2026 | | | | | | | | | | | | | |
| Feb 2026 | | | | | | | | | | | | | |
| Mar 2026 | 1.5 | 28 | 322 | 6,650 | 13 | 5.9 | 63 | 545 | 6,990 | 4,330 | 3.5 | 9,100 | 1,040 |
| Apr 2026 | | | | | | | | | | | | | |
| May 2026 | | | | | | | | | | | | | |
| Jun 2026 | | | | | | | | | | | | | |
| Jul 2026 | | | | | | | | | | | | | |
| Aug 2026 | | | | | | | | | | | | | |
| Sep 2026 | | | | | | | | | | | | | |
| Oct 2026 | | | | | | | | | | | | | |
| Nov 2026 | | | | | | | | | | | | | |
| Dec 2026 | | | | | | | | | | | | | |
| Minimum | 1.5 | 28 | 322 | 6,650 | 13 | 5.9 | 63 | 545 | 6,990 | 4,330 | 3.5 | 9,100 | 1,040 |
| Maximum | 1.5 | 28 | 322 | 6,650 | 13 | 5.9 | 63 | 545 | 6,990 | 4,330 | 3.5 | 9,100 | 1,040 |
| Average | 1.5 | 28 | 322 | 6,650 | 13 | 5.9 | 63 | 545 | 6,990 | 4,330 | 3.5 | 9,100 | 1,040 |

Westbrook WWTF Biosolids Monthly Averages

| Month | WGWWTF-Biosolids Chloride Monthly Avg mg/kg | WGWWTF-Biosolids Total-P Monthly Avg mg/kg | WGWWTF-Biosolids Arsenic Monthly Avg mg/kg | WGWWTF-Biosolids Mercury Monthly Avg mg/kg | WGWWTF-Biosolids Selenium Monthly Avg mg/kg | WGWWTF-Biosolids TKN Monthly Avg % | WGWWTF-Biosolids ORG-N Monthly Avg % | WGWWTF-Biosolids Ammonia-N Monthly Avg % | WGWWTF-Biosolids Nitrate+Nitrite-N MAvg mg/kg | WGWWTF-Biosolids Carbon % Monthly Avg % | WGWWTF-Biosolids Barium Monthly Avg mg/kg | WGWWTF-Biosolids Silver Monthly Avg mg/kg | WGWWTF-Biosolids %TS Monthly Avg % | WGWWTF-Biosolids VS % Monthly Avg % |
|----------|--|---|---|---|--|---------------------------------------|---|---|--|--|--|--|---------------------------------------|--|
| Jan 2026 | 916 | | | 0.2 | | 6.4 | 5.6 | 0.80 | 2.60 | 40 | | | 26.1 | 88 |
| Feb 2026 | | | | | | | | | | | | | | |
| Mar 2026 | 1,050 | 25,000 | 5.9 | | 4.6 | | | | | | 81 | 15 | 20.9 | 85 |
| Apr 2026 | 868 | | | 0.1 | | 8.1 | 8.0 | 0.08 | 8.00 | 47 | | | 20.1 | 84 |
| May 2026 | | | | | | | | | | | | | | |
| Jun 2026 | | | | | | | | | | | | | | |
| Jul 2026 | | | | | | | | | | | | | | |
| Aug 2026 | | | | | | | | | | | | | | |
| Sep 2026 | | | | | | | | | | | | | | |
| Oct 2026 | | | | | | | | | | | | | | |
| Nov 2026 | | | | | | | | | | | | | | |
| Dec 2026 | | | | | | | | | | | | | | |
| Minimum | 868 | 25,000 | 5.9 | 0.1 | 4.6 | 6.4 | 5.6 | 0.08 | 2.60 | 40 | 81 | 15 | 20.1 | 84 |
| Maximum | 1,050 | 25,000 | 5.9 | 0.2 | 4.6 | 8.1 | 8.0 | 0.80 | 8.00 | 47 | 81 | 15 | 26.1 | 88 |
| Average | 945 | 25,000 | 5.9 | 0.2 | 4.6 | 7.3 | 6.8 | 0.44 | 5.30 | 44 | 81 | 15 | 22.4 | 86 |

**MEMORANDUM OF AGREEMENT
BETWEEN THE
ECOMAINE
AND THE
PORTLAND WATER DISTRICT**

This Memorandum of (the “Agreement”) is made this ____ day of ____, 20__, by and between the Portland Water District, a quasi-municipal corporation with a business address of 225 Douglass Street, Portland, Maine, (“PWD” or the “District”); and ecomaine, a non-profit corporation with a business address of 64 Blueberry Road, Portland, Maine, (“ecomaine”).

