

**CONTRACT DOCUMENTS AND SPECIFICATIONS**

**for**

**Central Fire Station Generator Replacement**

**BID #11-20**

**John P. Bohenko, City Manager**

**Bid Proposal**

John P. Bohenko, City Manager

City of Portsmouth, New Hampshire

Prepared by:

City of Portsmouth Department of Public Works  
680 Peverly Hill Road  
Portsmouth, NH

**TABLE OF CONTENTS**

INVITATION TO BID	3
INSTRUCTION TO BIDDERS	4
AWARD AND EXECUTION OF CONTRACT	7
PROPOSAL FORM	9
BID SECURITY BOND	11
STATEMENT OF BIDDER'S QUALIFICATIONS	13
CONTRACT AGREEMENT	15
NOTICE OF INTENT TO AWARD	18
NOTICE TO PROCEED	19
CHANGE ORDER	20
LABOR AND MATERIAL PAYMENT BOND	21
MAINTENANCE BOND	24
CONTRACTOR'S AFFIDAVIT	25
CONTRACTOR'S RELEASE	26
INSURANCE REQUIREMENTS	27
GENERAL REQUIREMENTS	28
CONTROL OF WORK	30
TEMPORARY FACILITIES	32
MEASUREMENT AND PAYMENT	33
SHOP DRAWINGS	37
TECHNICAL SPECIFICATIONS	39
• 011000 SUMMARY	45
• 013000 ADMINISTRATIVE REQUIREMENTS	46
• 016000 PRODUCT REQUIREMENTS	47
• 017000 EXECUTION & CLOSEOUT REQUIREMENTS	49

**City of Portsmouth**  
**Bid# 11-20**  
**Central Fire Station Generator Replacement**

**INVITATION TO BID**

**Sealed** bid proposals, **plainly marked**, “**Central Fire Station Generator Replacement Bid#11-20**” **on the outside of the mailing envelope as well as the sealed bid envelope**, addressed to the Finance/Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, New Hampshire, 03801, will be accepted until **November 20, 2019 at 2:00 p.m.** at which time all bids will be publicly opened and read aloud. A mandatory pre-bid meeting will be held **November 13, 2019 at 11:00 a.m.**, at the Central Fire Station, 170 Court Street Portsmouth N.H.

This project consists of replacing the 15 kW emergency generator at the Central Fire Station in Portsmouth, NH. Specifically, the work includes removing the existing emergency generator, and installing a new 20 kW emergency generator at the same location. New electrical wiring, exhaust system, and security fencing will be required.

Work is intended to begin within the month of November, and completion is expected by January 14, 2020. Liquidated damages shall be assessed at \$100.00 per day.

Specifications may be obtained from the City’s web site: <https://www.cityofportsmouth.com/finance/purchasing-bids-and-proposals>. Questions may be addressed by calling the Purchasing Coordinator at (603) 610-7227 or by email [purchasing@cityofportsmouth.com](mailto:purchasing@cityofportsmouth.com). Addenda to this bid document, if any, including written answers to questions, will be posted on the City of Portsmouth website under the project heading.

Bidders must determine the quantities of work required and the conditions under which the work will be performed.

The City of Portsmouth reserves the right to reject any or all bids, to waive technical or legal deficiencies, to re-bid, and to accept any bid that it may deem to be in the best interest of the City.

Each Bidder shall furnish a bid security in the amount of ten percent (10%) of the bid. The Bid Security may be in the form of a certified check drawn upon a bank within the State of New Hampshire or a bid bond executed by a surety company authorized to do business in the State of New Hampshire, made payable to the City of Portsmouth, N.H.

**INSTRUCTIONS TO BIDDERS**

**BIDDING REQUIREMENTS AND CONDITIONS**

1. Special Notice to Bidders and Addenda

Appended to these instructions is a complete set of bidding and general contract forms. These forms may be detached and executed for the submittal of bids. The plans, specifications, and other documents designated in the proposal form will be considered as part of the proposal, whether attached or not.

The bidders must submit a statement of bidder's qualifications, if requested, subsequent to bid opening but prior to award.

**Addenda to this bid document, if any, including written answers to questions, will be posted on the City of Portsmouth website at <http://www.cityofportsmouth.com/finance/purchasing.htm> under the project heading. Addenda and updates will NOT be sent directly to firms. Contractors submitting a bid should check the web site daily for addenda and updates after the release date. Firms should print out, sign and return addenda with the proposal. Failure to do so may result in disqualification.**

2. Interpretation of Quantities in Bid Schedules

The quantities appearing in the bid schedule are approximate only and are prepared for the comparison of bids. Payment to the contractor will be made only for actual work performed and accepted in accordance with the contract. Any scheduled item of work to be done and materials to be furnished may be increased, decreased or omitted as hereinafter provided, and no claim for loss, anticipated profits or costs incurred in anticipation of work not ultimately performed will be allowed due to such increase or decrease.

3. Examination of Plans, Specifications and Site Work

The bidder is expected to examine carefully the site of the proposed work, the plans, technical specifications, supplemental specifications, special provisions and contract forms before submitting a proposal. The submission of a bid shall be considered conclusive evidence that the bidder has made such examination and is satisfied as to the conditions to be encountered in performing the work and as to the requirements of the contract. It will be conclusive evidence that the bidder has also investigated and is satisfied with the sources of supply for all materials.

Plans, surveys, measurements, dimensions, calculations, estimates and statements as to the condition under which the work is to be performed are believed to be correct, but the contractors must examine for themselves, as no allowance will be made for any errors or inaccuracies that maybe found therein.

4. Familiarity with Laws

The bidder is assumed to have made himself or herself familiar with all federal and state laws and all local by-laws, ordinances and regulations which in any manner affect those engaged or employed on the work or affect the materials or equipment used in the work or affect the conduct of the work, and the bidder, if awarded the contract, shall be obligated to perform the work in conformity with said laws, by-laws, ordinances and regulations notwithstanding its ignorance thereof. If the bidder shall discover any provision in the plans or specifications which is in conflict with any such law, by-law, ordinance or regulation the bidder shall forthwith report it to the engineer in writing.

5. Preparation of Proposal

a) The bidder shall submit its proposal upon the forms furnished by the Owner. The bidder shall specify a lump sum price in figures, for each pay item for which a quantity is given and shall also show the products of the respective prices and quantities written in figures in the column provided for that purpose and the total amount of the proposal obtained by adding the amount of the several items. All words and figures shall be in ink or typed. If a unit price or a lump sum bid already entered by the bidder on the proposal form is to be altered it should be crossed out with ink, the new unit price or lump sum bid entered above or below it and initialed by the bidder, also with ink.

b) The bidder's proposal must be signed with ink by the individual, by one or more general partners of a partnership, by one or more members or officers of each firm representing a joint venture; by one or more officers of a corporation, by one or more members (if member-managed) or managers (if manager-managed) of a limited liability company, or by an agent of the contractor legally qualified and acceptable to the owner. If the proposal is made by an individual, his or her name and post office address must be shown, by a partnership the name and post office address of each general and limited partner must be shown; as a joint venture, the name and post office address of each venturer must be shown; by a corporation, the name of the corporation and its business address must be shown, together with the name of the state in which it is incorporated, and the names, titles and business addresses of the president, secretary and treasurer.

6. Nonconforming Proposals

Proposals will be considered nonconforming and may be rejected in the Owner's sole discretion for any of the following reasons:

- If the proposal is on a form other than that furnished by the Owner, or if the form is altered or any portion thereof is detached;
- If there are unauthorized additions, conditional or altered bids, or irregularities of any kind which may tend to make the proposal or any portion thereof incomplete, indefinite or ambiguous as to its meaning; or
- If the bidder adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.

7. Proposal Guaranty

No proposal will be considered unless accompanied by a bid bond, surety, or similar guaranty of the types and in an amount not less than the amount indicated in the Invitation to Bid. All sureties shall be made payable to the "City of Portsmouth". If a bid bond is used by the bidder it shall be:

- In a form satisfactory to the Owner;
- With a surety company licensed, authorized to do business in, and subject to the jurisdiction of the courts of the State of New Hampshire; and
- Conditioned upon the faithful performance by the principal of the agreements contained in the sub-bid or the general bid.

In the event any irregularities are contained in the proposal guaranty, the bidder will have four business days (not counting the day of opening) to correct any irregularities. The corrected guaranty must be received by 4:00 p.m. If irregularities are not corrected to the satisfaction of the Owner, the Owner, in its sole discretion, may reject the bid.

**8. Delivery of Proposals**

When sent by mail, the sealed proposal shall be addressed to the Owner at the address and in the care of the official in whose office the bids are to be received. All proposals shall be filed prior to the time and at the place specified in the invitation for bids. Proposals received after the time for opening of the bids will be returned to the bidder, unopened.

**9. Withdrawal of Proposals**

A bidder will be permitted to withdraw his or her proposal unopened after it has been submitted if the Owner receives a request for withdrawal in writing prior to the time specified for opening the proposals.

**10. Public Opening of Proposals**

Proposals will be opened and read publicly at the time and place indicated in the invitation for bids. Bidders, their authorized agents, and other interested parties are invited to be present.

**11. Disqualification of Bidders**

Any or all of the following reasons may be deemed by Owner in its sole discretion as being sufficient for the disqualification of a bidder and the rejection of his proposal:

- More than one proposal for the same work from an individual, firm, or corporation under the same or different name;
- Evidence of collusion among bidders;
- Failure to submit all required information requested in the bid specifications;
- Unqualified to complete the work as demonstrated by previous project experience and reference checks;
- Lack of competency or of adequate machinery, plant or other equipment, as revealed by the statement of bidders qualification or otherwise;
- Uncompleted work which, in the judgment of the owner, might hinder or prevent the prompt completion of additional work if awarded;
- Failure to pay, or satisfactorily settle, all bills due for labor and materials on former contracts;
- Default or unsatisfactory performance on previous contracts;
- Failure to be licensed by the State of New Hampshire to work on elevators; or
- Such disqualification would be in the best interests of the Owner.

