REQUEST FOR REBID:

RECREATION CENTERS HVAC UPFIT
HARTSELL
LOGAN
ACADEMY

Project No. 2019-062
Bid # 2425
TABLE OF CONTENTS

SECTION I – BIDS, AGREEMENTS, AND NOTICES
INVITATION TO BID ............................................................................................................................ 2
INSTRUCTIONS TO BIDDERS ............................................................................................................. 4
DEBARRED FIRMS CERTIFICATION FORM (must be completed & submitted with bid) ................. 10
BID FORM (must be completed & submitted with bid) ....................................................................... 11
STANDARD FORM OF PERFORMANCE BOND .................................................................................. 16
PROJECT SPECIAL CONDITIONS .................................................................................................... 18
PROJECT SCOPE WITH PICTURES .................................................................................................. 20
STANDARD FORM OF CONSTRUCTION CONTRACT ......................................................................... 28
EXHIBIT “A” – BID FORM ................................................................................................................. 36
EXHIBIT “B” – E- VERIFY .................................................................................................................. 37
EXHIBIT “C” – TAX FORMS ............................................................................................................. 38
EXHIBIT “D” – CERTIFICATE OF INSURANCE ................................................................................ 39
NOTICE OF AWARD ........................................................................................................................... 40
NOTICE TO PROCEED ....................................................................................................................... 41
APPLICATION FOR PAYMENT ......................................................................................................... 42
CONTRACT CHANGE ORDER ......................................................................................................... 44
FIELD ORDER ................................................................................................................................... 45
NC SALES TAX REPORT ................................................................................................................... 46
NORTH CAROLINA ONE CALL ....................................................................................................... 47

SECTION II – GENERAL CONDITIONS ........................................................................................... 48
See City Webpage – Engineering Department – Forms & Downloads – Standard Details & Specifications

SECTION III – CITY OF CONCORD PROJECT DRAWINGS .......................................................... 49
BID ADVERTISEMENT/INVITATION TO REBID

January 31 2020

Project Title: Recreation Centers HVAC Upfit – Hartsell – Logan – Academy
Project No. 2019-062

Project Description: The City of Concord proposes to install new HVAC Systems in the gymnasiums at three recreation centers. The recreation centers are:
Hartsell Recreation Ctr – 60 Hartsell School Road – Concord, NC
Logan Recreation Center – 184 Booker Drive SW – Concord, NC
Academy Recreation Ctr. – 147 Academy Avenue – Concord, NC
Project work shall be performed per plans furnished by the City of Concord from McVeigh & Mangum Engineering, Inc. Project completeness needs to be accomplished in the following order; Logan 1st, Hartsell 2nd, and Academy 3rd. Contractor will need to complete all electrical and structural changes required to support new mechanical systems installation.

Sealed Bids will be received by the City of Concord (Owner) at the address below. Please submit notarized bids in a sealed envelope by the bid opening time and date. All Bids must be in accordance with the Bidding Documents on file with the City of Concord Engineering Department. Bidders must be licensed contractors in the State of North Carolina. Bids will be received on a unit price basis. A five percent (5%) Bid security must accompany each Bid. The Successful Bidder will be required to furnish a Construction Performance Bond and a Construction Payment Bond as security for the faithful performance and the payment of all bills and obligations arising from the performance of the Contract if the total bid amount is greater than $50,000 (see Section 16 of the Contract). Contractor and all Subcontractors will be required to conform to the labor standards set forth in the Contract Documents. Owner reserves the right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, nonresponsive, unbalanced, or conditional Bids, and will award to lowest responsible Bidder taking into consideration quality, performance, and time specified in Bid Form for performance of Work. Owner also reserves the right to waive informalities.

TO BE CONSIDERED AS A BIDDER FOR THIS PROJECT, CONTRACTORS MUST REGISTER WITH THE CITY OF CONCORD BY SENDING AN EMAIL THAT INCLUDES YOUR NAME AND COMPANY CONTACT INFORMATION TO BUTLERJL@CONCORDNC.GOV

Engineer: Enrique A. Blat, P.E.
City of Concord Engineering Department
Alfred M. Brown Operations Center
635 Alfred Brown Jr. Court SW : P O Box 308,
Concord, NC 28026-0308

For TECHNICAL QUESTIONS OR CONTRACT DOCUMENTS: Jimmy Butler 704.920.5422

Bid Opening Date: Thursday February 6, 2020 at 10:00 AM

Location: Alfred M. Brown Operations Center
635 Alfred Brown Jr. Court SW : Conference Room C
Concord, NC 28026
MAP AND DIRECTIONS TO CITY OF CONCORD
ALFRED M BROWN OPERATIONS CENTER

Directions from Charlotte

Take I-77 north to I-85 north from Charlotte to Concord
From I-85 north, take exit 49 to the right towards Lowe’s Motor Speedway
At the Lowe’s Motor Speedway, turn left onto Highway 29 (Concord Pkwy) north
Keep going north while you pass the Wal-Mart shopping center on your right
Turn right at the light at the Chevrolet dealership onto Cabarrus Avenue
Turn right at the next traffic light at the Walgreens onto Hwy 601 South (bypass)
(Hwy 601 S is also Warren C. Coleman Boulevard)
Go straight through two traffic lights at Old Charlotte Road and Wilshire Avenue
Turn right at the next traffic light at Manor Avenue (blue & white sign on right
for the City of Concord Alfred M. Brown Operations Center)
You will be on the entrance road into our complex
Follow signs to the left to Visitor Parking.
Proceed to the front desk at the Administration Building and sign in with the Receptionist
1. **DEFINED TERMS.** Terms used in these Instructions to Bidders are meanings assigned to them in the General Conditions and the Supplementary Conditions. An additional term is defined as follows:

   **Successful Bidder** - The lowest, qualified, responsible, and responsive Bidder to whom Owner (based on Owner's evaluation as herein provided) makes an award.

2. **COPIES OF BID DOCUMENTS.** Bid Documents which include all front-end documents may be obtained from Owner:

   City of Concord Engineering Department  
   Alfred M. Brown Operations Center  
   635 Alfred Brown Jr. Court SW  
   P O Box 308, Concord, NC 28026-0308  
   704-920-5422

   Or

   Bid Documents may be obtained freely from City’s website at:

   https://www.concordnc.gov/Departments/Finance/Purchasing/RFPs-and-Bids

   Complete sets of Bid Documents must be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misrepresentations resulting from the use of incomplete sets of Quoting Documents.

   Owner and Engineer, in making copies of Quoting Documents available on the above terms, do so only for obtaining Bids for the Work and do not confer a license or grant for any other use.

3. **QUALIFICATIONS OF Bidders.** To demonstrate qualifications to perform the Work, Bidder may be required to submit written evidence on financial data, previous experience, present commitments, and other such data as may be requested by Owner or Engineer. Each Bid must contain evidence of Bidder’s qualification to do business in the state where the Project is located, or Bidder must agree to obtain such qualification prior to award of the Contract.

4. **EXAMINATION OF CONTRACT DOCUMENTS AND SITE.** It is the responsibility of each Bidder, before submitting a Bid, to (a) thoroughly examine the Contract Documents, (b) visit the site to become familiar with local conditions that may affect cost, progress, performance, or furnishing of the Work, (c) consider federal, state, and local laws and regulations that may affect cost, progress, performance, or furnishing of the Work, (d) study and carefully correlate Bidder’s observations with the Contract Documents, and (e) notify Engineer of all conflicts, errors, or discrepancies discovered by Bidder in the Contract Documents.

   **Underground Facilities.** Information and data reflected in the Contract Documents with respect to underground facilities at or contiguous to the site are based upon information and data furnished to Owner and Engineer by owners of such underground facilities or others, and Owner and Engineer disclaim responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary
4.3. **Additional Information.** Before submitting a Bid, each Bidder will, at Bidder’s own expense, make or obtain any additional examinations, investigations, explorations, tests, and studies and obtain any additional information and data which pertain to the physical conditions (surface, subsurface, and underground facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance, or furnishing of the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents.

On request 24 hours in advance, Owner will provide each Bidder access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the site to its former condition upon completion of such explorations. Arrangements for site visits shall be made by calling the office of the Director of Engineering for the City of Concord at 704.920.5425.

4.4. **Easements.** The lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and other lands designated for use by Contractor in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Contractor. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by Owner unless otherwise specified in the Contract Documents.

4.5. **Unit Price Contracts.** Bidders must satisfy themselves of the accuracy of the estimated quantities in the Bid schedule by examination of the site and a review of the drawings and the specifications, including the addenda. After Bids have been submitted, the Bidder shall not assert that there was a misunderstanding concerning the quantities of work or the nature of the work to be done.

4.6. **Bidder’s Representation.** The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement concerning examination of the Contract Documents and the site, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

5. **INTERPRETATIONS AND ADDENDA.** All questions about the meaning or intent of the Quoting Documents and the Contract Documents shall be submitted to Owner in writing. Interpretations or clarifications considered necessary by Owner in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Quoting Documents. Questions received less than 10 days prior to the date for opening of Bids may not be answered. Only answers issued by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

6. **BID SECURITY.** Each Proposal must be accompanied by a deposit equal to 5% of the net price bid. This deposit may consist of cash, or a Cashier's Check issued by, or a Certified Check drawn on a Bank or Trust Company authorized to do business in North Carolina, or on a Bank insured by the Federal Deposit Insurance Corporation, or a U.S. Money Order, payable to the City of Concord or 5% Bid Bond in the form required by G.S. 143-129 as amended, issued by an Insurance Company authorized to do business in North Carolina, said deposit to be retained in the event of failure of the successful bidder to execute a formal contract within ten (10) days after award or to give satisfactory surety required. The Bid security of the Successful Bidder (if so required) will be retained until such Bidder has executed the Agreement, furnished the required contract security (if so required), and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Agreement and furnish the required contract security within the number of days set forth in the Bid Form, Owner may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid security (if so required) of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of 7 days after the Effective Date of the Agreement or the day after the last day the Bid remain subject to
acceptance as set forth in the Bid Form, whereupon Bid security furnished by such Bidders will be returned. Bid
security accompanying Bid which are deemed by Owner to be noncompetitive will be returned within 7 days
after the designated Bid opening.

7. CONTRACT TIMES. The numbers of calendar days within which, or the dates by which, the Work is to
be substantially completed and completed and ready for final payment (the Contract Times) are set forth in the
Bid Form.

8. LIQUIDATED DAMAGES. Provisions for liquidated damages, if any, are set forth in the Agreement.

9. SUBSTITUTES OR "OR-EQUAL ITEMS. Bidder’s attention is directed to Article 6.5 of the General
Conditions concerning substitutes and "or-equal" items. Where an item or material is specified by a proprietary
name, it is done for the purpose of establishing a basis of quality and not for the purpose of limiting competition.
The Engineer's intent is to consider alternative products which have the desired essential characteristics. The
Engineer will consider any such products offered. Requests for acceptance of alternative products shall be
made through Bidders quoting as prime Contractors. Acceptances for substitutions will not be granted directly
to suppliers, distributors, or subcontractors. Pursuant to Section 133-3, General Statutes of North Carolina, the
following procedures shall be used:

Bidders desiring to submit alternative product proposals for prior acceptance of the Engineers shall submit, in
writing, such proposals from 2/3/2020, until 2/4/2020. Applications received after this time will not be
reviewed. Each such request shall include the name of the material or equipment for which it is to be substituted
and a complete description of the proposed substitute, including drawings, cuts, performance and test data, and
other information necessary for an evaluation. A statement setting forth any changes in other materials,
equipment, or other work that incorporation of the substitute would require shall be included. The Engineer
shall consider and either accept or reject all alternative product proposals submitted.

If, by the close of the fifth day prior to the deadline for receiving Bid, the Engineer has accepted any alternative
product proposals, the Quoting Documents shall be modified to include the alternative products. The Engineer
shall publish the modification in an Addenda at least 5 days prior to the deadline for receiving Bids. The
Engineer's decision of acceptance or rejection of a proposed substitute shall be final.

10. SUBCONTRACTORS, SUPPLIERS, AND OTHERS. If the Supplementary Conditions require the
identity of certain Subcontractors, Suppliers, and other persons and organizations (including those who are to
furnish the principal items of material and equipment) to be submitted to Owner in advance of a specified date
prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so
requested, shall within 3 days after the opening submit to Owner the List of Subcontractors completed with all
such Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work
for which such identification is required. The list shall be accompanied by an experience statement with
pertinent information regarding similar projects and other evidence of qualification for each such
Subcontractor, Supplier, person, or organization, if requested by Owner. If Owner or Engineer after due
investigation has reasonable objection to any proposed Subcontractor, Supplier, or other person or
organization, Owner may, before the Notice of Award is given, request the apparent Successful Bidder to
submit an acceptable substitute without an increase in the Bid. All Subcontractors shall be a licensed utility
contractor in the State of North Carolina.

11. BID FORM. The Bid Form is bound in the Contract Documents and shall not be removed therefrom. Bid
Form must be completed in ink.

Bids by corporations must be executed in the corporate name by the president or vice-president (or other
corporate officer accompanied by evidence of authority to sign for the corporation). Bids by partnerships must
be executed in the partnership name and signed by a partner. Bids by joint ventures shall be signed by each
participant in the joint venture or by a representative of the joint venture accompanied by evidence of authority
to sign for the joint venture.

The names of all persons signing shall be legibly printed below the signature. A Bid by a person who affixes to his signature the word "president", "secretary", "agent", or other designation without disclosing his principal may be held to be the Bid of the individual signing. When requested by Owner, evidence of the authority of the person signing shall be furnished.

All blanks in the Bid Form shall be filled. A Bid price shall be indicated for each unit price item listed therein, or the words "No Bid", "No Charge", "No Change", or another appropriate phrase shall be entered.

The Bid shall contain an acknowledgment of receipt of all Addenda; the numbers and dates of which shall be filled in on the Bid Form.

