

Task 01: Project Management

This task consists of project setup, administration, accounting, scheduling, quality assurance and control (QA/QC), progress meetings, and health and safety.

01.01 Project Set-Up

Kennedy Jenks will set up the project within Kennedy Jenks' accounting system, prepare subconsultant agreements, and issue a Project Work Plan to our design team, outlining the scope and budget, and baseline schedule.

01.02 Project Administration

Kennedy Jenks will provide management and oversight of in-house project personnel and subconsultants throughout the project. This task will also consist of the provision of administrative support in the Kennedy Jenks's office for the duration of the project. Kennedy Jenks will review and monitor project budget and progress on a regular basis, as well as management of Kennedy Jenks in-house and subconsultant activities. Kennedy Jenks will allocate resources to meet project objectives based on this scope of work and will perform project controls activities to accomplish day-to-day management of the work.

Kennedy Jenks will prepare and maintain a Major Decisions Log that documents the City of Lebanon's (City) major decisions related to the Project.

01.02 Assumptions:

- Effort is based on a total project design duration of 12 months.

01.02 Deliverables:

- Major Decisions Log updates in electronic (pdf) format.

01.03 Project Accounting

Kennedy Jenks will establish and maintain a Project accounting system to organize and track Project costs. Kennedy Jenks will prepare and submit monthly invoices electronically to the City. Invoices will show the breakdown of work completed to date by task for each staff, amount spent on the project to date, and remaining budget.

01.03 Assumptions:

- Effort is based on a total project design duration of 12 months.

01.03 Deliverables:

- Monthly invoices in electronic (pdf) format.

01.04 Project Design Schedule

Kennedy Jenks will develop a baseline Project design schedule identifying the major activities for the Project (e.g. task and subtask level activities). The schedule will be updated bi-monthly for the duration of the design phase of the Project.

01.04 Assumptions:

- Effort is based on a total project design duration of 12 months.
- Construction Manager/General Contractor (CM/GC) Contractor will prepare Project schedule during construction.

01.04 Deliverables:

- Bi-Monthly design schedule updates in electronic (pdf) format.

01.05 Quality Assurance and Quality Control

Each deliverable will receive a Quality Control (QC) review prior to submission to the City from Senior Kennedy Jenks engineers, not directly associated with the project, so that it is an independent review. QC reviews for deliverables associated with this scope of work are budgeted separately under the specific associated deliverable task.

Kennedy Jenks will conduct an in-house Project Initiation Review (PIR) meeting, monthly internal project reviews, and a Concept and Criterion (C&CR) meeting early in the Project to obtain focused project management and technical input from senior Kennedy Jenks staff. The meetings will be held at Kennedy Jenks's office. The PIR meeting will be attended by up to 3 key Project team members. The C&CR meeting will be attended by up to 8 key project team members.

01.06 Progress Meetings

Kennedy Jenks will conduct bi-weekly (two per month) progress meetings with City's Project Manager (PM) that will include a review of progress, discussion of items requiring feedback, list of outstanding issues requiring resolution, status of scope, schedule and budget, and review of risks. Kennedy Jenks will provide meeting agendas and meeting minutes. The meetings are anticipated to have a 0.5-hour duration and will be attended via Microsoft Teams format by Kennedy Jenks' PM and Project Technical Lead (PTL).

01.06 Assumptions:

- Effort is based on a total project design duration of 12 months.
- Bi-weekly progress meetings will be attended by the City's PM.

01.06 Deliverables:

- Meeting agendas and notes in electronic (pdf) format.

01.07 Health and Safety

Work is expected to involve City escorted site visits (walkthroughs) for observation purposes only. A Hazard Appraisal & Recognition Plan (HARP) will not be prepared but appropriate PPE will be worn by Kennedy Jenks' staff when onsite.

01.08 Project Closeout (To be added by amendment)

Services related to project closeout are not included in this scope of work. They will be added by amendment if the City chooses to complete the Project beyond the 30% design completion level.

Task 02: Site Investigations

02.01 Site Survey

Kennedy Jenks, through the services of its survey subconsultant, K&D Engineering, Inc. (K&D), will prepare a site survey that consists of the locations of existing structures, facilities, surface features, utilities, easements and rights-of-way.

Existing facilities and buildings will be located, and additional spot elevations will be identified to provide a base map showing visible above ground improvements. Surface elevations will be converted to contours with a contour interval of one foot. The survey will include visible

underground utility mark-outs. The survey will identify potential overhead utility conflicts related to the proposed improvements where they may impact the use of cranes or similar needed for large equipment construction.

02.01 Assumptions:

- Datums: The survey will be completed using North American Datum 83 (NAD 83) and North American Vertical Datum 1988 (NAVD 88).
- Coordinate System: Oregon State Plane Coordinate System, North Zone.
- Total area to be surveyed will be approximately 13 acres.
- Potholing of existing utilities is not included in this scope of work. It can, however, be added upon request by contract amendment.
- The City will mark utilities inside the WWTP fence line within the portion of the overall project site in which excavation is expected to occur. This area will be approximately 1.5 acres and will predominantly be restricted to the northeastern portion of the WWTP site.
- Survey does not include a boundary survey, subdivision of lands, or land title survey.

02.01 Deliverable:

- Survey base map in electronic (pdf) format.

02.02 Geotechnical Investigation

Kennedy Jenks, through its subconsultant, Foundation Engineering, Inc. (FE), will develop and implement a geotechnical investigation consisting of exploratory test pits, laboratory testing, engineering analysis, and preparation of a geotechnical report to support the design of the Project. The geotechnical report will summarize findings of the subsurface exploration and laboratory testing and provide a discussion of the anticipated soil and groundwater conditions. It will provide recommendations for site preparation, subgrade structure design, foundation design, slab design, trenching, and pavement design.

02.02 Assumptions:

- Up to 6 test pits with depths up to 8 feet will be excavated using a mini excavator or backhoe.
- No permitting will be required for site investigations, and a work plan will not be required.

02.02 Deliverable:

- Draft and final geotechnical report in electronic (pdf) format.

Task 03: Environmental Resources

Kennedy Jenks, through its subconsultant, Pacific Habitat Services (PHS), will complete the Environmental Resources task for the Project.

03.01 Environmental Resources Study and Report

Project funding sources have not yet been confirmed, but state (Oregon Department of Environmental Quality [DEQ] Clean Water State Revolving Fund [CWSRF]) or federal (United States Army Corps of Engineers [USACE]) funding is likely. These funding sources require an environmental review report that considers impacts on both the natural and the human environment. In Oregon, CWSRF uses the State Environmental Review Process (SERP) that

requires cultural resources consultation (SHPO), tribal coordination, Endangered Species Act (ESA) species review, floodplain/wetland analysis, public notice and comment period, and documentation of alternatives analysis. The Corps funding also requires an assessment of the above factors.

PHS will review available relevant documents and data to understand the environmental issues associated with the location and the operation of the WWTP. PHS will conduct a field survey to document existing site conditions, prior to which they will obtain data on ESA species from the Oregon Biodiversity Information Center.