**12. Material Guaranty and Samples**

Before any contract is awarded, the bidder may be required to furnish a complete statement of the origin, composition and manufacture of any or all materials to be used in the construction of the work, and the Owner may, in its sole discretion, reject the bid based on the contents of the statement or as a result of the failure of the bidder to submit the statement.

**AWARD AND EXECUTION OF CONTRACT**

1. Consideration of Proposals

a) After the proposals are opened and read, they will be compared on the basis of the total price for all sections of work to be charged to perform the work and any such additional considerations as may be identified in the bid documents. The results of such comparisons will be immediately available to the public. In case of a discrepancy between the prices written in words and those written figures, the prices written in words shall govern. In case of a discrepancy between the total shown in the proposal and that obtained by adding the products of the quantities of items and unit bid prices, the latter shall govern.

b) The Owner reserves the right to reject any or all proposals, to waive technicalities or to advertise for new proposals, if, in the sole discretion of the Owner, the best interest of the City of Portsmouth will be promoted thereby.

2. Award of Contract

Within 30 calendar days after the opening of proposals, if a contract is to be awarded, the award will be made to the lowest responsible and qualified bidder whose proposal complies with all the requirements prescribed. The successful bidder will be notified, in writing, mailed to the address on his or her proposal, that his or her bid has been accepted and that the bidder has been awarded the contract.

The award shall not be considered official until such time that a Purchase Order, fully executed contract or an award letter has been issued by the Finance Director. No presumption of award shall be made by the bidder until such documents are in hand. Verbal notification of award is not considered official. Any action by the bidder to assume otherwise is done so at his/her own risk and the City will not be held liable for any expense incurred by a bidder that has not received an official award.

**Determination of the lowest bidder will be based on the Base bid, or the Base Bid with any combination of Add Alternates the City deems to be in its best interest, for the work described on the bid proposal form.**

**Contract award is dependent upon available funds.**

3. Cancellation of Award

The Owner reserves the right to cancel the award of any contract at any time before the execution of such contract by all parties without any liability of the Owner.

4. Return of Proposal Guaranty

All proposal guaranties, except those of the three lowest bidders, will be returned upon request following the opening and checking of the proposals. The proposal guaranties of the three lowest bidders will be returned within ten days following the award of the contract if requested.

5. Contract Bond

At the time of the execution of the contract, the successful bidder shall furnish:

- Labor and materials payment bond in the sum equal to 100 percent of the contract amount.

At the time of project completion, the Owner may, in its sole discretion, permit the Contractor to substitute a maintenance bond in lieu of holding retainage for the entire guaranty period. If a bond is furnished it shall meet the following criteria:

- The bond shall be in an amount equal to 20 percent of the contract amount. Such bond shall guarantee the repair of all damage due to faulty materials or workmanship provided or done by the contractor. The guarantee shall remain in effect for a period of one year after the date of final acceptance of the job by the Owner.

Each bond shall be: (1) in a form satisfactory to the Owner; (2) with a surety company licensed and authorized to do business and with a resident agent designated for services of process in the State of New Hampshire; and (3) conditioned upon the faithful performance by the principal of the agreements contained in the original bid. All premiums for the contract bonds are to be paid by the contractor.

6. Execution and Approval of Contract

The successful bidder is required to present all contract bonds, to provide proof of insurance, and to execute the contract within 10 days following receipt of the City's notification of acceptance of the bid. No contract shall be considered in effect until it has been fully executed by all parties.

7. Failure to Execute Contract

Failure to execute the contract and file an acceptable bond within 10 days after notification of acceptance of bid shall be just cause for the cancellation of the award and the forfeiture of the proposal guarantee which shall become the property of the Owner, not as a penalty, but in liquidation of damages sustained. Award may then be made to the next lowest responsible bidder, or the work may be re-advertised as the Owner may determine at its sole discretion.



**PROPOSAL FORM**

**Central Fire Station Generator Replacement**

**CITY OF PORTSMOUTH, N.H.**

To the City of Portsmouth, New Hampshire, herein called the Owner.

The undersigned, as Bidder, herein referred to as singular and masculine declares as follows:

1. All interested in the Bid as Principals are named herein;
2. This bid is not made jointly, or in conjunction, cooperation or collusion with any other person, firm, corporation, or other legal entity;
3. No officer, agent or employee of the Owner is directly or indirectly interested in this Bid;
4. The bidder has carefully examined the sites of the proposed work and fully informed and satisfied himself as to the conditions there existing, the character and requirements of the proposed work, the difficulties attendant upon its execution and the accuracy of all estimated quantities stated in this Bid, and the bidder has carefully read and examined the Drawings, Agreement, Specifications and other Contract Documents therein referred to and knows and understands the terms and provisions thereof;
5. The bidder understands that the quantities of work calculated in the Bid or indicated on the Drawings or in the Specifications or other Contract Documents are approximate and are subject to increase or decrease or deletion as deemed necessary by the Portsmouth Engineer. Any such changes will not result in or be justification for any penalty or increase in contract prices; and agrees that, if the Bid is accepted the bidder will contract with the Owner, as provided in the Contract Documents, this Bid Form being part of said Contract Documents, and that the bidder will supply or perform all labor, services, plant, machinery, apparatus, appliances, tools, supplies and all other activities required by the Contract Documents in the manner and within the time therein set forth, and that the bidder will take in full payment therefore the following item prices; and
6. It is the intention of this contract that the items listed above describe completely and thoroughly the entirety of the work as shown on the plans and as described in the specifications. All other items required to accomplish the above items are considered to be subsidiary work, unless shown as a pay item.

This project is to be bid by lump sum.

1. Furnish and install new Generator per specifications.

In Figures \$ \_\_\_\_\_

In Words \_\_\_\_\_ Dollars

2. Provide a seasonal preventative maintenance service for one year following installation.

In Figures \$ \_\_\_\_\_

In Words \_\_\_\_\_ Dollars

**PROPOSAL FORM (Continued)**

Total of items 1 and 2 above, **BASIS FOR AWARD**

In Figures \$ \_\_\_\_\_

In Words \_\_\_\_\_ Dollars

Add Alternates:

- 1. Change unit from diesel to natural gas including any and all required gas piping.

In Figures \$ \_\_\_\_\_

In Words \_\_\_\_\_ Dollars

- 2. Pipe the generator exhaust into the left rear brick chimney.

In Figures \$ \_\_\_\_\_

In Words \_\_\_\_\_ Dollars

To Bidder: It is the intention of this contract that the items listed above describe completely and thoroughly the entirety of the work as shown on the plans and as described in the specifications. All items required to accomplish the above items are considered to be subsidiary work, unless shown as a pay item.

The undersigned agrees that for extra work, if any, performed in accordance with the terms and provisions of the Contract Documents, the bidder will accept compensation as stipulated therein.

\_\_\_\_\_  
\_\_\_\_\_  
DATE

\_\_\_\_\_  
\_\_\_\_\_  
COMPANY

BY: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_  
SIGNATURE

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
STREET ADDRESS, CITY, STATE, ZIPCODE, TELEPHONE NUMBER

The Bidder has received and acknowledged Addenda No. \_\_\_\_\_ through \_\_\_\_\_.

All Bids are to be submitted on this form and in a sealed envelope, plainly marked on the outside with the Bidder's name and address and the Project name as it appears at the top of the Proposal Form.

**BID SECURITY BOND**

(This format provided for convenience, actual Bid Bond is acceptable in lieu of, if compatible.)

KNOW ALL MEN BY THESE PRESENTS, that we the undersigned

\_\_\_\_\_, as Principal, and

\_\_\_\_\_, as Surety, are hereby

held and firmly bound unto \_\_\_\_\_

IN THE SUM OF \_\_\_\_\_

as liquidated damages for payment of which, well and truly to be made we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

The condition of this obligation is such that whereas the Principal has submitted to the

\_\_\_\_\_ A CERTAIN Bid attached hereto and hereby made a part hereof to enter into a contract in writing, hereinafter referred to as the "AGREEMENT" and or "CONTRACT", for

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOW THEREFORE,

- (a) If said Bid shall be rejected or withdrawn as provided in the INFORMATION FOR BIDDERS attached hereto or, in the alternative,
- (b) If said Bid shall be accepted and the Principal shall duly execute and deliver the form of AGREEMENT attached hereto and shall furnish the specified bonds for the faithful performance of the AGREEMENT and/or CONTRACT and for the payment for labor and materials furnished for the performance of the AGREEMENT and or CONTRACT,

then this obligation shall be void , otherwise it shall remain in full force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder in no event shall exceed the amount of this obligation.

**BID SECURITY BOND** (continued)

The Surety, for value received, hereby agrees that the obligation of said surety and its bond shall be in no way impaired or affected by any extensions of the time within such BID may be accepted, and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the parties hereto have duly executed

this bond on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
(Name of Principal) L.S.

(SEAL)

BY \_\_\_\_\_

\_\_\_\_\_  
(Name of Surety)

BY \_\_\_\_\_

**STATEMENT OF BIDDER'S QUALIFICATIONS**

**Note: This is a required submittal, fill out completely.**

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. Add separate sheets if necessary

1. Name of Bidder
2. Permanent Main Office Address
3. Form of Entity
4. When Organized
5. Where Organized
6. How many years have you been engaged in the contracting business under your present name; also state names and dates of previous firm names, if any.
7. Contracts on hand; (schedule these, showing gross amount of each contract and the approximate anticipated dates of completion).
8. General character of work performed by your company.
9. Have you ever failed to complete any work awarded to you? \_\_\_\_\_(no)\_\_\_\_(yes). If so, where and why?
10. Have you ever defaulted on a contract?  
\_\_\_\_\_ (no)\_\_\_\_\_ (yes). If so, where and why?
11. Have you ever failed to complete a project in the time allotment according to the Contract Documents?  
\_\_\_\_\_ (no)\_\_\_\_\_ (yes). If so, where and why?
12. List the most important contracts recently executed by your company, stating approximate cost for each, and the month and year completed.
13. List your major equipment available for this contract.
14. List your key personnel such as project superintendent and foremen available for this contract.
15. List the names, locations and contact information for previous generator installations or replacements.