No alterations in Bids, or in the printed forms therefore, by erasures, interpolations, or otherwise will be acceptable unless each such alteration is signed or initialed by the Bidder; if initialed, Owner may require the Bidder to identify any alteration so initialed.

11.01. Contingency. The Contingency is to be added to the Bid price and is to be used for minor change order items. If the Contingency is to be used, a scope of work and price would be negotiated. The Contingency is for the sole use of Owner. A change order will be issued to delete any unauthorized portion of the Contingency.

12. SUBMISSION OF BIDS. Bids shall be submitted at the time and place indicated in the Invitation to Bid, or the modified time and place indicated by Addendum. Bids shall be enclosed in a sealed envelope or wrapping, addressed to:

_The City of Concord_
_c/o Enrique A. Blat, P.E._
_Deputy City Engineer_
_P.O. Box 308_
_850 Warren C. Coleman Blvd._
_Concord, North Carolina 28026-0308_

Bids shall be marked with the name, license number, and address of the Bidder and shall be accompanied by the Bid security (if required) and other required documents. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it.

Each Bid envelope shall be identified on the outside with the words ‘REBID FOR THE CITY OF CONCORD RECREATION CENTERS HVAC UPFIT – HARTSELL – LOGAN – ACADEMY – 2019-062.’

Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids. Bids received after the time and date for receipt of Bids will be returned unopened.

**One copy of the bound documents containing the Bid Form must be submitted with the Bid.**

Oral, telephone, facsimile, or telegraph Bids are invalid and will not receive consideration.

No Bidder may submit more than one Bid. Multiple Bids under different names will not be accepted from one firm or association.

A conditional or qualified Bid will not be accepted.
13. **MODIFICATION AND WITHDRAWAL OF BIDS:** Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

If, within 24 hours after Bids are opened, any Bidder files a duly signed, written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid and the Bid security (if any) will be returned. Thereafter, that Bidder will be disqualified from further quoting on the Work to be provided under the Contract Documents.

14. **OPENING OF BIDS:** Bids will be opened at the office and at the discretion of the Director of Engineering and read aloud.

The procedure for opening Bids will follow guidelines issued by the State Building Commission dated December 10, 1990, and endorsed by the Consulting Engineers Council of North Carolina.

15. **BIDS TO REMAIN SUBJECT TO ACCEPTANCE:** All Bids will remain subject to acceptance for the number of days set forth in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the security (if any) prior to that date.

16. **AWARD OF CONTRACT:** Owner reserves the right to reject any or all Bids, including without limitation the rights to reject any or all nonconforming, nonresponsive, unbalanced, or conditional Bids, and will award to lowest responsible Bidder taking into consideration quality, performance, and time specified in Bid Form for performance of Work. Owner also reserves the right to waive informalities.

In evaluating Bids, Owner will consider the qualifications of the Bidders, whether the Bids comply with the prescribed requirements, and such alternatives, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.

Owner may consider the qualifications and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted as provided in the Supplementary Conditions. Owner also may consider the operating costs, maintenance requirements, performance data, and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.

Owner may conduct such investigations as Owner deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time. If the Contract is to be awarded, it will be awarded to the lowest Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of Owner. If the Contract is to be awarded, Owner will give the Successful Bidder a Notice of Award within the number of days set forth in the Bid Form. The evaluation of Suppliers' or manufacturers' data submitted with the Bid, or submitted upon request prior to the Notice of Award, will include consideration of the following:

Owner-required inventory of spare parts. Building design changes which would be required to accommodate the proposed materials and equipment. Installation requirements and related engineering, training, and operating costs. Experience and performance record of the Supplier or the manufacturer. Maintenance and frequency of inspections required to assure reliable performance of the equipment. Suppliers' or manufacturers' service facilities and availability of qualified field service personnel. Efficiency and related operating expense during the anticipated useful life of the equipment.
17. **CONTRACT SECURITY.** The General Conditions set forth Owner's requirements as to Performance and Payment Bonds (required). These Bonds shall be delivered to Owner with the executed Agreement.

18. **SIGNING OF AGREEMENT.** When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by two unsigned counterparts of the Agreement with all other written Contract Documents attached. Within the number of days set forth in the Bid Form, the Successful Bidder shall sign, leaving the dates blank, and deliver the required number of counterparts of the Agreement and attached documents to Owner with the required Bonds and power of attorney. Within 30 days thereafter, Owner shall execute all copies of the Agreement and other Contract Documents submitted by Contractor (Successful Bidder); shall insert the date of contract on the Agreement, Bonds, and power of attorney; and shall distribute signed copies as stipulated in the Agreement.

Should the Owner not execute the Contract within the period specified, the Successful Bidder may, by written notice, withdraw his signed Contract. Such notice or withdrawal shall be effective upon receipt of the notice by the Owner.

19. **SALES AND USE TAXES.** Provisions for sales and use taxes, if any, are set forth in the Supplementary Conditions.

20. **RETAINAGE.** Provisions concerning retainage are set forth in the Agreement.

21. **LAWS AND REGULATIONS.** Modifications, if any, to the General Conditions concerning Laws and Regulations are set forth in the Supplementary Conditions. Additional provisions, if any, concerning Laws and Regulations are set forth in the Agreement.

21.01. **Collusive Bidding.** In accordance with Section 112(c) of Title 23 USC, and G.S. 75-5(b)(7) of the State of North Carolina, the Contractor (Bidder), by submission and execution of this bid or Bid, certifies that he has not entered any agreement, participated in any collusion, or project.
Recreation Centers HVAC Upfit – Hartsell – Logan - Academy
Project No. 2019-062

The undersigned hereby certifies that the firm of ________________________________ has not been suspended by the State of North Carolina or any agency or department thereof for conviction or indictment or any of the offenses enumerated in G.S. 133-27 nor will award subcontracts of any tier to firms that have been suspended for conviction or indictment of any of the offenses enumerated in G.S. 133-27.

______________________________
Name of Firm

ATTEST__________________________ (SEAL)

______________________________
Signature of Authorized Official

______________________________
Title

Sworn and subscribed before me this _______ day of ____________, 2020.

______________________________
Notary Public
EXHIBIT ‘A’ ADDENDUM #1
REVISED REBID FORM

PROJECT IDENTIFICATION:

Recreation Centers HVAC Upfit – Hartsell – Logan - Academy
Project No. 2019-062

THIS BID IS SUBMITTED TO:

City of Concord
c/o Enrique A. Blat, P.E.
Deputy City Engineer
635 Alfred Brown Jr. Court SW, P.O. Box
308 Concord, North Carolina 28026-0308

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter an agreement with Owner in the form included in the Contract/BID Documents to perform and furnish all Work as specified or indicated in the Contract/BID Documents within the specified time and for the amount indicated in this Bid and in accordance with the other terms and conditions of the Contract/BID Documents.

2. Bidder accepts all the terms and conditions of the Invitation to Bid and the Instructions to Bid, including without limitation those dealing with the disposition of the Bid security (if security is required by the City Manager). This Bid will remain subject to acceptance for 60 days after the day designated for reception of Bids. Bidder will sign and submit the Agreement with the Bonds and other documents required by the Quoting Documents within 10 days after the date of Owner's Notice of Award.

3. In submitting this Bid, Bidder represents that:

   a. Bidder has examined copies of all the Quoting Documents and of the following Addenda (receipt of all which is hereby acknowledged):

      No.________________________  Dated____________________

      No.________________________  Dated____________________

      No.________________________  Dated____________________

      No.________________________  Dated____________________

      No.________________________  Dated____________________

   b. Bidder has visited the site and become familiar with and satisfied itself as to the general, local, and site conditions that may affect cost, progress, performance, and furnishing of the Work.

   c. Bidder is familiar with and has satisfied itself as to all Federal, State, and Local Laws and Regulations that may affect cost, progress, performance, and furnishing of Work.

   d. Bidder has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except underground facilities) which have provided by the owner and under the conditions normally used and identified in the Supplementary Conditions and Special Conditions as provided in Paragraph 4.2.1 of the General Conditions. Bidder accepts the determination set forth in the Supplementary Conditions and Special Conditions of the extent of the "technical data"
contained in such reports and drawings upon which Bidder is entitled to rely as provided in Paragraph 4.2 of the General Conditions. Bidder acknowledges that such reports and drawings are not Contract Documents and may not be complete for Bidder’s purposes. Bidder acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Quoting Documents with respect to underground facilities at or contiguous to the site. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and underground facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance, or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder and safety precautions and programs incident thereto. Bidder does not consider that any additional examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the time, price, and other terms and conditions of the Contract Documents.

e. Bidder is aware of the general nature of Work to be performed by Owner and others at the site that relates to Work for which this Bid is submitted as indicated in the Contract Documents.

f. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.

g. Bidder has given Engineer written and verbal notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Contract Documents and the written resolution thereof by Engineer is acceptable to Bidder, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.

h. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm, or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid Bidder has not solicited or induced any person, firm, or corporation to refrain from quoting; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.

4. The terms used in this BID, which are defined in the General Conditions, have the meanings assigned to them in the General Conditions.

<table>
<thead>
<tr>
<th>DATE:</th>
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<tbody>
<tr>
<td>NAME OF BIDDER:</td>
</tr>
<tr>
<td>BUSINESS ADDRESS:</td>
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<tr>
<td>PHONE:</td>
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<tr>
<td>FAX:</td>
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<tr>
<td>EMAIL:</td>
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<tr>
<td>NC CONTRACTOR NO.:</td>
</tr>
</tbody>
</table>
In compliance with the Instructions to Bidders, the undersigned, having carefully examined the Bidding Documents, Scope of Work, Special Provisions, Drawings and Specifications, all subsequent Addenda as prepared by the Owner, visited the site and being familiar with all conditions and requirements of the work, hereby agrees to furnish all labor, materials, equipment and services, etc., to complete the work required in accordance with the Contract/BID Documents for the consideration of the following amount/amounts.

**LUMP SUM BASE BID** (Fill in amount in words and figures, words to govern in case of conflict) includes amount shown hereinafter in Performance and Payment Bonds:

The undersigned Bidder, having carefully investigated the existing conditions at the project site, and having thoroughly familiarized himself with the Contract Documents, hereby proposes to provide all necessary labor, permits, equipment, materials, services and etc. to complete the installation of the:

Recreation Centers HVAC Upfit – Hartsell – Logan – Academy
Project # 2019-062  Bid # 2425

All in accordance with the aforementioned Contract Documents and the attached drawings for the lump sum price of:

BASE BID  $ ____________________

RELIABLE CONTROL ALLOWANCE:
(HARTSELL ONLY)  $ 4,695.00

BRICK ALLOWANCE: $ -------------------------
INCLUDE A $500/1000 BRICK ALLOWANCE
FOR BRICK NEEDED AND GROUT MATERIAL ONLY.
LABOR TO BE INCLUDED IN BASE BID

10% CONTINGENCY $ ____________________

TOTAL BID  $ ____________________

*(Total Bid should be the addition of the Base Bid, the Reliable control allowance, Brick Allowance, and 10% Contingency)*

**TIME OF COMPLETION**
The undersigned further agrees to begin work within fourteen (14) days after a "Notice to Proceed" with an adequate work force, carry the work forward as rapidly as possible and complete the work within 100 Calendar Days.

**LIQUIDATED DAMAGES**
If the “Time of Completion” is not met, the City of Concord will charge liquidated damages to the contractor. Liquidated damages for failure to meet the “Time of Completion” as described in this section shall be $100.00 per calendar day.
SIGNATURE OF BIDDER: ______________________________

Contractor's License Number ________________________________

License Expiration Date ________________________________

If an Individual

By ________________________________

(signature of individual)

doing business as ________________________________

Business address ________________________________

Phone No. ________________________________

Date ________________________________, 2020

ATTEST ________________________________ TITLE

If a Partnership

By ________________________________

(firm name)

______________________________

(signature of general partner)

Business address ________________________________

Phone No. ________________________________

Date ________________________________, 2020

ATTEST ________________________________ TITLE

If a Corporation

By ________________________________

(corporation name)

By ________________________________

(signature of authorized person)

(title) ________________________________

Business address ________________________________

Phone No. ________________________________

Date ________________________________, 2020

ATTEST ________________________________ TITLE

(Seal)
If a Joint Venture (Other party must sign below.)

By (name)__________________________________________

Contractor's License Number________________________

License Expiration Date____________________________

If an Individual

By________________________________________________

(signature of individual)

doing business as ________________________________

Business address __________________________________

Phone No. _________________________________________

Date__________________________________________, 2020

ATTEST_________________________ TITLE

If a Partnership

By________________________________________________

(firm name)

____________________ (signature of general partner)

Business address ________________________________

Phone No. _________________________________________

Date__________________________________________, 2020

ATTEST_________________________ TITLE

If a Corporation

By________________________________________________

(corporation name)

By________________________________________________

(signature of authorized person) (title)_____________________

Business address ________________________________

Phone No. _________________________________________

Date__________________________________________, 2020

ATTEST_________________________ TITLE

(Seal)
STANDARD FORM OF PERFORMANCE BOND

Date of Execution of this Bond

Name and Address of Principal (Contractor)

Name and Address of Surety

Name and Address of Contracting Body

Amount of Bond

Contract That certain contract by and between the Principal and the Contracting Body above named dated  for

KNOW ALL MEN BY THESE PRESENTS, that we, the PRINCIPAL and SURETY above named, are held and firmly bound unto the above-named Contracting Body, hereinafter called the Contracting Body, in the penal sum of the amount stated above for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that whereas the Principal entered a certain contract with the Contracting Body, identified as shown above and hereto attached;

NOW THEREFORE, if the Principal shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the Contracting Body, with or without notice to the Surety, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of the contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, then, this obligation to be void; otherwise, to remain in full force and virtue.
PERFORMANCE BOND: (Continued)

THIS PERFORMANCE BOND is made and given pursuant to the requirements and provisions of Section 129 of Chapter 143 of the General Statutes of North Carolina and pursuant to Article 3 of Chapter 44-A of the General Statutes of North Carolina, and each and every provision set forth and contained in Section 129 of Chapter 143 and in Article 3 of Chapter 44-A of the General Statutes of North Carolina is incorporated herein, made a part hereof, and deemed to be conclusively written into this Bond.

