

**CONTRACT DOCUMENTS AND SPECIFICATIONS**

for

**Fire Station #2  
Apparatus Floor**

**Bid #06-13**

**City of Portsmouth**

**John P. Bohenko, City Manager**

Prepared by:

City of Portsmouth  
Engineering Division  
Public Works Department

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City of Portsmouth  
Portsmouth, New Hampshire  
Department of Public Works

**Fire Station #2  
Apparatus Floor  
Bid #06-13**

**INVITATION TO BID**

**Sealed** bid proposals, **plainly marked, Fire Station #2 Apparatus Floor, Bid Proposal #06-13 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 Monday, August 27, 2012 at 1:30 p.m.; at which time all bids will be publicly opened and read aloud.

This project consists of the covering 5,538 square feet of the existing concrete floor of three contiguous spaces, namely the apparatus floor, the pole room and the turnout gear room with a 'Dur-A-Flex®' 'Hybri Flex™ EB' cementitious urethane based self-leveling seamless flooring system with quartz aggregate broadcast and methyl methacrylate (MMA) broadcast and topcoats.

All work must be completed and ready for use by October 8<sup>th</sup>, 2012. 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 **Fifty (\$50)** 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.

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

The City reserves the right, after bid opening and prior to award of the contract, to modify the amount of the work in the event that bids exceed budgeted amounts. The City of Portsmouth further 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.

Specifications may be obtained from the City's web site: [www.cityofportsmouth.com](http://www.cityofportsmouth.com). Questions may be addressed to Dave Desfosses at Public Works [djidesfos@cityofportsmouth.com](mailto:djidesfos@cityofportsmouth.com) or 766-1411. 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.

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 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

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, standard 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;
- 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; or
- If the proposal does not contain a unit price for each pay item listed except in the case of authorized alter pay items.

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 rejected 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;
- 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; 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

After the proposals are opened and read, they will be compared on the basis of the total price for all sections of 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.

### 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.

### 3. Reservation of Rights

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. The Owner further reserves the right to modify the scope of work in the event that bids exceed budgeted amounts.

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 Bonds

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 as in effect until it has been fully executed by all parties.

7. Failure to Execute Contract

Failure to execute the contract and file acceptable bonds 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 City may exercise its reserved rights including the rejection of all bids or re-advertisement.



**PROPOSAL FORM**

**Fire Station #2  
Apparatus Floor  
Bid #06-13**

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 Director of Public Works. 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 therefor the following item prices, to wit:

**PROPOSAL FORM** (continued)

The City reserves the right to delete any portion of the work in the event the total price for all work exceeds budgeted amounts.

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 other items required to accomplish the above items are considered to be subsidiary work, unless shown as a pay item.

**TOTAL FOR PROJECT**

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

In Words \$ \_\_\_\_\_

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

\_\_\_\_\_  
Business Address

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

\_\_\_\_\_  
City, State, Zip Code

Telephone: \_\_\_\_\_

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

\_\_\_\_\_ 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\_\_.

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

(SEAL)

BY \_\_\_\_\_

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

BY \_\_\_\_\_

**STATEMENT OF BIDDER'S QUALIFICATIONS**

Supply with Bid

**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. General character of work performed by your company.
8. Have you ever failed to complete any work awarded to you? \_\_\_\_ (no) \_\_\_\_ (yes). If so, where and why?
9. Have you ever defaulted on a contract?  
\_\_\_\_ (no) \_\_\_\_ (yes). If so, where and why?
10. Have you ever failed to complete a project in the time allotment according to the Contract Documents?  
\_\_\_\_ (no) \_\_\_\_ (yes). If so, where and why?
11. List your key personnel such as project superintendent and foremen available for this contract.
12. List any subcontractors whom you would expect to use for the following  
(unless this work is to be done by your own organization).
13. 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 \_\_\_\_\_ and answers to the foregoing questions  
(Name of Organization)

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**

**Fire Station #2  
Apparatus Floor  
Bid #06-13**

THIS AGREEMENT made as of the \_\_\_\_ day of \_\_\_\_ in the year **2012**, by and between the City of Portsmouth, New Hampshire (hereinafter call 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 for the completion of the Project. 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.

**ARTICLE II - ENGINEER** - The Engineer as used in this Contract shall refer to 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** - The work will commence in accordance with the Notice to Proceed and be complete and ready for use by October 8<sup>th</sup>, 2012.

**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** – A single lump sum payment 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 Contract Price, less retainage, 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 five percent (5%) of the Contract Price as specified in the Contract Documents for one year after completion and acceptance.