**STATEMENT OF BIDDER'S QUALIFICATIONS** (continued)

- 16. List any subcontractors whom you will use for the following (unless this work is to be done by your own organization, if so please state).
  - a. Electric \_\_\_\_\_
  - b. Crane Operation & Equipment Hoisting \_\_\_\_\_
  - c. Testing \_\_\_\_\_
  - d. Cleaning \_\_\_\_\_

(The City reserves the right to approve subcontractors for this project)

- 17. With what banks do you do business?
  - a. Do you grant the Owner permission to contact this/these institutions?  
 \_\_\_ (yes) \_\_\_ (no).

b. Latest Financial Statements, certified audited if available, prepared by an independent certified public accountant, may be requested by Owner. If requested, such statements must be provided within five (5) business days or the bid proposal will be rejected. Certified Audited Statement are preferred. Internal statements may be attached only if independent statements were not prepared.

Dated at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Name of Bidder

BY \_\_\_\_\_

TITLE \_\_\_\_\_

State of \_\_\_\_\_

County of \_\_\_\_\_

\_\_\_\_\_ being duly sworn, deposes and

says that the bidder is \_\_\_\_\_ of \_\_\_\_\_  
(Name of Organization)

and answers to the foregoing questions and all statements contained therein are true and correct.

Sworn to before me this \_\_\_ day of \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
Notary of Public

My Commission expires \_\_\_\_\_

**CONTRACT AGREEMENT**

**Central Fire Station Generator Replacement**

THIS AGREEMENT made as of the \_\_\_\_<sup>th</sup> day of \_\_\_\_\_ in the year 2019, by and between the City of Portsmouth, New Hampshire (hereinafter called the Owner) and \_\_\_\_\_ hereinafter called the Contractor),

WITNESSETH; that the Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

**ARTICLE I- Work** - The Contractor shall perform all work as specified or indicated in the Contract Documents. The Contractor shall provide, at his expense, all labor, materials, equipment and incidentals as may be necessary for the expeditious and proper execution of the Project. Base bid plus alternate #1.

**ARTICLE II - ENGINEER** - The Director of Public Works or his authorized representative will act as Engineer in connection with completion of the Project in accordance with the Contract Documents.

**ARTICLE III - CONTRACT TIME** - Work will begin in accordance with the Notice to Proceed and work shall be completed within 45 days.

**ARTICLE IV - CONTRACT PRICE** - Owner shall pay Contractor for performance of the work in accordance with the Contract Documents as shown under item prices in the Bid Proposal.

**ARTICLE V - PAYMENT** - Partial payments will be made in accordance with the Contract Documents. Upon final acceptance of the work and settlement of all claims, Owner shall pay the Contractor the unpaid balance of the Contract Price, subject to additions and deductions provided for in the Contract Documents.

**ARTICLE VI - RETAINAGE** - To insure the proper performance of this Contract, the Owner shall retain certain amounts in the percentage of the Contract Price and for the time specified as provided in the Contract Documents.

**ARTICLE VII - LIQUIDATED DAMAGES** - In event the Contractor fails to successfully execute the work within the specified contract time the Owner shall assess the Contractor liquidated damages in the amount of **one hundred dollars (\$100)** for each calendar day beyond the specified completion date for each section of work. Liquidated damages shall be deducted from the Contract Price prior to final payment of the Contractor.

Contract Amount: \$

**CONTRACT AGREEMENT** (continued)

**ARTICLE VIII – CONTRACT DOCUMENTS** – The Contract Documents which comprise the contract between Owner and Contractor are attached hereto and made a part hereof and consist of the following:

- 8.1 This Agreement
- 8.2 Contractor’s Bid and Bonds
- 8.3 Notice of Intent to Award, Notice to Proceed
- 8.4 Instruction to Bidders
- 8.5 General Requirements, Control of Work, Temporary Facilities, Measurement and Payment, Technical Specifications
- 8.6 Insurance Requirements
- 8.7 Technical Specifications
- 8.8 Drawings
- 8.9 Special Provisions
- 8.10 Any modifications, including change orders, duly delivered after execution of this Agreement.

**ARTICLE IX – TERMINATION FOR DEFAULT** – Should contractor at any time refuse, neglect, or otherwise fail to supply a sufficient number or amount of properly skilled workers, materials, or equipment, or fail in any respect to prosecute the work with promptness and diligence, or fail to perform any of its obligations set forth in the Contract, Owner may, at its election, terminate the employment of Contractor, giving notice to Contractor in writing of such election, and enter on the premises and take possession, for the purpose of completing the work included under this Agreement, of all the materials, tools and appliances belonging to Contractor, and to employ any other persons to finish the work and to provide the materials therefore at the expense of the Contractor.

**ARTICLE X – INDEMNIFICATION OF OWNER** – Contractor will indemnify Owner against all suits, claims, judgments, awards, loss, cost or expense (including without limitation attorneys fees) arising in any way out of the Contractor’s negligent performance or non-performance of its obligations under this Contract. Contractor will defend all such actions with counsel satisfactory to Owner at its own expense, including attorney’s fees, and will satisfy any judgment rendered against Owner in such action.

**ARTICLE XI – PERMITS** – The Contractor will secure at its own expense, all permits and consents required by law as necessary to perform the work and will give all notices and pay all fees and otherwise comply with all applicable City, State, and Federal laws, ordinances, rules and regulations.

**ARTICLE XII – INSURANCE** – The Contractor shall secure and maintain, until acceptance of the work, insurance with limits not less than those specified in the Contract.

**ARTICLE XIII – MISCELLANEOUS** –

- A. Neither Owner nor Contractor shall, without the prior written consent of the other, assign, sublet or delegate, in whole or in part, any of its rights or obligations under any of the Contract Documents; and, specifically not assign any monies due, or to become due, without the prior written consent of Owner.
- B. Owner and Contractor each binds himself, his partners, successors, assigns and legal representatives, to the other party hereto in respect to all covenants, agreements and obligations contained in the Contract Documents.
- C. The Contract Documents constitute the entire Agreement between Owner and Contractor and may only be altered amended or repealed by a duly executed written instrument.



- D. The laws of the State of New Hampshire shall govern this Contract without reference to the conflict of law principles thereof.
- E. Venue for any dispute shall be the Rockingham County Superior Court unless the parties otherwise agree.

IN WITNESS WHEREOF, the parties hereunto executed this AGREEMENT the day and year first above written.

**BIDDER:**

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

**CITY OF PORTSMOUTH, N.H.**

BY: \_\_\_\_\_  
John P. Bohenko

TITLE: City Manager

**NOTICE OF INTENT TO AWARD**

Date:

TO:

IN AS MUCH as you were the low responsible bidder for work entitled:

**Central Fire Station Generator Replacement  
Bid Proposal**

You are hereby notified that the City intends to award the aforesaid project to you.

- a) Immediately take the necessary steps to execute the Contract and to provide required bonds and proof of insurance within ten (10) calendar days from the date of this Notice.

The City reserves the right to revoke this Notice if you fail to take the necessary steps to execute this Contract.

City of Portsmouth  
Portsmouth, New Hampshire

Judie Belanger,  
Finance Director

**NOTICE TO PROCEED**

DATE:

PROJECT: **Central Fire Station Generator Replacement**

TO:

YOU ARE HEREBY NOTIFIED TO COMMENCE WORK IN ACCORDANCE WITH THE AGREEMENT DATED, ON \_\_\_\_\_ WORK SHALL BE COMPLETED PRIOR TO \_\_\_\_\_.

CITY OF PORTSMOUTH, N.H.

BY: \_\_\_\_\_  
Peter H. Rice, PE

TITLE: Public Works Director

**ACCEPTANCE OF NOTICE**

RECEIPT OF THE ABOVE NOTICE TO PROCEED IS HEREBY ACKNOWLEDGED BY

\_\_\_\_\_  
This the \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

**CHANGE ORDER**

Change Order # 1

Date of Issuance:

Owner: CITY OF PORTSMOUTH, N.H

Contractor:

You are directed to make the following changes in the Contract Documents:

Description:

Purpose of Change Order:

Attachments:

CHANGE IN CONTRACT PRICE

CHANGE IN CONTRACT TIME

Original Contract Price:  
\$

Original Completion Date:

Contract Price prior to this Change Order:  
\$

Contract Time prior to this Change Order:

Net Increase of this Change Order:  
\$

Net Increase or Decrease of this Change Order:

Contract Price with all approved Change Orders:  
\$

Contract Time with all approved Change Orders:

RECOMMENDED:

APPROVED:

APPROVED:

by \_\_\_\_\_

by \_\_\_\_\_

by \_\_\_\_\_

by \_\_\_\_\_

Public Works Director

City Finance

City Manager

Contractor

**LABOR AND MATERIAL PAYMENT BOND**

(This format provided for convenience, actual Labor and Material Bond is acceptable in lieu, if compatible)

Bond Number \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS:

that \_\_\_\_\_

as Principal, hereinafter called Contractor, and \_\_\_\_\_ (Surety Company) a corporation organized and existing under the laws of the State of

\_\_\_\_\_ and authorized to do business in the State of New Hampshire hereinafter called Surety, are held and firmly bound unto the City of Portsmouth, N.H. Obligee, hereinafter called Owner, for the use and benefit of claimants as herein below defined, in the

amount of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has by written agreement dated \_\_\_\_\_ entered into a

contract with Owner for \_\_\_\_\_ in accordance with drawings and specifications prepared by the Public Works Department, 680 Peverly Hill Road, Portsmouth, N.H. 03801 and the Community Development, 1 Junkins Avenue, Portsmouth, NH 03801, which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that the Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract and for the hire of all equipment, tools, and all other things contracted for or used in connection therewith, then this obligation shall be void, otherwise it shall remain in full force and effect, subject however, to the following conditions:

(1) A claimant is defined as one having a direct contract with the Principal or, with a subcontractor of the Principal for labor, material, equipment, or other things used or reasonably required for use in the performance of the Contract. "Labor and material" shall include but not be limited to that part of water, gas, power, light, heat, oil and gasoline, telephone service or rental of equipment applicable to the Contract.