IN WITNESS WHEREOF, the above-bounden parties have executed this instrument under their several seals as of the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned and representative, pursuant to authority of its governing body.

WITNESS: ___________________________________
Principal (Name of individual and trade name, partnership, corporation, or joint venture)

(Proprietorship or Partnership)

Printed Name__________________________
BY_______________________________(SEAL)
Printed Name__________________________

TITLE ___________________________________
(Owner, Partner, Office held in corporation, joint venture)

ATTEST: (Corporation)

BY_______________________________
Printed Name__________________________

TITLE ___________________________________
(Corporation Secretary or Assistant Secretary Only)

SURETY: ___________________________________
Surety (Name of Surety Company)

BY_______________________________
Printed Name__________________________

TITLE ______ Attorney in Fact

(Corporate Seal of Surety)

COUNTERSIGNED:

_______________________________________
(Address of Attorney in Fact)

N.C. Licensed Resident Agent
PROJECT SPECIAL CONDITIONS

1. The Contractor will provide all labor and materials unless otherwise noted.

2. Please email Jimmy Butler at butlerjl@concordnc.gov to arrange a site visit.


4. Contractor will be responsible for all permits and associated fees. Every fee charged by the City of Concord can be viewed online at www.concordnc.gov/Departments/Finance/Adopted-Fees-Schedule. Contact Cabarrus County for all other required project associated fees.

5. Whenever a project scope involves new plumbing fixtures; only install high efficiency toilets (1.28 gallons per flush) and water efficient urinals as required per Interbasin Transfer Agreement for all new City-owned facilities and retro-fits, where practicable.

6. Whenever a project scope involves HVAC controls; only install Reliable Controls to interface with the Cities control monitoring software system unless the City authorizes a different vendor in writing.

7. Whenever a project scope involves a new HVAC System; only install Carrier Units unless the City authorizes a different vendor in writing. No duct work can have interior insulation. All ductwork must be insulated/wrapped on the exterior.

8. All work shall meet the following standards applicable to this project:

- NC State Building Code – 2018
- NC Administrative Code and Policies – 2018
- NC Fire Prevention Code – 2018
- NC Mechanical Code – 2018
- NC Plumbing Code – 2018
- NEC – National Electrical Code
- NC Electrical Code – 2018
- NC Energy Conversation Code – 2018
- NC Fuel Gas Code – 2018
- NC Existing Building Code – 2018
- NC Réhabilitation Code - 2018

- AA – Aluminium Association
- AAMA – American Architectural Manufacturers Association
- ACI – American Concrete Institute
- AF&PA – American Forest & Paper Association
- AISC – American Institute of Steel Construction
- AISI – American Iron and Steel Institute
- AITC – American Institute of Timber Construction
- ANSI – American National Standards Institute
- APA – Engineered Wood Association
- ASCE/SEI – American Society of Civil Engineers Structural Engineering Institute
- ASME – American Society of Mechanical Engineers
- ASTM – ASTM International
- AWCI – Association of the Wall and Ceiling Industry
AWPA – American Wood Protection Association
AWS – American Welding Society
BHMA – Builders Hardware Manufacturer’s Association
CPA – Composite Panel Association
CPSC – Consumer Product Safety Commission
CSA – Canadian Standards Associations
CSSB – Cedar Shake and Shingle Bureau
DASMA – Door and Access Systems Manufactures Association International
DOC – US Dept. of Commerce – National Institute of Standards and Technology
DOJ – US Department of Justice
DOL – US Department of Labor
GA – Gypsum Association
HPVA – Hardwood Plywood Veneer Association
ICC – International Code Council
NAAMM – National Association of Architectural Metal Manufacturers
NCDOT – North Carolina Department of Transportation
NCMA – National Concrete Masonry Association
NFPA – National Fire Protection Association
PCI – Precast Pre-Stressed Concrete Institute
PTI – Post-Tensioning Institute
RMI – Rack Manufacturers Institute
SDI – Steel Deck Institute
SJI – Steel Joist Institute
SPRI – Single-Ply Roofing Institute
TIA – Telecommunications Industry Association
TMS – The Masonry Society
TPI – Truss Plate Institute
UL – Underwriters Laboratories, Inc.
WDMA – Window and Door Manufacturers Association
WRI – Wire Reinforcement Institute
PROJECT SCOPE

The City of Concord proposes to install new HVAC Systems in the gymnasiums at three recreation centers. The recreation centers are:

- Hartsell Recreation Ctr – 60 Hartsell School Road – Concord, NC
- Logan Recreation Center – 184 Booker Drive SW – Concord, NC
- Academy Recreation Ctr. – 147 Academy Avenue – Concord, NC

Project work shall be performed per plans furnished by the City of Concord from McVeigh & Mangum Engineering, Inc. – 916 West 5th Street – Charlotte, NC 28202 – Phone (704) 547-9035 – mail@McVeighMangum.com. Project completeness needs to be accomplished in the following order; Logan 1st, Hartsell 2nd, and Academy 3rd. Contractor will need to complete all electrical and structural changes required to support new mechanical systems installation.

**Hartsell Recreation Center** uses Reliable Controls and the new HVAC Systems will need to be connected to the City of Concord System. We have obtained a quote from Control Service Group - 1064 Van Buren Ave., Suite # 2 – Indian Trail, NC 28079 – 704.684.4055 - for the amount of $4,695.00 to accomplish the connection. This cost will need to be added into the contractors bid as instructed on the bid form. See attached quote. Logan and Academy Recreation Centers have not been upgraded to the City of Concord Reliable Control System at this time and are not connected. There are two old louver vents to be disconnected, removed, and close off hole with matching brick. Bollards will need to be installed at all outside corners of new fencing surrounding new units.

**Logan Recreation Center** will be utilizing an existing gas line on the roof with new gas line being connected to complete the run to the new HVAC Units. It is preferred that the power to the new units be ran from the panel to the units on the inside of the building rather than on the outside.

**Academy Recreation Center** will need to have an additional electrical panel added in order to obtain enough room in the existing panel for the additional electrical load. All unused steam piping is to be removed from the ceiling area at this location.
Proposition

Submitted to: The City of Concord Date: 1/8/2020

Project: City of Concord Hartsell Rec Center - Concord, NC

1. Summary:
   Controls Service Group (CSG) hereby submits the following quotation for the above referenced project.

2. Option 1 Scope of Work:
   a. (Qty: 1) MPZ for Space Sensors and Humidity
   b. (Qty: 4) Space Sensor/Humidity Combo for Averaging
   c. (Qty: 2) BACnet Integration of Package Outdoor Units
   d. Provide updated graphics
   Option 1 Base Price: $4,695

3. Exceptions and Clarifications to CSG Scope of Work:
   a. Price includes all wiring associated with the control system except such wiring specified as part of Electrical work or mechanical work.
   b. Controls Service Group standard insurance only, any additional coverage will be at an additional cost.
   c. No control wiring shall be in conduit, except in mechanical rooms and exposed spaces.
   d. Start up of HVAC equipment by others.
   e. CSG will not enable equipment without a written start up report.
   f. Painting of exposed conduit by others.
STANDARD FORM CONSTRUCTION CONTRACT

This contract (together with all exhibits and valid amendments, the “Agreement” or the “Contract”) is made and entered into as of the ______ day of ________, 2020, by the City of CONCORD (“City”) and ________ ("Contractor"), ( ) a corporation, ( ) a professional corporation, ( ) a professional association, ( ) a limited partnership, ( ) a sole proprietorship, or ( ) a general partnership; organized and existing under the laws of the State of _________________.

Sec. 1. Background and Purpose.
The City of Concord proposes to install new HVAC Systems in the gymnasiums at three recreation centers. The recreation centers are: Hartsell Recreation Ctr – 60 Hartsell School Road – Concord, NC
Logan Recreation Center – 184 Booker Drive SW – Concord, NC
Academy Recreation Ctr. – 147 Academy Avenue – Concord, NC
Project work shall be performed per plans furnished by the City of Concord from McVeigh & Mangum Engineering, Inc. Project completeness needs to be accomplished in the following order; Logan 1st, Hartsell 2nd, and Academy 3rd. Contractor will need to complete all electrical and structural changes required to support new mechanical systems installation.

Sec. 2. Services and Scope to be Performed. The Contractor shall provide the services at the charges set forth either in this paragraph or in Exhibit “A”. Additional exhibits may be used to further define this Agreement when the Contractor and City so agree. Any additional exhibits shall be designated as exhibits to the Agreement with capitalized, sequential letters of the alphabet, shall be attached hereto and incorporated herein by reference as if the same were fully recited, and shall become terms of this Agreement upon execution by both parties.

In this Contract, “services” means the services that the Contractor is required to perform pursuant to this Contract and all of the Contractor’s duties to the City that arise out of this Contract. Any amendments, corrections, or change orders by either party must be made in writing signed in the same manner as the original. (This form may be used for amendments and change orders.) The City reserves the right to refuse payment for any work outside that authorized herein or pursuant to a duly approved amendment or change order.

Sec. 3. Complete Work without Extra Cost. Unless otherwise provided, the Contractor shall obtain and provide, without additional cost to the City, all labor, materials, equipment, transportation, facilities, services, permits, and licenses necessary to perform the Work.

Sec. 4. Compensation. The City shall pay the Contractor for the Work as described in this paragraph below OR as described in Exhibit “A” attached. In the event of a conflict, the provisions of this paragraph shall control. Any additional expenses or charges shall only be paid after both the City and the Contractor agree to and execute a written change order. The City shall not be obligated to pay the Contractor any fees, payments, expenses or compensation other than those authorized in this Contract or in a duly-approved change order. All payments shall be deemed inclusive of tax and other obligations.

Sec. 4a. Retainage. The City shall withhold no retainage on Contracts having a “total project cost” of less than $100,000.00. The City may withhold retainage on contracts having a total project cost between $100,000 and $200,000. The City shall withhold retainage on contracts whose total project cost exceeds $300,000. When withheld, retainage shall equal no more than five percent of each progress payment. When the project is fifty per cent complete, the City shall not retain anything from future project payments provided that (i) the surety concurs in writing, (ii) the Contractor continues to perform satisfactorily, (iii) any non-conforming work identified in writing by the architect, engineer(s) or City has been corrected by the Contractor and accepted by the architect, engineer(s) or City. However, if the City determines that the Contractor’s performance is unsatisfactory, the City may withhold up to five percent retainage from each project payment. The City may withhold additional amounts above five percent for unsatisfactory job progress, defective construction not remedied, disputed work, third party claims filed against the owner or reasonable evidence that a third-party claim will be filed.

Definitions:
“Total Project Cost”: Total value of the Contract and any approved change orders or amendments.

“Project is Fifty Percent Complete”: When the Contractor’s validly-issued gross project invoices (excluding the value of the materials stored off-site) equal or exceed fifty percent of the value of the Contract, except that the value of materials stored on-site shall not exceed twenty percent of the Contractor’s gross project invoices for determining whether the project is fifty percent complete.

Sec. 5. Term. The Contractor shall commence work within ten (10) days of the date of its receipt of written Notice to Proceed from the City. The date that is ten (10) days from the date of the Contractor’s receipt of the Notice to Proceed shall be the “Commencement
Date.” All work as set forth in the Scope of Services in Exhibit “A” shall be completed within _______ (___) calendar days of the Commencement Date. The date that is _______ (___) calendar days from the Commencement Date shall be the “Completion Date.” Time is of the essence regarding this Project. If Contractor’s obligations are not completed by the Completion Date, the City reserves the right to nullify this Agreement, order the Contractor to immediately cease all work under this Agreement and vacate the premises, and to seek professional services equivalent to those outlined in Exhibit “A.” The Contractor shall be held accountable for all damages incurred by the City because of the missed Completion Date. The exercise of any of these rights by the City shall not be interpreted to prejudice any other rights the City may have under this Agreement or in law or equity. This Contract shall not be automatically extended unless agreed to in writing by the City or as provided in Exhibit “A”.

Sec. 6. Contractor’s Billings to City. Payments will be made in accordance with the schedule found in this section below OR attached at Exhibit “A”. Contractor shall submit an original pay request (invoice) to the City Purchasing Agent by the first of each month to expedite payment. Upon receipt of the request the City Purchasing Agent shall verify the amounts and if correct forward the request to the Accounts Receivable Division of the Finance Dept. Final payment on the Contract shall be made in 45 days, except in the case of retainage. Within 60 days after the submission of the final pay request, the City (with the written consent of the surety) shall release to the Contractor all retainage payments IF the City receives a certificate of substantial completion from the architect, engineer or designer-in-charge of the project OR the City receives beneficial occupancy and use of the project. In either case, the City may retain up to 2.5 times the estimated value of the work to be completed or corrected.

Sec. 7. Insurance. Contractor shall maintain and cause all sub-contractors to maintain insurance policies always with minimum limits as follows:

<table>
<thead>
<tr>
<th>Coverage</th>
<th>Minimum Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers’ Compensation</td>
<td>$100,000 each accident, $100,000 bodily injury by disease each employee, $500,000 bodily injury by disease policy limit</td>
</tr>
<tr>
<td>General Liability</td>
<td>$1,000,000 per occurrence regardless of the contract size</td>
</tr>
<tr>
<td>Automobile Liability</td>
<td>$1,000,000 per occurrence regardless of the contract size</td>
</tr>
<tr>
<td>Umbrella</td>
<td>☑ $1,000,000 per occurrence if contract does not exceed 180 days and does not exceed $500,000; otherwise,</td>
</tr>
<tr>
<td></td>
<td>☐ $2,000,000 per occurrence</td>
</tr>
</tbody>
</table>

Contractor shall provide a Certificate of Insurance to the City listing the City as an additional insured. Such Certificate shall be in a form acceptable to the City.