**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 **Fifty (\$50)** 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 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 Award, Notice to Proceed
- 8.4 Instruction to Bidders
- 8.5 General Requirements, Control of Work, Temporary Facilities, Measurement and Payment, Standard Specifications
- 8.6 Insurance Requirements
- 8.7 Specifications
- 8.8 Drawings
- 8.9 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 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.

**Contractor**

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:

**Fire Station #2  
Apparatus Floor  
Bid #06-13**

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

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:

**Fire Station #2  
Apparatus Floor  
Bid #06-13**

TO:

YOU ARE HEREBY NOTIFIED TO COMMENCE WORK XXXXXXXXXXXX IN ACCORDANCE WITH THE AGREEMENT DATED XXXXXXXXXXXX. ALL WORK SHALL BE COMPLETED NO LATER THAN XXXXXXXXXXXX.

CITY OF PORTSMOUTH, N.H.

\_\_\_\_\_  
BY: Steve Parkinson, 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 Number #

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 of

Contract Price with all approved Change Orders:  
\$

Contract Time with all approved Change Orders:

RECOMMENDED:

APPROVED:

APPROVED:

by\_\_\_\_\_

by\_\_\_\_\_

by\_\_\_\_\_

by\_\_\_\_\_

PW 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, 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: **Fire Station #2 Apparatus floor**

\_\_\_\_\_  
(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 \_\_\_\_\_ does hereby  
acknowledge that \_\_\_\_\_ has on this day had, and received from the CITY OF  
PORTSMOUTH NEW HAMPSHIRE, final and completed payment for the Construction of:

**Fire Station #2 Apparatus floor**

NOW THEREFORE, the \_\_\_\_\_, 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: \_\_\_\_\_

## **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.

#### **2. INCIDENTAL WORK**

Incidental work items for which separate payment is not measured includes, but is not limited to, the following items:

- a. Cleaning, shot blasting and prepping the existing floor.
- b. Clean up
- c. Mobilization/Demobilization
- d. Restoration of property
- e. Cooperation with other contractors.
- f. Accessories and fasteners or components required to make items paid for under unit prices or lump sum items complete and functional.
- g. Signage

#### **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 than at a price negotiated between the contractor and the Owner or at the unit bid price. 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 work, 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.

## 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 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 use every precaution to prevent injury or damage to wires, poles, or other property of public utilities; trees, shrubbery, crops, 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.

(b) 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.

(c) 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.

(d) The Contractor shall paint with tree paint all scars made on fruit or ornamental trees by equipment, construction operations, or the removal of limbs larger than one inch in diameter. Damaged trees must be replaced if so determined by the City Arborist, in his or her sole discretion.

(e) 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.

(f) It is the intent of the Parties that the Contractor preserve, to as great an extent as possible, the natural features of the site.

**CONTROL OF WORK** (continued)

**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.

**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 the operation of equipment in, or on, all city streets and public ways.

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

(a) The Contractor shall provide, erect and maintain all necessary barricades, suitable and sufficient lights, signs, and shall take all necessary precautions for the protection of the work and safety of the public. 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 from pedestrians, animals or any other cause 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 on site 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.

**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

Insurance coverage requirements may be met by excess policies.

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.

**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's.

- 1) The contractor's insurance shall be primary in the event of a loss.
- 2) 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



## 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 1 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 prismatic 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.

**MEASUREMENT AND PAYMENT** (continued)

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

(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, except the first estimate, 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, and deduct the amount of amounts so paid from any partial or final estimate, excepting the first estimate.

**MEASUREMENT AND PAYMENT** (continued)

**3. 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.

**4. FINAL ACCEPTANCE AND LUMP SUM PAYMENT**

Upon due notice from the Contractor of presumptive completion of the entire project, the 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 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 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 Engineer will make the final acceptance and notify the Contractor in writing of this acceptance as of the date of final inspection.

A single lump sum payment will be made upon completion of the work.

(a) The Contractor may be required to certify that all bills for labor and material used under this contract have been paid and contractor shall be required to produce all required reports prior to payment.

(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 (5%) 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.

**MEASUREMENT AND PAYMENT** (continued)

**6. 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 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.

**7. 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.

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

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.