(2) The above named Principal and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such a claimant, may sue on this bond for the use of such claimant, prosecute the suit by final judgment for such sum or sums as may be

**LABOR AND MATERIAL PAYMENT BOND** (continued)

justly due claimant, and have execution thereon. The Owner shall not be liable for the payment of any such suit or any costs or expenses of any such suit, and principal and surety shall jointly and severally indemnify, defend and hold the Owner harmless for any such suit, costs or expenses.

(3) No suit or action shall be commenced hereunder by any claimant:

(a) Unless Claimant, other than one having a direct contract with the Principal, shall have given notice to all the following:

The Principal, the Owner and the Surety above named, within six (6) calendar months after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the Principal, Owner, and Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the State of New Hampshire save that such service need not be made by a public officer.

(b) After the expiration of one (1) year following the date on which Principal ceased all work on said contract, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

(c) Other than in a State court of competent jurisdiction in and for the county or other political subdivision of the State in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.

(4) The amount of this bond may be reduced by and to the extent of any payment of payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed on record against said improvement, whether or not claim for the amount of such lien by presented under and against this bond.

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_. In the presence of:

\_\_\_\_\_  
(Witness) BY: \_\_\_\_\_  
(Principal) (Seal)

\_\_\_\_\_  
(Surety Company)

\_\_\_\_\_  
(Witness) BY: \_\_\_\_\_  
(Title) (Seal)

**LABOR AND MATERIAL PAYMENT BOND** (continued)

Note:

If the Principal (Contractor) is a partnership, the Bond should be signed by each of the partners.

If the Principal (Contractor) is a corporation, the Bond should be signed in its correct corporate name by its duly authorized Officer or Officers.

If this bond is signed on behalf of the Surety by an attorney-in-fact, there should be attached to it a duly certified copy of his Power of Attorney showing his authority to sign such Bonds.

There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts of the Agreement.

**MAINTENANCE BOND**

At the Owner's election, a maintenance bond may be substituted for retainage at the completion of the project. If the Owner permits a maintenance bond, it shall be in the amount of Twenty **Percent (20%)** of the contract price with a corporate surety approved by the Owner. Such bond shall be provided at the time of Contract completion and shall guarantee the repair of all damage due to faulty materials or workmanship provided or done by the Contractor. This guarantee shall remain in effect for a period of one year after the date of final acceptance of the job by the Owner.



**CONTRACTOR'S AFFIDAVIT**

STATE OF \_\_\_\_\_ :

COUNTY OF \_\_\_\_\_ :

Before me, the undersigned, a \_\_\_\_\_  
(Notary Public, Justice of the Peace)

in and for said County and State personally appeared, \_\_\_\_\_  
(Individual, Partner, or duly authorized representative of Corporate)

who, being duly sworn, according to law deposes and says that the cost of labor, material, and equipment and outstanding claims and indebtedness of whatever nature arising out of the performance of the Contract between

CITY OF PORTSMOUTH, NEW HAMPSHIRE

and \_\_\_\_\_  
(Contractor)

of \_\_\_\_\_

Dated: \_\_\_\_\_

has been paid in full for Construction of: **Central Fire Station Generator Replacement**

\_\_\_\_\_  
(Individual, Partner, or  
duly authorized representative of  
Corporate Contractor)

Sworn to and subscribed  
before me this \_\_\_\_\_ day  
of \_\_\_\_\_ 20 \_\_\_\_

\_\_\_\_\_

**CONTRACTOR'S RELEASE**

KNOW ALL MEN BY THESE PRESENTS that

\_\_\_\_\_ (Contractor) of \_\_\_\_\_, County  
of \_\_\_\_\_ and State of

\_\_\_\_\_ does hereby acknowledge  
that \_\_\_\_\_ (Contractor)

has on this day had, and received from the CITY OF PORTSMOUTH NEW HAMPSHIRE, final and  
completed payment for the Construction of:

**Central Fire Station Generator Replacement**

NOW THEREFORE, the said \_\_\_\_\_  
(Contractor)

for myself, my heirs, executors, and administrators) (for itself, its successors and assigns) do/does by these  
presents remise, release, quit-claim and forever discharge the City of Portsmouth, New Hampshire, its  
successors and assigns, of and from all claims and demands arising from or in connection with the said  
Contract dated \_\_\_\_\_, and of and from all, and all manners of action and actions, cause and  
causes of action and actions, suits, debts, dues, duties, sum and sums of money, accounts, reckonings, bonds,  
bills, specifications, covenants, contracts, agreements, promises, variances, damages, judgments, extents,  
executions, claims and demand, whatsoever in law of equity, or otherwise, against the City of Portsmouth, New  
Hampshire, its successors and assigns, which (I, my heirs, executors, or administrators) (it, its successors and  
assigns) ever had, now have or which (I, my heirs, executors, or administrators) (it, its successors and assigns)  
hereafter can shall or may have, for, upon or by reason of any matter, cause, or thing whatsoever; from the  
beginning of record time to the date of these presents.

IN WITNESS WHEREOF,

Contractor:

\_\_\_\_\_  
print name of witness: \_\_\_\_\_

By: \_\_\_\_\_  
Its Duly Authorized \_\_\_\_\_

Dated: \_\_\_\_\_

**INSURANCE REQUIREMENTS**

Insurance shall be in such form as will protect the Contractor from all claims and liabilities for damages for bodily injury, including accidental death, and for property damage, which may arise from operations under this contract whether such operation by himself or by anyone directly or indirectly employed by him.

**AMOUNT OF INSURANCE**

- A) Comprehensive General Liability:  
Bodily injury or Property Damage - \$2,000,000  
Per occurrence and general aggregate
- B) Automobile and Truck Liability:  
Bodily Injury or Property Damage - \$2,000,000  
Per occurrence and general aggregate

Additionally, the Contractor shall purchase and maintain the following types of insurance:

- A) Full Workers Comprehensive Insurance coverage for all people employed by the Contractor to perform work on this project. This insurance shall at a minimum meet the requirements of the most current laws of the State of New Hampshire.
- B) Contractual Liability Insurance coverage in the amounts specified above under Comprehensive General Liability.
- C) Product and Completed Operations coverage to be included in the amounts specified above under Comprehensive General Liability.
- D) Builder's Risk.

**ADDITIONAL INSURED**

All liability policies (including any excess policies used to meet coverage requirements) shall include the City of Portsmouth, New Hampshire as named Additional Insured.

- 1) The contractor's insurance shall be primary in the event of a loss.
- 2) The Additional Insured endorsement must include language specifically stating that the entity is to be covered for all activities performed by, or on behalf of, the contractor, including the City of Portsmouth's general supervision of the contractor.
- 3) City of Portsmouth shall be listed as a Certificate Holder. The City shall be identified as follows:

City of Portsmouth  
Attn: Legal Department  
1 Junkins Avenue  
Portsmouth, NH 03801

**GENERAL REQUIREMENTS****SCOPE OF WORK****1. INTENT OF CONTRACT**

The intent of the Contract is to provide for the construction and completion in every detail of the work described. The Contractor shall furnish all labor, materials, equipment, tools, transportation and supplies required to complete the work in accordance with the terms of the Contract. The Contractor shall be required to conform to the intent of the plans and specifications. No extra claims shall be allowed for portions of the work not specifically addressed in the plans and specifications but required to produce a whole and complete project, such work will be considered subsidiary to the bid items.

**2. INCIDENTAL WORK**

Unless specifically excepted in the Bid or Technical Specifications, incidental work items for which separate payment is not measured includes, but is not limited to, the following items:

- a. Cleaning mechanical/machine room
- b. Daily clean up after job
- c. Signs
- d. Mobilization/Demobilization
- e. Restoration of property
- f. Cooperation with other contractors and utility companies.
- g. Steel and/or wood sheeting as required.
- h. Accessories and fasteners or components required to make items paid for under unit prices or lump sum items complete and functional.

**3. ALTERATION OF PLANS OR OF CHARACTER OF WORK**

The Owner reserves the right, without notice to Surety, to make such alterations of the plans or of the character of the work as may be necessary or desirable to complete fully and acceptably the proposed construction; provided that such alterations do not increase or decrease the contract cost. Within these cost limits, the alterations authorized in writing by the Owner shall not impair or affect any provisions of the Contract or bond and such increases or decreases of the quantities as a result from these alterations or deletions of certain items, shall not be the basis of claim for loss or for anticipated profits by the contractor. The contractor shall perform the work as altered at the contract unit price or prices.

**4. EXTRA WORK ITEMS**

Extra work shall be performed by the Contractor in accordance with the specifications and as directed, and will be paid for at a price as provided in the Contract documents or if such pay items are not applicable then at a price negotiated between the contractor and the Owner or at the unit bid price. If no agreement can be negotiated, the Contractor will accept as payment for extra work, cost plus 15% (overhead & profit). Costs shall be substantiated by invoices and certified payroll. If the Owner determines that extra work is to be performed, a change order will be issued.

**5. CHANGE ORDERS**

The Owner reserves the right to issue a formal change order for any increase, decrease, deletion, or addition of work or any increase in contract time or price. The contractor shall be required to sign the change order and it shall be considered as part of the Contract documents.

