

**ENGINEERING CONSTRUCTION PHASE
CONTRACT FOR PROFESSIONAL SERVICES
FOR
TREATMENT WORKS**

CITY/TOWN OF BERLIN _____, NEW HAMPSHIRE

This AGREEMENT made and entered into at COOS County, New Hampshire, this _____ day of AUGUST 2019, by and between City/Town of BERLIN hereinafter called the OWNER, and WRIGHT-PIERCE hereinafter called the ENGINEER.

WITNESSETH:

WHEREAS, the OWNER intends to construct a Phase 2, Contract 1 Inflow and Infiltration Reduction project, hereinafter called the PROJECT, and

WHEREAS, professional sanitary engineering services will be required for construction administration, resident engineering and related services, and

WHEREAS, such services are of a distinct professional nature and hence not subject to the bidding process,

NOW THEREFORE, in consideration of these premises and of the mutual covenants herein set forth, the OWNER hereby employs the ENGINEER to furnish the following engineering services in connection with the proposed PROJECT; and it is agreed by and between the OWNER and the ENGINEER as follows:

I. Services to be Performed by the ENGINEER

A. Upon execution of this AGREEMENT, the ENGINEER shall proceed with the general administration of construction and full-time inspection by qualified personnel of the contractor's work to assure compliance with the contract documents and any coincident or subsequent changes or change orders for the construction of the treatment works for the (Town/City) of BERLIN. Said services shall include, but shall not necessarily be limited to:

1. General Construction Administration

- a. Updating and modifications of contract documents to meet changed site and project conditions or variations in State or Federal requirements.
- b. Assistance in securing construction bids, conduct bid opening, tabulation and analysis of bids, and recommendation regarding award of contract. A copy of the bid analysis will be furnished to the Department of Environmental Services, Water Division, hereinafter called the DIVISION, ~~and EPA. (Where applicable)~~
- c. Completion of formal contract documents for the award of contracts.
- d. Checking detail construction, shop and erection drawings submitted by the contractor.
- e. Reviewing laboratory, shop, and mill test reports of materials and equipment.
- f. Preparation of drawings and technical material as required to supplement and/or clarify the contract documents.
- g. Review, verification, and approval of estimates for periodic and final payments to the contractors for submittal to the OWNER and the DIVISION.
- h. Periodic inspection of work and final inspection.

- i. Observing and reporting performance and qualifying tests required by specifications.
- j. Keeping daily records of construction progress and compiling same into progress reports for submission to the OWNER and DIVISION.
- k. Verifying and keeping records of construction items of work accomplished for use as a basis of checking contractors' monthly estimates.
- l. Consultation and advise during construction.
- m. Determination of need for and preparation of change orders for approval by the OWNER and DIVISION based on conditions found during construction and/or additions or modifications to the work requested by the OWNER and approved by the ENGINEER and the DIVISION and implemented at a price recommended by the ENGINEER as equitable. For change order items exceeding \$10,000, the DIVISION reserves the right to request an independent cost estimate prepared by the ENGINEER.
- n. Determination of "equality" for substitution of materials and equipment specified and securing DIVISION approval thereof.
- ~~o. Provide and maintain construction control lines and grades. For sewers offset lines and grade elevations, with cut depths at manholes; at treatment plant and pumping station sites - base lines for layout and benchmarks.~~
- p. Preparation of application, supporting and associated documents for ~~Federal, State, and other grant or~~ loan programs, including monthly reimbursement requests.
- q. Preparation of certificate of substantial completion and contract completion.
- r. Assist the OWNER in obtaining the required project related approvals of State and Federal agencies.

2. Resident Inspection and Other Special Services

a. ~~The ENGINEER agrees to provide at least one Registered Professional Civil Engineer on the project site and one or more inspectors~~ *Resident Project Representatives* as necessary (full ~~or part~~ time) to assist the ENGINEER in the work of General Administration as described under I(A) and in observing construction activity for compliance with the contract documents and any associated change orders. The DIVISION shall be notified in writing of the name of the ~~resident engineer, assistant engineers, and construction inspectors~~ *Resident Project Representatives*, and shall be provided with a brief history of the ~~resident engineer's~~ *Resident Project Representative's* construction experience. The ~~resident engineer and his~~ *Resident Project Representative* shall be in the employ of and under direct control of the ENGINEER. It is further agreed that failure of the ~~resident engineer~~ *Resident Project Representative* to administer the PROJECT to the satisfaction of the DIVISION or OWNER is deemed to be sufficient basis for his removal from the PROJECT and replacement.