**SPECIFICATION****SECTION 09 67 23-RESINOUS FLOORING  
HYBRI-FLEX EB****PART 1 – GENERAL****1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

**1.2 SUMMARY/SCOPE**

- A. This section includes the following:
  1. Resinous flooring system shall cover the entirety on the apparatus room, including extending into all doorways, hallways and ramps adjacent to it. Also to be covered is the fire pole room and the turnout gear room, both of which are contiguous to the apparatus room. In the garage door areas, the system will extend to the outer edge of the slab which is in line with the exterior of the building's masonry. A total of area of 5,538 square feet is included in the project.
  2. The apparatus room has three 9' wide bays used for trucks and equipment. These three bays will be color 'medium gray'. The three bays will be surrounded on either side by 4" color 'safety yellow' lines longitudinally. The gear turnout room will also be color medium gray. The rest of the spaces shall be color 'tile red'. The safety yellow stripes or tile red areas will not extend past the garage doors to the exterior portion of the slab. The exposed exterior spaces will be medium gray.

**1.3 SYSTEM DESCRIPTION**

- A. The work shall consist of preparation of the substrate, the furnishing and application of a cementitious urethane based self-leveling seamless flooring system with quartz aggregate broadcast and Epoxy broadcast and topcoats.
- B. The system shall have the colors and texture as specified by the Owner with a nominal thickness of 1/4 inch. It shall be applied to the prepared area(s) as defined in the plans strictly in accordance with the Manufacturer's recommendations.
- C. Cove base will not be installed.

**1.4 SUBMITTALS**

- A. Product Data: Latest edition of Manufacturer's literature including performance data and installation procedures.
- B. Manufacturer's Material Safety Data Sheet (MSDS) for each product being used.
- C. Samples: A 3 inch square sample of each color of the proposed system. Color, texture, and thickness shall be representative of overall appearance of finished system.

**1.5 QUALITY ASSURANCE**

- A. The Manufacturer shall have a minimum of 5 years experience in the production, sales, and technical support of cementitious urethane, epoxy industrial flooring, quartz aggregate and related materials.
- B. The Applicator shall have been approved by the flooring system manufacturer in all phases of surface preparation and application of the product specified.
- C. No requests for substitutions shall be considered that would change the generic type of the specified

System.

- D. System shall be in compliance with requirements of United States Department of Agriculture (USDA), Food, Drug Administration (FDA), and local Health Department.
- E. A pre-installation conference shall be held between Applicator, General Contractor and the Owner to review and clarification of this specification, application procedure, quality control, inspection and acceptance criteria and production schedule.
- F. System shall be in compliance with the Indoor Air Quality requirements of California Section 01350 as verified by a qualified independent testing laboratory.

#### 1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

##### A. Packing and Shipping

- 1. All components of the system shall be delivered to the site in the Manufacturer's packaging, clearly identified with the product type and batch number.

##### B. Storage and Protection

- 1. The Applicator shall be provided with a dry storage area for all components. The area shall be between 60 F and 85 F, dry, out of direct sunlight and in accordance with the Manufacturer's recommendations and relevant health and safety regulations.
- 2. Copies of Material Safety Data Sheets (MSDS) for all components shall be kept on site for review by the Engineer or other personnel.

##### C. Waste Disposal

- 1. The Applicator will be responsible for removing all waste for disposal.

#### 1.7 PROJECT CONDITIONS

##### A. Site Requirements

- 1. Application may proceed while air, material and substrate temperatures are between 60 F and 85 F providing the substrate temperature is above the dew point. Outside of this range, the Manufacturer shall be consulted.
- 2. The relative humidity in the specific location of the application shall be less than 85 % and the surface temperature shall be at least 5 F above the dew point.
- 3. The Applicator shall ensure that adequate ventilation is available for the work area. This shall include the use of manufacturer's approved fans, smooth bore tubing and closure of the work area.
- 4. The Applicator will be supplied with adequate lighting equal to the final lighting level during the preparation and installation of the system.

##### B. The product will be applied to the existing Fire Station concrete floor.

- 1. The Contractor will take cores and/or samples of the existing floor for determination of appropriateness of the product to ensure that product warranties will be valid. These samples must be taken from the gear turnout room as the other spaces have radiant flooring systems.
- 2. Contractor will prepare the existing floor for use with the product. No additional payment will be made for preparation.
- 3. Contractor will be responsible for dust and noise control during the preparation process.

C. Safety Requirements

1. All open flames and spark-producing equipment shall be removed from the work area prior to commencement of application.
2. "No Smoking" signs shall be posted at the entrances to the work area.
3. Non-related personnel in the work area shall be kept to a minimum.

1.8 WARRANTY

- A. The Contractor will provide 10 year warranty on the flooring product and installation.

PART 2 – PRODUCTS

2.1 FLOORING

- A. Dur-A-Flex, Inc, Hybri-Flex EB (self leveling broadcast quartz), epoxy/aliphatic urethane topcoat seamless flooring system.