6. FINAL CLEANING UP

Before acceptance of the work, the contractor shall remove from the site all machinery, equipment, surplus materials, rubbish, temporary utility connections, temporary structures, barricades and signs. All parts of the work shall be left in a neat and presentable condition. On all areas used or occupied by the contractor, regardless of the contract limits, the bidder shall clean-up all sites and storage grounds.

The items prescribed herein will not be paid for separately, but shall be paid for as part of the total contract price.

7. ERRORS AND INCONSISTENCY IN CONTRACT DOCUMENTS

Any provisions in any of the Contract Documents that may be in conflict with the paragraphs in these General Requirements shall be subject to the following order of precedence for interpretation.

1. Technical Specifications will govern General Requirements.
2. Plans and/or Shop Drawings will govern Technical Specifications, and General Requirements.

**CONTROL OF WORK**

**1. AUTHORITY OF ENGINEER**

(a) All work shall be done under supervision of the Engineer and to his satisfaction. The Engineer will decide all questions which may arise as to the quality and acceptability of materials furnished and work performed and as to the rate of progress of the work; all questions that may arise as to the interpretation of the plans and specifications; and all questions as to the acceptable fulfillment of the Contract by the Contractor.

(b) The Engineer will have the authority to suspend the work wholly or in part for such periods as he may deem necessary due to the failure of the Contractor to correct conditions unsafe for workers or the general public; for failure to carry out provisions of the Contract; for failure to carry out orders; for conditions considered unsuitable for the prosecution of the work, including unfit weather; or for any other condition or reason deemed to be in the public interest. The Contractor shall not be entitled to any additional payments arising out of any such suspensions.

(c) The Owner reserves the right to demand a certificate of compliance for a material or product used on the project. When the certificate of compliance is determined to be unacceptable to the Engineer, the Contractor may be required to provide engineering and testing services to guarantee that the material or product is suitable for use in the project, at its expense (see Sample of Certificate of Compliance).

**2. PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPES**

(a) The Contractor shall be responsible for all damage or injury to property of any character, during the prosecution of the work, resulting from any act, omission, neglect, or misconduct in his manner or method of executing the work, or at any time due to defective work or materials, and said responsibility will not be released until the project shall have been completed and accepted.

(b) When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or as a result of the failure to perform work by the Contractor, the Contractor shall restore, at its own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing rebuilding, or otherwise restoring as may be directed, or the Contractor shall make good such damage or injury in an acceptable manner.

(c) If the Contractor fails to repair, rebuild or otherwise restore such property as may be deemed necessary, the Owner, after 48 hours notice, may proceed to do so, and the cost thereof may be deducted from any money due or which may become due the Contractor under the contract.

(d) The Contractor shall use every precaution to prevent injury or damage to wires, poles, or other property of public utilities; trees, shrubbery, vegetation, and fences along and adjacent to the right-of-way, all underground structures such as pipes and conduits, within or outside of the right-of-way; and the Contractor shall protect and carefully preserve all property marks until an authorized agent has witnessed or otherwise referenced their location.

**3. MAINTENANCE DURING CONSTRUCTION**

The Contractor shall maintain the work during construction and until the project is accepted. This maintenance shall constitute continuous and effective work prosecuted day by day, with adequate equipment and workers to ensure that the structure is kept in satisfactory conditions at all times.

**CONTROL OF WORK** (continued)

**4. SAFETY PRECAUTIONS**

Upon commencement of work, the Contractor shall be responsible for initiating, maintaining and supervising all safety precautions necessary to ensure the safety of employees on the site, other persons who may be affected thereby, including the public, and other property at the site or adjacent thereto.

**5. PERMITS**

It will be the responsibility of the Contractor to obtain all permits required for this project, and for the operation of equipment in, or on, all city streets and public ways associated with this project.

**6. BARRICADES, WARNING SIGNS AND TRAFFIC OFFICERS**

(a) The Contractor shall provide, erect and maintain all necessary barricades, suitable and sufficient lights, danger signals, signs and other traffic control devices, and shall take all necessary precautions for the protection of the work and safety of Building Occupants and the public. Work Areas shall be protected by effective barricades and signage. Obstructions shall be illuminated during hours of darkness. Suitable warning signs shall be provided to control and direct traffic in a proper manner, as approved by the engineer.

(b) The Contractor will be held responsible for all damage to the work due to lack of adequate controlling devices.

The work prescribed herein will not be paid for separately but will be paid for as part of the Contract Price unless specifically appearing as a bid item.

**TEMPORARY FACILITIES**

**1. STORAGE FACILITIES**

(a) The Contractor shall not store materials or equipment in a public right-of-way beyond the needs of one working day. Equipment and materials shall be stored in an approved location.

(b) The Contractor shall protect all stored materials from damage by weather or accident and shall insure adequate drainage at and about the storage location.

(c) Prior to final acceptance of the work all temporary storage facilities and surplus stored materials shall be removed from the site.

**2. SANITARY FACILITIES**

The Owner shall provide the Contractor with reasonable access to toilet facilities for the use of the workers employed on the work.

**3. WATER FACILITIES**

The Owner shall provide the Contractor with reasonable access to water facilities for construction operations.

**4. TEMPORARY ELECTRICITY**

The Owner shall provide the Contractor with reasonable access to electrical power necessary for construction operation at the site.



**MEASUREMENT AND PAYMENT**

**1. MEASUREMENT OF QUANTITIES**

(a) All work completed under the contract will be measured according to the United States standard measure.

(b) The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the contract will be those methods generally recognized as conforming to good engineering practice. Unless otherwise stated all quantities measured for payment shall be computed or adjusted for "in place" conditions.

(c) Unless otherwise specified, longitudinal measurements for area computations will be made horizontally, and no deductions will be made for individual fixtures having an area of 9 square feet or less. Unless otherwise specified, transverse measurements for area computations will be the dimensions shown on the plans or ordered in writing.

(d) Structures will be measured according to lines shown on the plans or as ordered unless otherwise provided for elsewhere in the specifications.

(e) In computing volumes of excavation, embankment, and borrow, the average end area method will be used. Where it is impracticable to measure by the cross-section method, acceptable methods involving three-dimensional measurement may be used. When measurement of borrow in vehicles is permitted, the quantity will be determined as 80 percent of the loose volume.

(f) In computing volumes of concrete, stone and masonry, the prismoidal method will be used. The term "ton" will mean the short ton consisting of 2,000 pounds avoirdupois.

(g) Except as specified below, all materials that are measured or proportioned by weight shall be weighed on scales which the Contractor has had sealed by the State or by a repairman registered by the Commissioner of Agriculture. All weighing shall be performed in a manner prescribed under the Rules and Regulations of the Bureau of Weights and Measures of the New Hampshire Department of Agriculture.

(h) Weighing of materials on scales located outside New Hampshire will be permitted for materials produced or stored outside the state, when requested by the Contractor and approved. Out-of-state weighing in order to be approved, must be performed by a licensed public weigh master or a person of equal authority in the state concerned on scales accepted in the concerned state.

(i) Each truck used to haul material being paid for by weight shall bear a plainly legible identification mark, and if required, shall be weighed empty daily at such times as directed.

(j) When material is weighed, the individual weight slips, which shall be furnished by the Contractor, for trucks, trailers, or distributors, shall show the following information: the date; the project; the material or commodity; the dealer or vendor; the Contractor or Subcontractor; the location of the scales; the vehicle registration number or other approved legible identification mark; the tare and net weights, with gross weights when applicable; and the weigher's signature or his signed initials.

(k) The right is reserved to weight any truck, trailer, or distributor, at locations designated, before and after making deliveries to the project.

**MEASUREMENT AND PAYMENT** (continued)

(l) Bituminous materials will be measured by the gallon or ton.

(m) When material is specified to be measured by the cubic yard but measurement by weight is approved, such material may be weighed and the weight converted to cubic yards for payment purposes. Necessary conversion factors will be determined by the Owner.

(n) The term "lump sum" when used as an item of payment will mean complete payment for the work described in the item.

(o) When a complete structure or structural unit (in effect, "lump sum" work) is specified as the unit of measurement, the unit will be construed to include all necessary fittings and accessories, so as to provide the item complete and functional. Except as may be otherwise provided, partial payments for lump sum items will be made approximately in proportion to the amount of the work completed on those items.

(p) Material wasted without authority will not be included in the final estimate.

**2. SCOPE OF PAYMENT**

(a) The Contractor shall receive and accept compensation provided for in the contract as full payment for furnishing all materials and for performing all work under the contract in a complete and acceptable manner and for all risk, loss, damage or expense of whatever character arising out of the nature of the work or the prosecution thereof.

(b) The Contractor shall be liable to the Owner for failure to repair, correct, renew or replace, at his own expense, all damage due or attributable to defects or imperfections in the construction which defects or imperfections may be discovered before or at the time of the final inspection and acceptance of the work.

(c) No monies, payable under the contract or any part thereof, shall become due or payable if the Owner so elects, until the Contractor shall satisfy the Owner that the Contractor has fully settled or paid all labor performed or furnished for all equipment hired, including trucks, for all materials used, and for fuels, lubricants, power tools, hardware and supplies purchased by the Contractor and used in carrying out said contract and for labor and parts furnished upon the order of said Contractor for the repair of equipment used in carrying out said contract; and the Owner, if he so elects, may pay any and all such bills, in whole or in part.

**3. PAYMENT PROCEDURES**

Submit Application for Payment after completion of Project closeout procedures with release of liens and supporting documentation. Include consent of surety to final payment and insurance certificates.