b. The ENGINEER agrees to provide ~~supervision of initial start up and operation and for services during the twelve-month warranty period and to prepare the Project Performance Certification and associated documentation.~~

~~e. Preparation of an Operation and Maintenance Manual for approval by the DIVISION. After DIVISION approval, the ENGINEER agrees to supply five (5) sets of the completed manual, one (1) of which will be for the DIVISION.~~

d. Preparation of record drawings of the work as constructed. Three (3) sets of prints to be furnished, one (1) of which shall be for the DIVISION.

II. The OWNER'S Responsibilities

A. Assist the ENGINEER by placing at his disposal all available information pertinent to the PROJECT, in-

cluding previous reports and other data relative to the reports.

B. Make provisions for the ENGINEER to enter upon public and private lands, municipal facilities and industrial establishments as required to perform work under this AGREEMENT.

C. The OWNER also agrees to comply with DIVISION and Federal (Where applicable) requirements as they relate to this project.

III. Compensation to be Paid the ENGINEER

A. Method of Payment Amount of Fee

1. Payment to the ENGINEER, for services rendered, shall be according to the following schedule:

Statements will be rendered (with modifications if necessary) monthly with billing by the hour and rate by labor category with mark-up and incidental expenses in accordance with the attached fee schedule.

2. The OWNER agrees to pay and the ENGINEER agrees to accept for all services under this AGREEMENT, a fee not to exceed One Hundred Forty Thousand, Nine Hundred and Fifteen Dollars (\$140,915.00 _____).

B. Limits of All Payment

1. The ENGINEER further agrees that the following fee for his services under I (A)(1), for Construction Administration on this PROJECT, (exclusive of work performed by ~~resident engineering staff~~ *Resident Project Representative*) is adequate to complete the work and shall not exceed Forty-Six Thousand, Four Hundred Fifteen Dollars (\$46,415.00 _____).

2. Payment to the ENGINEER for ~~resident engineering and other special services~~ *Resident Project Representative* shall be as follows:

a. ~~Resident engineering and supporting staff~~ *Resident Project Representative* (as agreed to by the OWNER and DIVISION) as described under I (A)(2)(a) for a period

of 131 working days, an amount not to exceed Ninety Thousand Dollars (\$90,000.00).

Overtime shall be converted to equivalent fractions of 8-hour days. If the number of working days for inspection personnel stated above is not sufficient to provide adequate inspection of the PROJECT, it is agreed that the additional cost of resident services may be negotiated with the OWNER and the DIVISION.

~~b. For supervision of initial start-up and operation of the project and Project Performance Certification as described under I(A)(2)(b), during a period of twelve (12) months, an amount not to exceed _____ Dollars (\$_____).~~

~~e. For preparation of the Manual as described under I(A)(2)(c) and instructions on its use, an amount not to exceed _____ Dollars (\$_____).~~

~~d. For special services, an amount equal to the actual cost of such work. The actual cost shall include compensation to the ENGINEER for his work on these services. The ENGINEER also assures the OWNER that the moneys to be paid under this item are adequate for the work proposed and shall not exceed _____ Dollars (\$_____).~~

e. For preparation of the Record Drawings as described under I(A)(2)(d), an amount not to exceed Forty-five hundred Dollars (\$4,500.00).

IV. Additional Covenants

A. The ENGINEER agrees to provide in active charge of this PROJECT for the life of the contract a Project Engineer who is a permanent employee of the ENGINEER and who is a "qualified sanitary engineer" as defined under the DIVISION'S "Rules and Regulations for the Prequalification of Consulting Engineers." The Project Engineer shall be*

Matthew Burns, PE 75 Washington Ave, Suite 202, Portland ME 04101

(name and address)

* *Resume clearly describing the candidate's qualifications for the assignment is appended for convenience of reference.*

Any proposed change in identity of the Project Engineer on the PROJECT shall first be approved by the DIVISION before transfer of responsibility is made. Failure of the Project Engineer to administer the PROJECT to the satisfaction of the OWNER and/or DIVISION is deemed sufficient basis for his removal and replacement.