Sec. 8. Documentation Requirements:
A. Contractor shall provide the City with a Certificate of Insurance for review prior to the issuance of any contract or Purchase Order. All Certificates of Insurance will require written notice by the insurer or Contractor’s agent in the event of cancellation, reduction or other modifications of coverage by the insurer. Such notice shall be not less than 30 days for nonrenewal by the insurer, not less than 10 days for cancellation due to nonpayment of the premium and as soon as possible for all other types of modifications. In addition to the notice requirement above, Contractor shall provide the City with written notice of cancellation, reduction, or other modification of coverage of insurance whether instigated by the insurer or by the Contractor immediately upon Contractor’s receipt of knowledge of such modifications. Upon failure of the Contractor to provide such notice, Contractor assumes sole responsibility for all losses incurred by the City for which insurance would have provided coverage. The insurance certificate shall be for the insured period in which the initial contract period begins and shall be renewed by the Contractor for each subsequent renewal period of the insurance for so long as the contract remains in effect.

The City shall be named as an additional insured on all policies except Workers’ Compensation and it is required that coverage be placed with “A” rated insurance companies acceptable to the City. Statement should read, “City of Concord is added as an additional insured as evidenced by an endorsement attached to this certificate.” Failure to maintain the required insurance in force may be cause for termination of this Agreement. If the Contractor fails to maintain and keep in force the insurance herein required, the City has the right to cancel and terminate the Agreement without notice.

B. Contractor shall provide a completed W-9 form to the City prior to execution by the City of this Agreement.

Sec. 9. Performance of Work by Contractor.
(a) The Contractor warrants that all work performed under this Contract conforms to the Contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier. This warranty shall continue for a period of 1 year from the date of issuance by the City of written completion of the work.

(b) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to City-owned or controlled real or personal property, when that damage is the result of--

1. The Contractor's failure to conform to contract requirements; or

2. Any defect of equipment, material, workmanship, or design furnished.

(c) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.

(d) The City shall notify the Contractor, in writing, within a reasonable time, not to exceed 30 days, after the discovery of any failure, defect, or damage.

(e) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time, not to exceed 30 days unless otherwise agreed in writing and signed by the City Manager or his designee, after receipt of notice, the City shall have the right to replace repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

(f) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this Contract, the Contractor shall--

1. Obtain all warranties that would be given in normal commercial practice,

2. Require all warranties to be executed, in writing, for the benefit of the City, if directed to do so by the City; and

3. Enforce all warranties for the benefit of the City, if directed to do so by the City

(g) In the event the Contractor’s warranty has expired, the City may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

(h) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the City nor for the repair of any damage that results from any defect in City-furnished material or design.

**Sec. 10. Performance of Work by City.** If the Contractor fails to perform the Work in accordance with the schedule referred to in Exhibit “A”, the City may, in its discretion, perform or cause to be performed some or all the Work, and doing so shall not waive any of the City’s rights and remedies. Before doing so, the City shall give the Contractor reasonable notice of its intention. The Contractor shall reimburse the City for all costs incurred by the City in exercising its right to perform or cause to be performed some or all the Work pursuant to this section.

**Sec. 11. Attachments.** Additional exhibits may be used to further define this Agreement when the Contractor and City so agree. Any additional exhibits shall be designated as exhibits to the Agreement with capitalized, sequential letters of the alphabet, shall be attached hereto and incorporated herein by reference as if the same were fully recited, and shall become terms of this Agreement upon execution by both parties.

**The following attachments** are made a part of this Contract and incorporated herein by reference:

(a) Exhibit “A” – Bid Form
(b) Exhibit “B” – Contractor must execute the Affidavit attached as Exhibit “B”, attesting to compliance with state and federal laws related to E-Verify.
(c) Exhibit “C” – Tax Form(s).
(d) Exhibit “D” - Certificate of Insurance.
Sec. 12. Notice. (a) All notices and other communications required or permitted by this Contract shall be in writing and shall be given either by personal delivery, fax, or certified United States mail, return receipt requested, addressed as follows:

To the City:
Sue Hyde, Director of Engineering
City of Concord
P.O. Box 308
Concord, NC 28026
Fax Number: (704) 786-4521

To the Contractor:
VaLerie Kolczynski, Esq.
City Attorney
PO Box 308
Concord, NC 28026
Fax Number: (704) 784-1791

(b) Change of Address, Date Notice Deemed Given: A change of address, fax number, or person to receive notice may be made by either party by notice given to the other party. Any notice or other communication under this Contract shall be deemed given at the time of actual delivery, if it is personally delivered or sent by fax. If the notice or other communication is sent by US Mail, it shall be deemed given upon the third calendar day following the day on which such notice or other communication is deposited with the US Postal Service or upon actual delivery, whichever first occurs.

Sec. 13. Indemnification. To the maximum extent allowed by law, the Contractor shall defend, indemnify, and save harmless the City of Concord, its agents, officers, and employees, from and against all charges that arise in any manner from, in connection with, or out of this Contract as a result of the acts or omissions of the Contractor or subcontractors or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable except for damage or injury caused solely by the negligence of the City its agents, officers, or employees. In performing its duties under this section, the Contractor shall at its sole expense defend the City of Concord, its agents, officers, and employees with legal counsel reasonably acceptable to City. As used in this subsection — “Charges” means claims, judgments, costs, damages, losses, demands, liabilities, duties, obligations, fines, penalties, royalties, settlements, expenses, interest, reasonable attorney’s fees, and amounts for alleged violations of sedimentation pollution, erosion control, pollution, or other environmental laws, regulations, ordinances, rules, or orders. Nothing in this section shall affect any warranties in favor of the City that are otherwise provided in or arise out of this Contract. This section is in addition to and shall be construed separately from any other indemnification provisions that may be in this Contract. This section shall remain in force despite termination of this Contract (whether by expiration of the term or otherwise) and termination of the services of the Contractor under this Contract.

Sec. 14. Corporate Status. If the Contractor is dissolved or suspended and the Contractor does not notify the City of such dissolution within three (3) business days from date of dissolution or suspension, and/or the corporate status is not reinstated within thirty (30) days, this Contract, at the sole option of the City and without prejudice to City’s other remedies, shall be declared null and void or the Contractor shall execute a new contract showing the Contractor’s correct legal entity.

Sec. 15. Miscellaneous.
(a) Choice of Law and Forum. This Contract shall be deemed made in Cabarrus County, North Carolina. This Contract shall be governed by and construed in accordance with the laws of North Carolina. The exclusive forum and venue for all actions arising out of this Contract shall be the appropriate division of the North Carolina General Court of Justice, in Cabarrus County. Such actions shall neither be commenced in nor removed to federal court. This section shall not apply to subsequent actions to enforce a judgment entered in actions heard pursuant to this section.

(b) Waiver. No action or failure to act by the City shall constitute a waiver of any of its rights or remedies that arise out this Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.

(c) Performance of Government Functions. Nothing contained in this Contract shall be deemed or construed to in any way estop, limit, or impair the City from exercising or performing any regulatory, policing, legislative, governmental, or other powers or functions.

(d) Severability. If any provision of this Contract shall be unenforceable, the remainder of this Contract shall be enforceable to the extent permitted by law.

(e) Assignment, Successors and Assigns. Without the City’s written consent, the Contractor shall not assign (which includes to delegate) any of its rights (including the right to payment) or duties that arise out this Contract. Unless the City otherwise agrees in writing, the Contractor and all assigns shall be subject to all the City’s defenses and shall be liable for all the Contractor’s duties that arise out of this Contract and all the City’s claims that arise out of this Contract. Without granting the Contractor the right to assign, it is agreed that the duties of the Contractor that arise out of this Contract shall be binding upon it and its heirs, personal representatives, successors, and assigns.
(f) Compliance with Law. In performing all the Work, the Contractor shall comply with all applicable law. Without limitation, Contractor shall comply with the requirements of Article 2, Chapter 64 (Verification of Work Authorization) of the North Carolina General Statutes relating to E-Verify. Further, if Contractor utilizes a subcontractor, Contractor shall require the subcontractor to comply with the requirements of Article 2 of Chapter 64 of the General Statutes.

(g) City Policy. THE CITY OPPOSES DISCRIMINATION BASED ON RACE AND SEX AND URGES ALL ITS CONTRACTORS TO PROVIDE A FAIR OPPORTUNITY FOR MINORITIES AND WOMEN TO PARTICIPATE IN THEIR WORK FORCE AND AS SUBCONTRACTORS AND VENDORS UNDER CITY CONTRACTS.

(h) EEO Provisions. During the performance of this Contract the Contractor agrees as follows: (1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, political affiliation or belief, age, or handicap. The Contractor shall take affirmative action to ensure that applicants are employed and that employees are treated equally during employment, without regard to race, color, religion, sex, national origin, political affiliation or belief, age, or handicap. The Contractor shall post in conspicuous places available to employees and applicants for employment, notices setting forth these EEO provisions. (2) The Contractor in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, political affiliation or belief, age, or handicap.

(i) No Third Party Right Created. This Contract is intended for the benefit of the City and the Contractor and not any other person.

(j) Principles of Interpretation. In this Contract, unless the context requires otherwise the singular includes the plural and the plural the singular. The pronouns “it” and “its” include the masculine and feminine. Reference to statutes or regulations include all statutory or regulatory provisions consolidating, amending, or replacing the statute or regulation. References to contracts and agreements shall be deemed to include all amendments to them. The word “person” includes natural persons, firms, companies’ associations, partnerships, trusts, corporations, governmental agencies and units, and any other legal entities.

(k) Modifications, Entire Agreement. A modification of this Contract is not valid unless signed by both parties and otherwise in accordance with requirements of law. Further, a modification is not enforceable against the City unless the City Manager or other duly authorized official signs it for the City. This Contract contains the entire agreement between the parties pertaining to the subject matter of this Contract. With respect to that subject matter, there are no promises, agreements, conditions, inducements, warranties, or understandings, written or oral, expressed or implied, between the parties, other than as set forth or referenced in this Contract.

(l) Corporate Seal. If a corporate seal is included by any party to this Contract, it is only for authentication purposes. This Contract is not signed under seal.

(m) No Employment Relationship. For all matters relating to this Agreement, Contractor shall be deemed an Independent Contractor. Nothing in this Agreement shall be construed in such a manner as to create an employee-employer relationship between City and Contractor.

(The following section applies to construction contracts only if amount is over $50,000)

Sec. 16. Bonding. Both performance and payment bonds for the full amount of this Contract are required to be attached. Instead of bonds, you may submit a deposit of money, certified check or government securities for the full amount of the Contract. The performance bond shall have a value equal to 100% of this Contract. This bond shall be conditioned upon faithful performance of the Contract in accordance with the plans, specifications and conditions of the Contract. The performance bond shall be solely for the protection of the City. The payment bond shall be in an amount equal to 100% of the Contract, and conditioned upon the prompt payment for all labor or materials for which a contractor or subcontractor is liable. The payment bond shall be solely for the protection of the persons furnishing materials or performance labor for which a contractor or subcontractor is liable.

Sec. 17. Dispute Resolution. It is understood and agreed that NCGS 143-128(f1-g) requires that disputes arising under an agreement for the erection, construction, alteration or repair of a building be subject to a dispute resolution process specified by the City. The amount in controversy shall be at least $15,000.00 before this dispute resolution procedure may be used. In compliance with this statutory provision, the City specifies this Section as the dispute resolution process to be used on this Project. It is further understood and agreed that this dispute resolution process is based on non-binding mediation and will only be effective to the extent that the Parties to any mediated dispute participate in the mediation in good faith. It is also understood and agreed that the City is under no obligation under any circumstance to secure or enforce the participation of any other Party in the mediation of any dispute subject to this Section and NCGS 143-128(f1-g).

This Section 17 does not apply to:

(a) The purchase and erection of prefabricated or relocatable buildings or portions of such buildings, except that portion of the work that must be performed at the construction site; or

(b) The erection, construction alteration or repair of a building when the cost of such building is $300,000 or less.
17.1 Any dispute arising between or among the Parties listed in Section 17.3 that arises from an agreement to construct the Project, including without limitation a breach of such agreement, shall be subject to non-binding mediation administered by the American Arbitration Association under its Construction Industry Mediation Rules (“Rules”), except as otherwise expressly set forth in this Section. To the extent any provision of the Rules is inconsistent with the provisions of this Section, the provisions of this Section shall control. The mediation provided in this Section shall be used pursuant to this Agreement and NCGS 143-128(f1-g) and is in lieu of any dispute resolution process adopted by the North Carolina State Building Commission, which process shall not apply to this Project.

17.2 For purposes of this Section the following definitions shall apply:

a. Agreement to construct the Project means an agreement to construct the Project that is subject to the requirements of NCGS 143-128 and does not include any agreement related to the Project that is not subject to said statute.

b. Construct or construction refers to and includes the erection, construction, alteration or repair of the Project.

c. Party or Parties refers to the parties listed in Section 16.4.

d. Project means the building to be erected, constructed, altered or repaired pursuant to this Agreement.

17.3 The City and any Party contracting with the City or with any first-tier or lower-tier subcontractor for the construction of the Project agree to participate in good faith in any mediation of a dispute subject to this Section and NCGS 143-128(f1-g), including without limitation the following Parties (if any): architect(s), engineer(s), surveyor(s), construction manager, construction manager at risk, prime contractor(s), surety(ies), subcontractor(s), and supplier(s).

17.4 To facilitate compliance with NCGS 143-128(f1-g), the Contractor and all other Parties shall include this Section 17 in every agreement to which it (any of them) is a Party for the construction of the Project without variation or exception. Failure to do so will constitute a breach of this Agreement, and the Contractor or other Party failing to include this Section in any agreement required by this Section shall indemnify and hold harmless the remaining Parties from and against all claims, including without limitation reasonable attorney fees and other costs of litigation, arising in any manner from such breach. Notwithstanding the foregoing provisions of this Section, it is expressly understood and agreed that the Parties are intended to be and shall be third-party beneficiaries of the provisions of this Section and can enforce the provisions hereof.