1. System Materials:
  - a. Topping: Dur-A-Flex, Inc, Poly-Crete MD resin, hardener and SL aggregate.
  - b. The broadcast aggregate shall be Dur-A-Flex, Inc. Flintshot or Q-Rok quartz aggregate.
  - c. Broadcast: Dur-A-Flex, Inc. Shop Floor, epoxy based two-component resin.
  - d. Grout coat: Dur-A-Flex, Inc. Shop Floor, epoxy-based, two-component resin.
  - e. Top coat: Dur-A-Flex, Inc. Armor-Top aliphatic urethane multi-component resin.
2. Patch Materials
  - a. Shallow Fill and Patching: Use Dur-A-Flex, Inc. Poly-Crete MD (up to ¼ inch).
  - b. Deep Fill and Sloping Material (over ¼ inch): Use Dur-A-Flex, Inc. Poly-Crete WR.

2.2 MANUFACTURER

- A. Dur-A-Flex, Inc., 95 Goodwin Street, East Hartford, CT 06108, Phone: (860) 528-9838, Fax: (860) 528-2802

2.3 PRODUCT REQUIREMENTS

A. Topping	Poly-Crete SL
1. Percent Reactive	100 %
2. VOC	0 g/L
3. Bond Strength to Concrete ASTM D 4541	400 psi, substrates fails
4. Compressive Strength, ASTM C579	7,250 psi
5. Tensile Strength, ASTM D 638	750 psi
6. Flexural Strength, ASTM D 790	4,400 psi
7. Impact Resistance @ 125 mils, MIL D-3134, No visible damage or deterioration	160 inch lbs
B. Broadcast and Grout Coat	Shop-Floor™ Resin
1. Percent Reactive,	100 %
2. VOC	<8 g/L

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|--|----------------------------|
| 3. Water Absorption, ASTM D 570                    | 0.04 %                     |
| 4. Tensile Strength, ASTM D 638                    | 4,000 psi                  |
| 5. Coefficient of thermal expansion<br>ASTM D 696, | $2 \times 10^{-5}$ in/in/F |
| 6. Flammability ASTM D-635                         | Self-Extinguishing         |
| 7. Flame Spread/ NFPA 101 ASTM E-84                | Class A                    |

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|---|--------------------------------------|
| C. Topcoat  | Armor Top                            |
| 1. VOC  | 0 g/L                                |
| 2. 60 Degree Gloss ASTM D523  | 75+/-5                               |
| 3. Mixed Viscosity, (Brookfield 25°C)   | 500 cps                              |
| 4. Tensile strength, ASTM D 638   | 7,000 psi                            |
| 5. Abrasion Resistance, ASTM D4060<br>CS 17 wheel (1,000 g load) 1,000 cycles | Gloss      Satin                     |
|   | 4      8      mg loss with grit      |
|   | 10      12      mg loss without grit |
| 6. Pot life @ 70° F 50% RH  | 2 hours                              |
| 7. Dry properties, 70°F, 50% R.H.   | 8 hours tack free, 12 hours Dry      |
| 60°F, 30% RH  | 12 hours tack free, 18 hours Dry     |
| 80°F, 70%RH   | 4 hours tack free, 6 hours Dry       |
| 8. Full Chemical resistance   | 7 days                               |

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas and conditions, with Applicator present, for compliance with requirements for maximum moisture content, installation tolerances and other conditions affecting flooring performance.
1. Verify that substrates and conditions are satisfactory for flooring installation and comply with requirements specified.

3.2 PREPARATION

A. General

1. New and existing concrete surfaces shall be free of oil, grease, curing compounds, loose particles, moss, algae growth, laitance, friable matter, dirt, and bituminous products.
2. Moisture Testing: Perform tests recommended by manufacturer and as follows.
  - a. Perform relative humidity test using in situ probes, ASTM F 2170. Proceed with installation only after substrates have a maximum 95% relative humidity level measurement.
  - b. If the relative humidity exceeds 95% then the Owner and/or Engineer shall be notified and advised of additional cost for the possible installation of a vapor mitigation system that has been approved by the manufacturer or other means to lower the value to the acceptable limit.
3. Mechanical surface preparation
  - a. Shot blast all surfaces to receive flooring system with a mobile steel shot, dust recycling machine (Blastrac or equal). All surface and embedded accumulations of paint, toppings hardened concrete layers, laitance, power trowel finishes and other similar surface