PHS will prepare a draft and final version of the Environmental Information Document that can be used for the SERP process. The report will follow the format typical of SERP documents. The narrative will include a discussion of existing conditions, with the results of the on-site assessments, the state and federal regulatory requirements, and, if necessary, mitigation options. A final version of the report will be completed after receiving comments on the draft document. PHS will also prepare and contribute to the report's graphics.

03.01 Assumptions:

- Environmental field survey will be limited to within the WWTP site extending to a maximum of 10 feet outside the fence line.

03.01 Deliverable:

- Draft and final Environmental Information Document in electronic (pdf) format.

03.02 State Environmental Review Process

Because the source of Project funding has not yet been confirmed, additional effort may be required beyond that associated with the environmental resources study and report task that is not included in this scope of work. Should the City secure funding through the CWSRF program, additional effort may be needed and can be added by contract amendment.

03.03 Federal Environmental Review Process

Because the source of Project funding has not yet been confirmed, additional effort may be required beyond that associated with the environmental resources study and report task that is not included in this scope of work. Should the City secure funding through federal funding sources such as the USACE, additional effort may be needed and can be added by contract amendment.

Task 04: Permitting and Public Utility Coordination

Kennedy Jenks will provide the following permitting and public utility coordination services consisting of revisions to the City's Biosolids Management Plan, assistance with building permits, and coordination services associated with electric, natural gas, water, and telecommunications utilities.

Kennedy Jenks does not anticipate the need for public hearings and has thus not included such assistance in this scope of work. However, if required, it can be provided upon request by contract amendment.

04.01 Biosolids Management Plan (To be added by amendment)

Services needed to revise the City's Biosolids Management Plan (Plan) to include the planned changes to the WWTP's biosolids treatment facilities associated with the Project are not

included in this scope of work. The Plan will need to be revised, however, should the City wish to complete the Project. These services can be added upon request by contract amendment.

04.02 Building Permits – (To be added by amendment)

Services to assist the City in obtaining Building Permits from the Authority Having Jurisdiction (AHJ) are not included in this scope of work. However, Building Permits will be needed should the City wish to complete the Project. These services can be added upon request by contract amendment.

04.03 Electrical Utility Coordination

Coordination with local electrical utility will be initiated; historical loads and electric consumption will be requested to satisfy National Fire Protection Association (NFPA) 70 requirements. This information will be provided by the City to the electrical utility to coordinate preliminary paperwork needed to upgrade the electrical service to the Plant, if warranted during the design phase.

4.03 Assumptions:

- Utility has historical electrical consumption and peak kW demand records of at least 12 previous months.
- Utility has records of existing transformer size and available capacity to the Plant.
- Effort for this task is based on Kennedy Jenks providing up to 32 hours of professional assistance.

04.03 Deliverables

- Provide historical data, utility representative point of contact information.

04.04 Natural Gas Utility Coordination

Coordination with local natural gas utility will be initiated; demand requirements, including gas heating input and pressure, will be provided to the City to coordinate new natural gas service to the plant. Natural gas utility point of connection will be coordinated for new service into the plant once the preliminary design phase is completed.

04.04 Assumptions:

- The City will be responsible for coordinating with the natural gas utility to provide the necessary gas service to the Plant to support the planned improvements.
- The natural gas utility can provide new service of sufficient capacity and pressure, and within the vicinity of the new facilities at the Plant, to accommodate the planned biosolids dryer.
- Effort for this task is based on Kennedy Jenks providing up to 24 hours of professional assistance.

04.05 Water Utility Coordination – (To be added by amendment)

Services related to coordination with the water utility are not included in this scope of work. However, these services may be needed should the City wish to complete the Project. These services can be added upon request by contract amendment.

04.06 Telephone and Internet Service Provider Coordination – (To be added by amendment)

Services related to coordination with the telephone and internet services provider are not included in this scope of work. However, these services may be needed should the City wish to complete the Project. These services can be added upon request by contract amendment.

Task 05: Pre-Design (10%)

The purpose of this task is to assess and present applicable system design criteria, preliminary facility sizing, preliminary equipment selections, code review, building type preferences, and preliminary site layout for the Biosolids Treatment Improvements Project (Project) for the City's WWTP. The Pre-Design will initially prepare a series of technical memoranda (TMs) containing project strategy, design criteria, alternatives evaluations, summary descriptions of process and control strategies, and a listing of issues to be resolved. The TMs will be used as the basis for the pre-design report (PDR) which will provide a summary of the findings contained in the TMs, preliminary drawings, opinion of probable construction cost (OPCC), and a preliminary project schedule. The PDR will be used by the project team to guide the detailed design of the Project.

05.01 Project Kick-off, Data Collection, and Data Review

Kennedy Jenks will lead a project kick-off meeting with the City to discuss the scope of work, project schedule, communication protocols, project goals, and initial system design criteria. The meeting will provide an opportunity to discuss the project team's initial thoughts on site layout, building construction alternatives, and equipment preferences.

Although Kennedy Jenks anticipates having much of the information needed to complete the Project, Requests for Information (RFIs) will be submitted to the City to address information gaps.

05.01 Assumptions

- The kick-off meeting will be held in person at the City's WWTP. It will be attended by Kennedy Jenks' PM, PTL, and civil, structural, architectural, mechanical, electrical, and instrumentation and control discipline design leads. Meeting duration will be up to 3 hours.
- Up to three RFI's will be issued by Kennedy Jenks.

05.01 Deliverables

- Kick-off meeting agenda and meeting minutes in electronic (Microsoft Word and pdf) format.
- RFIs in electronic (pdf) format.

05.02 Pre-Design

The pre-design task will prepare a series of TMs and preliminary drawings that will be used as the basis for the PDR, OPCC, and preliminary project schedule. Pre-design TMs will consist of the following:

- TM 01 - Basis of Design
- TM 02 - Hauled Waste Receiving Station
- TM 03 - Solids Thickening
- TM 04 - Aerobic Digestion

- TM 05 - Biosolids Dewatering
- TM 06 - Class A Biosolids Treatment
- TM 07 - Code Review
- TM 08 - Site Civil Design
- TM 09 - Structural Design
- TM 10 - Architectural Design
- TM 11 - Mechanical Design – Building (HVAC, Plumbing and Fire Protection)
- TM 12 - Electrical Design
- TM 13 - Instrumentation and Control Design
- TM 14 - Site Utilities
- TM 15 - Permitting

Pre-design tasks will be organized as follows:

05.02.01 General. The General pre-design task will consist of stating the basis of design for the Project, identifying permitting requirements (building permits, demolition, and stormwater discharge) and developing pre-design level drawings. The basis of design for the Project including design horizon, service populations, wastewater flows and loads, and wastewater solids generation is assumed to be as presented in the City's Wastewater Treatment Plant Facilities Plan (Facilities Plan) dated November 2025.

Two TMs will be produced:

- TM 01 - Basis of Design
- TM 15 - Permitting.