17.5 The following disputes are not subject to mediation: (i) a dispute seeking a non-monetary recovery; and (ii) a dispute seeking a monetary recovery of $15,000 or less.

17.6 A dispute seeking the extension of any time limit set forth in an agreement to construct the Project shall be subject to mediation pursuant to this Section and NCGS 143-128(f1-g), but only if the damages which would be suffered by the Party seeking the extension would exceed $15,000 if the disputed extension is denied. To the extent that liquidated damages are set forth in such agreement as the measurement of damages for failure by such Party to meet such time limit, such liquidated damages shall be the exclusive standard for determining the amount of damages associated with such dispute.

17.7 For purposes of this Section, a dispute is limited to the recovery of monetary damages from the same transaction or occurrence against a single Party or two or more Parties alleged to be liable jointly, severally or in the alternative. Two or more disputes may not be consolidated or otherwise combined without the consent of all Parties to such disputes.

17.8 In addition to such matters as are required by the Rules, a request for mediation shall include the amount of the monetary relief requested.

17.9 Prior to requesting mediation, a Party must form a good faith belief that it is entitled under applicable law to recover the monetary amount to be included in the request from one or more of the remaining Parties. Such belief must be based on a reasonable and prudent investigation into the dispute that is the subject of the request. The request for mediation must be based on such investigation and may not include any amount or the name of any remaining Party, unless supported by such investigation and good faith belief by the Party requesting the mediation.

17.10 If a Party breaches any provision of Section 17.9, it shall indemnify and hold harmless all other Parties from any costs, including reasonable attorney fees and other costs of litigation, and damages incurred by such other Parties that arise from such breach.
17.11 All expenses incurred by a Party to a dispute in preparing and presenting any claim or defense at the mediation shall be paid by the Party. Such expenses include without limitation preparation and production of witnesses and exhibits and attorney fees. All other expenses of the mediation, including filing fees and required traveling and other expenses of the mediator, shall be borne as follows: one half by the Party requesting the mediation, with the remaining parties paying equal shares of the remaining expenses and costs; provided that, if the City is named as a party to the mediation, the City shall pay at least one-third of the mediation expenses and costs divided among the Parties. If more than one Party to a dispute requests a mediation, the mediation expenses and costs to be divided among the Parties shall be borne equally by the Parties to the dispute; provided that, if the City is named as a Party to the mediation, the City shall pay at least one-third of the mediation expenses and costs divided among the Parties.

17.12 The mediation shall be held at a location agreeable to the mediator and all the Parties; provided that, if no agreement can be reached, the mediation will be held at such location in Cabarrus County as the mediator shall determine.

17.13 The provisions of this Section are subject to any other provision of this Agreement concerning the submission, documentation and/or proof of any claim or dispute. Such other provisions shall apply in full force and shall be satisfied as a condition precedent to mediation pursuant to this Section.

17.14 The Parties understand and agree that mediation in accordance with this Section shall be a condition precedent to institution of any legal or equitable proceeding seeking monetary recovery based on any dispute that is subject to mediation pursuant to this Section.

Sec. 18. Breach. In the event of a violation of any material term of this Agreement, the non-violating party may terminate the Agreement upon written notice. Such notice shall state the violation with specificity and shall give ten (10) days to cure the violation. The cure period shall be measured as ten (10) days from the date of receipt of notice by the violating party, or, if the date is not known, then thirteen (13) days from the date the notice is placed in the United States Post. If the violation remains uncorrected at the end of the cure period, the Agreement shall be terminated without any further action by the non-violating party. Any remaining disputes shall be subject to the dispute resolution procedure set forth above, if applicable.

[Signature Page to Follow]
IN WITNESS WHEREOF, the City of Concord and the Contractor have caused this Contract to be executed by their respective duly authorized agents or officers.

CITY OF CONCORD:  
(Typed or Printed Legal Name of Contractor)

By:__________________________  By:__________________________
    City Manager                  Signature of President/Vice President/Manager/Partner

Date:__________________________  Printed Name: ________________________________

ATTEST BY:

City Clerk

ATTEST:

BY: ____________________________
    Signature of Vice President, Secretary, or other officer

APPROVED AS TO FORM:

Printed Name: ________________________________

Title ________________________________

Attorney for the City of Concord  SEAL

APPROVAL BY CITY FINANCE OFFICER

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

Signature ________________________________
EXHIBIT “B”

E-VERIFY

STATE OF NORTH CAROLINA
COUNTY OF CABARRUS

AFFIDAVIT

I, ________________________________, (the individual signing below), being duly authorized by and on behalf of ________________________________, (the legal name of the entity entering the contract, "Employer") after first being duly sworn hereby swears or affirms as follows:

1. Employer understands that E-Verify is the federal E-Verify program operated by the United States Department of Homeland Security and other federal agencies, or any successor or equivalent program used to verify the work authorization of newly hired employees pursuant to federal law in accordance with NCGS § 64-26.

2. Employer understands that Employers Must Use E-Verify. Each employer (as such term is defined in NCGS § 64-25), after hiring an employee (as such term is defined in NCGS § 64-25) to work in the United States, shall verify the work authorization of the employee through E-Verify in accordance with NCGS§64-26(a). Employer attests that Employer is following the requirements of the federal and state laws relevant to E-verify.

3. Employer is a person, business entity, or other organization that transacts business in the State of North Carolina. Employer employs 25 or more employees in this State. (mark Yes or No)
   a. YES  , or  b. NO  .

4. Employer attests that all subcontractors employed by it as part of this contract comply with the requirements of E-Verify, and Employer will ensure compliance with E-Verify by any subcontractors subsequently hired by Employer as part of any contract with the City of Concord.

5. Employer shall have a continuing duty to inform the City of Concord of any changes to this sworn information.

This ___day of ________________, 2020.

Signature of Affiant
Print or Type Name: ________________________________

State of North Carolina County of Cabarrus
Signed and sworn to (or affirmed) before me, this the _____
day of ________________, 2020.

My Commission Expires:

_________________________  Notary Public
EXHIBIT “D”

CERTIFICATE OF INSURANCE
TO:

FROM: City of Concord City Council (OWNER)
P.O. Box 308
26 Union Street, South
Concord, North Carolina 28026-0308

PROJECT: Recreation Centers HVAC Upfit – Hartsell – Logan - Academy

City Project No. 2019-062

You are hereby notified that the bid submitted by you for the above-named project in response to the City of Concord’s Invitation to Rebid dated January 31 2020 in the amount of

_________________________________________ And _______/100 DOLLARS

($______________) has been accepted.

You are hereby required to execute the formal AGREEMENT with the City of Concord City Council and to furnish all Contractor’s Bond(s), Certificate of Insurance and Power of Attorney(s) along with other documents pertaining to the work as designated by the City of Concord.

If you fail to execute said AGREEMENT and to furnish this and any other required documents pertaining to the work within ten (10) days from the date of delivery of this NOTICE OF AWARD, said Owner will be entitled to consider all your rights arising out of the Owner’s acceptance of your bid as abandoned and to award the work covered by your proposal to another, or to re-bid the work or otherwise dispose thereof as the Owner may see fit.

Dated this the________day of______________, 2020

City of Concord, North Carolina

By: ____________________________
Title: City Manager

ACCEPTANCE OF NOTICE OF AWARD

Receipt of the above NOTICE OF AWARD is hereby acknowledged this the_______day of______________, 2020.

By: ____________________________
Title: ____________________________
TO:

FROM: City of Concord City Council (OWNER)
P.O. Box 308
26 Union Street, South
Concord, North Carolina 28026-0308

PROJECT: Recreation Centers HVAC Upfit – Hartsell – Logan - Academy

City Project No. 2019-062

Contract Amount: _____________________________ DOLLARS ( $__________).

You are hereby notified to commence work on or before the _____ of ____________, 2020, and are to fully complete the work by the _____ day of ____________, 2020.

Your project completion date is therefore the _______ day of ____________, 2020, and as set forth in the above-named project’s schedule unless an extension is granted by the City of Concord Director of Engineering in writing.

City of Concord, North Carolina

By: _____________________________
Title: City Manager

Dated this the day of ____________, 2020.
City of Concord
Post Office Box 308
Concord, North Carolina 28026-0308

PROJECT:
Date Notice to Proceed: ===
Completion Date: =========
Days Remaining in Contract:
Percent Work Complete: ==
Percent Time Complete: ==
Percent Payment Complete:

APPLICATION FOR PAYMENT NO. _______ SHEET NO. _______ OF _______

PERIOD FROM: ______________ TO: ______________

CERTIFICATE OF THE CONTRACTOR
To the best of my knowledge and belief, I certify that this periodical estimate is correct and all work has been performed and materials supplied in full accordance with the terms and conditions of the contract documents between the undersigned contractor and the City of Concord.

GROSS AMOUNT OF PARTIAL PAYMENT - $

LESS: RETAINAGE AT PERCENT $-
PREVIOUS PAYMENT $-
LIQUIDATION DAMAGES $-
DAYS @ $- $-
OTHER DEDUCTIONS: $-
$-

TOTAL DEDUCTIONS $-

NET AMOUNT DUE THIS ESTIMATE $-

Name of Contractor: ____________________________ Address: ________________________________

Signed: ____________________________ Title: ____________________________ Date: ___________

CERTIFICATE OF CONSTRUCTION ADMINISTRATOR/ENGINEER
I certify that I have verified this periodical estimate and that to the best of my knowledge and belief, it is a true and correct statement of work performed and materials supplied under the contract.

Consultant Engineer: ____________________________ Date: ___________

Construction Administrator: ____________________________ Date: ___________

APPROVED AND PAYMENT RECOMMENDED:
CITY OF CONCORD

Signed: ____________________________ Title: ____________________________ Date: ___________
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<th>TOTAL QUANT. PREV. EST.</th>
<th>TOTAL QUANT. TO DATE</th>
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</tbody>
</table>
CITY OF CONCORD
CONCORD, NORTH CAROLINA
CONTRACT CHANGE ORDER

Project: _______________________________  Date: __________

Owner: City of Concord  Change Order No. __________

To: (CONTRACTOR)

Account No. __________________________
Purchase Order No. ____________________

You are hereby requested to make the following changes in this Contract to comply with the provisions of the attached and/or the original Contract Documents.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description of Changes</th>
<th>Additions</th>
<th>Deductions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
</tbody>
</table>

Original Contract Amount
Net Changes by Previous Change Orders
Net Changes This Change Order $0.00

New Contract Amount $0.00

The Contract Time will be _______ by _______ calendar days.
The Completion Date as of this Change Order is: _________________

Accepted: (Contractor) ________________________________________

By: ____________________________  Date: __________

Accepted: CITY OF CONCORD

By: ____________________________  Date: __________

This instrument has been pre-audited in the manner required by Local Government Budget and Fiscal Control Act.

By: ____________________________  Date: __________

Finance Director
CITY OF CONCORD FIELD ORDER
ENGINEERING DEPARTMENT

FIELD ORDER NO: _______ CONTRACT: _____________ DATE: ________________

PROJECT: __________________________________________

LOCATION: _________________________________________

TO: _______________________________________________

_________________________________________________

THIS ORDER AUTHORIZES YOU TO PROCEED WITH THE ALTERATIONS AND/OR ADDITIONS TO THE WORK AS DESCRIBED HEREIN, IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF OUR STANDARD FORM OF CONTRACT.

DESCRIPTION OF WORK: ______________________________________

- QUOTATION RECEIVED AND APPROVED BY THE CITY OF CONCORD.
- QUOTATION NOT RECEIVED. PLEASE FURNISH QUOTATION IMMEDIATELY TO THE CITY OF CONCORD FOR CHECK AND APPROVAL.
- TIME AND MATERIAL BASIS. FURNISH TIME AND MATERIAL REPORTS DAILY TO THE CITY OF CONCORD FOR VERIFICATION AND SIGNATURE.
- OTHER: ________________________________________________

AUTHORIZED BY: ___________________________________________
I certify that the above listed vendors were paid sales tax upon purchases of materials during the period covered by the Construction Estimate, and the property upon which such taxes were paid with or will be used in the performance of this contract. No tax on purchases or rentals of tools and/or equipment is included in the above list. All the materials above became a part of or is annexed to the building or structure being erected, altered or repaired.

_________________________
Contractor or Subcontractor Name

(print)
Signature: ________________________

_________________________
Name (print): ________________________

_________________________
Title: ________________________

SWORN AND SUBSCRIBED BEFORE ME THIS _____ DAY OF ________, 2020.

_________________________
Title: NOTARY
PUBLIC

MY COMMISSION EXPIRES ON: ________________________
North Carolina 811, Inc.

North Carolina One Call Center, Inc., a non-profit organization funded by participating utility companies and municipalities in the interest of community and job safety and improved service through damage reduction to the utilities.

A ONE CALL TOLL FREE TELEPHONE NUMBER, 1-800-632-4949, PROVIDES AN AVENUE TO ALL THE PARTICIPATING MEMBERS FROM ANY POINT WITHIN THE STATE OF NORTH CAROLINA.

Anyone proposing to excavate, dig, bore, tunnel, blast or disturb the earth in any way buried utilities may be damaged is requested to call the toll-free number between the hours of 7:00 a.m. and 7:00 p.m., Monday through Friday, three working days before starting the proposed work.

Within minutes of your telephone call, the participating members will be made aware of your plans and will be given pertinent information that has been provided by you about your planned work. You will be told the names of the participating members from whom you can expect a response - if there are buried facilities in the path of your activity, the route of the utilities will be staked and/or marked at no expense to you. If there are no facilities around the planned work, you will be called or notified by a representative of a participating company accordingly.

Should a non-participating utility operator be serving your area, we recommend that you call them on an individual basis. All utility operators, whether company or municipality, will be provided an opportunity to become a member of North Carolina One Call Center, Inc.

Naturally, knowing the route of utilities, the excavator is expected to exercise caution and to avoid damage as the project progresses.

Damage prevention does not just happen – it is a planned and orderly process through which each of us can participate - YES, WE CAN AND WE WILL DRAMATICALLY REDUCE DAMAGES TO THE UTILITIES IN THE STATE OF NORTH CAROLINA!! THANKS FOR YOUR HELP.