WHEREAS, PWD and ecomaine are both public organizations committed to environmental stewardship and providing essential public services for municipalities, and whose customers would benefit from collaborative services;

WHEREAS, biosolids management is a critical component of PWD’s wastewater operation that is becoming increasingly more tenuous and expensive with limited disposal options, partially as a result of recent regulatory and legislative changes, and;

WHEREAS solids waste management is the key mission of ecomaine in the service of its Member and Contract Communities; and

WHEREAS, the construction and operation of a regional biosolids management facility (“Facility”) is in the public interest; and

WHEREAS, ecomaine has potential sites of sufficient size at its ash landfill and its incinerator properties within 10 miles of PWD’s major wastewater facility that potentially could be a site for a Facility and ecomaine has an ash landfill that may have capacity and potential permitting capability to receive processed biosolids,; and

WHEREAS, it is anticipated that PWD will be responsible for acquiring the necessary property interests for the construction of a Facility; and

WHEREAS, ecomaine is interested in pursuing the ability to process biosolids and landfill on site; and

WHEREAS, PWD and the ecomaine desire to memorialize an agreement defining responsibilities of each party for the potential design, construction, permitting, siting, operation, funding, and construction of a Facility;

NOW THEREFORE: In consideration of the foregoing and the promises and material obligations contained herein, ecomaine and PWD agree as follows:

1. PWD and ecomaine will work collaboratively and in good faith on a Request for Proposals (RFP) for any combination of design, construction, permitting, siting, operation, funding, and construction services related to the development of the Facility;
2. PWD and ecomaine will work collaboratively and in good faith on finding a suitable site on ecomaine property of approximately 5 acres in size for the Facility;
3. PWD and ecomaine will develop a compensation model and plan that fairly and reasonably reimburses ecomaine for any property leased or purchased that is apportioned for the Facility, as well as for any services provided such as the disposal of dried biosolids or other related treated products;
4. In conjunction with the pursuit of the Facility, PWD shall undertake the following actions:
 - a. Develop at its cost, in collaboration with Brown & Caldwell, a Request for Proposal from qualified firms and partnerships for the design, construction, permitting, siting, operation, funding, and construction of a Facility (the “Project”).

- b. Provide ecomaine with estimated project costs at the preliminary design phase and at the 30% and 90% project phases.
 - c. Negotiate in good faith an agreement, subject to approval of its Board of Trustees, including compensation provision, with ecomaine for the lease or purchase of any property that is apportioned for the Facility, as well as for any services provided such as the disposal of dried biosolids.
5. ecomaine agrees to undertake the following actions:
 - a. Provide PWD with any previously completed reports, studies and operations data which may be relevant for citing the Facility on ecomaine property and calculating compensatory value of leasing or purchasing the said property.
 - b. Cooperate with PWD in obtaining all applicable licenses, permits and approvals for all of the actions contemplated by this Agreement per federal, state and local laws., and where required will be a co-applicant on necessary permits as required..
 - C. Explore and pursue any permits and approvals required for the landfilling of dried biosolids and other related treated products.
6. Each party agrees to execute and deliver any instruments and to perform any acts that may be necessary or reasonably requested in order to give full effect to the terms of this Agreement. Each party shall use all reasonable efforts to provide such information, execute such further instruments and documents and take such action as may be reasonably requested by the other party; provided however, that such actions are not inconsistent with the provisions of this Agreement and do not involve the assumption of obligations other than those which are provided for in this Agreement to carry its intent.
7. Except as otherwise explicitly provided herein, no party to this Agreement shall have any responsibility whatsoever with respect to services which are to be provided or contractual obligations which are to be assumed by any other party and nothing in this Agreement shall be deemed to constitute a partnership, agency relationship or other business venture among the Parties or to create any fiduciary relationship between or among the Parties.
8. Unless otherwise provided herein, any notice or communication which is required or permitted to be given hereunder shall be in writing and sufficiently given if delivered in person or sent by certified or registered mail, postage prepaid, with a copy sent by overnight mail, courier, electronic transmission, or telecopy, as follows:

| | |
|------------------|---|
| To the District: | , General Manager Portland Water District 225 Douglass Street P.O. Box 3553 Portland, Maine 04104 Email: |
| To the Ecomaine: | Kevin Roche ecomaine 64 Blueberry Road Portland Maine 04102 Email: roche@ecomaine.org |

Changes in the respective addresses to which such notices may be directed may be made from time to time by any party by written notice to the other parties.

9. The waiver by any party of a default or of a breach of any provision of this Agreement by any other party shall not operate or be construed to operate as a waiver of any subsequent default or breach.