Pre-design level general drawings will consist of those for project location and vicinity maps, drawing index, abbreviations, general project notes and legends, design criteria, and process flow schematic.

05.02.02 Civil. The Civil Pre-Design task will consist of analyzing existing conditions, developing grading and drainage considerations, utility coordination requirements, landscaping, general civil design criteria, and pre-design level drawings. This effort will include reviewing site conditions, available survey information, and existing utility data to establish the basis for site layout, access, paving, and yard piping.

In addition to the above, civil pre-design will identify applicable codes and standards which serve as a basis for design criteria.

One civil TM will be produced:

- TM 08 - Site Civil Design.

Pre-design level civil drawings will consist of those for abbreviations and notes, legends, overall site plan, horizontal control and paving, and yard piping plan.

05.02.02 Assumptions

- Landscaping design will not be required. Kennedy Jenks will identify repairs to landscaping and irrigation systems impacted by the Project. Kennedy Jenks anticipates that any needed repair will be Contractor designed via deferred submittal.

05.02.03 Structural. The structural pre-design task will consist of setting structural design criteria, reference codes and standards, design loads, load combinations, description of structures with design assumptions, special inspection requirements, and pre-design level drawings.

In addition to the above, structural pre-design will consist of preliminary calculations to determine the level of effort needed to determine if the existing structures of the thickening building and aerobic digester are sufficient to support the new equipment replacing the existing equipment. This pre-design task will be performed by comparing existing and new equipment weights to determine if the prescriptive compliance method is applicable for the existing structures.

One structural TM will be produced:

- TM 09:- Structural Design.

Pre-design level structural drawings will consist of those for general notes and abbreviations and foundation plans for the control building, hauled waste receiving station, thickening building, digester blower building, dewatering building, and dryer building.

05.02.03 Assumptions

- Effort for this task assumes the prescriptive compliance method will be applicable to the existing structures of the thickening building and aerobic digester. If it is found not to be applicable, additional structural analysis will be needed that is not included in this scope of work. It can be provided, however, upon request by contract amendment.
- It is not expected that pile and deep foundation systems will be needed for the Project and are not included in the scope of work. However, they can be added by contract amendment if needed.

05.02.04 Architectural. The architectural pre-design task will consist of a code review, building design assumptions, and pre-design level drawings.

Two architectural TMs will be produced:

- TM 07 - Code Review
- TM 10 - Architectural Design.

Kennedy Jenks will identify relevant codes and clarify building requirements, relevant jurisdiction and governing codes to which the project will be designed. Code review for this project consists of the following: Building Occupancy Classification, Construction Classification(s), Hazardous Materials Storage and Use, Americans with Disabilities Act (ADA) Requirements, Energy Code Compliance, Fire Code Compliance (including NFPA 820), Building Code, Electrical Code, Stormwater requirements, and Planning department requirements (e.g. setbacks, appearance, other per local requirements).

Pre-design level architectural drawings will consist of those for the code summary and floor plans for the control building, hauled waste receiving station, thickening building, digester blower building, dewatering building, and dryer building.

05.02.04 Assumptions

- Three-dimensional (3D) renderings or visuals will not be needed. These can, however, be provided upon request by contract amendment.

05.02.05 Mechanical – Process. The mechanical-process pre-design task will consist of establishing unit process design criteria, evaluating potential equipment alternatives based on economic and non-economic considerations, preliminary process control strategies, preliminary equipment and instrumentation lists, and pre-design level drawings.

The following unit processes will be evaluated: 1) hauled waste (septage) receiving, 2) solids thickening, 3) aerobic digestion, 4) dewatering, and 5) Class A biosolids drying.

1. Hauled Waste (Septage) Receiving Station. Pre-design of the hauled waste receiving station will be based on the use of pre-engineered equipment packages. Up to three equipment manufacturers will be considered.
2. Solids Thickening. Pre-design evaluation for solids thickening will consider three thickening technologies: gravity belt thickeners (GBTs), rotary drum thickeners (RDTs) and centrifuges. Evaluations will be based on replacement of the existing GBT with equipment installed in the existing Thickening Building. Ancillary equipment needs including polymer feed system, sludge feed pump, and thickened sludge pump will be considered.
3. Aerobic Digestion. Pre-design evaluations for wastewater solids stabilization will be based on the continued use of the existing aerobic digester. Evaluations will consider three potential aeration/mixing technologies: surface aeration/mixing, coarse bubble aeration with submersible mixers, and induction-type mixing/aeration.
4. Dewatering. Pre-design evaluations for solids dewatering will be based on construction of new dewatering facilities. Three potential dewatering technologies will be considered: belt filter press (BFP), rotary screw press, and centrifuge. Ancillary equipment needs including polymer feed system, sludge feed pump, and dewatered cake conveyance will be considered.
5. Class A Biosolids Drying. Pre-design evaluations for biosolids drying will be based on construction of new treatment facilities. Two Class A biosolids technologies will be considered: paddle dryers, and belt dryers. Ancillary equipment needs including cake feed hopper, solids conveyance, odor control and bulk bagging system will be considered.

Five TMs will be produced:

- TM 02 - Hauled Waste Receiving Station
- TM 03 - Solids Thickening
- TM 04 - Aerobic Digestion
- TM 05 - Biosolids Dewatering
- TM 06 - Class A Biosolids Treatment.

Pre-design level process-mechanical drawings will consist of those for notes and abbreviations, equipment plan drawings for the hauled waste receiving station, thickening building, digester, digester blower building, dewatering building, and the dryer building, and the process portion of the process and instrumentation diagrams (P&IDs) for the hauled waste receiving station, thickening, digestion, dewatering, and dryer. Drawings will depict the recommended equipment alternative for each unit process area.

05.02.06 Mechanical – Building. The mechanical-building pre-design task consists of establishing design criteria and approaches for heating, ventilation, and air conditioning (HVAC), plumbing, fire suppression, mechanical, fire and energy code compliance, site and civil coordination (backflow prevention, cross connection controls, and utility uses) and pre-design level drawings. Requirements for site utilities consisting of City water, natural gas, electrical service, telecommunications, plant water systems, and fire water system will be determined.

Two mechanical-building TM will be produced:

- TM 11 Mechanical Design – Building.
- TM 14 Site Utilities

Pre-design level mechanical-building drawings will consist of those for legends, abbreviations, and notes, and preliminary HVAC schematics for the control building, thickening building, digester blower building, dewatering building, and dryer building.

Task 05.02.06 Assumptions:

- Heating for new buildings will be provided by heat pumps for fully conditioned spaces. Process areas requiring ventilation and heat only will utilize natural gas for heating purposes unless determined otherwise.
- Control Building laboratory will not require laboratory-specific utilities including lab air, gas and vacuum systems.
- Automatic fire suppression systems will only be required in the Class A Biosolids Building per the Fire Code and NFPA 820.
- With exception of the Class A biosolids treatment system, odor control will not be required.
- Existing plant potable water supply is sufficient for planned improvements, and premises isolation between plant and City water supply satisfies Oregon cross connection control requirements and does not require improvements.
- Tie-in and extension of existing plant potable water system within plant for domestic plumbing and fire water for modified and new facilities is included in this scope of work. Improvements to existing plant potable water supply and premises isolation is not included but can be provided by contract amendment if deemed necessary upon completion of pre-design.