BEFORE YOU DIG
IN THE INTEREST OF COMMUNITY AND JOB SAFETY AND IMPROVED SERVICE
CALL NORTH CAROLINA ONE CALL CENTER, INC.
1-800-632-4949 OR 811
SECTION II
GENERAL CONDITIONS

Please reference online at


Dated: 01/5/2010


Dated: 01/8/2010
SECTION III
CITY OF CONCORD PROJECT DRAWINGS
### Variable Air Volume Gas Fired RTU Schedule

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<thead>
<tr>
<th>Description</th>
<th>AHU-1</th>
<th>AHU-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply Airflow (CFM)</td>
<td>6000</td>
<td>6000</td>
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<tr>
<td>Designation</td>
<td>AHU-1</td>
<td>AHU-2</td>
</tr>
<tr>
<td>Stage 1 Gas Reheat</td>
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<td></td>
</tr>
<tr>
<td>Carrier Staged Air Volume Controls</td>
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<td></td>
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<tr>
<td>Tie Into Building Automation System</td>
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<td></td>
</tr>
<tr>
<td>Provide Variable Frequency Drive and Inverter Duty Motor</td>
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<tr>
<td>Remarks</td>
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<tr>
<td>Unit Weight, Including Curb (LBS.)</td>
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<tr>
<td>Steady-State Efficiency (%)</td>
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<td>IEER/EEER</td>
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<td>12.4 / 10.8</td>
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<tr>
<td>Entering Air Temperature (DB/WB)</td>
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<td>Gross Sensible Cooling (MBH)</td>
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<td>Gross Total Cooling (MBH)</td>
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<td>Cond. Fan F.L.A. (EA)</td>
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<td>Fan Voltage/Phase</td>
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<td>Ext. Static Pressure (IN. W.G.)</td>
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<td>O/A Airflow (CFM)</td>
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### Mechanical Symbols Legend

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<tr>
<td>D</td>
<td>Dynamic Smoke Damper</td>
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<tr>
<td>SD</td>
<td>Style 'CR' Fire Damper for Round Ducts</td>
</tr>
<tr>
<td>B</td>
<td>Style 'B' Fire Damper</td>
</tr>
<tr>
<td>SF</td>
<td>Dynamic Fire Damper</td>
</tr>
<tr>
<td>E</td>
<td>Diffuser and Register Locations Shall Be Coordinated with Other Trades</td>
</tr>
</tbody>
</table>

### Abbreviations

- CFM: Cubic Feet per Minute
- MBH: Million British Thermal Units
- BTUH: British Thermal Units per Hour
- SQFT: Square Feet
- FLEX: Flexible
- TYP: Typical
- AFF: As Built
- UC: Unit Cost
- DN: Diameter
- HP: Horsepower
- IN: Inch
- VOLTS: Volts
- VOLTS: Volts
- BTU/H: British Thermal Units per Hour
- KW: Kilowatts
- H: Hour
- MIN: Minimum
- MAX: Maximum
- UC: Unit Cost
- VOLTS: Volts
- IN: Inch
- H: Hour
- BHP: Brake Horsepower
- HP: Horsepower
- IN: Inch
- VOLTS: Volts
- BTU/H: British Thermal Units per Hour
- KW: Kilowatts
- H: Hour
- MIN: Minimum
- VOLTS: Volts
- UC: Unit Cost
- DN: Diameter
- CEILING: Ceiling
- EXHAUST: Exhaust
- IOS: Indoor Outdoor Rating
- EC: Equipment Credit
- F: Foot
- V: Volume
- 200 CFM: 200 Cubic Feet per Minute
INSTRUMENTATION AND CONTROL FOR HVAC

1. AHU CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF CONCORD'S STANDARDS AND REGULATIONS.

2. CONTROLS CONTRACTOR SHALL BE FACTORY AUTHORIZED AND FAMILIAR WITH CITY OF CONCORD'S SPECIFICATIONS.

3. AHU POINTS LIST:

<table>
<thead>
<tr>
<th>Point Code</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>AI</td>
<td>Air Temperature</td>
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<tr>
<td>AO</td>
<td>Outside Air Temperature</td>
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<tr>
<td>BI</td>
<td>Supply Air Temperature</td>
</tr>
<tr>
<td>BO</td>
<td>Return Air Temperature</td>
</tr>
</tbody>
</table>

4. AUTOMATIC CONTROL SYSTEMS SHALL PROVIDE INTER-OPERABILITY.

   - ALERTON
   - ALC
   - RELIABLE CONTROLS (BASIS OF DESIGN)

5. CONTROLS CONTRACTOR SHALL BE RESPONSIBLE FOR FUTURE PLANNING AND EXPANSION.

   - PROVIDE LOCAL GRAPHIC DISPLAYS FOR BAS CONTROL PANELS.
   - E.C. TO DESIGN AND INSTALL A NEW BAS CONTROL PANEL WITH NODES FOR FUTURE UNOCCUPIED MODES OF OPERATION.

6. THE DDC CONTROL SYSTEM SHALL DIRECTLY CONTROL HVAC EQUIPMENT AS SPECIFIED IN THE PROJECT SPECIFICATIONS.

   - PROVIDE INTER-OPERABILITY.
   - ALERTON
   - ALC
   - RELIABLE CONTROLS (BASIS OF DESIGN)

7. AHU SINGLE ZONE VAV CONTROL SCHEMATIC

**CONTROLS TO OPERATE BOTH UNITS SIMULTANEOUSLY.**
### Ductsox Details

<table>
<thead>
<tr>
<th>Inlet Detail Components</th>
<th>Skelecork Pull-Tight Cable</th>
<th>Skelecork Pull-Tight U-Track</th>
</tr>
</thead>
</table>

Inlet Attachment Details

Adjustable Flow Device (AFD)

Air Distribution as Specified

Glider Attachment

Intermediate Cable Support

Cable Drop Support with Quick Connect

Verify all dimensions and lengths prior to ordering.

**Ductsox Plan View**

**Ductsox Information**

**Issue Date:** 14 Nov 2018

**Model:** DS19-3035

**City of Concord - Harttells Recreation Center**

**Hoffman & Hoffman**

**KGS / 14 Nov 2018**
### GENERAL ELECTRICAL NOTES

1. **All** electrical work shall be performed in accordance with the applicable edition of the National Electric Code (NEC) for all jurisdictions where local codes require. Prior to the start of electrical work, the Contractor shall advise the Owner of the electrical equipment, conduits, electrical panels, etc. to be provided. Should any electrical equipment, conduits, electrical panels, etc. not be provided by the Contractor, the Contractor shall provide all electrical power connections to HVAC, Plumbing, and Owner's equipment.

2. All electrical work shall be performed by a qualified electrician. All electrical permits and inspection fees shall be obtained and paid for by the electrical contractor.

3. **Code** and **local**/**state** **codes** shall be followed. All electrical equipment shall be certified and inspected by the local authority having jurisdiction. All electrical equipment shall be provided and installed in accordance with the NEC.

4. **Emergency** and **fire** **alarm** systems shall be provided and installed in accordance with local and state codes. All electrical equipment shall be provided and installed in accordance with the NEC.

5. **All** electrical work shall be performed in accordance with the NEC and all local and state codes. All electrical equipment shall be certified and inspected by the local authority having jurisdiction. All electrical equipment shall be provided and installed in accordance with the NEC.

6. **Fire alarm** systems shall be provided and installed in accordance with local and state codes. All electrical equipment shall be provided and installed in accordance with the NEC.

7. **Emergency** and **fire** **alarm** systems shall be provided and installed in accordance with local and state codes. All electrical equipment shall be certified and inspected by the local authority having jurisdiction. All electrical equipment shall be provided and installed in accordance with the NEC.

8. **Security** **infrastructure** systems shall be provided and installed in accordance with local and state codes. All electrical equipment shall be provided and installed in accordance with the NEC.

9. **Low voltage** control wiring systems shall be concealed in walls or ceilings. All electrical equipment shall be certified and inspected by the local authority having jurisdiction. All electrical equipment shall be provided and installed in accordance with the NEC.

10. **Communication** systems shall be provided and installed in accordance with local and state codes. All electrical equipment shall be certified and inspected by the local authority having jurisdiction. All electrical equipment shall be provided and installed in accordance with the NEC.

11. **CCTV** cameras shall be provided and installed in accordance with local and state codes. All electrical equipment shall be certified and inspected by the local authority having jurisdiction. All electrical equipment shall be provided and installed in accordance with the NEC.

12. **Security** **infrastructure** systems shall be provided and installed in accordance with local and state codes. All electrical equipment shall be provided and installed in accordance with the NEC.

13. **Emergency** and **fire** **alarm** systems shall be provided and installed in accordance with local and state codes. All electrical equipment shall be certified and inspected by the local authority having jurisdiction. All electrical equipment shall be provided and installed in accordance with the NEC.

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19. **Emergency** and **fire** **alarm** systems shall be provided and installed in accordance with local and state codes. All electrical equipment shall be certified and inspected by the local authority having jurisdiction. All electrical equipment shall be provided and installed in accordance with the NEC.

20. **Security** **infrastructure** systems shall be provided and installed in accordance with local and state codes. All electrical equipment shall be certified and inspected by the local authority having jurisdiction. All electrical equipment shall be provided and installed in accordance with the NEC.

### ELECTRICAL SYMBOL LEGEND

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<th>Symbol</th>
<th>Description</th>
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<tbody>
<tr>
<td>A</td>
<td>60% CONSTRUCTION</td>
</tr>
<tr>
<td>B</td>
<td>IN ACCORDANCE WITH THE APPLICABLE EDITION OF THE NATIONAL ELECTRIC CODE (NEC)</td>
</tr>
</tbody>
</table>
1. PROVIDE 208V/3-PHASE CONNECTION FOR GAS FIRED RTU WITH INTEGRAL DISCONNECT PROVIDED BY MECHANICAL CONTRACTOR. COORDINATE INSTALLATION WITH MECHANICAL CONTRACTOR. UNIT SHALL BE CONNECTED TO BUILDING AUTOMATION SYSTEM. INSTALL PER MANUFACTURER'S RECOMMENDATION.

2. PROVIDE 120V CONNECTION FOR FACTORY-SUPPLIED, GFI-TYPE RECEPTACLE IN WEATHERPROOF ENCLOSURE. COORDINATE INSTALLATION WITH MECHANICAL CONTRACTOR.

3. DUCT-MOUNTED SMOKE DETECTOR. CONNECT TO EXISTING FIRE ALARM SYSTEM. DETECTOR SHALL SHUT DOWN RTU UPON DETECTION OF SMOKE. EC SHALL CONFIRM EXISTING FIRE ALARM SYSTEM CAPACITY AND CONFIRM THE SYSTEM IS FULLY-OPERABLE WITH ADDITIONS. COORDINATE LOCATION IN THE FIELD WITH MECHANICAL CONTRACTOR.

4. DISCONNECT POWER TO EXISTING HEATER. REMOVE CONDUIT AND BRANCH CIRCUIT BACK TO SOURCE. HEATERS SHALL BE REMOVED AND RETURNED TO OWNER (CITY OF CONCORD).
**APPLICABLE N. CAROLINA STATUTES.**

100% CONSTRUCTION IN ACCORDANCE WITH THE CODES FOR THIS PART OF THE WORK

APPLICABLE MINIMUM BUILDING SPECIFICATIONS COMPLY WITH THE DRAWING No: TO THE BEST OF THE ENGINEERS SCALE: NTS E0002

01/06/2020 DATE:

RISER DIAGRAM

**UTILITY PRIMARY**

#3/0 CU GROUND 1ST FLOOR PHASE - 3 PANEL METER CAROLINA UTILITY CITY OF CONCORD. TRANSFORMER BY 200 CENTER LOGAN RECREATION 040724 Christina D. Caldwell PRIOR TO PERFORMING WORK. REPORT DISCREPANCIES TO ENGINEER, A. EC SHALL CONFIRM EXISTING LOAD AND REMAINING LOAD CAPACITY RISER GENERAL NOTES:

- LIMITS TO NOT MORE THAN 18"
- CONDUCTORS LENGTH SHALL BE
  - 5#6, 1"C 60SS
  - 5#10, 3/4"C 30SS
  - 3#2/0, 1/0"C 150SS
  - 2#2/0, 1/0"C 112.5 KVA, K
  - #2/0 AWG 45 KVA (OR LESS), K
  - #1/0 AWG 120/208V XFMR
  - #1/0 AWG 300 KVA (OR MORE), 480
  - #1/0 AWG 225 KVA, 480
  - #6/0 AWG 150 KVA, 480
  - #6 AWG 112.5 KVA, 480
  - #6 AWG 75 KVA, K

- DERIVED SYSTEM GROUNDING ELECTRODE SIZING
  - #3/0 AWG 120/208V XFMR
  - #6 AWG 45 KVA, 480
  - #8 AWG 30 KVA (OR LESS), 480
  - #6 AWG 120/208V XFMR

- ISOLATED GROUNDING ELECTRODE SIZING
  - #3/0 AWG 120/208V XFMR
  - #6 AWG 45 KVA, 480

- PROVIDE PANEL WITH 200% RATED NEUTRALS SEE RISER DIAGRAM FOR SERVICE GROUNDING ELECTRODE

NEW TOTAL LOAD 416.6 KVA 1155.1 A @208V/3-PHASE

ADDED LOAD (NEW PANEL S-M) 46.5 KVA

EXISTING LOAD (PER DUKE ENERGY UTILITY BILLS) 370.1 KVA

EXISTING PANEL SETS 3 (3) 3'' 350MCM, #3/0 GND

EXISTING LOAD (4) 3'' 350MCM, #3/0 GND

EXISTING LOAD (3) 3'' 350MCM, #1 GND

EXISTING LOAD (2) 3 1/2'' 250MCM

EXISTING LOAD (2) 2 1/2'' 250MCM

EXISTING LOAD (2) 2 1/2'' 250MCM

LIGHTING LOAD -- 1.3 --

- 2 SETS 3#4/0, #2 GND
- 2 SETS 3#3/0, #6 GND

- 4 SETS 3#2/0, #6 GND
- 4 SETS 3#1/0, #6 GND

- 3 SETS 3#2, #8 GND
- 3 SETS 3#3, #8 GND

- 2 SETS 3#1/4, #8 GND
- 2 SETS 3#1/2, #8 GND

- 1 SET 3#1, #8 GND

- 1 SET 3#1/4, #8 GND

- 1 SET 3#1/2, #8 GND

NOTES: SEE EXISTING LOAD CALCULATIONS

**POLE CONT. CONDUIT WIRE GND TRIP CKT A B C CKT TRIP GND WIRE CONDUIT CONT. POLE**

**DESCRIPTION**

<table>
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<tr>
<td>Acer</td>
<td>DESCRIPTION</td>
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**FEEDER SCHEDULE**

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**ELECTRICAL RISER DIAGRAM AND DETAILS**

**RISER DIAGRAM**

151 RONE AVENUE, CONCORD, NORTH CAROLINA

E  N  G  I  N  E  E  R  I  N  G   ·   I  N  C

Ph:  (704) 547-9035  Fax:  (704) 547-9036

www.McVeighMangum.com

email: mail@McVeighMangum.com

Charlotte

Atlanta

North Carolina 28202
**General Notes:**

A. EC SHALL CONFIRM ALL EXISTING CONDITIONS, PANEL EXISTING LOAD AND PHYSICAL CAPACITY OF PANELS PRIOR TO PERFORMING WORK. CONFIRM EXISTING PANEL LOCATIONS AND SUBMIT NEW PANEL LOCATION FOR APPROVAL PRIOR TO PERFORMING WORK. REPORT ALL DISCREPANCIES TO ENGINEER.