B. The ENGINEER agrees to be solely responsible for all bills or claims for payment for services rendered by others and for all services and materials employed in his work, and to indemnify and save harmless the OWNER, and all the OWNER'S officers, agents and employees against all suits, claims or liability of every name and nature arising out of or in consequence of the negligent acts or failures to act of the ENGINEER or others employed by him in the performance of the work covered by this AGREEMENT.

C. The ENGINEER further agrees to procure and maintain at his expense such workmen's compensation insurance as is required by the statutes and public liability insurance in amounts adequate to provide reasonable protection from claims for bodily injury, death or property damage which may arise from his performance and the performance of his employees under this AGREEMENT.

D. All documents, including original drawings, design calculations, work sheets, field notes, estimates, and other data shall remain the property of the OWNER; they shall be transmitted to the OWNER in clean and orderly condition on demand by the OWNER; however, these may be left in the possession of the ENGINEER at the OWNER'S discretion.

E. The ENGINEER shall not sublet, assign or transfer any part of the ENGINEER's services or obligations (except special services) under this AGREEMENT without the prior approval and written consent of the OWNER, and the contract shall be binding upon and inure to the benefit of the parties, their successors and assigns.

F. It is further agreed that before any construction is undertaken the ENGINEER will assist the OWNER or his authorized agent in providing the DIVISION with clear documentation certifying that the purchases of land have been secured to provide for location of the treatment works and other associated structures and equipment as shown on the construction plans or described in the specifications. Similar documentation shall be submitted on approvals from the State Highway Department regarding location of the treatment works and other project related facilities within rights-of-way and other lands under its jurisdiction.

G. The ENGINEER also agrees to provide in active residence and full time control at the site of the proposed construction a ~~DIVISION approved registered civil engineer and~~ DIVISION approved inspectors *Resident Project Representative* (full time, ~~part time~~) as needed with the experience and other approved background to assist the ENGINEER in the work of General Administration and to assure contractor's conformance with the plans and specifications and any approved coincident or subsequent changes or change orders related to the PROJECT. The ~~resident registered engineer~~ *Resident Project Representative* for the life of this contract shall be

To Be Determined
(Name and Address)
(Append resume describing Candidate's qualifications)

Any Proposed change in the identity of the ~~resident engineer~~ *Resident Project Representative* on this PROJECT must first be approved by the DIVISION before transfer of responsibility is made. Additionally, if it is found by the DIVISION that a ~~resident engineer (or inspector)~~ *Resident Project Representative* cannot or will not administer the PROJECT in a manner satisfactory to the DIVISION, the ENGINEER agrees to replace him promptly upon receipt of a written request from the DIVISION with a qualified ~~resident engineer~~ *Resident Project Representative* who will acceptably administer the PROJECT. It is further agreed that failure of the ENGINEER to abide by the above covenant is sufficient cause for removal from the DIVISION'S Roster of Prequalified Engineers.

V. Termination

A. The OWNER shall have the right at any time for any reason whatsoever to interrupt or terminate the work required of the ENGINEER under this AGREEMENT, with a seven (7) day written notice of such interruption or termination transmitted to the ENGINEER by the OWNER. In the event of termination of this AGREEMENT, without fault on the part of the ENGINEER, the ENGINEER shall be entitled to compensation as determined by the DIVISION for all work performed to the satisfaction of the DIVISION and the OWNER, and pursuant to this AGREEMENT. In order that the ENGINEER shall receive payment under termination notice, all plans, drawings, tracings, field notes, estimates, specifications, proposals, sketches, diagrams, and calculations, together with all other materials and data prepared in connection with the PROJECT shall be transmitted to the OWNER in a form acceptable to the OWNER and DIVISION.

IN WITNESS WHEREOF, the parties hereto have affixed their hand and seals at COOS County, New Hampshire, the day, month, and year first above written.