05.02.07 Electrical. The electrical pre-design task consists of establishing electrical design criteria, for verification of existing electrical utility capacity, electrical field-site investigation, field electrical data collection/verification, main switchboard capacity, existing stand-by generator capacity, main duct bank routing, existing main distribution electrical equipment assessment, main electrical distribution equipment selection, and pre-design level drawings.

One electrical TM will be produced:

- TM 12 - Electrical Design.

Pre-design level electrical drawings will consist of those for abbreviations and notes, legends, load calculations, pre-liminary main equipment selection, over-all one line diagram, and overall site plan.

05.02.07.01 Assumptions

- Effort for this task assumes the existing stand-by generator has sufficient capacity to support both existing WWTP facilities and those associated with the Project. This will be confirmed as part of this task. Effort needed for design of a new stand-by generator is not included in this scope of work but can be provided if needed by contract amendment.

05.02.08 Instrumentation and Control. The instrumentation and control (I&C) pre-design task consists of establishing instrumentation and control existing conditions and design criteria. Kennedy Jenks will verify and document the existing network architecture, segregation, topology and communication protocols. Additionally, existing hardware and software components will be verified and documented along with any City standards on hardware and software manufacturers and packages.

To perform this task, a Kennedy Jenks I&C staff member will conduct two site visits. The first visit will require one day and will occur during the project kick-off meeting (Task 05.01). The visit will capture the overall network architecture, control hardware summary, and document existing systems with photographs and field summaries. The second visit will be more in depth, requiring two days on site, to review specific network segregation and topology, communication protocols, fiber and copper infrastructure, existing vendor and plant control hardware, and SCADA software details. The findings from the field investigations as well as recommendations for proposed improvements will be captured in the pre-design level drawings and a technical memo.

One instrumentation and control TM will be produced:

- TM 13 – Instrumentation and Control Design.

The TM will describe existing network architecture, segmentation, and topology; existing control hardware, the City's network and control hardware preferences, proposed network architecture, segmentation, and topology, proposed control hardware and software; general control philosophies; fire detection and alarming; site security and access control; and cybersecurity considerations.

Pre-design level instrumentation and control drawings will consist of those for legends and abbreviations, one/demolition existing network block diagram, one final state overall network block diagram, and the process portions of the P&IDs for the hauled waste receiving station, thickening, digestion, dewatering, and dryer. For the process portions with multiple trains, only one typical train will be depicted at the pre-design level.

05.02.08 Assumptions

- City staff will be available during I&C site visits to provide access to the WWTP facilities, cabinets, and panels.

05.03 Opinion of Probable Construction Cost

Kennedy Jenks will prepare an AACE Class 4 estimate of the probable construction cost for the proposed improvements to the biosolids treatment system, new hauled waste receiving station, and control building.

05.04 Pre-Design QA/QC.

Pre-design deliverables will receive both discipline and inter-discipline quality control reviews prior to submission to the City from senior engineering staff, not directly associated with the Project.

05.05 Pre-Design Coordination, Report, and Review Meetings

Kennedy Jenks will provide technical coordination, prepare TMs and a preliminary design report (PDR), and conduct review meetings for the pre-design completion level.

05.05.01 Pre-Design PTL Coordination. Kennedy Jenks' PTL will provide technical coordination for the duration of the pre-design (10%) task.

05.05.02 Pre-Design TM Review Meetings. Kennedy Jenks will conduct up to 6 review meetings to review and solicit City input on the draft TMs. City review comments will be addressed, and the updated TM's will be provided to the CM/GC Contractor for review, comment, and use in developing their initial project cost model (Task 11).

05.05.03 Draft Pre-Design Report. Kennedy Jenks will prepare a PDR which will be used by the project team to guide the detailed design of the Project. It will consist of a summary of findings from the TMs, preliminary drawings, OPCC, and a preliminary project schedule. The draft PDR will be provided to the City for review and comment.

05.05.04 PDR Review Meeting. Kennedy Jenks will conduct a pre-design review meeting with the City to resolve City questions/comments on the draft PDR.

05.05.05 Updated PDR. The report will be updated to address City comments, and a revised PDR will be issued to the City for submission to the DEQ for review.

05.05.06 Final PDR. After receiving DEQ comments, Kennedy Jenks will work with City staff to resolve DEQ comments and a final PDR will be issued.

Task 05.05 Assumptions

- The City will be responsible for identifying and procuring laboratory equipment. Design of laboratory specific utility systems (e.g., compressed air, gas, and vacuum systems) is not included in this scope of work but can be provided by contract amendment.
- Comments received from DEQ on the PDR will require minor clarifications and will not require additional technical study.
- Review meetings will be held at City provided meeting facilities and will be attended in person by Kennedy Jenks' PM and project technical lead (PTL). Project design discipline leads will attend via video conferencing.
- Design documents will be provided to the City two weeks prior to scheduled review meetings. The City will provide Kennedy Jenks with written review comments a minimum of two working days prior to scheduled review meetings.

- TMs will be provided to the City for review in three (3) groups as follows:

TM Group 1:	TM 01 Basis of Design
TM Group 2:	TM 02 Hauled Waste Receiving Station
	TM 03 Solids Thickening
	TM 04 Aerobic Digestion
	TM 05 Biosolids Dewatering
	TM 06 Class A Biosolids Treatment
TM Group 3:	TM 07 Code Review
	TM 08 Site Civil Design

- TM 09 Structural Design
- TM 10 Architectural Design
- TM 11 Mechanical Design – Building
- TM 12 Electrical Design
- TM 13 Instrumentation and Control Design
- TM 14 Site Utilities
- TM 15 Permitting

- Kennedy Jenks will conduct up to six (6) TM review meetings. These meetings will be grouped as follows:

- TM Review Meeting 1: TM 01 Basis of Design
- TM Review Meeting 2: TM 02 Hauled Waste Receiving Station
TM 03 Solids Thickening
TM 04 Aerobic Digestion
- TM Review Meeting 3: TM 05 Biosolids Dewatering
TM 06 Class A Biosolids Treatment
- TM Review Meeting 4: TM 07 Code Review
TM 10 Architectural Design
TM 11 Mechanical Design – Building
- TM Review Meeting 5: TM 08 Site Civil Design
TM 09 Structural Design
TM 14 Site Utilities
TM 15 Permitting
- TM Review Meeting 6: TM 12 Electrical Design
TM 13 Instrumentation and Control Design

- Review meetings (including the pre-design review meeting) will be up to three hours each except for TM Review Meeting 1, which will be up to one hour long.

Task 05.05 Deliverables

- Draft TMs in electronic (Microsoft Word) format.
- Updated TMs in electronic (pdf) format.
- Draft PDR in electronic (Microsoft Word) format with final TMs in electronic (pdf) format.
- Updated PDR in electronic (pdf) format for submission to the DEQ.
- Final PDR in electronic (pdf) format.
- Review meeting agendas and notes in electronic (pdf) format.