- characteristics shall be completely removed leaving a bare concrete surface having a minimum profile of CSP 4-5 as described by the International Concrete Repair Institute.
- b. Floor areas inaccessible to the mobile blast machines shall be mechanically abraded to the same degree of cleanliness, soundness and profile using diamond grinders, needle guns, bush hammers, or other suitable equipment.
  - c. Where the perimeter of the substrate to be coated is not adjacent to a wall or curb, a minimum 1/4 inch key cut shall be made to properly seat the system, providing a smooth transition between areas. The detail cut shall also apply to drain perimeters and expansion joint edges.
  - d. Cracks and joints (non-moving) greater than 1/8 inch wide are to be chiseled or chipped-out and repaired per manufacturer's recommendations.
4. At spalled or worn areas, mechanically remove loose or delaminated concrete to a sound concrete and patch per manufactures recommendations.

### 3.3 APPLICATION

#### A. General

1. The system shall be applied in five distinct steps as listed below:
  - a. Substrate preparation
  - b. Topping/overlay application with quartz aggregate broadcast.
  - c. Resin application with quartz aggregate broadcast.
  - d. Grout coat application
  - e. Topcoat application.
2. Immediately prior to the application of any component of the system, the surface shall be dry and any remaining dust or loose particles shall be removed using a vacuum or clean, dry, oil-free compressed air.
3. The handling, mixing and addition of components shall be performed in a safe manner to achieve the desired results in accordance with the Manufacturer's recommendations.
4. The system shall follow the contour of the substrate unless pitching or other leveling work has been specified by the Architect.
5. A neat finish with well-defined boundaries and straight edges shall be provided by the Applicator.

#### B. Topping

1. The topping shall be applied as a self-leveling system as specified by the Architect. The topping shall be applied in one lift with a nominal thickness of 1/8 inch.
2. The topping shall be comprised of three components, a resin, hardener and filler as supplied by the Manufacturer.
3. The hardener shall be added to the resin and thoroughly dispersed by suitably approved mechanical means. SL Aggregate shall then be added to the catalyzed mixture and mixed in a manner to achieve a homogenous blend.
4. The topping shall be applied over horizontal surfaces using 1/2 inch "v" notched squeegee, trowels or other systems approved by the Manufacturer.
5. Immediately upon placing, the topping shall be degassed with a loop roller.
6. Quartz aggregate shall be broadcast to excess into the wet material at the rate of 0.8 lbs/sf.
7. Allow material to fully cure. Vacuum, sweep and/or blow to remove all loose aggregate.

#### C. Broadcast

1. The broadcast coat resin shall be applied at the rate of 90 sf/gal (flintshot) or 50 sf/gal (Q-Rok).
2. The broadcast coat shall be comprised of liquid components, combined at a ratio of 2 parts resin to 1 part hardener by volume and shall be thoroughly blended by mechanical means such as a high speed paddle mixer.
3. Quartz aggregate shall be broadcast into the wet resin at the rate of 0.5 lbs/sf.
4. Allow material to fully cure. Vacuum, sweep and/or blow to remove all loose aggregate.

D. Grout Coat

1. The grout coat shall be squeegee applied with a coverage rate of 90 sf/gal (flintshot) or 50 sf/gal (Q-Rok).
2. The grout coat shall be comprised of liquid components, combined at a ratio of 2 parts resin to 1 part hardener by volume and shall be thoroughly blended by mechanical means such as a high speed paddle mixer.
3. The grout coat will be back rolled and cross rolled to provide a uniform texture and finish

\*\*\* Specifier's Note \*\*\* If an orange-peel texture is desired, sand screen the floor and apply a second grout coat of epoxy. The epoxy shall be applied by squeegee and back-roll with a coverage rate of 200 sf/gal (flintshot) or 70 sf/gal (Q-Rok).

E. Top Coat

2. The pigmented topcoat (Armor-Top) shall be roller applied with a coverage rate of 500 sf/gal.
3. The finished floor will have a nominal thickness of 1/4 inch.

3.4 FIELD QUALITY CONTROL

A. Tests, Inspection

1. The following tests shall be conducted by the Applicator:
  - a. Temperature
    1. Air, substrate temperatures and, if applicable, dew point.
  - b. Coverage Rates
    1. Rates for all layers shall be monitored by checking quantity of material used against the area covered.

3.5 CLEANING AND PROTECTION

- A. Cure flooring material in compliance with manufacturer's directions, taking care to prevent their contamination during stages of application and prior to completion of the curing process.
- B. Remove masking. Perform detail cleaning at floor termination, to leave cleanable surface for subsequent work of other sections.