ENGINEER:

By: Paul Birkel, PE, Senior Vice President
(Authorized Representative*)

Date: _____

OWNER:

By: James Wheeler, PE, City Manager
(Authorized Representative*)

Date: _____

APPROVED: **

DEPARTMENT OF ENVIRONMENTAL SERVICES
Water Division

By: Shannon J. Larocque, P.E., Construction Management Engineer
(Authorized Representative)

Date: _____

- * *Signatures should be supported by appropriate document.*
- ** *It is agreed that as an act in furtherance of its statutory authority to approve engineering agreements for treatment works, the DIVISION's approval does not impose any contractual obligation or liability on the State of New Hampshire, the Department of Environmental Services or the Division.*

WRIGHT-PIERCE

CERTIFICATE OF VOTE

I, Ryan T. Wingard, hereby certify that I am the duly elected Clerk of Wright-Pierce.

I certify that the following is a true copy of a vote taken at a meeting of the board of directors of the corporation, duly called and held on April 3, 2019, at which a quorum of the board was present and voting.

VOTED:

That any one or all of the following officers of Wright-Pierce, on behalf of the corporation, are authorized to execute all Wright-Pierce contracts, both service agreements and general contractual obligations:

John W. Braccio, President/CEO
Paul F. Birkel, Vice President
Richard N. Davee, Vice President
Walter J. Flanagan III, Vice President
Michael D. Giggey, Vice President
Steven C. Hallowell, Vice President
John R. Nelson, Vice President/Treasurer/CFO
Christopher N. Pierce, Vice President
Richard G. Protasowicki, Vice President
Timothy R. Vadney, Vice President
Ryan T. Wingard, Vice President/Clerk

I hereby certify that said vote has not been amended or repealed and remains in full force and effect.

Attest:


Ryan T. Wingard, Clerk

Seal

Date: 5/6/19

COST OR PRICE SUMMARY FORMAT FOR SUBAGREEMENTS UNDER NH SAG & SRF					Form Approved DES 3/96		
PART I - GENERAL							
1. GRANTEE / LOANEE - City of Berlin, New Hampshire				2. GRANT/LOAN NO. D2017-0409			
3. NAME OF CONTRACTOR OR SUBCONTRACTOR - Wright-Pierce				4. DATE OF PROPOSAL 5/17/2019			
5. ADDRESS OF CONTRACTOR OR SUBCONTRACTOR (Include ZIP) 75 Washington Ave, Suite 202 Portland, ME 04101				6. TYPE OF SERVICE TO BE FURNISHED Bidding and construction professional engineering services			
PART II - COST SUMMARY							
7. DIRECT LABOR (Specify labor categories)				HOURS	HOURLY RATE	ESTIMATED COST	TOTAL
Principal in Charge				3	\$ 60.00	\$180.00	
Project Manager				105	\$ 35.63	\$3,741.15	
Lead Project Engineer				244	\$ 28.75	\$7,015.00	
CADD Technician				28	\$ 33.50	\$938.00	
Clerical				22	\$ 17.25	\$379.50	
DIRECT LABOR TOTAL:							\$12,253.65
8. INDIRECT COSTS (Specify indirect cost pools)				RATE	\$ -	ESTIMATED COST	
				1.68	12,253.65	\$20,586.13	
INDIRECT COSTS TOTAL:							\$20,586.13
9. OTHER DIRECT COSTS							
a. TRAVEL						ESTIMATED COST	
(1) TRANSPORTATION						\$1,400.00	
(2) PER DIEM						\$700.00	
TRAVEL COSTS TOTAL:						\$2,100.00	
b. EQUIPMENT, MATERIALS, SUPPLIES (Specify categories)				QTY	COST	ESTIMATED COST	
Phone, fax, printing, copies, postage, CADD						\$600.00	
EQUIPMENT SUBTOTAL :						\$600.00	
c. SUBCONTRACTS						ESTIMATED COST	
Materials Testing				1	\$ 10,450.00	\$10,450.00	
SUBCONTRACTS SUBTOTAL :						\$10,450.00	
d. OTHER (Specify categories)				QTY (Hours)	COST	ESTIMATED COST	
RPR (Hourly Billing Rate)				1000	90	\$90,000.00	
OTHER SUBTOTAL :						\$90,000.00	
e. OTHER DIRECT COSTS TOTAL :							\$103,150.00
10. TOTAL ESTIMATED COST							\$135,990.00
11. PROFIT							\$4,925.00
12. TOTAL PRICE							\$140,915.00