Task 6 – 30% Design

Kennedy Jenks will complete the design of the Project to the 30% completion level. Work will consist of calculations and design documents (i.e., 30% design drawings, select equipment specifications, and QA/QC review).

Project elements will be as recommended in the PDR developed as described in Task 5. For the purposes of estimating design effort, Kennedy Jenks assumes the Project will consist of the main project elements as described below and in the Facilities Plan:

- **Control Building.** A new Control Building will be designed to provide office space, breakroom, restrooms, locker facilities, and laboratory. The structure will include a dedicated electrical room sized to allow consolidation of the WWTP's electrical equipment into a more central location including facilities needed to support the three improvement phases recommended in the Facilities Plan. Kennedy Jenks assumes that the existing standby engine generator has sufficient capacity to support this first improvement phase, with a new generator not required until construction of the next improvement phase.

New network architecture will be designed to include new SCADA server hardware and workstations. These facilities will be housed in the new Control Building.

The Control Building is assumed to provide approximately 3,800 square feet (sf) of floor space with an additional 1,000 sf provided by the electrical room. The Control Building is expected to be constructed near the north entrance to the WWTP directly opposite of the existing sludge drying beds. The structure is assumed to be a CMU load bearing wall system with an open-web steel joist (OWSJ) roof framing systems.

- **Hauled Waste Receiving Station.** The station will consist of a packaged hauled waste receiving station to screen and dewater debris associated with hauled septage. Screened septage will flow by gravity to a below grade pre-cast concrete holding tank from where it will be pumped to the WWTP's existing drain system that terminates at the existing Drainage Pump Station. The packaged system will be placed at grade within an open-sided pre-engineered metal canopy structure to provide limited protection from the weather. The hauled waste receiving station is expected to be constructed in the area currently containing the WWTP's sludge drying beds.
- **Thickening.** The WRF's existing gravity belt thickener will be replaced with new thickening equipment consisting of a new rotary drum thickener, polymer feed system, sludge feed pump, and thickened sludge pump. Improvements to the existing Thickening Building will consist of new heating, ventilation, and air conditioning facilities. Kennedy Jenks assumes that structural improvements with associated structural analysis of the existing structure will not be needed.
- **Aerobic Digestion.** The existing aerobic digester will be retained to provide partial stabilization of wastewater solids. Existing surface mixer/aerators will be replaced with coarse bubble aeration and submersible mixers. We assume there will be no structural improvements made to the existing structure and structural analysis of the existing structure will not be needed. Two positive displacement type blowers will be provided to supply aeration air. The blowers will be housed in a new, pre-engineered metal building located adjacent to the existing digester.
- **Dewatering.** New dewatering facilities will be provided to replace the WWTP's existing belt filter press. Dewatering will be achieved by centrifugation. Dewatering equipment is

anticipated to consist of two new sludge pumps, a single centrifuge, polymer feed system, and screw conveyor system to transported dewatered cake to the Class A biosolids treatment system. Dewatering equipment will be housed in a pre-engineered metal building located adjacent to the building containing the Class A biosolids handling system. The dewatering building is expected to provide approximately 3,000 sf of floor space and will constructed in the area currently containing the WWTP's existing sludge drying beds.

- **Class A Biosolids Treatment.** Class A biosolids treatment facilities are anticipated to consist of a dewatered cake hopper and conveyance system, belt-type thermal dryer, odor control, dried Class A biosolids conveyance system, and bulk bagging system. Facilities are anticipated to be housed in a pre-engineered building with an approximate size of 6,000 sf. The building is expected to be constructed in the area currently containing the WWTP's existing sludge drying beds.
- **Site Improvements.** Site improvements in the area encompassing the new biosolids treatment facilities consisting of asphalt paving, yard piping, site lighting, utility water stations, natural gas service, electrical power and new WWTP facility entrance gate.

06.01 30% Design

The 30% Design task consists of the following sub-tasks:

06.01.01 General 30% Design. The General 30% Design will consist of preparing 30% level drawings for project location and vicinity maps, drawing list, abbreviations and general project notes, legends, design criteria, piping schedule, and CM/GC Contractor's staging and storage areas.

06.01.02 Civil 30% Design. The Civil 30% Design will consist of preparing 30% level drawings for general demolition notes, site demolition plan, thickening demolition plan, aerobic digester demolition plan, general civil notes, horizontal control and paving plan, and yard piping plan. Civil related specifications will not be provided at the 30% design completion point.

06.01.03 Structural 30% Design. The Structural 30% Design will consist of structural calculations and 30% level drawings for general structural notes, special inspection and testing, Control Building foundation plan and sections, Hauled Waste Receiving Station foundation plan and sections, Thickening Building foundation plan, Digester Blower Building foundation plan, Dewatering Building foundation plan and sections, and Dryer Building foundation plan and sections. Structural related specifications will not be provided at the 30% design completion point.

06.01.04 Architectural 30% Design. The Architectural 30% Design will consist of 30% level drawings for code summary, Control Building floor plan and exterior elevations, Hauled Waste Receiving Station canopy plan, Thickening Building floor plan, Digester Blower Building floor plan and elevations, Dewatering Building floor plan and elevations, and Dryer Building floor plan and elevations. Architectural related specifications will not be provided at the 30% design completion point.

06.01.05 Mechanical Process 30% Design. The Mechanical Process 30% Design will consist of 30% level drawings for notes and abbreviations, Hauled Waste Receiving Station plan and sections, Thickening Building plan and sections, aerobic digester plans and sections, Digester Building plan and sections, Dewatering Building plan and sections, Dryer Building plan and sections. Draft technical specifications for use by the CM/GC Contractor in soliciting budget level proposals for major equipment elements will be provided. They will consist of

those for packaged hauled waste receiving equipment, rotary drum thickening equipment, coarse bubble diffusion equipment, submersible mixers, aeration blowers, dewatering centrifuge, and Class A dryer will be prepared.

06.01.06 Mechanical Building 30% Design. The Mechanical Building 30% Design will consist of 30% level drawings for HVAC legends, abbreviations, and notes; equipment schedules; Control Building HVAC schematic and plan; Thickening Building HVAC schematic and plan; Digester Blower Building HVAC schematic and plan; Dewatering Building HVAC schematic and plan; Dryer Building HVAC schematic and plan; plumbing and fire suppression legends, abbreviations, and notes; plumbing and fire suppression schematics; Hauled Waste Receiving Station plumbing plan; Dewatering Building plumbing plan; and Dryer Building plumbing plan. Mechanical building related specifications will not be provided at the 30% design completion point.

06.01.07 Electrical 30% Design. The Electrical 30% Design will consist of 30% level drawings for general electrical abbreviations and notes, electrical legends, overall single line diagram, MCC single line diagrams, electrical site plan, Control Building equipment location and grounding plan, Hauled Waste Receiving Station equipment location and grounding plan, Thickening Building equipment location and grounding plan, Digester equipment location and grounding plan, Digester Blower Building equipment location and grounding plan, Dewatering Building equipment location and grounding plan, and Dryer Building equipment location and grounding plan. Electrical related specifications will not be provided at the 30% design completion point.