**4. COMPENSATION FOR ALTERED QUANTITIES**

(a) Except as provided for under the particular contract item, when the accepted quantities of work vary from the quantities in the bid schedule the Contractor shall accept as payment in full, so far as contract items are concerned, at the original contract unit prices for the accepted quantities of work done. No allowance will be made for any increased expense, loss of expected reimbursement, or loss of anticipated profits suffered or claimed by the Contractor resulting either directly from such alterations or indirectly from unbalanced allocation among the contract items of overhead expense on the part of the Bidder and subsequent loss of expected reimbursements therefore or from any other cause.

(b) Extra work performed will be paid for at the contract bid prices or at the price negotiated between the Owner and the Contractor if the item was not bid upon. If no agreement can be negotiated, the Contractor will accept as payment for extra work, cost plus 15% (overhead and profit). Costs shall be substantiated by invoices and certified payroll.

**MEASUREMENT AND PAYMENT** (continued)

**5. PARTIAL PAYMENTS**

Partial payments will be made on a monthly basis during the contract period. From the total amount ascertained as payable, an amount equivalent to ten percent (10%) of the whole will be deducted and retained by the Owner until such time as the work receives final acceptance.

**6. FINAL ACCEPTANCE**

Upon due notice from the Contractor of presumptive completion of the entire project, the Owner or City Engineer will make an inspection. If all construction provided for and contemplated by the contract is found complete to his satisfaction, this inspection shall constitute the final inspection and the Owner or City Engineer will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of the final inspection.

If, however, the City Engineer's inspection discloses any work in whole or in part, as being unsatisfactory, the Engineer will give the Contractor the necessary instructions for correction of such work, and the Contractor shall immediately comply with and execute such instructions. Upon correction of the work, another inspection will be made which shall constitute the final inspection provided the work has been satisfactorily completed. In such event, the City Engineer will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of final inspection.

**7. ACCEPTANCE AND FINAL PAYMENT**

(a) When the project has been accepted and upon submission by the Contractor of all required reports, completed forms and certifications, the Owner will review the final estimate of the quantities of the various classes of work performed. The Contractor may be required to certify that all bills for labor and material used under this contract have been paid.

(b) The Contractor shall file with the Owner any claim that the Contractor may have regarding the final estimate at the same time the Contractor submits the final estimate. Failure to do so shall be a waiver of all such claims and shall be considered as acceptance of the final estimate. From the total amount ascertained as payable, an amount equal to ten percent (10%) of the whole will be deducted and retained by the Owner for the guaranty period. This retainage may be waived, at the discretion of the City, provided the required Maintenance Bond has been posted. After approval of the final estimate by the Owner, the Contractor will be paid the entire sum found to be due after deducting all previous payments and all amounts to be retained or deducted under the provisions of the contract.

(c) All prior partial estimates and payments shall be subject to correction in the final estimate and payment.

**8. GENERAL GUARANTY AND WARRANTY OF TITLE**

(a) Neither the final certification of payment nor any provision in the contract nor partial or entire use of the improvements embraced in this Contract by the Owner or the public shall constitute an acceptance of work not done in accordance with the Contract or relieve the Contractor of liability in respect to any express or implied warranties or responsibility for faulty materials or workmanship. The Contractor shall promptly remedy any defects in the work and pay for any damage to other work resulting therefrom which shall

**MEASUREMENT AND PAYMENT** (continued)

appear within a period of twelve (12) months from the date of final acceptance of the work. The Owner will give notice of defective materials and work with reasonable promptness.

(b) No material, supplies or equipment to be installed or furnished under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale, lease purchase or other agreement by which an interest therein or in any part thereof is retained by the Seller or supplier. The Contractor shall warrant good title to all materials, supplies and equipment installed or incorporated in the work and upon completion of all work, shall deliver the same together with all improvements and appurtenances constructed or placed thereon by him to the Owner free from any claims, liens or charges. Neither the Contractor nor any person, firm or corporation furnishing any material or labor for any work covered by this Contract shall have the right to a lien upon any improvements or appurtenances thereon.

Nothing contained in this paragraph, however, shall defeat or impair the right of persons furnishing materials or labor to recover under any bond given by the Contractor for their protection or any rights under any law permitting such persons to look to funds due the Contractor in the hands of the Owner. The provisions of this paragraph shall be inserted in all subcontractors and material contracts and notice of its provisions shall be given to all persons furnishing materials for the work when no formal contract is entered into for such materials.

(c) At completion of the project, the Contractor to provide to the Owner written guarantee of one (1) year Workmanship warranty and a ten (10) year Manufacturer's warranty.

**9. NO WAIVER OF LEGAL RIGHTS**

(a) Upon completion of the work, the Owner will expeditiously make final inspection and notify the Contractor of acceptance. Such final acceptance, however, shall not preclude or stop the Owner from correcting any measurement, estimate, or certificate made before or after completion of the work, nor shall the Owner be precluded or be stopped from recovering from the Contractor or his Surety, or both, such overpayment as it may sustain by failure on the part of the Contractor to fulfill his obligations under the contract. A waiver on the part of the Owner of any breach of any part of the contract shall not be held to be a waiver of any other or subsequent breach.

(b) The Contractor, without prejudice to the Contract shall be liable to the terms of the Contract, shall be liable to the Owner for latent defects, fraud or such gross mistakes as may amount to fraud, and as regards the Owner's right under any warranty or guaranty.

**10. TERMINATION OF CONTRACTOR'S RESPONSIBILITY**

The termination of the contractor's responsibility shall occur whenever the improvement provided for by the Contract shall have been completely performed on the part of the Contractor and all parts of the work have been released from further obligations except as set forth in his bond and as provided in Section 8 above.

**SHOP DRAWINGS**

Shop Drawings for this project shall be submitted under the following conditions:

1. The Contractor shall submit working and detail drawings, well in advance of the work, to the Engineer for review.
2. The Contractor's drawings shall consist of shop detail, erection and other working plans showing dimensions, sizes and quality of material, details and other information necessary for the complete fabrication and erection of the pertinent work.
3. The Contractor shall submit three (3) sets of drawings to the Engineer.
4. Prior to the approval of the drawings, any work done or materials ordered for the work involved shall be at the Contractor's risk.
5. One (1) set of the drawings will be returned to the Contractor approved or marked with corrections to be made. After approval has been given, the Contractor shall supply the Engineer with two sets of the revised detail working drawings.
6. The Engineer's approval of the Contractor's working drawings will not relieve the Contractor from responsibility for errors in dimensions or for incorrect fabrication processes, or from responsibility to complete the contract work.

- - - END OF SECTION - - -

## Technical Specifications

Contractor to furnish all labor and material required to complete the replacement of one (1) emergency generator located at The Central Fire Station on Court Street in Portsmouth, NH. The work will be based on the following detail of work:

### Information on Existing Equipment to be Removed:

30Kw Natural Gas generator

### General Generator Specifications for Replacement Equipment

#### Part 1 - General

##### 1.01 Standby Engine Generator

The station has a maximum demand of approximately 50kW based on the demand graph provided by Eversource for the past 12 months.

The National Electrical Code (NFPA-70, Article 220-87) allows maximum demand to be utilized with a 25% safety factor in sizing a new service or in the case a full standby unit.

$50\text{kW} + 25\% = 62.5\text{kW}$ . Provide an 80kW diesel unit or a 100kW natural gas generator. The natural gas unit needs to be increased in size due to the fact that it or any other propane gas unit will only start at 60% of rated capacity and then ramp itself up to its full load rating.

Based on these parameters upgrade the generator, ATS and the electrical distribution equipment located in the basement front left corner looking at the station from the street towards the apparatus bays. The following should all be included in the base scope:

- City of Portsmouth Electrical Permit.
- Stamped Engineered Electrical Drawings.
- Removal of the existing generator, ATS, concrete pad and proper disposal of such.
- Miscellaneous site work to provide for a new generator pad, trenching to the building and asphalt repair.
- Installation of a 6'x14'x1' reinforced concrete pad.
- (6) 6" steel concrete filled protective bollards with thermoplastic drop over covers.
- (1) 80kW, 120/208v, 3 phase diesel generator with sound housing, 48 hour subbase dual wall fuel tank, battery charger, block heater, all NFPA-110, UL-142 & 2200 features.
- (1) Remote annunciator to be located in dispatch on the 1st floor.
- Initial tank of diesel fuel @ 80% full do to expansion Factory Startup
- \$1200 Eversource shutdown allowance
- 1 year warranty on parts and labor
- 400 amp, 3 pole, NEMA 1 automatic transfer switch.
- Electrical work consisting of;
  - A utility outage to install a service rated enclosed circuit breaker (MDP) where the riser penetrates the building.
  - 400 amp feeder from the MOP to the ATS located where the compressor is currently sitting behind the Electric room.
  - 300 amp feeder from the generator to a service rated disconnect (GSD) located on the exterior brick wall adjacent to the generator.
  - 300 amp feeder from GSD to the ATS.
  - Battery charger, block heater, service receptacle, start lead wiring and remote annunciator wiring from generator to distribution, ATS and to dispatch.
  - Replacement of the basement panels that are clustered in the corner of the basement that are obsolete and not suited for the job.

The system shall be a package of new and current equipment consisting of:

- a) An engine driven electric generating set to provide standby power.
- b) An engine start/stop solid state system mounted on the generating set.
- c) An automatic load transfer control to provide automatic starting and stopping of the engine and switching the load.
- d) Mounted accessories as specified.

### **1.02 Responsibility**

Each generator set shall be built, tested and shipped by the manufacturer, who has been regularly engaged in the production of the engine alternator sets and associated controls for a minimum of ten years so there is one source of supply and responsibility.

### **1.03 Manufacturer Qualification**

Firm regularly engaged in manufacturing and design of engine generator sets for not less than ten years. The firm shall have produced engine generator sets that have been in continuous satisfactory operation for not less than three years in similar service.

Manufacturer must have a local service firm that has been factory authorized in the local area of responsibility.