Matthew D. Burns, PE

LEAD PROJECT ENGINEER

Project Assignment: Project Manager

Education

M.S., Civil Engineering,
University of Maine

B.S., Civil Engineering,
University of Maine

B.A., German, University of
Maine

Professional Registration

Maine

Experience

5 Years

Joined Firm

2013

Publications

Burns, M., Maynard, M.,
Davids, W, Chung, J, and
Gaudin, C., "Centrifuge
Modelling of Suction
Caissons under Orthogonal
Double-Line Loading",
Physical Modelling in
Geotechnics: Proceedings of
the 8th International
Conference on Physical
Modelling in Geotechnics
2014

Presentations

Burns, M., and Taylor, J.,
"Phase 2 Upgrade to the
Merrimack, NH WWTF:
Advancing Nutrient
Removal", NEWEA
Conference, January 2016

Experience Summary

Mr. Burns is a lead project engineer in the Wastewater Practice Group at Wright-Pierce. His responsibilities include evaluation and analysis of existing infrastructure, design of wastewater collection systems, design of wastewater treatment facilities, cost estimating, and construction administration services. As a lead project engineer, he supports project managers on various projects involving wastewater treatment and collection systems.

Relevant Project Experience

Wastewater Treatment

Wastewater Treatment Plant Phase 1 Upgrade, Bath, ME

Lead project engineer for an ongoing project involving the design, bidding, and construction administration services of a plant-wide \$5.6 million facility upgrade. Work includes design of multiple unit processes, including dewatering equipment, solids handling system, and the disinfection system. Developed USDA RD funding application, including Preliminary Engineering Report and Environmental Report resulting in \$2.3 million in grant money for the City of Bath.

Facilities Evaluation, Fort Fairfield, ME

Lead project engineer for an ongoing project involving the study of wastewater treatment facility upgrade options. Evaluated wastewater flows and loads and conducted a feasibility study of four different treatment technologies (rotating biological contactors, aerated lagoons, activated sludge, or pump to nearby facility for treatment). Developed USDA RD funding application, including Preliminary Engineering Report and Environmental Assessment. Developed conceptual-level design for a new activated sludge treatment facility.

Wastewater Treatment Plant Phase 3 Upgrade, Merrimack, NH

Lead project engineer for an ongoing project involving the preliminary design of a plant-wide \$22 million facility upgrade. Work includes preliminary design and alternatives analysis of multiple unit processes, including clarifier mechanisms, sludge holding tank mixing systems, return activated sludge pumping systems, plant water systems equipment, solids handling system, and the disinfection system.

Wastewater Treatment Plant Phase 1 Upgrade, Brunswick, ME

Project engineer for a project that involved the design, bidding, and construction services of a plant-wide \$22 million facility upgrade. Work included design of multiple unit processes, including dewatering feed pumps, plant water system, primary and secondary clarifier drives, and septage mixing systems, and day-to-day construction administration.

Sludge Dewatering and Siloxane Removal Upgrade, Lewiston, ME

Project engineer for a project that involved the design and bidding services of a sludge dewatering upgrade and siloxane removal system. Work included development of technical and front-end specifications, design of the polymer and sludge conveyance system, and sizing of the screw-press dewatering equipment.

Wastewater Treatment Facility Design, Exeter, NH

Project engineer for a project that involved the design services of a plant-wide facility upgrade. Work included design of the headworks screen, grit washer, grit feed pumps, vortex grit removal system, and layout of site piping at the proposed facility.

Merrimack Wastewater Treatment Facility Phase II Upgrade, Merrimack, NH

Project engineer for a project that involved the design, bidding and construction administration services of a plant-wide facility upgrade. Work included development of front-end specifications, utility connection coordination, assisting in the design of sludge pumps, and construction administration phase services.

Berlin Wastewater Treatment Facility Phase II Upgrade, Berlin, NH

Project engineer for a project that involved the design and construction of a Phase 2 treatment plant upgrade. Work included shop drawing reviews for various systems, construction phase services, and preparation of the operations and maintenance manual.

Sunapee Wastewater Treatment Facility Upgrade, Sunapee, NH

Project engineer for a project that involved the design and construction of a treatment plant upgrade. Work included construction phase services, including equipment start-up and certification, and preparation of the operations and maintenance manual.