06.01.08 Instrumentation and Control 30% Design. The Instrumentation and Control 30% Design will consist of 30% level drawings for legends and abbreviations, network block diagram, and process and instrumentation diagrams (P&ID) for the hauled waste receiving station, thickening, digestion, digester blowers, dewatering, and dryer processes. Control and instrumentation specifications will not be provided at the 30% design completion point.

06.02 Quality Assurance and Quality Control 30% Design

The 30% Design deliverable will receive discipline and inter-discipline quality control reviews prior to submission to the City from senior engineering staff, not directly associated with the Project.

06.03 Document Coordination, Preparation, and Review 30% Design

Kennedy Jenks will provide technical coordination, prepare the 30% design documents, and conduct the 30% design review meeting.

06.03.01 30% Design PTL Coordination. Kennedy Jenks' PTL will provide technical coordination for the duration of the 30% design task.

06.03.02 30% Design Document Preparation. Kennedy Jenks will prepare 30% design submittal documents for review and comment by the City and CM/GC Contractor.

06.03.03 30% Design Review Meeting. Kennedy Jenks will conduct an in-person 30% design review meeting to discuss comments received from the City and CM/GC Contractor on the 30% design documents. Decisions from the review meeting will be logged in the Major Decision Log maintained under Task 01 Project Management.

Task 6 30% Design Assumptions:

- Drawings and specifications provided under this task consist of those listed in the attached 30% design level drawings and specifications list.

- Effort for this task assumes that extensive grading of the project site is not anticipated. Proposed design will preserve existing drainage conditions.
- Design of pile and deep foundations systems are not anticipated and are thus excluded from this scope of work. If needed, however, they can be added by contract amendment.
- Effort for this task assumes design of pre-cast vaults and subgrade tanks will be provided as deferred submittals prepared by the CM/GC Contractor.
- Effort for this task assumes existing structures for the Thickening Building and Aerobic Digester used to support new equipment have sufficient capacity to support the new equipment. Structural analysis of the existing structure and modifications to the existing structure will not be needed and are thus not included in this scope of work. If needed, however, this can be provided upon request by contract amendment.
- Effort for this task assumes design of pre-engineered metal buildings and pre-engineered metal canopies will be provided as deferred submittals prepared by the CM/GC Contractor and are thus not included in this scope of work.
- Equipment anchorage and design shall be provided as deferred submittals prepared by the CM/GC Contractor and are thus not included in this scope of work.
- Pipe support design and pipe support anchorage shall be provided as deferred submittals prepared by the CM/GC Contractor and are thus not included in this scope of work.
- Detailed design of fire suppression systems is not included and will be provided as a deferred submittal prepared by the CM/GC Contractor via a registered fire protection professional during construction. Design is limited to required fire water supplies and appurtenances in combination with a performance-based specification.
- Natural gas service to the plant will be provided by local natural gas utility and will be sufficiently sized to accommodate the planned improvements and associated equipment. Design of gas service within the plant will be from a coordinated gas utility service point of connection.
- Effort for this task assumes the new network architecture will be designed to include new SCADA server hardware and workstations in the new Control Building. Existing server hardware and/or workstations within the WWTP will not be retained and/or relocated.
- Effort for this task assumes new SCADA server hardware will utilize the same SCADA software as that of the existing system. Evaluation of SCADA software package alternatives are not included in this scope of work but can be added upon request by contract amendment.
- The existing SCADA system and network will be preserved during construction of the new server hardware and equipment. The SCADA system will be systematically migrated by the system integrator one system at a time after the new SCADA server hardware and network infrastructure is in place.
- Cybersecurity risk and resiliency analyses and penetration testing of existing networks and remote access points are not included in this scope of work but can be added upon request by contract amendment.
- Radio path studies are not expected to be needed for the Project. However, they can be added by contract amendment.

- Programming and configuration services will be provided by the CM/GC Contractor during construction. However, if the City wishes, Kennedy Jenks can provide these services upon request by contract amendment.
- Drawings for major treatment equipment will be produced to Level of Development (LOD) 200 as defined by the Associated General Contractors of America (AGC) with additional Visual Approximation included. Visual Approximation is defined as follows: model elements are modeled graphically in 3D with relatively accurate size, shape, location, and orientation for approximate visual representation. Model elements are identified by a unique tag/name. Some additional element specific information may be attached to modeled elements. Accurate model element locations are referenced to a common project origin across all disciplines. The quantity of the element as designed can be measured directly from the model without referring to non-modeled information such as notes or dimension call-outs.
- Services related to CM/GC Contractor procurement (Division 00) and general contract requirement (Division 01) specifications are provided under Task 11 CM/GC Support Services.
- The CM/GC Contractor will provide construction cost estimating services. See Task 11.
- Design documents will be provided to the City two weeks prior to the review meeting. The City will provide Kennedy Jenks with written review comments a minimum of two working days prior to the review meeting.
- Review meeting will be held at City provided meeting facilities and will be attended in person by Kennedy Jenks' PM and project technical lead (PTL). Project design discipline leads will attend via video conferencing.
- CM/GC Contractor will attend the review meeting.
- Review meeting will be up to 3 hours in duration.
- Unless otherwise indicated, technical specifications will not be provided at the 30% design completion level.
- Project changes decided at the 30% design review meeting will be incorporated into subsequent design level documents (e.g., 60% design documents) with no change to the 30% design documents. Decisions will, however, be logged in the Major Decision Log.

Task 6 30% Design Deliverables:

- The mechanical process technical specifications listed as being provided at the 30% design completion level will be provided in electronic (pdf) format.
- 30% level design drawings in electronic (pdf) format.
- Agenda and notes for the 30% design review meeting in electronic (pdf) format.

Task 7 – 60% Design (To be added by Amendment)

60% Design services are not included in this scope of work but will be needed should the City wish to complete the Project. They can be provided upon request by contract amendment.

Task 8 – 90% Design (To be added by amendment)

90% Design services are not included in this scope of work but will be needed should the City wish to complete the Project. They can be provided upon request by contract amendment.

Task 9 – 100% Design (To be added by amendment)

100% Design services are not included in this scope of work but will be needed should the City wish to complete the Project. They can be provided upon request by contract amendment.

Task 10 – Final Design Documents (To be added by amendment)

Final Design Document services are not included in this scope of work but will be needed should the City wish to complete the Project. They can be provided upon request by contract amendment.

Task 11 – CM/GC Support Services

The City intends to utilize a Construction Manager/General Contractor (CM/GC) project delivery approach. Under this delivery approach, Kennedy Jenks will act as the Design Engineer to collaborate with the City with input from the CM/GC Contractor to develop the design to the 100% completion level.