**Keyed Notes:**

1. PROVIDE 208V/3-PHASE CONNECTION FOR VAV GAS-FIRED ROOFTOP MECHANICAL UNIT. GAS-FIRED ROOF TOP UNIT SHALL HAVE INTEGRAL NON-FUSED DISCONNECT AND GFI-TYPE RECEPTACLE IN WEATHERPROOF ENCLOSURE PROVIDED BY OTHERS. COORDINATE INSTALLATION WITH MECHANICAL CONTRACTOR. RTU SHALL BE TIED TO THE BUILDING EXISTING FIRE ALARM SYSTEM AND EXISTING BUILDING AUTOMATION SYSTEM. ROUTE 3#2,1#8G. IN 1-1/4" CONDUIT FROM NEW PANEL S-M TO GAS-FIRED ROOFTOP UNIT INTEGRAL DISCONNECT.

2. PROVIDE 120V CONNECTION FOR RECEPTACLE PROVIDED INTEGRALLY WITH RTU.

3. DUCT-MOUNTED SMOKE DETECTOR. CONNECT TO EXISTING FIRE ALARM SYSTEM. DETECTOR Shall SHUT DOWN RTU UPON DETECTION OF SMOKE. EC SHALL CONFIRM EXISTING FIRE ALARM SYSTEM CAPACITY AND CONFIRM THE SYSTEM IS FULLY-OPERABLE WITH ADDITIONS. COORDINATE LOCATION IN THE FIELD WITH MECHANICAL CONTRACTOR.

4. COORDINATE EXACT LOCATION OF NEW PANEL S-M IN THE FIELD. PROVIDE 208/120V/3P-200A MAIN CIRCUIT BREAKER IF FINAL LOCATION IS OUTSIDE OF MECH/ELEC ROOM 102.
GENERAL NOTES

MECHANICAL SYMBOLS LEGEND

ABBREVIATIONS

MECHANICAL SYSTEMS, SERVICE AND EQUIPMENT

AIR DISTRIBUTION DEVICE SCHEDULE

NOMINAL TONS 15

MODEL N0. 48HCFE17B3A5

MANUFACTURER CARRIER

NOTES:

STEADY - STATE EFFICIENCY (%) 80

NATURAL GAS HEATING INPUT (MBH) 310

ENTERING AIRTEMP. (DB/WB) 80/67

GROSS TOTAL COOLING (MBH) 183.4

MAX. FUSE SIZE (AMPS) 100

COND. FAN F.L.A. (EA) 1.5

FAN VOLTAGE/PHASE 208/3

VARIABLE AIR VOLUME GAS FIRED RTU SCHEDULE
EX. 3" NG MAIN

GYMNASIUM FLOOR PLAN - MECHANICAL

NOTE: SCORING GAS METER TO BE CHANGED FROM INCHES TO PSI TO 3 PSI SUPPLY PRESSURE.

KEYNOTES TO GYMNASIUM FLOOR PLAN:

- ELECTRIC FABRIC TO BE WOVEN TYPE. COLOR TO BE SELECTED BY ARCHITECT. PROVIDE ELECTRIC ADJUSTABLE AMMETER Device AT DUCT INLET TO REDUCE AIRflow TURBULENCE. PROVIDE DUCTSOX FABRIC TENSIONING SYSTEM (FTS) MOUNTED UP BETWEEN EXISTING STEEL. COORDINATE WITH OWNER.

- TO PREVENT DUCT FROM DEFLATING AT REDUCED AIRFLOW. DUCT TO BE PROVIDE DUCTSOX ADJUSTABLE AIRFLOW DEVICE AT DUCT INLET TO REDUCE VENTILATION REQUIREMENTS PER ASHRAE IAQ CALCULATION.

- PROVIDE PLASMA AIR 7000 SERIES IONIZER RATED FOR CORRECT AIRFLOW COVERAGE.

- PROVIDE NEW THERMOSTAT/HUMIDITY SENSOR AND EMERGENCY CUTOFF SWITCH. PROVIDE ONE SET OF CONTROLS TO OPERATE BOTH UNITS SIMULTANEOUSLY. VERIFY LOCATION WITH OWNER. PROVIDE LOCK BOX.

- PROVIDE 42"x36" PLENUM ON BACK OF RETURN GRILLE THRU WALL.

- PRODUCE RATING FOR CORRECT AIRFLOW

- ROUTE CONDENSATE FROM UNIT TO NEAREST ROOF DRAIN.

- LOCATION IN SUPPLY AIR DUCTWORK DOWNSTREAM FROM RTU.

- PROVIDE FRAMEWORK FOR EASY REMOVAL.

- PROVIDE LOCK BOX.

- CONSTRUCT TO BE MOUNTED UP BETWEEN EXISTING STEEL.

- CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING WORK.

- PROVIDE PLASMA AIR 7000 SERIES IONIZER RATED FOR CORRECT AIRFLOW

- FLOOD LAMPS TO BE MOUNTED UP BETWEEN EXISTING STEEL. COORDINATE WITH OWNER.

- CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING WORK.

- PROVIDE FRAMEWORK FOR EASY REMOVAL.

- PROVIDE LOCK BOX.

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- PROVIDE FRAMEWORK FOR EASY REMOVAL.

- PROVIDE LOCK BOX.

- CONSTRUCT TO BE MOUNTED UP BETWEEN EXISTING STEEL.

- CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BEGINNING WORK.

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- PROVIDE FRAMEWORK FOR EASY REMOVAL.

- PROVIDE LOCK BOX.
**ROOFTOP UNIT CURB DETAIL**

*Approved, 18 Gage, Square Measurement, w/ A Minimum*

**NOTES:**

1. Factory Curb: NRCA
2. A.M.C. Curb: 2016-2019 Data, Minimum
3. Wood Nailer Strip
4. Coordinate this detail w/ architectural applications for the (B)
5. This curb detail will allow the unit to slope w/ the slope of the roof locations, for structural support framing by general mechanical subcontractor shall furnish roof opening sizes & side of the unit. Can not be used if the condensate drain connection is on the high if the condensate drain pan is not affected by slope. This detail can only be used:
6. If the condensate drain pan outlet is on the low side of the unit, the unit must be sloped or raised to 1/8" on diagonal noted below.
7. Silicone Sealing of Unit Base
8. Treated gasket and rooftop unit curb height = 14".

**DUCT SUPPORT DETAIL**

- Ventilation calculations
- Duct wall support
- Duct ventilation calculations

**ROOFTOP UNIT CONDENSATE DRAIN DETAIL**

- Rooftop air handling unit detail
- Duct support detail
- Duct wall support
- Duct ventilation calculations

**MECHANICAL DETAILS**

- Mechanical, plumbing, electrical, and architectural details for the Logan Recreation Center
- MEP - 2019
- Drawings by McVeigh & Mangum Engineering, Inc.
EDGE-GUARD FOR 12" INLET OVERLAP, FOLDED BACK INLET ZIPPER INCLUDED, SEWN TO FABRIC ANCHOR PATCH, 4-6 PER INLET

DUCTBELT AND BUCKLE METAL EDGE (INCLUDED) 6-10" SECURE WITH SELF-TAP SCREW

VERONA FABRIC INLET ATTACHMENT DETAIL SHOWN. EXTERNAL LABEL IDENTIFIES LOCATION IN OTHER LOCATIONS. ZIPPER TO ZIPPER CONNECTION AS INSTALLED AT ZIPPER LOCATION AT INLET OR AS SPECIFIED

ADJUSTABLE FLOW DEVICE (AFD)

SUSPENSION DETAIL
1 ROW CABLE SUSPENSION AT 12 O'CLOCK

ZIPPERED ENDCAP CABLE CLAMPS TURNBUCKLE EYEBOLT

AIR DISTRIBUTION AS SPECIFIED
GLIDER ATTACHMENT INTERMEDIATE CABLE SUPPORT CABLE

VERONA FABRIC TENSION CABLE LOCK SKELECORE PULL-TIGHT WITH CABLE SYSTEM DETAIL SKELECORE PULL-TIGHT WITH U-TRACK SYSTEM DETAIL INTERNAL HOOPS TENSIONING BASKETS PLACED 5' APART

TRACK SUPPORT SKELECORE PULL-TIGHT CABLE SUPPORT WITH QUICK CONNECT TENSION TRACK LOCK WITH INTERIOR PULL-TIGHT SYSTEM

SKELECORE PULL-TIGHT WITH U-TRACK SYSTEM DETAIL INTERNAL HOOPS TENSIONING BASKETS PLACED 5' APART

GLIDER ATTACHMENT CABLE-DROP SUPPORT WITH QUICK CONNECT TENSION TRACK LOCK WITH INTERIOR PULL-TIGHT SYSTEM

CABLE-DROP LOCKS TO TRACK

SUSPENSION DETAIL
1 ROW U-TRACK SUSPENSION AT 12 O'CLOCK

ZIPPERED ENDCAP AIR DISTRIBUTION AS SPECIFIED

STUD-END CABLE-DROP LOCKS TO TRACK

ALUMINUM U-TRACK

INLET DETAIL COMPONENTS SKELECORE PULL-TIGHT CABLE SKELECORE PULL-TIGHT U-TRACK

AFD ADJUSTMENT CLIP

DARK GRAY TAB IF AFD AT ZIPPER LOCATION

DOUBLE ZIPPER CONNECTION

ADJUSTABLE FLOW DEVICE, BALANCED FROM FACTORY "CUT-AWAY" VIEW

OPEN ZIPPER AT BOTTOM IF ADJUSTMENT NEEDED

VERIFY ALL DIMENSIONS AND LENGTHS PRIOR TO ORDERING
TRIBUTARY

PARTITION LOAD

ACCORDANCE WITH AWS D1.4.

ALL REINFORCING STEEL ASTM A615 GRADE 60. REINFORCING STEEL SHOWN ON THESE

GRAFT - NONMETALLIC, SHRINKAGE-

PAINT & PROTECTION

WELDED STUDS

STRUCTURAL STEEL (DESIGN PER CURRENT EDITION AISC), UNLESS OTHERWISE

SEISMIC RESISTING SYSTEM

CONCRETE

PRESTRESSED PRECAST

SLAB ON GRADE

CONCRETE (DESIGN PER CURRENT EDITION ACI

SITE CLASS

MAPPED SPECTRAL RESPONSE ACCELERATION, S1

MAPPED SPECTRAL RESPONSE ACCELERATION, Ss

RISK OR OCCUPANCY CATEGORY

SEISMIC:

SNOW LOADS:

DESIGN PER 2018 NORTH CAROLINA BUILDING CODE, UNLESS OTHERWISE NOTED.

10 sf                       -33.1 / 30.5                -40.8 / 30.5

100 sf                      -8.3 / 30.5               -10.0 / 30.5

200 sf                      -6.4 / 30.5               -6.4 / 30.5

300 sf                      -4.8 / 30.5               -5.6 / 30.5

400 sf                      -2.1 / 30.5               -10.0 / 30.5

500 sf                      -0.274 / 30.5            -0.059 / 30.5

ENCLOSED

20 PSF

0.274

PSF

3.5

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30 PSF

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PSF

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200 PSF

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PSF

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1. GYMNASIUM

NOTES:

1. NEW MECHANICAL DUCTWORK
2. NEW MECHANICAL DUCTWORK
3. ALL NEW REINFORCING MATERIAL SHALL BE IN PLACE PRIOR TO THE INSTALLATION OF THE NEW ROOFTOP ACCORDANCE WITH AWSSPECIFICATIONS.
4. ALL WELDING SHALL BE COMPLETED BY AN AWS CERTIFIED WELDER, AND ALL WORK SHALL BE COMPLETED IN MECHANICAL UNIT.
5. GC SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING IN ANY WORK. THE ENGINEER/ARCH SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO PERFORMING WORK IN A PARTICULAR AREA.
6. SEE DETAIL 2/S0100 NEW OPENINGS IN EXISTING CMU WALL FOR NEW DUCTWORK
7. SEE DETAIL 6/S0100 TO BE REINFORCED.
8. SEE DET 4/S0100 JOIST REINF EXTENT LINE DENOTES BAR
9. SEE DETAIL 4/S0100 JOIST REINF EXTENT LINE DENOTES BAR
10. EXISTING BAR JOIST TO REMAIN
11. TYP MASONRY LINTEL
12. EXISTING BAR JOIST TO REMAIN
13. EXISTING BAR JOIST TO REMAIN
14. TYP MASONRY LINTEL
15. CL EXIST
16. THREADED ROD @ EA OPENING
17. WALL BEYOND EXIST CMU
18. TYP MASONRY LINTEL
19. W8x31 14'-0"
20. W8x31 12'-3"
21. W8x31 9'-0"
22. W8x31 7'-0"
23. W8x31 5'-0"
24. W8x31 3'-0"
25. SHEET TO REMAIN
26. PLATE 1/2"x9" 1'-0"
Gymnasium Floor Plan - Mechanical

Scale: 1/16" = 1'-0"

Label: M0100

**Low Roof**

- **Ventilation Turbulence:** Provide Ductsox Fabric Tensioning System (FTS) mounted up between existing steel. Coordinate with owner.
- **Prevent Duct Deflation:** Duct to be Ductsox Fabric to be Verona Type. Color to be selected by architect.
- **Ductsox Note:** Low Roof

**Airflow Calculations:**
- 44x44
- 28"x28"

**Equipment:**
- RTU
- Fan
- EX 2" NG
- 3/4" NG

**Gas Piping:**
- Sizing based on Table 402.4(5) of 2018 NFPA, total connected load of 2000 MBH, and critical length of 250 ft.
- Gas pipe sizing for existing.
- As an alternate, remove existing louver and patch wall to match.