Haverhill Dewatering Upgrade, Haverhill, MA

Project engineer for a project that involved the design of a centrifuge dewatering upgrade. Work includes determining the most cost-effective polymer system to replace the existing system, design of the conveyor systems, and sizing of the centrate pumps.

Wastewater Treatment Facility Capital Improvement Plan, New London, CT

Project engineer for a project that involved data collection and analysis of wastewater infrastructure. Developed technical memoranda that assessed the current condition of wastewater equipment. Assisted in developing equipment life cycles and replacement/upgrade costs for wastewater equipment as part of the CIP.

Collection System

Sewer System I/I Investigation, Berlin, NH

Lead project engineer for project that involved investigating and locating inflow and infiltration in the sewer collection system through use of continuous and instantaneous flow metering, and by performing home and manhole inspections.

Bridge Street Pump Station and Riverview Road Pump Station Upgrades, Bath, ME

Project Engineer for the design, bidding, and construction services for replacement of two suction-lift pump stations. Work included development of specifications and drawings and Construction Administration, as well as coordination of pre-purchasing equipment to expedite schedule.

Harward Street Pump Station Drainage Area Sewer Rehabilitation, Bath, ME

Lead project engineer for an ongoing project that involves investigating and locating inflow and infiltration in the sewer collection system through use of continuous and instantaneous flow metering, and by performing home and manhole inspections. Developed plans and specifications for rehabilitation of approximately 3,500 feet of gravity sewer mains to mitigate I/I entering the system. Developed USDA RD Funding Application, including Preliminary Engineering Report and Environmental Report.

Harward Street Pump Station Drainage Area Capacity Analysis, Bath, ME

Lead project engineer for an ongoing project that involves development of an InfoSWMM model to estimate sewer main capacity in a critical area subject to CSOs and SSOs. Work included collecting field data to supplement capacity analysis model and verifying model with collected flow meter data.

Sewer System I/I Investigation, Bath, ME

Lead project engineer for an ongoing project that involves investigating and locating inflow and infiltration in the sewer collection system through use of continuous and instantaneous flow metering, and by performing home and manhole inspections. Developed USDA RD Funding Application, including Preliminary Engineering Report and Environmental Report.

Sewer System Relining, Bath, ME

Lead Project Engineer for a project that involved relining of approximately 1,300 feet of gravity sewer mains and repair of multiple manholes to mitigate I/I entering the system.

Biddeford Pump Station Design, Biddeford, ME

Coordinated the design of a new pump station as part of a design-build team, and designed the process and civil related components of the pump station.

Sewer System I/I Investigation, Augusta, ME

Developed and maintained flow meter data software for efficient collection of continuous flow meter data as part of an ongoing investigation to reduce inflow and infiltration into the sewer collection system.

Sewer System I/I Investigation, Camden, ME

Developed and maintained flow meter data software for efficient collection of continuous flow meter data as part of an ongoing investigation to reduce inflow and infiltration into the sewer collection system.

Little Neck Wastewater Facilities Evaluation, Ipswich, MA

Project engineer for study of wastewater collection system, pump stations, and storage tanks. Evaluated wastewater pumping data, water use data, rainfall data, and construction records to estimate potential inflow and infiltration.

GIS Data Collection, Augusta, ME*

Collected and mapped GIS data for citywide wastewater and water infrastructure.

Industrial

Secondary Treatment System MBBR Evaluation Planning, Twin Rivers Paper Company, Madawaska, ME

Developed feasibility report of isolating and inspecting two moving bed bioreactors in series while ensuring that the paper-making process would not be adversely impacted.

Wastewater Sampling Evaluation, Oakhurst Dairy, Portland, ME

Analyzed existing sampling techniques and data to develop recommendations for potential sewer piping modifications and flow metering options to allow for accurate sampling of industrial wastewater flows at the facility.

Effluent Solids Monitoring, FMC Biopolymer, Rockland, ME

Performed data analysis on industrial wastewater flows and loads as compared with municipal flows and loads.

Stormwater Pollution Prevention Plans, ME*

Developed stormwater pollution prevention plans for multiple commercial and industrial facilities throughout Maine.

*Experience from previous employer