CM/CG support services provided by Kennedy Jenks will consist of those associated with the procurement process needed for the City to select and enter into an Agreement with a CM/GC Contractor, collaboration with the CM/GC Contractor during design, and review of the CM/GC Contractor's Guaranteed Maximum Price (GMP) for construction.

11.01 – CM/GC Contractor Procurement Services

CM/GC Contractor procurement services will consist of development of a Request for Qualifications (RFQ) for soliciting CM/GC Contractor proposals, CM/GC Contractor procurement support and meetings, and development of Procurement and Contracting Requirements (Division 00) needed for the City to enter into an Agreement with the selected CM/GC Contractor.

11.01.01 Request for Qualifications (RFQ). Kennedy Jenks will assist the City in reviewing and editing an RFQ document for soliciting statements of qualifications (SOQs) from CM/GC Contractors to provide pre-construction services for the Project. The RFQ will be modified from CM/GC documents previously used by the City for the specifics of this project for a pre-construction services contract between the CM/GC Contractor and the City. Upon completion of the pre-construction services scope of work, the City will have the ability to amend the contract for construction services based upon the agreed upon GMP.

Under this subtask, Kennedy Jenks will assist the City in reviewing and editing the RFQ document, developing evaluation criteria for use by the City to select the CM/GC Contractor, and preparing CM/GC Contractor pre-construction services scope of work and Procurement and Contracting Requirement (Division 00) documents.

Kennedy Jenks understands that the City has previously entered into CM/GC project delivery contracts for public works improvements projects. Documents used for the solicitation of qualifications and evaluation of proposals will be based on those previously developed by the City within input from Kennedy Jenks.

11.01.01 Assumptions

- RFQ documents, including evaluation criteria, will be based on documents previously prepared by the City for selection of CM/GC Contractors. Documents will be provided to Kennedy Jenks in electronic (Microsoft Word) format.
- Procurement and Contracting Requirements (Division 00) will be based on Kennedy Jenks standard construction contracting forms and conditions.
- The City will have CM/GC contracting documents reviewed and approved by the City's legal counsel.
- Kennedy Jenks' budgeted effort for this task is based on providing up to 88 hours of professional time.

11.01.01 Deliverables

- Written review comments on the City's CM/GC Contractor solicitation documents in electronic (Microsoft Word) format.
- Division 00 specifications for CM/GC contract execution in electronic (Microsoft Word) format

11.01.02 CM/GC Contractor Procurement Support: Kennedy Jenks will support the City in responding to questions from potential CM/GC Contractors during the solicitation process, evaluation of proposals received, and review of the proposed CM/GC Contractor's pre-construction scope of work including schedule and recommended interfaces during the design phase.

11.01.02 Assumptions

- Kennedy Jenks will attend up to three (3), 2-hour meetings to support CM/GC Contractor procurement. These will be as directed by the City but may include: 1) preproposal meeting, 2) proposal evaluation review meeting, and 3) contract negotiations meeting with the selected CM/GC Contractor.
- Meetings will be in-person at City provided facilities and will be attended by up to 2 Kennedy Jenks staff members.
- Up to three (3) addenda will be issued to clarify, correct, or change the RFQ documents.
- The City will be responsible for advertising the Project, distributing RFQ documents, issuing addenda, issuing notices of intent to award, and issuing final notice of award.
- Solicitation period will be 6 weeks long.
- Kennedy Jenks' budgeted effort for this task is based on providing up to 110 hours of professional time.

11.01.02 Deliverables:

- Agendas and meeting notes in electronic (Microsoft Word) format.
- CM/CG Contractor recommendation for Award in electronic (pdf) format.

11.02 – CM/GC Pre-Construction Period Services

Kennedy Jenks will provide CM/GC pre-construction period services consisting of providing general contract requirement (Division 01) specifications, CM/GC pre-construction design review meetings, pre-design refinement, GMP review and early works package support.

11.02.01 General Contract Requirement (Division 01) Specifications. Kennedy Jenks will prepare general contract requirement (Division 01) specifications tailored for CM/GC project delivery. Draft specifications will be provided to the City and CM/GC Contractor for review and comment. Kennedy Jenks will attend one (1) review meeting to discuss City and CM/GC Contractor comments. Kennedy Jenks will update the Division 01 specifications to address comments received, and final specifications will be issued to the City for use in its construction period services Agreement with the CM/GC Contractor.

11.02.01 Assumptions

- Division 01 specifications will be based on Kennedy Jenks' standard specifications.
- Documents will be provided to the City and CM/GC Contractor 2 weeks prior to the review meeting. The City and CM/GC Contractor will provide Kennedy Jenks with written review comments a minimum of 2 working days prior to the review meeting.
- Review meeting will be held via MS Teams and attended by up to 2 Kennedy Jenks staff.

11.02.01 Deliverables:

- Agenda and meeting notes for review meeting in electronic (pdf) format.
- Draft Division 01 specifications in electronic (Microsoft Word) format.
- Final Division 01 specifications in electronic (pdf) format.

11.02.02 CM/GC Pre-Design (10%) Design Review Meetings: The City will provide the draft pre-design TMs to the CM/GC Contractor for review and comment. Kennedy Jenks understands that the CM/GC Contractor will use these documents as the basis for developing their initial project cost model. Kennedy Jenks will conduct two meetings to review comments from the CM/GC Contractor on the draft TMs. A third meeting will be conducted to review the CM/GC Contractor's initial project cost model. Comments from the CM/GC Contractor will be discussed with the Team and changes to the draft TMs will be confirmed with the City and the TMs will be finalized and used to develop the PDR.

11.02.02 Assumptions

- Documents will be provided to the City and CM/GC Contractor 2 weeks prior to the review meeting. The City and CM/GC Contractor will provide Kennedy Jenks with written review comments a minimum of 2 working days prior to the review meeting.
- The CM/GC Contractor will provide the initial cost model a minimum of 3 working days prior to the review meeting.
- Meetings will be at City provided facilities and will be attended in person by Kennedy Jenks' PM, PTL and Collaborative Delivery Lead (CDL). Up to 4 additional design team members will attend via Microsoft Teams format.
- Review meetings will be up to 3 hours in duration.

11.02.02 Deliverables:

- Agenda and meeting notes for review meetings in electronic (pdf) format.

11.02.03 10% Pre-Design Refinement Kennedy Jenks will coordinate with the City and the CM/GC Contractor to review proposed changes to the 10% TMs provided by the CM/GC Contractor. This will be collaborative effort with the City and CM/GC Contractor to identify constructability, cost, timing and/or value engineering items that can be carried forward in the remaining design.

Kennedy Jenks will incorporate City approved changes to the project design resulting from the design review meeting into the next milestone design documents. Decisions will be logged in the Major Decision Log maintained under Task 01 Project Management.

11.02.03 Assumptions:

- Effort assumes the iterative review process with the City and CM/GC Contractor will be completed within a 2-month timeframe.
- One update of the 10% TMs resulting from the 10% Pre-Design Review and Refinement task will be provided.
- Kennedy Jenks' budgeted effort for this task is based on providing up to 200 hours of professional time.

11.02.03 Deliverables:

- Updated Decision Log tracking changes in the design.