10. The provisions of this Agreement shall constitute the entire agreement between the parties, and may be modified only by written agreement duly executed by both parties.

11. This Agreement may be terminated at any time by either party upon a 30 day written notice.

12. In the event that the parties proceed to site and construct the Facility as contemplated by this Agreement, further agreements shall be negotiated and shall be subject to approval by the respective governing bodies of the parties.

IN WITNESS WHEREOF, the parties hereto have caused this Memorandum of Agreement to be executed by their duly authorized representatives as of the day and year first written above.

For ecomaine:

ECOMAINE

By: _____
Name: Kevin Roche
Title: Executive Director

For the District:

PORTLAND WATER DISTRICT

By: _____
Name:
Title: General Manager

Attachment G: Pricing Information Form

Form 1. Progressive Design-Builder Fee and Rate Proposal Summary

This Form 1 will be incorporated into Exhibit E of the Draft Progressive Design-Build Agreement in Attachment A.

| Phase 1A Price | |
|--|-----------|
| The Phase 1A Services Fee is the not-exceed amount payable to the Design-Builder for performing Phase 1A Services, which include design and pre-construction activities as defined in Exhibit B to the draft PDB Agreement (Attachment A). This fee represents full compensation for all services required during Phase 1A unless otherwise provided in the Contract Documents. The total Phase 1A Services Fee is the sum of items below and shall not exceed \$1,500,000.00: | |
| Task 1: Project Management | \$ |
| Task 2: Meetings and Workshops | \$ |
| Task 3: Background Document Review and Validation | \$ |
| Task 4: Site Selection, Field Investigations, Surveying, Mapping and Reports | \$ |
| Task 5: Cost Estimating, Implementation Planning, Scheduling, and Constructability Reviews | \$ |
| Task 6: Permitting and Approvals | \$ |
| Task 7: Public Outreach | \$ |
| Task 8: Basis of Design Report | \$ |
| Task 9: Milestone 1 Design Deliverable | \$ |
| Total Phase 1A Services Fee. | \$ |
| Phase 1B Price | |
| The Phase 1B Services Fee is the not-exceed amount payable to the Design-Builder for performing Phase 1B Services, which include design and pre-construction activities as defined in Exhibit B to the draft PDB Agreement (Attachment A). This fee represents full compensation for all services required during Phase 1B unless otherwise provided in the Contract Documents. The total Phase 1B Services Fee is the sum of items below: | |
| Task 10: 60% Design Submittal | \$ |
| Task 11: Construction Sequencing Plan and Subcontracting and Self-Performance Plan | \$ |
| Task 12: Guaranteed Maximum Price (GMP) Development | \$ |
| Total Phase 1B Preliminary Services Fee. | \$ |
| Phase 2 Pricing Elements ¹ | |
| Provide the following Phase 2 pricing elements: | |
| General Conditions Fee. The General Conditions Fee covers all costs associated with managing and supporting the Design-Build Work, calculated as a fixed percentage of the Phase 2 Cost of Work . These costs are described in Article 6 of the PDB Agreement (Attachment A). | % |
| Design-Builder Fee. The Design-Builder Fee shall be a fixed percentage of the Phase 2 Cost of Work . The Design-Builder's Fee covers all overhead, profit, risk, and markups, excluding insurance, bonds, and sales taxes related to the Design-Build Work during Phase 2. | % |

| | |
|---|---|
| <p>Discount for Lump Sum. The Discount for Lump Sum as a percentage represents the Design-Builder’s discount for converting the Project from a GMP to a Lump Sum value upon successful negotiation of the GMP. Conversion from a GMP to Lump Sum is dependent on Owner approval.</p> | % |
| <p>Phase 3 Pricing Elements²</p> | |
| <p>Provide the following Phase 3 pricing elements:</p> | |
| <p>Anticipated Markup for Expected O&M Services: The Design-Builder shall provide the fixed percentage for anticipated markup for expected O&M services during the contract term.</p> | % |

Notes:

1. In developing its Phase 2 Pricing Elements, Proposers should note that the Design-Builder’s direct subconsultants and subcontractors will be limited to marking up lower tier subconsultants and subcontractors by no more than 5 percent. Any Early Work Packages are considered part of Phase 2 Work. Advancement of such work during Phase 1 does not constitute a change to the Phase 1 scope, schedule, and fee. Associated costs with Early Work Packages will be negotiated and included with Phase 2 pricing.
2. The anticipated markup for expected O&M services during Phase 3 is nonbinding and will serve as the basis for negotiation between the Owner and Design-Builder prior to the final Operations (Phase 3) contract.