### **1.04 Manufacturer Requirements**

Single manufacturer responsibility for the complete engine generator set including the manufacture of the engine and/or the alternator, design and manufacture of controls, building of set, factory test, factory warranty and shipping. Coordinating between manufacturer, distributor, and contractor is essential. The manufacturer shall have printed literature and brochures describing the standard series offered (not a one-of-a-kind fabrication). The manufacturer shall provide schematic and wiring diagrams for the complete standby power system.

### **1.05 Supplier Qualification**

Firm engaged in the provision and service of engine generator sets. Firm maintains a factory authorized service organization with factory trained service technicians and an appropriately sized fleet of dedicated service trucks equipped to service this equipment. Firm must be domiciled within a 50 mile radius of the project, maintain stock of standard spare parts and offer 24 hour service availability, 7 days a week. Firm shall be able to demonstrate their long-term ability to support a project of this scope. Major engine, controls, and alternator parts shall regularly be stocked locally. Additional parts shall be available within 48 hours per the manufacturers' stated program. Supplier shall have a documented record of supplying and supporting complete operating emergency and standby power systems including gensets, transfer switches, paralleling switchgear, and uninterruptible power supplies. Owner and/or Owner's Representative reserve the right to inspect supplier's facility to ensure compliance with these qualifications.

## **Part 2 - Products**

### **2.01 Engine**

The engine shall be natural gas-fueled 4 cycle, water cooled with mounted radiator, fan, water pump and closed recovery system. The radiator shall be capable of providing sufficient cooling capabilities for operation in 110° (122°) Fahrenheit ambient temperature with a minimum 10° temperature rise factored in. It shall have 2 cylinders with a minimum cubic inch displacement of 50 and shall have a minimum BHP of 25 at rated RPM. The engine shall have hard faced exhaust valves with rotators. Lubrication shall be full pressure as supplied by a positive displacement lube oil pump. The engine shall be equipped with a dry type air cleaner and oil filter with replaceable elements.

Engine speed shall be controlled by an electronic governor to maintain alternator frequency within 1 Hertz from no load to rated alternator output. The engine shall have a 12 or 24 volt battery charging DC alternator with a transistorized voltage regulator. Remote starting shall be by a 12 or 24 volt solenoid shift electric starter.

The generator set shall contain a complete solid state start/stop control which starts the engine on closing contact and stops the engine on opening contact. Cycle cranking shall be provided to open the start circuit after eight attempts to start the engine have failed.

## 2.02 Alternator

The alternator shall be four pole revolving field design with a temperature compensated Volts/Hertz voltage regulator and brushless excitation system. The stator shall be directly connected to the engine flywheel housing and the rotor shall be drive through a semi-flexible flange to ensure alignment. The insulation system shall be class F as defined by the NEMA MG-1.65 definition. The three phase alternator shall be 10 or 12 lead re-connectable.

Frequency regulation shall not exceed 1 Hertz from no load to rated load. Voltage regulation shall be with +/- 1% of rated voltage at 60 Hertz from no load to full load. The instantaneous voltage dip shall be less than 12.5% of rated voltage when full 3 phase load and rated power factor is applied to the alternator. Recovery to stable operation shall occur within 2 seconds. A rheostat shall provide a minimum of +/- 5% voltage adjustment from rated value. Temperature rise shall be within the NEMA MG-22.40 definition.

## 2.03 Instrument Panel

The alternator instrument panel shall be housed in a NEMA 1 enclosure, wired, tested and shock mounted on the generating set by the manufacturer of the alternator. It shall contain panel lighting, automatic reset circuit breaker, oil pressure gauge, coolant temperature gauge, DC battery charge ammeter, frequency meter, running time meter, voltage adjusting rheostat, AC voltmeter, AC ammeter and phase selector switch. In addition, it will have the following shutdowns and indicator lights which will latch in the "on" position should a fault occur until manually reset. A test and reset switch shall also be provided to test the operation of the lights.

- a) Low oil pressure
- b) High coolant temperature
- c) Low coolant level
- d) Overcrank
- e) Overspeed
- f) RPM sensor loss
- g) Low fuel
- h) Switch not in auto.

The control panel shall also have the following pre-alarm lights:

- a) Low oil pressure
- b) High coolant temperature
- c) Low coolant temperature
- d) High battery voltage
- e) Low battery voltage

## 2.04 Miscellaneous Equipment

The standby power system shall also have the following items:

- a) Critical type muffler
- b) Flex exhaust connection
- c) Starting batteries
- d) Battery rack
- e) Battery cables
- f) Flexible fuel lines
- g) 60 amp main line circuit breaker
- h) Block heater

## 2.05 Battery Charger

A 2 amp, 12 volt trickle type battery charger will be included to maintain starting batteries at proper voltage. One battery charger shall be provided and shall be fully automatic, float type, self-regulating, constant voltage 12 volt output, 120 volt input, 10 amp minimum, mounted in a NEMA 1 cabinet. The charger shall have a high



charge rate of at least 9 amps. It shall have silicon diode rectifiers, automatic surge suppressor, DC output ammeter, auto reset, DC circuit breaker, and AC fuse.

### **Part 3 – Execution**

#### **3.01 Miscellaneous**

Contractor shall install the complete electrical generating system including all fuel connections between main fuel supply, engine, etc., all in accordance with manufacturer's recommendations. Contractor shall supply owner's operating personnel with detailed operation and maintenance manuals including complete parts list. Manuals shall include engine manufacturer's maintenance recommendations as well as alternator operating instructions

#### **3.02 Warranty**

Standby electric generating components, including engine, generator, instrument panel, and radiator shall be warranted by the manufacturer against defects in materials and factory workmanship for a period of two years. Supplier shall be the sole executor of all warranty repairs. Suppliers unable to perform warranty repairs and must subcontract them to another manufacturer's representative do not meet this specification. Extended service coverages up to 10 years shall be available. The warranty period shall commence when the standby power system is first placed into service.

#### **3.03 Submittals**

Provide 2 sets of submittals for engineering review and approval prior to production release. The submittals shall include engine data, installation drawings, all wiring and interconnect diagrams, the manufacturers published warranty, spec sheets and all other pertinent information relative to this unit.

#### **3.04 Check Out and Start Up**

Supplier of the electric generating plant and associated items covered herein shall provide factory trained technicians to check out the complete installation and perform the initial start-up of the system. They shall meet with the owners operating personnel to review the operation of the complete standby system. Once the system is operational, the load will be transferred to the standby generator system to demonstrate the ability of the standby generator to assume the emergency load.

### **Part 4-Automatic Transfer Switch**

#### **4.01 General**

The automatic transfer switch shall be rated 100 amps, 120/208 volts and have 3 poles. The standard control components shall be compatible with the requirements of the standby set and provide the following features:

- a) UL 1008 listed.
- b) 100% equipment rated. Can be used at rated current continuous duty with deration.
- c) NEMA 12 enclosure, NEMA 3R if plans indicate transfer switch will be located outdoors.
- d) Contacts shall be electrically operated and mechanically held.
- e) There shall be front access to all solid state control boards.
- f) Control boards are to be protected in a separate lockable enclosure located in the door of the automatic transfer switch. It shall have a transparent cover to allow visual reading of voltage settings and time delays.
- g) The automatic transfer switch shall contain a neutral block suitable for the connection of all neutral conductors.
- h) The transfer time shall be 160 milliseconds or less.
- i) The normal source voltage shall be monitored across all phases of normal power with drop out and pick up points adjustable from 70% to 90%.

- j) The switch must contain a manual operating handle.
- k) Utility interrupt delay shall be adjustable from 5 seconds to 3 minutes.
- l) The automatic transfer switch shall have an engine warm up bypass selector switch.
- m) Standby voltage required before transfer shall be adjustable from 70% to 90% of nominal, standby frequency required before transfer shall be adjustable from 80% to 90% of nominal.
- n) Return to utility delay shall be adjustable from 1 to 30 minutes.
- o) Engine cool down timer shall be adjustable from 1 to 30 minutes.
- p) Minimum run timer shall be adjustable from 5 to 30 minutes.
- q) The automatic transfer switch shall include a 7 day exerciser.
- r) The automatic transfer switch shall have status lights to provide a visual read out of operation sequence including: utility on, engine warm up, engine warm up bypass, standby voltage ready, standby frequency ready, standby operating, return to utility, engine cool down, engine minimum run, switch in fast test mode.
- s) Front mounted controls shall include a selector switch for normal test and fast test mode. It will also have utility and emergency lights to indicate switch position and a lamp to indicate standby operating
- t) The automatic transfer switch shall provide one set of auxiliary contacts.
- u) The 100 to 1200 amp 600 volt switches shall incorporate built-in-arc chutes to suppress and extinguish the arc.

## SECTION 011000 - SUMMARY

### PART 1 - SUMMARY OF WORK

- A. Replace emergency generator including but not limited to operating systems, engine controls, exhaust and transfer switch equipment allowing it to serve as the emergency power source for the facility.
- B. New generator will be installed at the same location as the current generator site. The new location will require security fencing to be installed.
- C. Hoisting for removal of old equipment or installation of new, must be performed by Contractor. This includes coordination of hoist location and cordoning off safe area on the ground.
- D. Contractor to remove and dispose of old emergency generator to include all parts, materials, equipment as a result of the project, and dispose of them in a legal, regulated manner. Contractor is responsible for the proper disposal of any hazardous materials removed during the work associated with this project.
- E. Contractor is responsible for obtaining all permits required for project.
- F. Work performed must meet all local & state building codes and requirements.

### 1.2 WORK RESTRICTIONS

- A. Owner will occupy premises during construction. Clean up work areas and return to a useable condition at the end of each work period.
- B. During construction, Contractor will have limited use of area indicated as follows:
  - 1. All work will be done between 7:00a.m.and 5:00 p.m., Monday to Friday. Weekend work must be formally requested, authorized by Owner in advance of any work.
  - 2. All work shall create minimal disruptions, if any, to city employees working in the building during time of construction.
- C. Welding and torch cutting within building only allowed with prior Owner approval, and properly implemented exhaust and ventilation.
- D. Provide proper Federal, State, and local safety measures during installation of all generator components and handling of material.