11.02.04 Technical Team Review Meetings Kennedy Jenks will conduct bi-weekly (two per month) technical review meetings with the CM/GC Contractor that will include a review of technical progress. Kennedy Jenks will track action items and bring any proposed changes to the design to the City.

11.02.04 Assumptions:

- Effort is based on conducting technical review meetings over a 12 month period through completion of the 30% design documents.
- Bi-weekly technical team review meetings will be attended by the CM/GC Contractor.
- Meetings will be attended via Microsoft Teams format by Kennedy Jenks' PM, PTL, CDL and up to 2 additional design team members.
- Meetings will be up to 0.5-hour in duration.

11.02.04 Deliverables:

- Action Items in email format.

11.02.05 Design Workshops Kennedy Jenks will conduct up to five (5) design workshops with the City and the CM/GC Contractor consisting of detailed technical and schedule discussions. Kennedy Jenks will provide agendas and meeting minutes.

Kennedy Jenks will incorporate City approved changes to the project design resulting from the design review meeting into the next milestone design documents. Decisions will be logged in the Major Decision Log maintained under Task 01 Project Management.

11.02.05 Assumptions:

- Design workshop subjects to be determined by project progress and/or resulting from the Technical Team Review Meetings.
- Workshops will be attended via Microsoft Teams format by Kennedy Jenks' PM, PTL, CDL and by up to 2 additional design team members.
- Workshops will be 1.5 hours in duration.
- Workshops will be attended by the CM/GC Contractor.
- Kennedy Jenks' budgeted effort for this task is based on providing up to 142 hours of professional time.

11.02.05 Deliverables:

- Agenda and meeting minutes in digital (pdf) format.

11.02.06 CM/GC 30% Design Review Meeting. The City will provide the 30% design documents to the CM/GC Contractor for review and use in updating their project cost model. Kennedy Jenks will review the CM/GC Contractor's updated cost model estimate, construction schedule and risk register. As described for Task 6, Kennedy Jenks will lead a 30% design review meeting. The meetings will be attended by the City and CM/GC Contractor to discuss design review comments from the City and CM/GC Contractor and Kennedy Jenks' comments on the CM/GC cost model estimate, construction schedule and risk register.

Should the City wish to complete the Project, design review meetings at the 60% and 90% design completion levels will be needed. While not included in this scope of work, these design review meetings can be added upon request by contract amendment.

Decisions will be logged in the Major Decision Log maintained under Task 01 Project Management.

11.02.06 Assumptions

- Documents will be provided to the City and CM/GC Contractor 2 weeks prior to the review meeting. The City and CM/GC Contractor will provide Kennedy Jenks with written review comments a minimum of 2 working days prior to the review meeting.
- The CM/GC Contractor will provide updated cost model, construction schedule and risk register a minimum of 3 working days prior to the review meeting.
- Kennedy Jenks' CDL will attend in person.
- Meeting attendance by Kennedy Jenks' PM, PTL, and design team will be as described for Task 6.
- Review meeting will be 3 hours in duration.
- Kennedy Jenks' budgeted effort for this task is based on providing up to 56 hours of professional time and consists of that associated with review meeting attendance by Kennedy Jenks' CDL and the review of the CM/CG Contractor's cost model estimate, construction schedule, and risk register.

11.02.06 Deliverables:

- Kennedy Jenks comments on the cost model, construction schedule and risk register in electronic (pdf) format.

11.02.07 CM/GC GMP Review Workshops (To be added by amendment). Services needed to assist the City with review of the CM/GC Contractor's guaranteed maximum price (GMP), associated risk register, and construction schedule for the Project are not included in this scope of work. However, these services will be needed should the City wish to complete the project. They can be added upon request by contract amendment.

11.02.08 CM/GC 100% Design Review Meeting (To be added by amendment). Services needed to conduct a 100% design review meeting are not included in this scope of work. However, these services will be needed should the City wish to complete the project. They can be added upon request by contract amendment.

11.02.09 CM/GC Early Work Package Support (Optional Task). Kennedy Jenks anticipates the CM/GC Contractor may request up to 4 Early Work Packages. While selection of the Early Work Packages will be driven by the CM/GC Contractor they may include the following: 1) major mechanical equipment package, 2) major electrical equipment, 3) excavation/earthworks package, and 4) structural package.

This optional task is for the major mechanical equipment package and would be performed immediately after completion of the 30% design documents if authorized by the City. Performing this task immediately after completion of the 30% design would reduce the potential for project delays in transitioning to the 60% design work. Other early work packages, although not included in this scope of work, can be provided upon request by contract amendment.

Kennedy Jenks anticipates the CM/GC Contractor wishing to include the following mechanical equipment in an early works package: 1) Packaged hauled waste receiving station, 2) Rotary drum thickener, 3) Aerobic digester blowers, 4) Dewatering centrifuge, and 5) Class A drying equipment.

If authorized by the City, Kennedy Jenks will provide early work package support services for the major mechanical equipment. It will consist of technical specifications and design drawings with sufficient detail for collaborative delivery construction. Kennedy Jenks will lead one review meeting with the City and CM/GC Contractor for the early works package to review comments from the City and CM/GC Contractor.

Kennedy Jenks will incorporate City approved changes into the Early Work Package documents for use by the CM/GC Contractor. Decisions will be logged in the Major Decision Log.

11.02.09 Assumptions

- Documents will be provided to the City and CM/GC Contractor 2 weeks prior to the review meeting. The City and CM/GC Contractor will provide Kennedy Jenks with written review comments a minimum of 2 working days prior to the review meeting.
- Review meeting will be attended via Microsoft Teams format by Kennedy Jenks' PM, PTL, CDL and by up to 2 additional design team members.
- Review meeting will be up to 1.5 hours in duration.
- CM/GC Contractor to use their front-end procurement documents for equipment procurement.
- Kennedy Jenks' effort for this task is based on providing up to 260 hours of professional time.

11.02.09 Deliverables:

- Agenda and meeting notes in electronic (pdf) format.

- Technical specifications and design drawings relating to the Early Work Package scope consisting of detail sufficient for collaborative delivery construction in electronic (pdf) format.

11.02.10 CM/GC Early Work Package Bidding, Evaluation, and Review (To be added by amendment).

Engineering services needed for the evaluation and selection of major equipment, shop drawing/submittal review and responding to questions during the bidding and construction phases of the Early Works Packages are not included in this scope of work. However, these services will be needed should the City wish to complete the Project. They can be provided upon request by contract amendment.

Task 12: Engineering Services During Construction (To be added by amendment)

Engineering services during construction are not included in this scope of work but can be provided upon request by contract amendment.

Task 13: Construction Management Services (To be added by amendment)

Construction management services are not included in this scope of work but can be provided upon request by contract amendment.

Task 14: Value Engineering Services (To be added by amendment)

Value engineering services have not been included in this scope of work but may be required depending on the source of Project funding secured by the City. Should value engineering services be required by the funding agency, Kennedy Jenks can provide such services by contract amendment.