**Electricity Failing:**
- To be selected by architect.
- Properly caulked to avoid water infiltration.

**Fastener:**
- All joints and laps in aluminum shall be installed to aluminum sheet jacketing fastened with stainless steel screws. Ducts over 18" will require a screw strip impaled over mechanical aluminum sheet jacketing.

**Mastic:**
- 1/16" minimum thickness. Finish with embossed reinforced with fabric or mesh. Each coat of weatherproof FSK tape. Install two (2) coats of weather barrier mastic.

**Thermal Insulation:**
- Max. 100% construction.
- All supply and return air duct exposed to outside to be constructed of galvanized steel and insulated as follows: 2" of 100% RTU insulation.

**Steam Piping:**
- Exist heaters to be removed. Cap gas piping in place. Remove all construction.

**End User Verification:**
- Contractor to field verify existing conditions prior to beginning work. Contractor shall field verify incoming gas pressure prior to connecting load of 2000 MBH, and critical length of 250 ft.

**Drawings Checks:**
- By Larry P. McWilliams

**Issue Dates:**
- Date: 01/06/2020
- As noted

**Drawings By:**
- Designed By: LPM
- Drawn By: BCT

**Looking Forward:**
- M0100
**ROOFTOP UNIT CURB DETAIL**

1. **Scale:**
   - All dimensions are in inches.
   - Tolerances: ±2" on all dimensions.

2. **Details:**
   - All necessary components and materials are shown.
   - Note: All materials and components are subject to the specifications and standards of the project.

3. **Notes:**
   - All dimensions, tolerances, and material specifications are subject to change without notice.
   - For more detailed information, refer to the project specifications and drawings.

---

**ROOFTOP UNIT CONDENSATE DRAIN DETAIL**

1. **Scale:**
   - All dimensions are in inches.
   - Tolerances: ±2" on all dimensions.

2. **Details:**
   - All necessary components and materials are shown.
   - Note: All materials and components are subject to the specifications and standards of the project.

3. **Notes:**
   - All dimensions, tolerances, and material specifications are subject to change without notice.
   - For more detailed information, refer to the project specifications and drawings.

---

**VENTILATION CALCULATIONS**

1. **Calculation Sheet:**
   - All necessary calculations and data are shown.
   - Note: All calculations are subject to the specifications and standards of the project.

2. **Notes:**
   - All calculations, data, and specifications are subject to change without notice.
   - For more detailed information, refer to the project specifications and drawings.

---

**DUCT SUPPORT DETAIL**

1. **Scale:**
   - All dimensions are in inches.
   - Tolerances: ±2" on all dimensions.

2. **Details:**
   - All necessary components and materials are shown.
   - Note: All materials and components are subject to the specifications and standards of the project.

3. **Notes:**
   - All dimensions, tolerances, and material specifications are subject to change without notice.
   - For more detailed information, refer to the project specifications and drawings.

---

**DUCT WALL SUPPORT**

1. **Scale:**
   - All dimensions are in inches.
   - Tolerances: ±2" on all dimensions.

2. **Details:**
   - All necessary components and materials are shown.
   - Note: All materials and components are subject to the specifications and standards of the project.

3. **Notes:**
   - All dimensions, tolerances, and material specifications are subject to change without notice.
   - For more detailed information, refer to the project specifications and drawings.
EDGE-GUARD FOR 12" INLET OVERLAP, FOLDED BACK INLET ZIPPER INCLUDED, SEWN TO FABRIC ANCHOR PATCH, 4-6 PER INLET

DUCTBELT AND BUCKLE METAL EDGE (INCLUDED) 6-10" SECURE WITH SELF-TAP SCREW

VERONA FABRIC INLET ATTACHMENT DETAIL SHOWN. EXTERNAL LABEL IDENTIFIES LOCATION IN OTHER LOCATIONS. ZIPPER TO ZIPPER CONNECTION AS INSTALLED AT ZIPPER LOCATION AT INLET OR AS SPECIFIED

ADJUSTABLE FLOW DEVICE (AFD) VERONA FABRIC SUSPENSION DETAIL 1 ROW CABLE SUSPENSION AT 12 O'CLOCK ZIPPERED ENDCAP CABLE CLAMPS TURNBUCKLE EYEBOLT AIR DISTRIBUTION AS SPECIFIED GLIDER ATTACHMENT INTERMEDIATE CABLE SUPPORT CABLE TENSION CABLE LOCK SKELECORE PULL-TIGHT WITH CABLE SYSTEM DETAIL INTERNAL HOOPS TENSIONING BASKETS PLACED 5' APART SUSPENSION DETAIL 1 ROW U-TRACK SUSPENSION AT 12 O'CLOCK ZIPPERED ENDCAP STUD-END CABLE-DROP LOCKS TO TRACK ALUMINUM U-TRACK

VERONA FABRIC GLIDER ATTACHMENT CABLE-DROP SUPPORT WITH QUICK CONNECT TENSION TRACK LOCK WITH INTERIOR PULL-TIGHT SYSTEM SKELECORE PULL-TIGHT SUSPENSION DETAIL SKELECORE PULL-TIGHT WITH U-TRACK SYSTEM DETAIL INTERNAL HOOPS TENSIONING BASKETS PLACED 5' APART TRACK SUPPORT

VERIFY ALL DIMENSIONS AND LENGTHS PRIOR TO ORDERING

email: mail@McVeighMangum.com
916 W 5th Street, Charlotte, North Carolina 28202
Ph:  (704) 547-9035  Fax:  (704) 547-9036

CITY OF CONCORD ACADEMY RECREATION CENTER
147 ACADEMY AVE., CONCORD, NORTH CAROLINA

MECHANICAL - DUCTSOX DETAILS

100% CONSTRUCTION DOCUMENTS
ACCORDANCE WITH AWS D1.4. ALL REINFORCING STEEL ASTM A615 GRADE 60. REINFORCING STEEL SHOWN ON THESE PAGE.

PAINT & PROTECTION

WELDABLE BARS

WELDED STUDS

OPEN WEB STEEL JOIST (DESIGN PER CURRENT EDITION SJI WITH AN ALLOWABLE TENSILE)

HSS ROUND SHAPES

HSS SQUARE & RECTANGULAR SHAPES

W-SHAPES

STRUCTURAL STEEL (DESIGN PER CURRENT EDITION AISC), UNLESS OTHERWISE

SEISMIC RESISTING SYSTEM

CONCRETE

PRESTRESSED PRECAST

SLAB ON GRADE

SEISMIC DESIGN CATEGORY

318)

SPECTRAL RESPONSE COEFFICIENT, Sd1

WIDTH OF SNOW DRIFT, W

DRIFT SURCHARGE, Pd

SHAPE FACTORS

GROUND SNOW LOAD, Pg

SNOW LOADS:

ENCLOSURE CLASSIFICATION

WIND IMPORTANCE FACTOR

BASIC WIND SPEED: (ASCE 7-05)

ROOF

DESIGN PER 2018 NORTH CAROLINA BUILDING CODE, UNLESS OTHERWISE NOTED.

DESIGN CRITERIA

ASTM A500 GRADE B, Fy=42 KSI

AWS A5.1 OR A5.5 SERIES E70

GRADE 36 ASTM F1554

F'M= 1500 PSI

F'C= PSI

500 sf               -25.3 / 22.7                    -25.3 / 22.7

0.289

0.274

PSF

PSF

PSF

1.0

N/A

N/A

1.0

FT

C

D

II

10 or Newer"
NEW STEEL BEAMS SET TIGHT TO THE UNDERSIDE OF THE EXISTING CONCRETE PLANK. ALIGN WITH EDGES AND MIDDLE OF NEW MECH UNIT. SEE DETAIL 1/S0100 AND SEE NOTE 1.
**ELECTRICAL SYMBOL LEGEND**

### GENERAL ELECTRICAL NOTES

1. All metal work, wire, and conduits shall comply with the specific requirements of the Underwriter's Laboratories, Inc., and all local and state electrical codes.
2. All electrical equipment and materials shall be approved and subjected to testing in accordance with the National Electrical Code, ANSI/NFPA 70-1993. (Revised 1995). 
3. The Electrical Contractor shall provide necessary drawings and materials to meet the requirements of the project.
4. The Electrical Contractor shall perform all installation work to meet the requirements of the National Electrical Code, ANSI/NFPA 70-1993. (Revised 1995). 
5. The Electrical Contractor shall be responsible for the installation and testing of all electrical equipment and materials provided by the Owner.
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### FEEDER SCHEDULE

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<th>Panel</th>
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<td>100%</td>
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<tr>
<td>5</td>
<td>EX OFFICE REC</td>
<td>1</td>
<td>1/2</td>
<td>100%</td>
</tr>
<tr>
<td>6</td>
<td>EX GYM LT PANEL</td>
<td>1</td>
<td>1/2</td>
<td>100%</td>
</tr>
<tr>
<td>7</td>
<td>EX LIGHTS</td>
<td>1</td>
<td>1/2</td>
<td>100%</td>
</tr>
<tr>
<td>8</td>
<td>EX EXIT LTS GYM</td>
<td>1</td>
<td>1/2</td>
<td>100%</td>
</tr>
<tr>
<td>9</td>
<td>EX WATER HTR</td>
<td>1</td>
<td>1/2</td>
<td>100%</td>
</tr>
</tbody>
</table>

### DRAWING INFORMATION

- **Date:** 01/06/2020
- **Checked By:**
- **Designed By:**

### RISER DIAGRAM

- Existing Utility: Tranformer by Existing Utility
- New Panel: NP-M
- 1ST FLOOR

### Notes

1. PROVIDE HANDLE TIES FOR MULTIWIRE BRANCH CIRCUITS.
2. PROVIDE 'HACR' RATED BREAKERS FOR HVAC EQUIPMENT.
3. ALL SINGLE POLE BREAKERS SHALL BE 'SWD' RATED.
4. ** INDICATES GFCI BREAKERS.

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### Electrical Sizing

<table>
<thead>
<tr>
<th>Wire Size</th>
<th>Panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>#3 AWG</td>
<td>NP-M</td>
</tr>
<tr>
<td>#4 AWG</td>
<td>NP-M</td>
</tr>
<tr>
<td>#6 AWG</td>
<td>NP-M</td>
</tr>
<tr>
<td>#8 AWG</td>
<td>NP-M</td>
</tr>
<tr>
<td>#10 AWG</td>
<td>NP-M</td>
</tr>
</tbody>
</table>

### General Notes

- Review calculated loads and determine capacity.
- Review equipment ratings and match with panel ratings.
- Review equipment ratings and match with panel ratings.

---

### Electrical Equipment

- **panel:** New Panel NP-M
- **Transformer:** Rated 45 KVA (OR LESS), K
- **Electrical Panel:** Existing Panel Assignment NP-ALT1
- **Panel Location:** Concord, North Carolina 28202

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### Electrical System Requirements

- **Grounding Electrode Sizing:**
  - Main: 400MCM, #3/0 GND
  - Feeders: 350MCM, #3/0 GND

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### Electrical Load Summary

- **Total Connected KVA:**
  - New Panel NP-M: 107.9 KVA
  - Existing Panel NP-ALT1: 44.9 KVA
  - Total: 152.8 KVA

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### Additional Details

- **City:** Concord, North Carolina
- **Address:** 147 Academy Ave.
1. PROVIDE 208/3-PHASE CONNECTION FOR VAV GAS-FIRED ROOFTOP MECHANICAL UNIT. GAS-FIRED ROOFTOP UNIT SHALL HAVE INTEGRAL NON-FUSED DISCONNECT AND GFI-TYPE RECEPTACLE IN WEATHERPROOF ENCLOSURE PROVIDED BY OTHERS. COORDINATE INSTALLATION WITH MECHANICAL CONTRACTOR. RTU SHALL BE TIED TO THE BUILDING EXISTING FIRE ALARM SYSTEM AND EXISTING BUILDING AUTOMATION SYSTEM.

2. PROVIDE 120V CONNECTION FOR RECEPTACLE PROVIDED INTEGRALLY WITH RTU.

3. DUCT-MOUNTED SMOKE DETECTOR. CONNECT TO EXISTING FIRE ALARM SYSTEM. DETECTOR SHALL SHUT DOWN RTU UPON DETECTION OF SMOKE. EC SHALL CONFIRM EXISTING FIRE ALARM SYSTEM CAPACITY AND CONFIRM THE SYSTEM IS FULLY-OPERABLE WITH ADDITIONS. COORDINATE LOCATION IN THE FIELD WITH MECHANICAL CONTRACTOR.