### 1.3 WORK IN OTHER DIVISIONS AND BY OTHER CONTRACTORS

- A. The Owner shall provide for coordination of the activities of the Owner's own forces and of each separate contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with other separate contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to the construction schedule deemed necessary after a joint review and mutual agreement.
- B. If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Owner apparent discrepancies or defects in such construction that would render it unsuitable for such proper execution and results. Failure of the Contractor to so report shall constitute an acknowledgment that the Owner's or separate contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work, except as to defects not then reasonably discovered.

END OF SECTION 011000

## SECTION 013000 - ADMINISTRATIVE REQUIREMENTS

### PART 1- GENERAL

#### A. PROJECT MANAGEMENT AND COORDINATION

- A. Conduct preconstruction meeting onsite, prior to commencement of Project.
- B. Schedule and conduct progress meetings with Owner at Project site as needed, or as requested by Owner. Required attendance of each subcontractor or other entity concerned with current progress or involved with planning or coordination of future activities.

#### B. SUBMITTAL PROCEDURES

- A. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  1. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.
  2. Identify deviations from the Contract Documents.
  3. Submit three (3) copies of each submittal.
- B. Include the following information on each submittal:
  1. Project name.
  2. Date.
  3. Name and address of Contractor.
  4. Name and address of subcontractor or supplier.
- C. Owner will review each action submittal, mark as appropriate to indicate action taken, and return copies less those retained. Compliance with specified requirements remains Contractor's responsibility.
- D. Construction Schedule Submittal Procedure:
  1. Submit schedule within 10 days after date established for Commencement of the Work.
  2. Distribute copies to Owner and parties required to comply with dates.

### PART 2 - PRODUCTS

#### 2.1 ACTION SUBMITTALS

- A. Product Data: Mark each copy to show applicable choices and options. Include the following:
  1. Manufacturer's written recommendations, product specifications, & installation instructions, indicating compliance with specified standards and requirements.
  2. Notation of coordination requirements.
  3. For equipment data, include rated capacities, dimensions, weights, required clearances, and furnished specialties and accessories.
- B. Samples: Submit Samples for review of kind, color, pattern, and texture and for a comparison of these characteristics between submittal and actual component as delivered and installed. Include name of manufacturer and product name on label.

#### 2.2 INFORMATION SUBMITTALS

Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements.

END OF SECTION 013000

## SECTION 016000 - PRODUCT REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 SECTION REQUIREMENTS

- A. Provide products of same kind from a single source. The term "product" includes the terms "material," "equipment," "system," and similar terms.
- B. Product Substitutions: Substitutions include products and methods of construction differing from that required by the Contract Documents and proposed by Contractor after award of the Contract.
  - 1. Submit three (3) copies of each request for product substitution.
  - 2. Submit requests within 10 days after signing the Contract.
  - 3. Submit requests in time to permit processing of request and subsequent submittals, if any, sufficiently in advance of when materials are required in the Work. Do not submit unapproved substitutions on Shop Drawings or other submittals.
  - 4. Identify product to be replaced and provide complete documentation showing compliance of proposed substitution with applicable requirements. Include a full comparison with the specified product, a list of changes to other Work required to accommodate the substitution, and any proposed changes in the Contract Sum or the Contract Time should the substitution be accepted.
- C. Comparable Product Submittal:
  - 1. Submit three (3) copies of each request for approval of products as comparable to basis-of-design products. Submit requests in time to permit processing of request and subsequent submittals, if any, sufficiently in advance of when materials are required in the Work. Do not submit unapproved products on Shop Drawings or other submittals.
  - 2. Identify product to be replaced and provide complete documentation showing compliance of proposed product with applicable requirements. Include a full comparison with the specified product.
- D. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
  - 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
  - 2. Deliver products to Project site in manufacturer's original sealed container or packaging, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
  - 3. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
  - 4. Store materials in a manner that will not endanger Project structure.
  - 5. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.

## PRODUCTS

### 1.2 PRODUCT OPTIONS

- A. Provide products that comply with the Contract Documents, are undamaged, and are new at the time of installation.
- B. Provide products complete with accessories, trim, finish, and other devices and components needed for a complete installation and the intended use and effect.
- C. Unless otherwise indicated, Owner will select color, pattern, and texture of each product from manufacturer's full range of options that includes both standard and premium items.

PART 2 - EXECUTION (Not Applicable)

END OF SECTION 016000

## SECTION 017000 - EXECUTION AND CLOSEOUT REQUIREMENTS

### PART 1 - GENERAL

#### 1.1 CLOSEOUT SUBMITTALS

##### A. Record Drawings:

1. Maintain a set of shop drawing prints of the as Record Drawings. Mark to show actual installation where installation varies from that shown originally.
2. Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.

##### B. Operation and Maintenance Data: Submit two (2) copies of manual. Organize data into three-ring binders with identification on front and spine of each binder, and envelopes for folded drawings. Include the following:

1. Manufacturer's operation and maintenance documentation.
2. Maintenance and service schedules.
3. Maintenance service contracts.
4. Emergency instructions.
5. Spare parts list.
6. Wiring diagrams.
7. Copies of warranties.

### PART 2 - PRODUCTS (Not Applicable)

### PART 3 - EXECUTION

#### 3.1 EXAMINATION AND PREPARATION

- A. Examine substrates and conditions for compliance with manufacturer's written requirements including, but not limited to, surfaces that are sound, level, plumb, smooth, clean, and free of deleterious substances; substrates within installation tolerances; and application conditions within environmental limits. Proceed with installation only after unsatisfactory conditions have been corrected.
- B. Take field measurements as required to fit the Work properly. Where fabricated products are to be fitted to other construction, verify dimensions by field measurement before fabrication and, when possible, allow for fitting and trimming during installation.

#### 3.2 CUTTING AND PATCHING

- A. Do not cut structural members or operational elements without prior written approval of Owner.

- B. Fabricate and assemble structural steel in shop to greatest extent possible.
- C. Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to prevent interruption to occupied areas.
- D. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.

### 3.3 INSTALLATION

- A. Comply with manufacturer's written instructions for installation. Anchor each product securely in place, accurately located and aligned with other portions of the Work. Clean exposed surfaces and protect from damage.
- B. Clean Project site and work areas daily, including common areas.

### 3.4 FINAL CLEANING

Complete the following cleaning operations before requesting inspection for certification of Final Acceptance:

- A. Remove labels that are not permanent.
- B. Clean exposed finishes to a dust-free condition, free of stains, films, and foreign substances.
- C. Vacuum carpeted surfaces and wax resilient flooring.
- D. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication.
- E. Clean plumbing & light fixtures.
- F. Clean Project site, yard, and grounds, in areas disturbed by construction activities. Sweep paved areas; remove stains, spills, and foreign deposits.

### 3.5 CLOSEOUT PROCEDURES

- A. Final Acceptance: Before requesting Final Acceptance inspection, complete the following:
  1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
  2. Advise Owner of pending insurance changeover requirements.
  3. Submit specific warranties, maintenance service agreements, and similar documents.
  4. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  5. Submit Record Drawings, operation and maintenance manuals, and similar final record information.
  6. Deliver tools, spare parts, extra materials, and similar items.
  7. Make final changeover of permanent locks and deliver keys to Owner.
  8. Complete startup testing of systems.
  9. Remove temporary facilities and controls.



10. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
  11. Complete final cleaning requirements, including touchup painting.
  12. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Submit a written request for inspection for Final Acceptance. On receipt of request, Owner will proceed with inspection or advise Contractor of unfulfilled requirements. Owner will prepare a certificate of Final Acceptance after inspection or will advise Contractor of items that must be completed or corrected before certificate will be issued.
- C. Submit request for re-inspection when the Work identified in previous inspections as incomplete is completed or corrected. On receipt of request, Owner will proceed with inspection or advise Contractor of unfulfilled requirements that must be completed or corrected before final invoice will be processed.

### 3.6 DEMONSTRATION AND TRAINING

Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system. Include a detailed review of the following: Include instruction for basis of system design and operational requirements, review of documentation, emergency procedures, operations, adjustments, troubleshooting, maintenance, and repairs.

END OF SECTION 017000

## SECTION 024119 - SELECTIVE STRUCTURE DEMOLITION

### PART 1 - GENERAL

#### 1.1 SECTION REQUIREMENTS

- A. Comply with EPA regulations and hauling and disposal regulations of authorities having jurisdiction.
- B. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

### PART 2 - PRODUCTS (Not Applicable)

### PART 3 - EXECUTION

#### 3.1 DEMOLITION

- A. Maintain services/systems indicated to remain and protect them against damage during selective demolition operations. Before proceeding with demolition, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of the building.
  - B. Locate, identify, shut off, disconnect, and cap off utility services and mechanical/electrical systems serving areas to be selectively demolished. Owner to be notified and assist in coordination of such actions.
  - C. Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
  - D. Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain or construction being demolished.
  - E. Provide temporary weather protection to prevent water leakage and damage to structure and interior areas.
  - F. Protect walls, ceilings, floors, and other existing finish work that are to remain. Erect and maintain dustproof partitions. Cover and protect furniture, furnishings, and equipment that have not been removed.
  - G. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction.
  - H. Promptly remove demolished materials from Owner's property and legally dispose of them. Do not burn demolished materials. This includes any hazardous materials requiring disposal, encountered during this project.
  - I. Welding and torch cutting within building only allowed with prior Owner approval, and properly implemented exhaust and ventilation.
  - J. Provide proper Federal, State, and local safety measures and work space requirements during installation of all elevator components and handling of material.
- END OF SECTION 024119